

# **GREATER METROWEST Economic Profile 2018<sup>©</sup>**

**26<sup>th</sup> ANNUAL CONFERENCE**

*High Stakes Housing: How Today's Decisions  
are Shaping Tomorrow's Greater MetroWest*

 **Friday, May 11, 2018**



**MetroWest Economic Research Center  
at Framingham State University**

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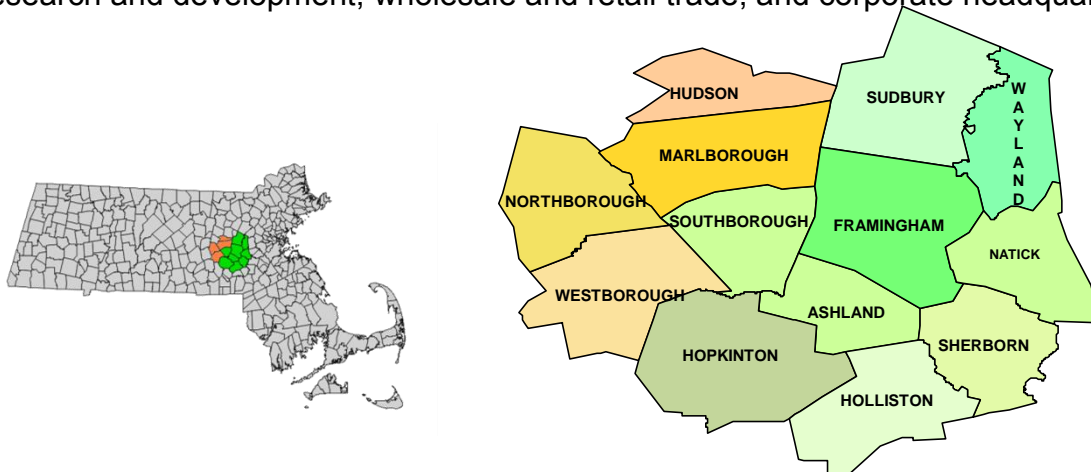
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## INTRODUCTION

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 over 296,000, the region hosts a well-educated and highly-skilled labor force of more than 164,000 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 establishments generated 190,500 jobs and a payroll exceeding \$14.6B in 2016. The region provided 4.5% of the Massachusetts labor force, 5.5% of Massachusetts employment, and 6.2% of Massachusetts payroll. Home to thousands of small and medium sized businesses as well as large national firms such as, Bose, Boston Scientific, Cumberland/Gulf, Dell/EMC, GE Healthcare Life Sciences, Intel, Kidde-Fenwal, Mathworks, Quest Diagnostics, Raytheon, Sanofi Genzyme, 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 *2018 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.

# 2018 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 temporarily were 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 2018 unemployment rate in Framingham of 3.2% was based on the following information: the size of the labor force was **estimated** at 40,280 workers, the sum of 38,975 residents who were employed and 1,305 residents who were unemployed. The rate, expressed as a percentage, was obtained by dividing the unemployed (1,305) by the labor force (40,280) and multiplying by 100 to get the unemployment rate of 3.2%.

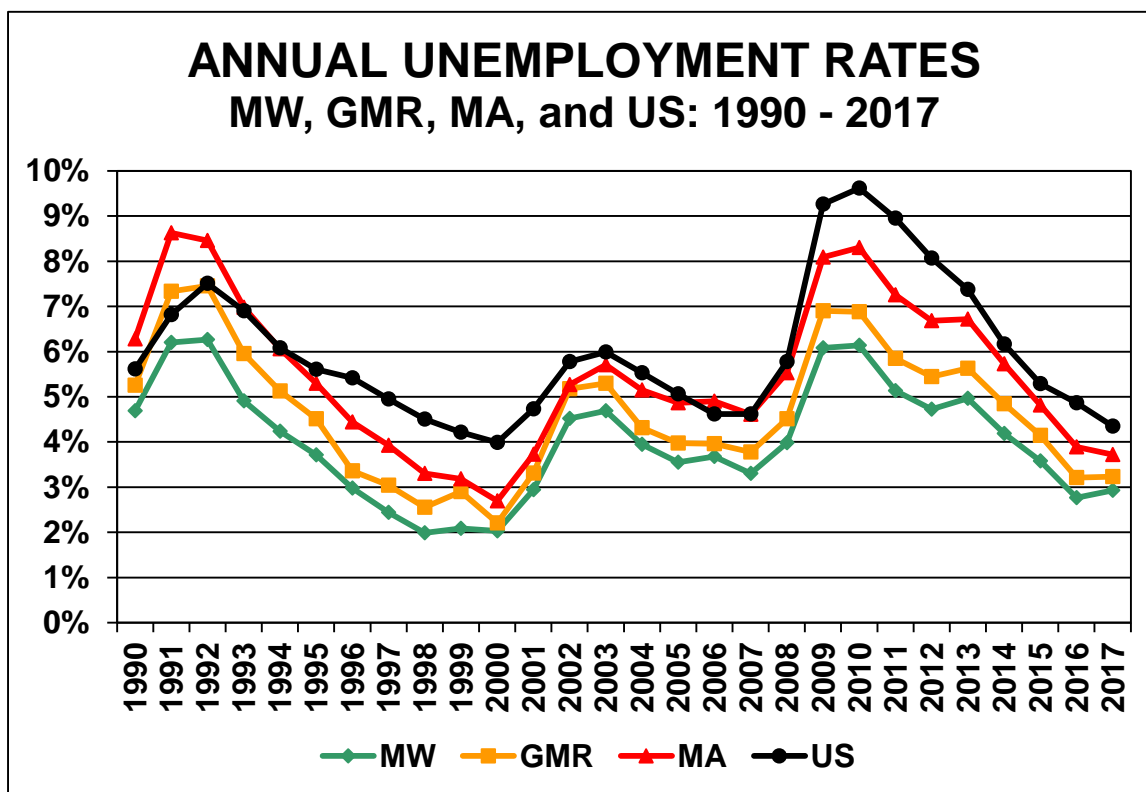
Not everyone in the working age population is included in the labor force. Individuals who were in the working age population, but who could not be classified as employed or unemployed (a fulltime homemaker, for example) would not be counted in the labor force.

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, 2015.

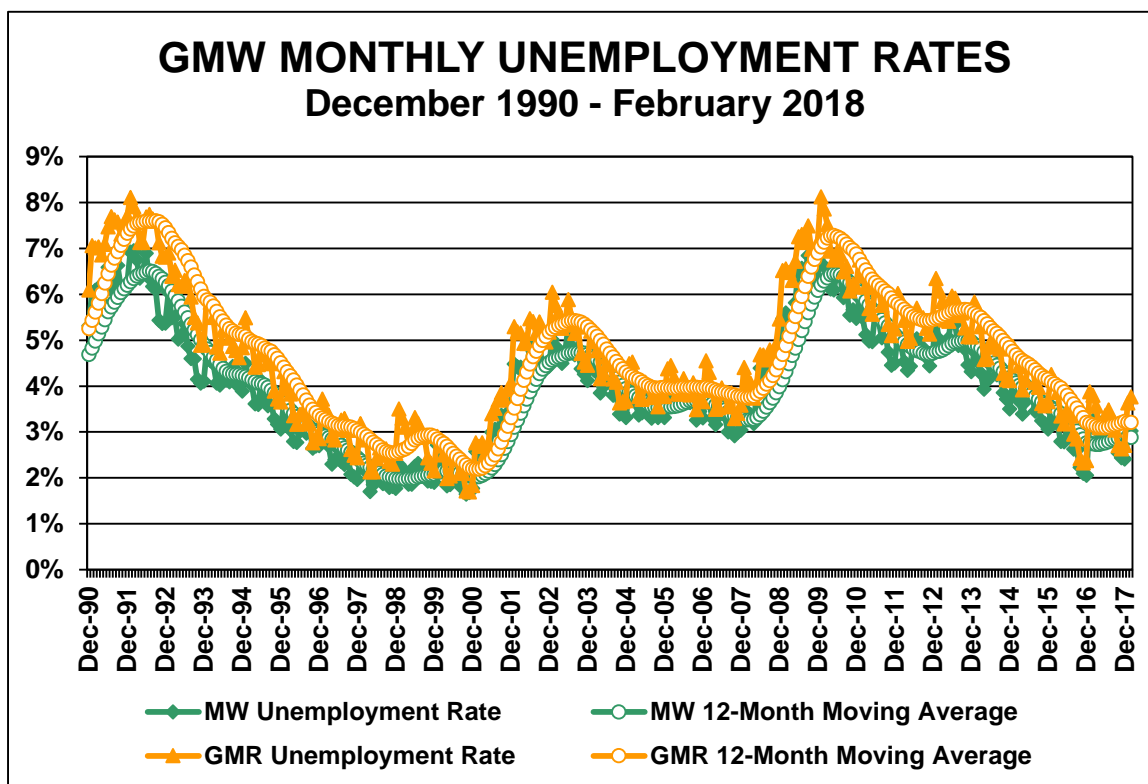
## GREATER METROWEST – UNEMPLOYMENT



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 2017 are calculated by averaging the monthly unemployment rates for each year.
- MetroWest posted an unemployment rate of 2.9% in 2017, while the Greater Marlborough Region's unemployment rate during the same year was 3.2%. Both MW's and GMR's rates were lower than Massachusetts' and the United States' rates of 3.7% and 4.4%, respectively.
- MetroWest experienced a slight increase in its unemployment rate by 0.1% between 2016 and 2017, while Greater Marlborough posted the same rate during the same period.
- On the other hand, Massachusetts and the United States both experienced slight decreases in their rates between 2016 and 2017, where Massachusetts decreased by 0.2% and the United States decreased by 0.5%.
- MetroWest and the Greater Marlborough Region have consistently posted annual unemployment rates lower than both Massachusetts and the United States except in 1991 when GMR recorded higher annual unemployment rates than the nation.

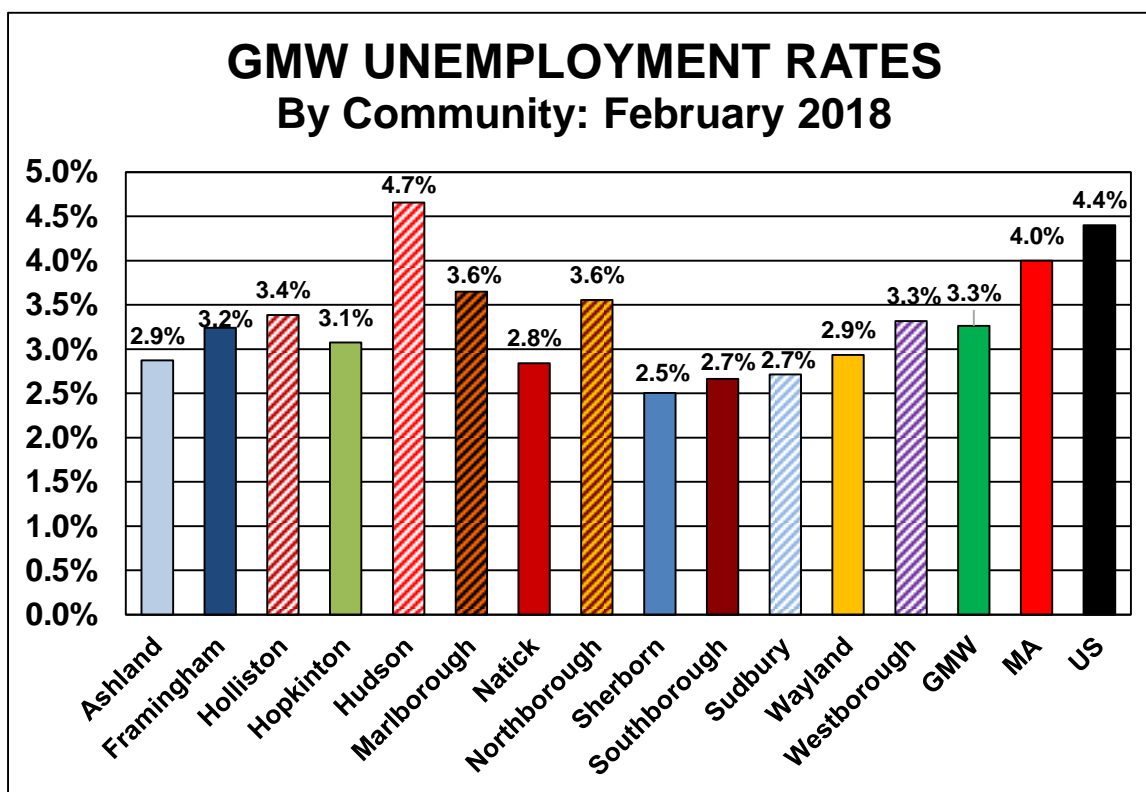
## GREATER METROWEST – UNEMPLOYMENT



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 2018. 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 7.0% in February of 1992, while the Greater Marlborough Region reached its peak rate of 8.1% in January of 1992. MW and GMR reached their lowest unemployment rates of 1.7% in April 1998 and October 2000, respectively.
- In February of 2018, MW had an unemployment rate of 3.0%, an increase of 0.1% from the previous month's rate of 2.9%. Similarly, GMR's unemployment rate rose by 0.2% from 3.6% in January 2018 to 3.8% in February 2018.
- The 12-month moving averages in both MW and GMR followed a similar pattern with their monthly rates from December 1990 through February 2018.

## GREATER METROWEST – UNEMPLOYMENT

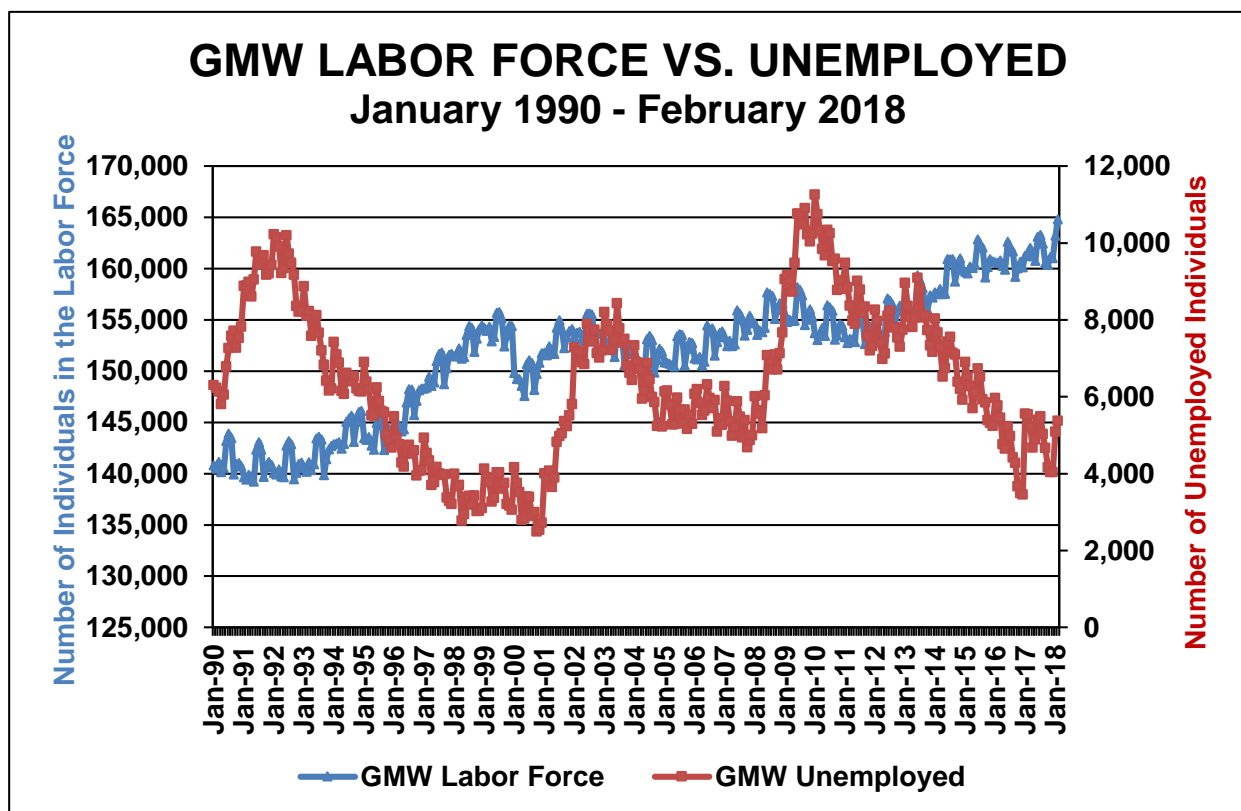


Source: MA EOLWD and MERC

- In February 2018, each of the thirteen communities in Greater MetroWest (GMW) posted unemployment rates lower than both the state's and the nation's rates of 4.0% and 4.4%, respectively, with the exception of Hudson, which posted an unemployment rate of 4.7%.
- Holliston, Hudson, Marlborough, and Northborough were the four communities in the region that posted unemployment rates higher than the Greater MetroWest's rate of 3.3%.
- Among the thirteen communities in Greater MetroWest, Hudson posted the highest unemployment rate in February 2018 at 4.7%. Marlborough and Northborough posted the next highest unemployment rates in the region with 3.6%.
- Sherborn recorded the lowest unemployment rate in February 2018 at 2.5%, followed by Southborough and Sudbury. Both of these communities posted rates of 2.7%.



## GREATER METROWEST – UNEMPLOYMENT



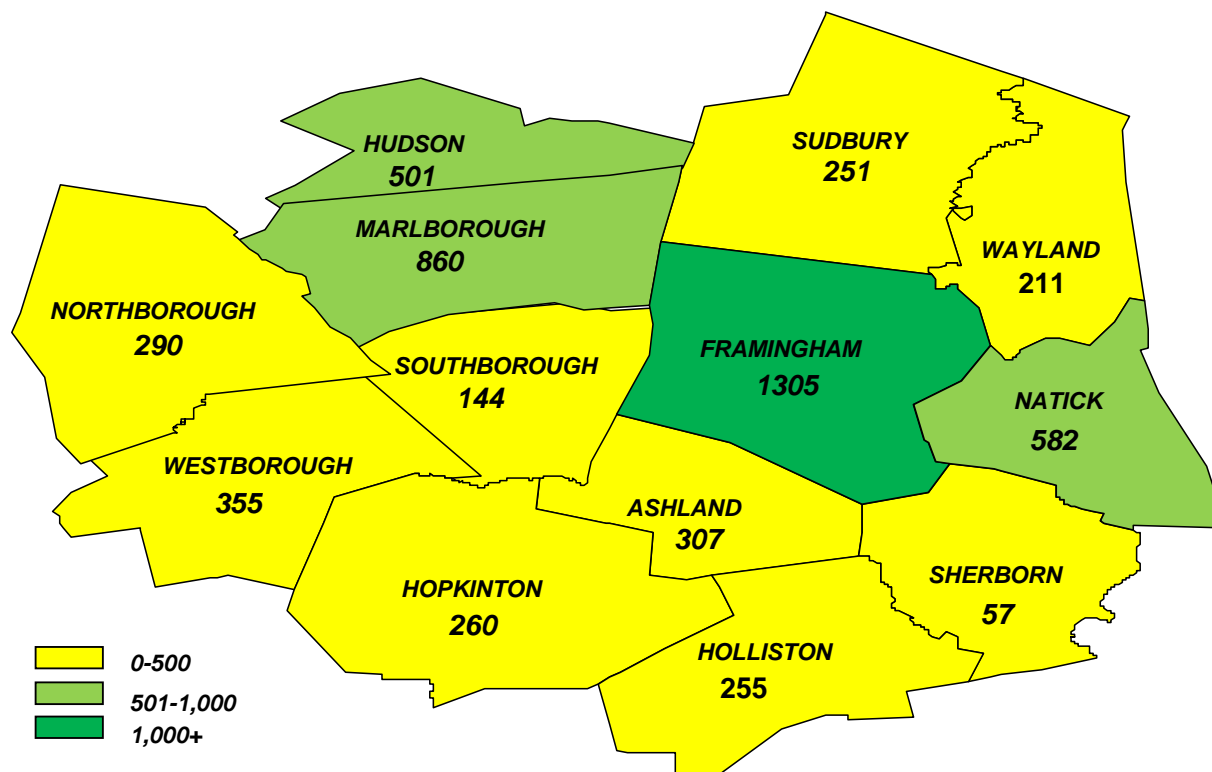
Source: MA EOLWD and MERC

- This graph uses two different scales to compare the labor force, shown in blue on the left-hand scale, to the number of unemployed individuals, shown in red on the right-hand scale, in Greater MetroWest (GMW) from January 1990 to February 2018. 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.
- In February 2018, GMW recorded 164,795 individuals in the labor force, the highest number the region had in the last 29 years. The lowest number of individuals in the labor force in GMW was posted in May 1991 at 139,225 individuals.
- GMW reported 5,378 unemployed individuals in February 2018. The number of unemployed individuals reached its peak in January 2010 at 11,258 individuals. The region's smallest number of unemployed individuals at 2,498 was recorded in October 2000.

## GREATER METROWEST – UNEMPLOYMENT

### GMW NUMBER OF UNEMPLOYED

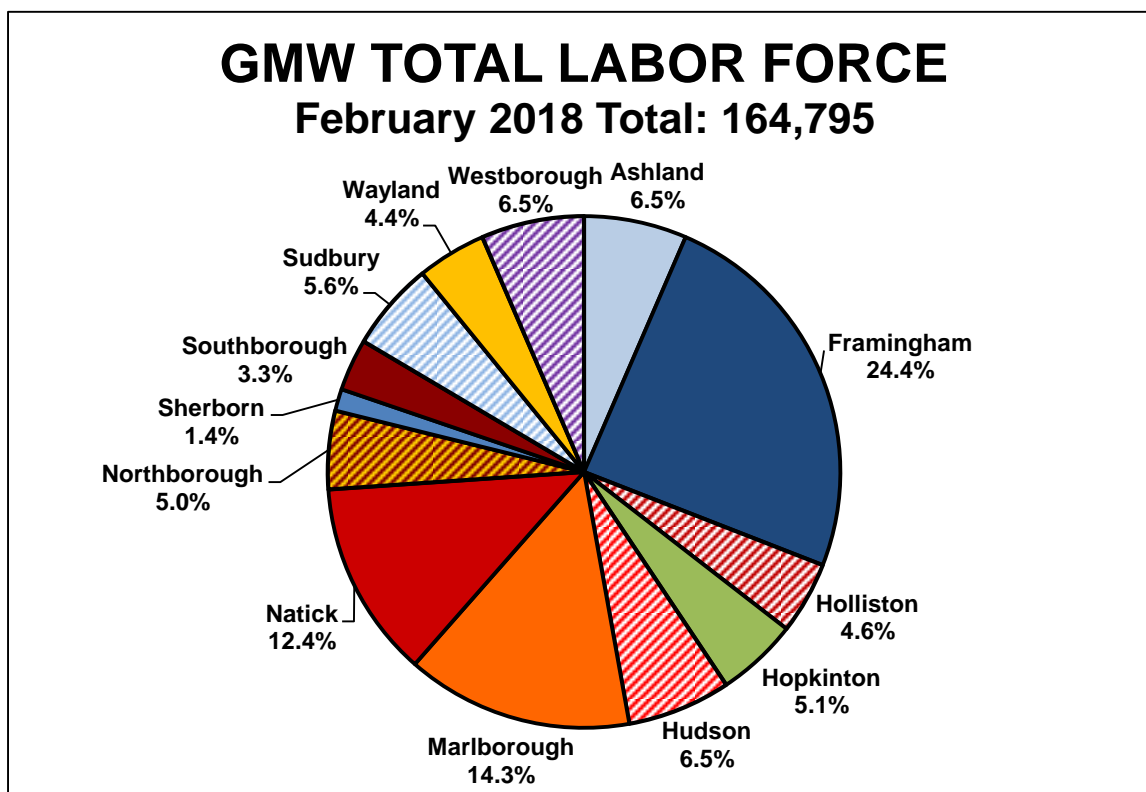
February 2018 Total: 5,378



Source: MA EOLWD and MERC

- The total number of unemployed individuals in Greater MetroWest (GMW) in February 2018 was 5,378.
- Framingham had the largest number of unemployed individuals in the entire GMW with 1,305 individuals. Marlborough, Natick, and Hudson followed Framingham with 860, 582, and 501 unemployed individuals, respectively. Together, these four 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 57 individuals, followed by Southborough with 144 individuals and Wayland with 211 individuals.

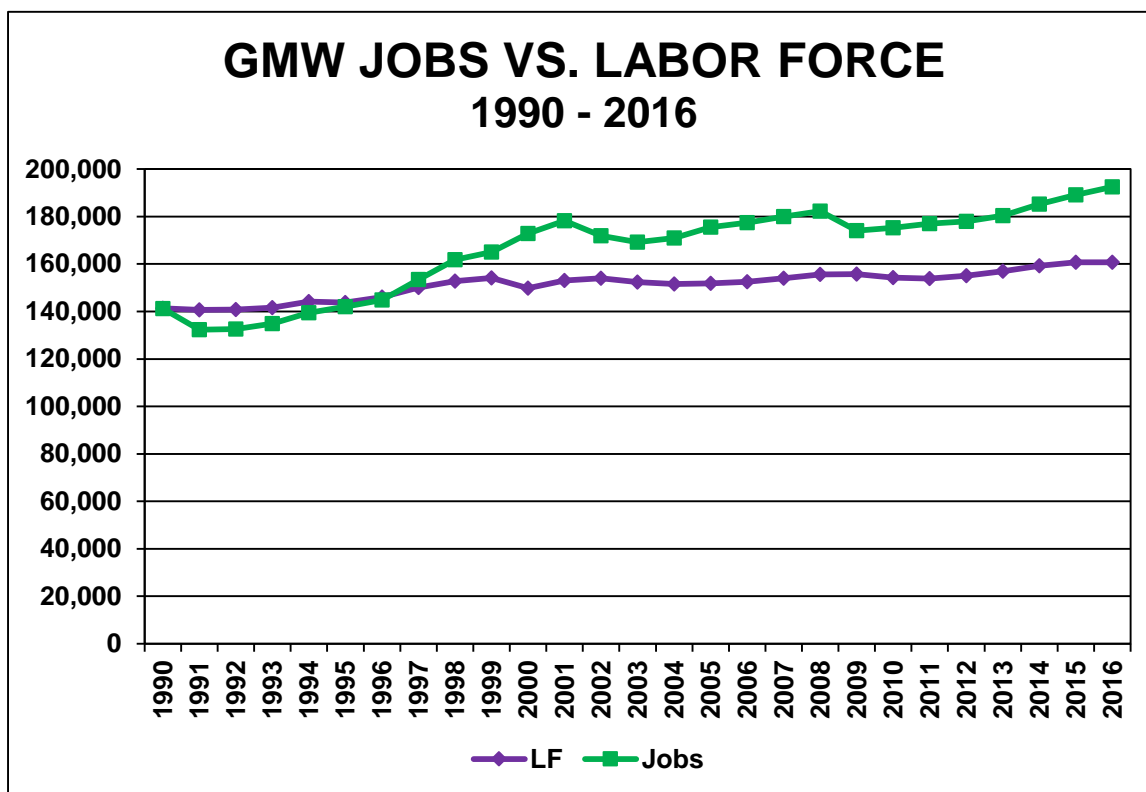
## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- In February 2018, the total number of individuals in the labor force in Greater MetroWest (GMW) was 164,795 individuals.
- The nine communities that make up MetroWest (MW) accounted for 111,590 individuals or about two thirds of the total labor force in GMW. The four communities that comprise the Greater Marlborough Region (GMR), on the other hand, accounted for 53,205 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 24.4% or 40,280 individuals. Marlborough and Natick were the next largest contributors with 14.3% or 23,576 individuals and 12.4% or 20,492 individuals, respectively. Together, the labor force in these three communities accounted for over half of the region's total labor force.
- Sherborn was the smallest contributor to the total labor force in GMW with only 1.4% or 2,276 individuals. Southborough followed Sherborn with a contribution of 3.3% or 5,408 individuals, and then came Wayland with a contribution of 4.4% or 7,193 individuals. These communities altogether accounted for 9.1% of the total labor force in the region.

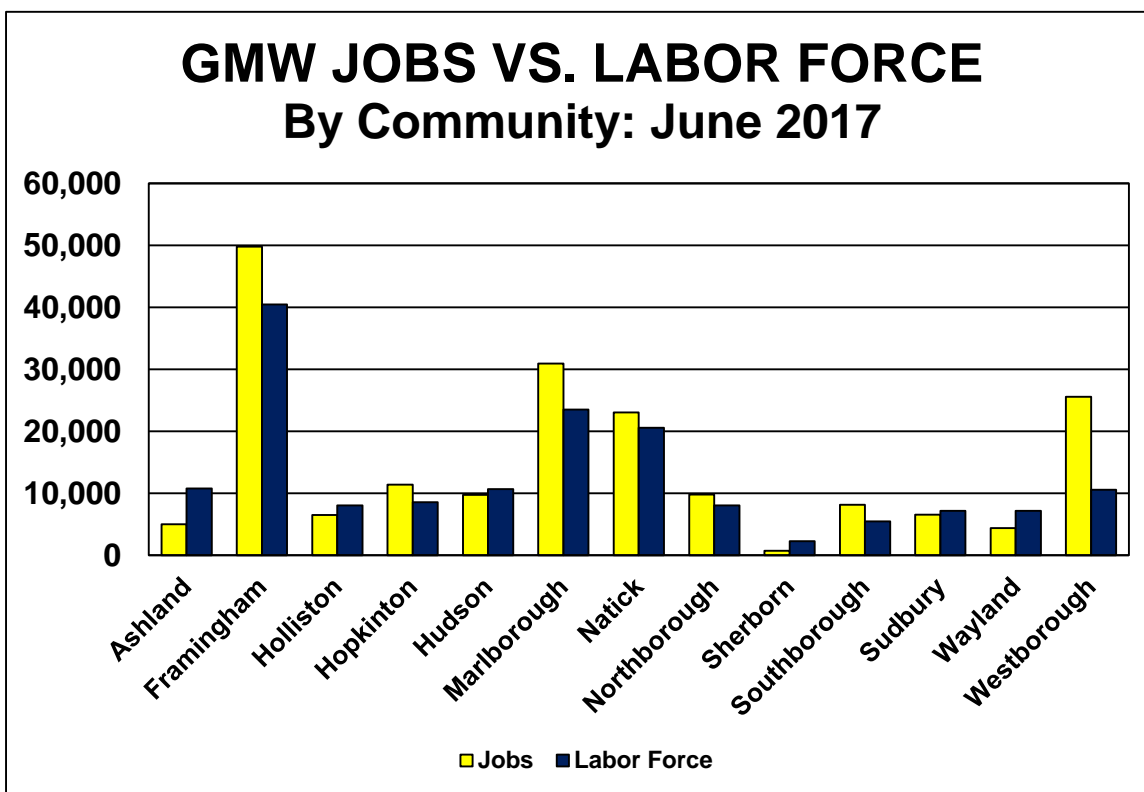
## GREATER METROWEST – UNEMPLOYMENT



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 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 2016, 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.
- From 1990 through 2016, the total number of jobs and individuals in the labor force reached their respective peaks in 2016.
- In 2016, the total number of jobs in GMW was 192,500, and the total number of individuals in the labor force was 160,751. During this year, there were 31,776 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 people 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 2017, there was a total of 191,500 jobs in GMW. Framingham had the highest number of jobs available during this month with 49,800 jobs, followed by Marlborough with 30,900 jobs and Westborough and Natick came next with 25,600 and 23,000 available jobs, respectively. These four communities combined contributed 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, the Blackstone Valley Region, and other substate economies. MERC has documented major changes in regional employment, industrial structure and wages since 1980. For this 2018 publication, MERC has developed data for the Greater MetroWest Region (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.

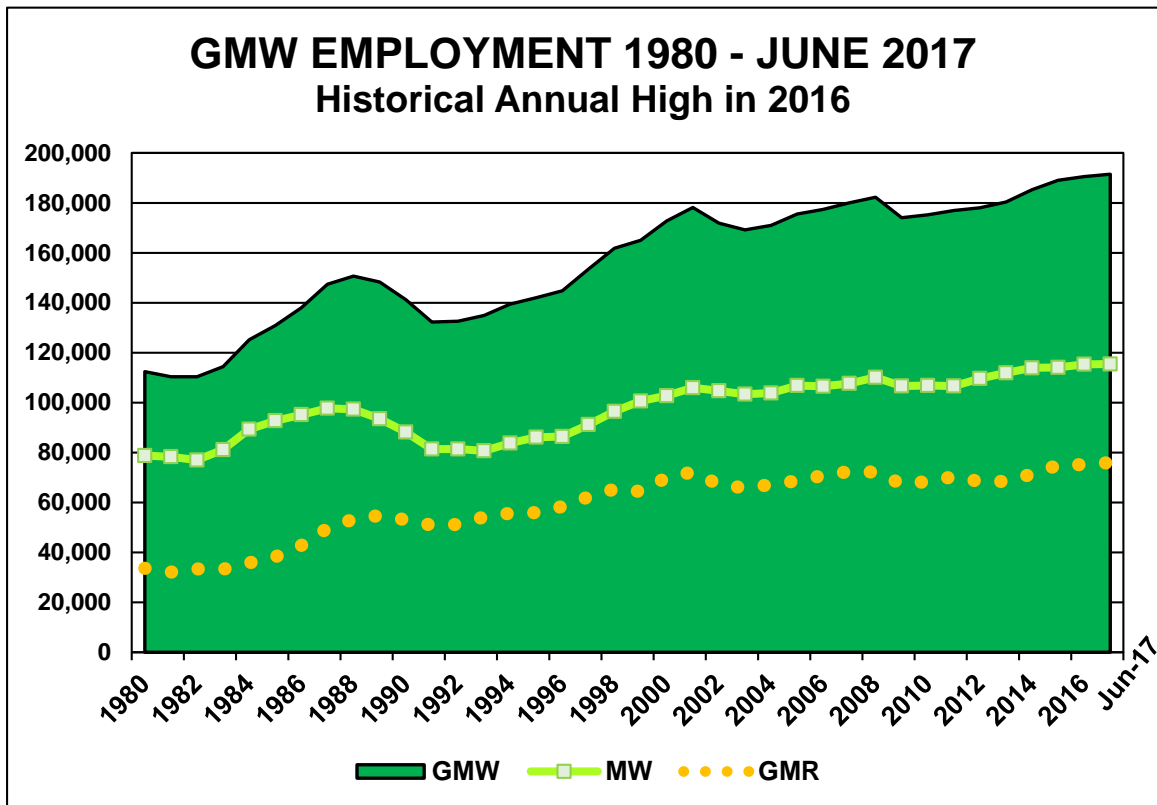
For the first time in 2002, employers were classified by industry solely in accordance with the North American Industry Classification System (NAICS). NAICS groups together establishments that use the same processes to produce goods and services. NAICS permanently replaced the Standard Industrial Classification (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 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 all 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.

<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).

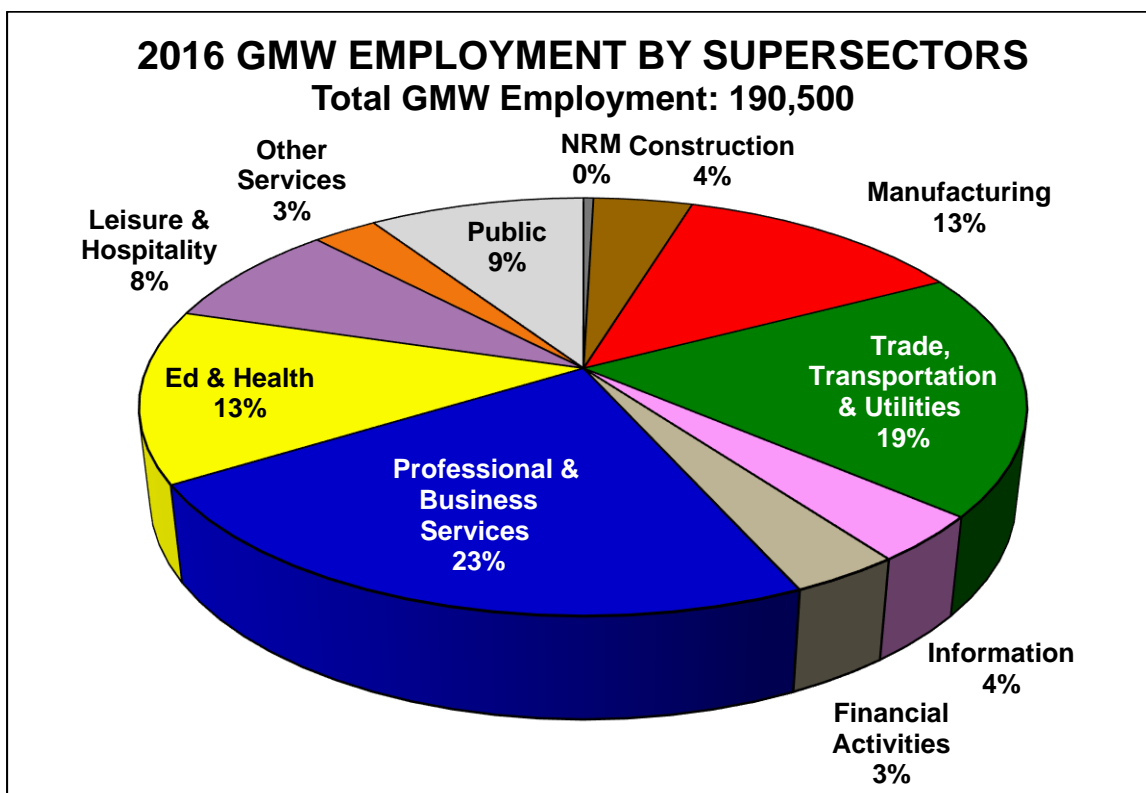
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Employment in Greater MetroWest (GMW) continued its record breaking numbers for the third year in a row. GMW annual employment reached a record 190,500 jobs in 2016, up 0.8% or 1,500 jobs from 2015.
- By June 2017 monthly GMW employment was 191,500, higher than the 2016 annual employment for GMW, but lower than GMW monthly employment in June 2016.
- Since 1980 GMW has experienced four business cycles with peaks in 1988, 2001, 2008 and a new high in 2016, and troughs in 1982, 1991, 2003 and 2009. Over the entire 36-year period, employment increased nearly 70% or 78,100 jobs from 112,400 in 1980 to 190,500 in 2016.
- Since 1980 GMW employment has increased at an average annual rate of 1.5%. MW employment has increased over the same time period by an average of 1.1% per year, while GMR employment has increased at an average annual rate of 2.3%.
- For the fourth year in a row, MetroWest (MW) employment posted a new record high with 115,400 jobs in 2016. For the second year in a row, Greater Marlborough Region (GMR) employment posted a new high in employment with 75,200 jobs in 2016.

## GREATER METROWEST – EMPLOYMENT



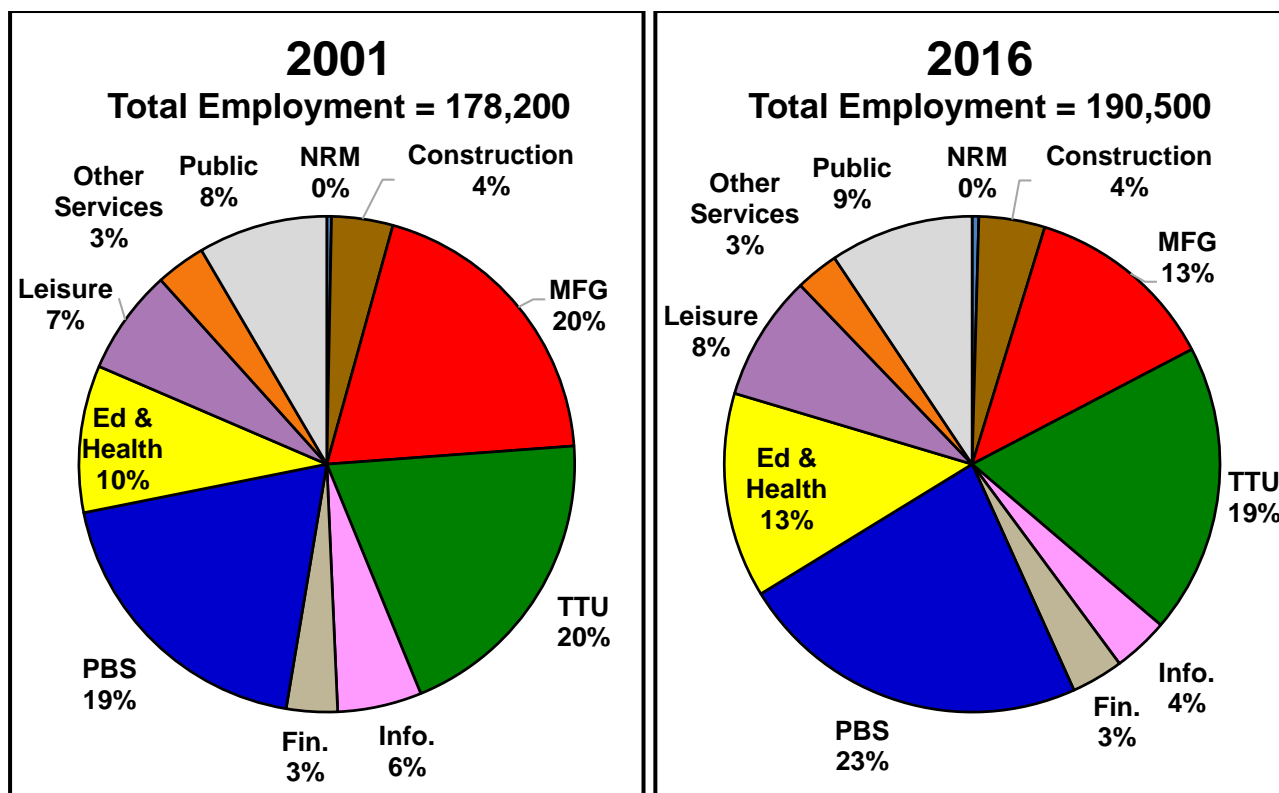
Source: MA EOLWD, MERC

- In 2016, Greater MetroWest (GMW) employment reached a record high of 190,500 jobs, an increase of 1,500, or 0.8% from 2015.
- Professional & Business Services (PBS) generated the largest share of GMW employment at 43,800 jobs or 23% of the regional total. Trade, Transportation & Utilities (TTU) produced the second largest share at 36,000 jobs or 19%. Education & Health Services (25,500) and Manufacturing (24,000) each produced around 13% of jobs in the region.
- Together, the four largest supersectors: PBS, TTU, Manufacturing and Education & Health combined to produce 129,300 jobs, making up over two-thirds of GMW employment.
- Two supersectors provided between 5% and 10% of regional employment: Public (17,900 or 9%) and Leisure & Hospitality (15,600 or 8%).
- The five remaining supersectors in order of size: Financial Activities, Information, Construction, Other Services, and Natural Resources and Mining (NRM) combined contributed 15% of regional employment in 2016.



## GREATER METROWEST – EMPLOYMENT

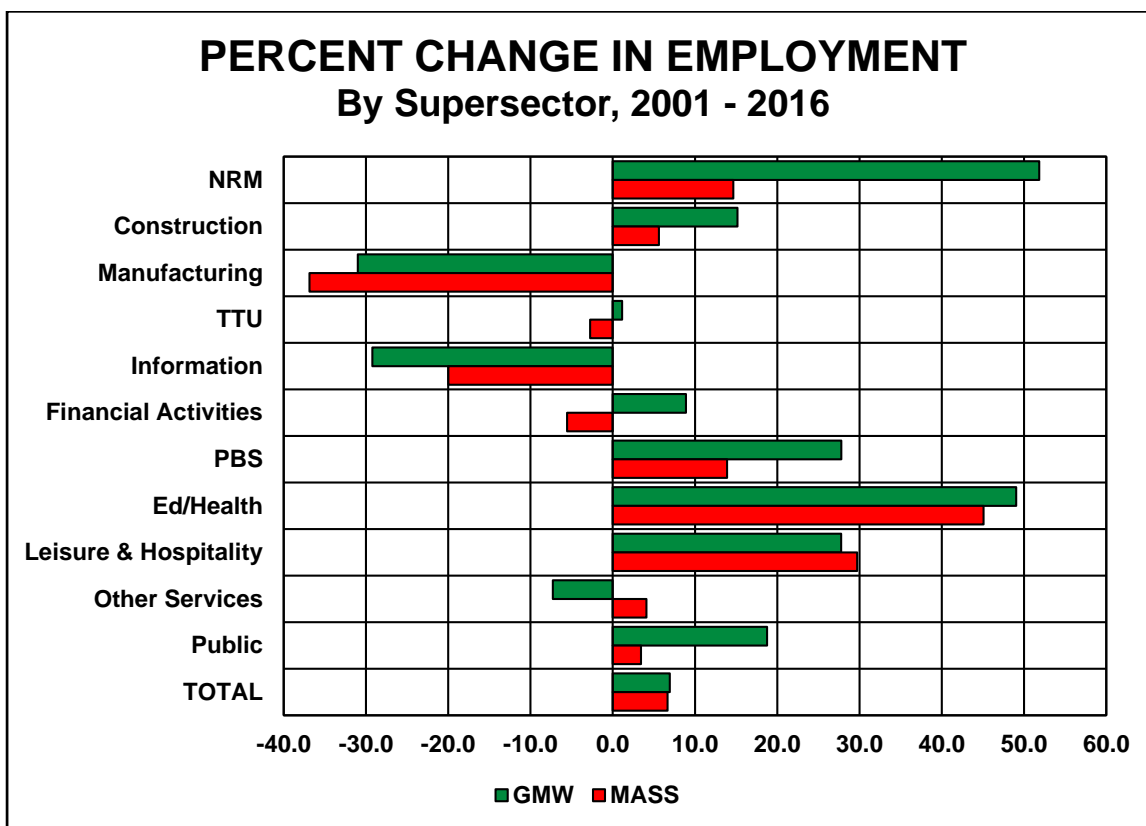
### GMW EMPLOYMENT BY NAICS SUPERSECTORS 2001 vs 2016



Source: MA EOLWD, MERC

- In 2001 the Greater MetroWest (GMW) employment base was dominated by three supersectors of roughly equal size: Manufacturing (20%), Trade, Transportation & Utilities (20%) and Professional & Business Services (19%). The next largest supersector, Education & Health Services, was only half as large. These four supersectors produced almost 70% of the jobs in the region.
- By 2016 these four supersectors still accounted for about the same portion of total GMW employment, but the shares of three of them had changed quite significantly. The fraction of GMW jobs in Manufacturing declined from 20% to 13%, while the employment shares in PBS and Ed & Health rose. PBS employment increased from 19% of the region's jobs to 23%, and the Ed & Health share went from 10% to 13%.
- Similar shifts in employment shares occurred at the state level, Manufacturing employment fell from 12% to 7% of the state's total jobs, while the fraction of total state jobs produced by both PBS and Ed & Health rose. The increase in state PBS employment was smaller (15% to 16%) than in GMW, and the share of state jobs in Ed & Health went from 16% to 22%. The public supersector, which generated less than 10% of GMW jobs produced 12% of state jobs in 2016, down slightly from 13% in 2001.

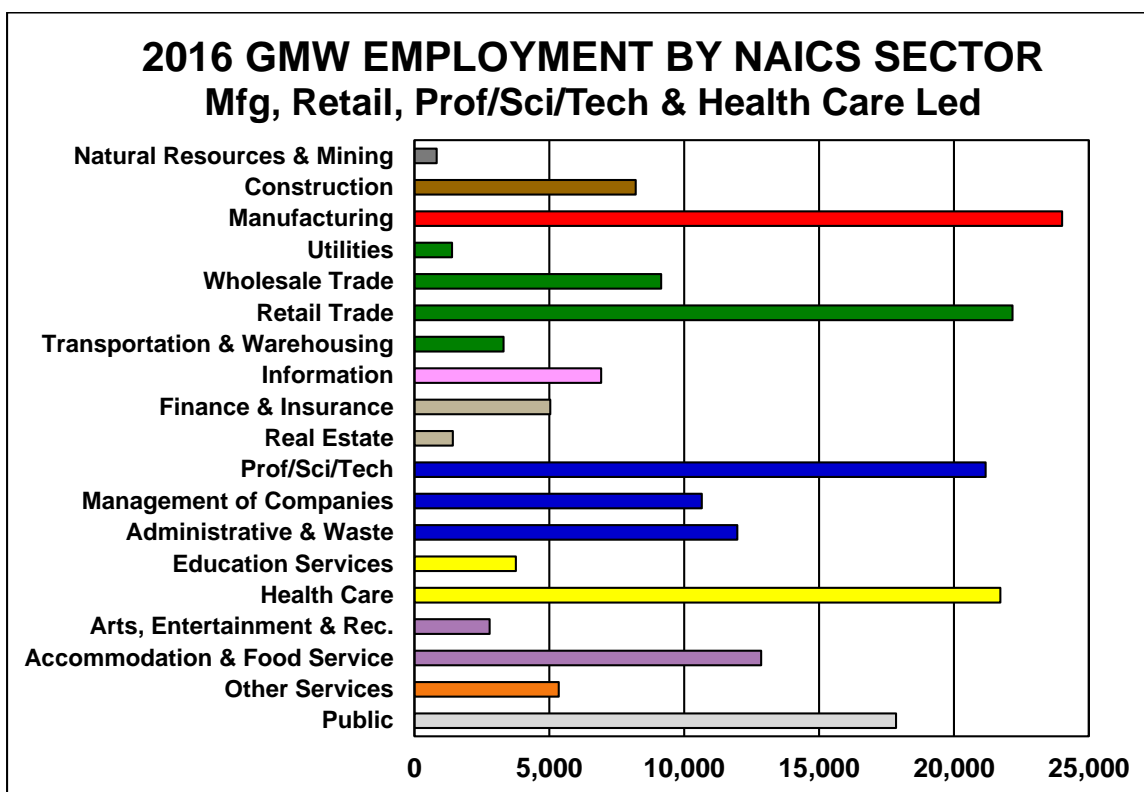
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Total employment in Greater MetroWest (GMW) climbed from 178,200 jobs in 2001 to 190,500 jobs in 2016, an increase of 6.9%. Over the same time period the total number of jobs in the state rose by 6.7%.
- The largest employment gains in GMW occurred in Natural Resources & Mining (NRM) (+51.8%) and Education & Health Services (+49%). Employment in both Professional & Business Services (PBS) and Leisure & Hospitality increased by 27.8%. The same four supersectors also had the highest growth rates statewide: Ed & Health (+45.1%), Leisure (+29.7%), NRM (+14.7%) and PBS (+13.9%).
- Between 2001 and 2016 seven GMW supersectors created jobs at a faster rate than the region as a whole, one Trade, Transportation & Utilities, grew more slowly and the final three suffered actual declines in total jobs.
- The Manufacturing supersector experienced the largest employment declines both in GMW (-31.0%) and in the state (-36.9%). The next largest declines occurred in Information Services with declines of -29.2% in GMW and -20% in the state.

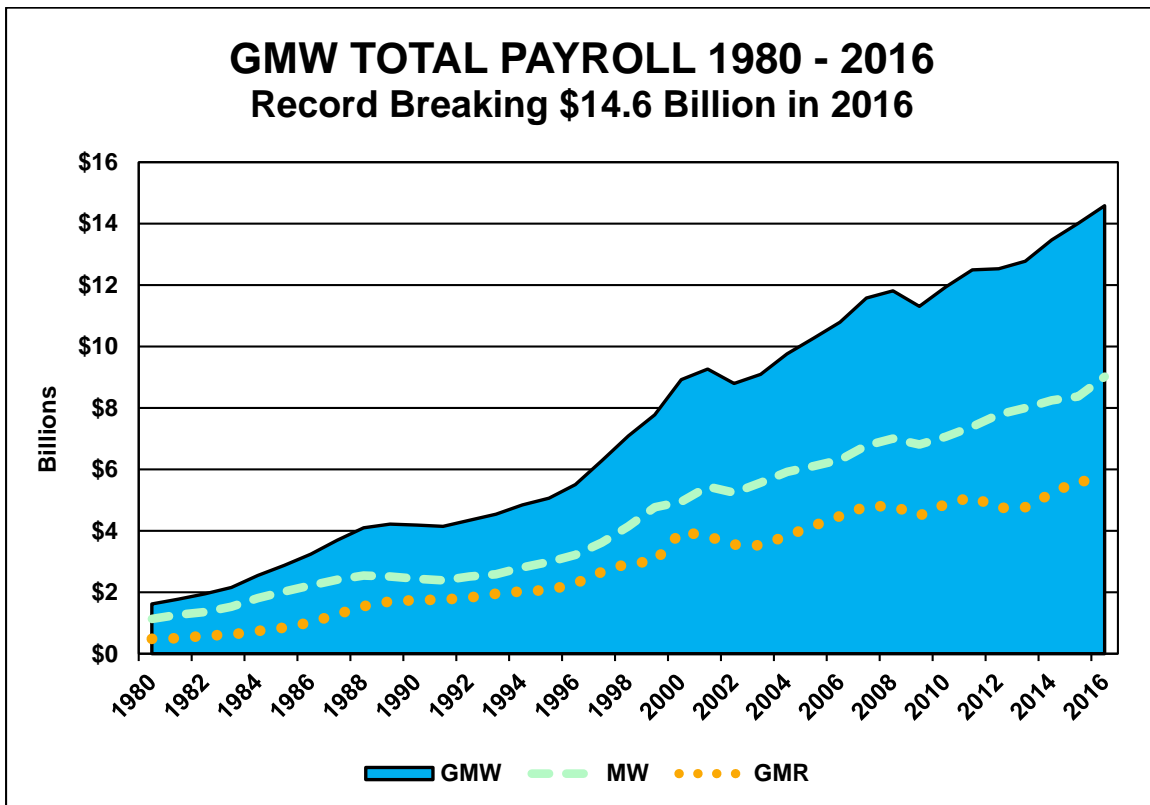
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2016, Greater MetroWest (GMW) employment reached a new high of 190,500 jobs, a 0.8% gain from 2015.
- Manufacturing, the largest NAICS sector, generated 24,000 jobs or 12.6% of GMW jobs. Retail Trade, GMW's second largest NAICS sector, produced 22,200 jobs or 11.6%, followed by Health Care at 21,700 jobs or 11.4%, Professional, Scientific and Technical Services (Prof/Sci/Tech) ranked fourth in 2016 at 21,200 jobs or 11.1%, followed by Public at 17,900 jobs or 9.4% of GMW jobs.
- Three sectors generated between 10,000 and 15,000 jobs: Accommodation & Food Services (12,900 or 6.7%), Administrative & Waste Services (12,000 or 6.3%), and Management of Companies (10,700 or 5.6%).
- Wholesale Trade, Construction, Information, Other Services, and Finance & Insurance each produced between 5,000 and 10,000 jobs. These five sectors combined provided 34,700 jobs, or 18% of GMW jobs
- The remaining six sectors combined produced 13,500 jobs in 2016.

## GREATER METROWEST – EMPLOYMENT

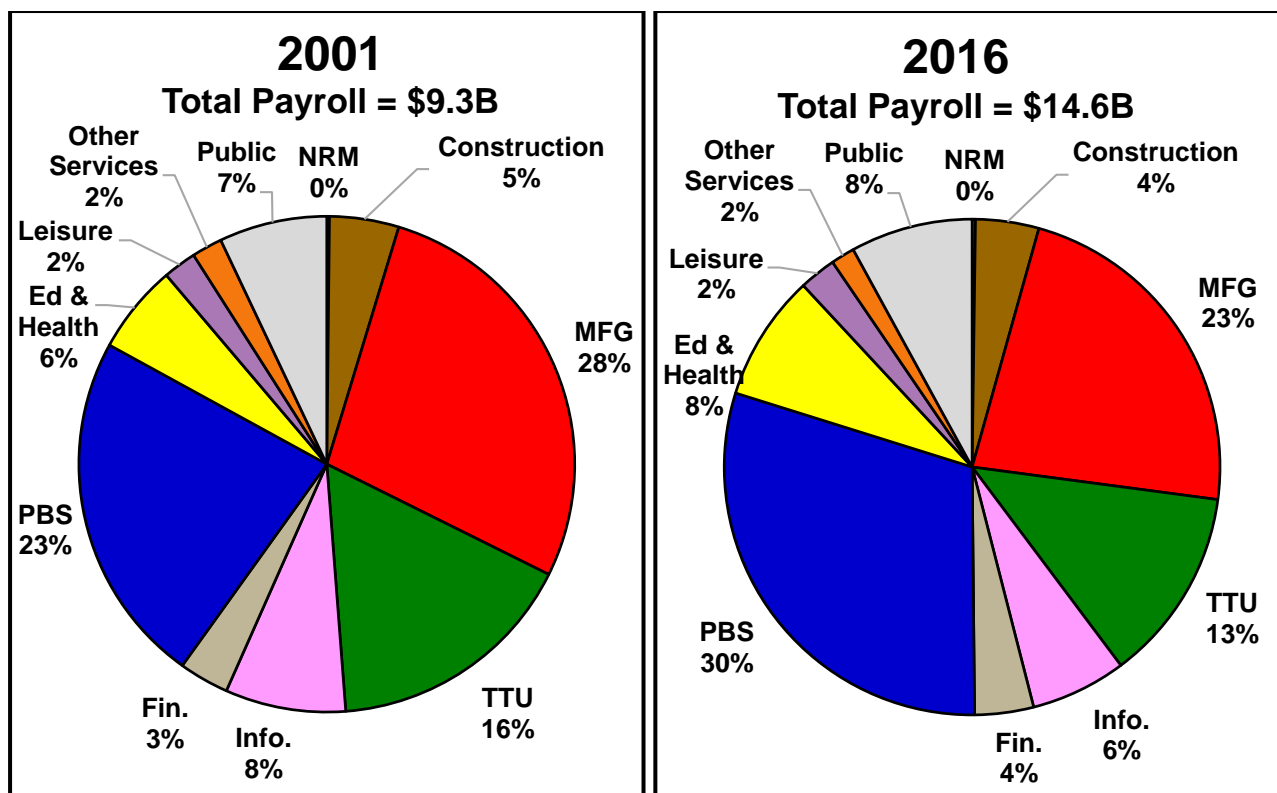


Source: MA EOLWD, MERC

- In 2016 the Greater MetroWest region's (GMW) total payroll reached a historical high of over \$14.6 billion, up 4.1% or \$576 million from 2015.
- GMW total payroll has increased dramatically since 1980. Over the past 36 years, GMW has risen nine-fold or 800%, maintaining an average annual increase of 6.3%.
- GMW payroll has declined only three times, each time during a recession, since 1980. However, even in light of this, GMW payroll has never taken more than 2 years to exceed its pre-recession numbers.
- While GMW and MetroWest (MW) saw total payroll increases of \$576 million and \$646 million, respectively, in 2016, the Greater Marlborough Region (GMR) total payroll fell by over \$70 million. In 2016 MW total payroll totaled a record \$9.0 billion and GMR payroll totaled \$5.6 billion.
- The largest increase in GMW payroll between 1980 and 2016 occurred in 2000, when GMW payroll rose by \$1.1 billion. The largest decline occurred in the Great Recession of 2009, a drop of \$504 million.

## GREATER METROWEST – EMPLOYMENT

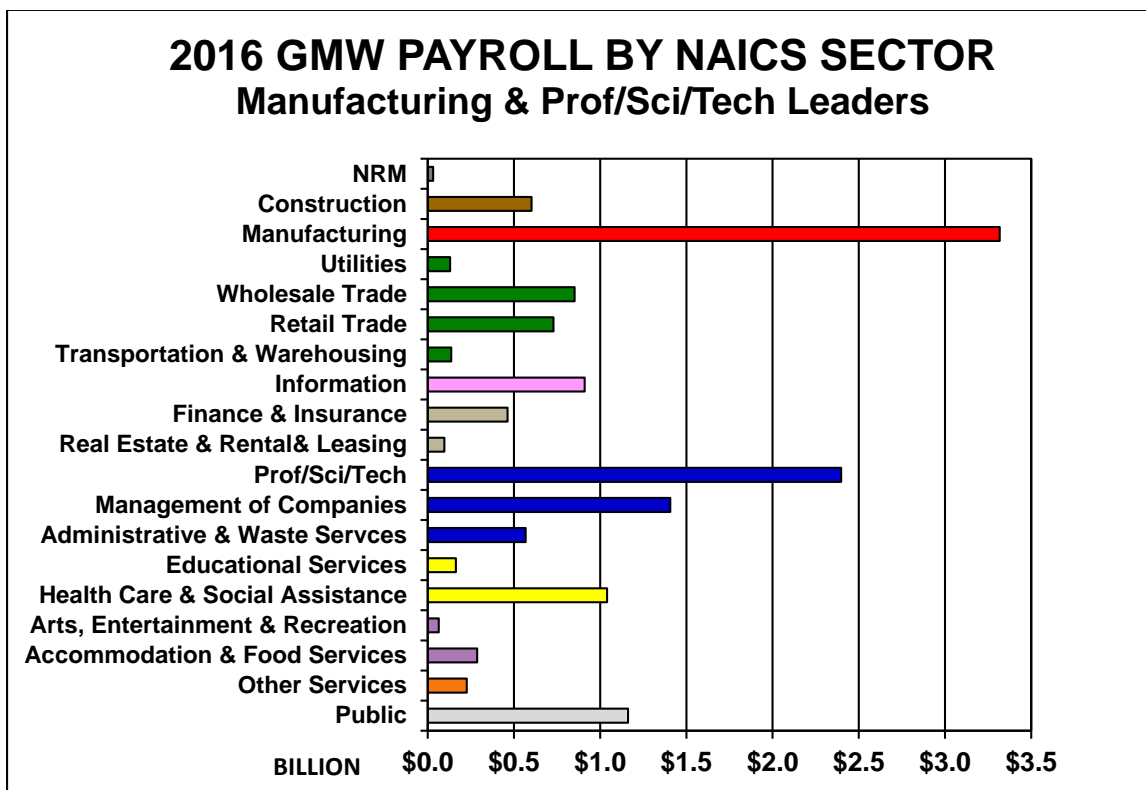
### GMW PAYROLL BY NAICS SUPERSECTORS 2001 vs 2016



Source: MA EOLWD, MERC

- Three Greater MetroWest (GMW) supersectors provided roughly 2/3 of the region's total payroll in both 2001 and 2016. Those three are Manufacturing, Trade, Transportation & Utilities and Professional & Business Services (PBS). In 2001 Manufacturing, TTU and PBS produced 28%, 16% and 23%, respectively of GMW payroll. The next largest payroll share, 8%, was in Information Services.
- By 2016 the payroll shares of three of these supersectors had changed quite a bit. Manufacturing payroll fell from 28% of the region's total payroll to only 23%. Payroll generated by the TTU supersector fell from 16% to 13%, while PBS payroll increased from 23% to 30%. Consistent with its employment growth, the total payroll in Education & Health Services rose from 6% of total GMW payroll to 8%; making it (along with Public) the fourth largest payroll creator in the region.
- At the state level, Manufacturing payroll fell from 14% to 9% of total payroll. TTU's total payroll fell from 14% to 12% of total state payroll, while the shares of payroll generated by both PBS and Ed & Health rose. The PBS share increased from 19% to 23%, and payroll in Ed & Health rose from 13% to 18%. The next largest generator of payroll for the state was Financial Activities, producing 12% of payroll in both years.

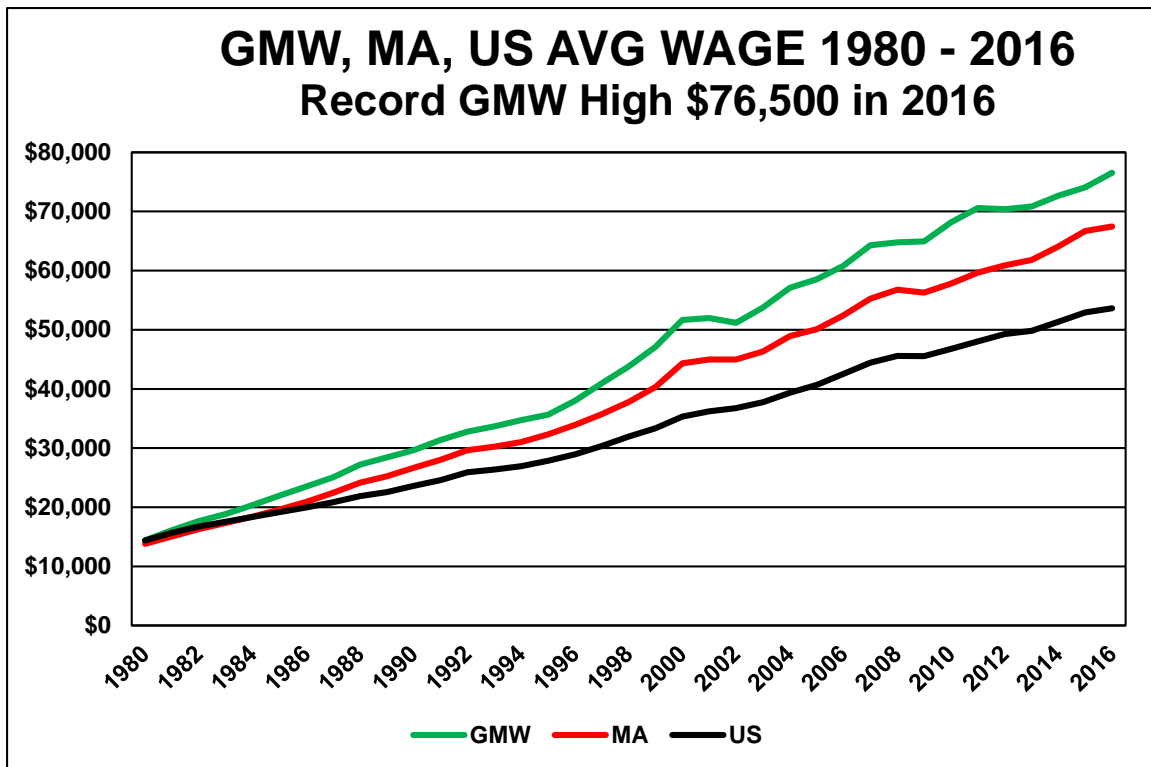
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2016 Greater MetroWest (GMW) payroll totaled a record \$14.6 billion, up 4.1% from 2015.
- Among the NAICS sectors, Manufacturing produced the largest share of payroll in the region at 22.8% or \$3.3 billion. Professional, Scientific & Technical Services (Prof/Sci/Tech) ranked second at 16.4% or \$2.4 billion and Management of Companies & Enterprises was third, 9.6% or \$1.4 billion.
- The top three payroll sectors: Manufacturing, Professional & Technical Services and Management of Companies & Enterprises produced nearly half of all GMW payroll, a combined total of \$7.1 billion.
- Public and Health Care & Social Assistance were the only other NAICS sectors with payrolls totaling over \$1 billion. The Public sector generated \$1.2 billion, and Health Care & Social Assistance, \$1.0 billion in payrolls.
- Five NAICS sectors: Information, Wholesale Trade, Retail Trade, Construction, and Administrative and Waste Services each contributed between \$500 million and \$1 billion in payroll.
- The remaining nine sectors each generated less than \$500 million in payroll. These nine NAICS sectors combined produced a total payroll of \$1.6 billion.

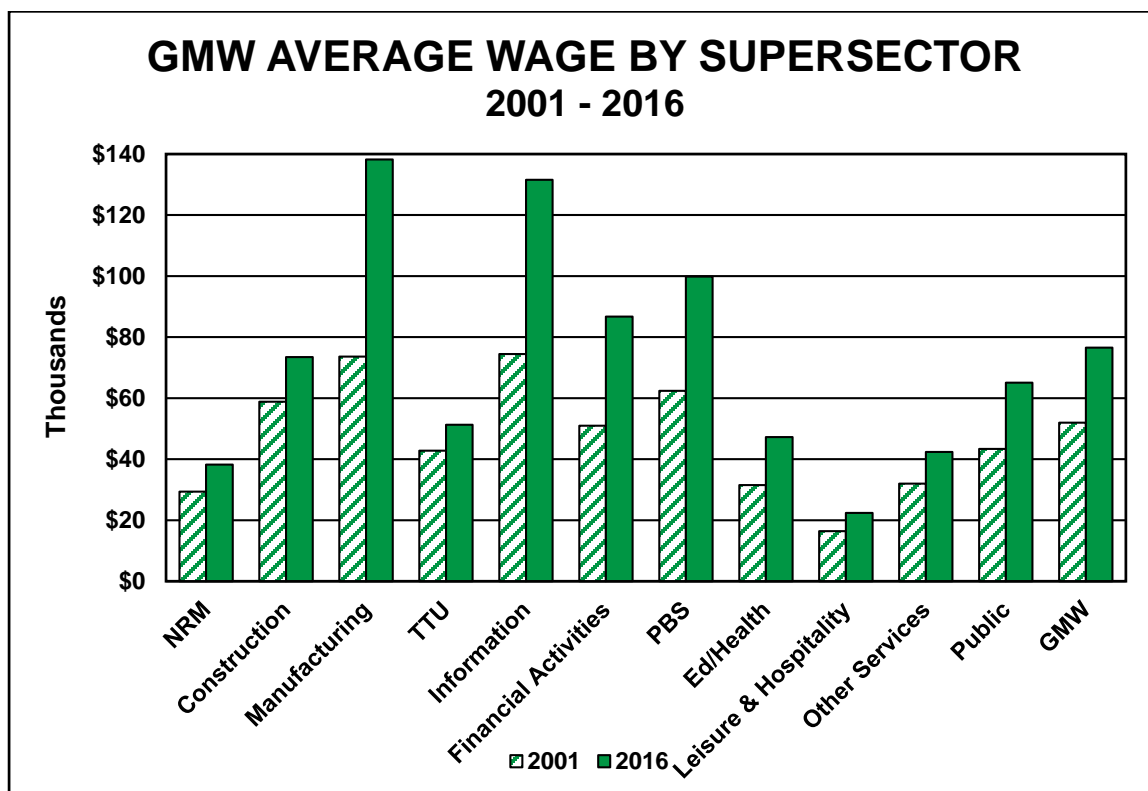
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2016 the United States (US), Massachusetts (MA) and the Greater MetroWest Region (GMW) reached historical highs in average annual wages. GMW led with an average annual wage of \$76,500, up from 3.3% from 2015. The 2016 MA average wage of \$67,500, increased by 1.1% from 2015, while the US average annual wage of \$53,600 rose by 1.3%.
- By 2016 the GMW average annual wage exceeded the MA average wage by 13%, and the US average wage by 43%. The MA average wage exceeded the US average annual wage by 26%.
- In 1980 GMW, MA, and the US all had relatively similar average annual wages between \$13,800 and \$14,400. Over the 37-year period from 1980 to 2016, the wage gap between the region, state and nation widened substantially. From 1980 to 2016 the GMW average annual wage climbed at an average annual rate of 4.7%, the MA average annual wage rose at a 4.5% annual rate, and the US at an average annual rate of 3.7%.
- Between the years of 1980 and 2016, GMW average annual wage rose 431%, followed by MA at 388%. The US average wage grew 273% over the same time period.

## GREATER METROWEST – EMPLOYMENT

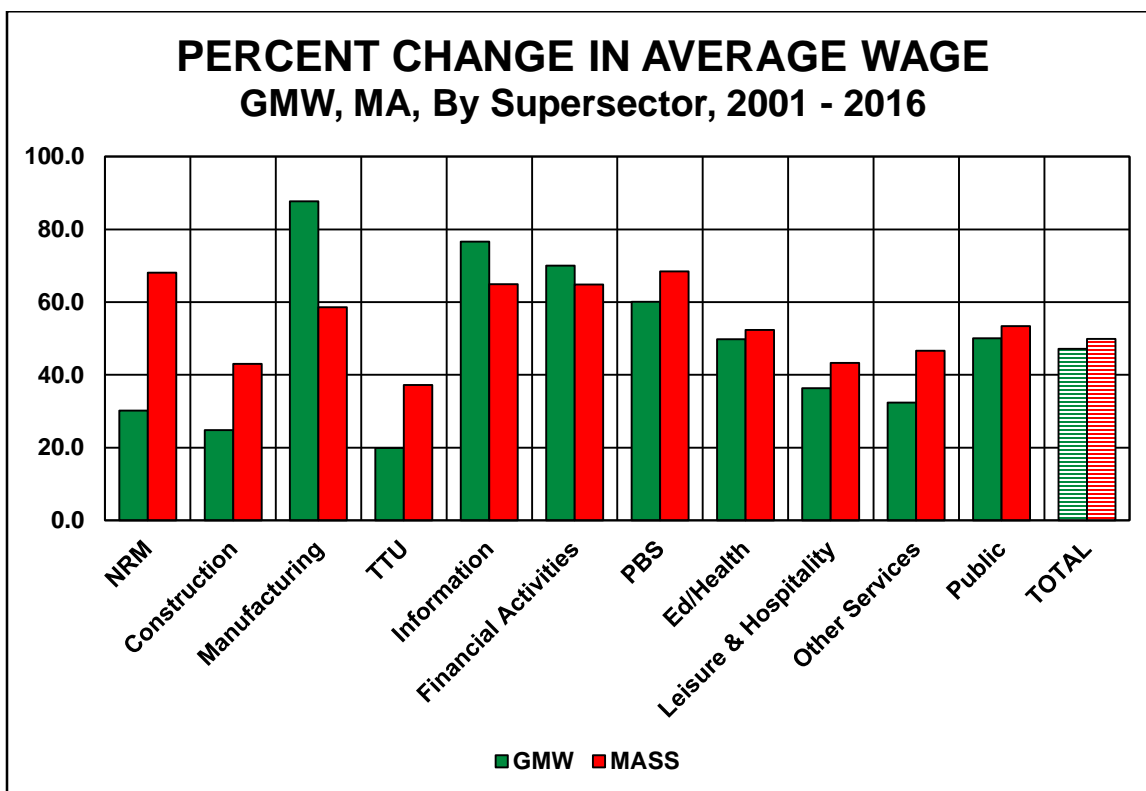


Source: MA EOLWD, MERC

- The average annual wage in Greater MetroWest (GMW) climbed from \$52,000 in 2001 to \$76,500 in 2016, an increase of 47.2%. Over the same time period, the average wage in the state rose by 50.0%, climbing from \$45,000 to \$67,500.
- In 2001 four GMW supersectors paid an average wage above the regional average wage. The average wage in Information Services was \$74,500, followed by Manufacturing (\$73,600), Professional & Business Services (PBS) (\$62,400) and Construction (\$58,800).
- By 2016 Manufacturing led all supersectors with an average wage of \$138,200, an increase of 87.8% from 2001. The Information wage rose 76.6% to \$131,500. PBS ranked third in 2016 with an average wage of \$99,800, up 60%, while the Finance wage rose by 70.0% to \$86,700.
- The Leisure & Hospitality supersector paid the lowest wage in the region in both years, \$16,400 in 2001 and \$22,400 in 2016. Next lowest in both years were Natural Resources and Mining (NRM), Ed & Health Services and Other Services. The NRM wage went from \$29,400 to \$38,200. The Ed & Health wage rose from \$31,500 to \$47,200, while the wage in Other Services increased to \$42,400 from \$32,000.



## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- The average wage in Greater MetroWest (GMW) was \$76,500 in 2016, an increase of 47.2% from the average wage of \$52,000 in 2001. Over the same period the state's average wage increased 50.0% from \$45,000 to \$67,500.
- Wages in six GMW supersectors increased at a faster rate than the region as a whole. Those supersectors were Manufacturing (+87.8%), Information Services (+76.6%), Financial Activities (+70.0%), Professional & Business Services (PBS) (+60.1%), Public (+50.0%) and Education & Health Services (+49.8%).
- PBS (+68.5%), Natural Resources & Mining (NRM) (+68.1%), Information Services (+65.0%) and Financial Activities (+64.9%) led wage increases for the state as a whole.
- Over the 2001-16 period, the smallest GMW wage increases occurred in Trade, Transportation & Utilities (TTU) (+19.9%), Construction (+24.8%) and NRM (+30.2%). At the state level, TTU (+37.2%), Construction (+43.1%) and Leisure & Hospitality (+43.3%) experienced the smallest percentage wage gains.

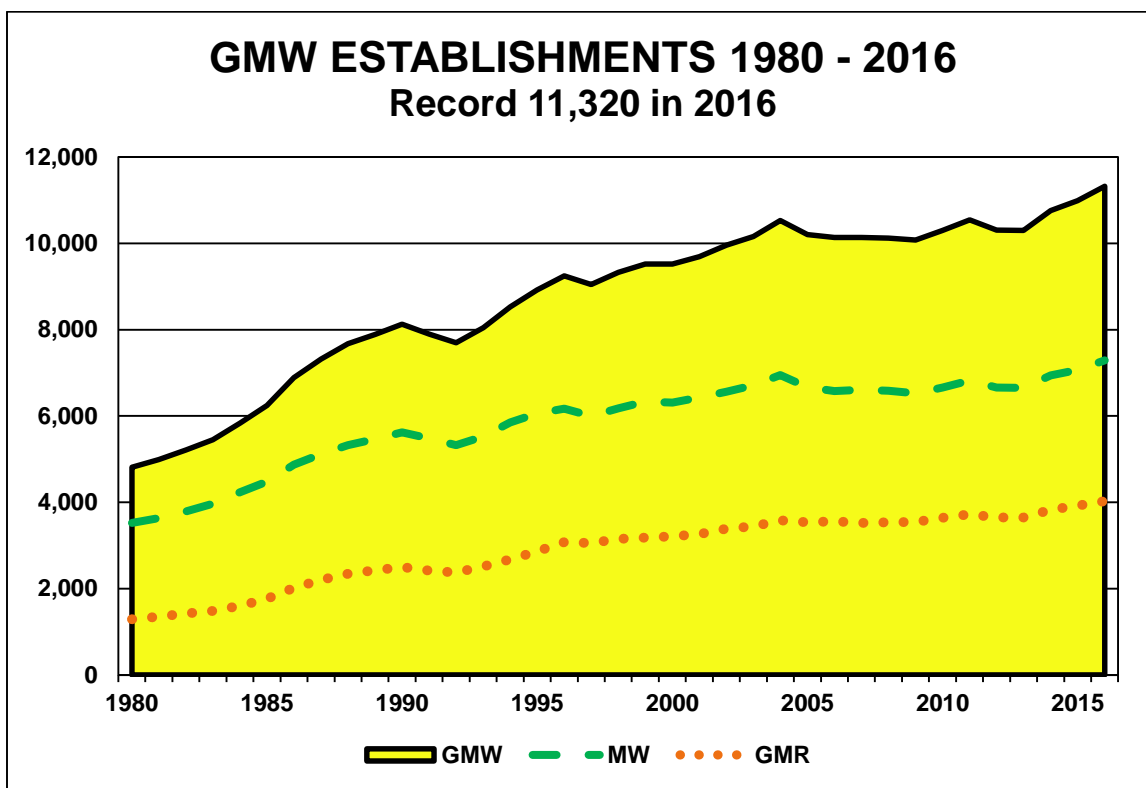
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2016 the average annual wage in Greater MetroWest (GMW) was \$76,500.
- Manufacturing led all NAICS sectors in 2016 with an average annual wage of \$138,200, followed by 2015's leader, Management of Companies, at \$132,100. Information ranked third, at \$131,500.
- Four additional sectors averaged annual wages higher than the GMW average wage: Professional, Scientific & Technical Services (Prof/Sci/Tech) (\$113,300), Wholesale Trade (\$93,100), Utilities (\$92,900) and Finance & Insurance (\$92,000).
- Three NAICS sectors offered average annual wages between \$50,000 and \$75,000: Construction (\$73,400), Real Estate & Rental & Leasing (\$68,100) and Public sector (\$65,100).
- Seven sectors generated average annual in the \$25,000 to \$50,000 range: Health Care & Social Assistance (\$47,900), Administrative & Waste Services (\$47,400), Education Services (\$43,400), Other Services (\$42,400), Transportation & Warehousing (\$41,200), Natural Resources & Mining (NRM) (\$38,200), and Retail Trade (\$32,900).
- Arts, Entertainment & Recreation (\$22,900) and Accommodation & Food Service (\$22,300) sectors produced the lowest average wages in the region.

## GREATER METROWEST – EMPLOYMENT

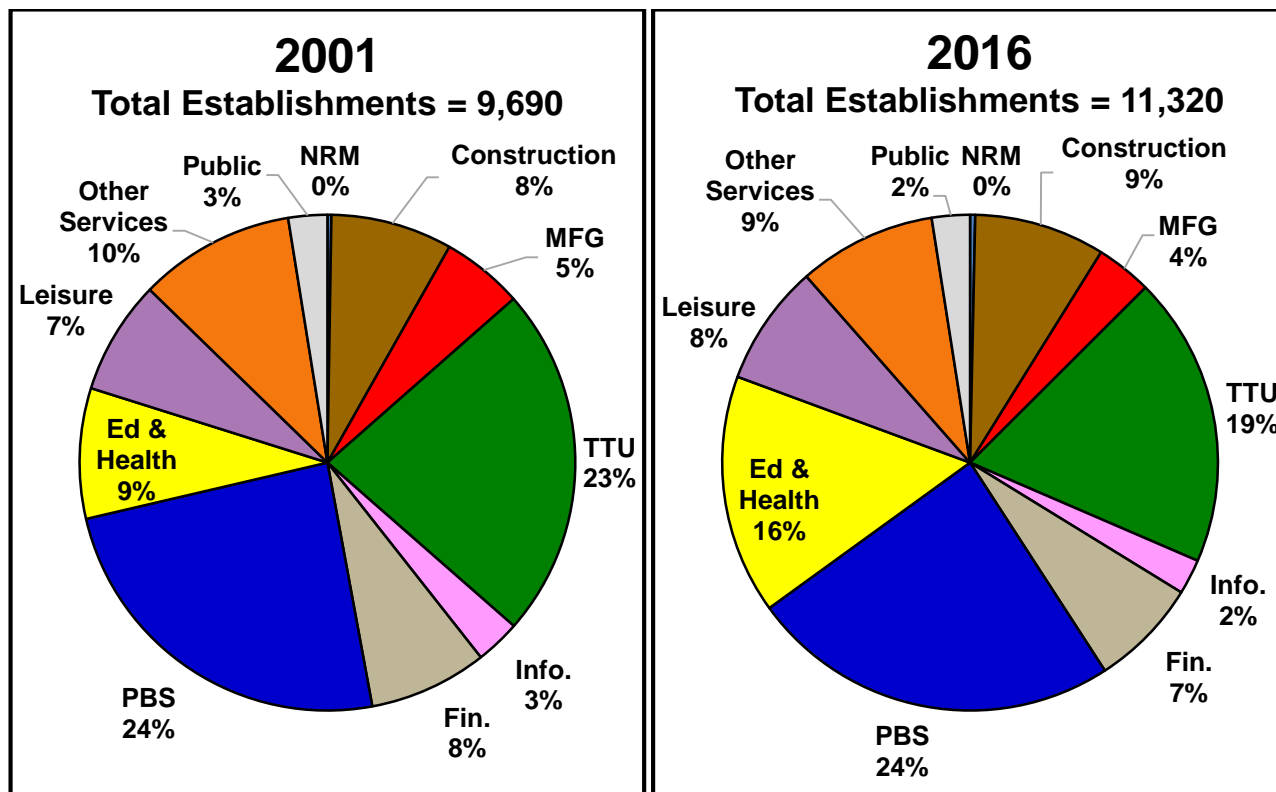


Source: MA EOLWD, MERC

- In 2016 for the third consecutive year, the Greater MetroWest region (GMW) was home to a record number of establishments, or separate places of work sited within the region. In 2016 GMW establishments totaled 11,320, the first time in GMW's history that total establishments exceeded 11,000.
- Total establishments in GMW increased by 135% between 1980 and 2016. MetroWest's (MW) establishments increased over the same time period by 107%, while the number of establishments in the Greater Marlborough Region (GMR) increased by 212%.
- Since 1980 Massachusetts' number of establishments has increased by 108%, and the U.S. figure rose by 106%.
- The largest annual increase in establishments for GMW since 1980 occurred in 1986 when the number of establishments increased by 640. Since 1986, there has not been an increase larger than 480 establishments.
- The largest annual drop in establishments for GMW occurred in 2005, with the loss of 320 establishments.
- In 2016 both MW and GMR set new records in the number of establishments, 7,290 establishments for MetroWest and 4,030 for GMR.

## GREATER METROWEST – EMPLOYMENT

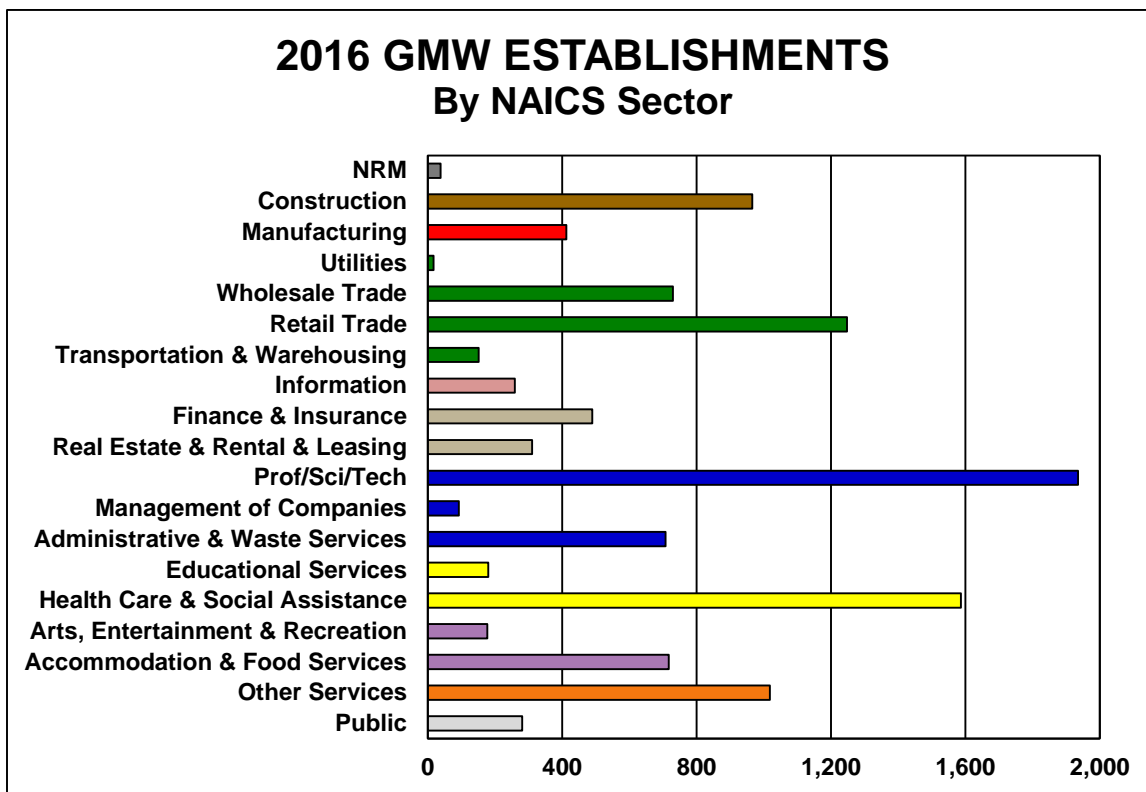
### GMW ESTABLISHMENTS BY NAICS SUPERSECTORS 2001 vs 2016



Source: MA EOLWD, MERC

- In 2001 9,690 establishments, or separate places of work, were located in Greater MetroWest (GMW). By 2016 that number had risen to 11,320 establishments, an increase of 16.8%. Over the same period of time, the number of establishments in the state increased by 29.1%.
- Almost 50% of GMW establishments were found in two supersectors in 2001. Professional & Business Services (PBS) had 24% of the region's establishments, while Trade, Transportation & Utilities (TTU) had 23%. The biggest changes between 2001 and 2016 were the decline in the fraction of establishments in TTU and the increase in the share in Education & Health Services (Ed & Health).
- The number of establishments in the Ed & Health supersector jumped from 820 in 2001 to 1,770 in 2016, an increase of 114.4%, more than double any other supersector. The state experienced an even greater increase in the number of Ed & Health establishments (+243.7%).
- Breaking the GMW Ed & Health figure down, the number of (private) Education establishments rose 85.6% while Health Services establishments more than doubled (+118.3%). State figures were similar: Education +84.4% and Health Services +264.8%.

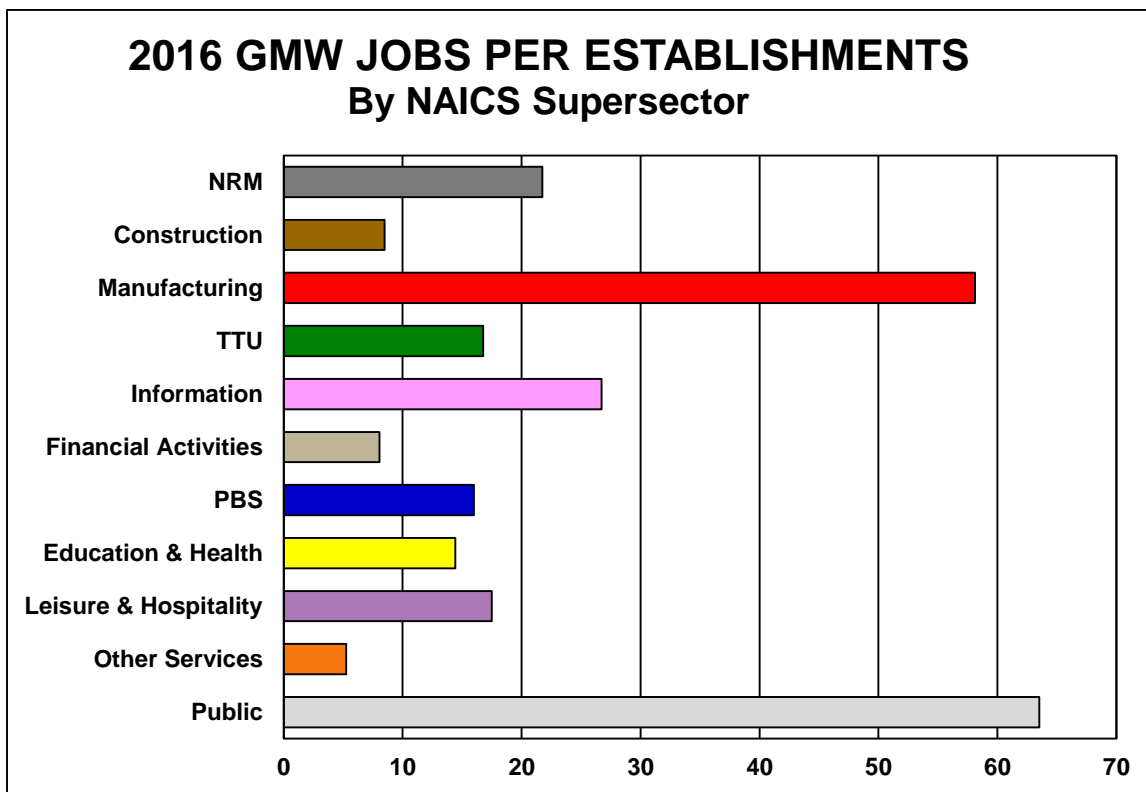
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2016 the number of establishments or separate places of work in the Greater MetroWest region (GMW) totaled 11,320, up 330 or 3.0% from 2015.
- Professional, Scientific & Technical Services (Prof/Sci/Tech) led all NAICS sectors with the largest number of establishments, 1,940, or 17.1% of all regional establishments.
- Health Care & Social Assistance provided the second largest number of establishments, 1,590 jobs or 14%, followed by Retail Trade with 1,250 or 11%, Other Services with 1,020 or 9%, Construction at 970 or 8.5%, Wholesale Trade with 730 or 6.4%, and Accommodation & Food Services with 720 or 6.3%.
- The top five sectors: Professional, Scientific & Technical Services (Prof/Sci/Tech), Health Care & Social Assistance, Retail Trade, Other Services and Construction, combined for 60% (over half) of all establishments, 6,700, in GMW.
- Six sectors: Utilities, NRM, Management of Companies, Transportation & Warehousing, Educational Services, and Arts, Entertainment & Recreation, each had fewer than 200 establishments.

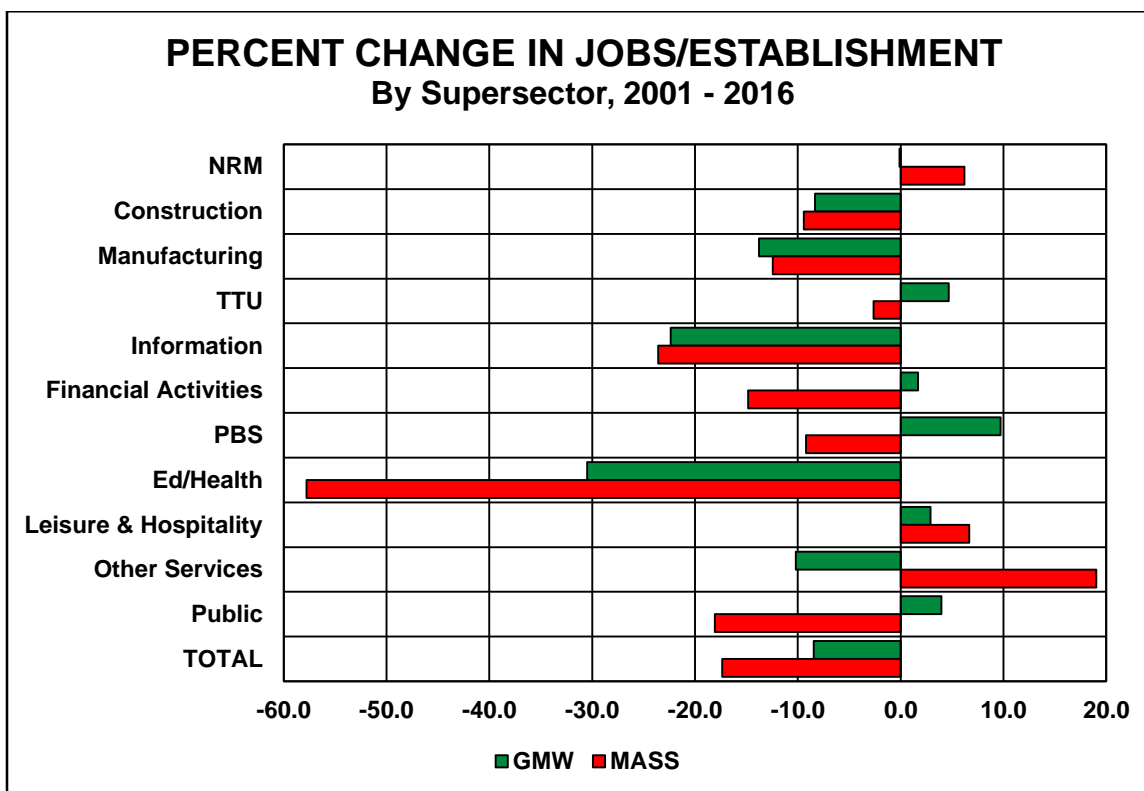
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- The number of jobs per establishment is calculated by dividing the total number of jobs by the total number of establishments in each NAICS supersector.
- Greater MetroWest (GMW) averaged 16.8 jobs per establishment, higher than Massachusetts which averaged 14.0 jobs per establishment, and the US, with 14.6 jobs per establishment.
- Among all NAICS supersectors, the Public supersector led with 63.5 jobs per establishments in 2016, followed by Manufacturing with 58.1 jobs per establishment.
- Information and Natural Resources & Mining (NRM) posted totals over 20 jobs per establishment with 26.7 and 21.7, respectively.
- Four supersectors averaged between 10 and 20 jobs per establishment: Leisure & Hospitality 17.5, Trade, Transportation & Utilities (TTU) 16.8, Professional & Business Services (PBS) 16.0, and Education & Health 14.4.
- The remaining three supersectors: Construction, Financial Activities and Other Services each averaged fewer than 10 jobs per establishment.

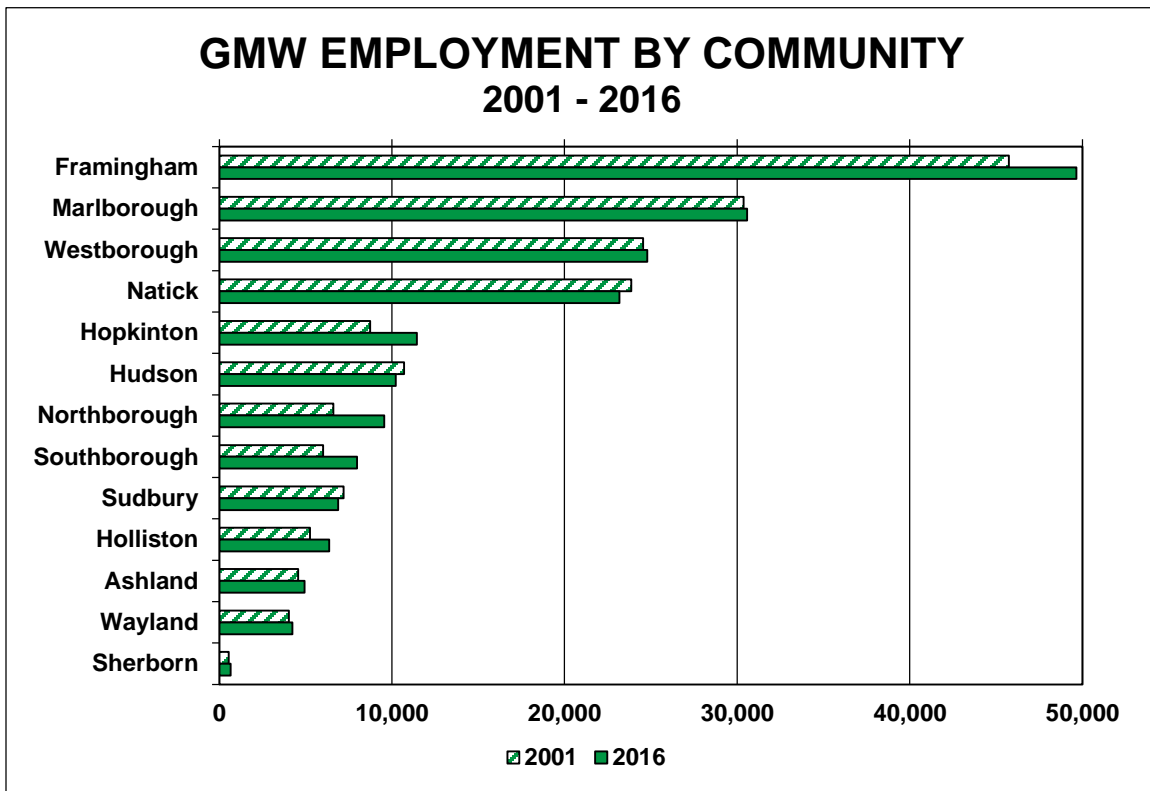
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Between 2001 and 2016, the size of establishments, as measured by the average number of jobs per establishment, decreased in Greater MetroWest (GMW) as well as at the state level. The number of jobs per establishment in GMW fell -8.5% from 18.4 to 16.8, while the decline statewide was -17.4% from 16.9 to 14.0 jobs per establishment.
- The largest declines among all supersectors, both regionally and for the state occurred in the Education & Health Services supersector. The GMW decline was -30.5% (from 20.7 to 14.4 jobs per establishment). The state decrease was even larger, from 29.9 to 12.6 jobs per establishment, a decline of -57.8%. In both cases, the fall was the result of the number of establishments growing much faster than the number of jobs.
- In GMW five of eleven supersectors saw increases in jobs per establishment while the number of jobs per establishment declined in six supersectors. The largest increases occurred in Professional & Business Services (PBS), +9.7%, followed by Trade, Transportation & Utilities (TTU) (+4.7%). The largest decreases occurred in Education & Health Services (-30.5%) and Information Services (-22.4%).

## GREATER METROWEST – EMPLOYMENT

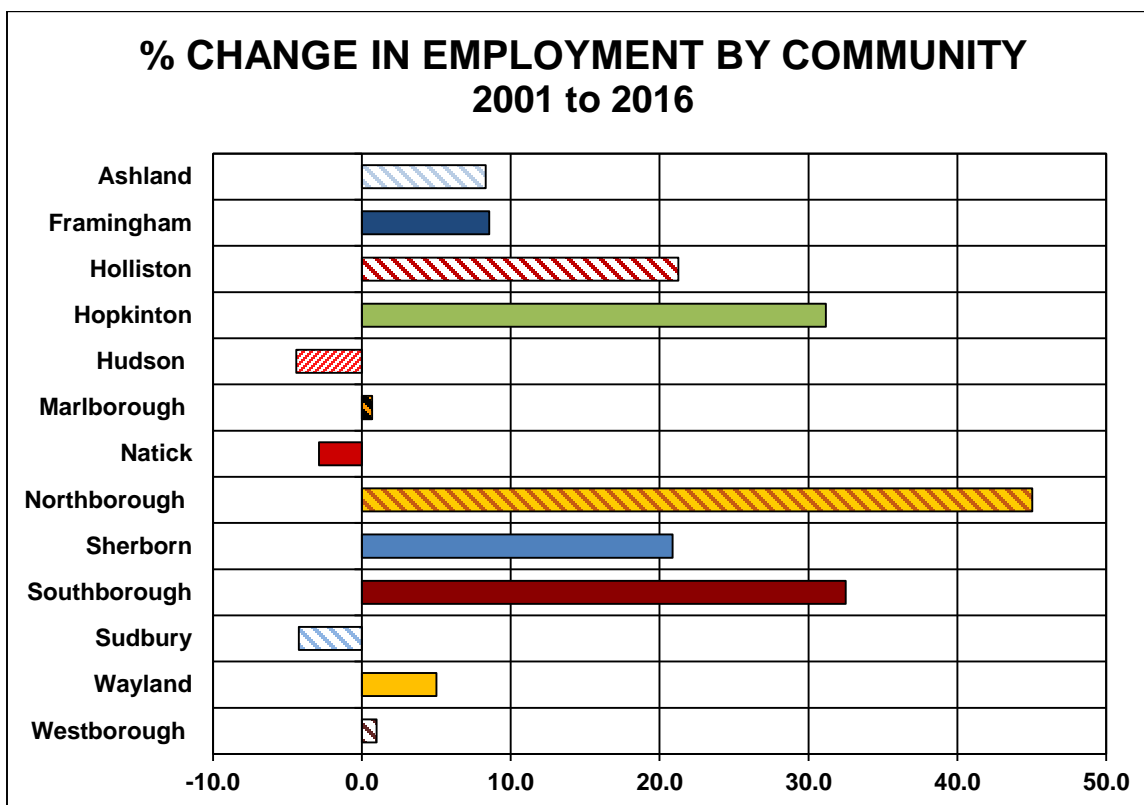


Source: MA EOLWD, MERC

- Communities in this graph are ranked from the largest to the smallest based on 2016, rather than 2001, employment data.
- GMW employment rose from 178,200 in 2001 to a record 190,500 in 2016, a gain of 12,400 jobs or 6.9%. Ten communities gained employment while three communities (Natick, Hudson, and Sudbury) experienced losses.
- Among all communities in 2016, Framingham generated the highest employment, 49,700 jobs or 26% of GMW employment, followed by Marlborough, 30,600 jobs or 16%, Westborough, 24,800 jobs or 13%, and Natick, 23,200 jobs or 12%. Combined, these four communities produced two-thirds of regional employment while the remaining nine communities produced one-third. In 2001 the same four communities had produced a slightly higher share of GMW employment, 70%.
- Community mid-range ranking shifted between 2001 and 2016, with Hopkinton replacing Hudson as the fifth largest community in employment. Job gains of 45% in Northborough and 33% in Southborough resulted in these communities surpassing Sudbury in employment.
- Six GMW communities set employment records in 2016: Framingham (49,700), Holliston (6,400), Northborough (9,600), Sherborn (660), Southborough (8,000), and Wayland (4,200).



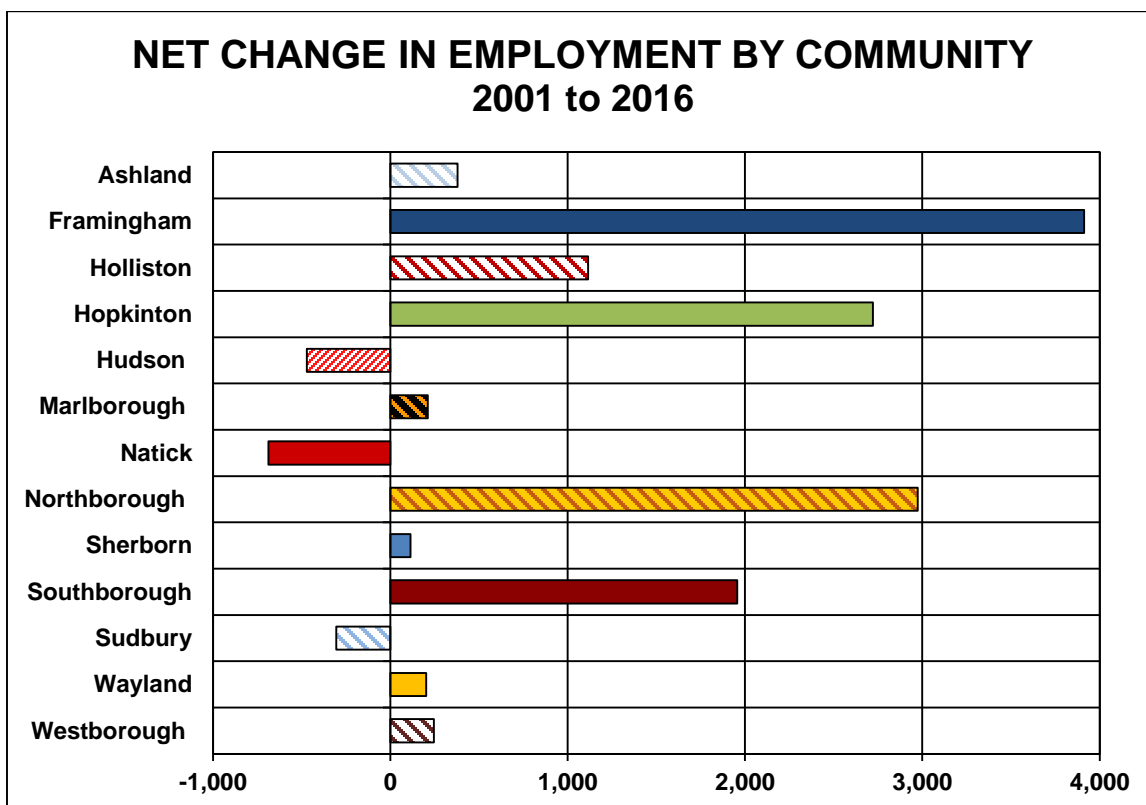
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Total Greater MetroWest (GMW) employment climbed from 178,200 jobs in 2001 to 190,500 jobs in 2016, a gain of 6.9%. Among the thirteen GMW communities, seven saw employment growth above the regional rate, three others grew, but more slowly than GMW and three experienced job losses.
- Northborough led the region with a 45.0% increase in employment, followed by Southborough (+32.5%), Hopkinton (+31.2%), Holliston (+21.3%) and Sherborn (+20.9%). The smallest percentage increases in jobs occurred in Marlborough (+0.7%), Westborough (+1.0%) and Wayland (+5.0%).
- The towns of Hudson, Natick and Sudbury suffered employment declines between 2001 and 2016. The number of jobs in Hudson fell by -4.4% from 10,700 jobs to about 10,200 jobs. The decline in employment in Sudbury was comparable, a -4.2% decrease, while the number of jobs in Natick decreased by -2.9%.

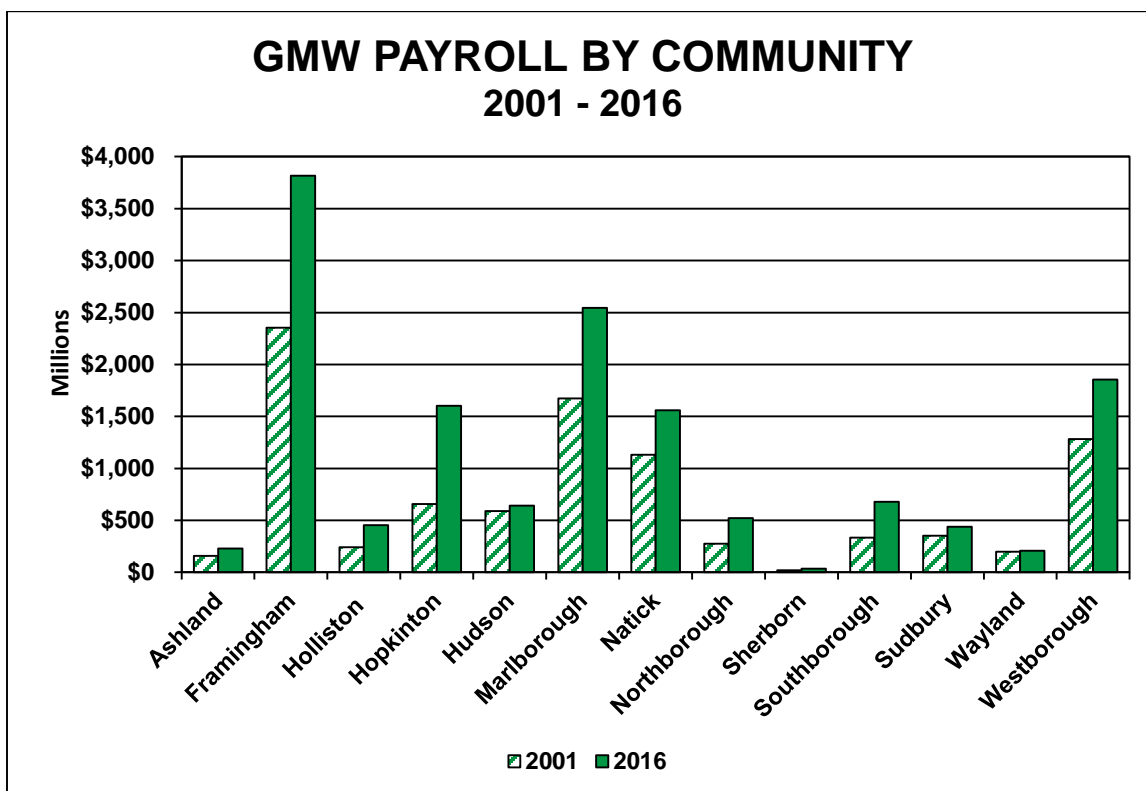
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Total Greater MetroWest (GMW) employment rose 6.9% between 2001 and 2016, increasing from 178,200 jobs in 2001 to 190,500 jobs in 2016.
- Three GMW communities saw increases of more than 2,500 jobs: Framingham (+3,910 jobs), Northborough (+2,980 jobs) and Hopkinton (+2,720 jobs). Just behind these three were Southborough with a gain of 1,960 jobs and Holliston (+1,120 jobs).
- At the other end of the spectrum, three of the region's communities experienced declines in total employment. Natick lost 690 jobs between 2001 and 2016, while Hudson employment fell by 470 jobs and the number of jobs in Sudbury declined by 300.
- Employment increased in the remaining five GMW communities, ranging between an increase of 110 jobs in Sherborn to the 380 job rise in Ashland.

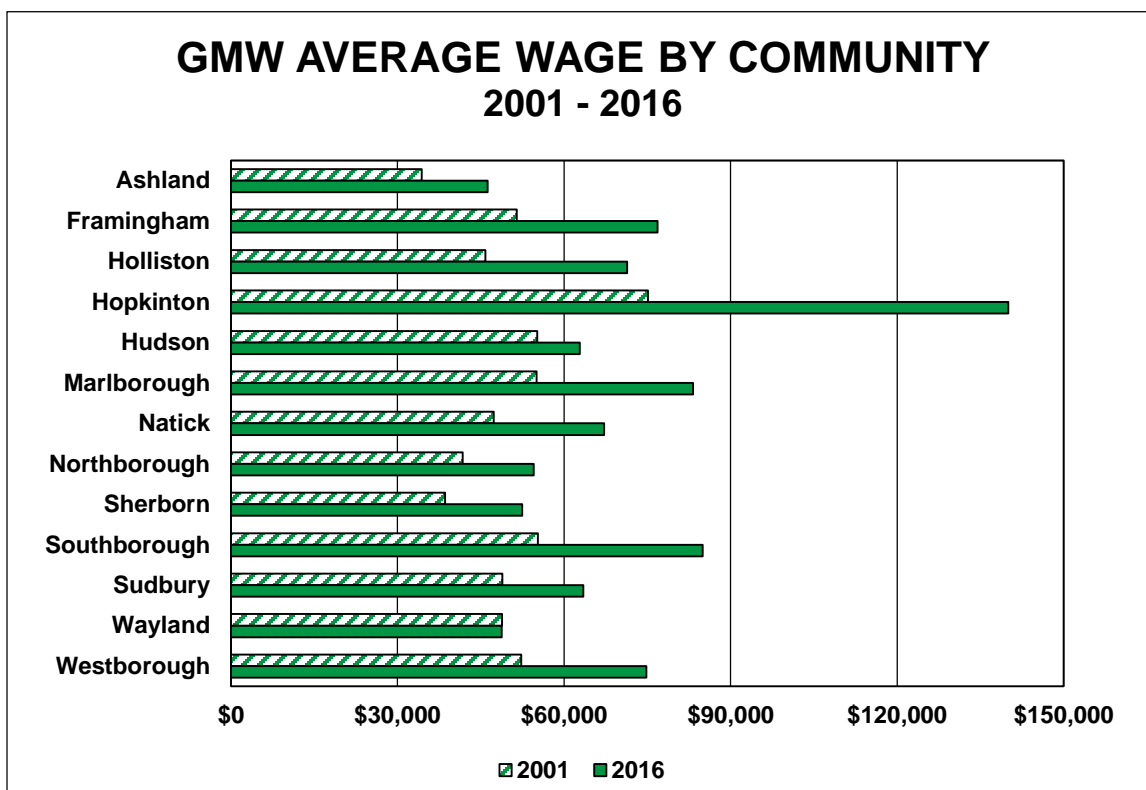
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- The Greater MetroWest (GMW) payroll climbed by \$5.3 billion from \$9.3 billion in 2001 to \$14.6 billion in 2016, an increase of 57.4% over the 15 years. In 2001 the largest total payrolls were found in Framingham (\$2.4 billion), Marlborough (\$1.7 billion) and Westborough (\$1.3 billion). In 2016 the payroll figures for these same communities were \$3.8 billion, \$2.5 billion and \$1.9 billion, respectively.
- Over this period, Hopkinton saw the largest percentage increase in total payroll, increasing 144.4%, from \$656 million to \$1.6 billion. Total payroll in Southborough also more than doubled, going from \$333 million to \$678 million, an increase of 103.6%. The largest absolute increase in total payroll, from \$2.4 billion to \$3.8 billion, or \$1.5 billion, occurred in Framingham.
- The next largest payroll increases were found in Northborough (+89.1%) and Holliston (+88.9%). Only two other communities saw payrolls increase at a rate greater than the region's rate. They were Framingham (+62.1%) and Sherborn (+64.5%).
- The lowest GMW payrolls in 2001 were in Sherborn (\$21 million), Ashland (\$157 million) and Wayland (\$197 million). The smallest 2016 figures were in Sherborn (\$35 million), Wayland (\$206 million) and Ashland (\$229 million).

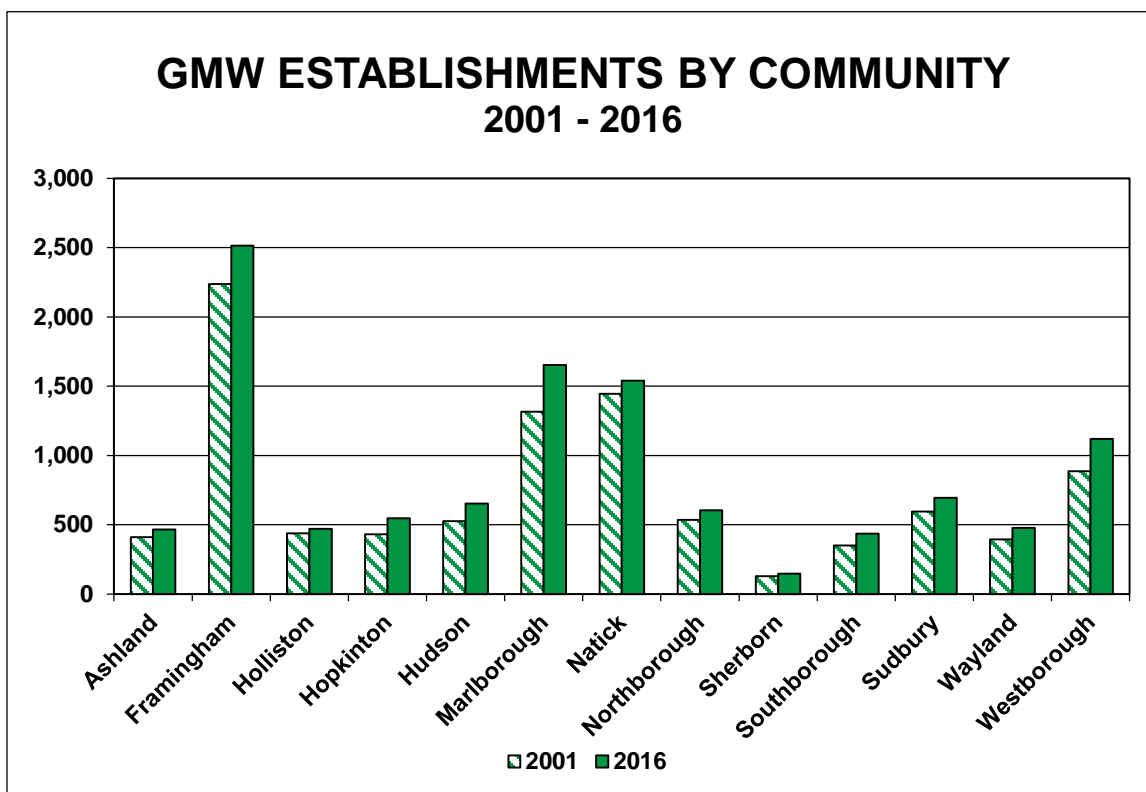
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- The average annual wage in Greater MetroWest (GMW), MA, and the US all reached record breaking highs in 2016 with average annual wages in GMW of \$76,500, followed by MA at \$67,500, and the US at \$53,600.
- Between 2001 and 2016, the GMW average annual wage rose from \$52,000 to \$76,500, a gain of 47%. Every community in GMW increased their average wage since 2001 except Wayland, which fell by -0.1%.
- In 2016 Hopkinton led all communities with an average annual wage of \$140,000, and the largest absolute and percentage gain from 2001, up \$64,900 or 86%. Southborough had the second highest wage in 2016, \$85,000.
- In 2016 six communities (Framingham, Holliston, Hopkinton, Marlborough, Southborough, Westborough) in GMW offered average annual wages exceeding the state's average annual wage.
- Among all communities, Ashland had the lowest average wage in both 2001 and 2016. Since 2001, its average wage has risen by 35%, from \$34,400 to \$46,300.
- Three GMW communities, Ashland, Sherborn, and Wayland, offered average annual wages below the US average wage.

## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- The number of establishments or separate places of work in Greater MetroWest (GMW) reached a record high in 2016, at 11,320, up 1,630 or 16.8% from 2001.
- In both 2001 and 2016 four communities: Framingham, Marlborough, Natick and Westborough, had at least 60% of GMW establishments.
- Framingham led the region in establishments in both 2001 with 2,240 establishments, and in 2016 with 2,510 establishments, a gain of 12.3%. Marlborough had the second highest number of establishments in 2016, 1,650, up 25.6% from 2001. Natick, which had ranked in second place in 2001, fell to third with 1,540 establishments in 2016, a gain of 6.6%.
- Every community in GMW saw an increase in establishments between 2001 and 2016. Hopkinton generated the highest percentage increase in establishments, 27.2%, while Marlborough produced the largest absolute gain, 340. Natick had the lowest percentage increase, 6.6%, while Sherborn had the smallest absolute gain in establishments, 20.
- Five communities had fewer than 500 establishments in both 2001 and 2016: Ashland, Holliston, Sherborn, Southborough and Wayland.

## **GREATER METROWEST – EMPLOYMENT**

### **Employment Comparison Greater MetroWest Region By Community 2016**

<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	4,900	\$46,200	\$229	470	TTU **
Framingham	49,700	\$76,900	\$3,816	2,510	PBS***
Holliston	6,400	\$71,400	\$454	470	PBS
Hopkinton	11,500	\$140,000	\$1,603	550	Manufacturing
Hudson	10,200	\$62,800	\$643	650	Manufacturing
Marlborough	30,600	\$83,200	\$2,545	1,650	PBS
Natick	23,200	\$67,200	\$1,558	1,540	TTU
Northborough	9,600	\$54,600	\$522	600	TTU
Sherborn	660	\$52,500	\$35	150	Public
Southborough	8,000	\$85,000	\$678	440	Education & Health
Sudbury	6,900	\$63,500	\$438	700	TTU **
Wayland	4,200	\$48,800	\$206	480	Leisure & Hospitality
Westborough	24,800	\$74,900	\$1,856	1,120	PBS
MetroWest	115,400	\$78,200	\$9,017	7,290	PBS
Greater Marlborough Region	75,200	\$74,000	\$5,566	4,030	PBS
Greater MetroWest	190,500	\$76,500	\$14,583	11,320	PBS
Massachusetts	3,494,600	\$67,500	\$235,645	249,800	Education & Health

Source: MA EOLWD, MERC

\*Rounded

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

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

# **GREATER METROWEST – HOUSING**

## **HOUSING**

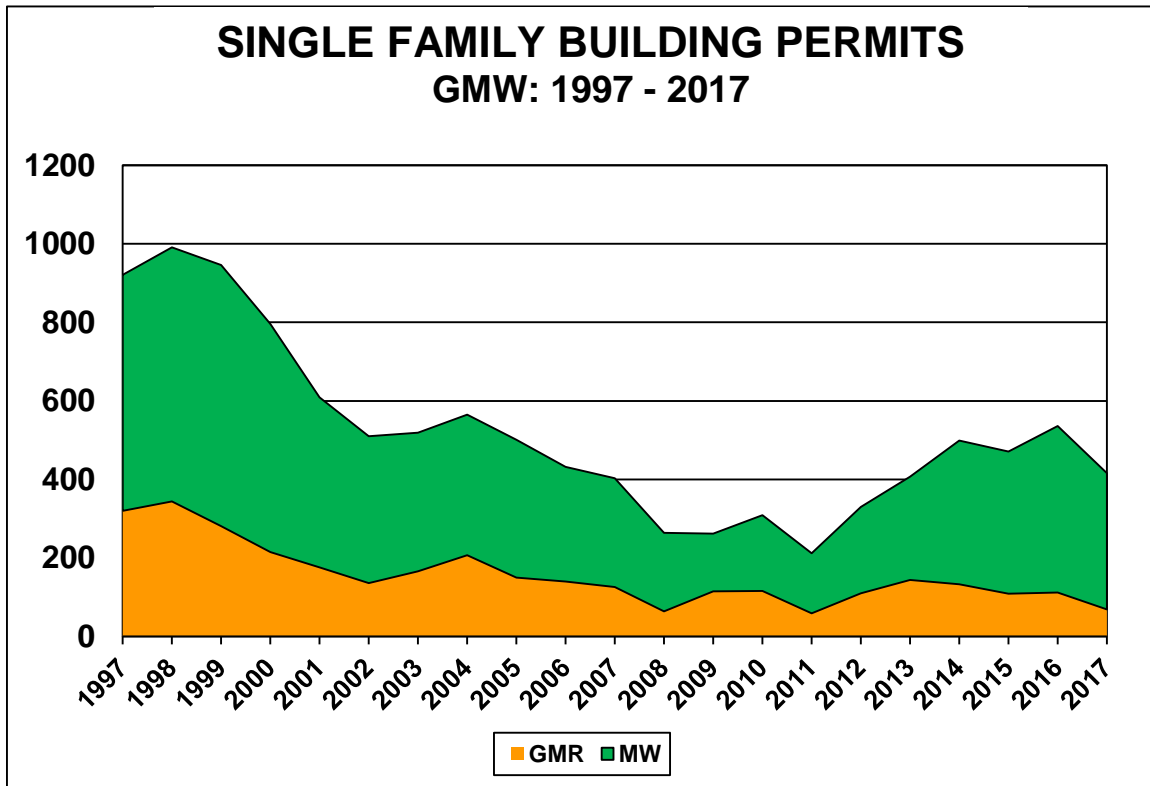
The MetroWest Economic Research Center (MERC) at Framingham State University collects and analyzes data on housing permits issued and existing home sales for Greater MetroWest (GMW), the aggregated MetroWest CCSA™ and Greater Marlborough Region. The MetroWest CCSA™ includes Ashland, Framingham, Holliston, 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 2017 are estimated using the December year-to-date values, and information provided by the city or town building departments.

Data on occupied housing units was recovered from the 2016 American Community Survey (ACS) 5-year estimates done by U.S. Census Bureau which provides estimates of population, household demographics and more, based off of a subset of the U.S. population. The ACS is an ongoing survey that provides vital information on a yearly basis about our nation and its people.

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 town; 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

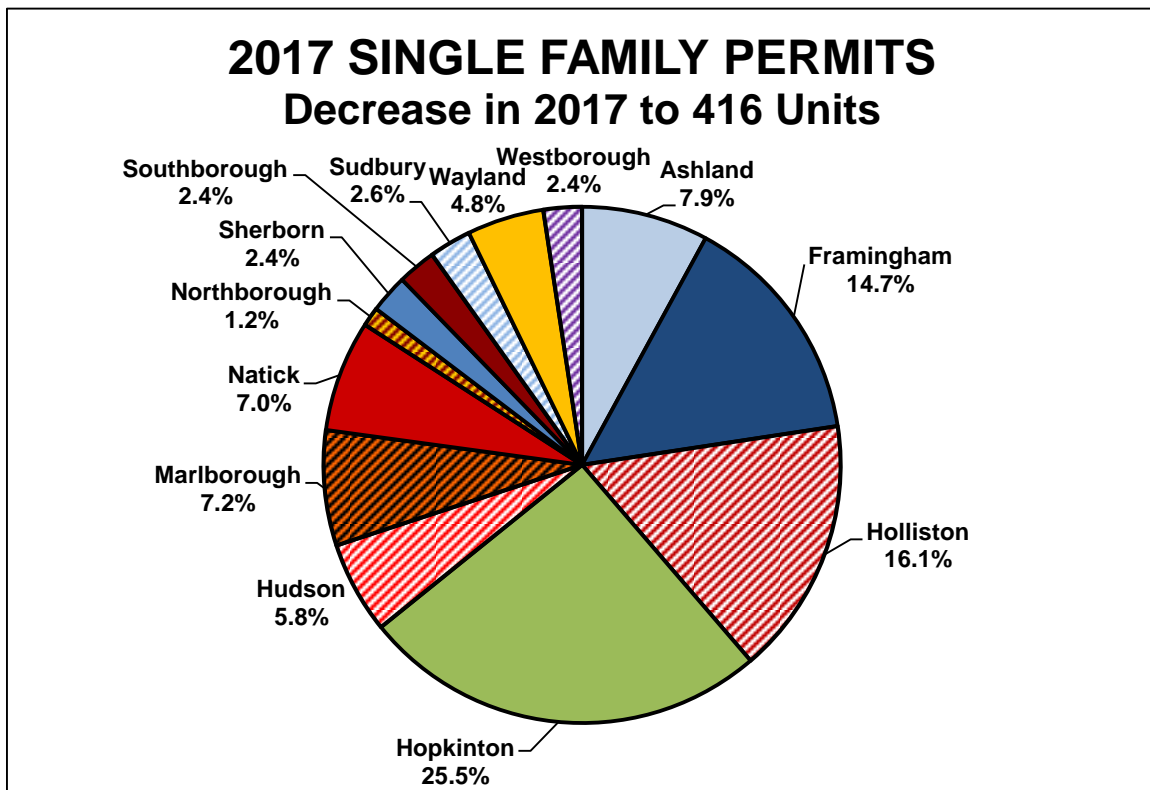


Source: U.S. Census Bureau and MERC

- New residential housing permits issued each year for single family homes in Greater MetroWest (GMW), indicated by the height of the graph above, peaked at nearly 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 again in 2012, 2013 and 2014. In 2015, Greater MetroWest experienced a decrease which occurred once again in 2017 of about 120 units from 2016.
- MetroWest (MW), depicted in green, accounted for about 83% of the total permits issued in Greater MetroWest in 2017 while the Greater Marlborough Region (GMR), depicted in orange, accounted for the remaining 17%.
- From 2016 to 2017, permits issued in MetroWest decreased by about 38%, while permits in Greater Marlborough decreased by about 18%. Overall, Greater MetroWest experienced a decrease in permits by about 22%.



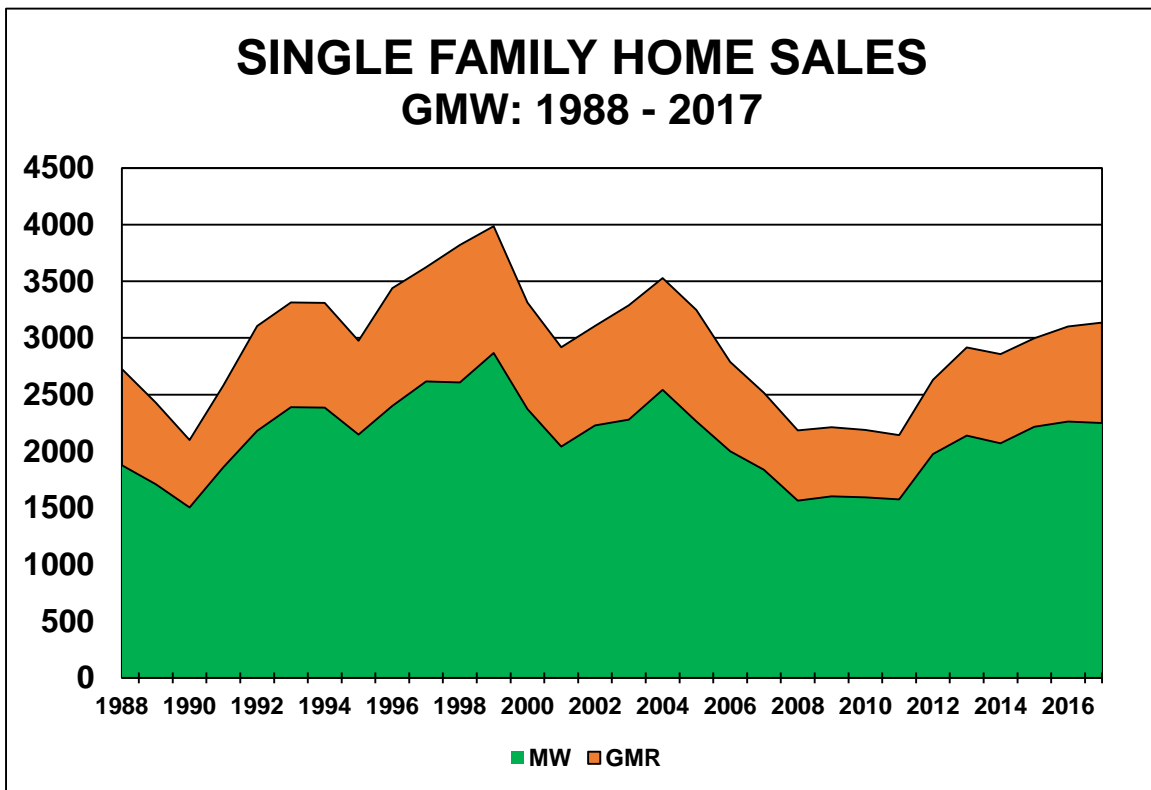
## GREATER METROWEST – HOUSING



Source: U.S. Census Bureau and MERC

- In 2017, building permits issued for new single family homes in Greater MetroWest decreased by about 112 units from the year before to an estimated 416 permits.
- Of the 416 permits in GMW, MetroWest made up the majority with 347 permits in 2017, while communities in the Greater Marlborough Region issued 69 permits.
- Hopkinton and Holliston were the communities with the two largest shares of permits issued, accounting for 25.5% and 16.1% of the region, respectively. Together, they account for 41.6% of permits issued in the region. Framingham contributed another 14.7%.
- Northborough contributed the smallest number of housing permits with five permits, or 1.2% of the regional total. Therefore, Northborough accounts for fewer than two out of every 100 permits issued in Greater MetroWest.
- The other nine communities each contributed to the regional total between 2.4% in Sherborn, Southborough, and Westborough and 7.9% in Ashland.

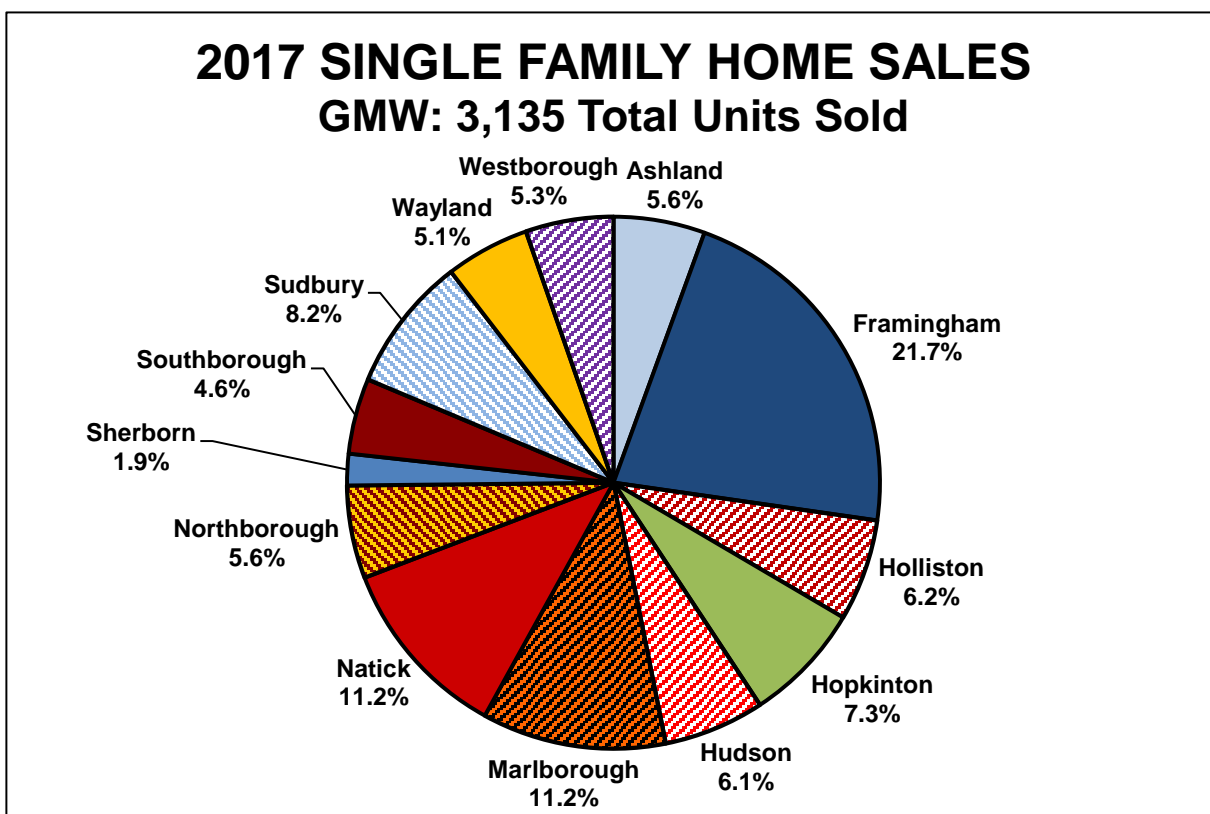
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- Sales of existing single family homes are shown for Greater MetroWest (GMW) by the height of the graph depicted above. The data is shown for a 30-year period from 1988 to 2017. These sales consist of a different mix of homes sold each year, and do not represent a change in value of the homes. The green area shows the sales of existing homes in the nine communities 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 smallest number of single family homes sold in GMR occurred in 2011 at 567 units sold. However in MW, single family home sales reached the lowest in 1990 at 1,504 units sold.
- From 2016 to 2017, MW experienced a decrease of 13 units sold, representing a 0.6% decrease. GMR experienced an increase of 47 units sold, representing a 5.6% increase in the same period.

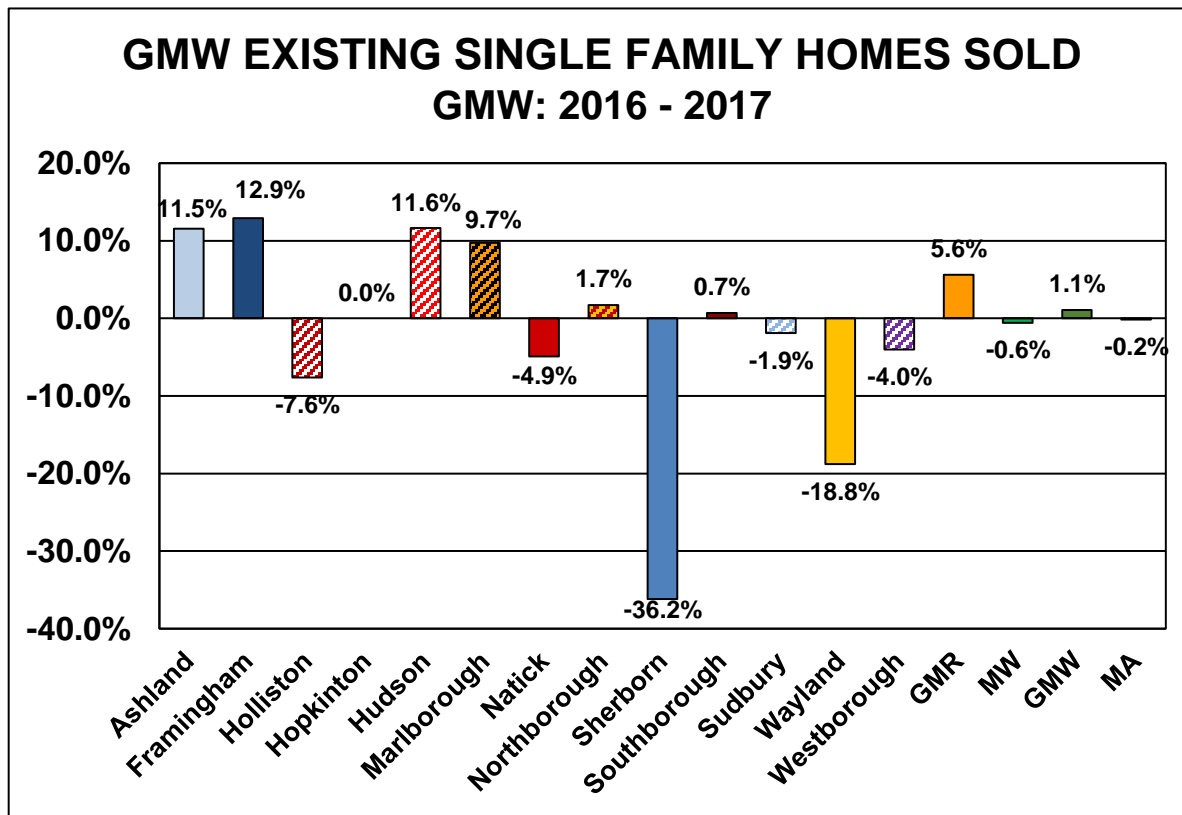
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- In 2017, 3,135 existing single family homes were sold in Greater MetroWest (GMW). This represents an increase of about 34 homes from the previous year.
- Together, Framingham and Natick made up 32.9% of the region's existing homes sold. This was about one out of every three homes sold in the region. Framingham had the largest proportion with 21.7% or 681 units sold, followed by Natick and Marlborough with 11.2% each or 350 units sold each.
- Eight of the thirteen communities each contributed between 5% and 9% to existing family homes sales in GMW. Sudbury contributed 8.2%, Hopkinton 7.3%, Holliston 6.2%, Hudson 6.1%, Northborough and Ashland 5.6%, Westborough 5.3%, and Wayland contributed 5.1%.
- Southborough and Sherborn each contributed less than 5% to existing single family home sales in GMW in 2017. In Sherborn, only 60 single family homes were sold in this particular year, and Southborough only had 144 homes sold.

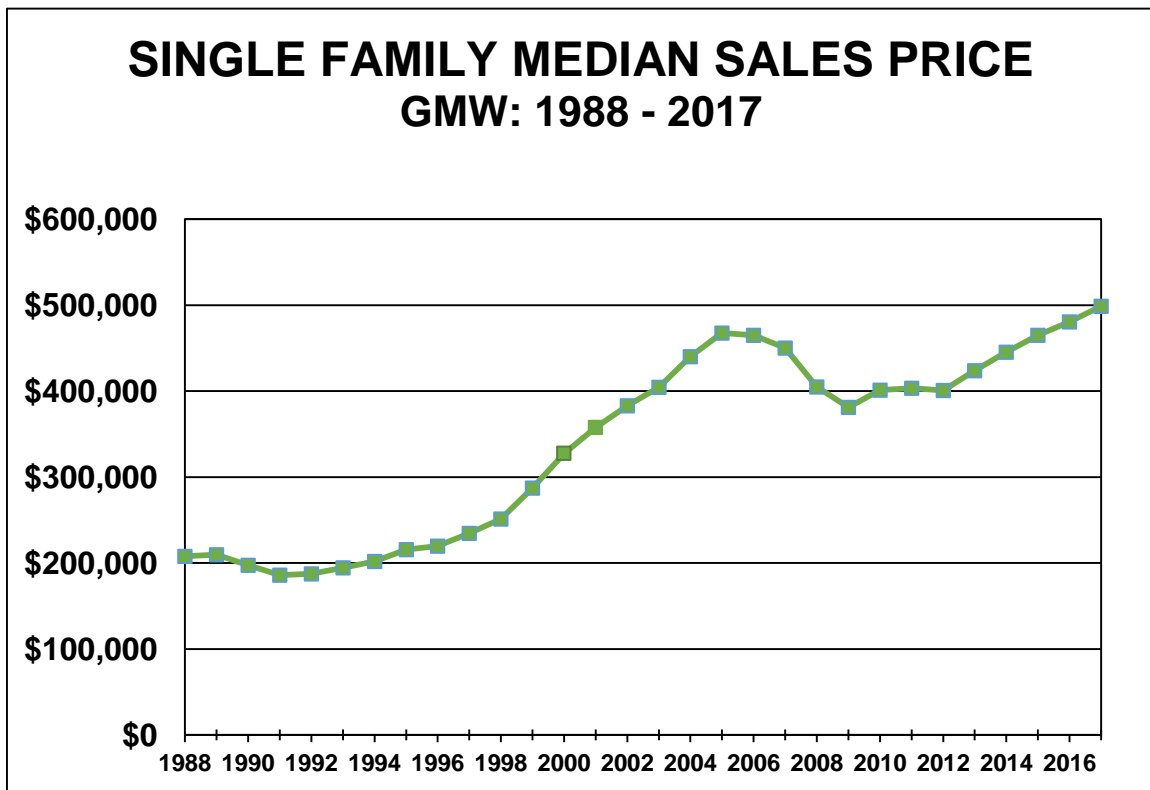
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The above graph shows the percent change in existing single family home sales from 2016 to 2017 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 2017, there were 34 more units sold in GMW than 2016, a 1.1% increase. From 2016 to 2017, GMR recorded an increase in units sold of 47 units, while MW and MA reported decreases in units sold: a 13 unit decrease and a 102 unit decrease, respectively.
- Framingham, Hudson, and Ashland reported the largest percent increases in units sold between 2016 and 2017. In Framingham, an additional 78 units were sold, a 12.9% increase. Hudson reported 20 additional units sold, equivalent to 11.6%, while Ashland reported an additional 18 units sold, or 11.5%.
- Holliston, Natick, Sherborn, Sudbury, Wayland, and Westborough each experienced a decrease in units sold from 2016 to 2017.
- In Hopkinton, there was no change in units sold from 2016 to 2017; in both years 228 single family units were sold.

## GREATER METROWEST – HOUSING

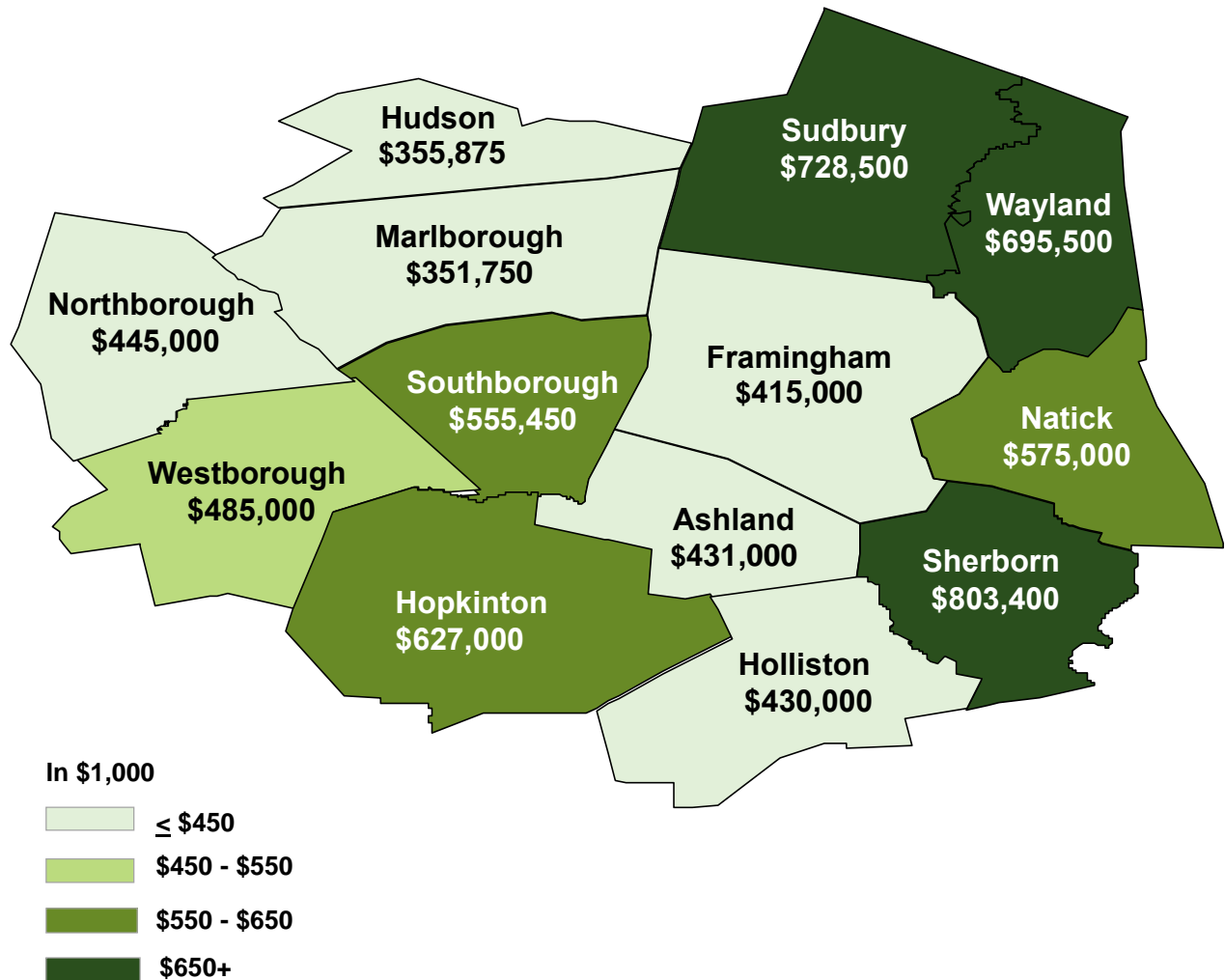


Source: The Warren Group and MERC

- The graph above shows the estimated median sale price of existing single family homes in Greater MetroWest (GMW) during the 30-year period from 1988 to 2017. Please note that these sales represent a different mix of homes sold each year and, therefore, do not reflect the changes in the values of individual homes.
- The data series reached a new peak in 2017 with an estimated median sale price of \$498,838, representing a 140% increase from the 1988 median sales price of \$207,722.
- The pre-recession peak in 2005 was finally surpassed in 2015, and the estimated median sale price in 2017 is about 6.5% higher.
- Beginning in 2012, the estimated median sale price increased every year by at least \$10,000. The biggest increase from 2012 to 2017 occurred between 2012 and 2013, when prices were \$400,992 and \$423,908, respectively. This increase of nearly \$23,000 represents a 5.7% gain.
- The most recent low point for estimated median sales price in this region occurred in 2009 at \$381,180. There was a 30.9% increase from 2009 to 2017, during which the estimated median sale price increased by more than \$100,000.

## **2017 EXISTING SINGLE FAMILY HOME PRICES**

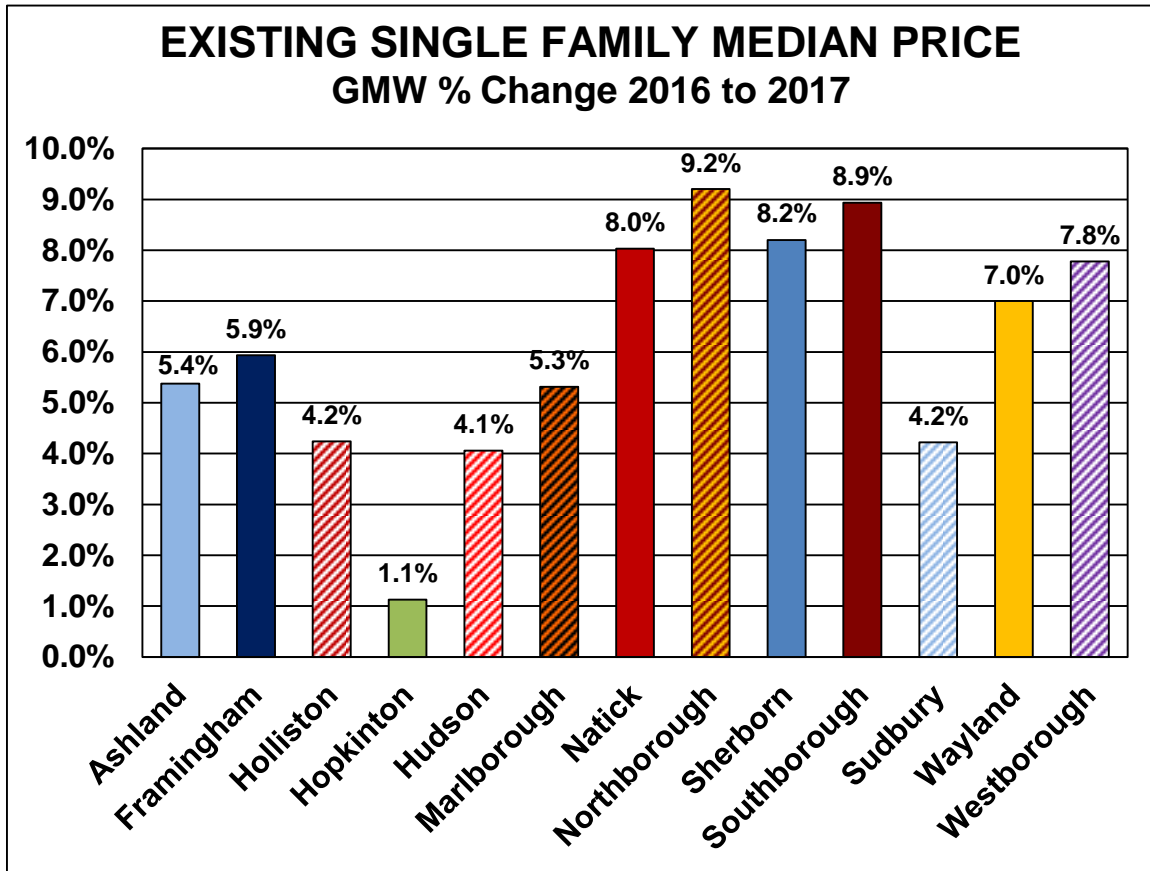
### **GMW Communities**



*Source: The Warren Group and MERC*

- The map above shows the 2017 median sale prices for existing single family homes in the 13 communities of Greater MetroWest (GMW). Median sale prices ranged from a low of \$351,750 in Marlborough to a high of \$803,400 in Sherborn.
- Six of the thirteen communities had median sale prices under \$450,000. Only Hudson and Marlborough posted median sale prices below \$400,000, and Ashland, Framingham, Holliston, and Northborough registered under \$450,000.
- Seven communities had median sale prices above \$450,000. Westborough came in at \$485,000. Southborough had a median sale price of \$555,450 and Natick had a median sale price of \$575,000. Hopkinton, Sherborn, Sudbury and Wayland posted the highest median sale price at \$627,000, \$803,400, \$728,500, and \$695,500, respectively.

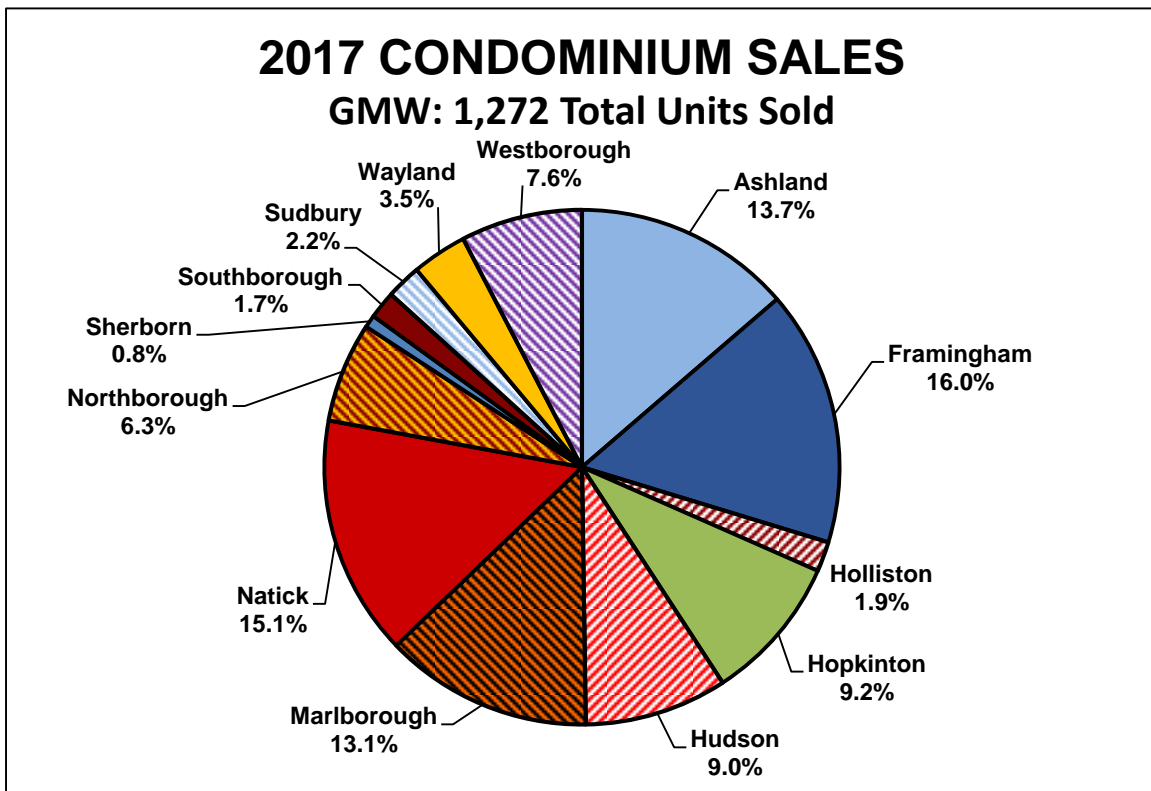
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- All of the thirteen communities experienced median price increases. Northborough recorded the largest percentage median price increase of 9.2% from \$407,500 in 2016 to \$445,000 in 2017. Southborough had the second largest percentage increase of 8.9% from \$509,900 in 2016 to \$555,450 in 2017.
- Hopkinton recorded the lowest percentage median price increase of 1.1% from \$620,000 in 2016 to \$627,000 in 2017. Hudson recorded the next lowest percentage median price increase of 4.1% from \$342,000 in 2016 to \$355,875 in 2017.
- Seven out of the nine towns in MW experienced median sale price increases over 5.0% and three out of the four communities in GMR registered a median price increase of over 5.0% in 2017.

## GREATER METROWEST – HOUSING



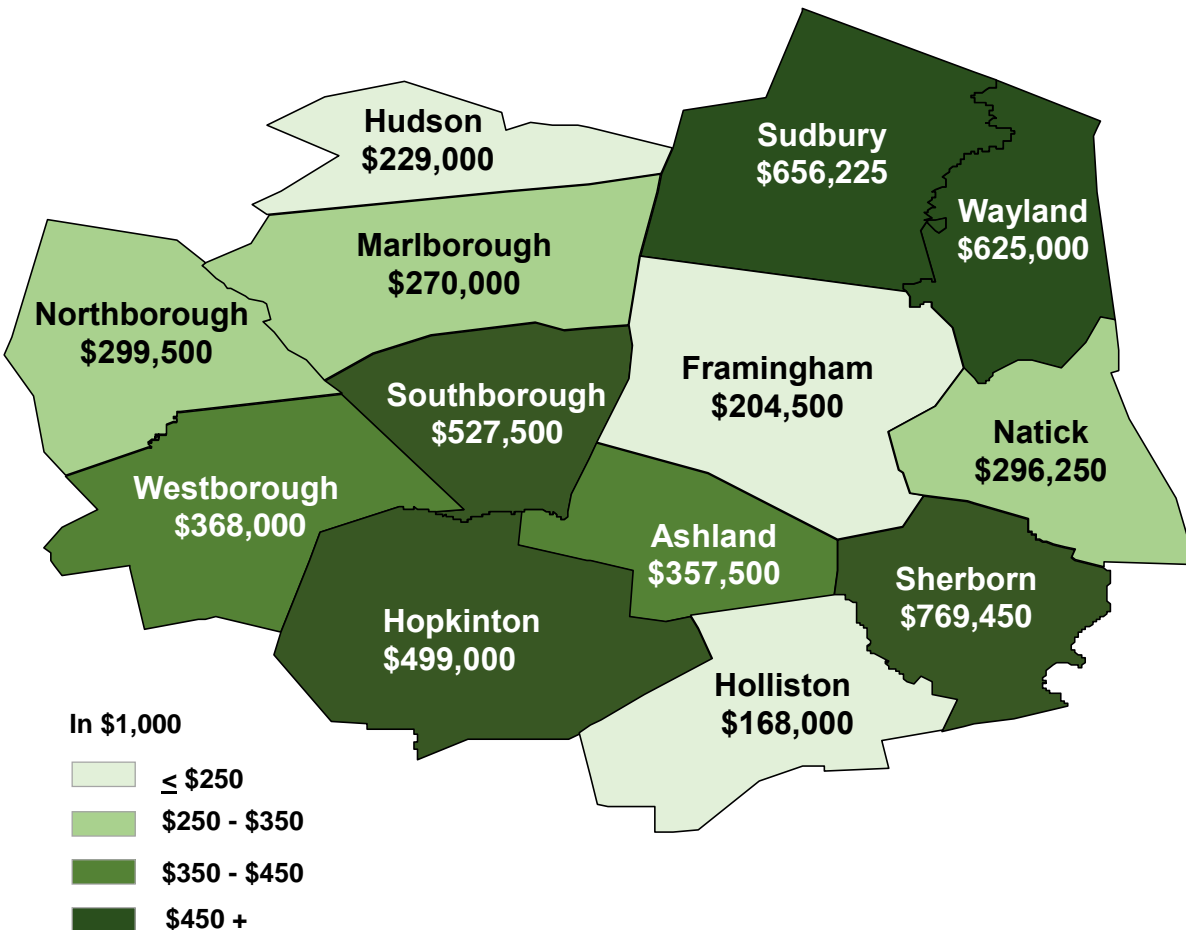
Source: The Warren Group and MERC

- In 2017, 1,272 condominiums were sold in the thirteen communities of Greater MetroWest (GMW).
- Condo sales in four of the communities, Ashland, Framingham, Marlborough and Natick dominated the region making up more than half, or 57.9%, of the total units sold in GMW. Framingham contributed 16.0% to the region's sales. Ashland, Marlborough and Natick contributed 13.7%, 13.1% and 15.1%, respectively.
- Holliston, Sherborn, Southborough, Sudbury and Wayland each contributed less than 5%. Sherborn contributed the smallest number of sales with only ten condominiums sold, which was about 0.8% of total condominium sales.
- Hopkinton, Hudson, Northborough, and Westborough each contributed between 5% and 10% to the regional condominium sales. Hopkinton contributed 9.2%, and Hudson, Northborough, and Westborough contributed 9.0%, 6.3%, and 7.6%, respectively.



## GREATER METROWEST – HOUSING

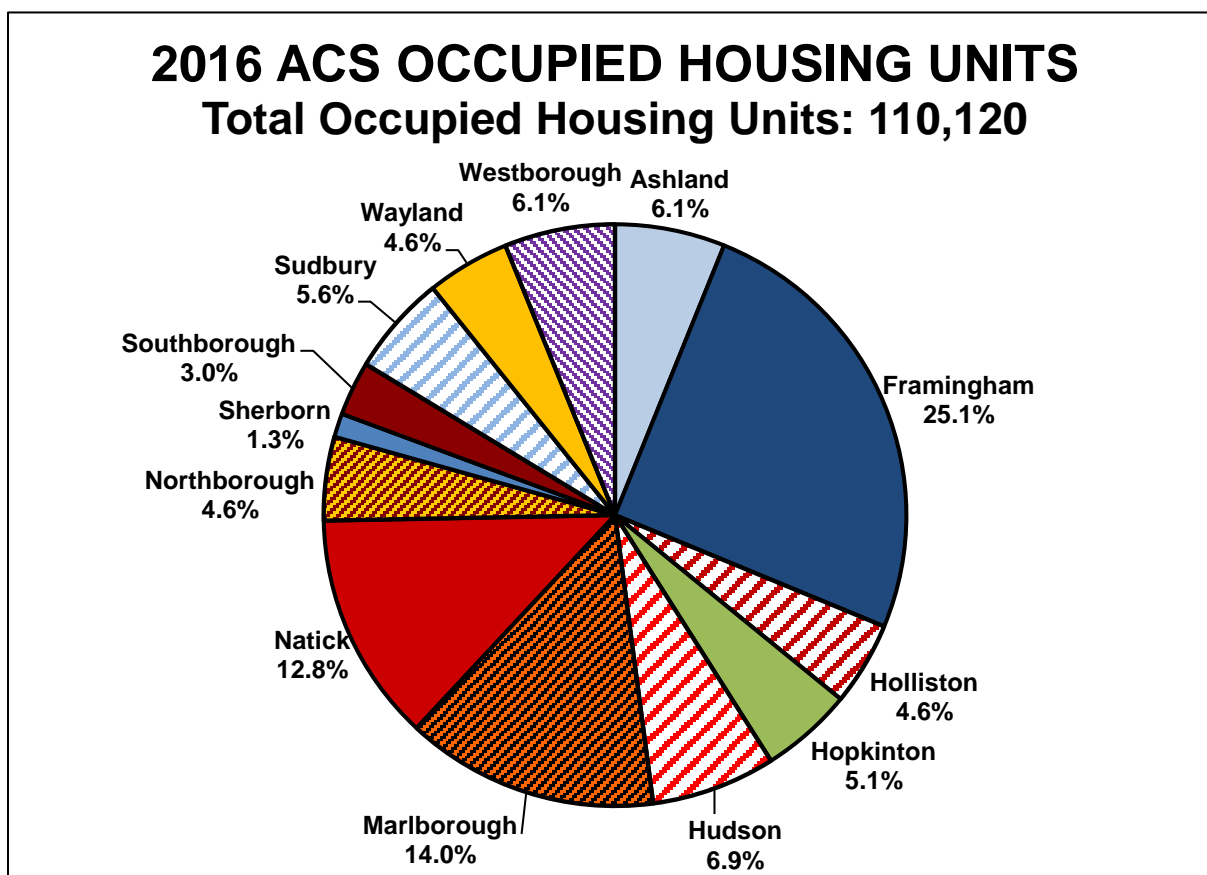
### 2017 CONDOMINIUM PRICES GMW Communities



Source: The Warren Group and MERC

- In 2017, the estimated median price for condominium sales in Greater MetroWest (GMW) was about \$329,382, a 1.0% decrease from the 2016 value.
- Three communities, Framingham, Holliston, and Hudson, had median condominium prices under \$250,000. Holliston had the lowest median price in the region at \$168,000. Marlborough, Natick, and Northborough had median sales prices ranging between \$250,000 and \$350,000. Westborough came in at \$368,000.
- Five communities had median condominium prices over \$450,000. Hopkinton, Southborough, Sudbury, and Wayland had median condo prices at \$499,000, \$527,500, \$656,225, and \$625,000, respectively. In 2017, Sherborn had the highest median condominium price within the region at \$769,450.

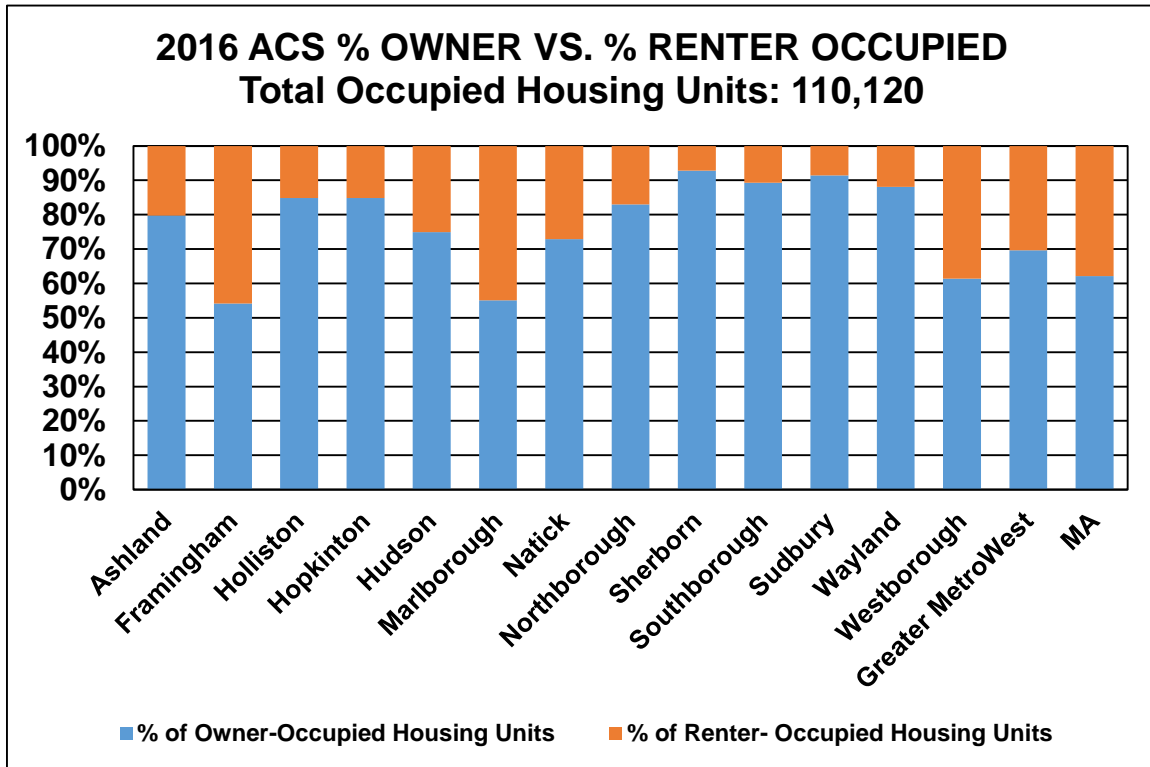
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- According to the 2016 American Community Survey (ACS), there were an estimated 110,120 occupied housing units in the thirteen communities of Greater MetroWest (GMW).
- Occupied housing units in three of the communities, Framingham, Marlborough and Natick dominated the region making up more than half, or 51.9%, of the total units occupied in GMW. Framingham contributed 25.1% to the region's occupied units. Marlborough and Natick contributed 14.0% and 12.8%, respectively.
- Holliston, Northborough, Sherborn, Southborough, and Wayland each contributed less than 5%. Sherborn contributed the smallest number of units with only 1,449 occupied units, which was about 1.3% of total occupied housing units of GMW.
- Ashland, Hopkinton, Hudson, Sudbury, and Westborough each contributed between 5% and 10% to the occupied housing units. Ashland contributed 6.1%, Hopkinton had 5.1%; Hudson, Sudbury, and Westborough each contributed 6.9%, 5.6%, and 6.1%, respectively.

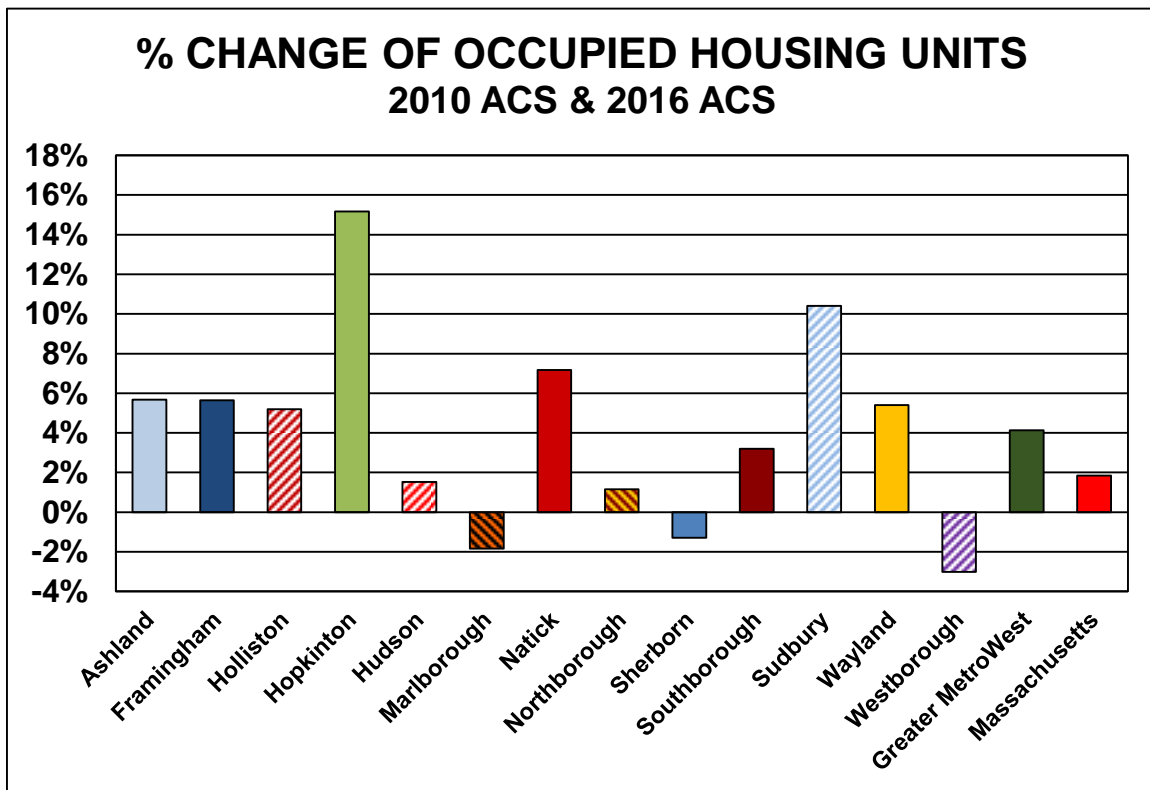
## GREATER METROWEST – HOUSING



Source: U.S. Census Bureau and MERC

- Reported from the 2016 American Community Survey (ACS), Greater MetroWest had an estimated 110,120 total occupied housing units for the region which are owner-occupied or renter-occupied housing units.
- The city of Framingham reported the closest margin between owner-occupied housing units. In Framingham, 54.1% of total occupied units were occupied by owners, and 45.9 occupied by renters.
- Sherborn reported the largest difference between owner-occupied housing units and renter-occupied housing units. An impressive 92.8% of Sherborn's units are reported owner-occupied, while only 7.2% of Sherborn's units are renter-occupied.
- GMW, as a whole, reported 69.6% of occupied housing units to be owner-occupied, while 31.4% of units are renter-occupied. Similarly, the state of Massachusetts reported 62.1% of occupied housing units to be owner-occupied, while 37.9% are renter-occupied.

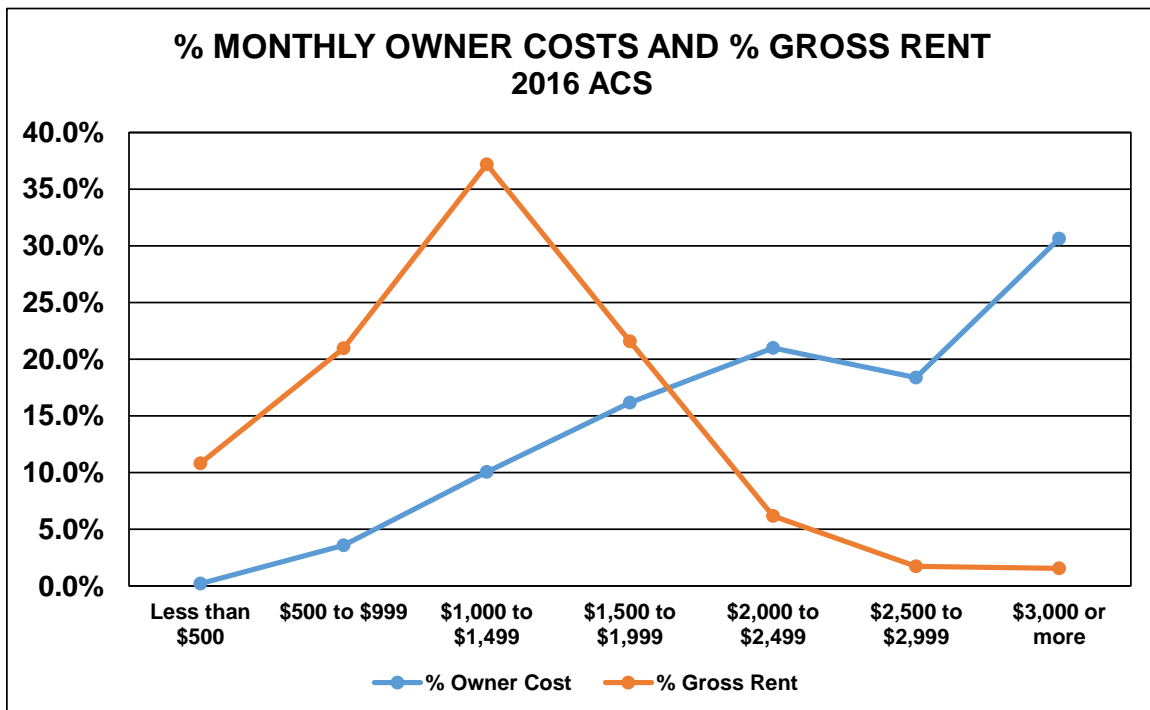
## GREATER METROWEST – HOUSING



Source: U.S. Census and MERC

- The graph above shows the estimated percent change of occupied housing units between the year of 2010 ACS and 2016 ACS. The data was recovered from the five-year estimates of the 2006-2010 ACS and 2012-2016 ACS.
- Hopkinton reported the highest percent change with a 15.1% increase in occupied housing units, which was 740 housing units. Sudbury recorded the next highest percent change with a 10.4% increase in occupied housing units, equivalent to 578 housing units.
- Ashland, Framingham, Holliston, Hudson, Natick, Northborough, Southborough, and Wayland reported positive percent changes under 10%, respectively: 5.7%, 5.6%, 5.2%, 1.5%, 7.2%, 1.2%, 3.2%, and 5.4%.
- Marlborough, Sherborn, and Westborough reported a decrease in occupied housing units between 2010 and 2016. Marlborough reported a 1.8% decrease, Sherborn reported a 1.3% decrease, and Westborough reported a 3.0% decrease.
- Greater MetroWest (GMW) reported a 4.1% increase in occupied housing units, which is equivalent to 4,367 units, while the state of Massachusetts reported a 1.8% increase in occupied housing units.

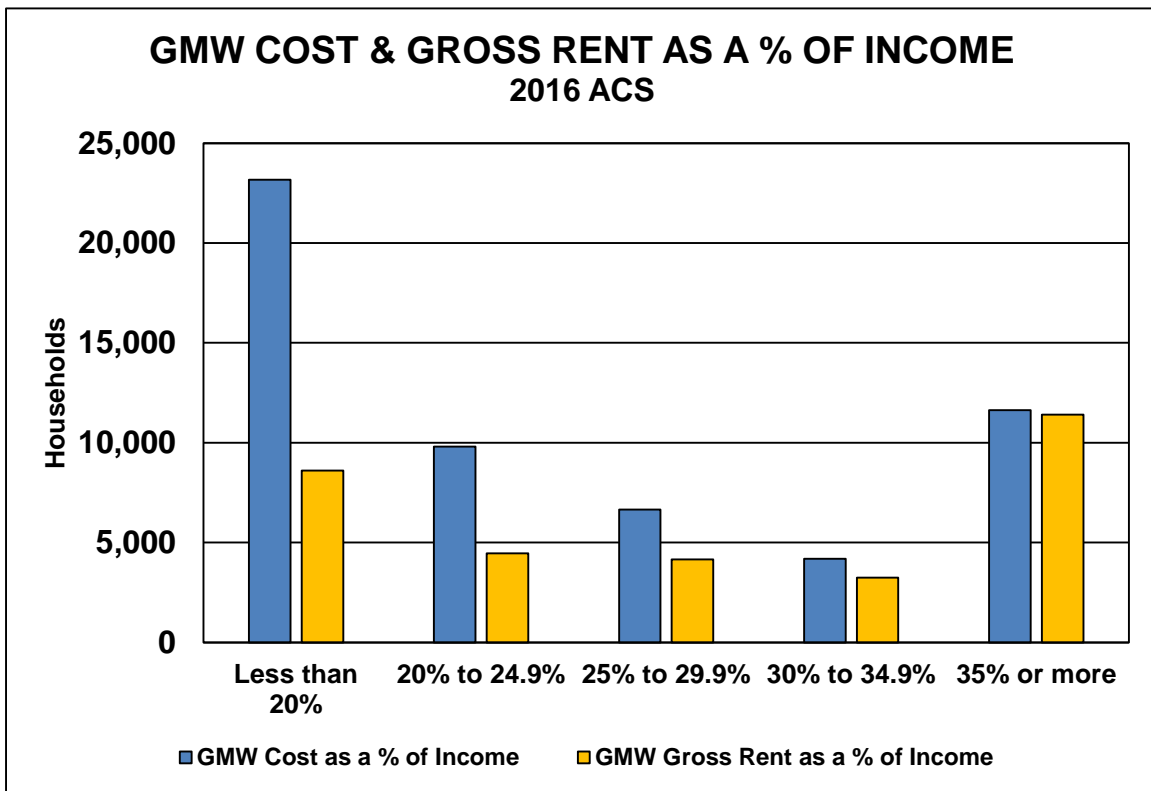
## GREATER METROWEST – HOUSING



Source: U.S. Census and MERC

- Selected monthly owner costs are calculated from the sum of payment for mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees. It is important to note that the monthly owner costs presented above only includes housing units with a mortgage or rent (excludes occupied housing units that have no mortgage and are not rented). Gross rent is defined as the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.).
- Approximately 30.6% of the Greater MetroWest (GMW) region's occupied housing units have monthly owner costs of \$3,000 or more, which was the highest percentage recorded for this data.
- About 37.2% of GMW's occupied housing units have a gross rent between \$1,000 and \$1,499, which was the highest percentage recorded for this data.
- Around 0.2% of GMW's occupied housing units have monthly owner costs of less than \$500, approximately 1.5% of GMW's occupied housing units have a gross rent of \$3,000 or more. Both of these percentages were the lowest percentage recorded for this data.

## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The graph divides the number of households in Greater MetroWest (GMW) which have household monthly costs and gross rent divided into five categories. Each category represents owner costs or gross rent as a percent of monthly income. There are 55,438 owner occupied households represented by costs and 31,879 renter occupied households represented by gross rent.
- There are 23,172 owner households that pay a cost less than 20% of their monthly income, which was the largest percent of owner occupied households. For renter occupied households, there are 11,405 households that pay a gross rent of 35% or more of their income, which was the largest percentage of renter occupied households.
- About 4,190 owner households pay a cost between 30% and 34.9% of their income, which held the smallest percent of owner occupied households. About 3,249 individuals pay a gross rent between 30% and 34.9% of their income, which was also the smallest percent of renter occupied households.
- In the 35% or more margin, the number of households paying a cost as a percent of their income versus gross rent as a percent of income were very similar, but this makes up 21.0% of owner occupied households and 35.8% of renter occupied households.

## **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.

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. Please note that the MERC indexes have been revised since last year’s conference.

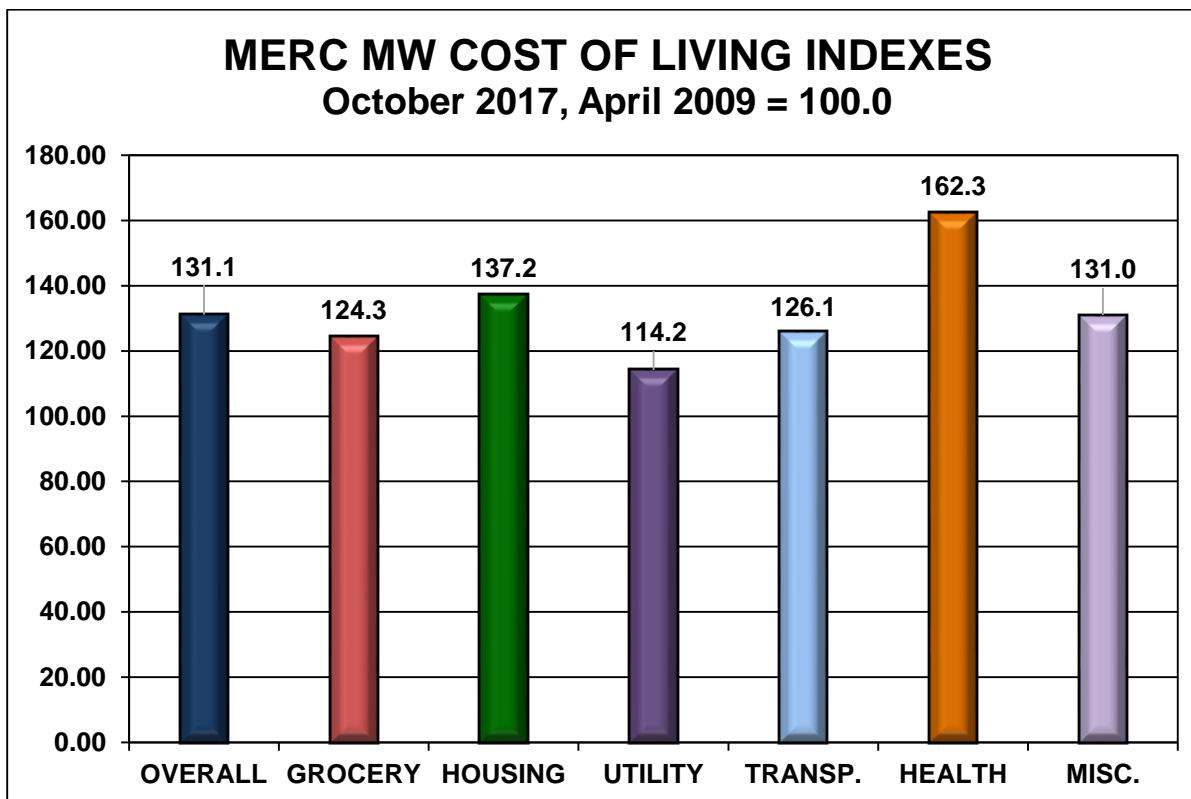
In addition to using this data to track the cost of living in MetroWest over time, MERC also sends its survey results to C2ER to be included in that group’s survey of living costs across the nation. The data from MetroWest are combined with the same data from approximately 300 other U.S. communities 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

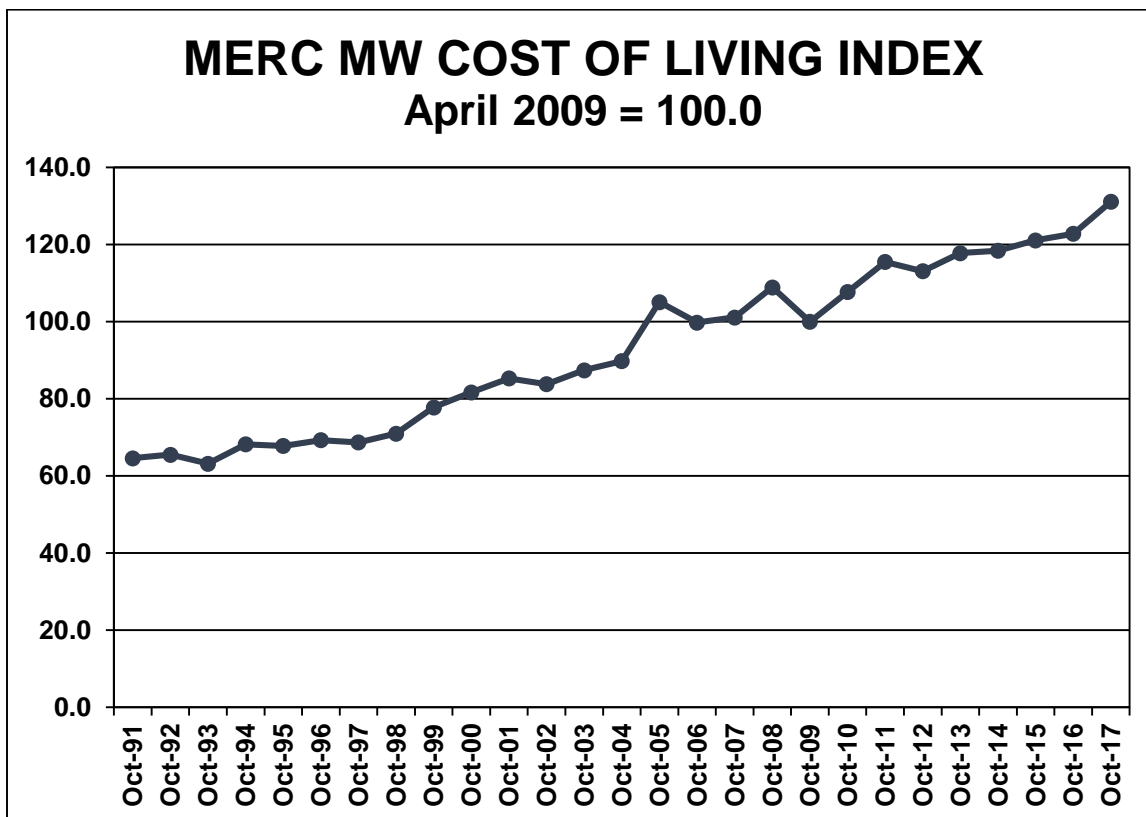


Source: MERC

- The MERC Overall Cost of Living Index for the MetroWest Region was 131.1 in October 2017. This indicated that the Cost of Living in MetroWest was about 31% higher in October 2017 than it was in April 2009. Also, the Overall COL Index was up about 6.8% from the year before.
- The Health Care Index had a significantly higher value than the other Indexes of 162.3 in October 2017. This implies that in October 2017 health care costs were about 62% higher than they were in April 2009. The Index was, on the other hand, up about 1.35% from its value only a year earlier in October 2016.
- The Index with the lowest value was the Utilities Index, with a value of 114.2 almost 15% higher than in April 2009 and 4.5% higher than October 2016.
- Not one of the Indexes in the MetroWest region fell below the April 2009 base year, 100.0.



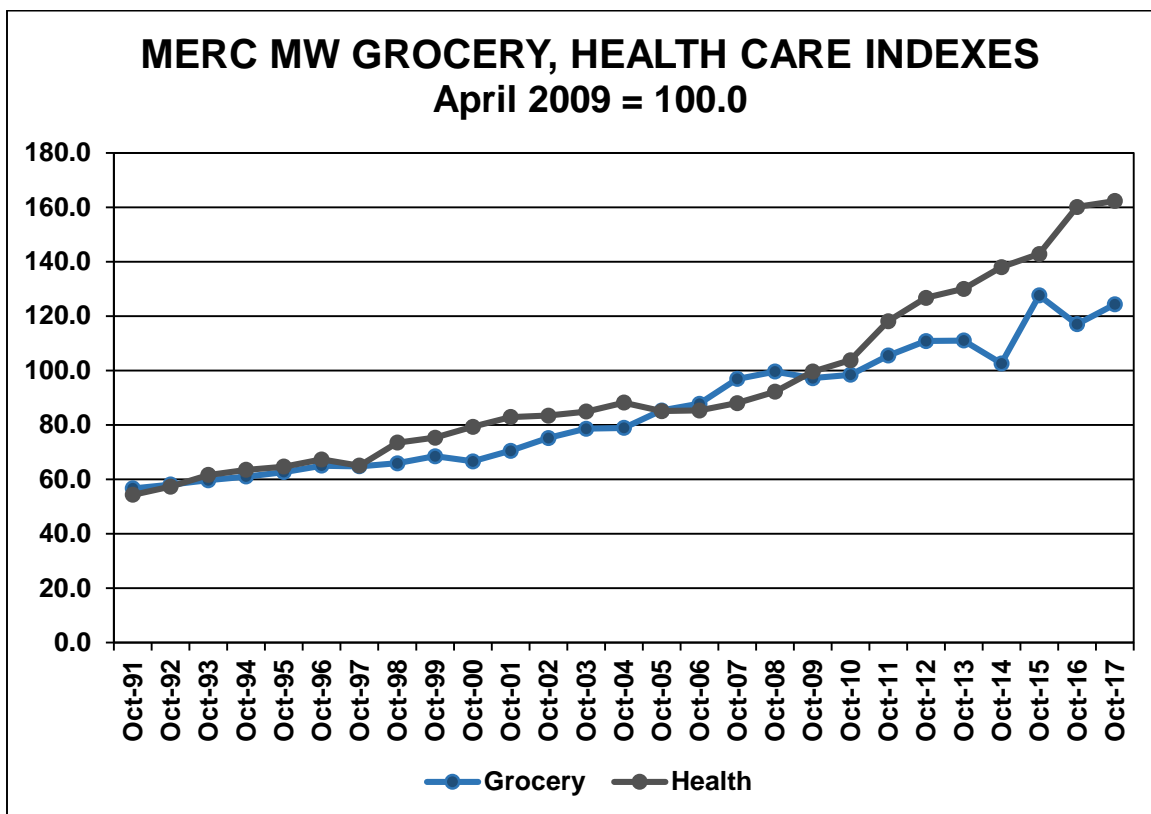
## GREATER METROWEST – COST OF LIVING



Source: MERC

- This graph shows the values of the MERC Overall Cost of Living Index from October 1991 to October 2017. April 2009 is the base period for the Index. Its value in April 2009 was 100.0.
- From October 2016 to October 2017, the MERC MetroWest Cost of Living Index rose by 6.8% to a value of 131.1. This is the highest Overall Index value the region has experienced since the first survey in October 1991.
- The Overall Index had an average annual increase of about 2.8% from October 1991 to October 2017.
- The largest 12-month increase was a 17% rise in the Index between October 2004 and October 2005. The largest 12-month fall in the Index was immediately following this increase between October 2005 and October 2006, a 5% decrease.
- Since 1991, the MERC Cost of Living Index has increased from a value of 64.6 to 131.1. This is a 103% increase over the 26-year span.

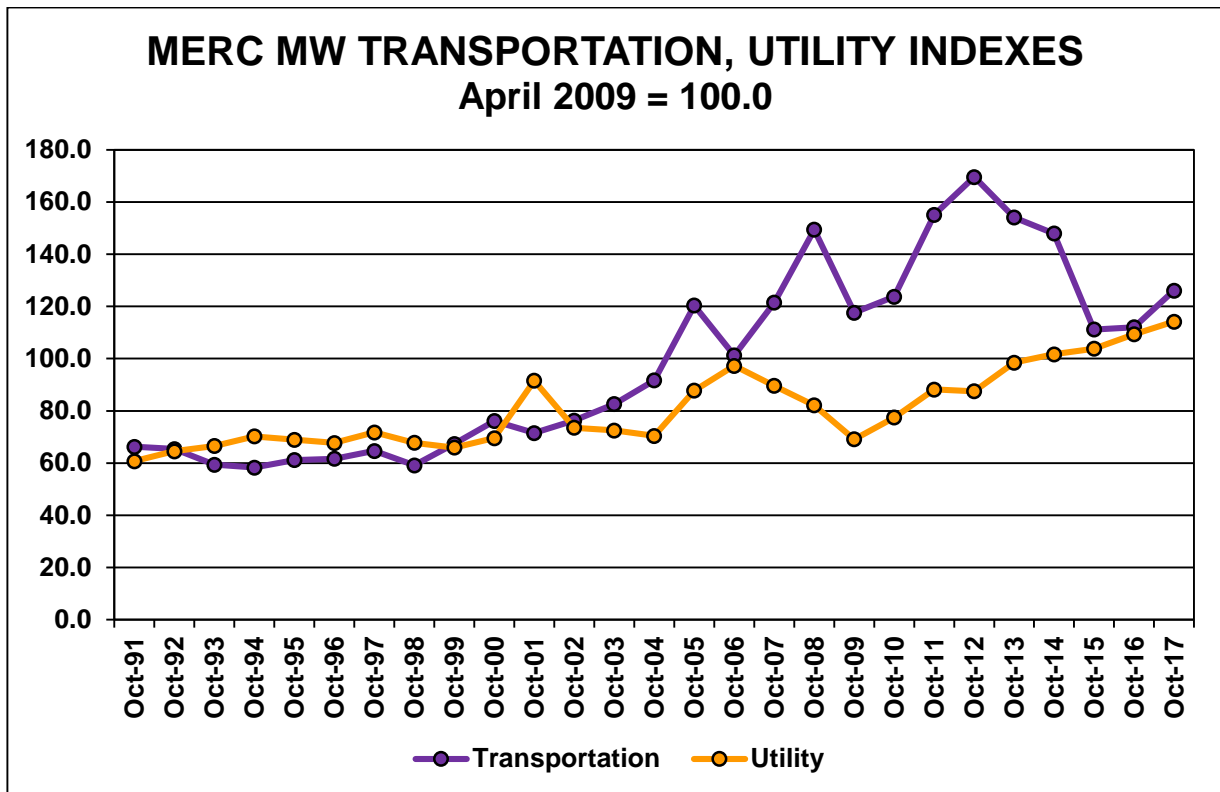
## GREATER METROWEST – COST OF LIVING



Source: MERC

- Over the 26 years between October 1991 and October 2017, the Health Care Index rose at a steady rate and had less volatility than almost all of the other Indexes.
- The Health Care Index had the smallest overall increase among the six indexes from October 2016 to October 2017 during which it grew 1.35%.
- The Grocery Items Index increased by 6.24% between October 2016 and October 2017.
- In October 2017, the Health Care Index was the highest of the six sub-indexes with a value of 162.3. The fifth highest was the Grocery Items Index at 124.3. These values are referenced to the base period of April 2009, when the Index equaled 100.0
- From 1991 to 2017, the Grocery Items Index saw an average annual increase of approximately 3.1% while the Health Care Index saw an average annual increase of approximately 4.3%.

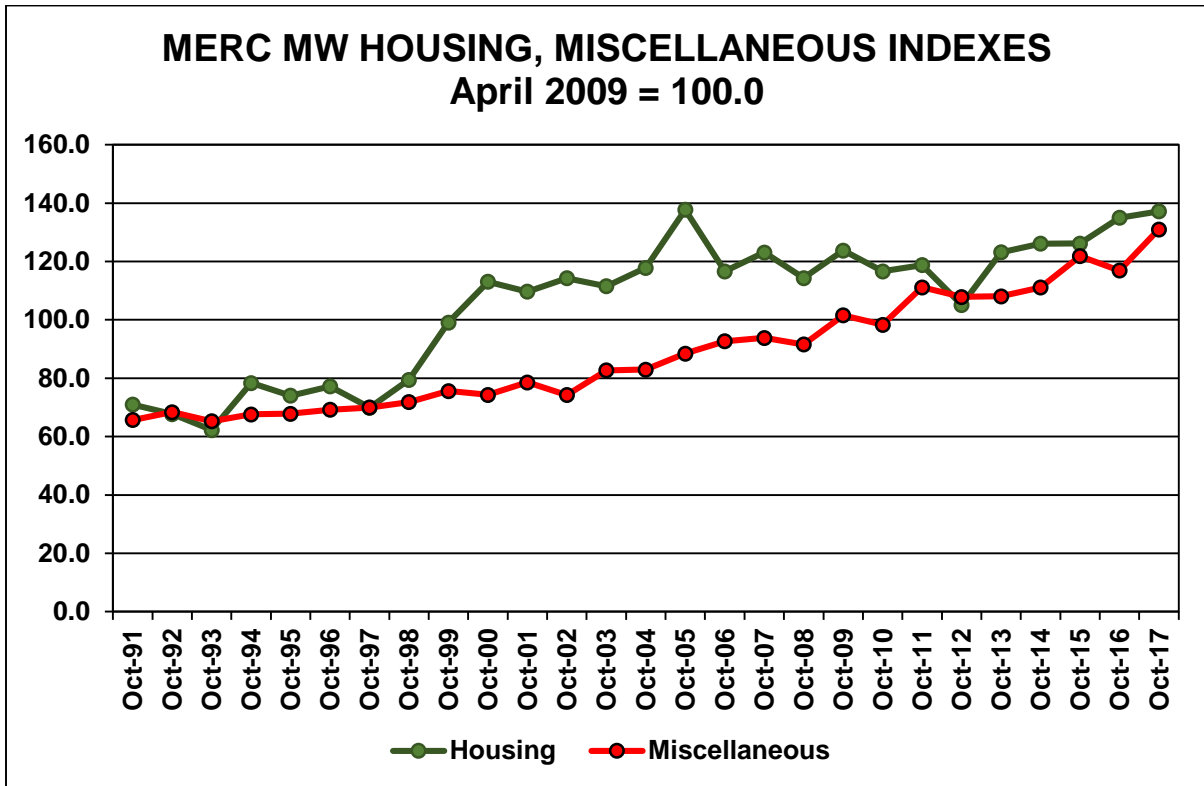
## GREATER METROWEST – COST OF LIVING



Source: MERC

- For the first 15 years until October 2006, the Transportation Index and the Utility Index fluctuated in similar patterns. After 2006, the Index fluctuations began to change; the Transportation Index experienced a trough in 2006 and a peak in 2008, while the Utility Index experienced a peak in 2006 and a trough in 2008. This pattern continued for eight more years.
- The Transportation Index was the most volatile of all Indexes. However, it has the smallest average annual increase at 2.5%
- Between October 1991 and October 1999, the Transportation Index only rose about 1.8 points. Since then, the Index more than doubled, reaching an all-time high of 174.4 in April 2012 with April 2009 being the base period with a value of 100.0.
- Since the all-time high of 174.4 in April 2012, the Transportation Index fell to a value of only 112.0 in October 2016, a decrease of approximately 36% in 4 years.

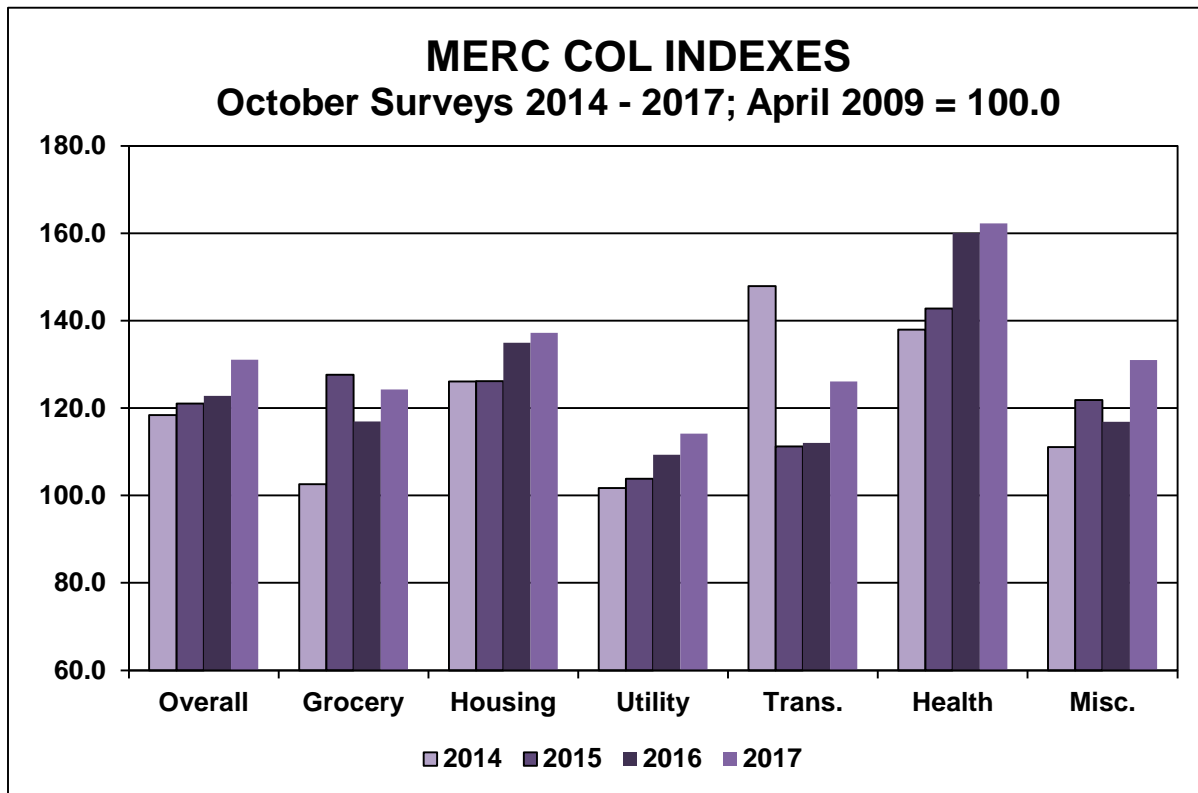
## GREATER METROWEST – COST OF LIVING



Source: MERC

- The Housing Index had a value of 137.2 in October 2017. This means that housing costs in MetroWest were approximately 37% higher in October of 2017 than the base period in April 2009.
- The Housing Index reached its peak in October 2005 with a value of 137.7. The Miscellaneous Goods and Services Index reached its peak in October 2017 with a value of 131.0.
- From October 1991 to October 2017, the average annual increase for the Housing Index was 2.6%, while the Miscellaneous Goods and Services Index saw a 2.7% average annual increase.
- From October 2016 to October 2017, the Miscellaneous Goods and Services Index recorded one of its largest increases at 12.1%, increasing from 124.6 to 131.0.

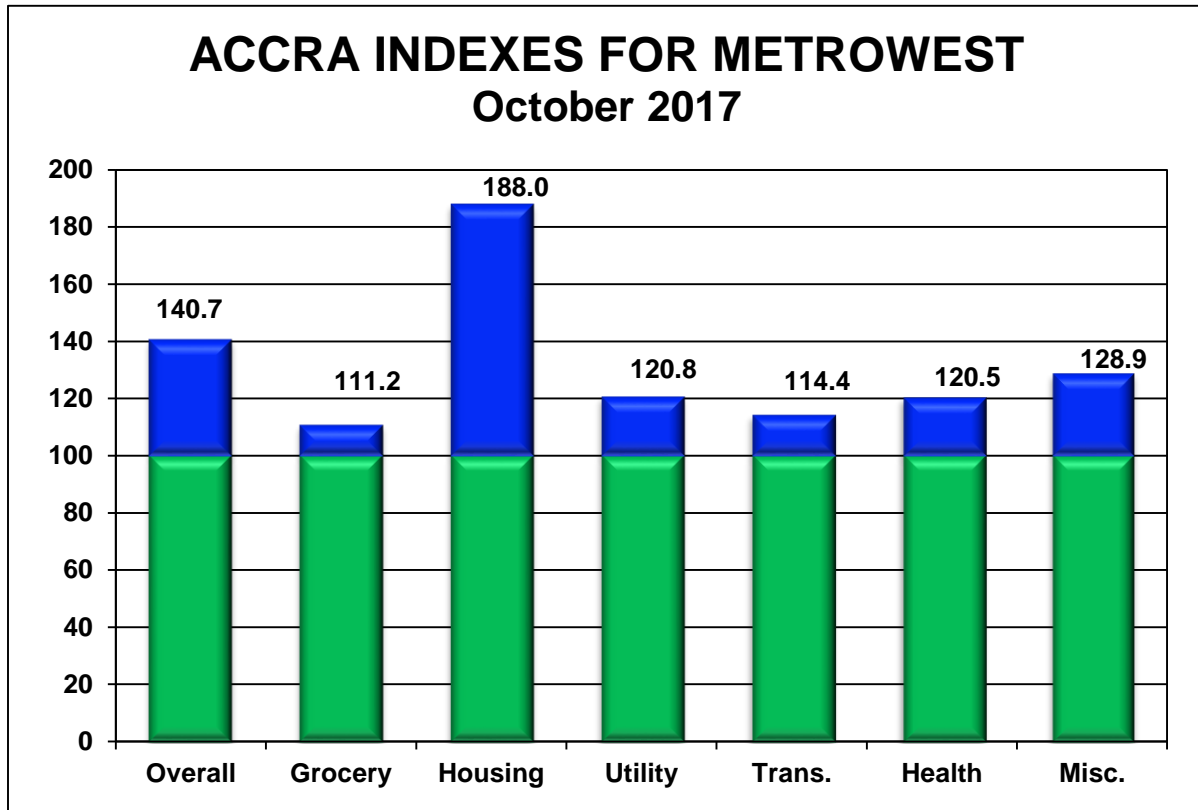
## GREATER METROWEST – COST OF LIVING



Source: MERC

- The graph shows all of the indexes from the October surveys of each year, from 2014 to 2017. The base period for all the indexes is April 2009, at which time each index had a value of 100.0.
- The general trend is that all the indexes grow larger each year. However, the Transportation Index is the exception.
- From the four most recent October surveys, gasoline prices were \$3.36, \$2.33, \$2.37, and \$2.72 per gallon, respectively. Gas prices are currently increasing. It is reasonable to expect the Transportation Index to continue to rise.
- The Healthcare Index has consistently risen over this four-year period. It recorded its all-time high in October 2017 with a value of 162.3. This is 62% higher than the base year in 2009.

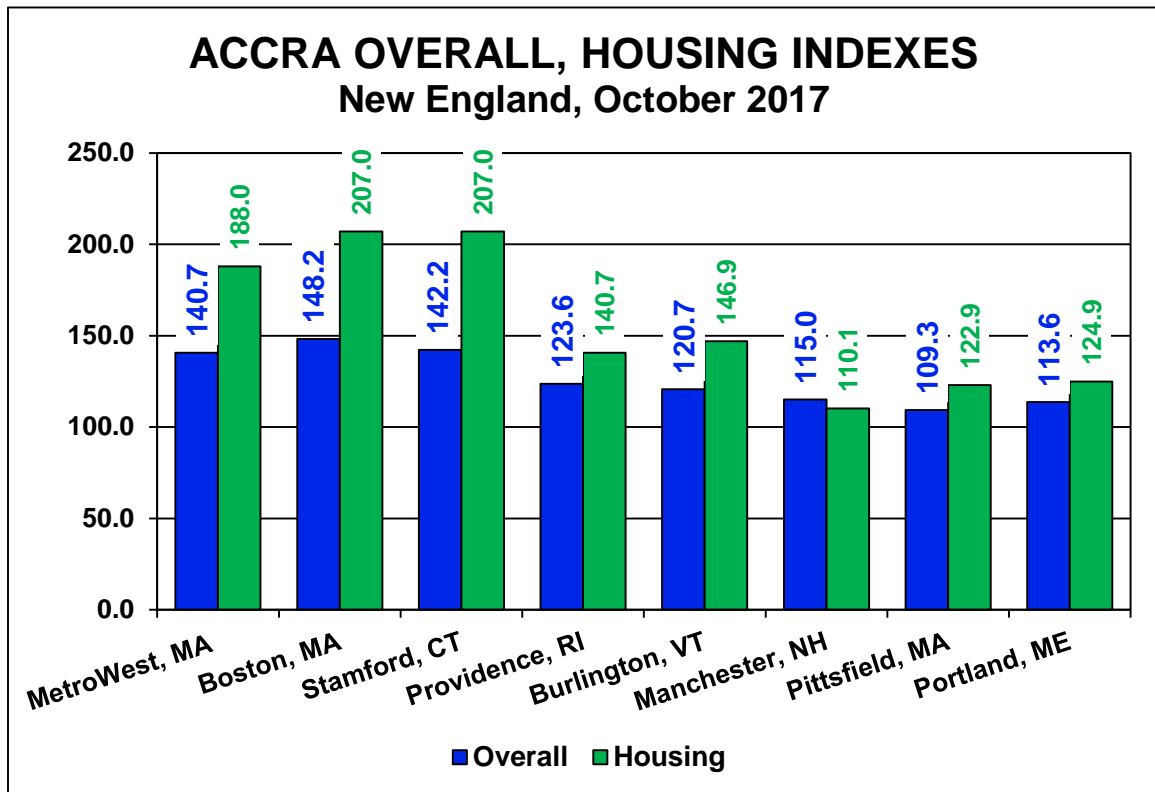
## GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- In the graph above, the green segment of each bar represents the national average cost of living, which is normalized to 100.0. In October 2017, the ACCRA Overall Cost of Living Index for MetroWest was 140.7, about 40% above the national average.
- All of the sub-indexes were higher than the national average; this has been consistent throughout almost every ACCRA report since MERC began participating in 1991.
- The Housing Index was the highest of six sub-indexes with a value of 188.5. This means that the price of housing in MetroWest was just shy of double the national average this past October.
- The Grocery Items Index had the lowest value of all six sub-indexes with a value of 111.2, still 11% higher than the national average. It was followed closely by the Utility Index at a value of 114.4.
- Housing was the only sub-index greater than the Overall Index.

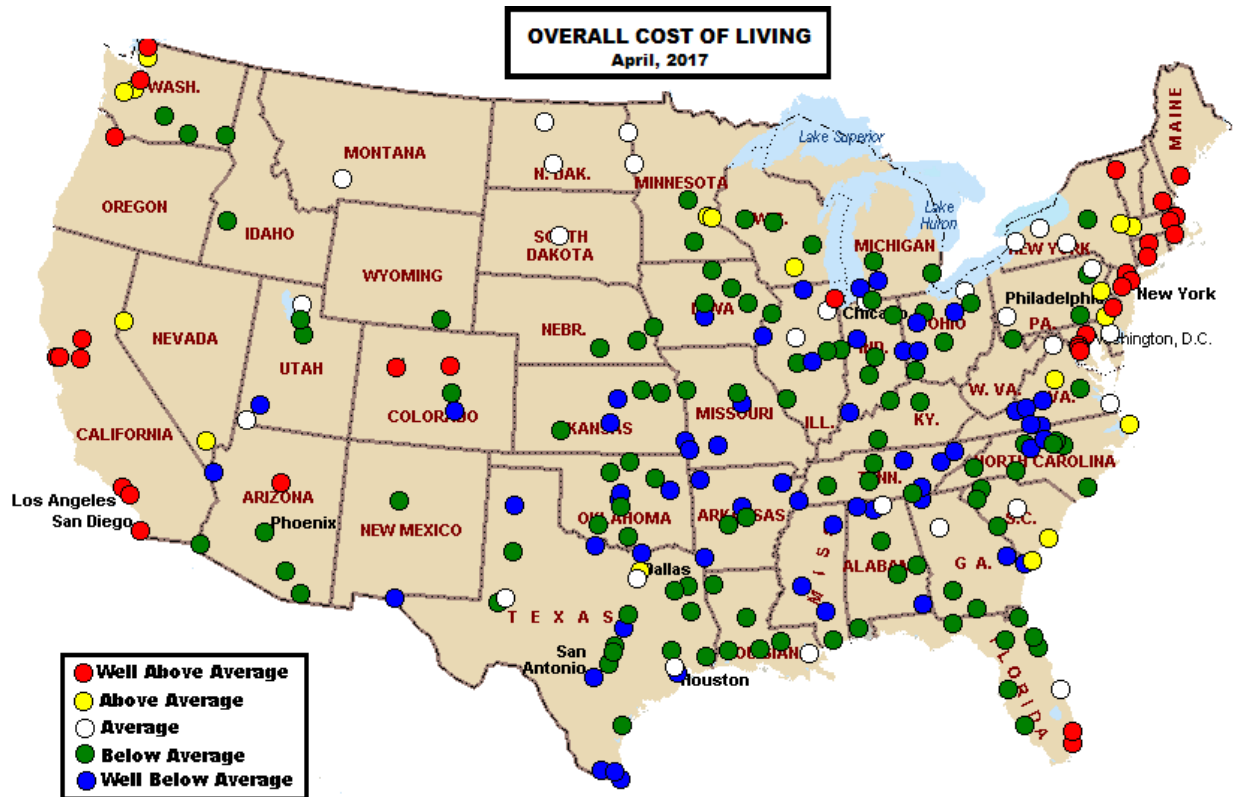
## GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- The graph above shows the Overall Cost of Living Indexes (in blue) and the Housing Indexes (in green) for MetroWest, Boston, and six other New England communities that participated in the October 2017 C2ER survey. Every area had both Overall and Housing Indexes greater than the national average which equals 100.0 in the graph.
- Among the eight areas studied in the graph above, Boston, MA had the highest Overall Index and the highest Housing Index in October 2017. The Overall Index had a value of 148.2, signifying that living in Boston, MA was approximately 48% more expensive than the national average. Boston's Housing Index had a value of 207.0; housing costs in Boston were more than double the national average.
- The lowest Overall Index value for the selected New England communities belonged to Pittsfield, MA. However, even having the lowest value of the eight areas, it still recorded a value nearly 10% greater than the national average.
- In all of the New England communities surveyed, aside from Manchester, NH, the Housing Index was higher than the Overall Index; suggesting that the cost of housing is a significant contributor to the high cost of living in the region.

## GREATER METROWEST – COST OF LIVING



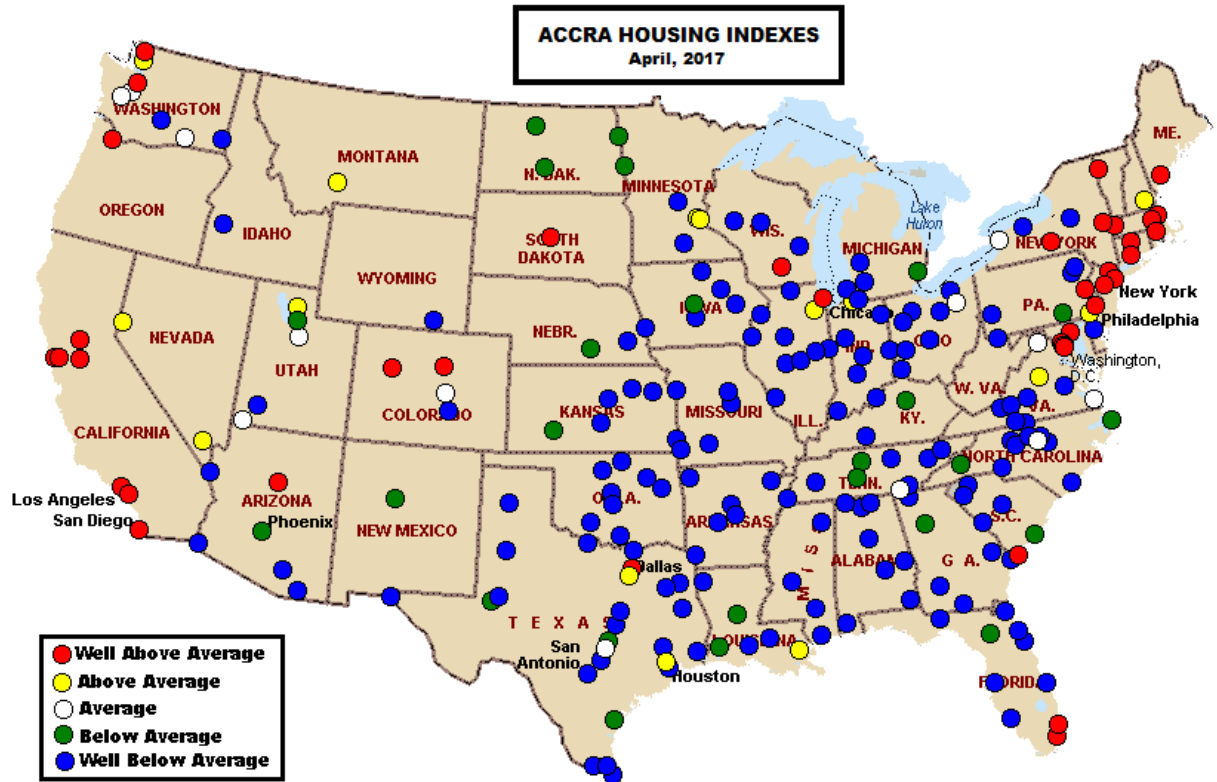
Source: C2ER and MERC

- In April of 2017, the participating communities with the highest living costs (red dots) were mostly located in the Northeast. Manhattan, NY (230.8) had the highest Overall Index, 2.3 times the national average. It was followed by San Francisco, CA (188.5) and Honolulu, HI (187.7). Boston ranked 7<sup>th</sup> at 148.6 and MetroWest ranked 15<sup>th</sup> at 140.1.
- McAllen, TX had the lowest Overall Index in April 2017 with a value of 76.1, implying that the overall cost of living in McAllen was around 24% below the national average. The next two lowest Overall Indexes were observed in Kalamazoo, MI and Harlingen, TX, both recording an Overall Index value of 78.5.
- Fifty-nine of the 261 communities (22.6%) had Overall Indexes below 90.0 (represented by blue dots), while 32 of 261 communities (12.3%) had Overall Indexes greater than 110.0 (represented by red dots).

Note: The Overall ACCRA Index was used for this classification. Average means that the index was between 97.0 and 103.0; Above Average is an index between 103.1 and 110.0; Well Above Average is an index higher than 110.0. 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 2017 survey exhibited a similar pattern to that seen in the Overall Indexes. The highest housing costs are mostly seen in the Northeast and on the West Coast, with some scattered in the Midwest.
- The highest Housing Index was 479.9 in Manhattan, NY, implying that housing costs in Manhattan are almost five times the national average. The next highest indexes were San Francisco, CA (351.8) and Brooklyn, NY (322.4). Boston ranked 13<sup>th</sup> at 204.4, and MetroWest ranked 15<sup>th</sup> at 190.6.
- The lowest Housing Index was found in Ashland, OH (57.8), over 40% lower than the national average. The next two lowest Housing Indexes were Kalamazoo, MI (59.0) and Decatur, AL (62.1).
- Thirty-eight of 261 communities (14.6%) had indexes greater than 110.0 (represented by the red dots); well above the national average. Majority of the communities in the survey had indexes well below the national average: 148 of 261 communities (56.7%) had Housing Indexes below 90.0 (represented by the blue dots).

Note: The ACCRA Housing Index was used for this classification. Average means that the index was between 97.0 and 103.0; Above Average is an index between 103.1 and 110.0; Well Above Average is an index higher than 110.0. 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 several 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.

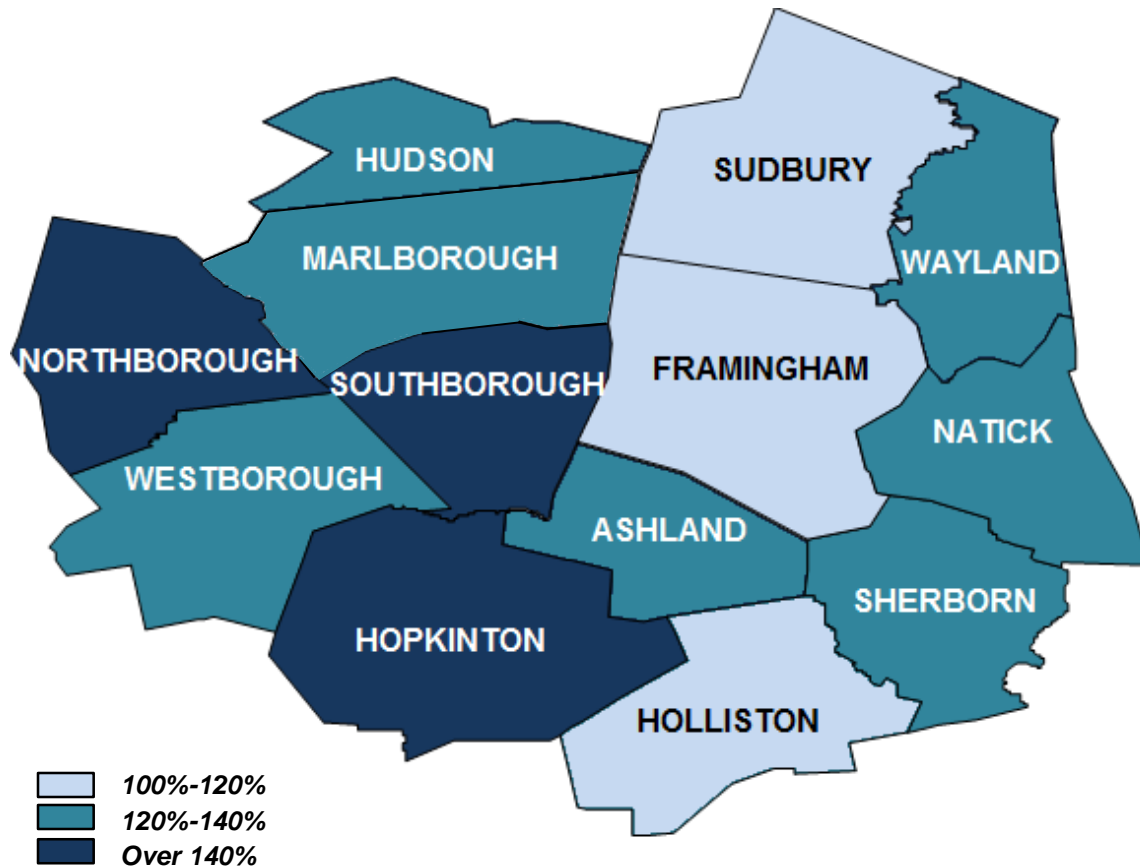
Unless otherwise stated, revenue presented in this report represents budgeted revenue reported to the Massachusetts Department of Revenue, Division of Local Services by the respective municipalities. It consists of the total tax levy, state aid, local receipts and an “all other” category. The tax levy 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 2½ 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.

With the residential exemption, the tax burden shifts within the residential class from owner-occupied, and relatively lower valued properties, to relatively higher valued ones and to those not eligible for the exemption, such as vacant land, rental properties and seasonal homes. The small commercial exemption is a similar shift within the class in that it excludes a percentage of the assessed value of each eligible parcel. It covers commercial real property valued at less than \$1 million that is occupied by certified small business (10 or fewer employees).

## GREATER METROWEST – MUNICIPAL REVENUE

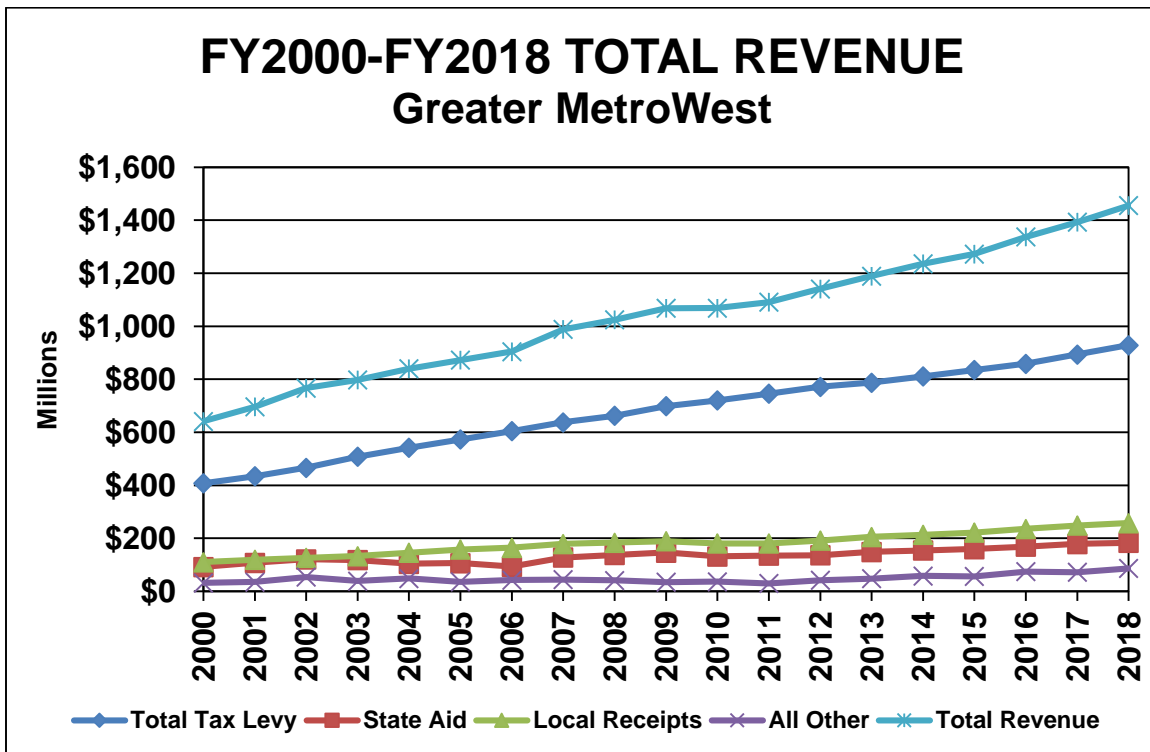
### GMW GROWTH IN MUNICIPAL REVENUE FY2000 - FY2018



Source: MA Department of Revenue, DLS, and MERC

- The municipal revenue percentage growth from FY2000 to FY2018 in Greater MetroWest (GMW) is divided into three intervals: 100% to 120%, 120% to 140%, and greater than 140%.
- From FY2000 to FY2018, total GMW municipal revenue increased from \$641.3 million to approximately \$1.5 billion, a gain of \$814.3 million, or 127.0%.
- The three communities of Framingham, Holliston, and Sudbury experienced growth in municipal revenue in the 100% to 120% range. Ashland, Hudson, Marlborough, Natick, Sherborn, Wayland, and Westborough experienced municipal revenue growth between 120% and 140%. The remaining three communities all grew more than 140%.
- Hopkinton (176.5%), Northborough (142.3%) and Southborough (144.4%) experienced the largest municipal revenue percentage growth over the eighteen-year period.

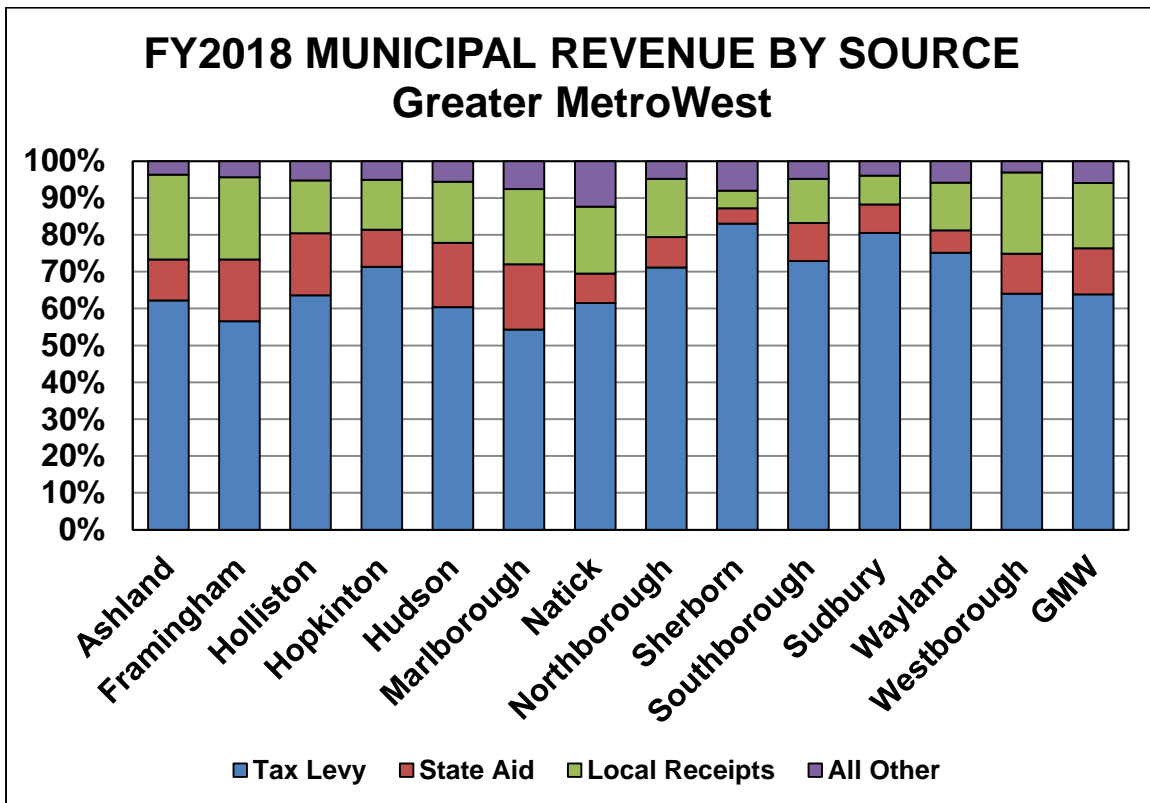
## GREATER METROWEST – MUNICIPAL REVENUE



Source: Department of Revenue, DLS, MERC

- Total municipal revenue for Greater MetroWest (GMW) rose from \$641.3 million in FY2000 to \$1,455.6 million in FY2018, an increase of 127.0%.
- The tax levy for the region grew every year for an overall increase of 127.8%; the tax levy increased from \$407.8 million in FY2000 to \$929.0 million in FY2018. The tax levy rose by 4.0% from FY2017 to FY2018.
- Local receipts reached the highest value in FY2018 at \$257.4 million, an increase of 3.6% from FY2017 and an increase of 134.0% since FY2000.
- State aid for GMW was one of the lowest contributors to Total Revenue, rising from \$91.8 million in FY2000 to \$183.0 million in FY2018, an increase of 99.3%. State aid increased 2.3% from FY2017 to FY2018.
- The “all other” category was the lowest contributor in the period. In FY2000 “all other” stood at \$31.7 million; by 2016 it had grown 135% to \$74.5 million. In FY2017 it fell to \$71.8 million before increasing in FY2018 to \$86.2 million. So, this category increased 172% from FY2000 to FY2018 and increased 20.0% from FY2017 to FY2018.

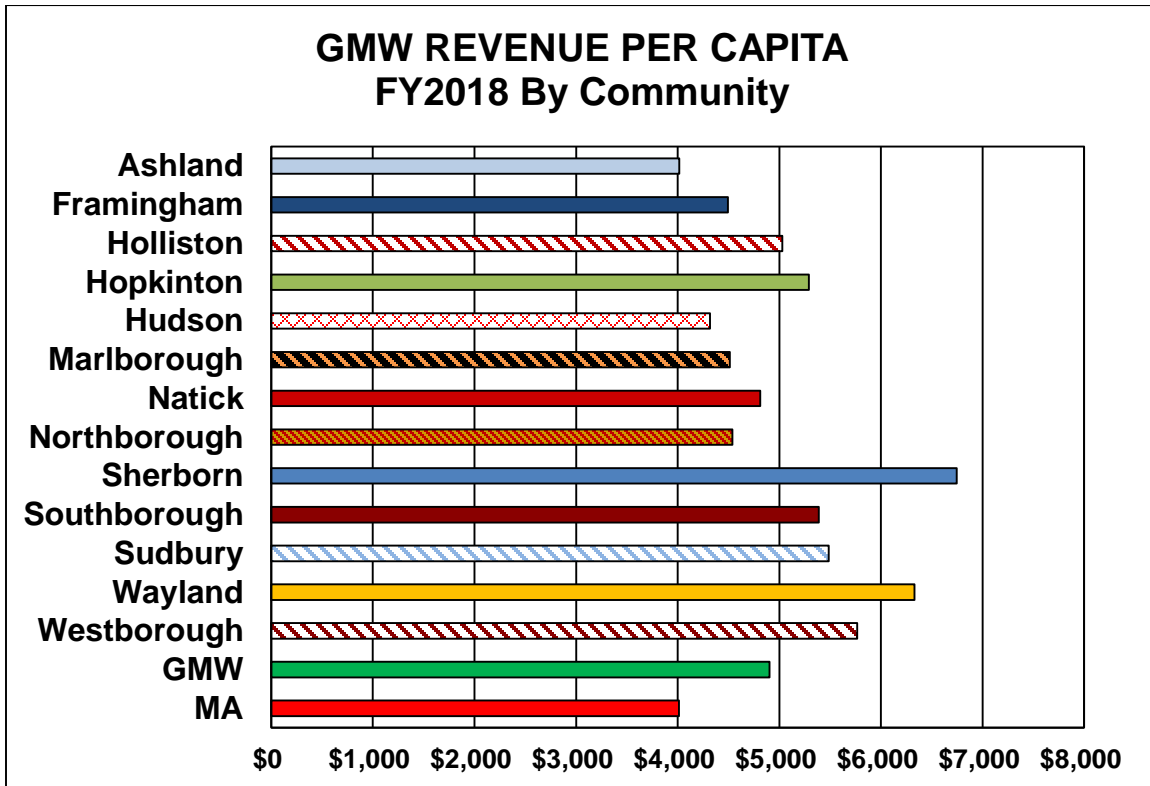
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2018 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 revenue contributed by the tax levy ranged from a low of 54.3% in Marlborough to a high of 83.1% in Sherborn. GMW recorded a regional average of 63.8%.
- State aid as a percentage of total revenue varied from a low of 4.0% in Sherborn to its highest percentage in Marlborough at 17.7%, with a GMW regional average of 12.6%.
- Local receipts ranged from 5.1% in Sherborn to a high of 23.0% in Ashland, a difference of 18.9 percentage points. The GMW regional average for local receipts for FY2018 was 17.7%.
- “All other” had the smallest contribution to municipal revenue with a low of just 3.1% in Westborough. The highest percentage was in Natick where 12.3% of municipal revenue came from the “all other” category. The GMW regional average for this category was 5.9%.

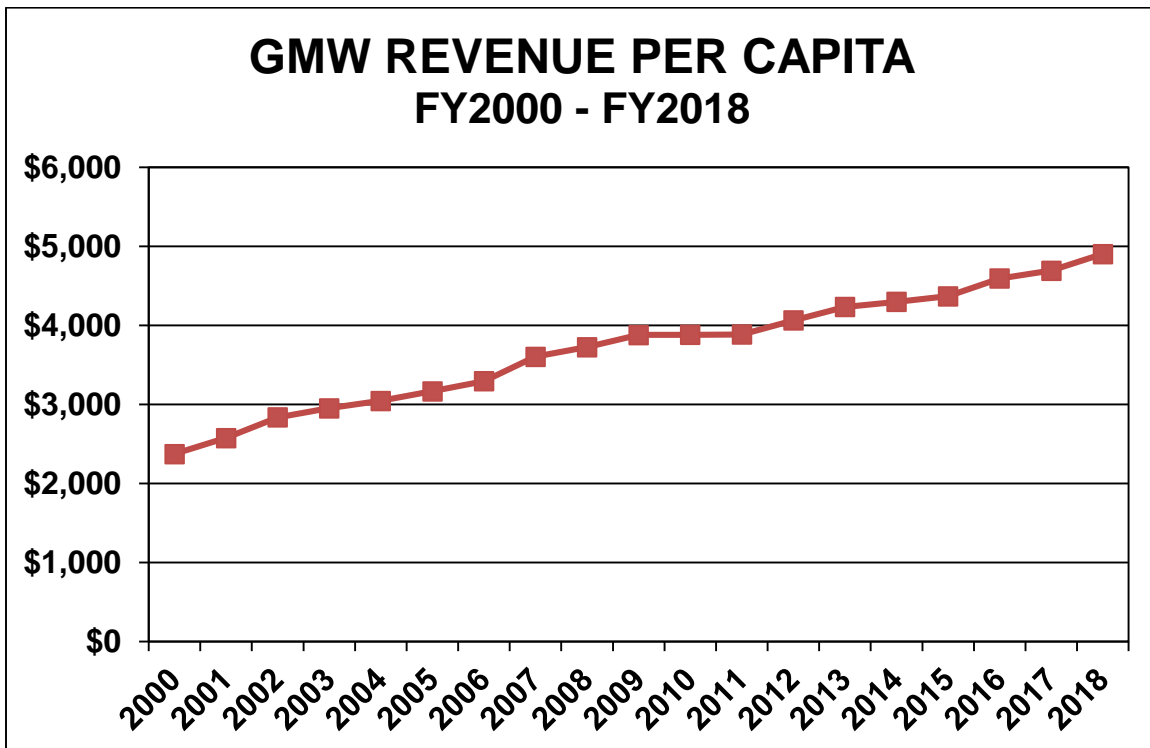
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for Greater MetroWest (GMW) communities, the region, and the state for FY2018 can be viewed as spending per capita as communities are required to balance their budgets.
- Of the thirteen GMW communities, Sherborn had the highest revenue per capita at \$6,746. This was higher than Wayland which had the second highest municipal revenue per capita at \$6,328 and the only community that experienced a decline in municipal revenue per capita from FY2017. Westborough followed with the third largest revenue per capita at \$5,767. Ashland had the lowest with \$4,014, the same as the estimated state per capita revenue average and slightly below Hudson at \$4,317.
- Six of the thirteen communities fell below the GMW municipal revenue per capita average of \$4,904: Ashland, Framingham, Hudson, Marlborough, Natick, and Northborough.
- Each of the remaining seven communities was above the GMW municipal revenue per capita average.

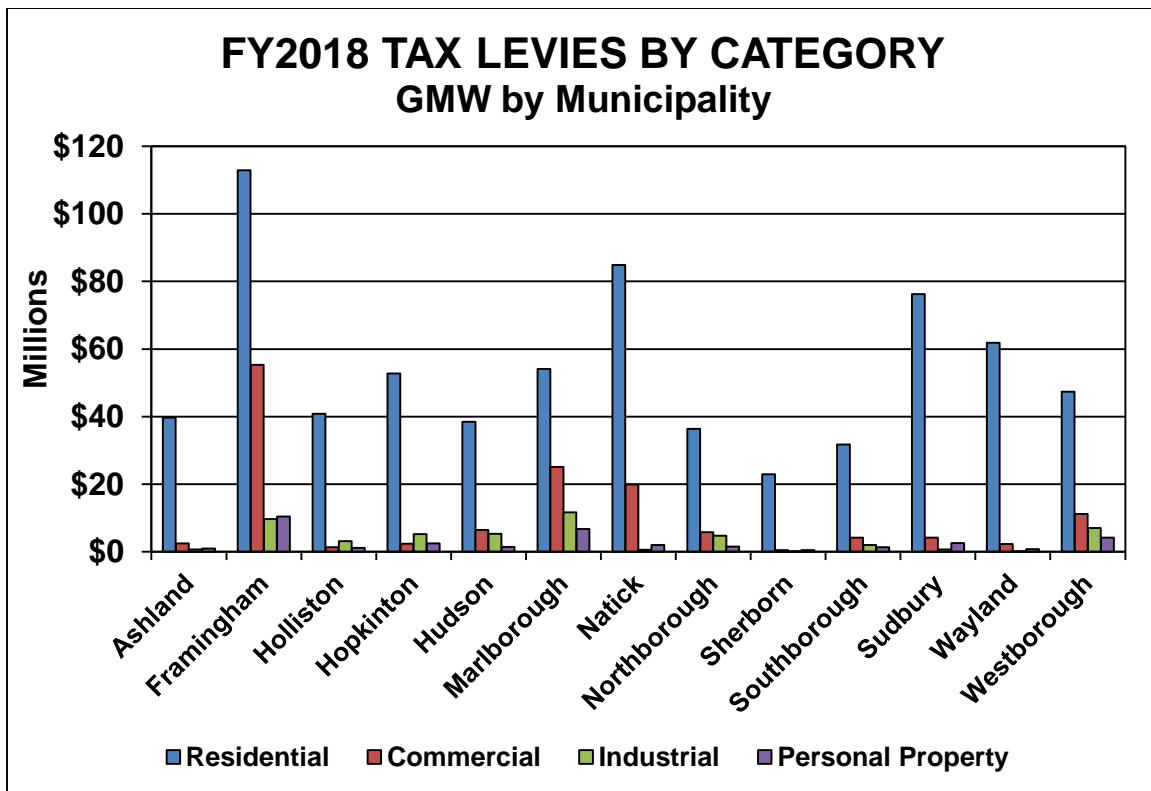
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for Greater MetroWest (GMW) increased from \$2,373 in FY2000 to \$4,904 in FY2018. This represented an average annual rate of increase of approximately 4.1% over the 18-year period.
- This statistic can also be viewed as spending per capita as communities work with balanced budgets.
- An increase of 0.1% occurred twice between FY2009 and FY2010 as well as between FY2010 and FY2011. These were the smallest percentage increases seen for the region within the period.
- The largest percentage increase of 10.2% occurred between FY2001 and FY2002 when municipal revenue per capita rose from \$2,576 to \$2,838.
- Between FY2017 and FY2018, the municipal revenue per capita rose from \$4,693 to \$4,904, or an increase of about 4.5% for the one-year period.

## GREATER METROWEST – MUNICIPAL REVENUE

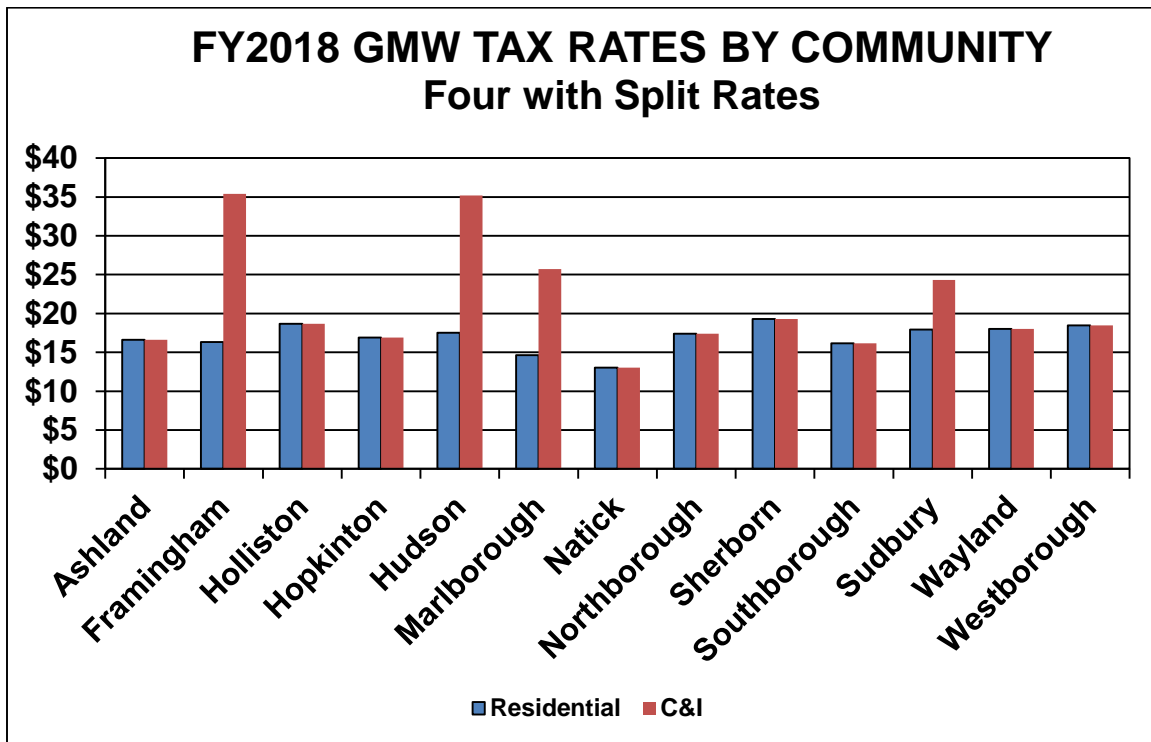


Source: MA Department of Revenue, DLS, and MERC

- Residential taxes produced the largest portion of the tax levy for all communities in the Greater MetroWest region for FY2018. Absolute amounts varied considerably, ranging from \$112.9 million in Framingham to \$23.0 million in Sherborn. The total tax levy for the region was \$929 million in FY2018 compared to \$894 million in FY2017.
- The commercial tax levy fell between \$55.3 million in Framingham and \$0.5 million in Sherborn. Marlborough had the second highest commercial tax levy at \$25.2 million.
- The industrial tax levy was the highest in Marlborough and Framingham at \$11.7 and \$9.7 million, respectively. Sherborn (\$55,308) and Wayland (\$79,042) had the lowest industrial tax levies.
- The personal property tax levy was \$10.5 million in Framingham followed by \$6.8 million in Marlborough and \$4.2 million in Westborough, the third highest in the region. Six communities: Ashland, Framingham, Natick, Sherborn, Sudbury and Wayland had personal property tax levies that exceeded their industrial tax levies.



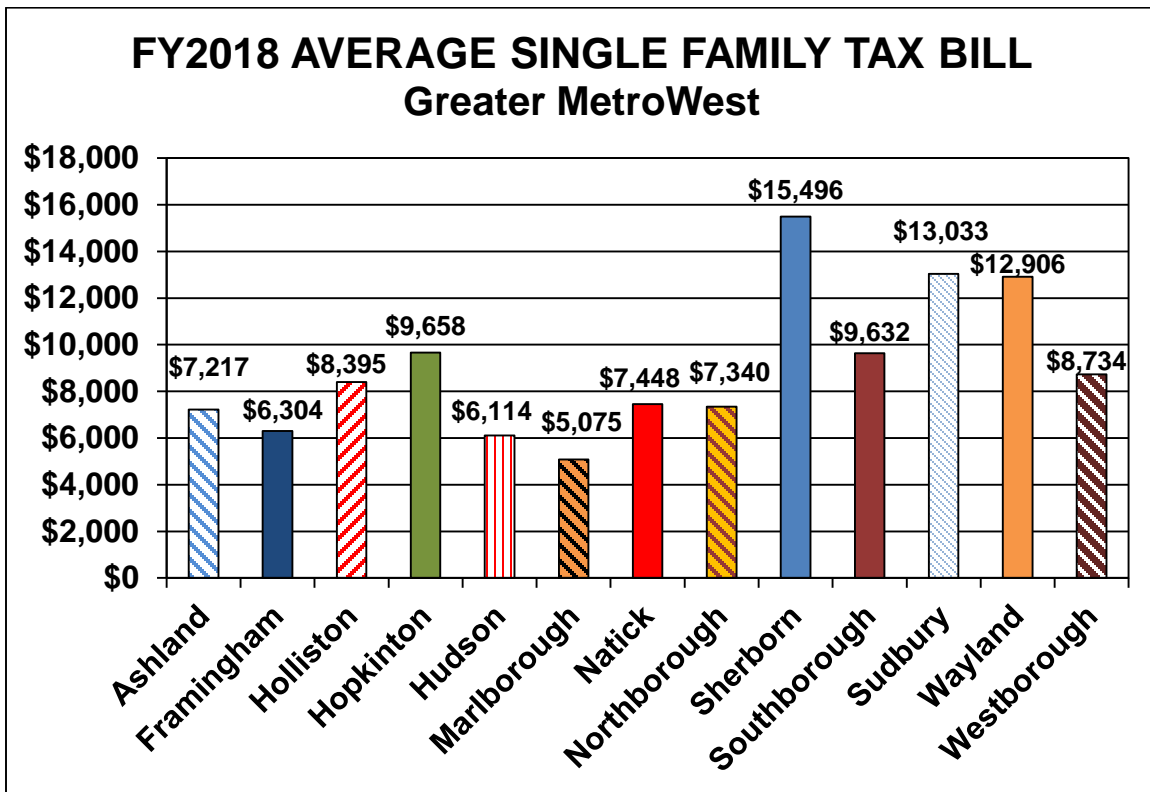
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph above compares the FY2018 residential and commercial & industrial tax rates (C&I) per \$1,000 of assessed value for the thirteen Greater MetroWest (GMW) communities. Ashland, Holliston, Hopkinton, Natick, Northborough, Sherborn, Southborough, Wayland, and Westborough had a single rate for both residential and C&I real estate.
- The four communities with split rates in GMW were Framingham, Hudson, Marlborough, and Sudbury with FY2018 C&I rates of \$35.39, \$35.18, \$25.73 and \$24.30, respectively. This is less than the corresponding FY2017 C&I rates of \$36.52, \$35.35, \$26.41, and \$25.01 for these communities.
- Natick had the lowest rates for both residential and commercial & industrial property at \$13.05 in FY2018, less than the FY2017 rate of \$13.49.
- Residential rates ranged from Sherborn at \$19.30 in FY2018, down from \$20.46 in FY2017, to the lowest residential tax rate of \$13.05 in Natick.
- Residential rates declined slightly from FY2017 to FY2018 in ten of the thirteen communities. Rates increased slightly in Westborough from \$17.80 to \$18.46 and stayed the same in Hudson (\$17.50) and Northborough (\$17.39).

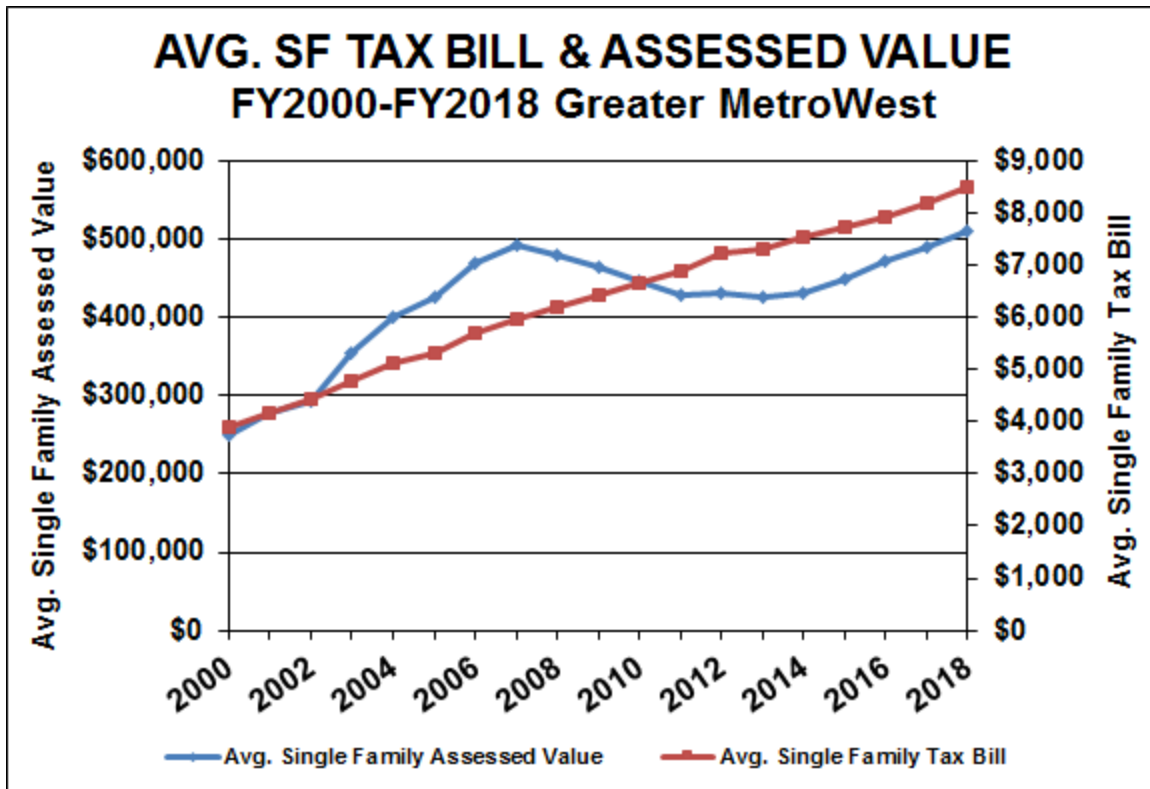
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family residential tax bill in FY2018 differed by community from a low of \$5,075 in Marlborough to a high of \$15,496 in Sherborn.
- Sherborn's average single family tax bill was more than triple the average single family tax bill in Marlborough.
- Among the remaining eleven communities, the average single family tax bill ranged from \$6,114 in Hudson to \$13,033 in Sudbury with communities such as Holliston (\$8,395), Hopkinton (\$9,658), Southborough (\$9,632), and Westborough (\$8,734) all falling in the middle.
- The average assessed value for single family homes is calculated 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.

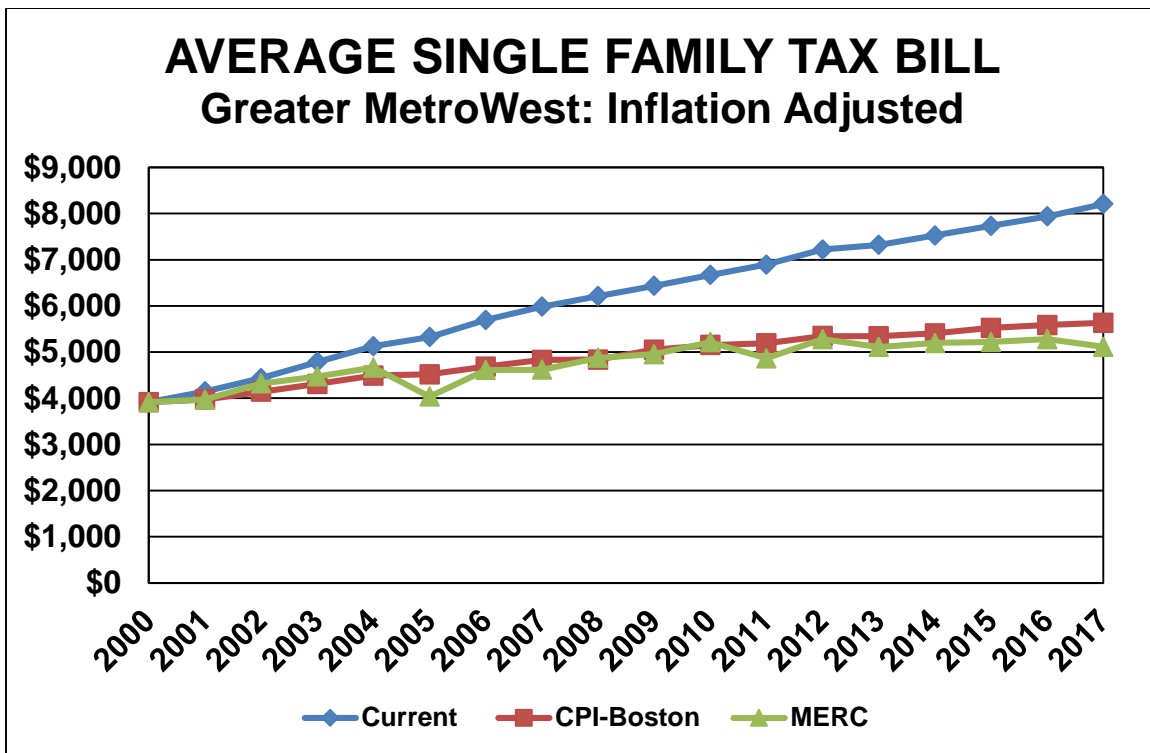
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family assessed value for Greater MetroWest (GMW), excluding Marlborough, is shown in blue on the left vertical axis. The average single family tax bill is shown in red and on the right vertical axis. Marlborough is not included as values were not available for all years.
- The average single family tax bill increased from a low of \$3,915 in FY2000 to a high of \$8,491 in FY2018, an increase of 116.9% over the period. The average single family tax bill increased each year over this 18 year period.
- From FY2000 to FY2018, the average single family assessed value fluctuated. The lowest value occurred in FY2000 at \$249,490 while the highest value between FY2000 and FY2017 was \$491,631 in FY2007. Since then it fluctuated, increasing each year from FY2013 forward. This assessed value increased 4.4% from FY2017 to \$510,140 in FY2018.
- 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 of the region was determined by dividing the total single family assessed value for the region by the total single family dwellings.

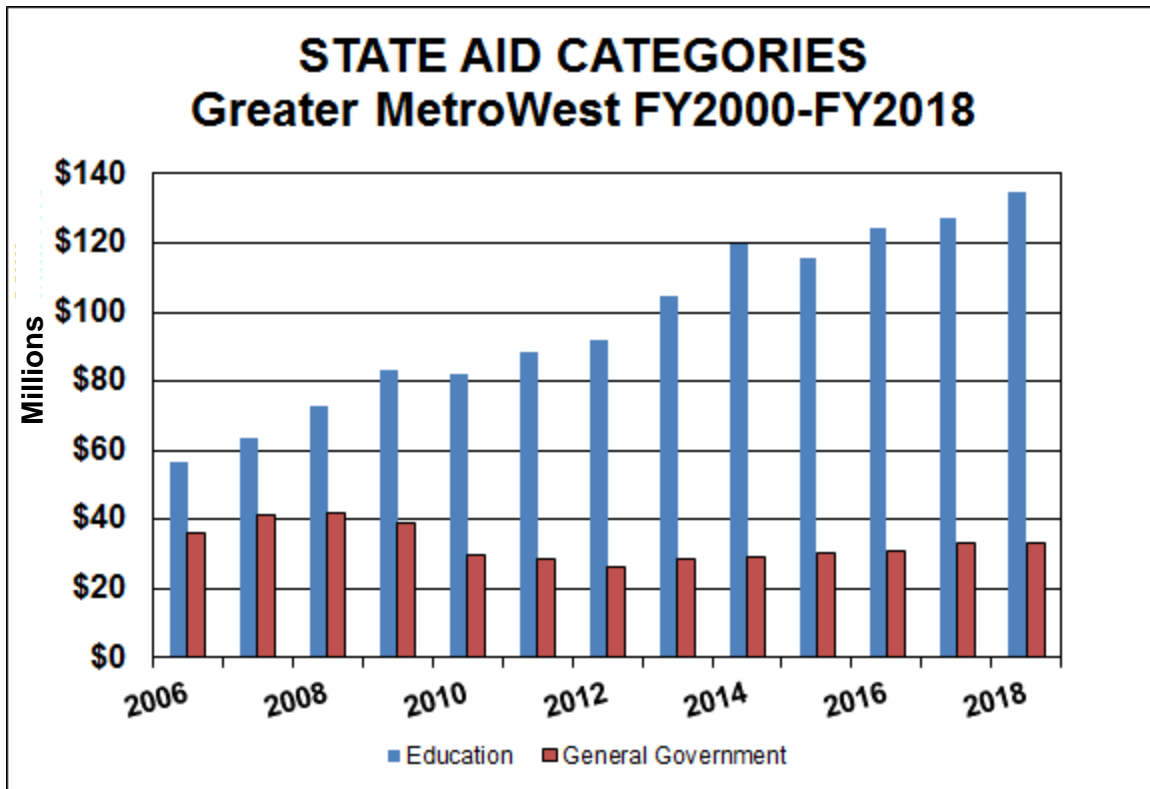
## GREATER METROWEST – MUNICIPAL REVENUE



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 FY2017. 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 \$8,208 in FY2017, an increase of \$4,293 or 109.7%.
- Two different price indexes were used to calculate the inflation-adjusted real dollar value of 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 FY2017 than in FY2000. The Boston CPI produced a larger increase in the tax bill over the period, an increase of \$1,720 to a tax bill of \$5,635, while the MERC Index generated an increase of \$1,199 to \$5,114.

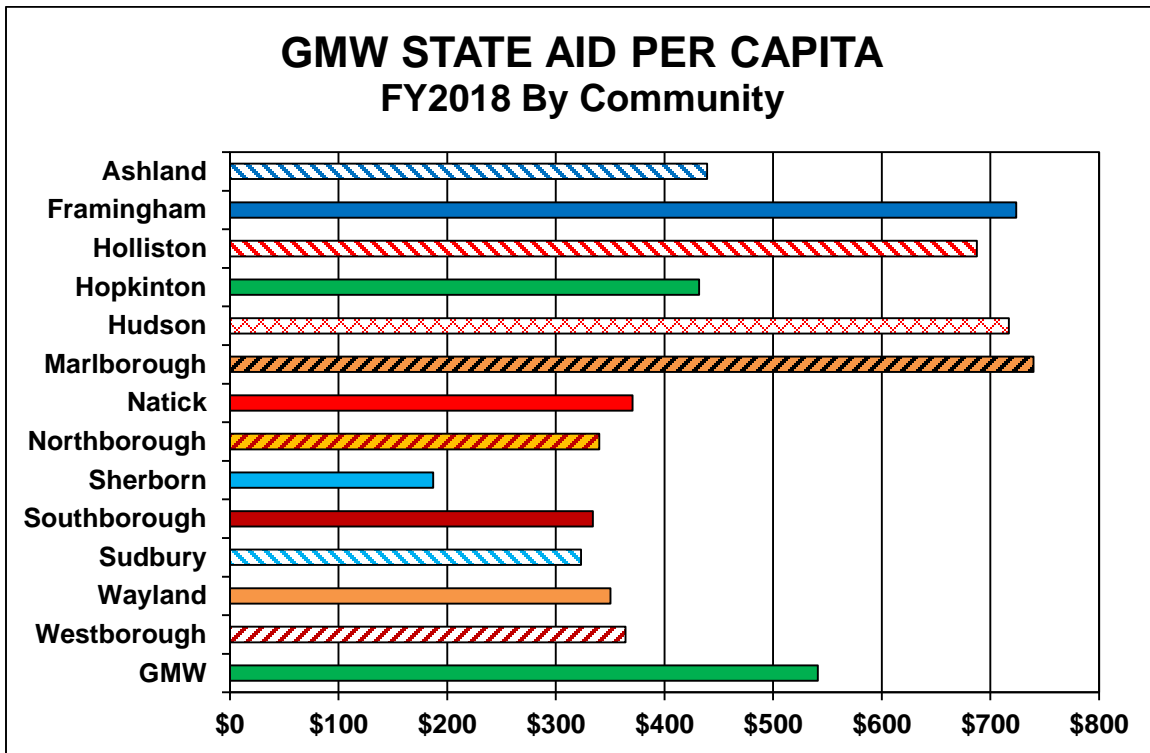
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- State aid for education in Greater MetroWest (GMW) increased from \$56.6 million in FY2006 to \$134.8 million in FY2018, more than doubling. Over the period, there were two periods, one from FY2009 to FY2010 and the other from FY2014 to FY2015 where state aid for education decreased, while the remaining periods showed year to year increases. State aid for education increased from \$82.4 in FY2010 through FY2014 to \$119.7 million, then decreased to \$115.5 million in FY2015, before increasing again each year to \$134.8 million in FY2018.
- State aid for general government in the GMW communities for the same period had a lower range with a high of \$42.1 million in FY2008 to a low of \$26.5 million in FY2012. State aid for general government in GMW for FY2018 was \$33.3 million, a decline of 0.4% from \$33.4 million in FY2017.
- Total state aid has varied over time with periods of increase then decline. It increased each year from FY2006 through FY2009 when it reached \$122.1 million, then declined to \$112.2 million in FY2010. Since then, total state aid has increased each year through FY2014 to \$149.2 million, decreased \$3.6 million in FY2015, increasing again to \$155.2 million in FY2016, \$160.6 in FY2017 and \$168.1 million in FY2018.

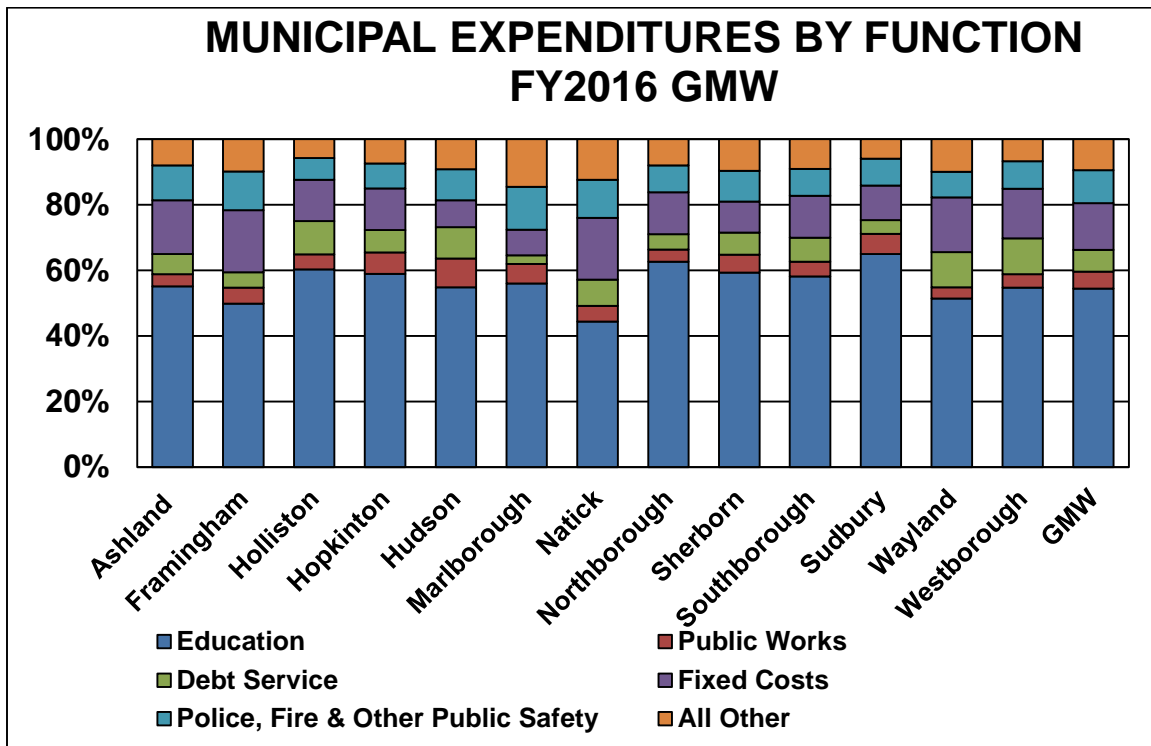
## GREATER METROWEST – MUNICIPAL REVENUE



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 FY2018. 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 \$207 in Sherborn to a high of \$778 in Marlborough, followed closely by Framingham at \$751 and Hudson at \$723. Per capital state aid for the GMW region was \$566 for FY2018.
- State aid reflected in this graph consists of both state aid for education as well as state aid for general government given directly to the respective communities. Total state aid given to all of the communities shown above was \$168,064,285.
- 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 those regional school districts is not included in the above calculations.

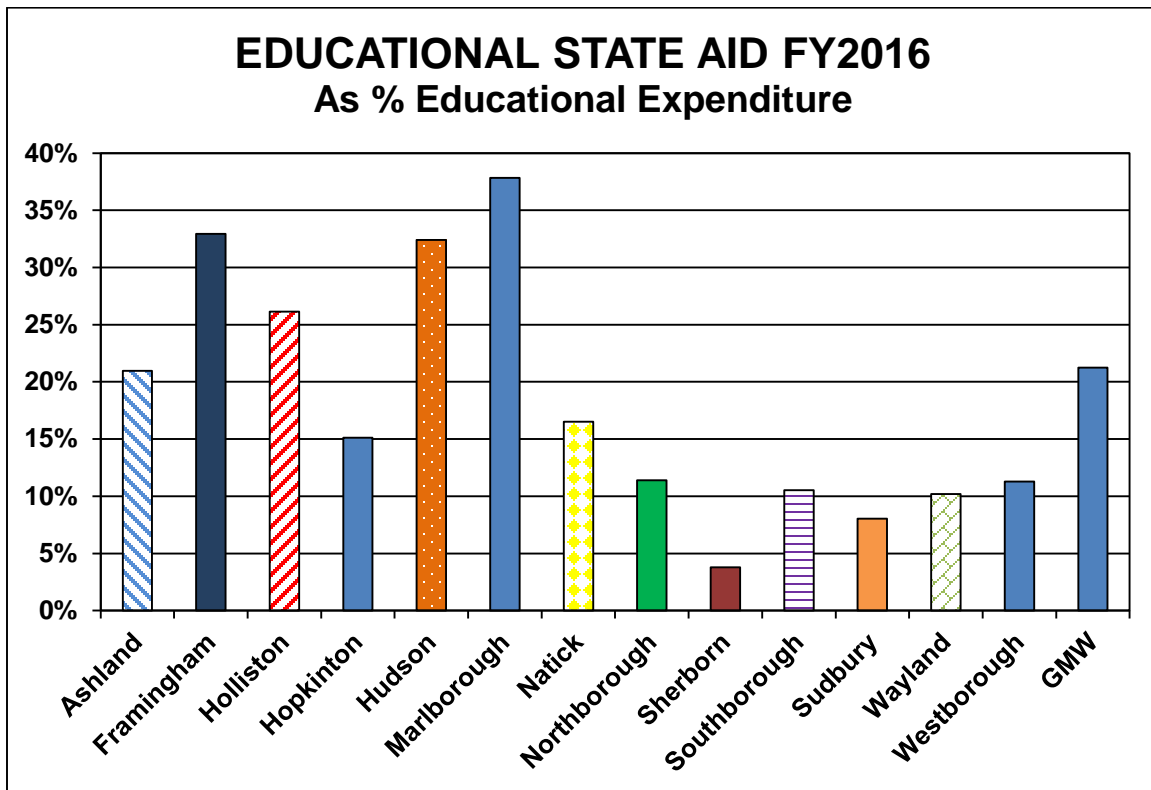
## GREATER METROWEST – MUNICIPAL REVENUE



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. These general fund expenditures in FY2016 in Greater MetroWest (GMW) were over a billion dollars.
- Of the thirteen communities, only Natick (44.4%) and Framingham (49.8%) had less than 50% of their municipal expenditures spent on education. The other eleven communities had education shares ranging from 51.4% in Wayland to 65.0% in Sudbury with a GMW average of 54.4%.
- The remaining categories varied by community. Framingham (18.9%) and Natick (18.8%) had the highest fixed cost expenditures compared to a GMW average of 14.3%. Public works was the lowest expenditure percentage in Ashland at 3.7%; the GMW average was 5.1%. Westborough had the highest debt services expenditure at 10.9% followed by Wayland (10.8%) and Holliston (10.2%) with a GMW average of 6.7%. Police, fire & other public safety and “all other” had percentages of 10.0% and 9.4% %, respectively for the region.

## GREATER METROWEST – MUNICIPAL REVENUE

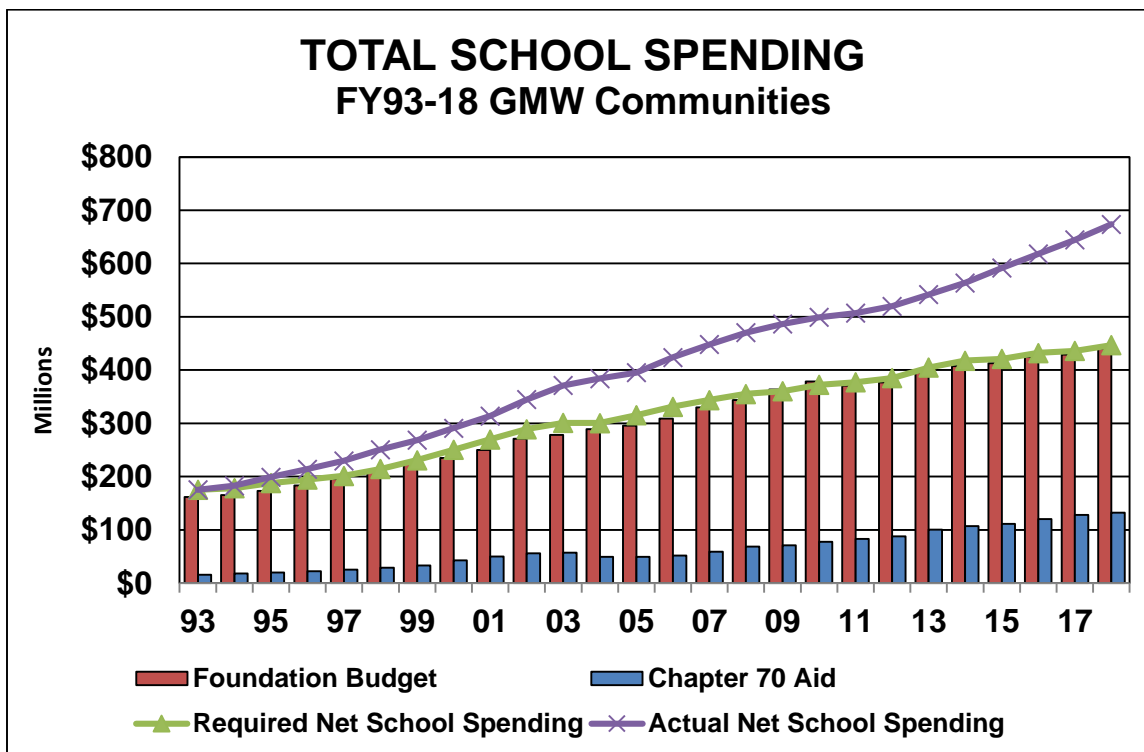


Source: MA Department of Revenue, DLS, and MERC

- For FY2016 Marlborough had the largest educational state aid as a percentage of educational expenditure at 37.8%. Framingham (33.0%), Hudson (32.4%), and Holliston (26.1%) followed closely behind Marlborough. Only these four communities surpassed the GMW average of 21.2%
- Sherborn had the lowest percentage at 3.8% while Sudbury had the second lowest with 8.0% which was more than double the percentage for Sherborn. Noteworthy, Sherborn is a 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 schools is not included in this calculation.
- The other seven communities of Ashland, Hopkinton, Natick, Northborough, Southborough, Wayland, and Westborough had percentages ranging from a low of 10.2% in Wayland to a high of 21.0% in Ashland.
- Educational expenditures in this graph are those reported in the general fund. Educational state aid in this graph includes Chapter 70 state aid for education, charter tuition assessment reimbursement, and school choice receiving tuition programs.



## GREATER METROWEST – MUNICIPAL REVENUE

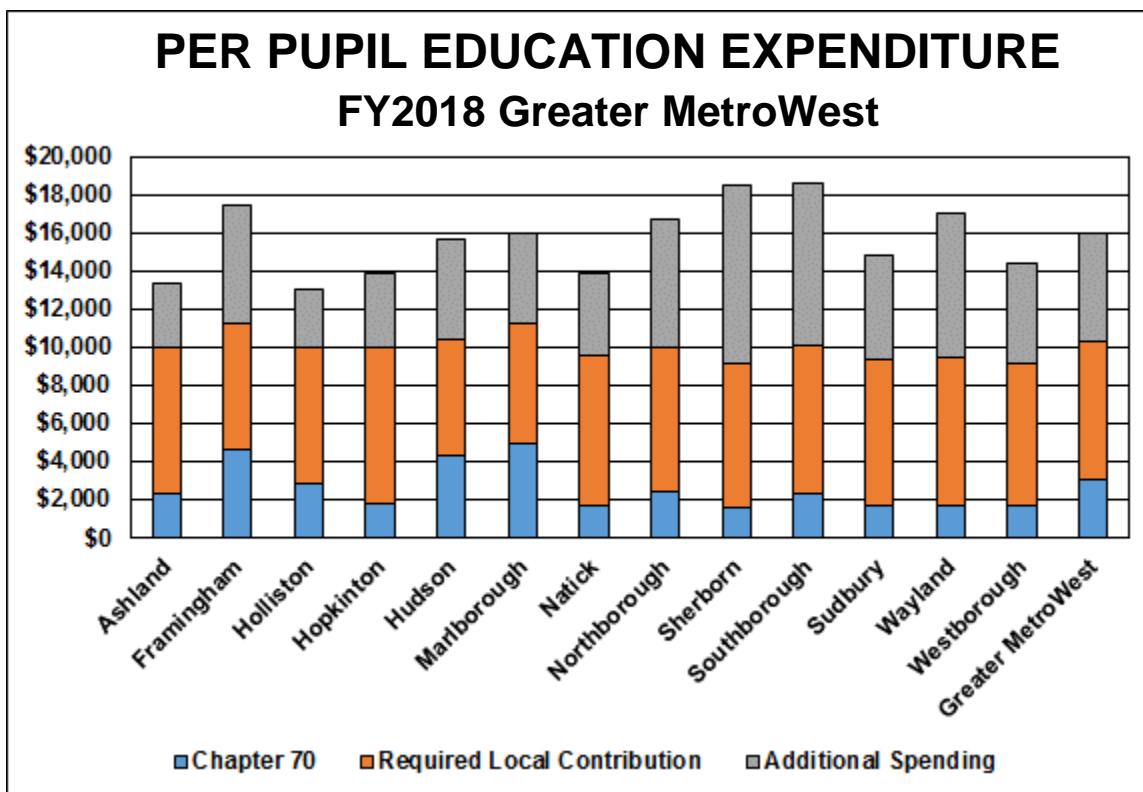


Source: MA Department of Revenue, DLS, DOE and MERC

- This 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<sup>1</sup> 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 state aid.
- The red bars represent the foundation budget, a measure of the amount needed to provide the students in any given community an adequate, but not excessive, education. The foundation budget is determined by student enrollment classification categories and related costs. For FY18 the total foundation budget for GMW was \$440 million, while the required net school spending (green line), which includes some additional items, was \$447 million.
- The blue bars represent Chapter 70 state aid educational assistance given to the communities. FY18 Chapter 70 state aid educational assistance provided to the region totaled approximately \$132 million. The difference between the height of the dashed and blue bars represents the required local contributions to school spending of \$315 million for FY18 for the region. Actual net spending (purple line) is comprised of the required local contribution, Chapter 70 state aid and additional amounts communities choose to spend on education. FY18 actual net spending totaled \$674 million. The communities in GMW actually spent \$227 million more educating their students than required.

<sup>1</sup>The Chapter 70 program is the major program of state aid to public elementary and secondary schools. In addition to providing state aid to support school operations, it also establishes minimum spending requirements for each school district and minimum requirements for each municipality's share of school costs.

## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Education and MERC

- Municipal totals represent education costs per pupil for public schools as reported by the Massachusetts Department of Elementary and Secondary Education (DESE) under the MA Education Reform Act.
- Total education spending ranged from \$13,069 per pupil in Holliston to \$18,628 in Southborough. Of the eleven remaining municipalities, eight spent between \$13,000 and \$16,000 per pupil while Framingham (\$17,493), Northborough (\$16,721), Sherborn (\$18,469), and Wayland (\$16,989) spent over \$16,000.
- DESE distributed values are in three categories: Chapter 70 state aid (blue bars), the required local contribution (orange bars), and added amounts municipalities chose to spend over education reform requirements (gray bars).
- Municipal income and property values are used for state aid and required local contribution calculations. This total is the foundation budget, the amount a community needs to spend to provide an adequate education for its students. The blue bars are state aid, the orange bars represent the required local contribution and the gray bars represent additional amounts communities choose to spend. Per pupil state aid ranged from \$1,597 in Sherborn to \$4,915 in Marlborough. Regional and vocational schools are accounted for separately and are not included.

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

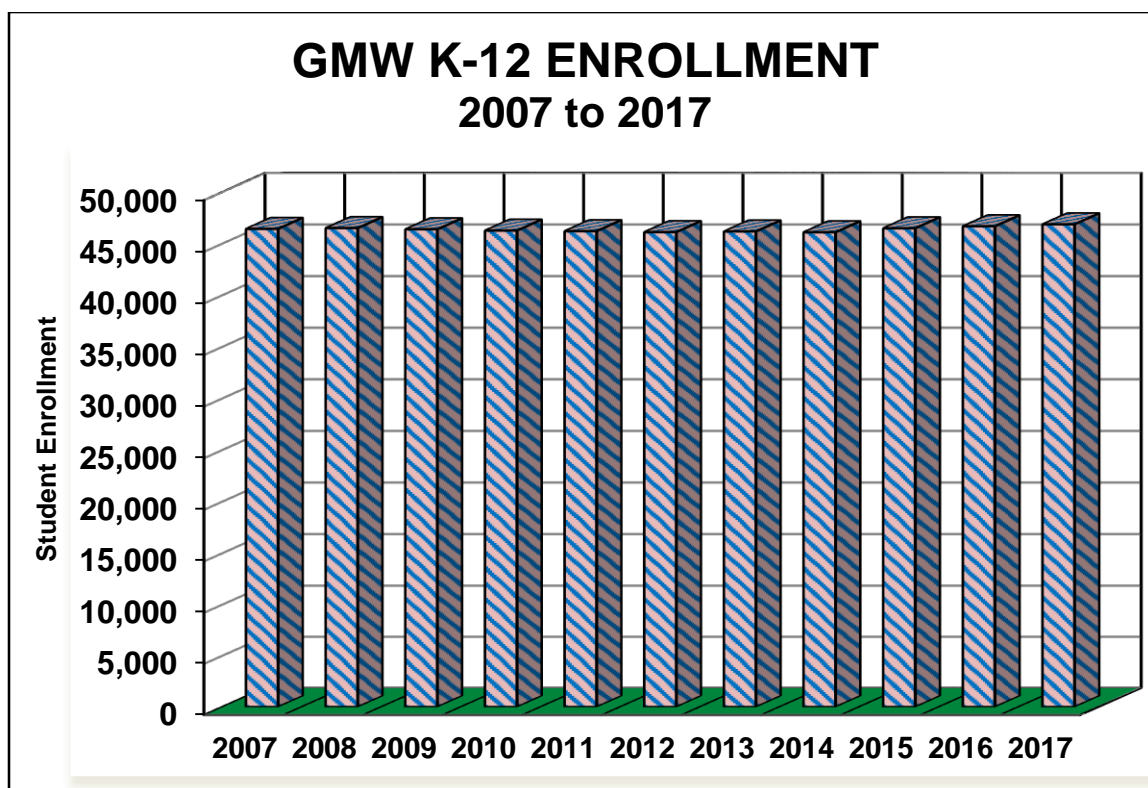
### **K-12 PUBLIC SCHOOL ENROLLMENT**

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 4.8% upon entry into the first grade.

The Massachusetts Department of Elementary and Secondary Education implemented a student enrollment database, the Student Information Management System (SIMS) in 2000. The MERC K-12 data presented in this report are obtained from both the October 2017 SIMS student census and data provided directly to MERC by the local school districts.

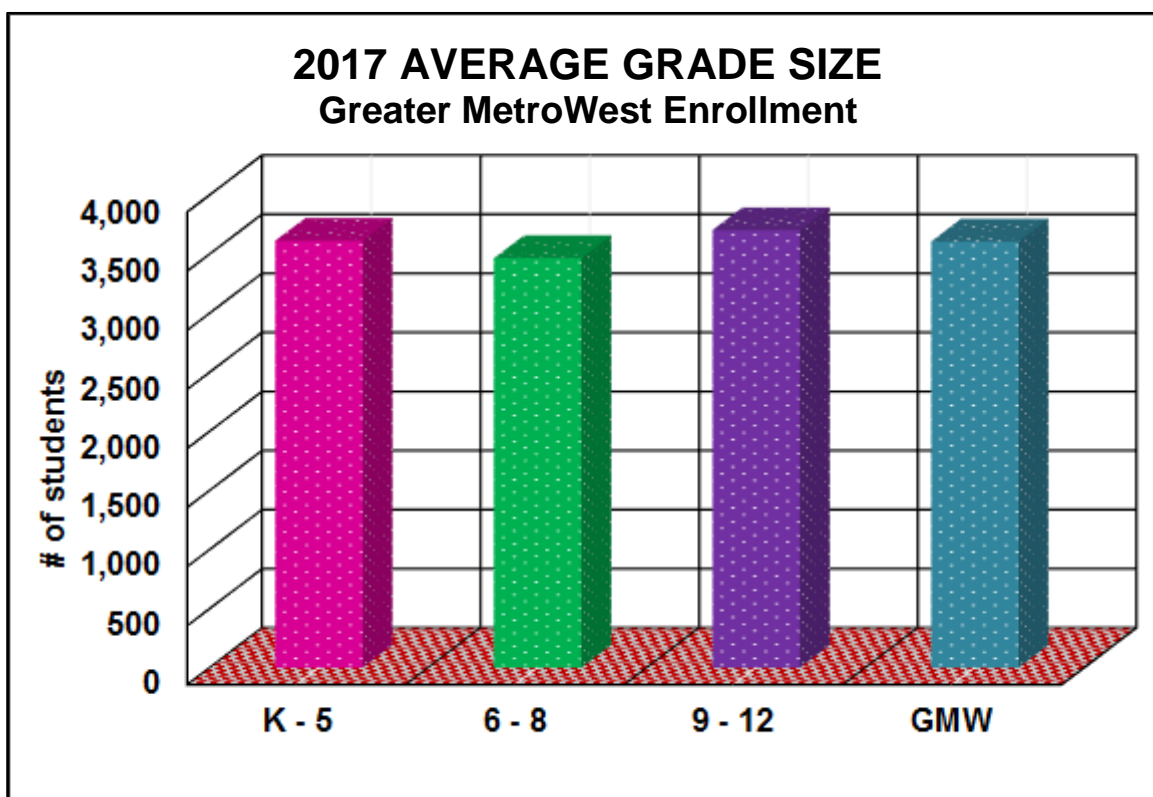
## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



*Source: MA Department of Elementary and Secondary Education and MERC*

- Public school student enrollment in Greater MetroWest (GMW) in 2007 was 46,436 students and rose to 46,875 in 2017.
- Greater MetroWest vocational school enrollment is included in the above graph; however, charter school enrollment is not included.
- Vocational school enrollment rose from 1,299 students to 1,493 or an increase of 14.9%.
- The charter school student enrollment rose from 770 students in 2007 to 1,388 in 2017, an increase of 80.2%.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

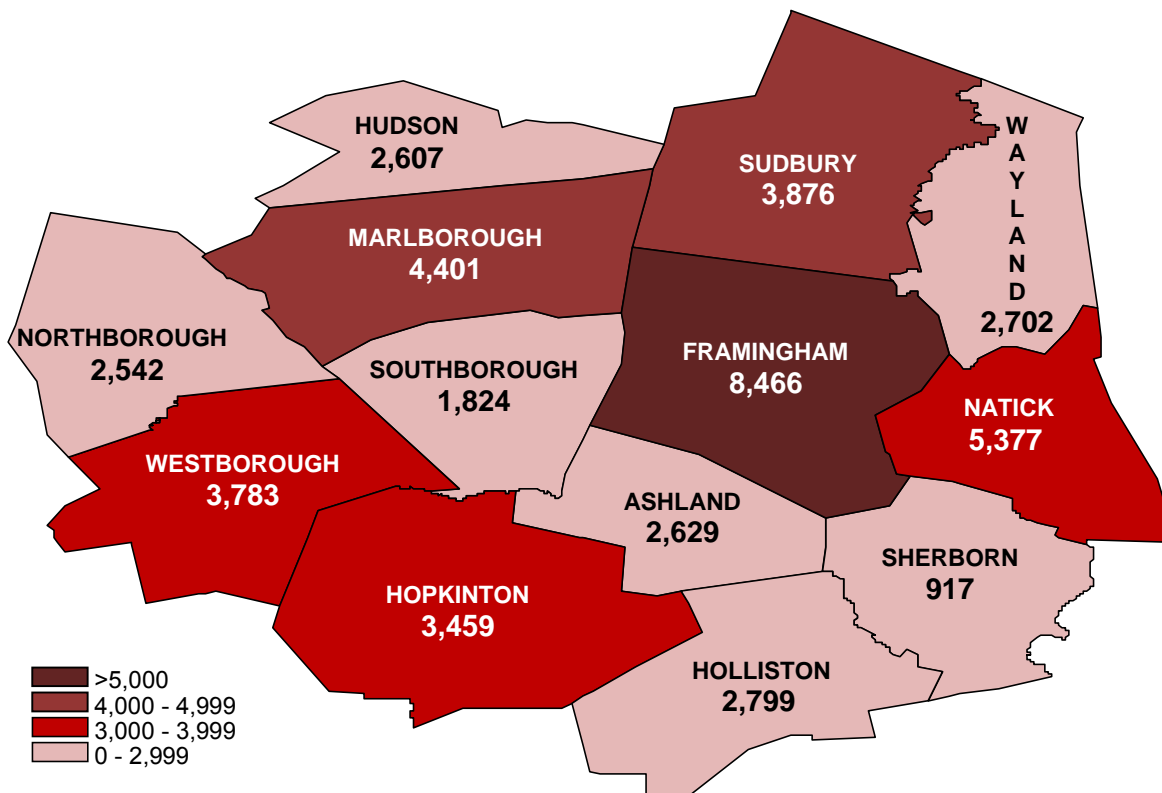


*Source: MA Department of Elementary and Secondary Education and MERC*

- The 2017 Greater MetroWest (GMW) K-12 public school enrollment averaged 3,606 students per grade. The GMW regional average grade enrollment increased by 0.96% from 2016.
- In 2017 the average number of students per grade at the elementary school level, kindergarten through fifth grade, was 3,612, no significant change from the previous year.
- At the middle school level, grades 6 through 8, the average number of students per grade was 3,465, a decrease in 1.0% compared to 2016.
- The average number of students per grade at the high school level was 3,701, an increase of 2.0%.
- Charter school enrollment is not included in the average grade size calculations.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

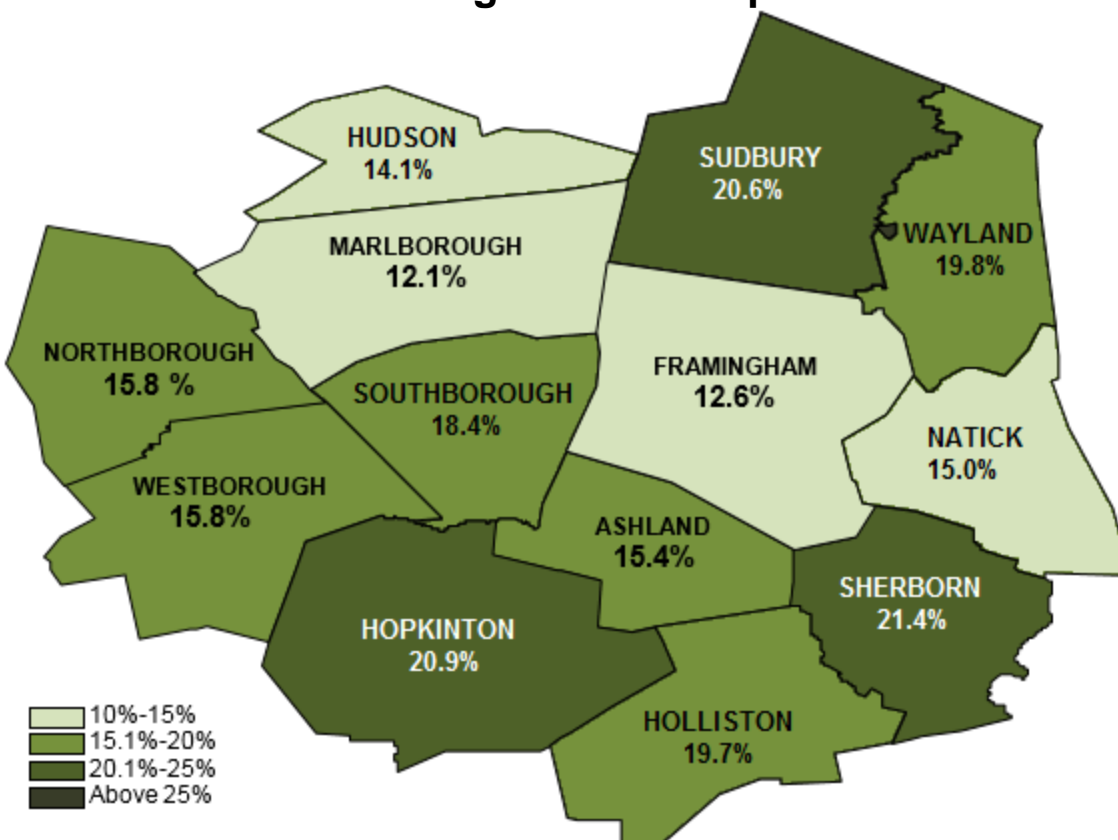
### GMW 2017 Public School Enrollment By Community



Source: MA Department of Elementary and Secondary Education and MERC

- K-12 public school enrollment in Greater MetroWest (GMW) totaled 45,382 students. 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 8,466. The communities of Marlborough and Sudbury had enrollments between 4,000 and 5,000 students.
- Ashland, Holliston, Hudson, Northborough, and Wayland had enrollments between 2,000 and 3,000 students. Sherborn reported the smallest enrollment at 917 students.
- Enrollment in vocational high school for Greater MetroWest totaled 1,493 students in 2017. Vocational student enrollment has increased by 1.4% from 2016.
- Enrollment in the charter schools totaled 1,388 students in 2017, an increase of 3.0% from 2016.

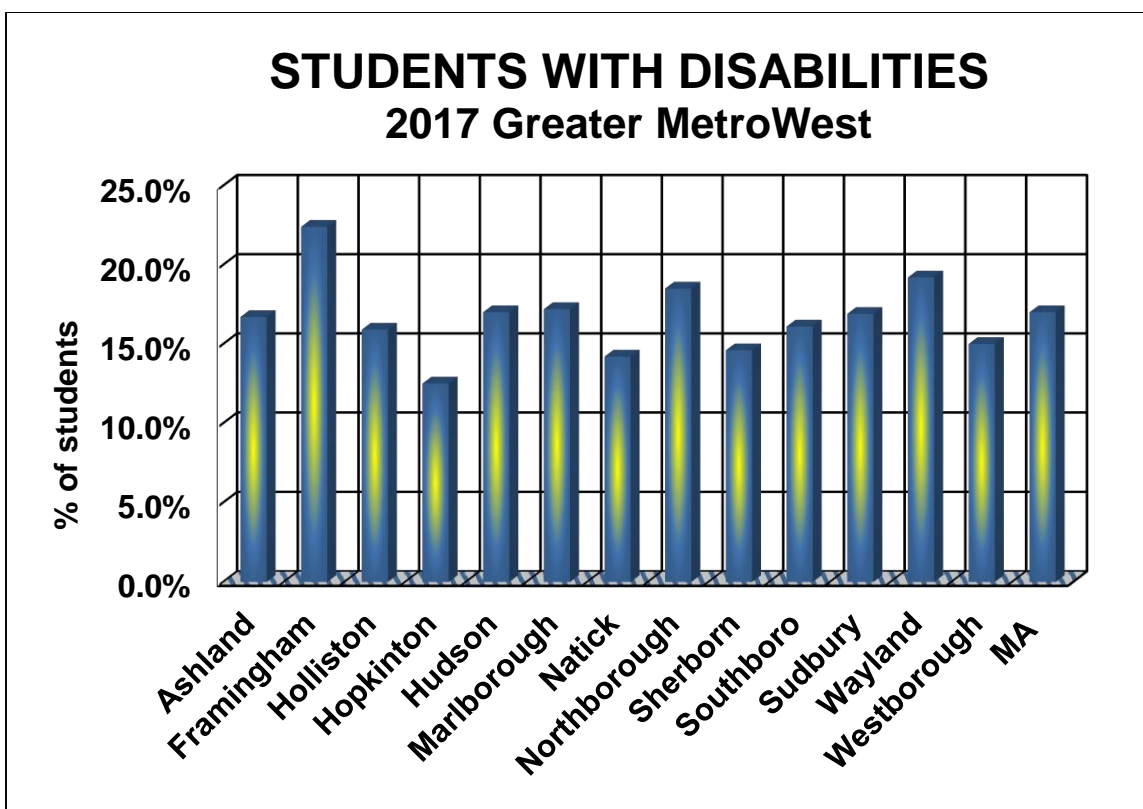
## **GMW PUBLIC SCHOOL ENROLLMENT As Percentage of 2015 Population**



*Source: U.S. Census and MERC*

- K-12 public school enrollment in Greater MetroWest (GMW) for 2017 was 46,875 students. This figure does not include students enrolled in charter schools.
- This map measures the proportion of the community enrolled in public school. Public school enrollment in 2017 is given as a percentage of 2015 population, an estimate of the most recent census data available. The highest enrollment as percentage of population occurred in Sherborn, followed by Hopkinton and Sudbury. In these communities, slightly more than 1 in 5 population members were in public schools.
- About 20% of the population in the communities of Holliston, Hopkinton, and Wayland attend public school. The communities of Hudson, Northborough, Ashland, Natick and Westborough had public school enrollment of 15% of the total population.
- Framingham and Marlborough, the communities with the largest population and public school enrollment, also report the smallest percentage of the population in public school.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

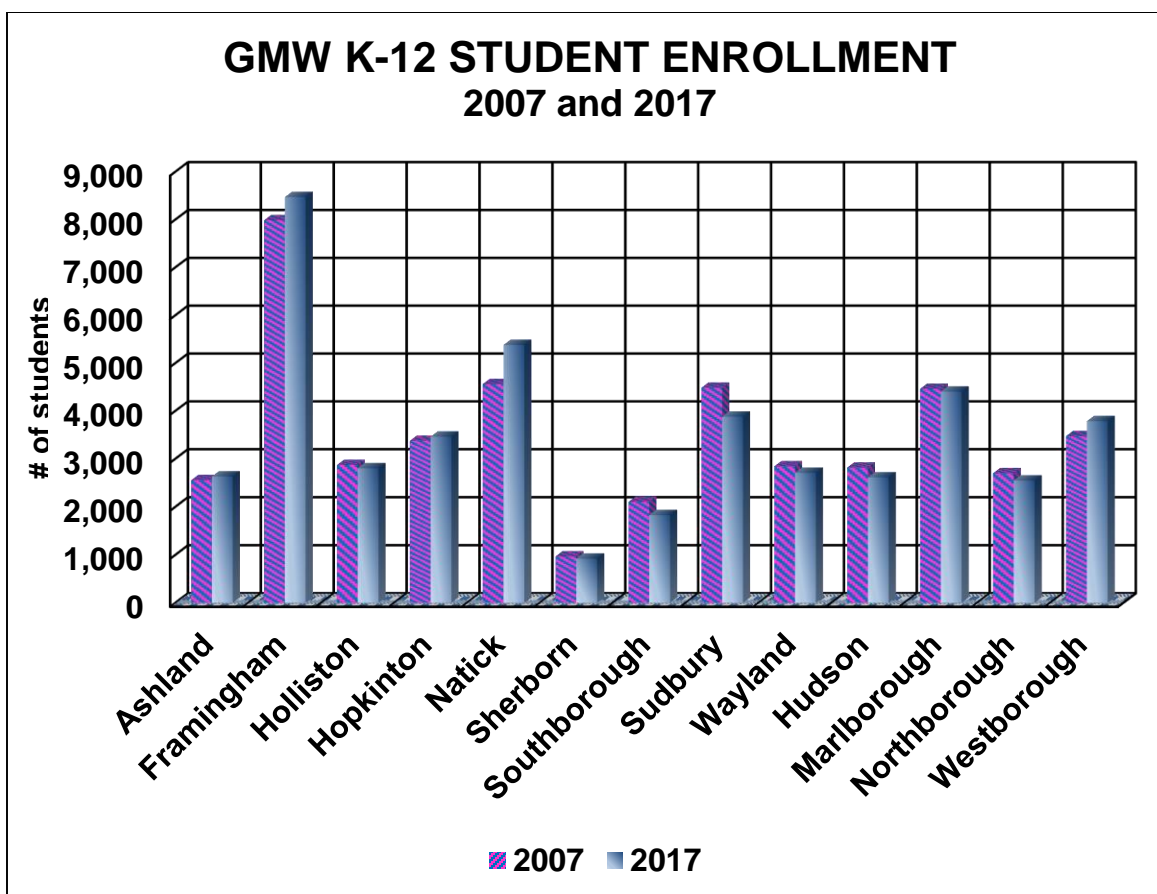


Source: MA Department of Elementary and Secondary Education and MERC

- The graph shows the percentage of students with disabilities. This is calculated by dividing the number of students with disabilities by the number of students enrolled in the community.
- According to the Massachusetts Department of Elementary and Secondary Education (DESE) students with disabilities include the following populations: autism, communicational impairment, developmental delay, emotional impairment, health impairment, intellectual impairment, neurological impairment, physical impairment and sensory impairment.
- Framingham had the highest percentage of students with disabilities at 22.4%. Hopkinton had the smallest percentage at 12.5%.
- Ashland, Holliston, Hudson, Marlborough, Northborough, Southborough, Sudbury, and Wayland all had 15.0% to 19.0% of the total amount of disabled students within their community.
- Natick had around 14.0% of their students with disabilities as a percentage of total student enrollment.



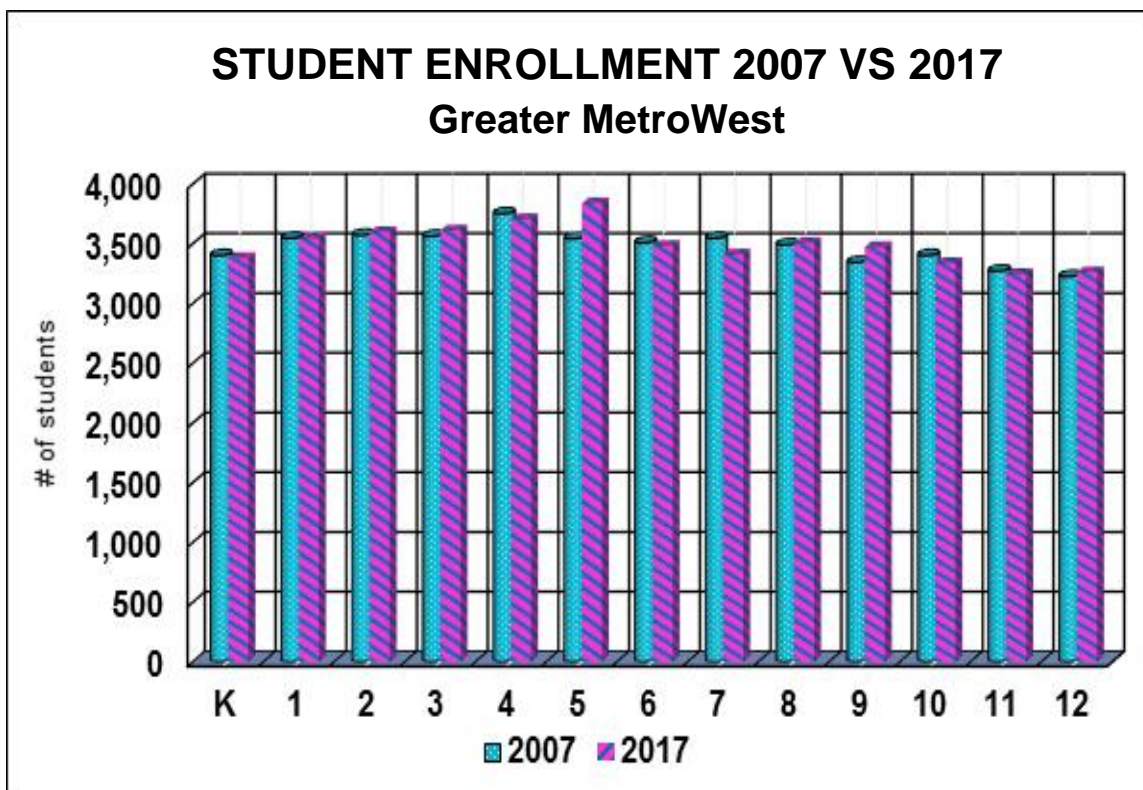
## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- The graph compares student enrollment in Greater MetroWest (GMW) in 2007 and 2017 by community. The vocational school and charter school enrollments are not included.
- Greater MetroWest student enrollment in 2007 was 45,154 and 45,382 in 2017, 0.51% increase.
- Natick had the largest percentage growth in school enrollment with 4,558 students in 2007 and increased by 18.0% by 2017.
- Framingham (6.1%) and Westborough (9.1%) had the next largest growth rate in student enrollment.
- Ashland had the smallest growth rate of student enrollment, 0.71%.
- Southborough (13.2%) and Sudbury (13.2%) had the largest percentage decrease in student enrollment.

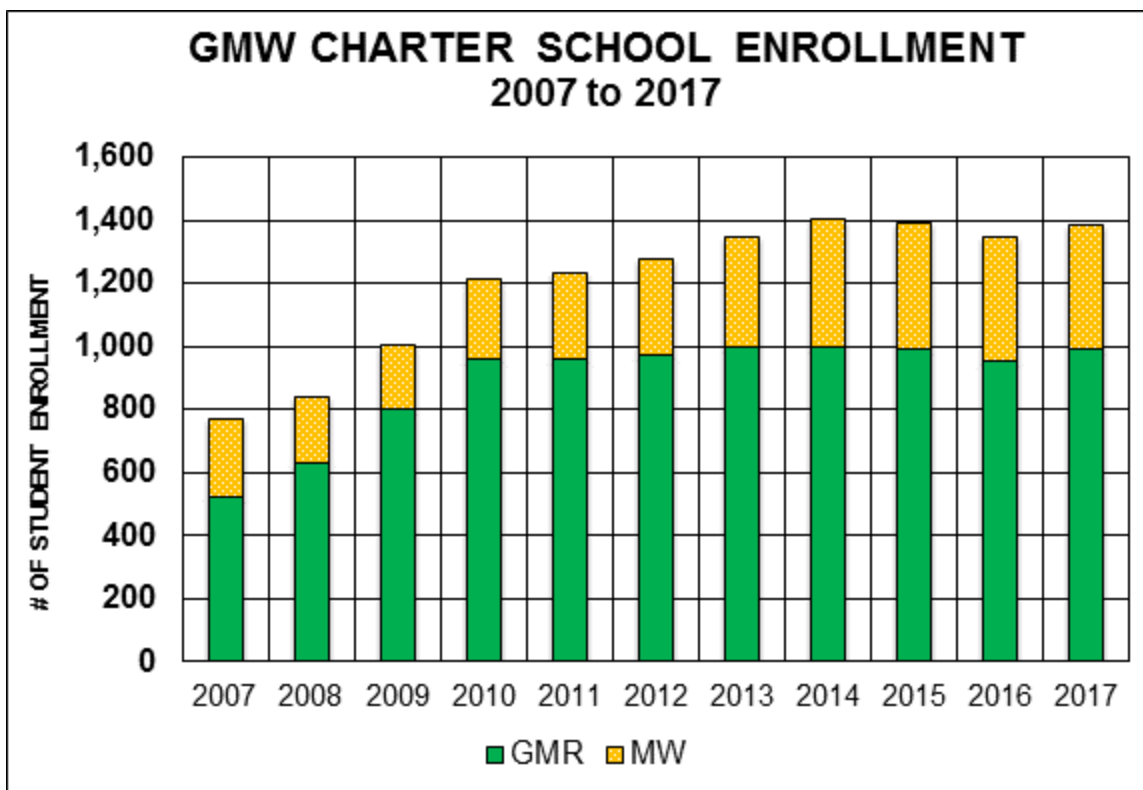
## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- The above graph compares public student enrollment in Greater MetroWest (GMW) in 2007 and 2017 grade by grade.
- Student enrollment in 2007 was 45,154 and by 2017 the enrollment increased to 45,382, a slight increase of 0.51%. The enrollment does not include charter or vocational schools.
- In 2007, kindergarten to grade 5 increased by 4.1%. In 2017, kindergarten to grade 5 increased by 14.5%.
- Grade 5 student enrollment in 2007 was 3,541. In 2017, this number grew by 297 to 3,838 students, showing an increase of 8.4%.
- The largest decline in student enrollment between 2007 and 2017 was in grade 7. In 2007, grade 7 student enrollment was 3,545. In 2017, there was a decrease of 136 students, or -3.8%.
- In 2007, student enrollment continued to increase from kindergarten to grade 4; starting in grade 5 (3,541), student enrollment slowly decreased to grade 12 (3,225).

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Charter school enrollment was 770 students in 2007 and in 2017 the student enrollment rose to 1,388 representing an 80.4% increase.
- MetroWest regional charter school enrollment increased from 247 in 2007 to 395 students, an increase of 60.0%.
- Greater Marlborough Region (GMR) charter school enrollment increased from 523 in 2007 to 993 in 2017, an increase by 89.9%.
- Between 2007 and 2014, total charter school enrollment grew from 770 students to 1,402 students. This change represented an 82.1% increase in charter school enrollment.
- Charter school enrollment decreased from an enrollment of 1,401 in 2014 to 1,386 in 2017; a decline of 1.1%.

# **GREATER METROWEST – EMPLOYMENT**

## **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. NAICS data used in this publication are presented by supersectors and by sectors.

### **NAICS Supersectors\***

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

##### **Natural Resources and Mining Supersector (NRM)**

- 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 (TTU)**

- 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 \*\* (PBS)**

- 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.

# **GREATER METROWEST – EMPLOYMENT**

## **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.

**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.

## **GREATER METROWEST – EMPLOYMENT**

### **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 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.

## ***GREATER METROWEST – EMPLOYMENT***

**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 (USBLS)
- Massachusetts Department of Elementary and Secondary Education (DESE)
- Massachusetts Department of Revenue, Division of Local Services (DLS)
- Massachusetts Executive Office of Labor and Workforce Development (MA EOLWD)
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