

GREATER METROWEST Economic Profile 2019[©]

27th MERC ANNUAL CONFERENCE

Securing Tomorrow's Workforce Today

 **Wednesday, May 22, 2019**



By

**Maureen Dunne, M.B.A.
Lori Lavigne, Ph.D.
Laura Lamontagne, Ph.D.
Donald MacRitchie, M.A.
Martha Meaney, M.A.**

**Mary Phelan, M.B.A., C.P.A.
Luis Rosero, Ph.D.
Fahlino Sjuib, Ph.D.
Beverly Soriano, M.S., C.P.A.**

With assistance of MERC[™] interns:

**Steven DeMeo, Christopher Goodwin, Kelsi Gunarathne, Bryanah Johnson,
Tess Marchioni, Ken Stahovich, Jonathan Vos**



**Framingham
State University**

**MetroWest Economic
Research Center**



Framingham State University

Copyright 2019 Framingham State University

*No material from this publication
may be reproduced in whole or in part
without the permission of
the MetroWest Economic Research Center,
Framingham State University.*

*MERC provides regional economic data.
MERC takes no position on policy issues at any level.*



METROWEST ECONOMIC RESEARCH CENTER

At Framingham State University

100 State Street, Framingham, MA 01701-9101

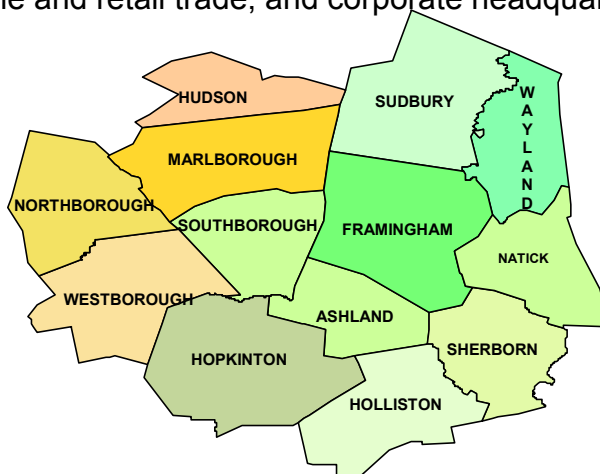
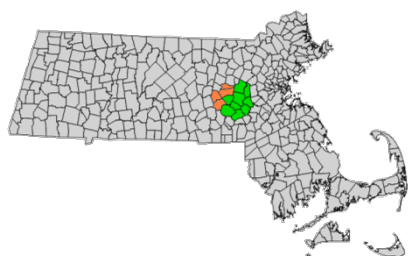
508-626-4033 – FAX: 508-626-4018

www.merc-online.org

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 170,000 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 191,350 jobs and a payroll exceeding \$14.7B in 2017. The region provided 4.4% of the Massachusetts labor force, 5.4% of Massachusetts employment, and 5.9% 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 *2019 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.

2019 Greater MetroWest Economic Profile

Table of Contents

Introduction	1
Table of Contents	2
Unemployment	3-11
Employment	12-24
Housing	25-37
MetroWest Cost of Living	38-48
Municipal Revenue	49-63
K-12 Public School Enrollment	64-70
Appendix	71-74
Sources & Acknowledgements	75

GREATER METROWEST – UNEMPLOYMENT

UNEMPLOYMENT¹

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.

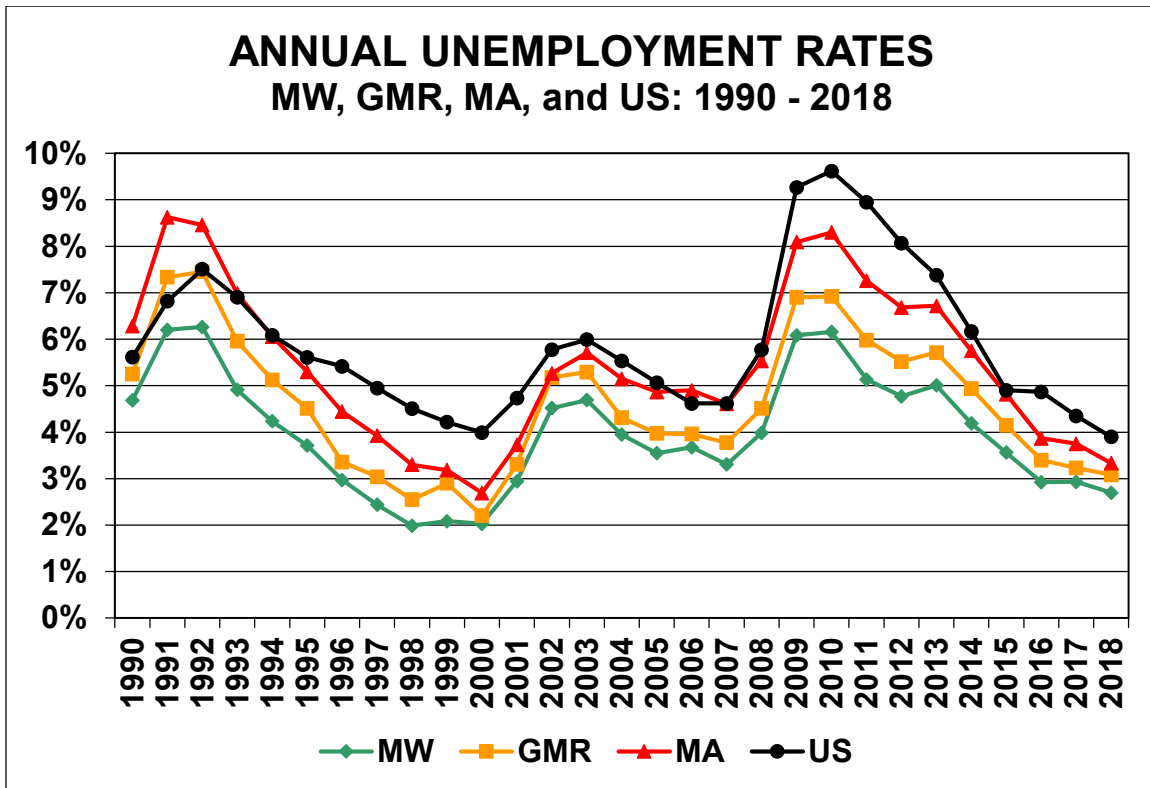
The unemployment rate is a measure of the amount of unutilized labor in the economy. The rate represents the proportion of unemployed individuals in the labor force. The **labor force** is defined as all civilian non-institutionalized persons age 16 and over who are either employed or unemployed. The **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 2019 unemployment rate in Framingham of 2.4% was based on the following information: the size of the labor force was **estimated** at 41,700 workers, the sum of 40,703 residents who were employed and 997 residents who were unemployed. The rate, expressed as a percentage, was obtained by dividing the unemployed (997) by the labor force (41,700) and multiplying by 100 to get the unemployment rate of 2.4%.

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.

¹The 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.

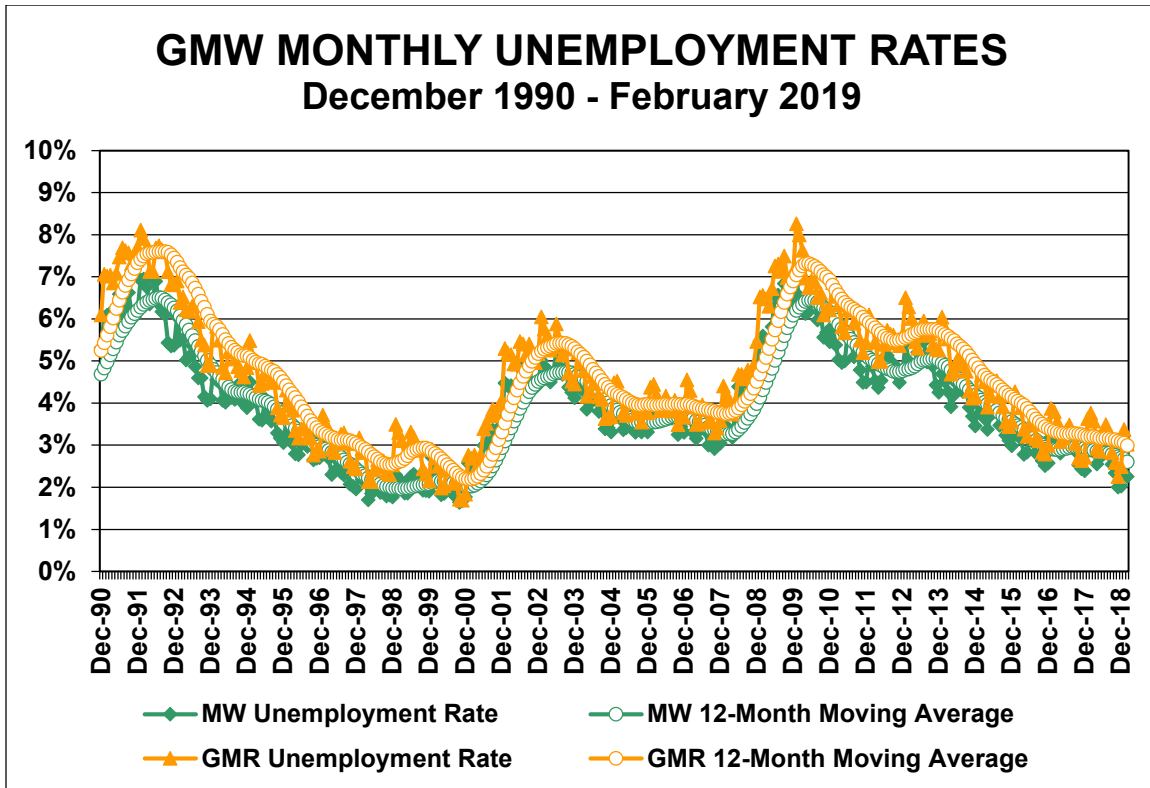
GREATER METROWEST – UNEMPLOYMENT



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 2018 are calculated by averaging the monthly unemployment rates for each year.
- In 2018, MetroWest posted an unemployment rate of 2.7% and the Greater Marlborough Region posted 3.1%. Both MW's and GMR's rates were lower than Massachusetts' and the United States' rate of 3.3% and 3.9%, respectively.
- MetroWest experienced a decrease in its unemployment rate by 0.2 percentage points from 2017 to 2018, while GMR posted a slight decrease in its rate by 0.1 percentage points during the same period.
- Massachusetts and the United States both experienced a decrease in their unemployment rates from 2017 to 2018 by 0.5 percentage points.
- MW and GMR have consistently posted annual unemployment rates lower than both MA and the US except in 1991 when GMR recorded a higher annual unemployment rate than the nation.

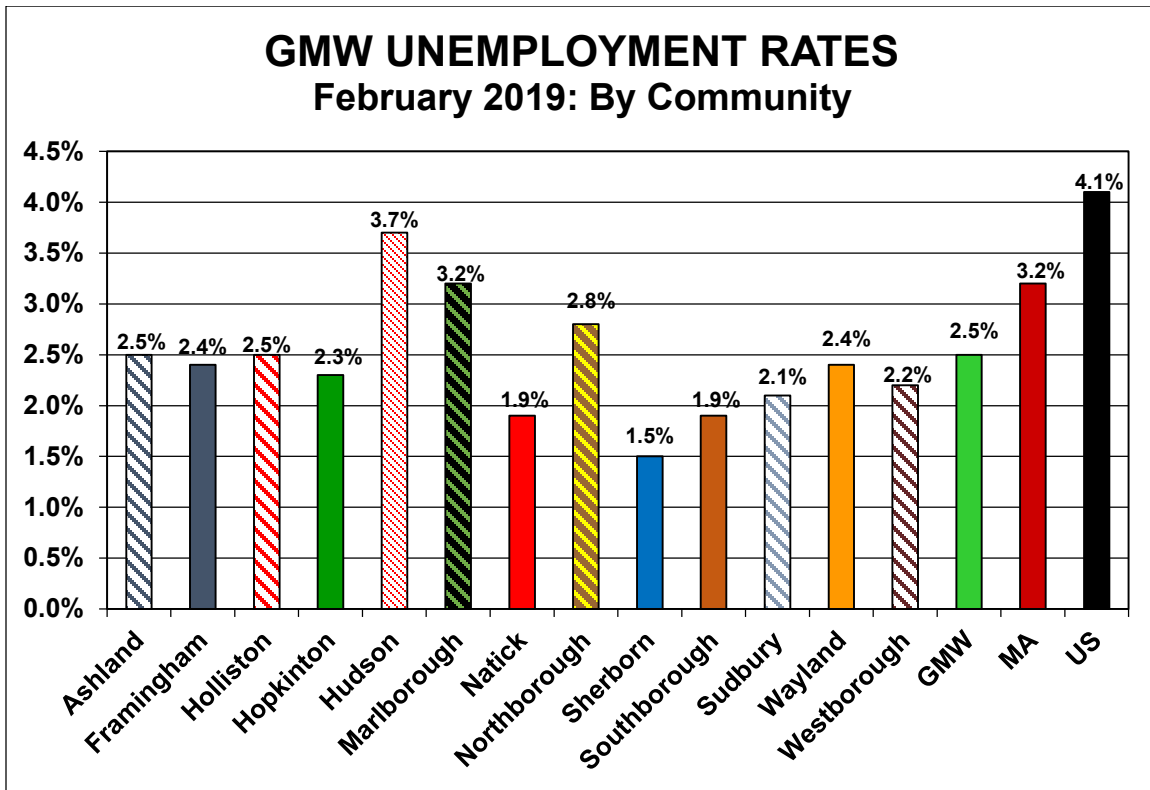
GREATER METROWEST – UNEMPLOYMENT



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 2019. The 12-month moving average evens out the month-to-month variation of the data.
- During this time period, MW reached its peak unemployment rate of 7.0% in February 1992, while the Greater Marlborough Region reached its peak at 8.1% in January 1992. MW and GMR reached their lowest unemployment rates of 1.6% and 1.7%, respectively, in October 2000.
- The MW unemployment rate in February 2019 was 2.3%, decreasing by 0.3% from the January 2019 rate of 2.6%. GMR's unemployment rate in February 2019 was 3.0% and was reduced by 0.4% from the previous month.
- The 12-month moving averages in both MW and GMR followed similar patterns with their monthly rates from December 1990 through February 2019. In general, MW unemployment rates tended to be lower than GMR's rates throughout the years.

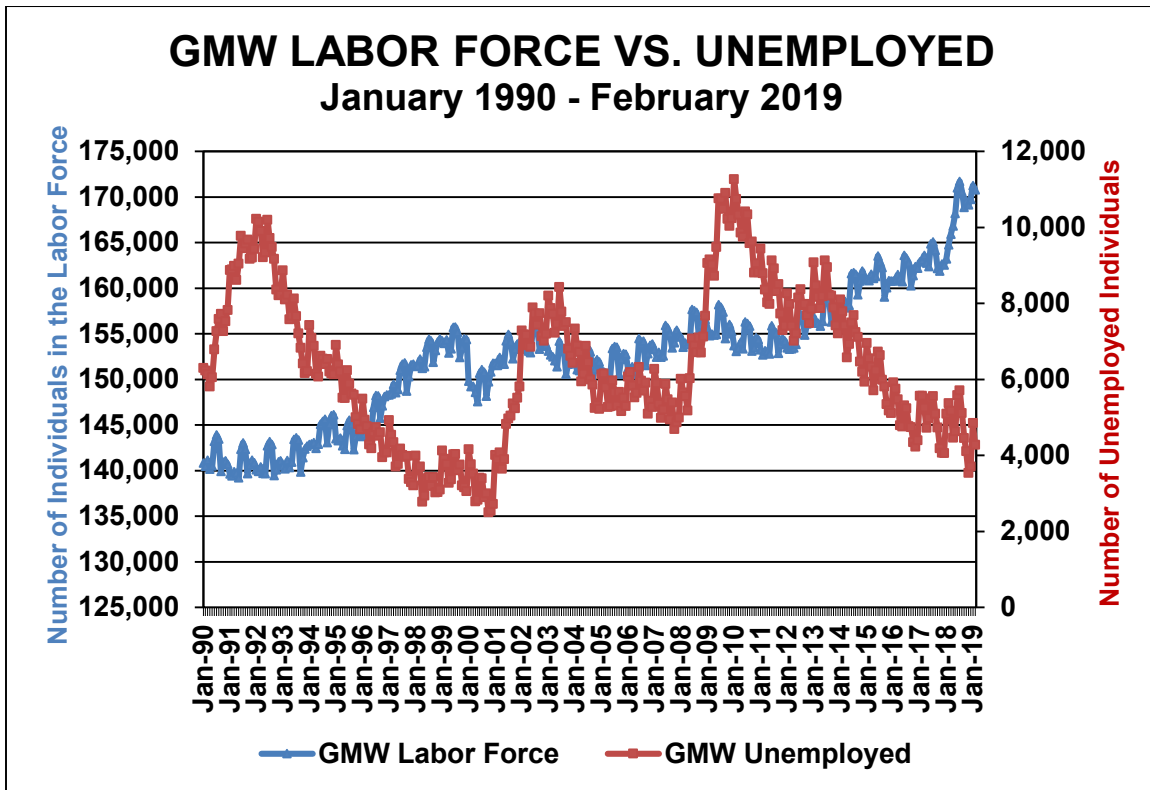
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- In February 2019, each of the thirteen communities in Greater MetroWest (GMW) posted unemployment rates lower than the nation's rate of 4.1%.
- All communities in the GMW posted unemployment rates lower than or equal to that of Massachusetts' rate of 3.2% with the exception of Hudson, which posted the highest rate of 3.7%.
- Hudson, Marlborough, and Northborough were the three communities in the region that experienced higher unemployment rates than GMW's rate of 2.5% in February 2019.
- Among the thirteen communities in Greater MetroWest, Hudson posted the highest unemployment rate at 3.7%. Marlborough and Northborough posted the next highest unemployment rates in the region with 3.2% and 2.8%, respectively.
- Sherborn posted the lowest unemployment rate in February 2019 at 1.5% followed by Natick and Southborough, both recorded at 1.9%.

GREATER METROWEST – UNEMPLOYMENT



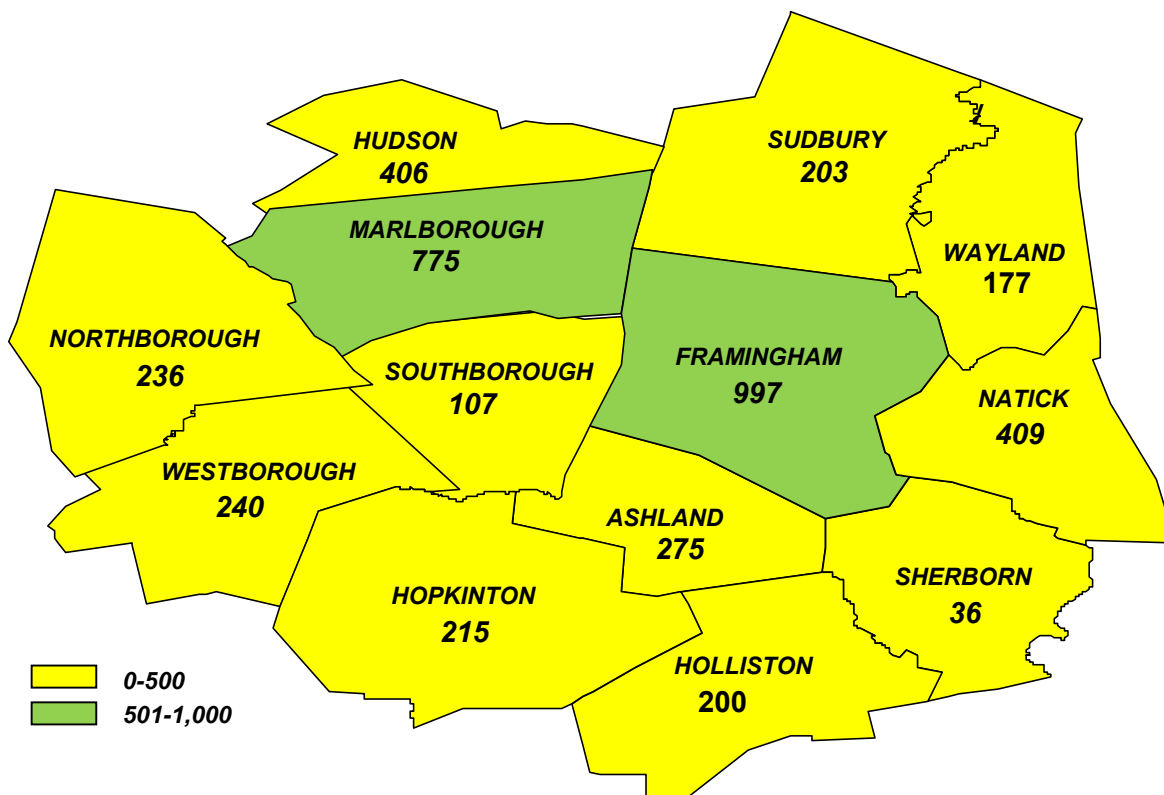
Source: MA EOLWD and MERC

- 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 2019. 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 2019, GMW recorded 170,811 individuals in the labor force. The highest number in the labor force in the region was recorded in July 2018 with 171,714 individuals. The lowest number of individuals in the labor force was posted in May 1991 at 139,225 individuals.
- GMW reported 4,276 unemployed individuals in February 2019. The number of unemployed individuals reached its peak in January 2010 at 11,258 individuals. The region's smallest number of unemployed individuals of 2,498 was recorded in October 2000.

GREATER METROWEST – UNEMPLOYMENT

GMW NUMBER OF UNEMPLOYED

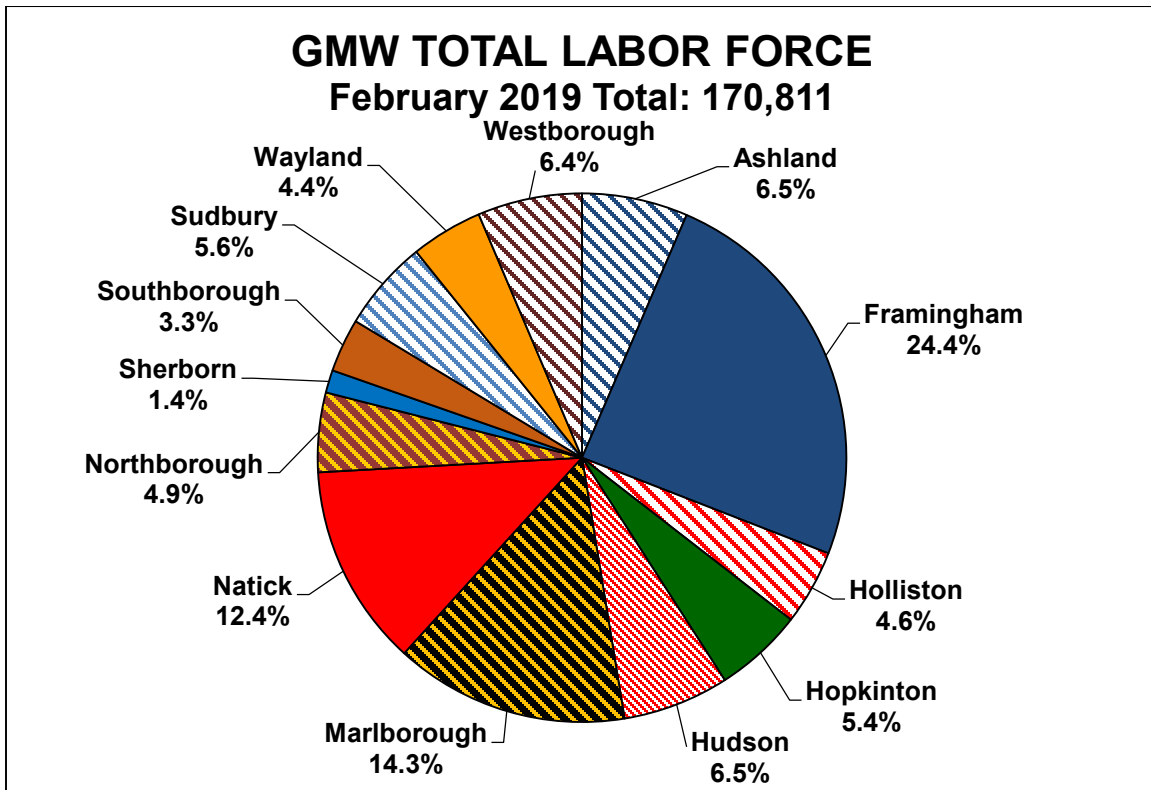
February 2019 Total: 4,276



Source: MA EOLWD and MERC

- The total number of unemployed individuals in Greater MetroWest (GMW) in February 2019 was 4,276.
- Framingham had the largest number of unemployed individuals in the entire GMW with 997 individuals, followed by Marlborough with 775 unemployed individuals. Together, these two communities accounted for about 41% of the total unemployed individuals in Greater MetroWest.
- Among the thirteen communities in the region, Sherborn had the lowest number of unemployed individuals with 36 individuals, followed by Southborough with 107 unemployed individuals and Wayland with 177 unemployed individuals.

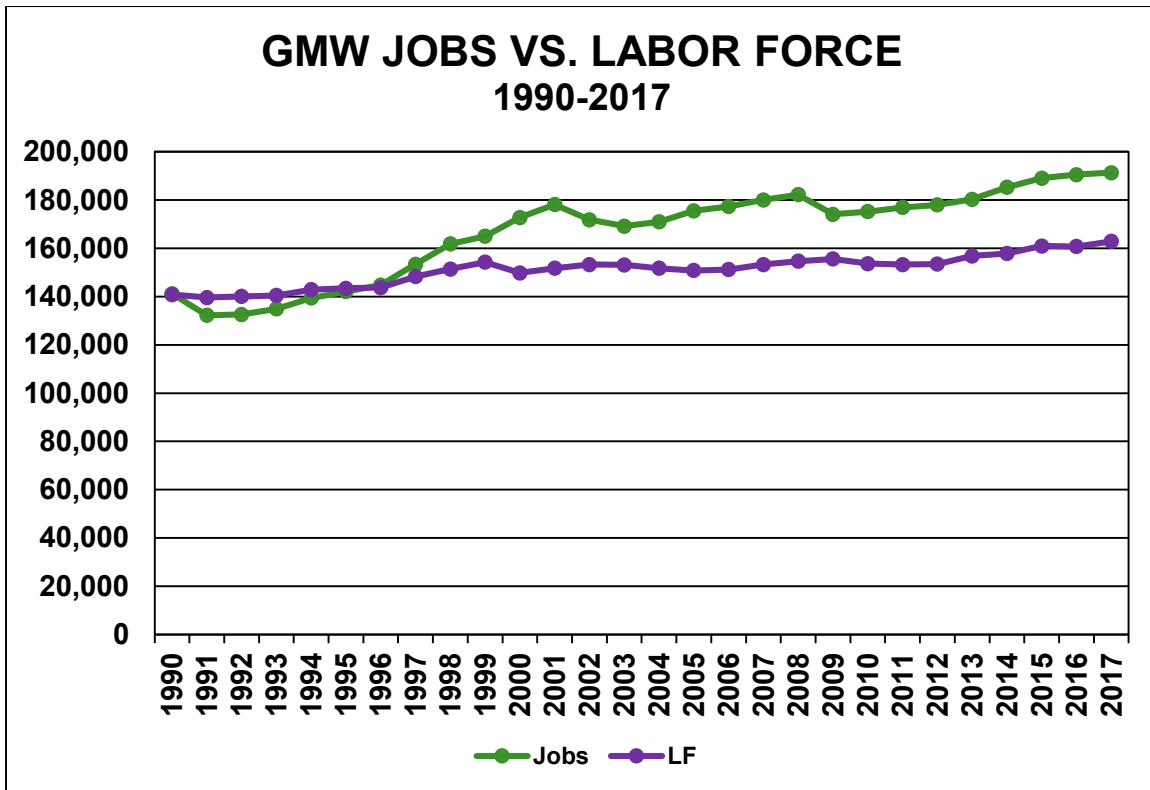
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- In February 2019, the total number of individuals in the labor force in Greater MetroWest (GMW) was 170,811 individuals.
- The nine communities that make up MetroWest (MW) accounted for 116,026 individuals. The four communities in the Greater Marlborough Region (GMR) accounted for 54,785 individuals. MW made up about two thirds of the total labor force in GMW while GMR contributed about one third.
- Among the communities in GMW, Framingham was the largest contributor to the total labor force in the region with 24.4% or 41,700 individuals. Marlborough and Natick were the next largest contributors with 14.3% or 24,458 individuals and 12.4% or 21,137 individuals, respectively. Together, the labor force in these three communities accounted for more than 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 2,365 individuals. Southborough and Wayland followed Sherborn with a contribution of 3.3% or 5,598 individuals and 4.4% or 7,508 individuals, respectively. These three communities accounted for 9.1% of the total labor force in the region.

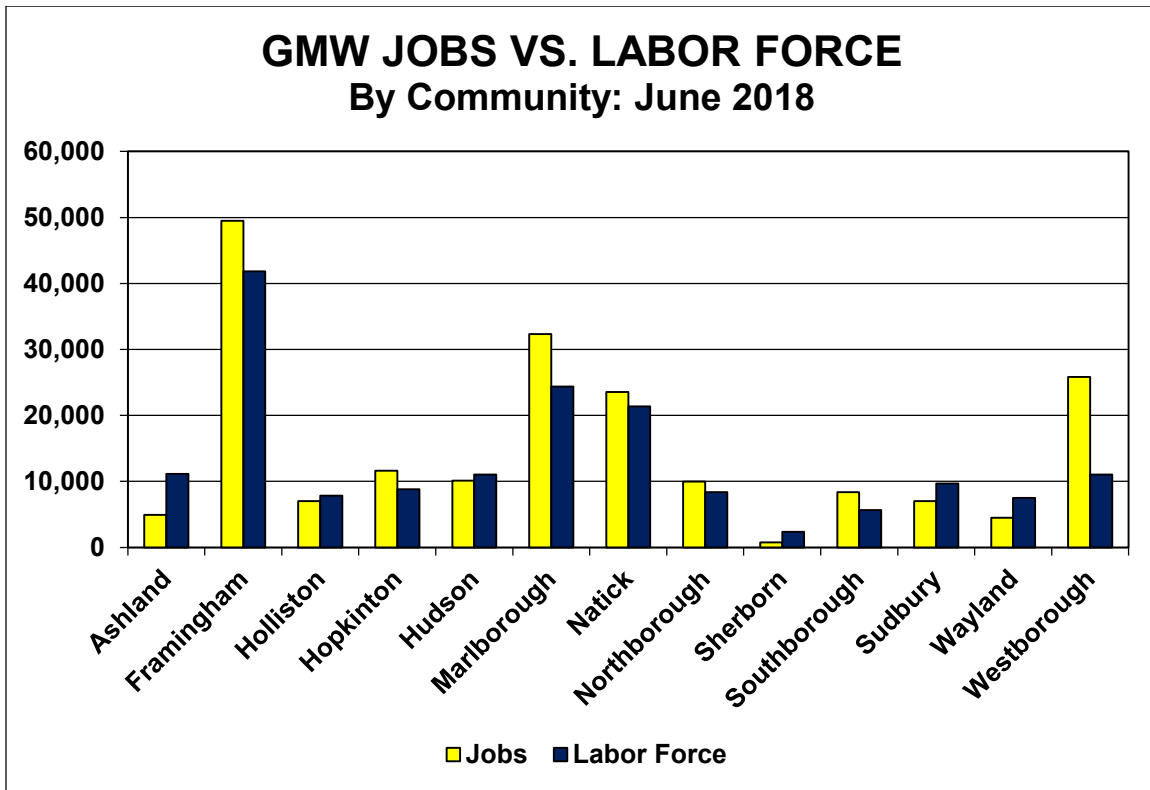
GREATER METROWEST – UNEMPLOYMENT



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 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 2017, 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 2017, the total number of jobs and individuals in the labor force reached their peak in 2017.
- In 2017, the total number of jobs in GMW was 191,371, and the total number of individuals in the labor force was 163,176. During this year, there were 28,195 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 employed or unemployed.
- As of June 2018, there was a total of 195,503 jobs in GMW. Framingham had the highest number of jobs available during this month with 49,507 jobs, followed by Marlborough with 32,320 jobs and Westborough and Natick came next with 25,844 and 23,573 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

EMPLOYMENT¹

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 2019 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. For a more detailed description of NAICS categories as used in this publication, please see the Appendix.

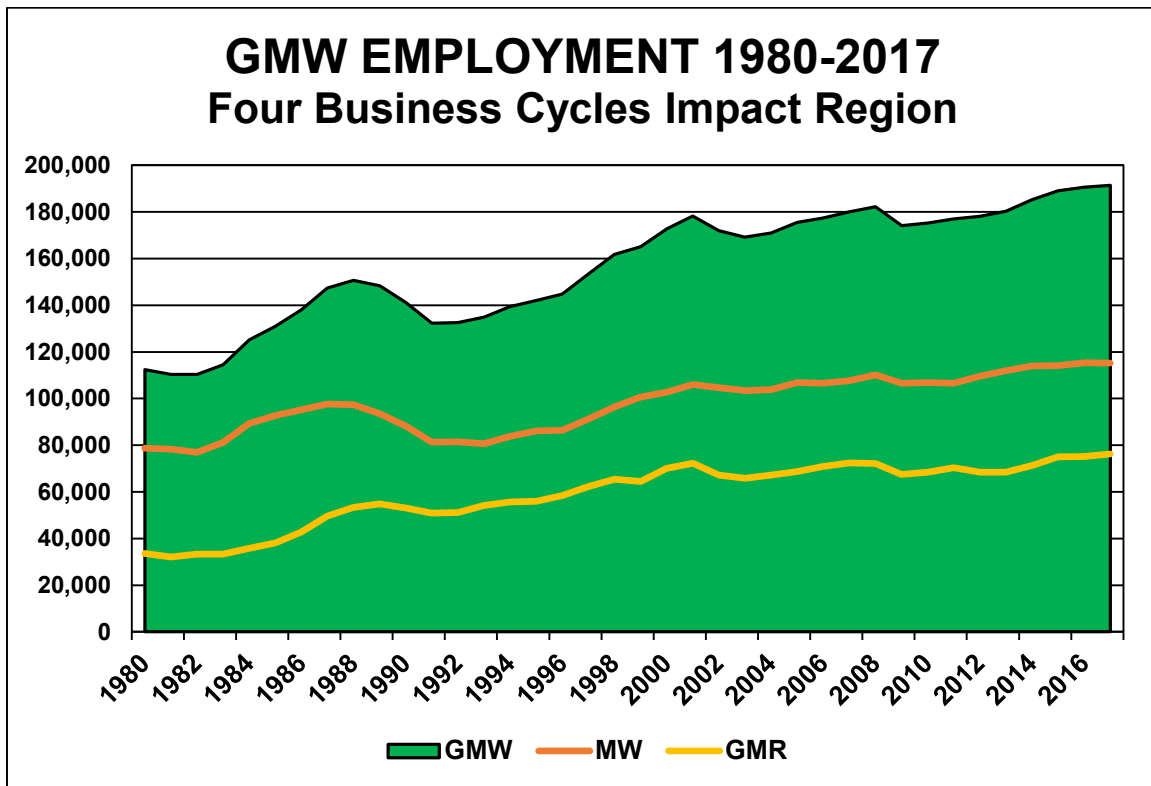
In the ES-202 series **employment** refers to the count of all persons on the payroll of establishments subject to the law, who worked full-time or part-time within the 13 communities of Greater MetroWest. Annual **payroll** includes all wages and salaries paid to covered employees including commissions,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

Please note that all data and analysis included in this report refer to business establishments, *not* residents, located within the 13 communities. Please also note that totals may not always add due to rounding.

For more Greater MetroWest employment data and analyses, please see the forthcoming MERC publication on the Greater MetroWest recovery and expansion following the Great Recession.

¹The 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, and MA EOLWD, *Employment and Wages by Industry and Area* (ES202).

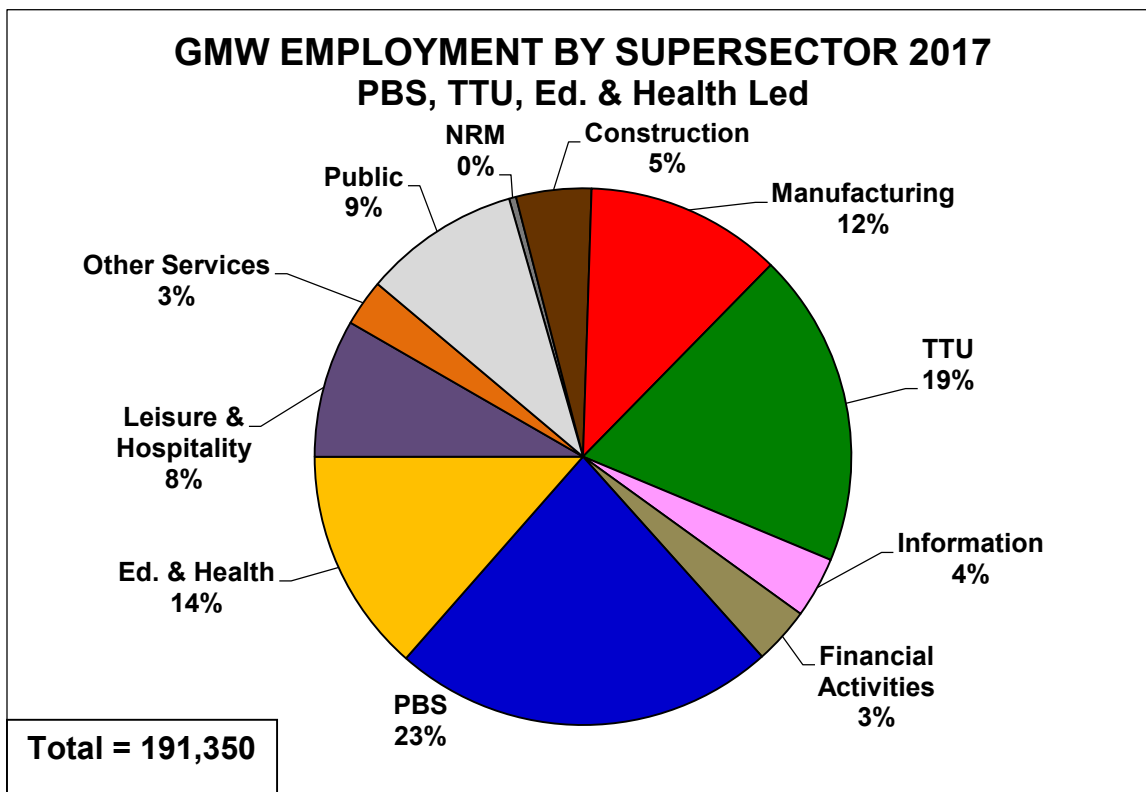
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, Greater MetroWest (GMW) annual employment reached a record 191,350 jobs, up 820 jobs or 0.4% since 2016.
- Since 2009, the bottom of the Great Recession, GMW added 17,300 jobs, a gain of 9.9% in 8 years.
- In 1980, GMW recorded employment of 112,400 jobs. By 2017, GMW employment reached 191,350 jobs, a gain of 79,000 jobs or 70.3% over the 38-year period. GMW experienced an average annual increase of 1.4%.
- Since 1980, Greater MetroWest has had four recessions with troughs in 1982, 1991, 2003, and 2009, as well as four expansions with peaks in 1988, 2001, 2008, and a new high in 2017.
- In 2017, MetroWest (MW) accounted for 60.2% of GMW employment, or 115,150 jobs, and the Greater Marlborough Region (GMR) contained 39.8% of GMW employment, or 76,200 jobs.

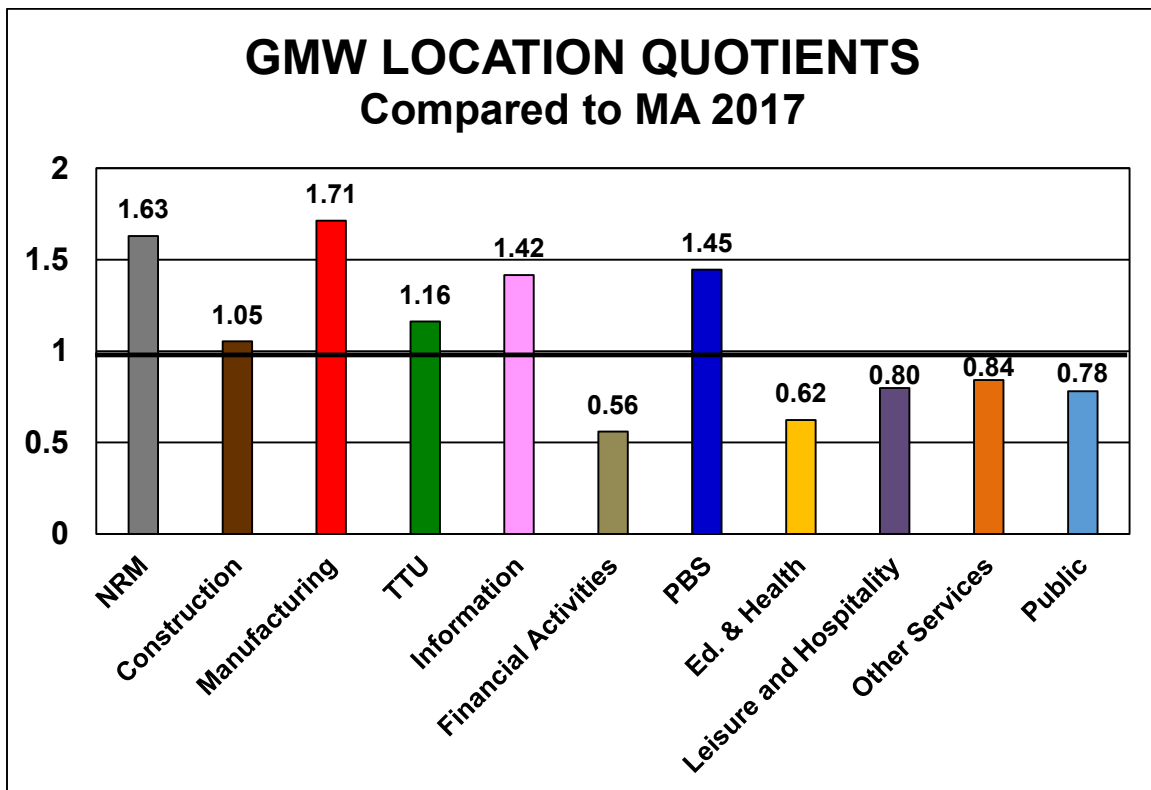
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017 Greater MetroWest (GMW) employment in GMW reached a new annual high of 191,350 jobs, up 820 jobs, or 0.4% from 2016.
- Professional and Business Services (PBS) produced the largest share of GMW employment at 44,190 jobs, or 23% of the regional total, followed by Trade, Transportation and Utilities (TTU) with 36,270 jobs or 19%.
- In 2017, the gap between Education and Health Services (Ed. & Health) employment and Manufacturing employment widened. Ed. & Health generated more jobs than Manufacturing. Ed. & Health produced 14% of jobs in the region at 25,890 jobs, while Manufacturing produced 12% of jobs or 22,600 jobs.
- Combined, four supersectors: PBS, TTU, Ed. & Health, and Manufacturing account for two thirds of GMW employment.
- The Public and Leisure & Hospitality supersectors combined contributed 17% of GMW jobs. The remaining five supersectors combined provided 15% of GMW employment.
- The private sector generated 91% of all GMW jobs with 9% in the public sector.

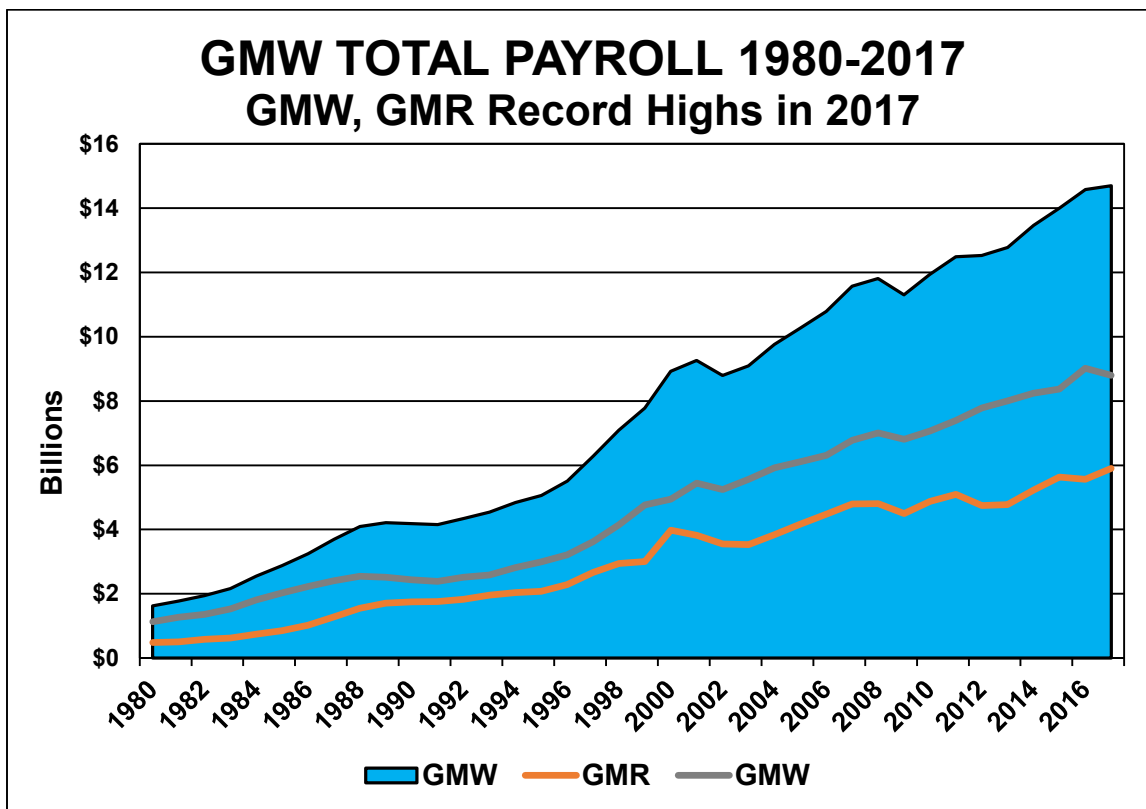
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Location Quotients (LQ) can be used to compare the regional industry share of total employment to the statewide share for the same industry in the same year. A regional LQ greater than 1.0 for GMW shows an industry concentration higher than that of the state.
- Two supersectors had LQs higher than 1.5: Manufacturing (1.71) and Natural Resources & Mining (NRM) (1.63). In 2017, GMW Manufacturing achieved the highest LQ with a 71% higher concentration of Manufacturing jobs in GMW than in Massachusetts.
- Four supersectors had LQs between 1.0 and 1.5: Professional & Business Services (PBS) (1.45), Information (1.42), Trade, Transportation & Utilities (TTU) (1.16) and Construction (1.05).
- PBS, TTU, and Manufacturing, three of the four largest GMW supersectors in employment, had LQs exceeding 1.0, with concentrations of employment in these supersectors exceeding that in Massachusetts as a whole.
- Five supersectors had LQs below 1.0, showing that the concentration of those jobs in GMW is less than the concentration in MA as a whole. The supersectors include Other Services (0.84), Leisure & Hospitality (0.80), Public (0.78), Education & Health Services (0.62), and Financial Activities (0.56).

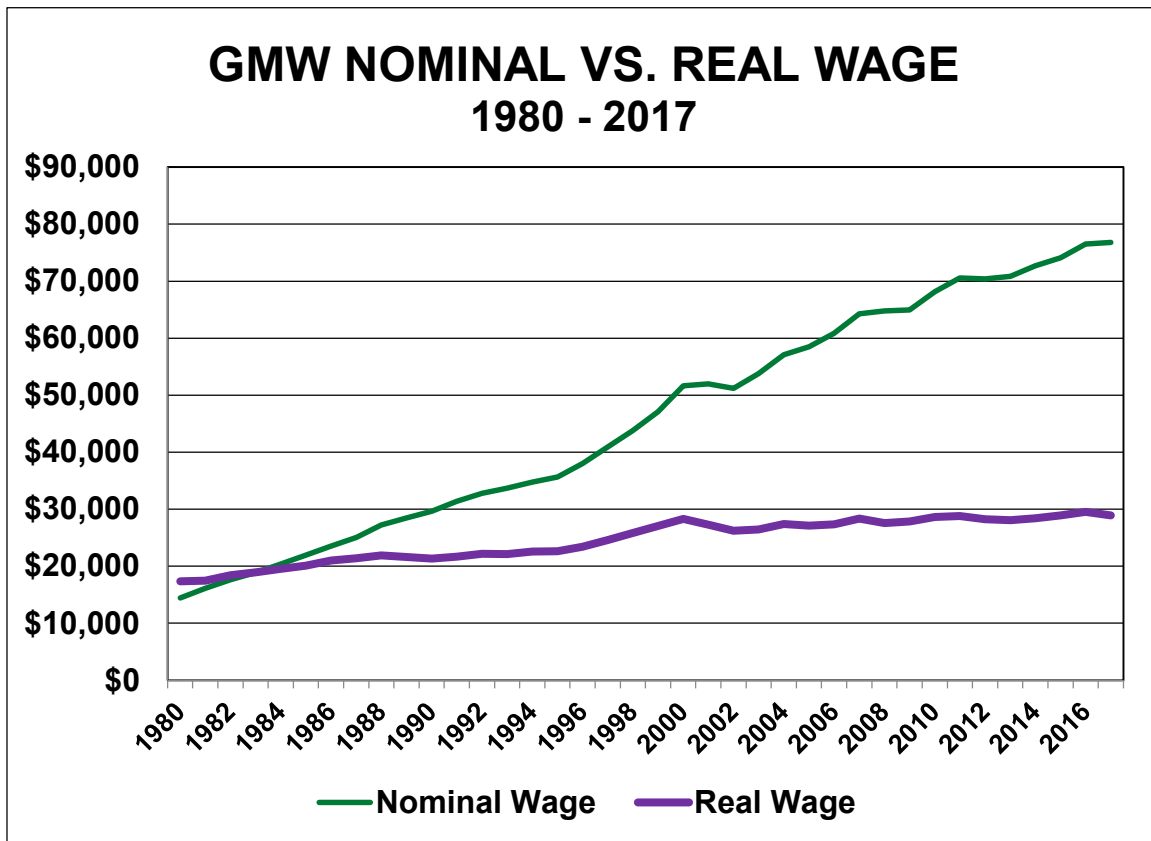
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- Greater MetroWest (GMW) total payroll reached a record high of \$14.7 billion in 2017, an 820%, or 9-fold increase from the 1980 regional payroll of \$1.6 billion. This graph shows GMW, MW, and GMR nominal total payroll or total payroll in current dollars not corrected for inflation.
- GMW payroll climbed steadily at an average annual percentage rate of 6.1%, dipping only twice in the recession years of 2002 and 2009.
- In 2017, MetroWest (MW) accounted for 59.8% of regional payroll in GMW, while the Greater Marlborough Region (GMR) accounted for 40.1%.
- GMR reached a record payroll of \$5.9 billion in 2017, an increase of \$338 million from 2016, while MW recorded regional payroll of \$8.8 billion, a decrease of \$220 million from its record 2016 regional payroll of \$9 billion.
- GMR payroll climbed from \$485 million in 1980 to \$5.9 billion in 2017, an eleven-fold increase over the 38-year period. MW payroll climbed from \$1.1 billion in 1980 to \$8.8 billion in 2017, a seven-fold gain over the period.

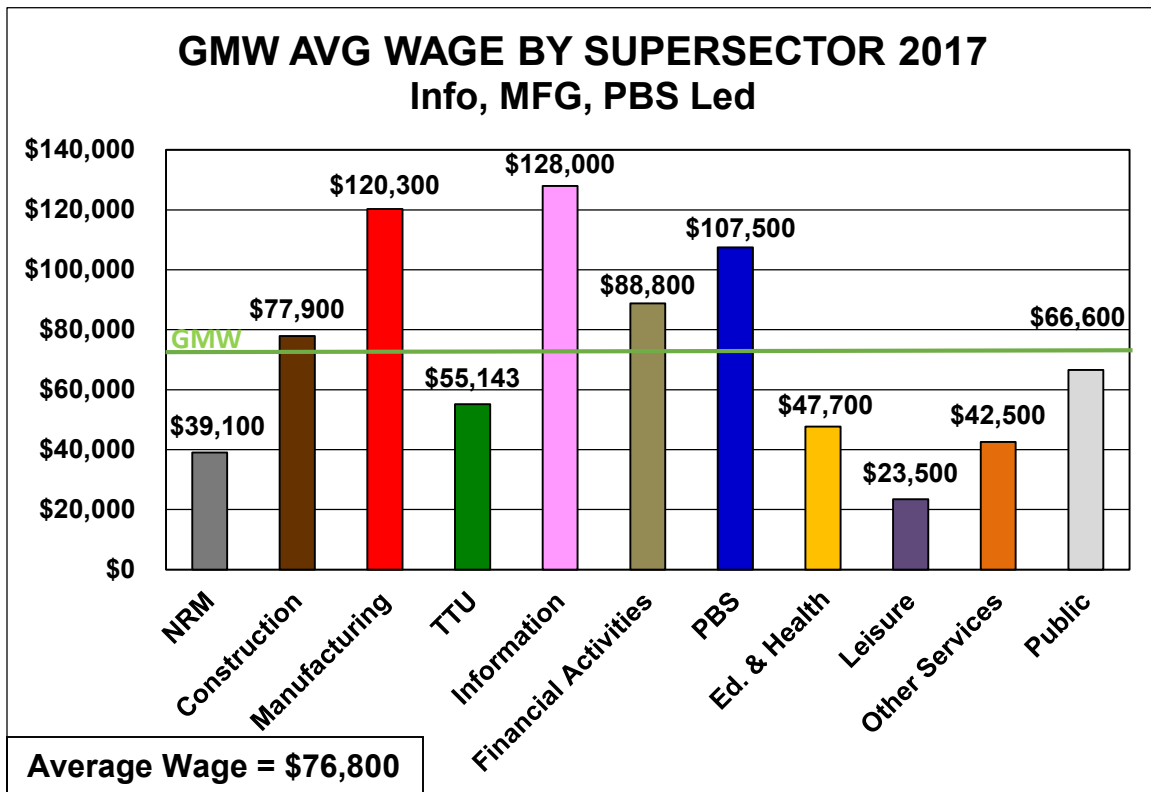
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, the nominal wage in Greater MetroWest (GMW) was \$76,800, while the real wage was \$28,900. The real wage adjusts the nominal wage for inflation, as the real wage is what the nominal wage would buy if prices were still the same as they were in the base year.
- Since 1980, the nominal wage in GMW had increased nearly 433%, from \$14,400 to \$76,800, while the real wage only increased by 66%, from \$17,400 to \$28,900.
- The GMW real wage (in purple) is the average annual nominal wage corrected for inflation using the Boston Consumer Price Index (CPI) for all Urban Wage Earners and Clerical Workers. The base year is 1982-84 = 100.
- In GMW, the average annual increase for the nominal wage was 4.5%, while the average annual increase for the real wage was 1.3% over the 38-year period.

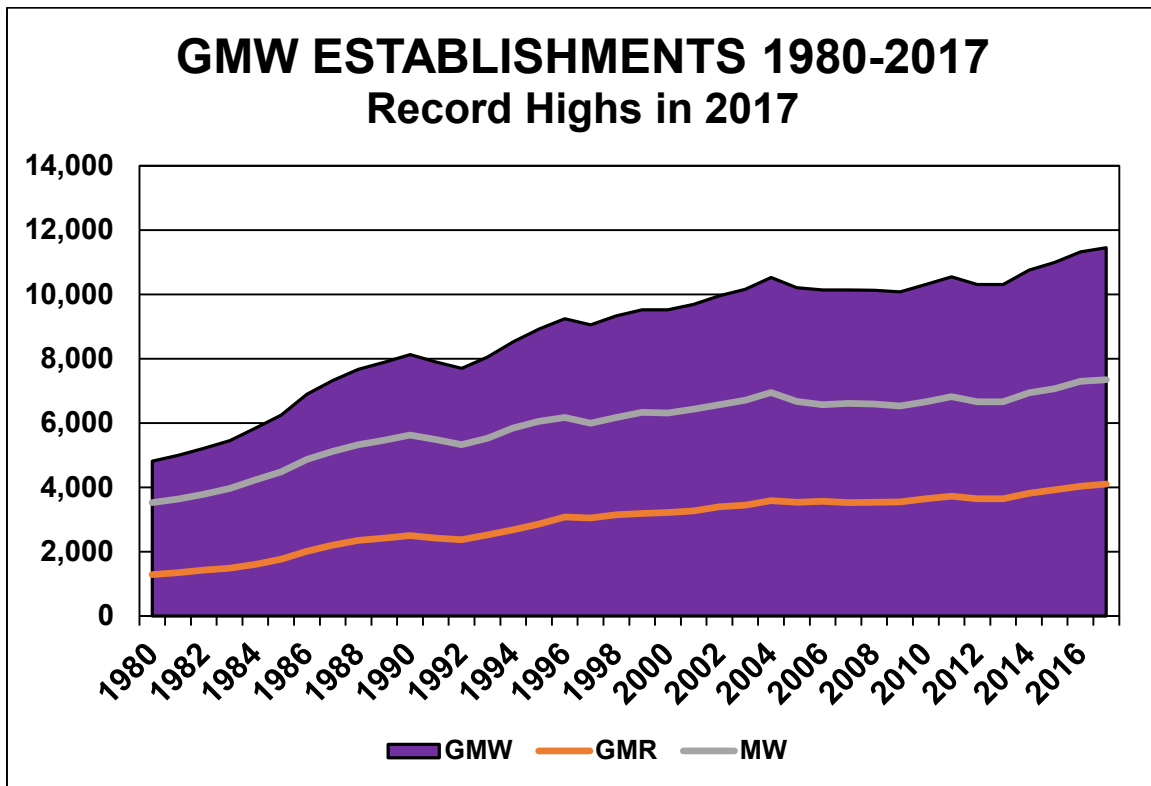
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, the average annual wage for Greater MetroWest (GMW) (green line) reached a record \$76,800, up 0.4% or \$280 from 2016.
- Since 2013, the GMW average wage has broken records with each consecutive year through 2017.
- Information produced a higher annual wage than Manufacturing, by a difference of \$7,700. The last time that the GMW Information wage exceeded the GMW Manufacturing wage was in 2012.
- For the first time in GMW, there are three supersectors with average wages exceeding \$100,000. These include Information (\$128,000), Manufacturing (\$120,300), and Professional & Business Services (PBS) (\$107,500). Furthermore, Financial Activities and Construction both exceeded the GMW average wage.
- Six supersectors posted average wages below the average wage for GMW: Public (\$66,600), Trade, Transportation, and Utilities (TTU) (\$55,140), Education and Health Services (\$47,700), Other Services (\$42,500), Natural Resources and Mining (NRM) (\$39,100), and Leisure and Hospitality (\$23,500).

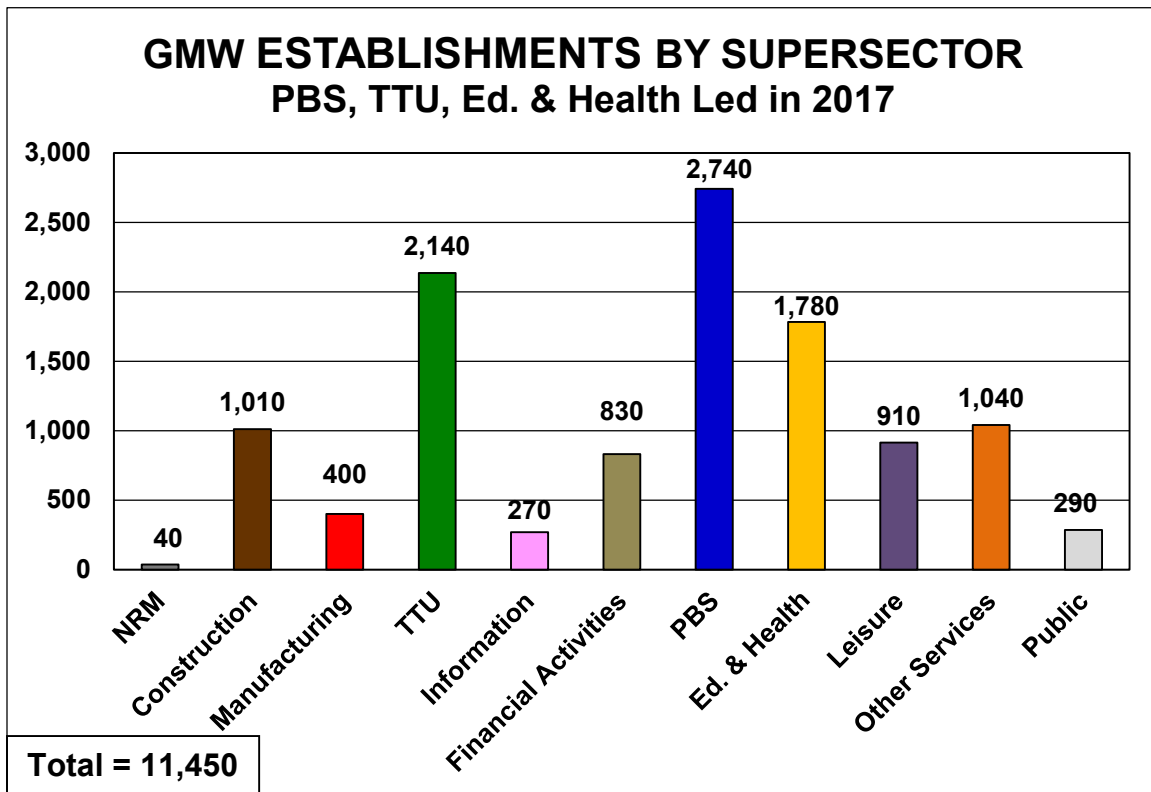
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, Greater MetroWest (GMW) establishments, or separate places of work, totaled a record 11,450, an increase of 1.1% from 2016.
- Since 2009, the trough of the Great Recession, GMW has added 1,370 establishments, a gain of 13.6%.
- From 1980 to 2017, the number of establishments in GMW rose from 4,810 in 1980 to 11,450 in 2017, an increase of 138%. GMW experienced an average annual increase of 2.3%.
- Between 2013 and 2017, the number of GMW establishments surged, with 1,150 new establishments, a gain of 11.1%.
- In 2017, MetroWest (MW) establishments accounted for 64.2% of GMW establishments, or a record 7,350 establishments, while Greater Marlborough Region (GMR) accounted for 35.8% of regional establishments, or a record 4,100 establishments.

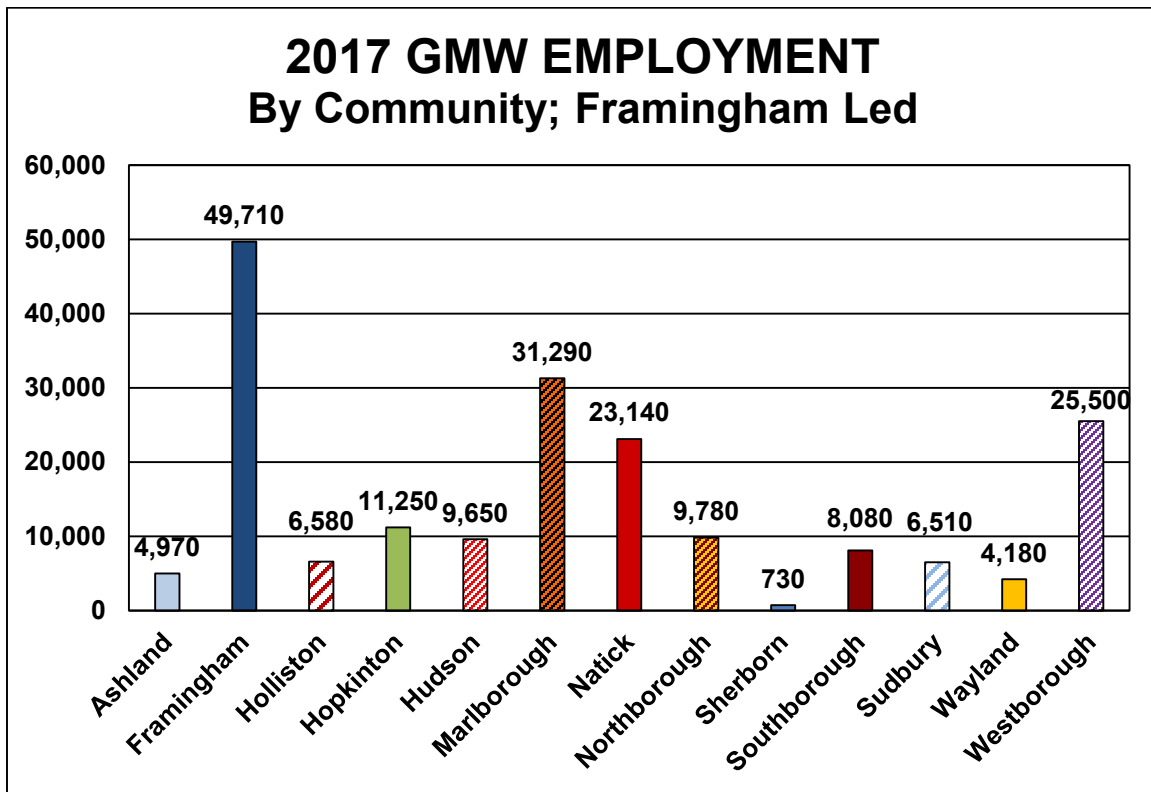
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, GMW establishments reached a record breaking 11,450 places of work, an increase of 1% since 2016. Three supersectors: Professional & Business (PBS), Trade, Transportation & Utilities (TTU) and Education & Health Services (Ed. & Health), dominated the region by contributing over 6,660 or 58% of all GMW establishments.
- Three supersectors lost establishments since 2016, Trade, Transportation and Utilities (TTU), Manufacturing, and Natural Resources & Mining (NRM). All other supersectors gained places of work. Manufacturing suffered the largest loss in establishments since 2016, down 12. In terms of gain, Construction led, adding 46 new places of work.
- Five supersectors produced more than 1,000 establishments. These include Professional & Business Services (PBS) (2,740), TTU (2,140), Education & Health Services (1,780), Other Services (1,040), and Construction (1,010). This marks the first year that Construction reached over 1,000 places of work.
- Four supersectors had fewer than 500 establishments: Manufacturing (400), Public (290), Information (270), and NRM (40).
- The remaining supersectors, Leisure & Hospitality (910) and Financial Activities (830), had between 800 and 1,000 establishments.

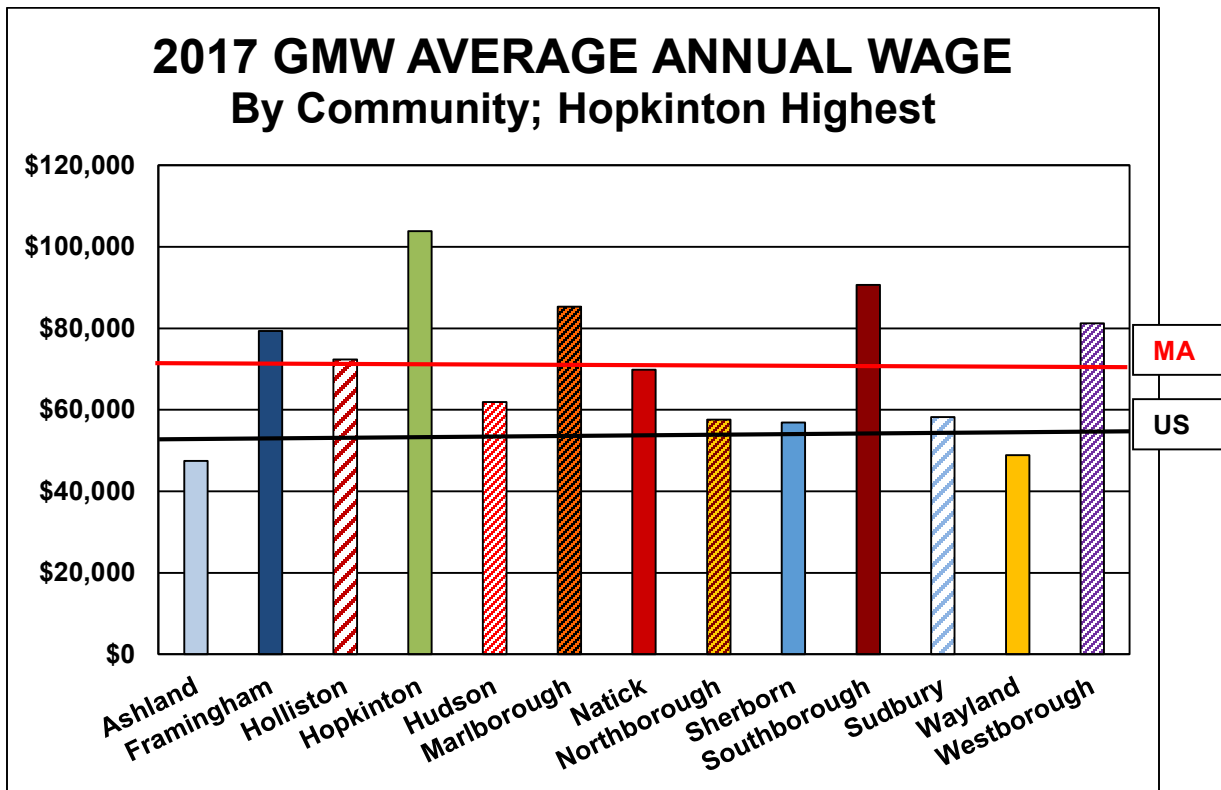
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, the 13 communities of Greater MetroWest (GMW) generated 191,350 jobs. GMW consists of 4 communities from the Greater Marlborough Region (GMR), as well as 9 communities from MetroWest (MW).
- GMR contributed 39.8% of GMW employment, and MW contributed 60.2% of employment in the region.
- Framingham generated the largest share of jobs in GMW, with 49,710, or 26% of GMW employment. In contrast, Sherborn generated 730 jobs, or 0.4% of regional employment.
- Four communities each produced over 10% of regional employment: Framingham (49,710 jobs or 26.0%), Marlborough (31,290 jobs or 16.3%), Westborough (25,500 jobs or 13.3%), and Natick (23,140 or 12.1%). Combined, they generated two-thirds of regional employment.
- Three communities produced between 5% and 10% of regional employment: Hopkinton (11,250 jobs or 5.9%), Northborough (9,780 jobs or 5.1%), and Hudson (9,650 jobs or 5.0%).
- The remaining five communities each generated fewer than 9,000 jobs or less than 5% of regional employment.

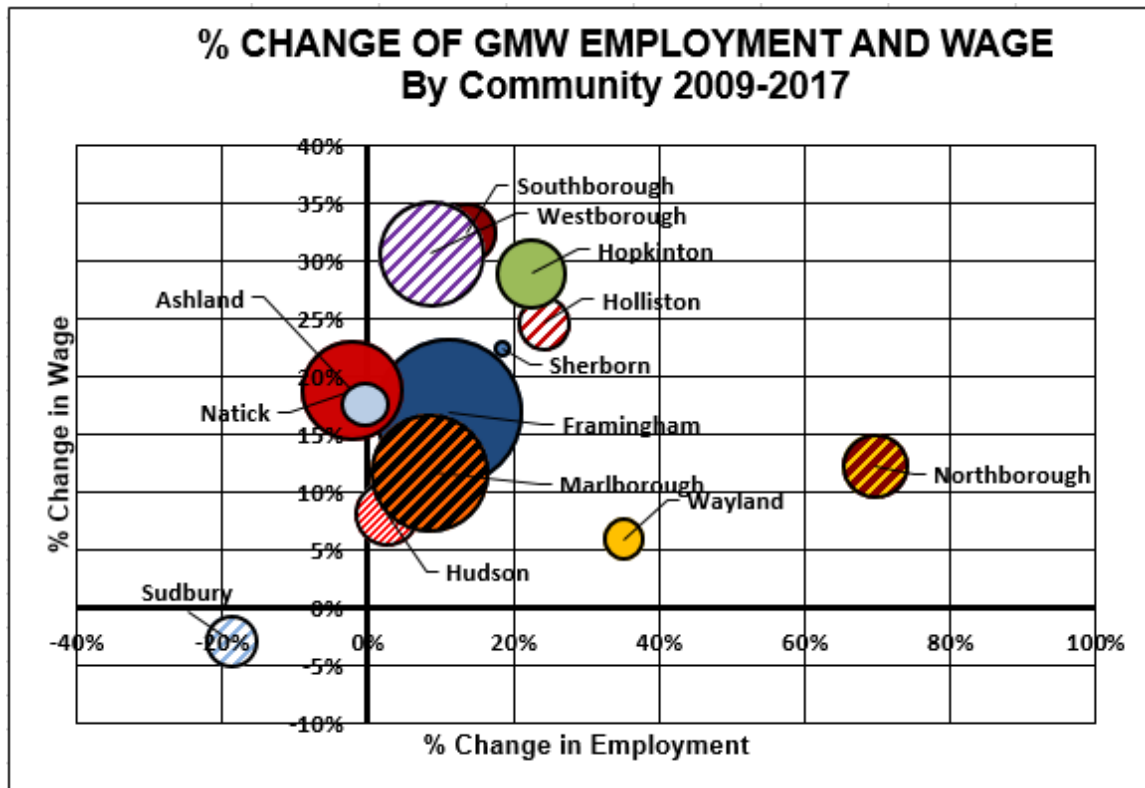
GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2017, the average annual wage in Greater MetroWest (GMW) was \$76,800.
- Among the 13 communities, Hopkinton generated the highest average annual wage, \$103,900. The second highest average wage was generated in Southborough, with \$90,700; Marlborough and Westborough followed with average annual wages of \$85,300, and \$81,200, respectively.
- Four communities produced average annual wages between \$60,000 and \$80,000: Framingham (\$79,300), Holliston (\$72,400), Natick (\$69,800), and Hudson (\$62,000).
- The remaining five communities all had average annual wages below \$60,000: Sudbury (\$58,200), Northborough (\$57,600), Sherborn (\$56,900), Wayland (\$48,900), and Ashland (\$47,500).
- Six GMW communities had average annual wages exceeding the Massachusetts average wage (in red) of \$69,900 in 2017.
- Eleven GMW communities had average annual wages exceeding the U.S. average annual wage (in black) of \$ 55,400 in 2017.

GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- This graph presents the comparison of changes in average annual wage and employment among the 13 Greater MetroWest (GMW) communities, from years 2009 to 2017. The horizontal axis represents the percent change in employment in GMW, while the vertical axis represents the percent change in average annual wage of GMW. The size of the circles represents the number of jobs as of 2017.
- Northborough is the only community in GMW that experienced a significant increase in employment (69.7%), as well as growth in average annual wage (12.3%).
- Sudbury, in contrast, is the only community in GMW to experience both a decrease in employment (-18.6%) and a decrease in the average annual wage (-2.9%).
- The majority of communities in GMW had increases in annual employment, as well as growth in average annual wage.
- However, two communities, Ashland and Natick, had slight declines in employment, -0.5% and -2.0%, respectively, but did have increases in average annual wage over the period.

GREATER METROWEST – EMPLOYMENT

Employment Comparison Greater MetroWest Region By Community 2017

Community/ Region	Number of Jobs*	Average Wage*	Total Payroll* (millions)	Number of Establishments*	Largest Supersector (Employment)
Ashland	4,970	\$47,500	\$235	470	TTU **
Framingham	49,710	\$79,300	\$3,943	2,530	PBS ***
Holliston	6,580	\$72,400	\$476	480	PBS
Hopkinton	11,250	\$103,900	\$1,168	560	Manufacturing
Hudson	9,650	\$62,000	\$598	660	TTU
Marlborough	31,290	\$85,300	\$2,670	1,720	PBS
Natick	23,140	\$69,800	\$1,616	1,550	TTU
Northborough	9,780	\$57,600	\$563	610	TTU
Sherborn	730	\$56,800	\$41	150	Public
Southborough	8,080	\$90,700	\$733	450	Education & Health
Sudbury	6,510	\$58,200	\$379	700	TTU **
Wayland	4,180	\$48,900	\$204	460	Leisure & Hospitality
Westborough	25,500	\$81,200	\$2,073	1,120	PBS
MetroWest CCSA	115,150	\$76,400	\$8,797	7,350	PBS
Greater Marlborough Region	76,220	\$77,500	\$5,904	4,100	PBS
Greater MetroWest	191,350	\$76,800	\$14,701	11,450	PBS
Massachusetts	3,544,010	\$55,400	\$247,818	254,080	Education & Health

Source: MA EOLWD, MERC

*Rounded

**Trade, Transportation and Utilities (TTU)

***Professional and Business Services (PBS)

GREATER METROWEST – HOUSING

HOUSING

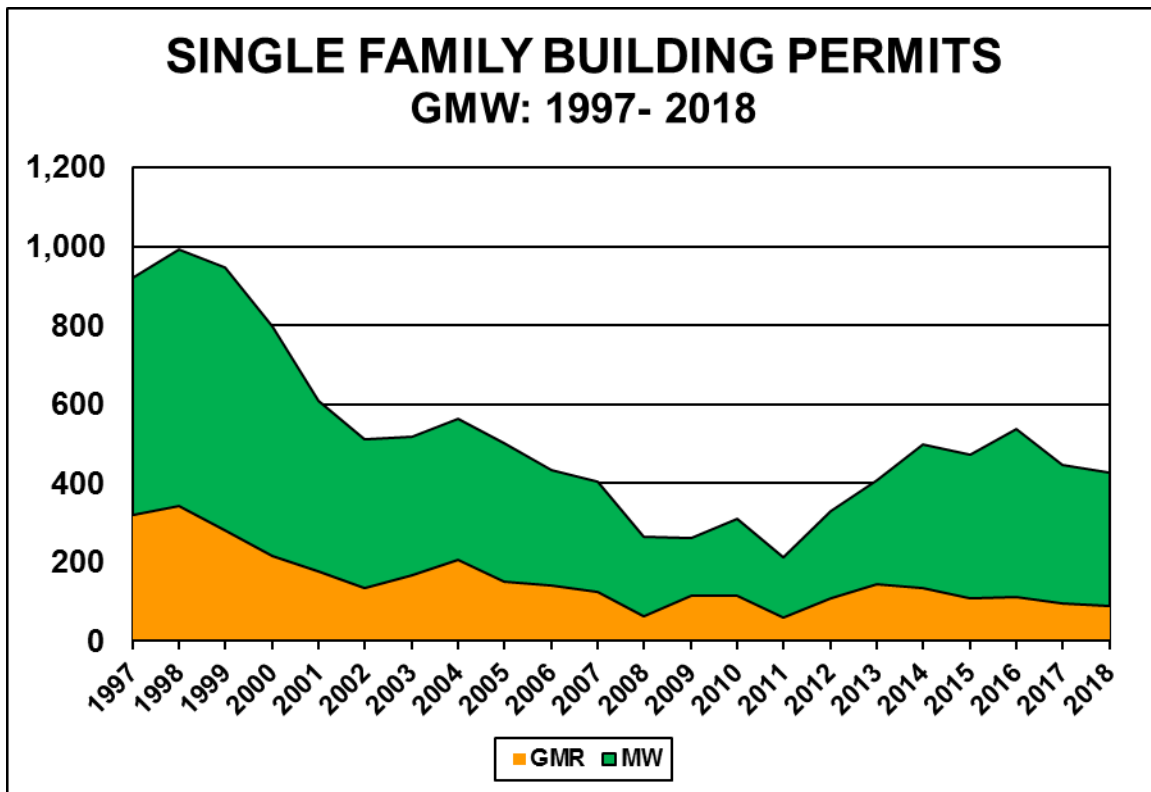
The MetroWest Economic Research Center (MERC) at Framingham State University collects and analyzes data on housing permits issued and existing home sales for Greater MetroWest (GMW), the aggregated MetroWest CCSA™ and Greater Marlborough Region. The MetroWest CCSA™ includes Ashland, Framingham, Holliston, 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. Building permits data for Massachusetts and the United States are also based on estimates published by the Federal Reserve Bank of Boston (FRBB).

Data on occupied housing units was recovered from the 2017 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 50th 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.

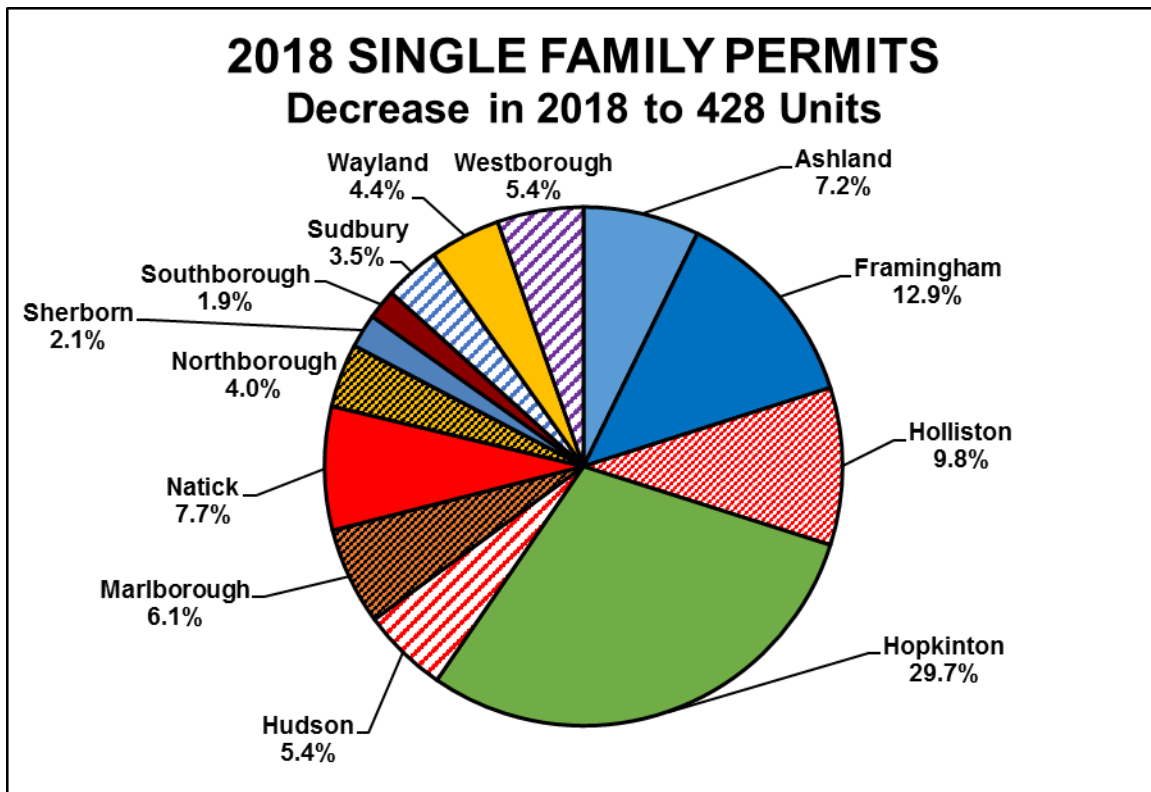
GREATER METROWEST – HOUSING



Source: U.S. Census Bureau and MERC

- New residential housing permits issued in Greater MetroWest (GMW) fell from the final 2017 value of 448 to an estimated 428 in 2018. Permits issued for single family homes in Greater MetroWest indicated by the height of the graph above, peaked at nearly 1,000 units in 1998 and reached a low value of 212 in 2011.
- MetroWest (MW), depicted in green, accounted for about 81% of the total permits issued in Greater MetroWest in 2018 while Greater Marlborough (GMR), depicted in orange, accounted for the remaining 19%.
- From 2017 to 2018, permits issued in MetroWest decreased by about 4.2%, while permits in Greater Marlborough decreased by about 5.3%. Overall, Greater MetroWest experienced a decrease in permits by about 4.4%.

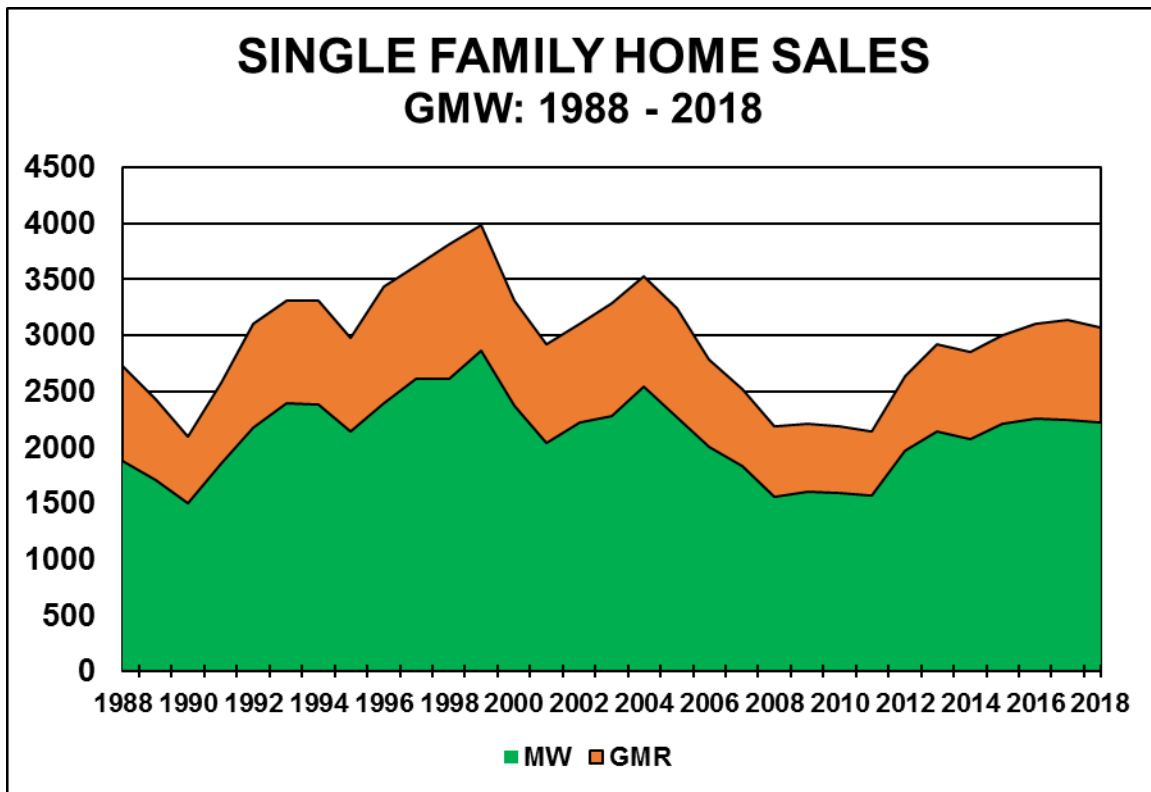
GREATER METROWEST – HOUSING



Source: U.S. Census Bureau and MERC

- In 2018, building permits issued for new single family homes in Greater MetroWest decreased by about 20 units from the year before to an estimated 428 permits.
- MetroWest made up the majority of these permits issued with 339 permits in 2018, while communities in the Greater Marlborough Region issued 89 permits.
- Hopkinton recorded the largest share of permits issued, accounting for nearly 30% of the regional total. Framingham contributed another 12.9% and Holliston registered 9.8%. Together these three communities accounted for more than half of permits issued in 2018.
- The other ten Greater MetroWest communities each contributed to the regional total between 1.9% in Southborough to 7.7% recorded in Natick.

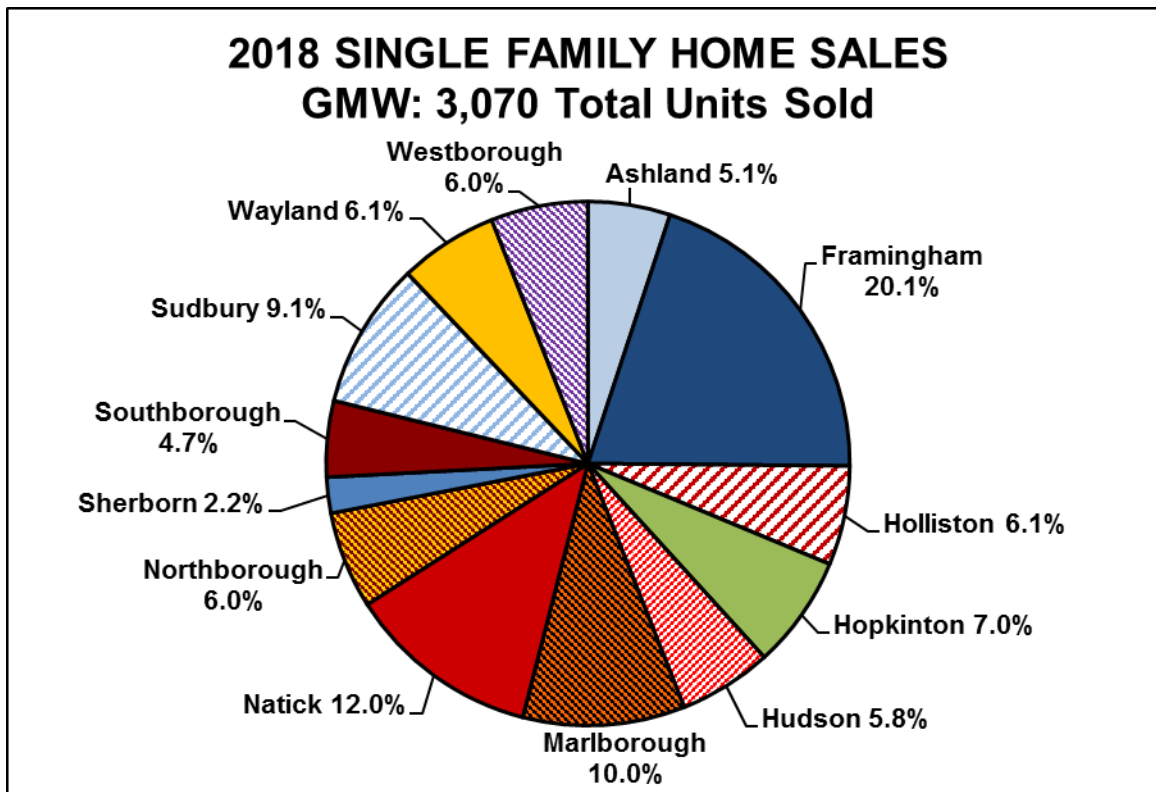
GREATER METROWEST - HOUSING



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 31-year period from 1988 to 2018. 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).
- The largest percentage decrease in single family home sales occurred 1999 to 2000, representing a 16.9% drop; the largest percentage increase occurred between 1990 and 1991, representing a 23.0% increase in single family home sales in GMW.
- Dips in single family home sales in GMW occurred in 1990, 1995, 2001, 2008, and 2011; whereas peaks occurred in the years 1999 and 2004. The fewest homes sold in GMW occurred in 1990 at 2,099 units sold, and the peak occurred in 1999 at 3,986 units sold.
- From 2017 to 2018, MW experienced a decrease of 31 units sold or -1.4% and GMR experienced a decrease of 34 units sold or -3.8%.

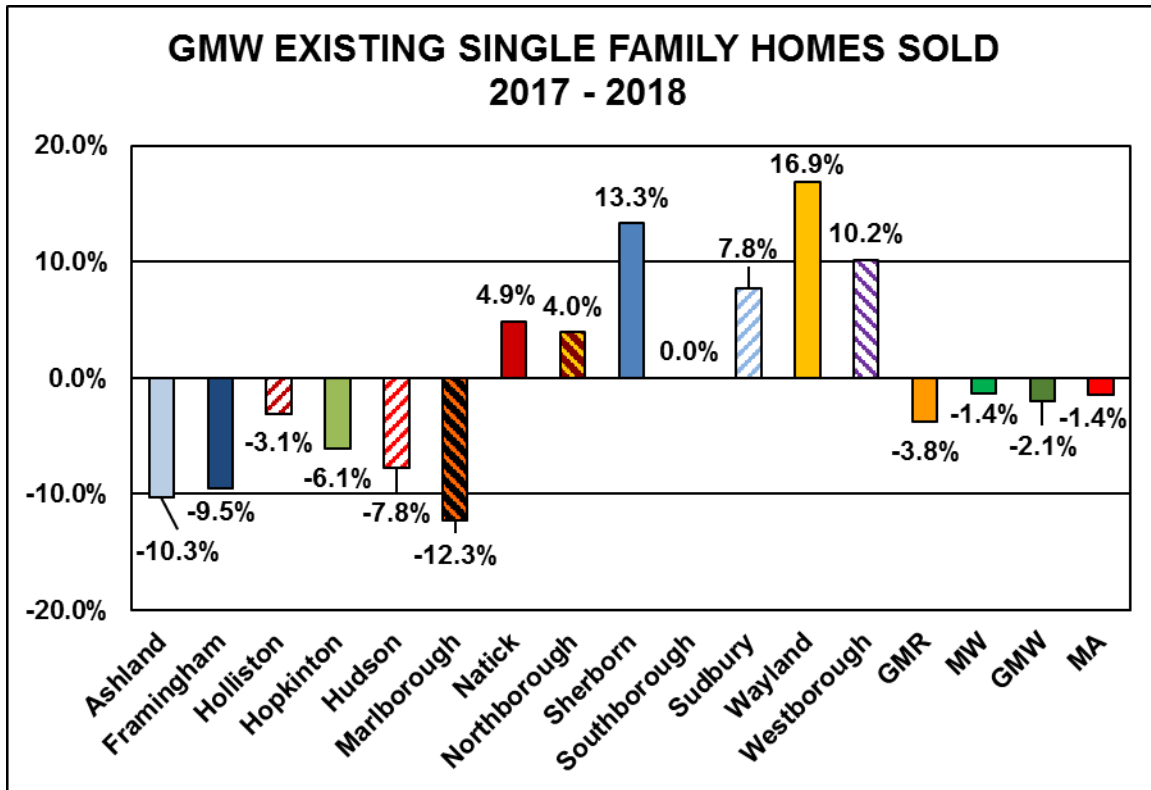
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- In 2018, 3,070 existing single family homes were sold in Greater MetroWest (GMW). This represents a decrease of about 65 homes from the previous year.
- Framingham, Marlborough, and Natick were the only three communities to have over 300 single family home sales in 2018 and these three communities combined for 42.0% of all single family home sales in GMW.
- The nine communities of MW combined to contribute 77.2% or 2,218 single family home sales and the four communities of GMR contributed 27.8% or 852 single family home sales in 2018.
- Framingham and Natick were the only communities to each contribute over 10% of total sales and Southborough and Sherborn were the only two to contribute less than 5% each.
- Framingham recorded over nine times as many single family home sales in 2018 than Sherborn, over 4 times as many as Southborough, and even over 1.6 times as many as Natick, which was the second largest contributor in the region.

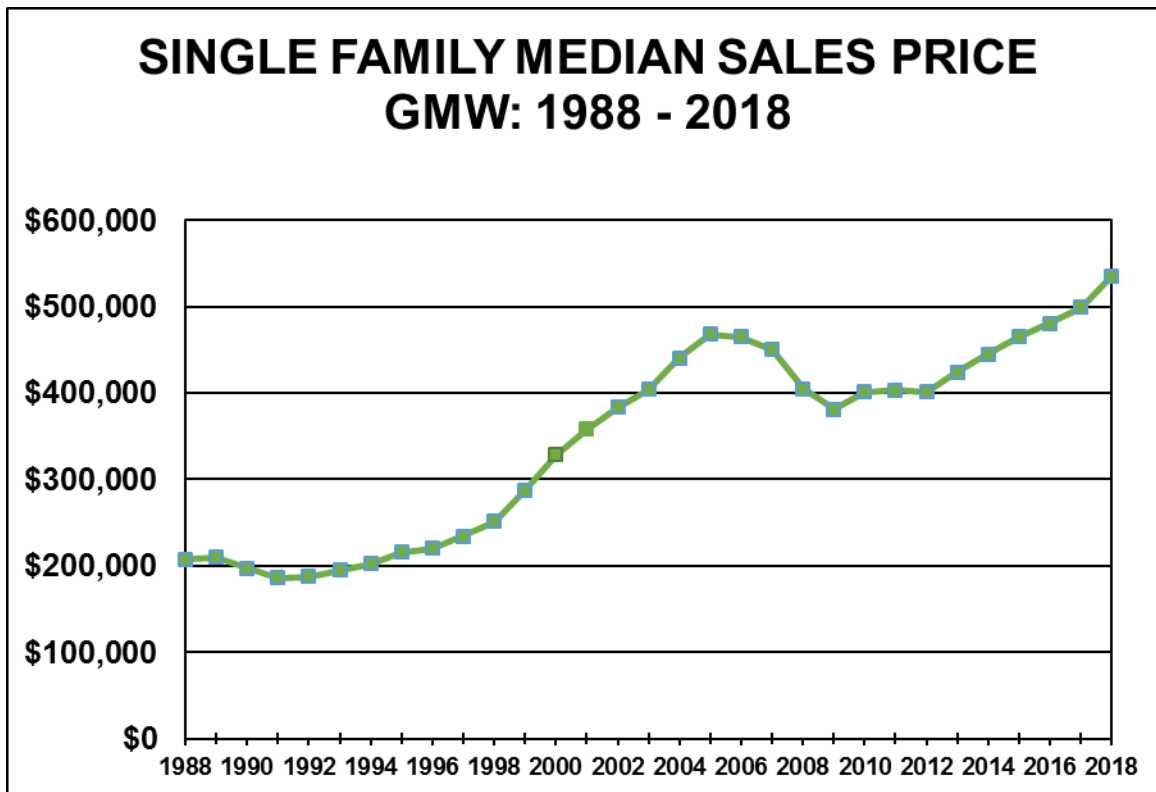
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The above graph shows the percent change in existing single family home sales from 2017 to 2018 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 2018, there were 65 fewer units sold in GMW than in 2017, a 2.1% decrease. From 2017 to 2018, GMR recorded a decrease of 34 units sold, or -3.8%, while MW and MA reported decreases in units sold as follows: a 31-unit decrease and an 858-unit decrease; both registered a decline of 1.4%.
- Sherborn, Wayland, and Westborough reported the largest percent increases in units sold between 2017 and 2018. In Sherborn, an additional 8 units were sold, a 13.3% increase. Wayland reported 27 additional units sold, equivalent to 16.9%, while Westborough reported an additional 17 units sold, or 10.2%.
- Ashland and Marlborough each reported a decrease of over 10% of existing single family homes sold; Sherborn, Wayland, and Westborough each recorded an increase of over 10% from 2017 to 2018.

GREATER METROWEST – HOUSING

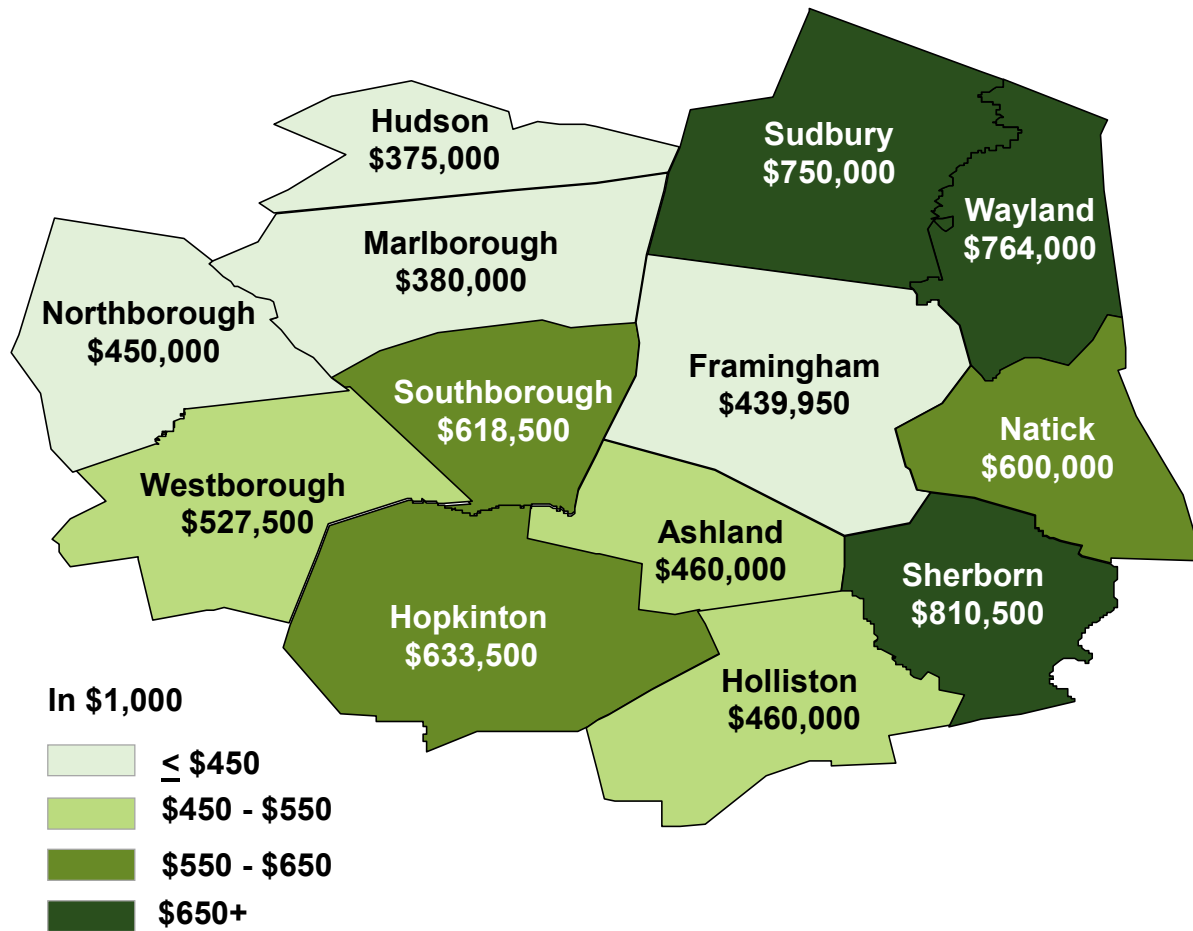


Source: The Warren Group and MERC

- The graph above shows the estimated median sale price of existing single family homes in Greater MetroWest (GMW) during the 31-year period from 1988 to 2018. Please note that these sales represent a different mix of homes sold each year and, therefore, do not reflect the changes in the value of individual homes.
- The data series reached a new peak in 2018 with an estimated median sale price of \$535,329, representing a 158% increase from the 1988 median sales price of \$207,722.
- The biggest increase from 2012 to 2018 occurred between 2017 and 2018, when prices were \$498,838 and \$535,329, respectively. This increase of over \$36,000 represents a 7.3% gain.
- The most recent low point for estimated median sales price in this region occurred in 2009 at \$381,134. There was a 40.5% increase from 2009 to 2018, during which the estimated median sale price increased by more than \$150,000.

GREATER METROWEST – HOUSING

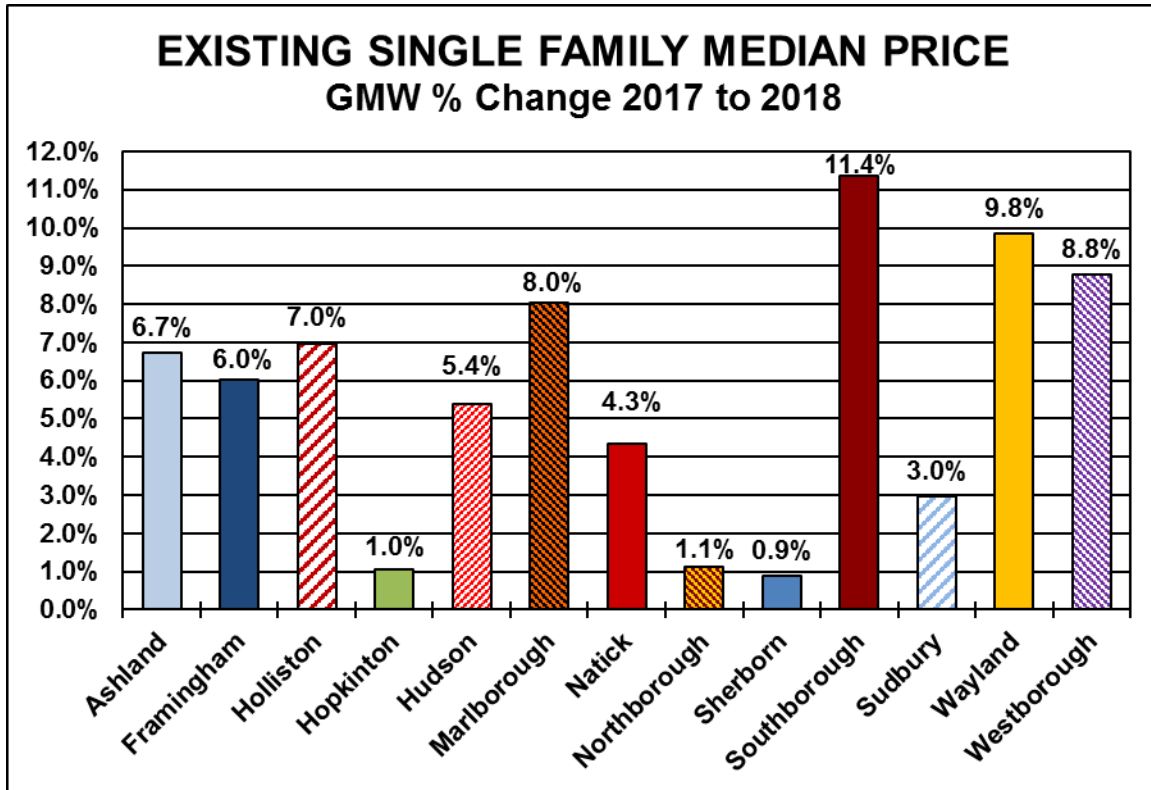
2018 EXISTING SINGLE FAMILY HOME PRICES GMW Communities



Source: The Warren Group and MERC

- The map above shows the 2018 median sale prices for existing single family homes in the 13 communities of Greater MetroWest (GMW). Median sale prices ranged from a low of \$375,000 in Hudson to a high of \$810,500 in Sherborn.
- Seven of the thirteen communities had median sale prices under \$550,000. Ashland, Framingham, Holliston, Northborough, and Westborough registered under \$550,000. Only Hudson and Marlborough posted median sale prices below \$400,000.
- Six communities had median sale prices above \$550,000. Natick came in at \$600,000. Southborough had a median sale price of \$618,500 and Hopkinton had a median sale price of \$633,500. Sherborn, Sudbury and Wayland posted the highest median sale prices at \$810,500, \$750,000, and \$764,000, respectively.

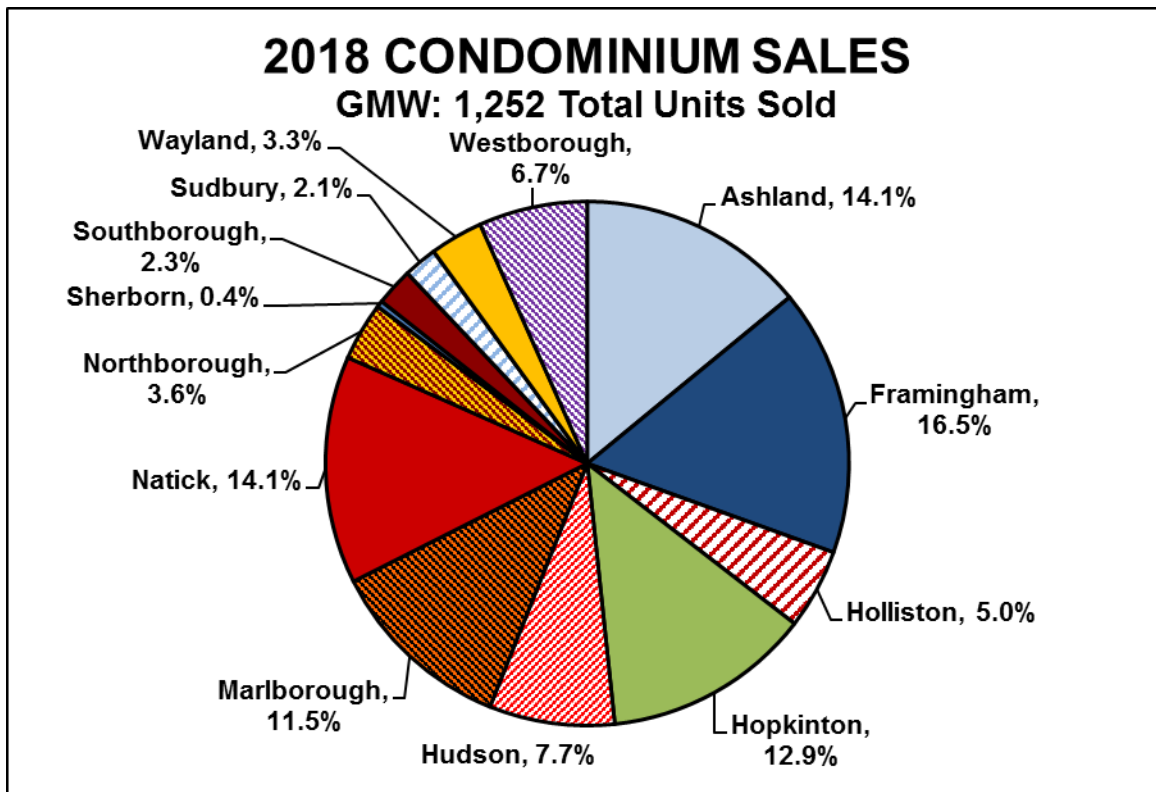
GREATER METROWEST – HOUSING



Source: Banker & Tradesman and MERC

- All of the thirteen communities experienced median price increases between 2017 and 2018. Southborough recorded the largest percentage median price increase of 11.4% from \$555,450 in 2017 to \$618,500 in 2018. Wayland had the second largest percentage increase of 9.8% from \$485,000 in 2017 to \$527,500 in 2018.
- Sherborn recorded the lowest percentage median price increase of 0.9% from \$803,400 in 2017 to \$810,500 in 2018. Hopkinton recorded the next lowest percentage median price increase of 1.0% from \$627,000 in 2017 to \$633,500 in 2018.
- Five out of the nine communities 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 2018.
- From 2017 to 2018, Massachusetts experienced an increase of 5.5%, which is a lower percentage increase than seven of the communities in GMW and is 1.8% lower than the overall change in GMW.

GREATER METROWEST – HOUSING

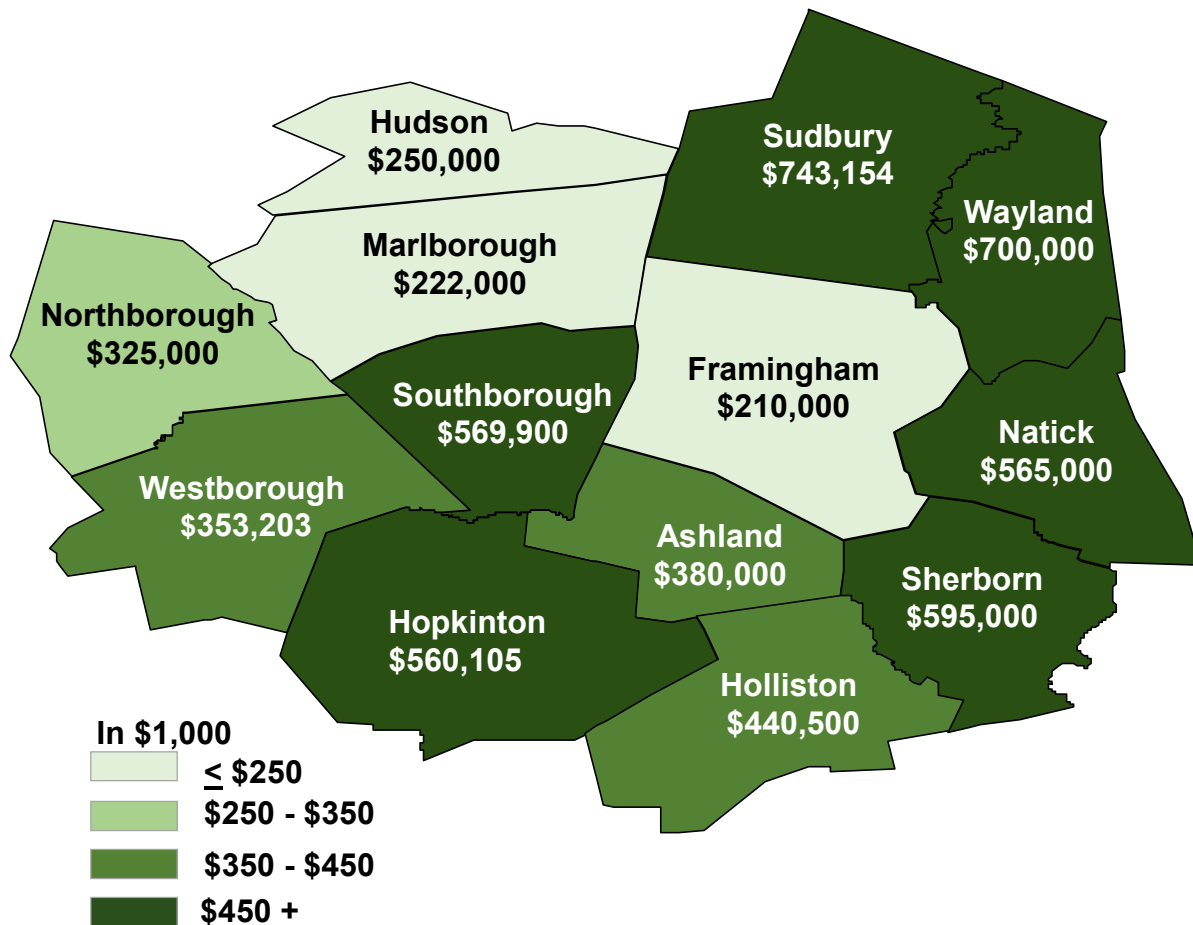


Source: The Warren Group and MERC

- In 2018, 1,252 condominiums were sold in the thirteen communities of Greater MetroWest (GMW) down from 2,272 units sold in 2017.
- Condo sales in four of the communities, Ashland, Framingham, Marlborough and Natick dominated the region making up 56.2% of the total units sold in GMW. Framingham contributed 16.5% to the region's sales. Ashland, Marlborough and Natick contributed 14.1%, 11.5% and 14.1%, respectively.
- Holliston, Northborough, Sherborn, Southborough, Sudbury, and Wayland, each contributed 5% or less of total sales. Sherborn contributed the smallest number of sales with only five condominiums sold, which was about 0.4% of total condominium sales.
- Hudson and Westborough each contributed between 5% and 10% to the regional condominium sales. Hudson and Westborough contributed 7.7% and 6.7%, respectively.
- The nine communities of MW combined for 70.4% and the four communities of GMR combined for 29.6% of the total condominium sales in GMW in 2018.

GREATER METROWEST – HOUSING

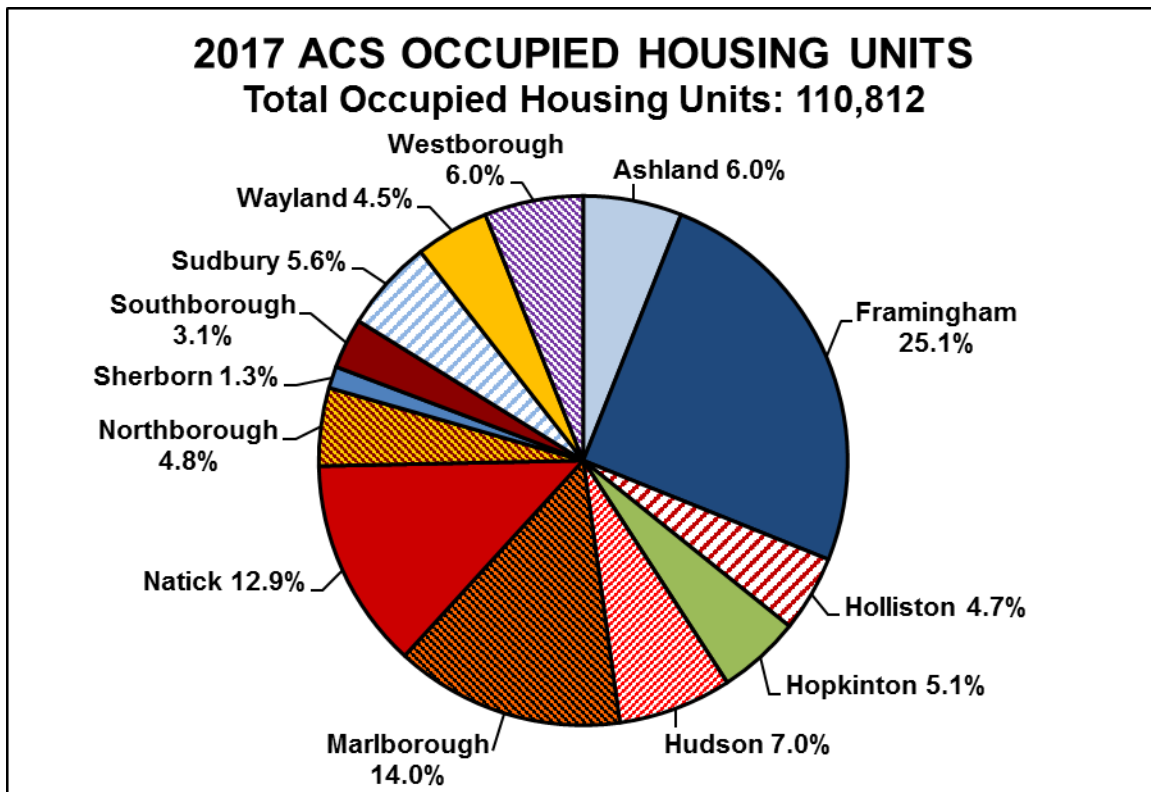
2018 CONDOMINIUM PRICES GMW Communities



Source: The Warren Group and MERC

- In 2018, the estimated median price for condominium sales in Greater MetroWest (GMW) was about \$329,382, a 1.0% decrease from the 2017 value.
- Three communities, Framingham, Hudson, and Marlborough had median condominium prices at or under \$250,000. Framingham had the lowest median price in the region at \$210,000. Northborough had median sales prices ranging between \$250,000 and \$350,000.
- Six communities had median condominium prices over \$450,000. Hopkinton, Natick, Sherborn, and Southborough all had median condominium prices between \$550,000 and \$600,000. In 2018, Sudbury and Wayland had the highest median condominium prices within the region at \$743,154 and \$700,000, respectively.
- Ashland, Holliston, and Westborough each were between \$350,000 and \$450,000, additionally Northborough recorded a median condominium price of \$325,000 in 2018.

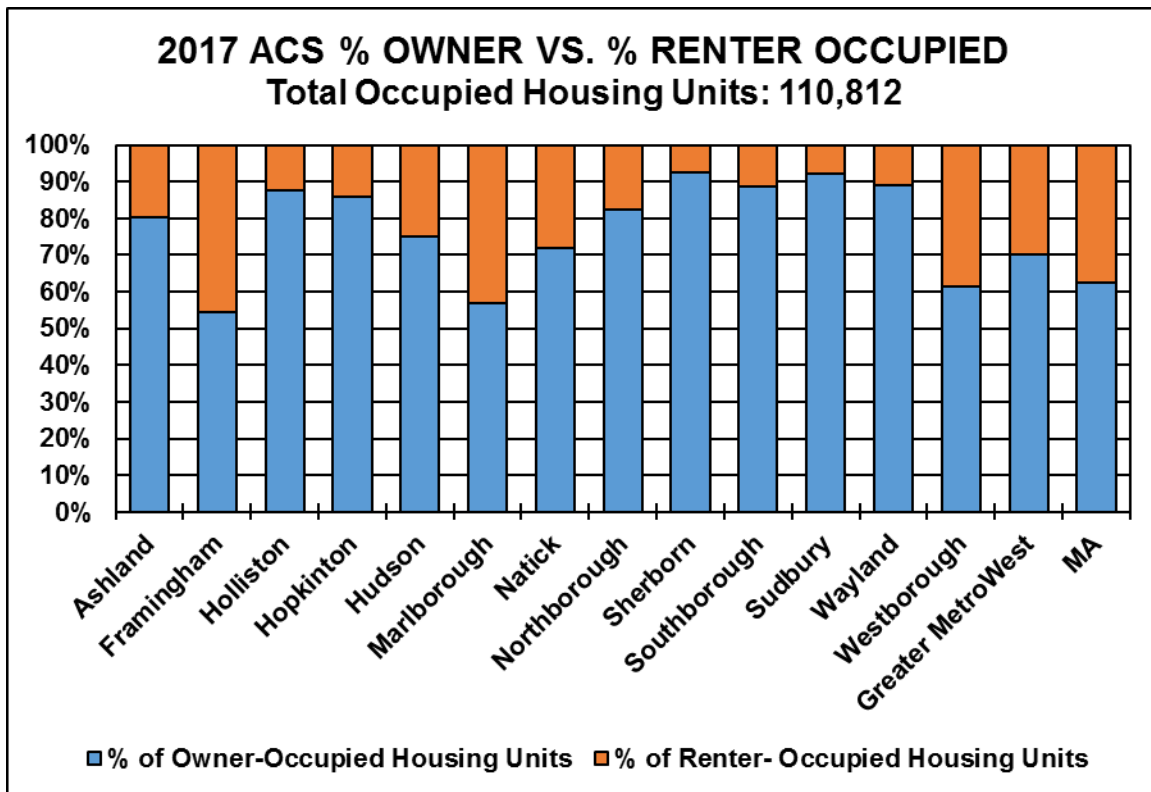
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- According to the 2017 American Community Survey, there were an estimated 110,812 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 52.0%, of the total units occupied in GMW. Framingham contributed 25.1% to the region's occupied units. Marlborough and Natick contributed 14.0% and 12.9%, respectively.
- Holliston, Northborough, Sherborn, Southborough, and Wayland each contributed less than 5.0%. Sherborn contributed the smallest number of units with only 1,480 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 6.0%, Hopkinton had 5.1%; Hudson, Sudbury, and Westborough contributed 7.0%, 5.6%, and 6.0%, respectively.

GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- As reported in the 2017 American Community Survey (ACS), Greater MetroWest (GMW) had an estimated 110,812 total occupied housing units classified as either owner-occupied or renter-occupied housing units.
- The city of Framingham reported the closest margin between owner-occupied housing units and renter-occupied housing units with 54.5% of their total occupied housing units to be owner-occupied and 45.5% renter-occupied.
- Sherborn reported the largest difference between owner-occupied housing units and renter-occupied housing units. An astronomical 92.5% of Sherborn's units are reported owner-occupied, while only 7.5% of Sherborn's units are renter-occupied. Sudbury was the next largest owner-occupied percentage at 92.2%.
- GMW, as a whole, reported 70.2% of occupied housing units to be owner-occupied, while 29.8% of units are renter-occupied. Similarly, the state of Massachusetts reported 62.4% of occupied housing units to be owner-occupied, while 37.6% are renter-occupied.

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 MetroWest¹ 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.

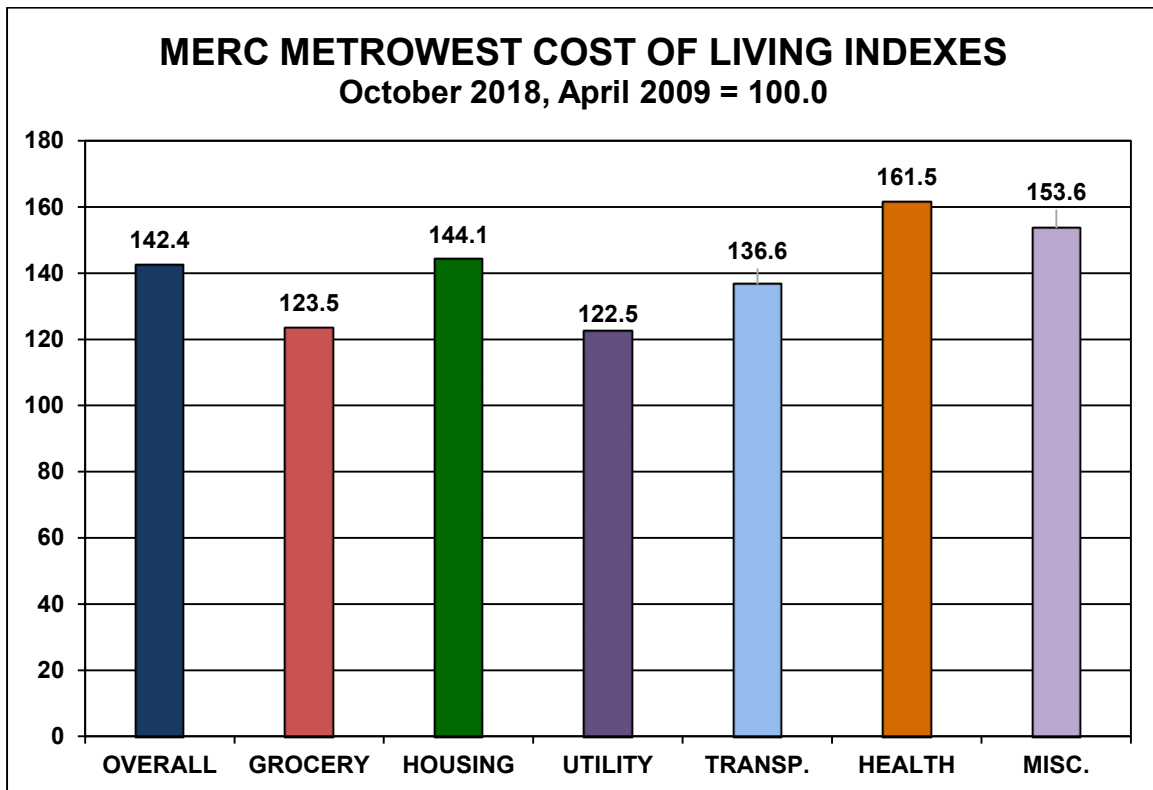
During each survey period, MERC gathers data on the prices of these items from over 100 businesses in the MetroWest area and calculates the average price of each item. These average prices are then used to calculate an index for each of the six categories mentioned above and, from them, the overall cost 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.

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

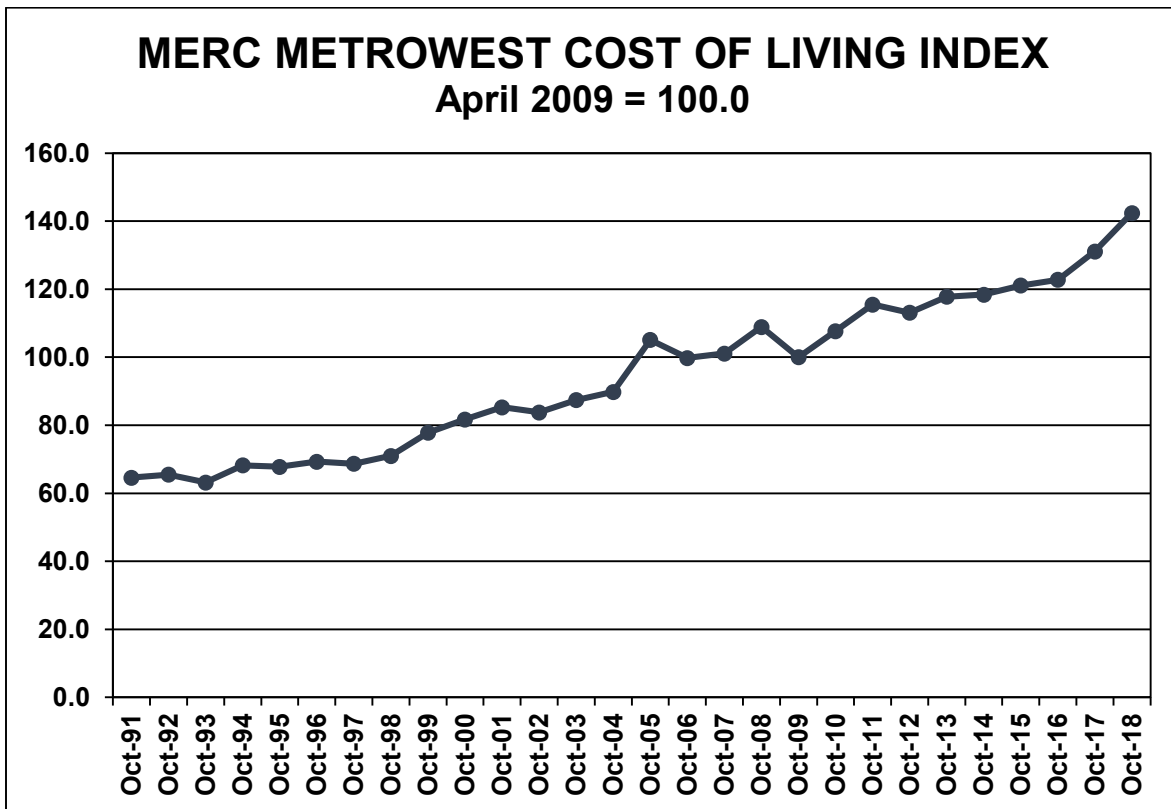
GREATER METROWEST – COST OF LIVING



Source: MERC

- The MERC Overall Cost of Living Index for the MetroWest Region was 142.4 in October 2018. This indicated that the Cost of Living in MetroWest was roughly 42% higher in October 2018 than it was in April 2009. This is roughly an 8.6% increase from October of 2017.
- The Health Care Index had a significantly higher value than the other Indexes, at 161.5. This implies that in October 2018 health care costs were more than 60% higher than they were in April 2009. The Health Care Index was down approximately 0.5% from its value a year earlier in October 2017.
- The Index with the lowest value was the Utilities Index, with a value of 122.5. This is approximately 7% higher than October of 2017.
- Not one of the Indexes in the MetroWest Region fell below the April 2009 base year Index of 100.0.

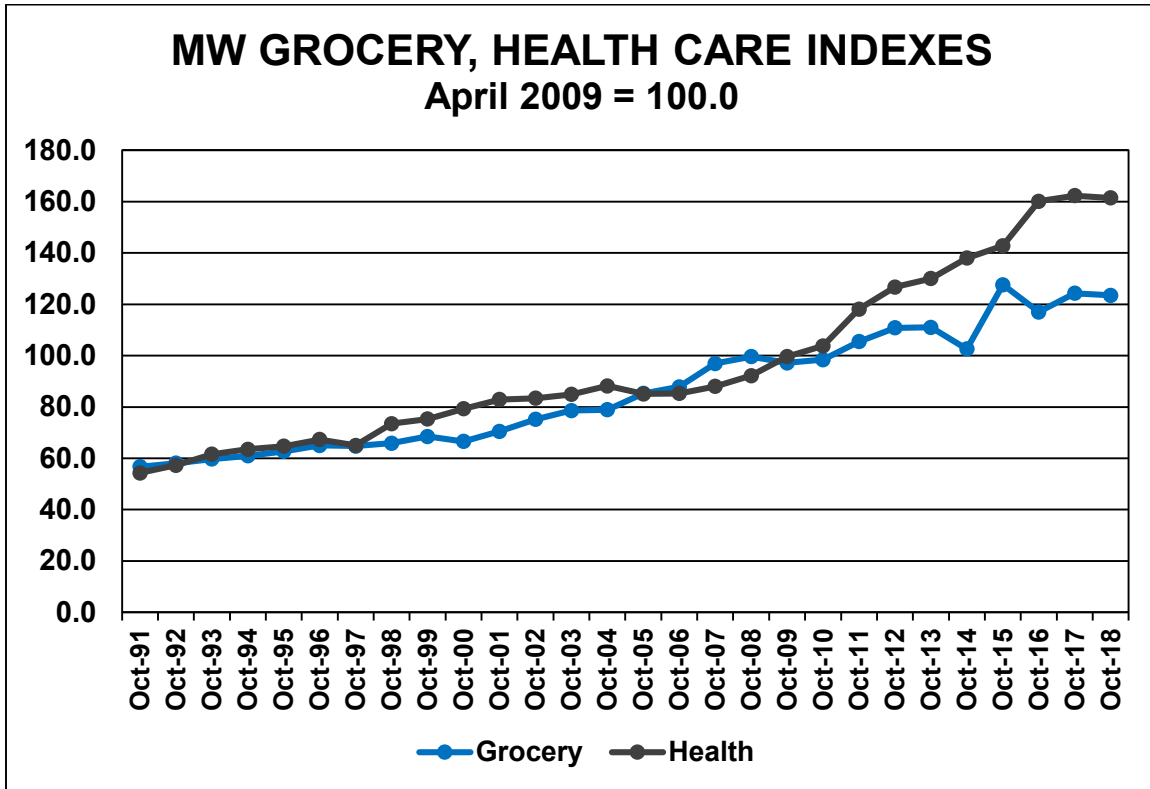
GREATER METROWEST – COST OF LIVING



Source: MERC

- This graph shows the value of the MERC Overall Cost of Living Index from October 1991 to October 2018. April 2009 is the base period for the Index. Its value in April 2009 was 100.0.
- From October 2017 to October 2018, the MERC MetroWest Cost of Living Index rose by 8.6% to a value of 142.4. 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 4.4% from October 1991 to October 2018.
- 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 142.4. This is a 120% increase over the 27-year span.

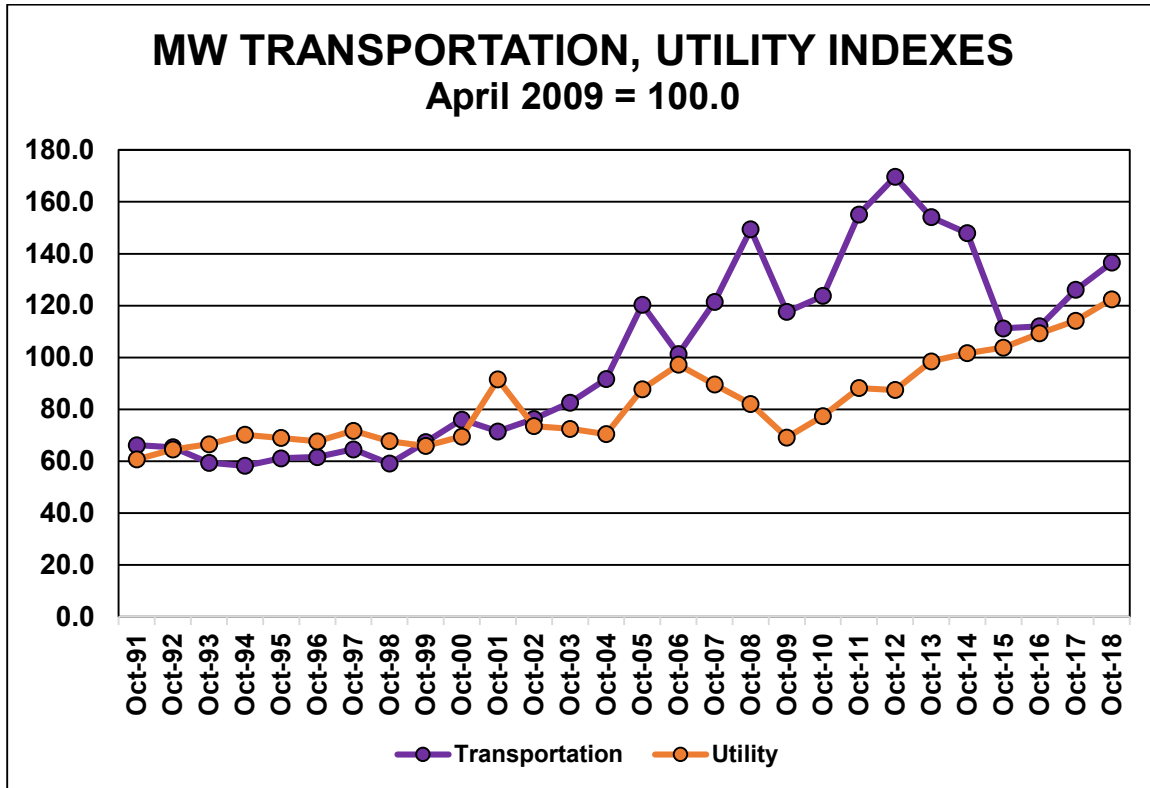
GREATER METROWEST – COST OF LIVING



Source: MERC

- Over the 27 years between October 1991 and October 2018, 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 a small overall decrease from October 2017 to October 2018. The Health Care Index decreased by 0.5%.
- The Grocery Items Index also experienced a modest decrease between October 2017 and October 2018 of about 0.6%.
- In October 2018, the Health Care Index was the highest of the six sub-indexes with a value of 161.5. The fifth highest was the Grocery Items Index at 123.5. These values are referenced to the base period of April 2009, when the index equaled 100.0.
- From 1991 to 2018, the Grocery Items Index saw an average annual increase of approximately 4.3%, while the Health Care Index saw an average annual increase of approximately 7.3%.

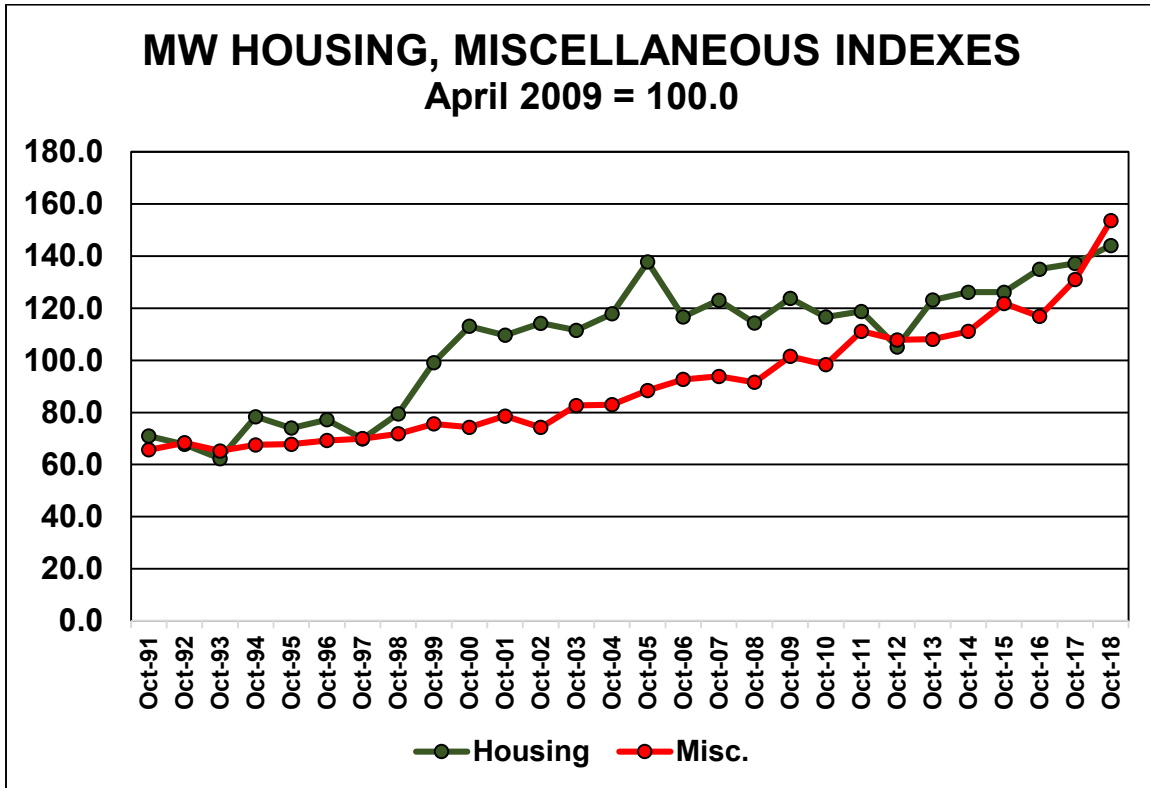
GREATER METROWEST – COST OF LIVING



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 diversify; 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 8 more years.
- The Transportation Index was the most volatile of all Indexes. However, it has the smallest average annual increase at 3.9%.
- Between October 1991 and October 1999, the Transportation Index only rose approximately 1.8 points. Since then, the Index more than doubled, reaching an all-time high of 174.4 in April 2012; 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.

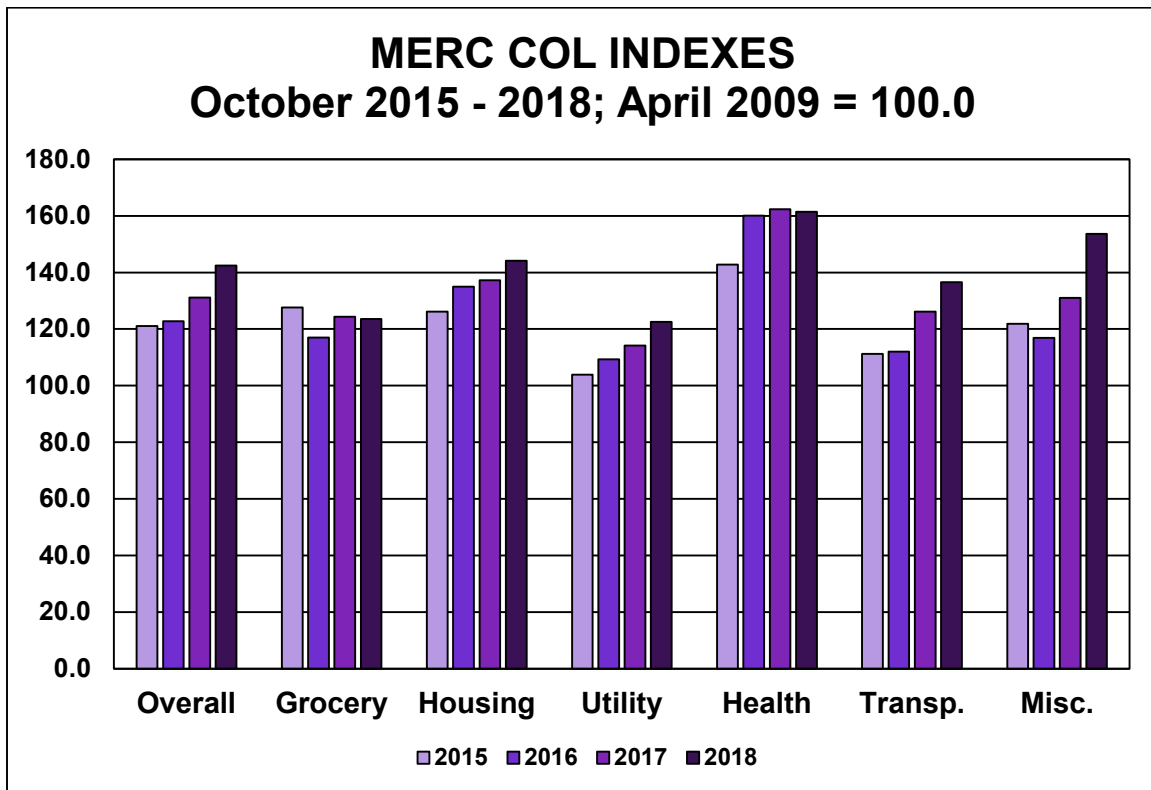
GREATER METROWEST – COST OF LIVING



Source: MERC

- The Housing Index had a value of 144.1 in October 2018. This means that housing costs in MetroWest were approximately 44% higher in October of 2018 than the base period in April 2009.
- The Housing Index had a peak in October 2005 with a value of 137.7, and then reached its highest peak in 2018 with a value of 144.1. The Miscellaneous Goods and Services Index reached its peak in October 2018 with a value of 153.6.
- From October 1991 to October 2018, the average annual increase for the Housing Index was 3.8%, while the Miscellaneous Goods and Services Index saw a 4.6% average annual increase.
- From October 2017 to October 2018 the Miscellaneous Goods and Services Index recorded one of its largest increases at 17.3%, increasing from 131.0 to 153.6.

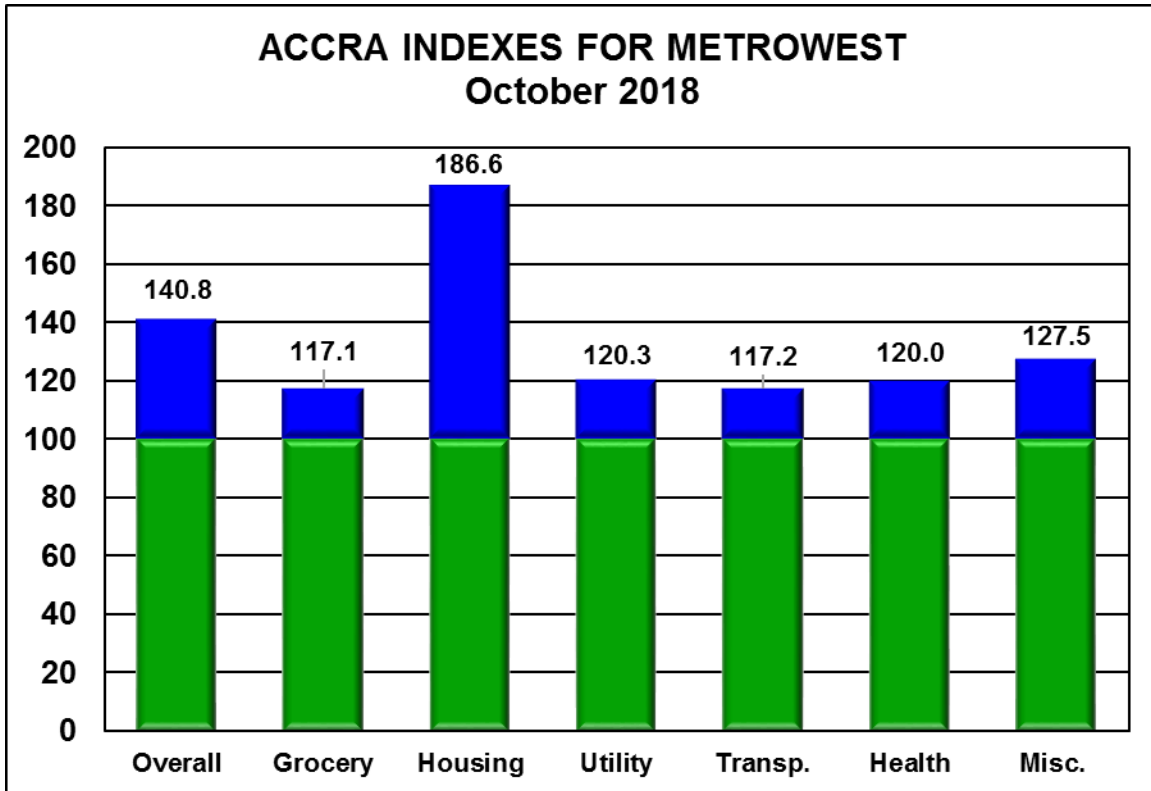
GREATER METROWEST – COST OF LIVING



Source: MERC

- The graph shows all of the indexes from the October surveys between 2015 and 2018. 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 Grocery Index is the exception; it was the only index to show any decrease since 2015.
- The Grocery Items Index recorded its highest value in 2015, at 127.6. In the last four years, this value has fluctuated more than any of the other indexes. In 2018, the Grocery Items Index recorded a value of 123.5. This is a decrease of approximately 3%.
- The Transportation Index has consistently risen over this four-year period. It recorded its highest value in October 2018 at 136.6. This is almost 37% higher than the base year in 2009. This is also 106% higher than in 1991 when the Transportation Index was first calculated at 66.2.

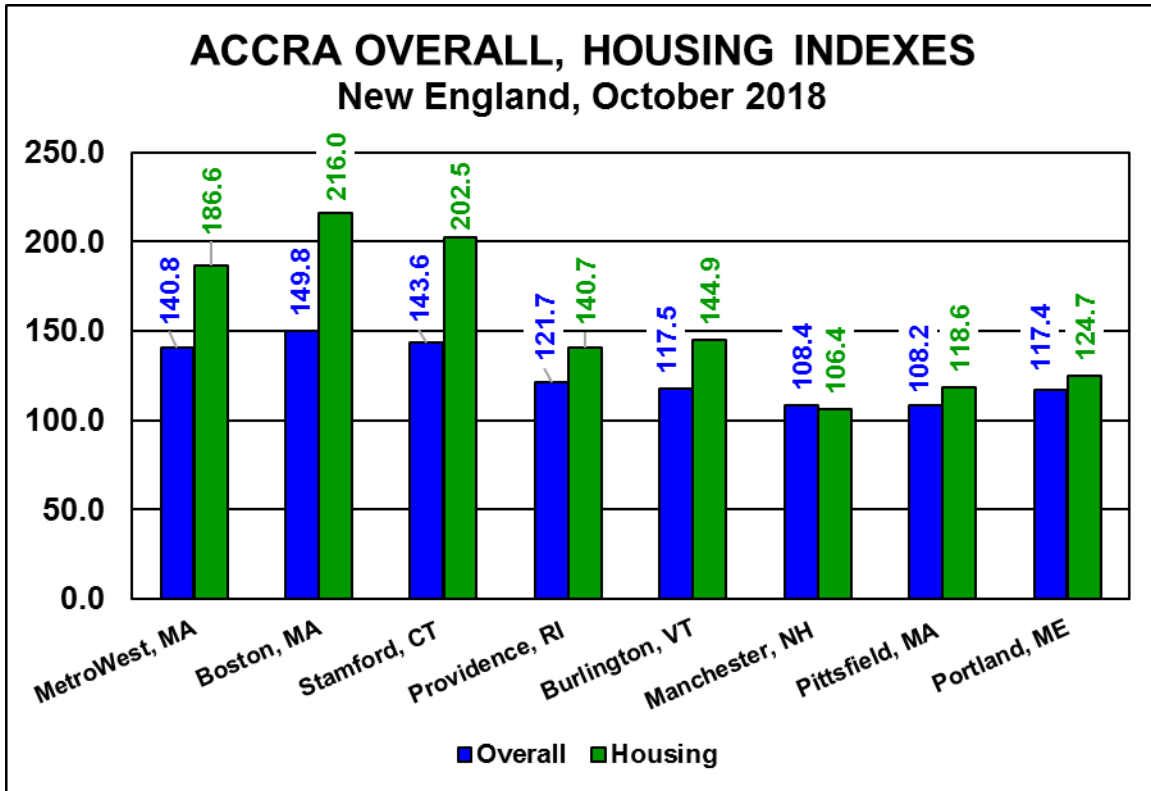
GREATER METROWEST – COST OF LIVING



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 2018, the ACCRA Overall Cost of Living Index for MetroWest was 140.8; 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 the Cost of Living Survey in 1991.
- The Housing Index was the highest of six sub-indexes with a value of 186.6. 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 117.1, still about 17% higher than the national average. It was followed closely by the Transportation Index at a value of 117.2.
- Housing was the only sub-index greater than the Overall Index.

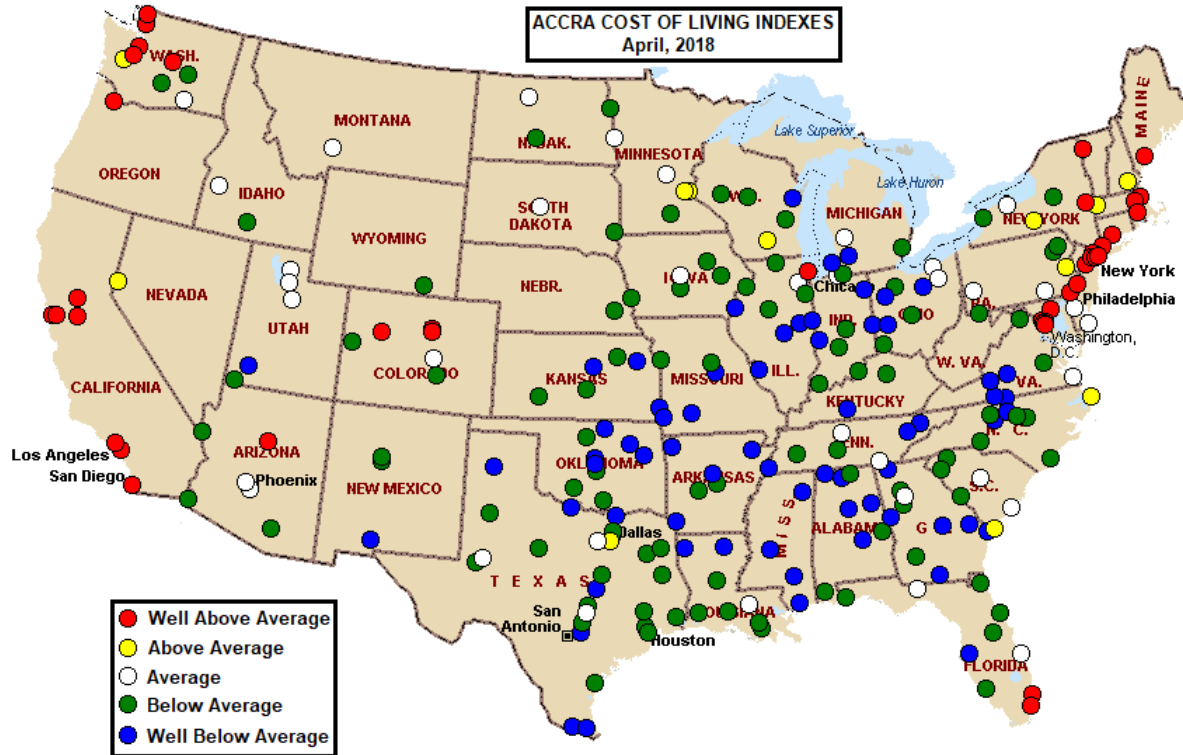
GREATER METROWEST – COST OF LIVING



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 2018 C2ER survey. Every area had both Overall and Housing Indexes greater than the national average.
- Among the eight areas studied in the graph above, Boston, MA had the highest Overall Index and the highest Housing Index in October 2018. The Overall Index had a value of 149.8, signifying that living in Boston, MA was roughly 50% more expensive than the national average. Boston's Housing Index had a value of 216.0; 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

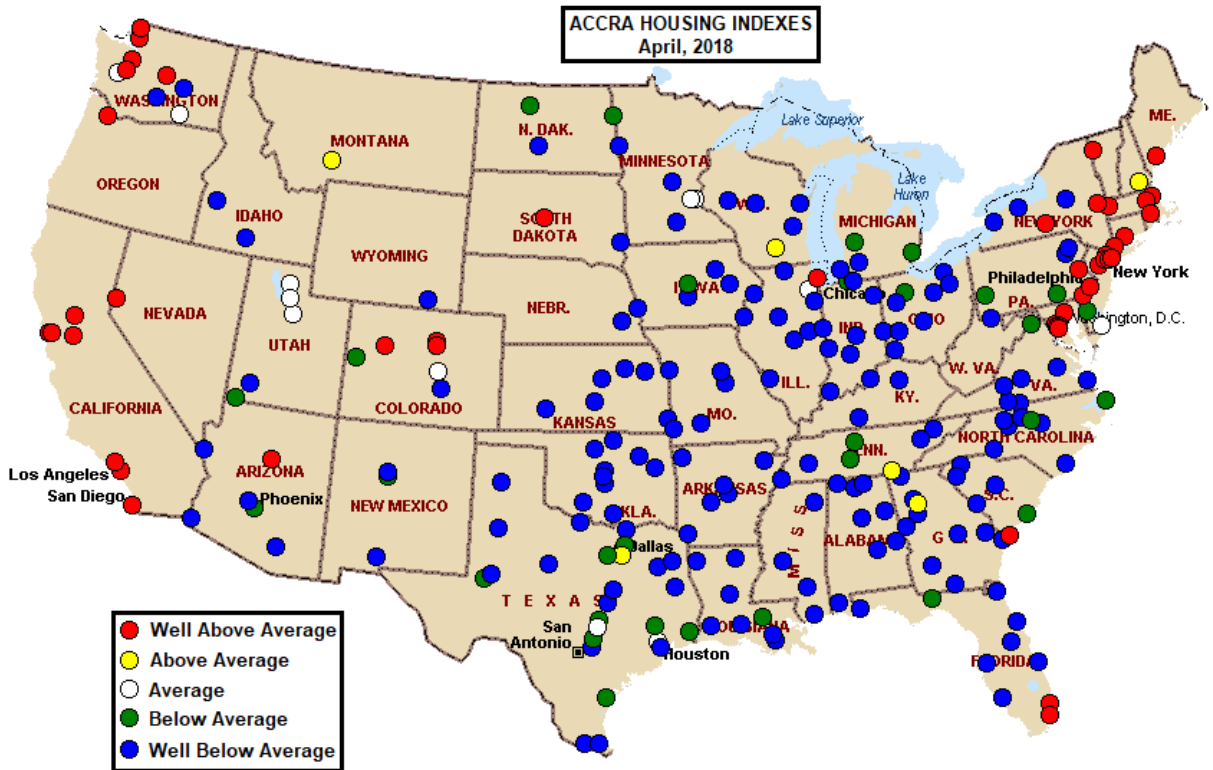


Source: C2ER and MERC

- In April of 2018, the participating communities with the highest living costs (red dots) were mostly located in the Northeast. Manhattan, NY (238.3) had the highest Overall Index, almost 2.4 times the national average. It was followed by San Francisco, CA (190.0) and Honolulu, HI (185.5). Boston ranked 9th at 149.8 and MetroWest ranked 17th at 140.8.
- Harlingen, TX had the lowest Overall Index in April 2018 with a value of 75.7, implying that the overall cost of living in Harlingen was around 24% below the national average. The next lowest Overall Index was observed in McAllen, TX, recording an Overall Index value of 78.0.
- Sixty-six of the 259 communities (25.5%) had Overall Indexes below 90.0 (represented by blue dots), while 46 of 259 communities (17.8%) 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 2018 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 503.4 in Manhattan, NY, implying that housing costs in Manhattan are more than five times the national average. The next highest indexes were San Francisco, CA (344.6) and Brooklyn, NY (317.5). Boston ranked 14th at 216.0, and MetroWest ranked 17th at 186.6.
- The two lowest Housing Indexes were found in Ashland, OH and Kalamazoo, MI, both with a value of 56.8. This is over 40% lower than the national average. The next lowest Housing Index is Decatur, AL (58.6).
- Fifty-three of 259 communities (20.5%) had indexes greater than 110.0; well above the national average. Majority of the communities in the survey had indexes well below the national average: 158 of 259 communities (61.0%) had Housing Indexes below 90.0 (represented by the blue 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 – MUNICIPAL REVENUE

MUNICIPAL REVENUE

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

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

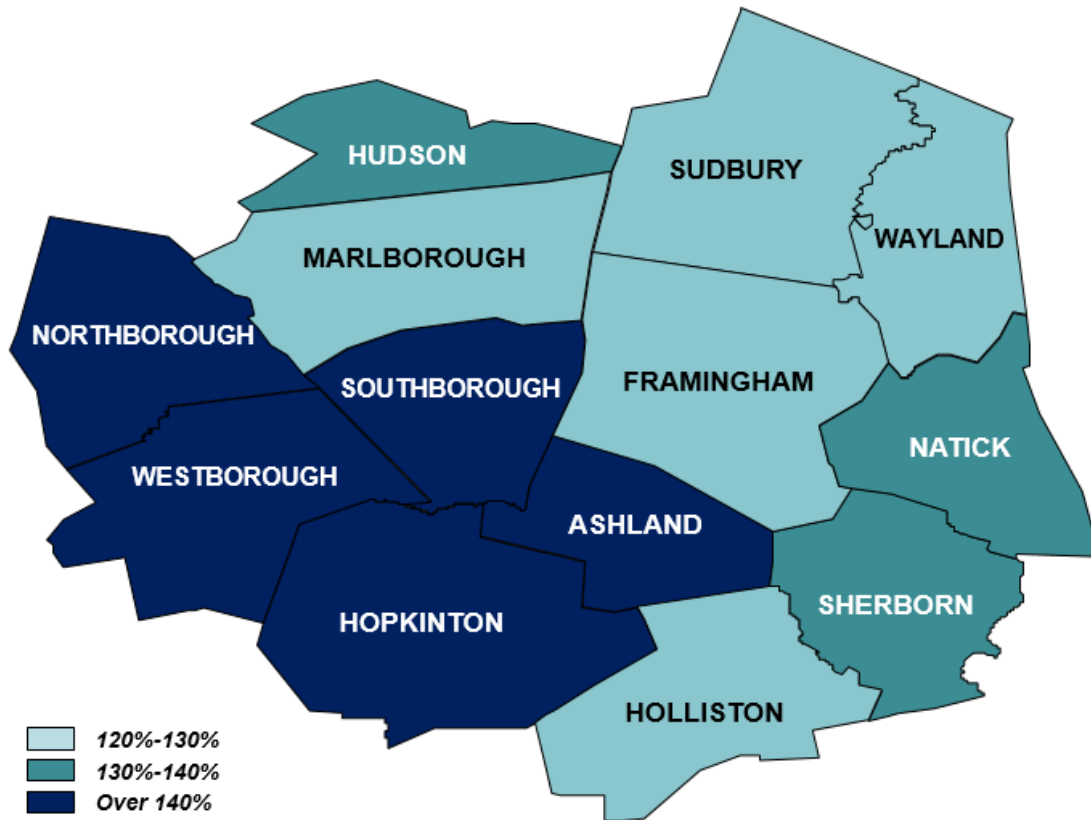
Tax levies are subject to limitations imposed by related legislation. In any given year, the tax levy cannot exceed 2½ percent of the total assessed value of the property of the community. In addition, the tax levy cannot increase by more than 2½ percent of the prior year tax levy limit plus new growth 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

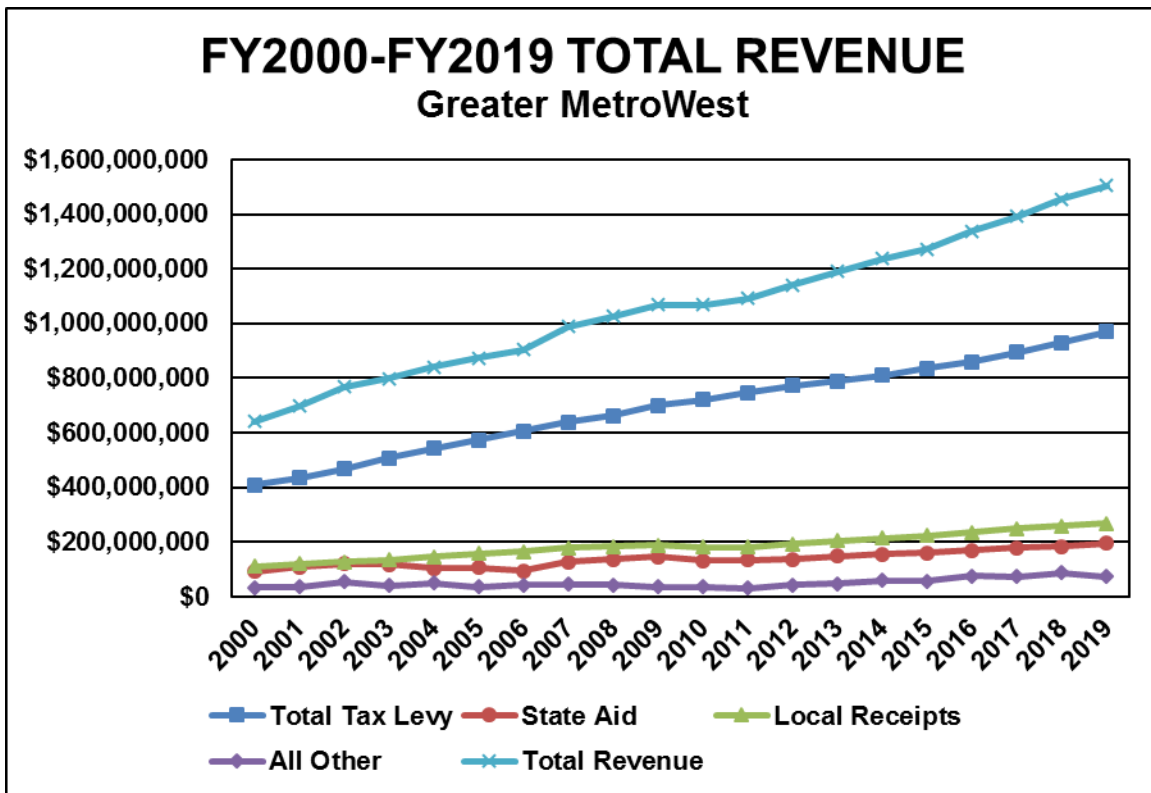
FY2000 - FY2019



Source: MA Department of Revenue, DLS, and MERC

- This map reflects municipal revenue growth in Greater MetroWest (GMW) from FY2000 to FY2019. Thirteen communities are color coded into the following three intervals: 120%-130%, 130%-140%, and +Over 140%.
- In FY2000 total revenue for GMW was \$641.3 million and has since increased by \$863.4 million in FY2019 to a total of \$1.5 billion. This is an increase of 134.6%. Only three communities in the GMW area, Hudson, Natick, and Sherborn, showed growth rates of 130%-140%. Framingham, Holliston, Marlborough, Sudbury, and Wayland all fell into the 120%-130% growth interval. The remaining five communities were in the Over 140% bracket.
- Hopkinton had the largest growth rate of all the communities at 196.0%. This was followed by Southborough, Northborough, Westborough, and Ashland in descending order.

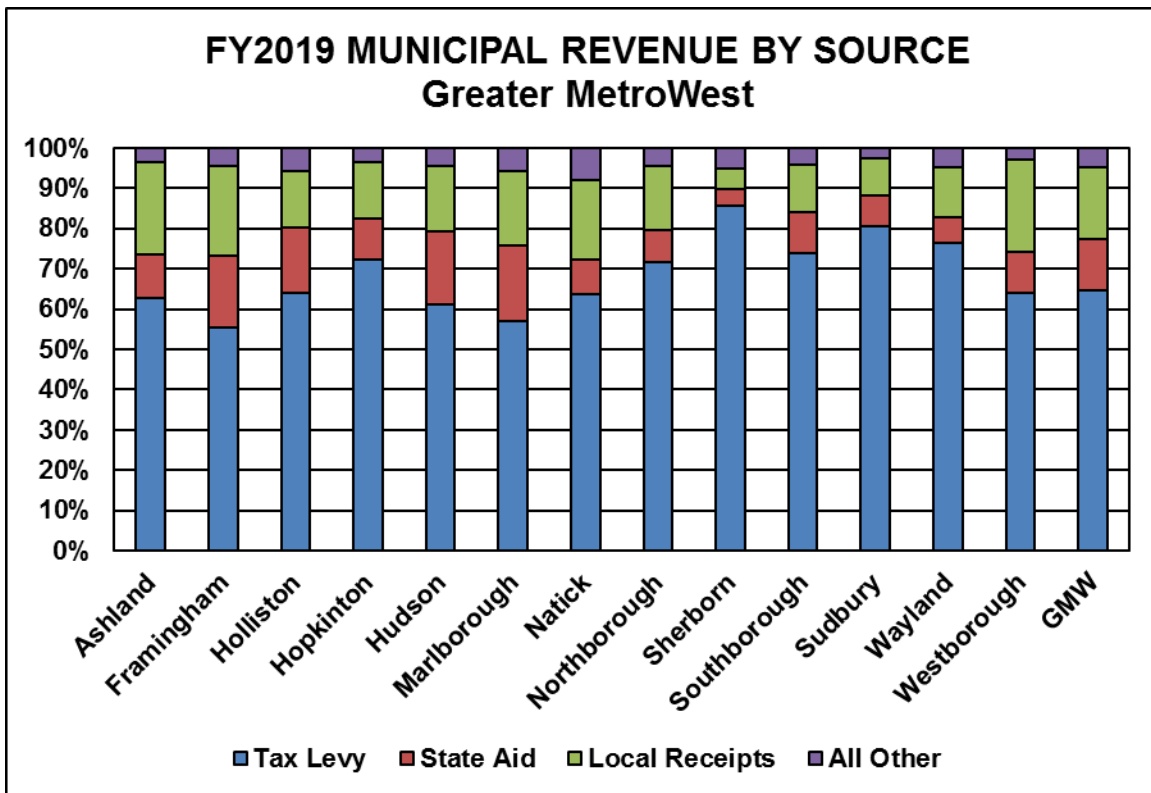
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Total Revenue for Greater MetroWest (GMW) for FY2019 was approximately \$1.5 billion. This has increased 134.6% from \$641.3 million in FY2000.
- The Total Tax Levy continued to increase from FY2000 through FY2019; starting with a total of \$407.8 million and reaching \$970.5 million which is an overall increase of 137.9%.
- Unlike Total Tax Levy, State Aid had several years of decreasing totals. Overall, it increased from \$91.8 million in FY2000 to \$194.4 million in FY2019, or an increase of 111.8%.
- Similar to State Aid, Local Receipts also fluctuated over the years. The FY2000 total was \$110.0 million, rounding off at \$267.9 million in FY2019 and showing a 143.6% increase. Local Receipts was the second biggest revenue contributor to the GMW region. The last category “All Other” is the smallest contributor of revenue to the GMW region, never surpassing the \$100 million mark from FY2000 to FY2019. It increased from \$31.7 million to \$71.8 million, which represents 126.6% growth.

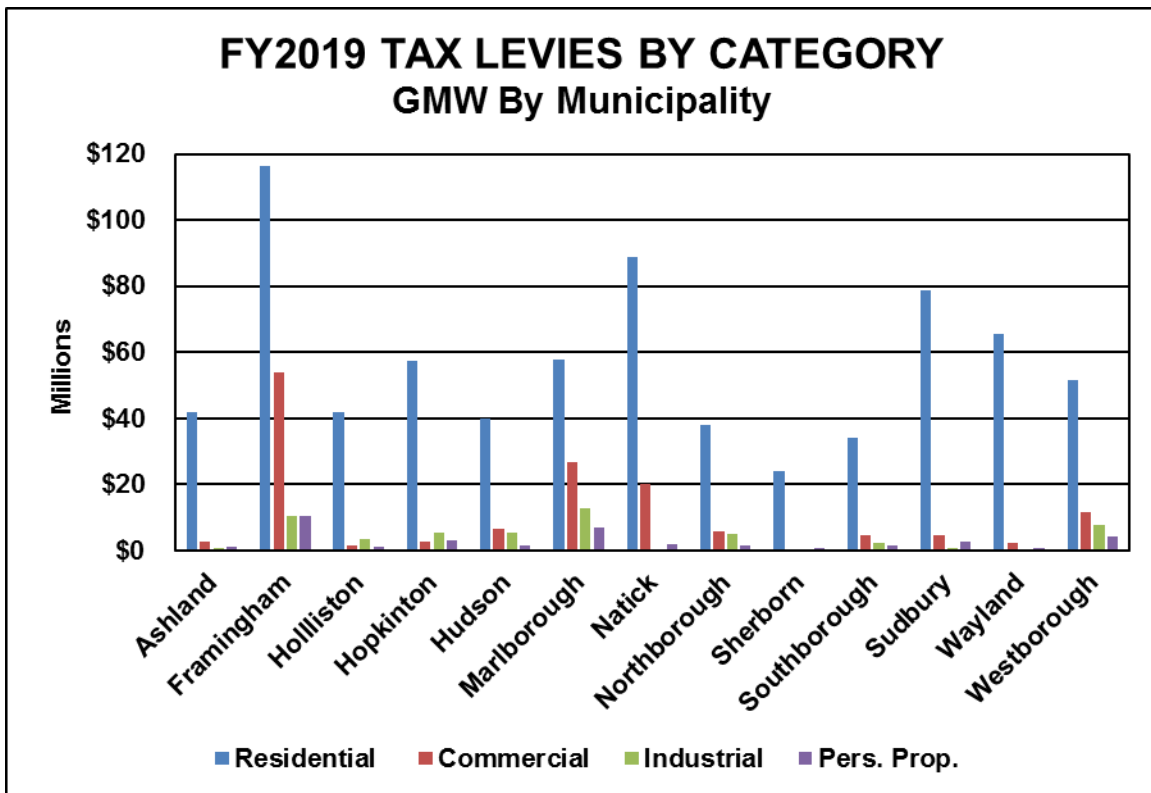
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2019 the total municipal revenue for the Greater MetroWest (GMW) totaled \$1.5 billion from four different sources. The sources that make up municipal revenue are as follows: Tax Levy, State Aid, Local Receipts, and “All Other.”
- Total Tax Levy was the main source of revenue for each of the thirteen communities that make up GMW. Framingham had the smallest percentage of revenue coming from tax levy at 55.3% and Sherborn’s 85.6% was the highest. The average tax levy for the region was 64.5%.
- State Aid and Local Receipts recorded averages of 12.9% and 17.8% for the region. State Aid ranged from 18.8% in Marlborough to Sherborn’s 4.2%. Local Receipts highest percentage coming from Westborough at 23.0% with the low coming from Sherborn at 5.2%. Of the four different revenue sources, “All Other” contributed the smallest amount with the average for the region at 4.8%.

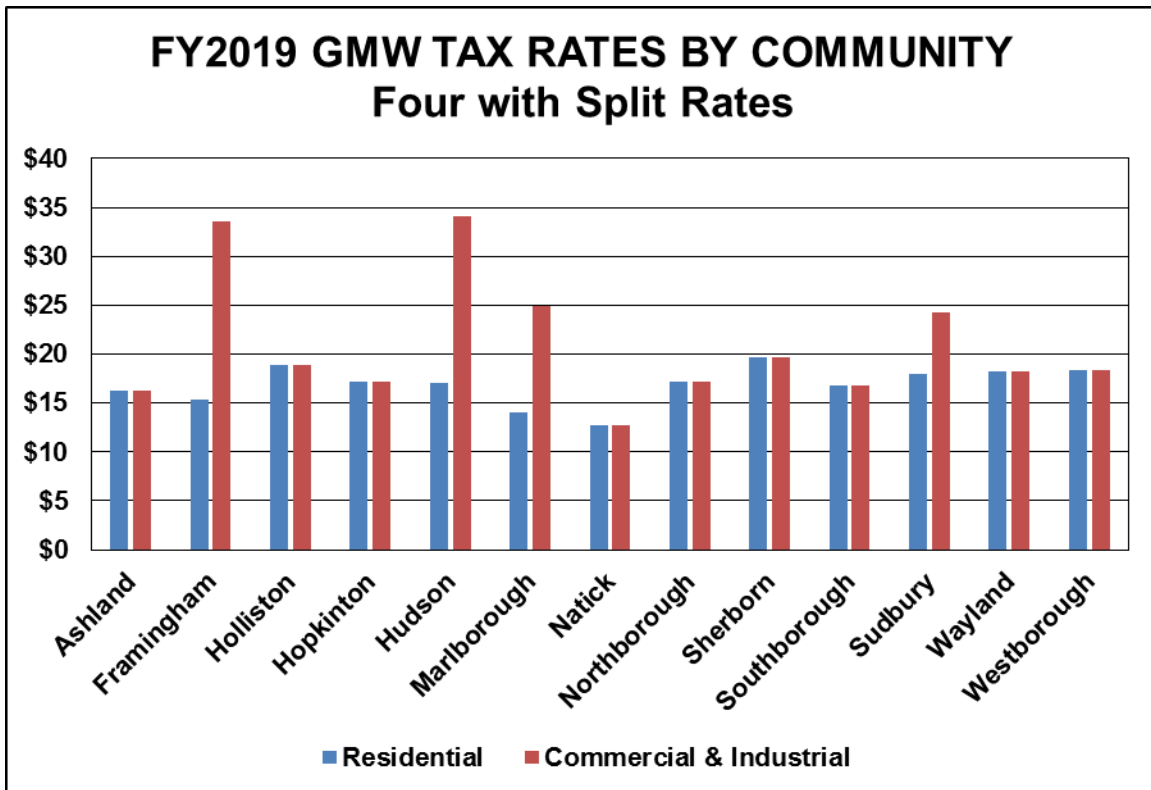
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Total Tax Levy consists of four components as follows: Residential, Commercial, Industrial, and Personal Property (Pers. Prop). In FY2019 the residential tax category accounted for the largest portion of the total tax levy for all the communities that make up Greater MetroWest. The total tax levy for GMW in FY2019 totaled \$970.8 million.
- The commercial tax levy was the next largest contributor to the total tax levy, ranging from \$54.0 million in Framingham to \$483,359 in Sherborn. Marlborough held the second largest commercial tax levy at \$26.5 million.
- For the industrial component of the total tax levy, the highest total of all 13 communities in GMW came from Marlborough at \$12.6 million, while the lowest was recorded in Sherborn at \$56,225.
- The personal property tax was the smallest contributor among all four categories being measured. The range in GMW went from \$10.4 million in Framingham to a low of \$566,987 in Sherborn.

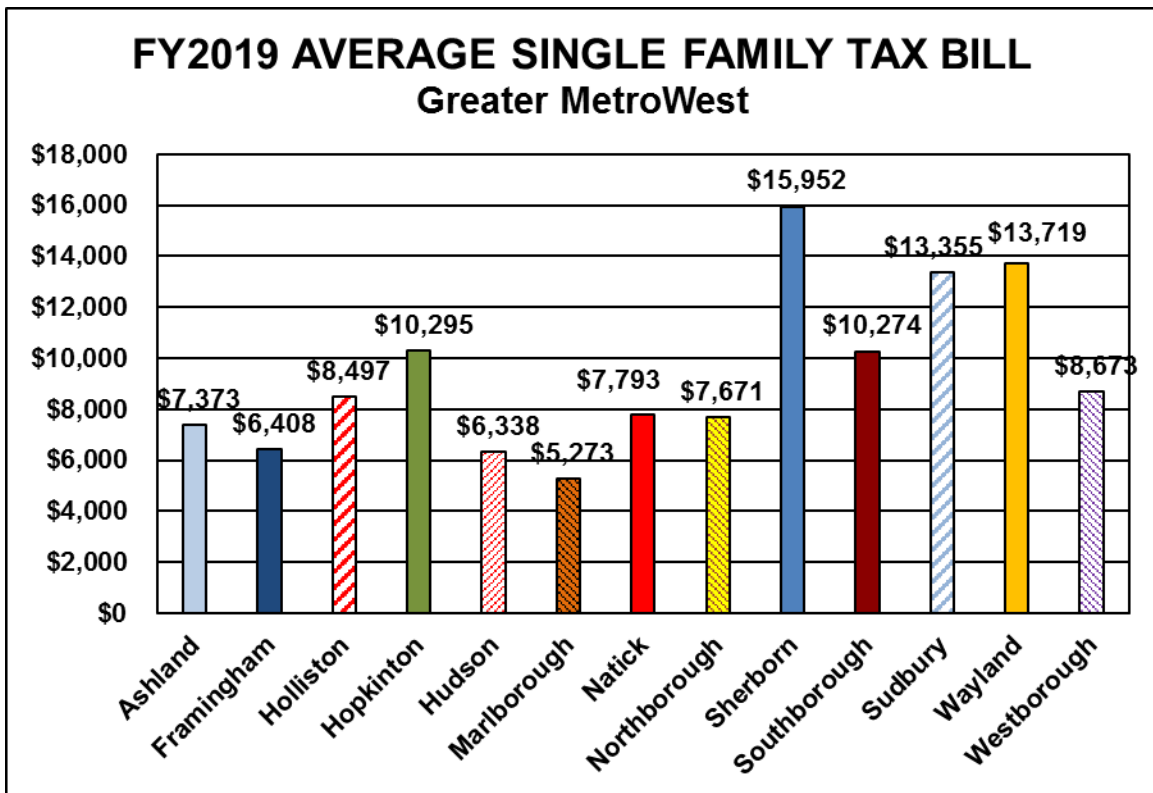
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph above depicts the FY2019 Residential and Commercial & Industrial (C&I) tax rates per \$1,000 of assessed value for the thirteen communities that comprise the Greater MetroWest (GMW). Of the thirteen communities, Ashland, Holliston, Hopkinton, Natick, Northborough, Sherborn, Southborough, Wayland, and Westborough all had one set rate for both tax rates with Natick having the lowest rates of all at \$12.71.
- The remaining four communities being measured, Framingham, Hudson, Marlborough, and Sudbury, all levy split tax rates. In every community, the C&I rates were always higher than the residential rates.
- Of those four communities with split rates, Hudson had the largest C&I rate at \$34.10 with Framingham just behind at \$33.61. Marlborough and Sudbury posted C&I tax rates at \$24.95 and \$24.30, respectively.
- Marlborough's residential rate was \$14.07, making it the smallest rate of all the communities with split rates. Framingham at \$15.38 was the next smallest rate followed by Hudson (\$17.03) and Sherborn (\$19.62). Natick recorded the lowest rates at \$12.71 for both residential and C&I property.

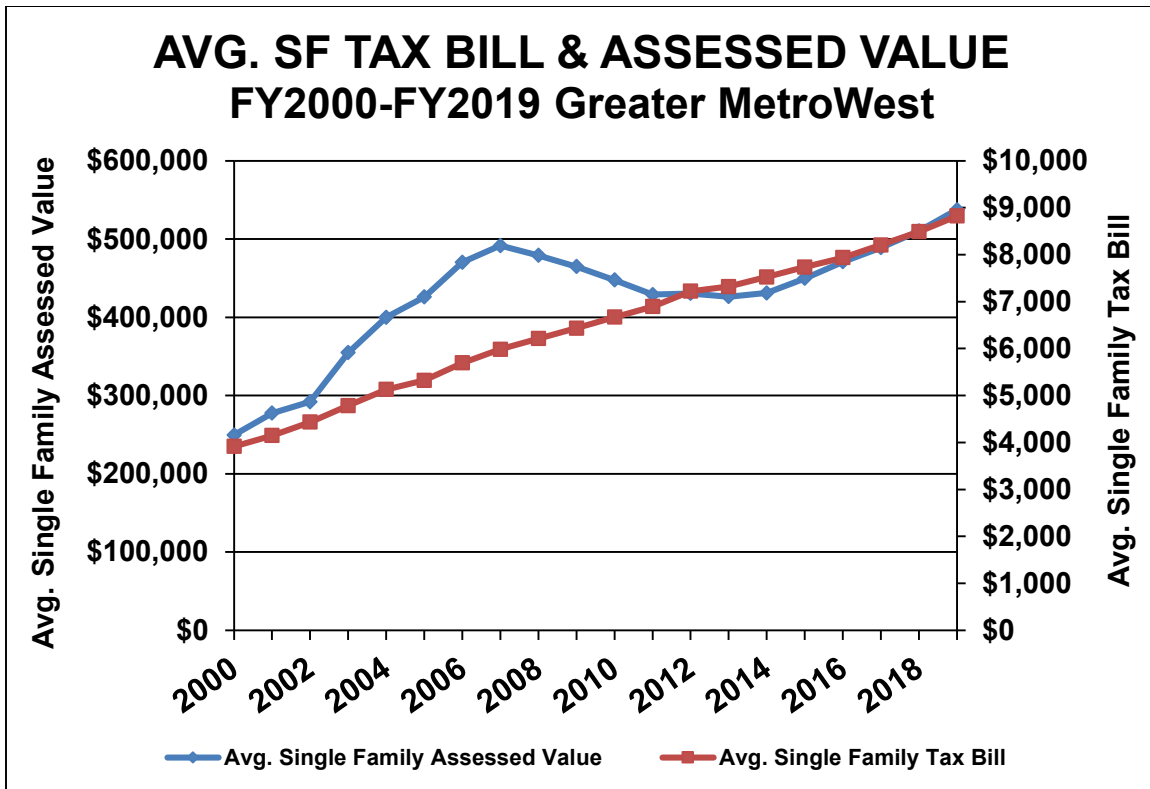
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In Greater MetroWest in FY2019, the highest single family tax bill of all thirteen communities came from Sherborn at \$15,952, with the lowest coming from Marlborough at \$5,273.
- Sherborn had the largest single family tax bill. It is more than triple the average single family tax bill of Marlborough.
- Of all thirteen communities, only the following five had a tax bill larger than \$10,000: Sherborn (\$15,952), Wayland (\$13,719), Sudbury (\$13,555), Hopkinton (\$10,295), and Southborough (\$10,274).
- The range for the remaining eight communities in Greater MetroWest was between \$5,000 and \$9,000.
- The average single family tax bill for a given community is determined by applying the respective residential tax rate to the average single family assessed value.

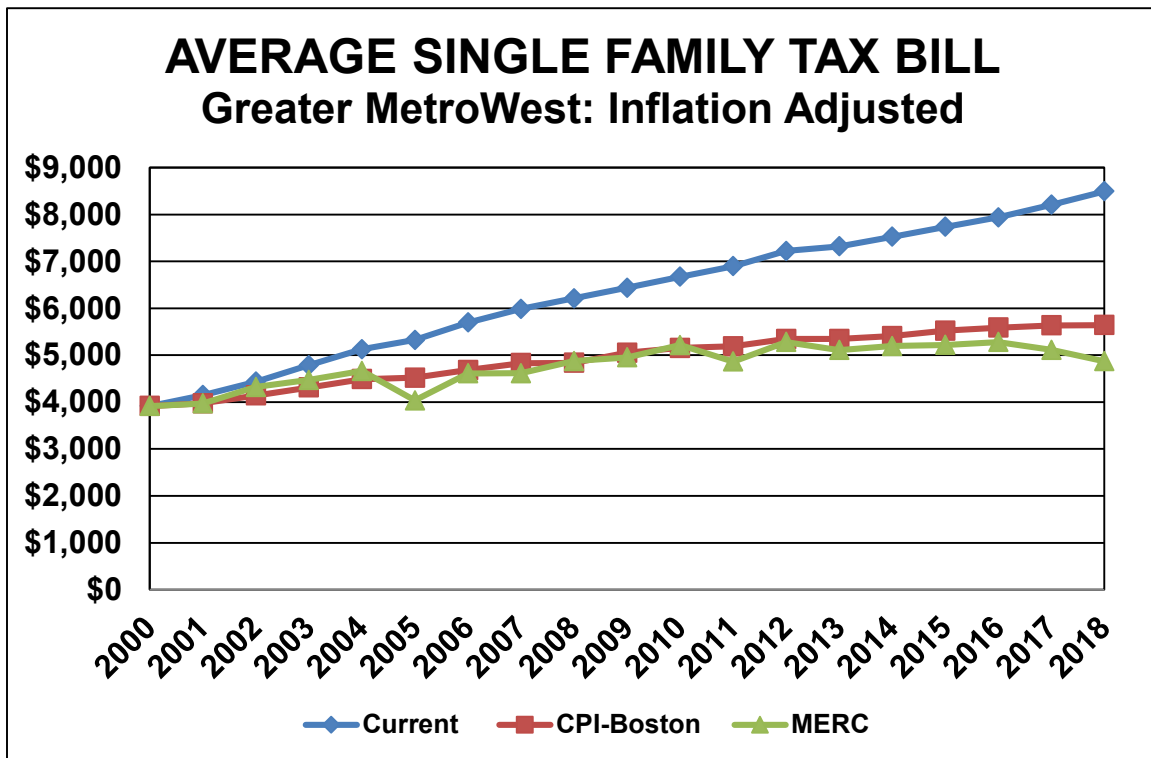
GREATER METROWEST – MUNICIPAL REVENUE



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 \$8,223 in FY2019, an increase of 125.4% over the period. The average single family tax bill increased each year over this 19-year period.
- From FY2000 to FY2019, 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 to \$510,140 in FY2018 and \$537,407 in FY2019.
- 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.

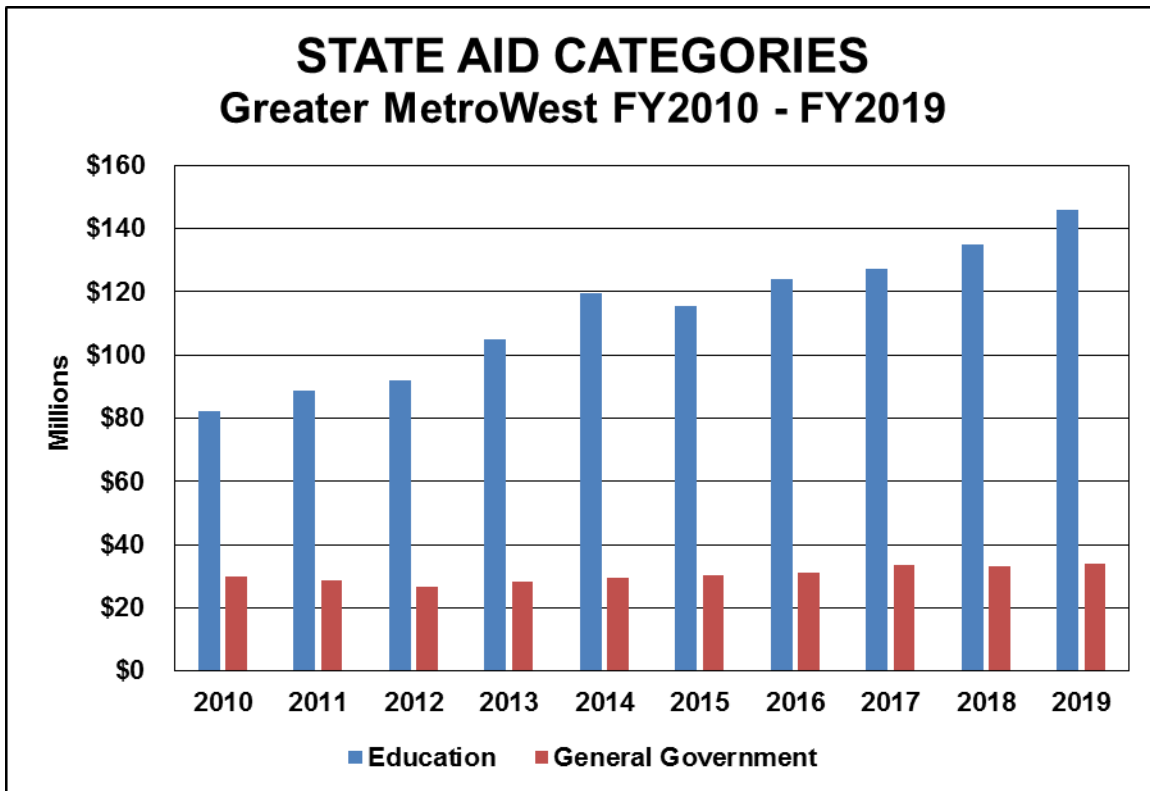
GREATER METROWEST – MUNICIPAL REVENUE



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 FY2018 with FY2000 being the base year. The values are measured in nominal or current dollars and also adjusted for inflation.
- The actual (nominal) single family tax bill, shown in blue, increased every year during this time period from \$3,915 in FY2000 to \$8,491 in FY2018, an increase of \$4,576 or 116.9%.
- 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 FY2018 than in FY2000. The Boston CPI produced a larger increase in the tax bill over the period, an increase of \$1,728 to a tax bill of \$5,643, while the MERC Index generated an increase of \$956 to \$4,871.

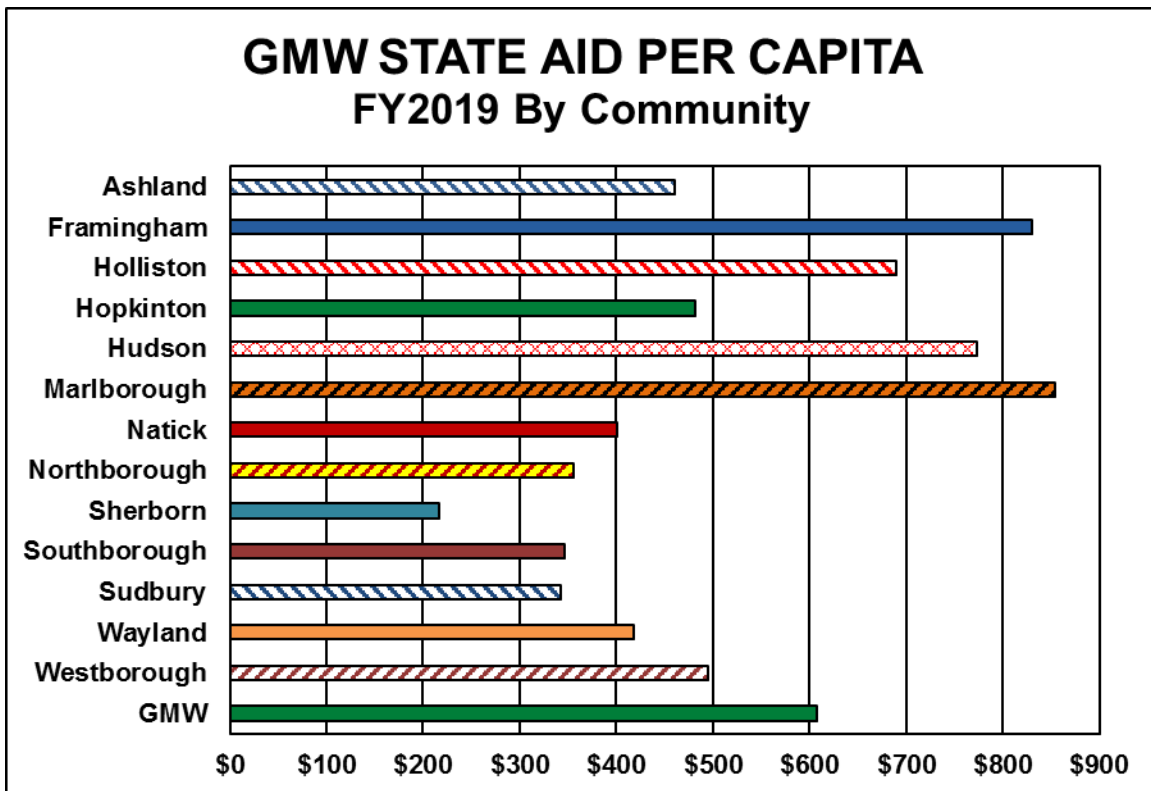
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- State aid for education in Greater MetroWest (GMW) has nearly doubled its overall amount in the past ten years, starting at \$82.4 million in FY2010 and increasing to \$146.0 million in FY2019. During the ten-year span being displayed and measured on the graph above, state aid for education increased every year except for FY2014 to FY2015 in which it decreased around \$4.2 million. The biggest total increase for state aid for education came between FY2013 through FY2014, increasing a total of \$15.0 million.
- State aid for general government (GG) in GMW had significantly lower totals during the same ten-year span. In FY2010, state aid for (GG) totaled \$29.8 million and increased to \$33.9 million in FY2019.
- During the ten-year span being measured, state aid for (GG) saw decreasing totals in several years. From FY2010 to FY2012, it decreased from \$29.8 million to \$26.5 million, thus showing an overall decrease of \$3.3 million. It decreased one more time in FY2017 to FY2018, this time less significant, only showing a \$120,000 drop.

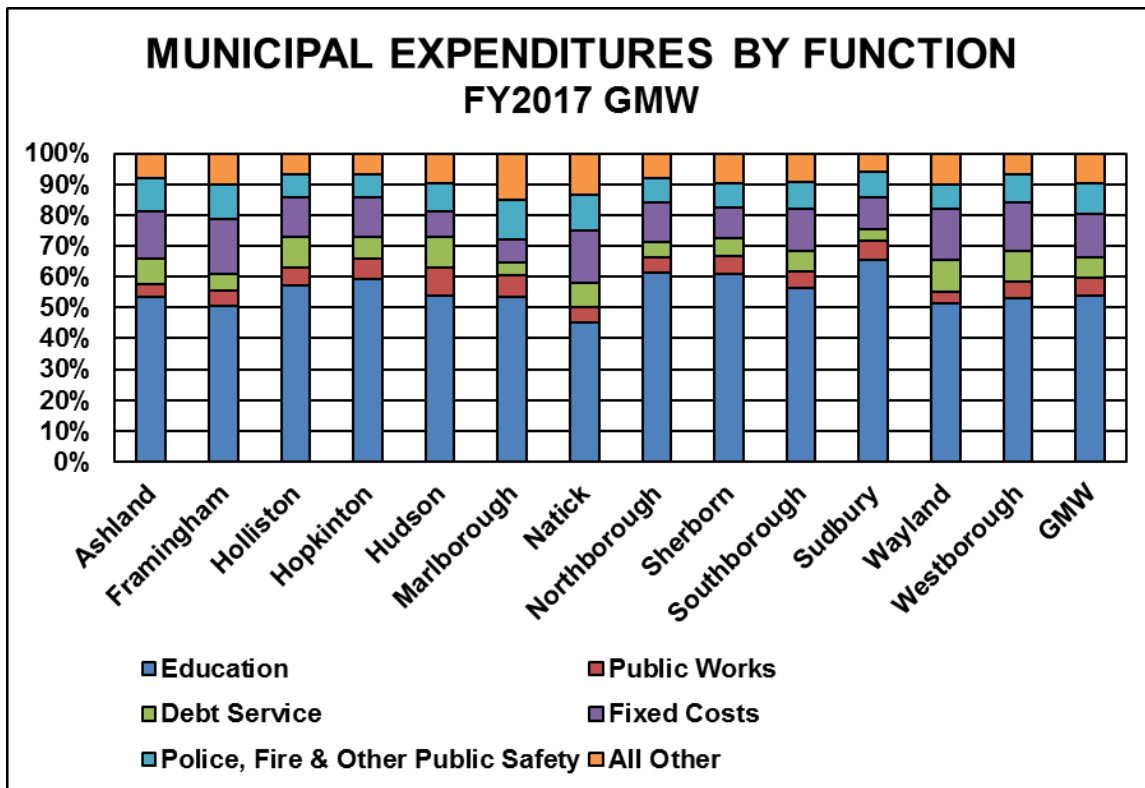
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph above displays the per capita state aid given to each of the thirteen communities that make up Greater MetroWest (GMW) in FY2019. Per capita state aid is calculated by dividing the sum of the aid given to a community by the population of that community.
- The amount of per capita state aid given to the communities in GMW ranged from \$854 to as low as \$217. Marlborough received the highest per capita state aid at \$854 with Framingham not far behind at \$830, while Sherborn received the lowest amount at \$217.
- The graph above consists of both state aid for education and state aid for general government combined and given directly to each respective community. The total amount of state aid given to GMW was \$180,497,269.
- It is important to note that communities such as Northborough, Southborough, Sudbury, and Sherborn all belong to regional school districts. The state aid that is given to those districts is not included in the above calculations.

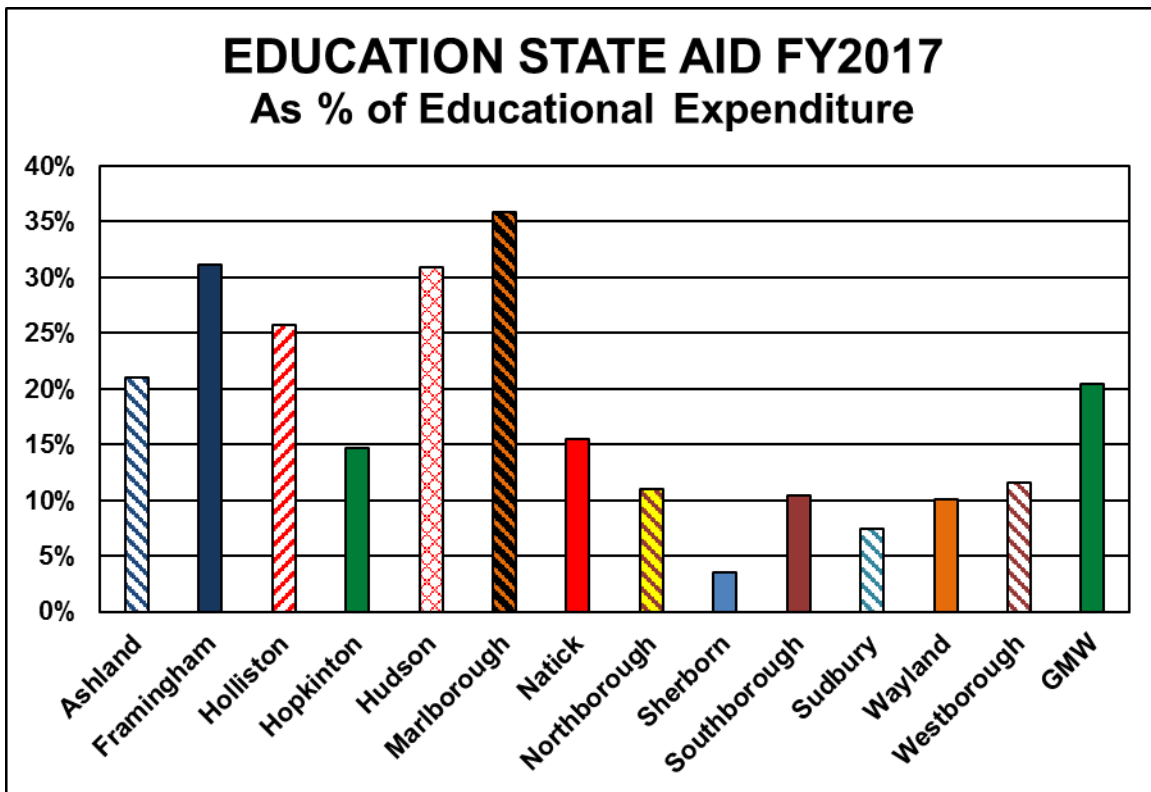
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal expenditures are categorized into six main categories: Education, Debt Service, Police, Fire, & Other Public Safety, Public Works, Fixed Costs, “All Other.” The respective expenditures are shown as percentages of total expenditures in the graph. Fixed employee benefits for all municipal employees are included in fixed costs. In FY2017 these general fund expenditures reached over a billion dollars in Greater MetroWest.
- Education expenditures comprised the largest portion of each community in GMW. Natick at 45.1% was the only community within GMW to have had less than 50% of their municipal expenditure go to education with Sudbury having the largest share at 65.6%. The average education expenditure for GMW was around 54.0%.
- The highs and lows of the remaining categories varied by community. Debt Service was a relatively low percentage of total expenditures with Westborough having the highest at 10.3% while Sudbury posted the smallest at 3.76% and the average for GMW being 6.8%. The Police, Fire & Other Public Safety average for GMW was about 10% with Marlborough having the highest expenditure at 13.2%. Public Works was the lowest average expenditure throughout the region coming in at 5.6%, with Fixed Costs at 13.9% and “All Other” at 9.7%.

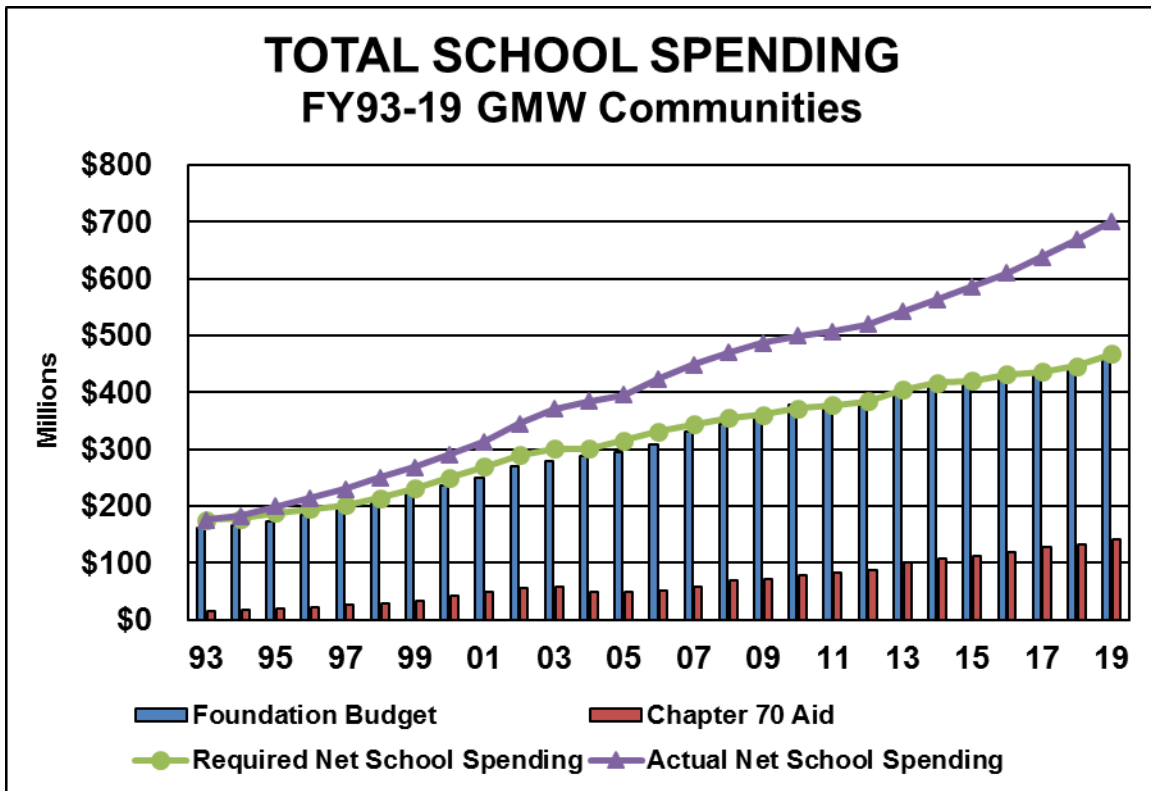
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph above displays the educational state aid as a percent of education expenditure in FY2017 for the thirteen communities that make up Greater MetroWest (GMW).
- Of all the communities being measured, Marlborough had the highest percentage at 35.9% with Framingham just below that at 31.1% and Hudson at 30.9%. None of the remaining eleven communities surpassed 30%.
- Holliston (25.7%) and Ashland (21.0%) with the next two largest percentages were only two of the remaining eleven communities to reach over 20%.
- The remaining eight communities ranged from 3.5% to 15.5% with Sherborn having the lowest. The average percentage for GMW was 20.5%.
- The education expenditures being displayed in the graph above are those reported in the general fund. Education state aid includes Chapter 70 state aid for education as well as charter tuition assessment reimbursement and school choice receiving tuition programs.

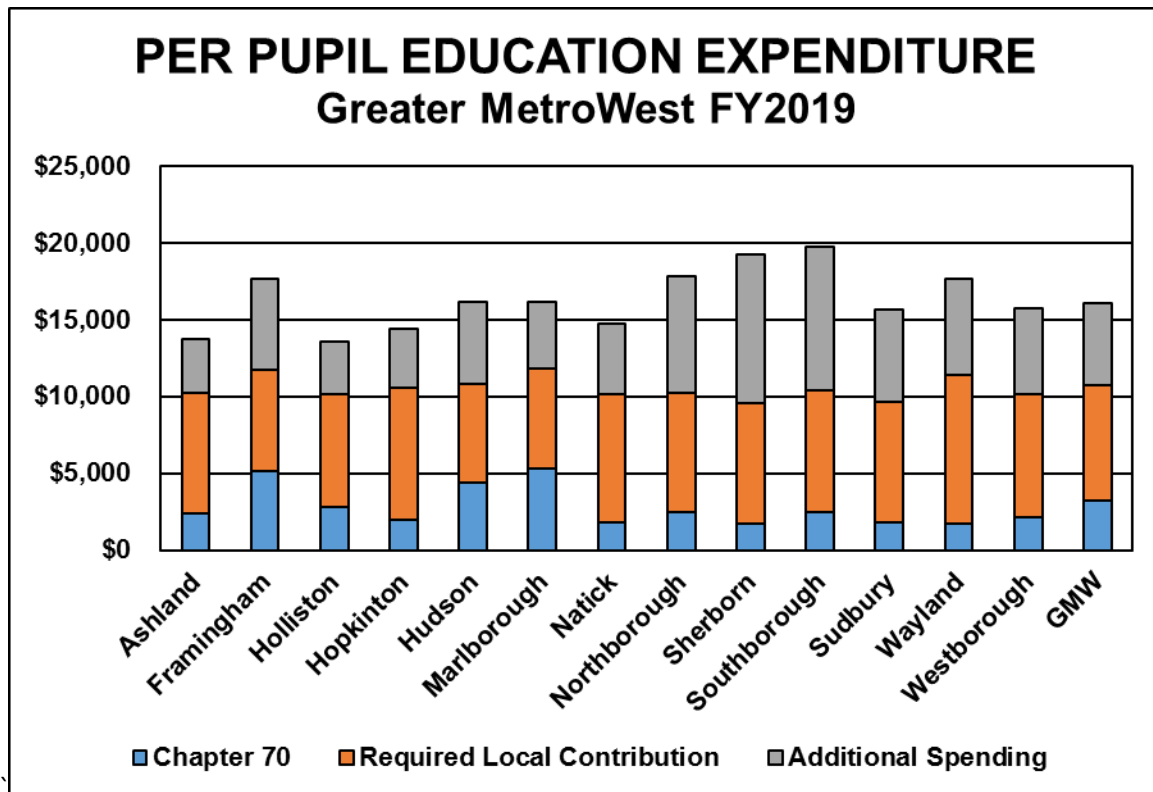
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The chart above displays the total school spending over a 26-year period for the thirteen communities that make up Greater MetroWest (GMW). The four components within the graph are as follows, Foundation Budget (Blue), Chapter 70 Aid (Red), Required Net School Spending (Green), and Actual Net School Spending (Purple).
- The foundation budget is a measure of the amount needed in order to provide the students with an adequate education, and is determined by the enrollment classification categories and related costs. In FY2019 the foundation budget totaled \$464.6 million in GMW while required net school spending totaled \$468.4 million.
- Chapter 70 state aid which is represented by the red bar is the educational assistance given to a community and in FY2019 it totaled \$142.4 million for GMW. Local contributions for GMW in FY2019 were \$326.0 million, and this number is the difference between the Foundation Budget (blue) and Chapter 70 aid (red). The actual net school spending in the GMW region for FY2019 totaled \$701.6 million. This category is made up of required local contributions, Chapter 70 aid, and additional dollars communities chose to spend on education.

GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph above represents the per pupil education expenditures for the communities that make up Greater MetroWest (GMW) for FY2019 as reported by the Massachusetts Department of Elementary and Secondary Education (DESE).
- The DESE values are classified in the following three categories: Chapter 70 state aid (Blue), Required Local Contribution (Orange), and Additional Spending (Grey) which consists of added amounts municipalities chose to spend over education reform requirements.
- Total per pupil education spending in GMW ranged from a high of \$19,717 in Southborough to a low of \$13,592 in Holliston. With the exception of Sherborn (\$19,230), and Ashland (\$13,691), the remaining communities spent between \$14,000 and \$17,000.
- The required local contribution and related state aid given to each municipality includes DOR income and municipal property values in the calculations. The total local contribution and state aid is the foundation budget and the amount a municipality needs to provide an adequate education for its students.

GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

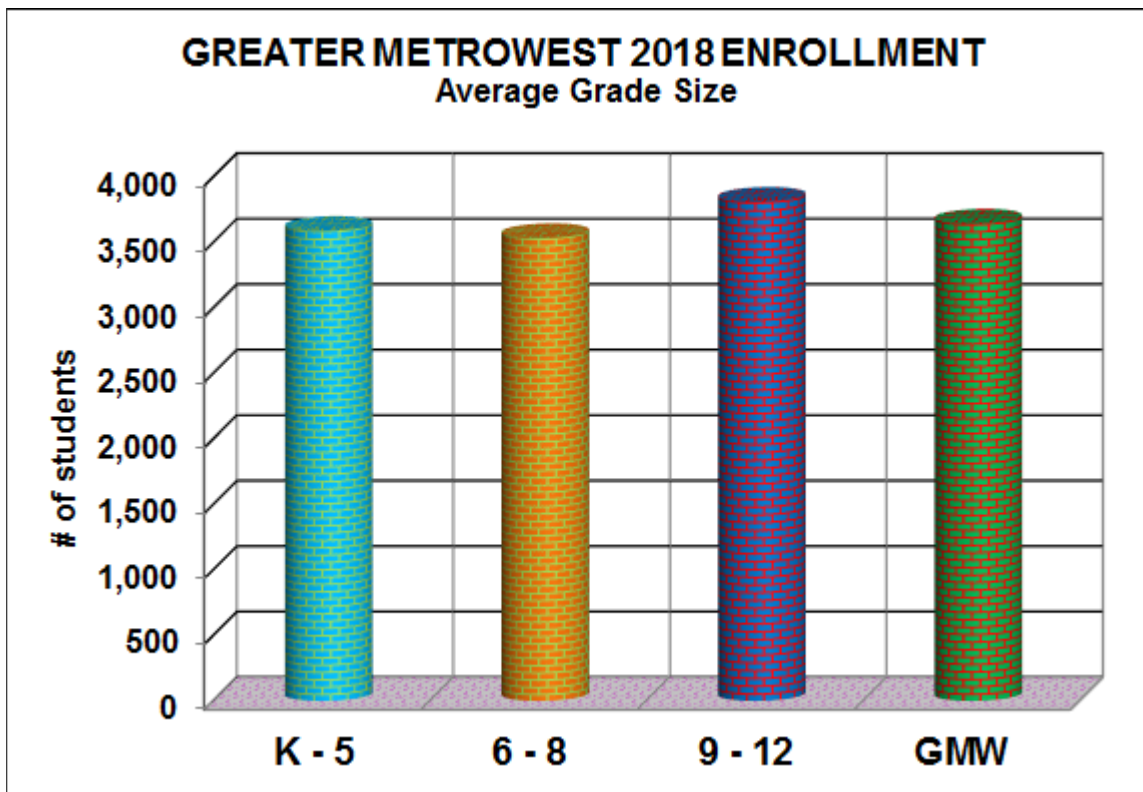
K-12 PUBLIC SCHOOL ENROLLMENT

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 2018 SIMS student census and data provided directly to MERC by the local school districts.

GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

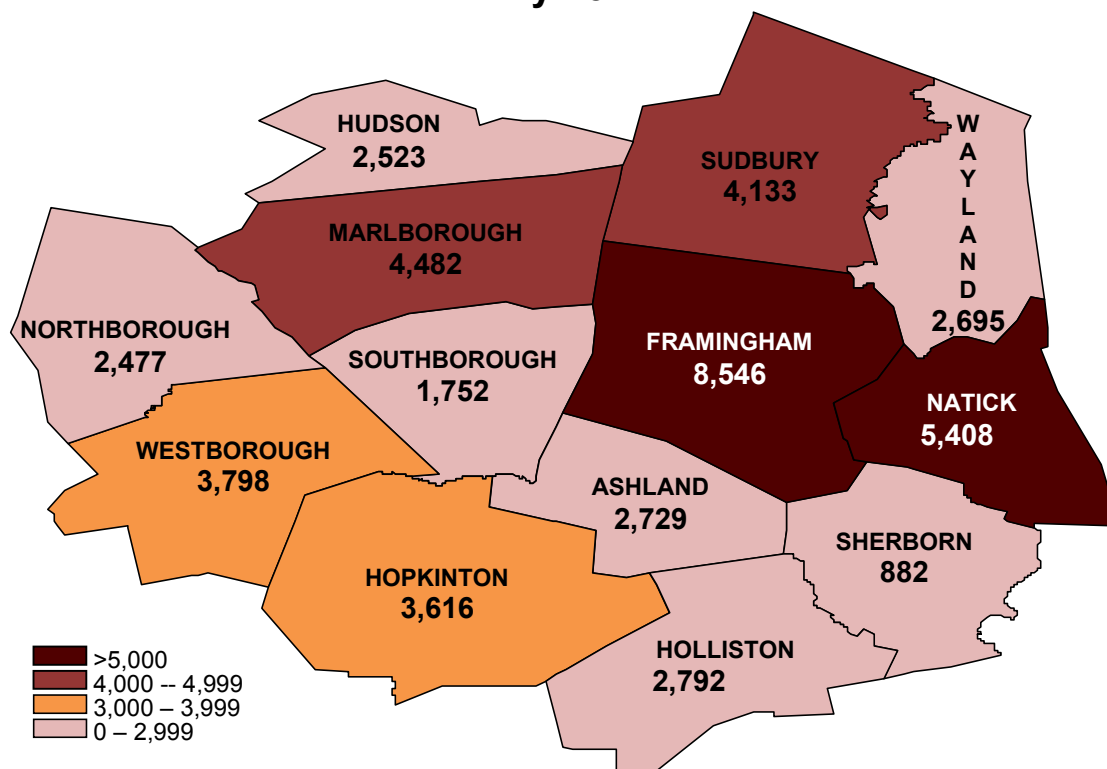


Source: MA Department of Elementary and Secondary Education and MERC

- The 2018 Greater MetroWest (GMW) Region had a total of 47,361 students for K-12 public school enrollment, while averaging 3,643 students per grade. The region average grade enrollment increased 1.0% from 2018.
- In 2018 the average number of students per grade at the elementary school level, kindergarten through fifth grade, was 3,587. This represents a decrease of 0.69% from 2017.
- At the middle school level, grade 6 through 8, the average number of students per grade was 3,533, an increase of 2.0% compared to 2017.
- The average number of students per grade at the high school level was 3,810, an increase of 2.9% from 2017.
- Charter school enrollment is not included in the average grade size calculations.

GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

GMW 2018 Public School Enrollment By Town

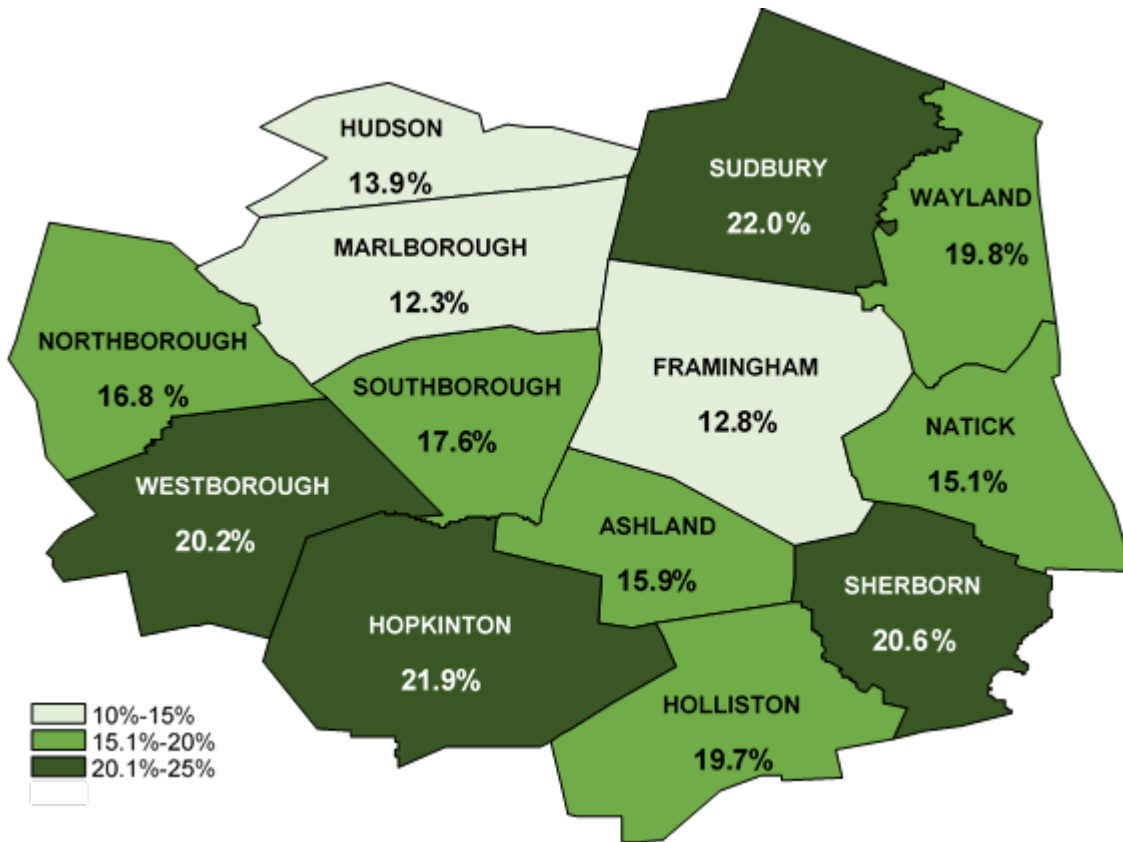


Source: MA Department of Elementary and Secondary Education and MERC

- K-12 public school enrollment in Greater MetroWest totaled 45,833 students. This figure does not include students enrolled in charter schools and vocational schools.
- The community reporting the highest enrollment was Framingham with a student enrollment of 8,546, followed by Natick with 5,408 students enrolled.
- Ashland, Holliston, Hudson, Northborough, and Wayland had enrollments between 2,000 and 3,000 students. Sherborn reported the smallest enrollment at 882 students.
- Enrollment in vocational high schools for Greater MetroWest totaled 1,528 students in 2018. Vocational student enrollment has increased by 2.3% from 2017.
- Enrollment in charter schools totaled 1,372 students in 2018 and decreased by 1.2% relative to 2017.

GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

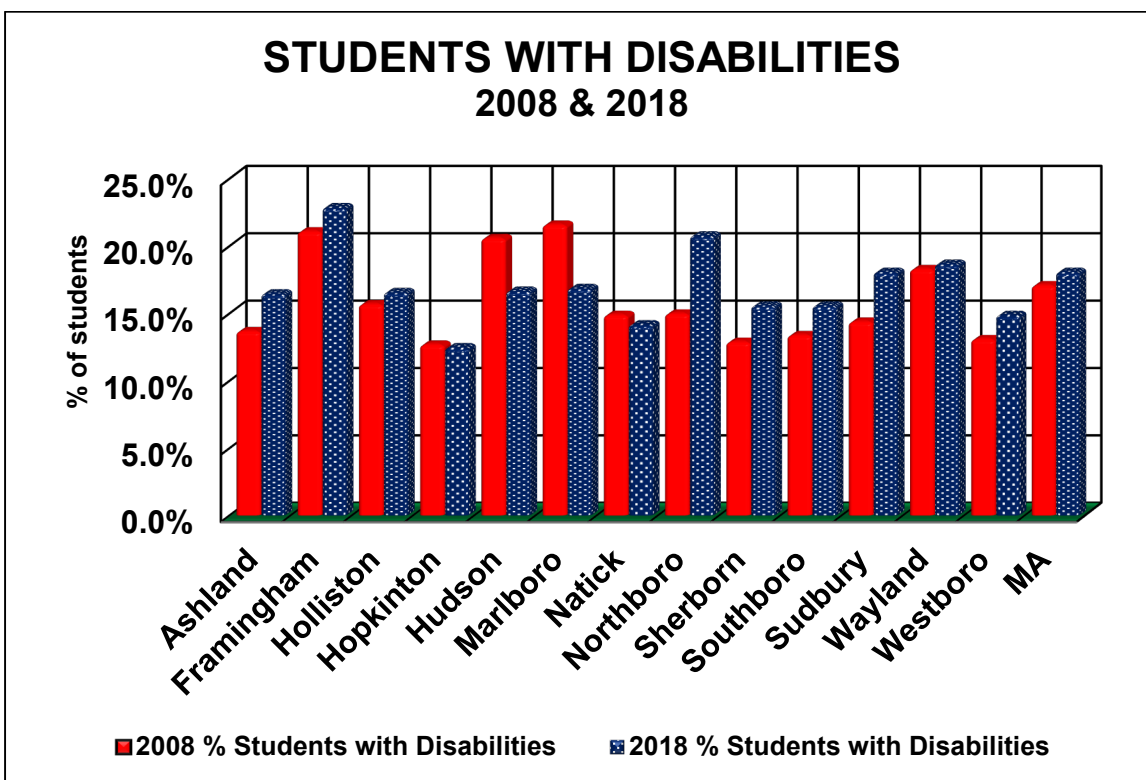
GMW PUBLIC SCHOOL ENROLLMENT As Percentage of 2015 Population



Source: U. S. Census and MERC

- K-12 public school enrollment in Greater MetroWest Region (GMW) for 2018 was 47,361 students. This figure does not include students enrolled in charter schools.
- This map measures the proportion of the community enrolled in public schools. Public school enrollment in 2018 is given as a percentage of the 2015 population. The highest enrollment as a percentage of population occurred in Sudbury at 22.0%. In these communities, slightly more than 1 in 5 population members were in public schools.
- Slightly more than 20% of the population in the communities of Hopkinton, Sherborn and Westborough attend public school. The communities of Ashland, Holliston, Natick, Northborough, Southborough, and Wayland have public school enrollment between 15.1% and 20% of the total population.
- Framingham and Marlborough, the communities with the largest population and public school enrollment, report a small percentage of the population in public school, at 12.8% and 12.3%, respectively.

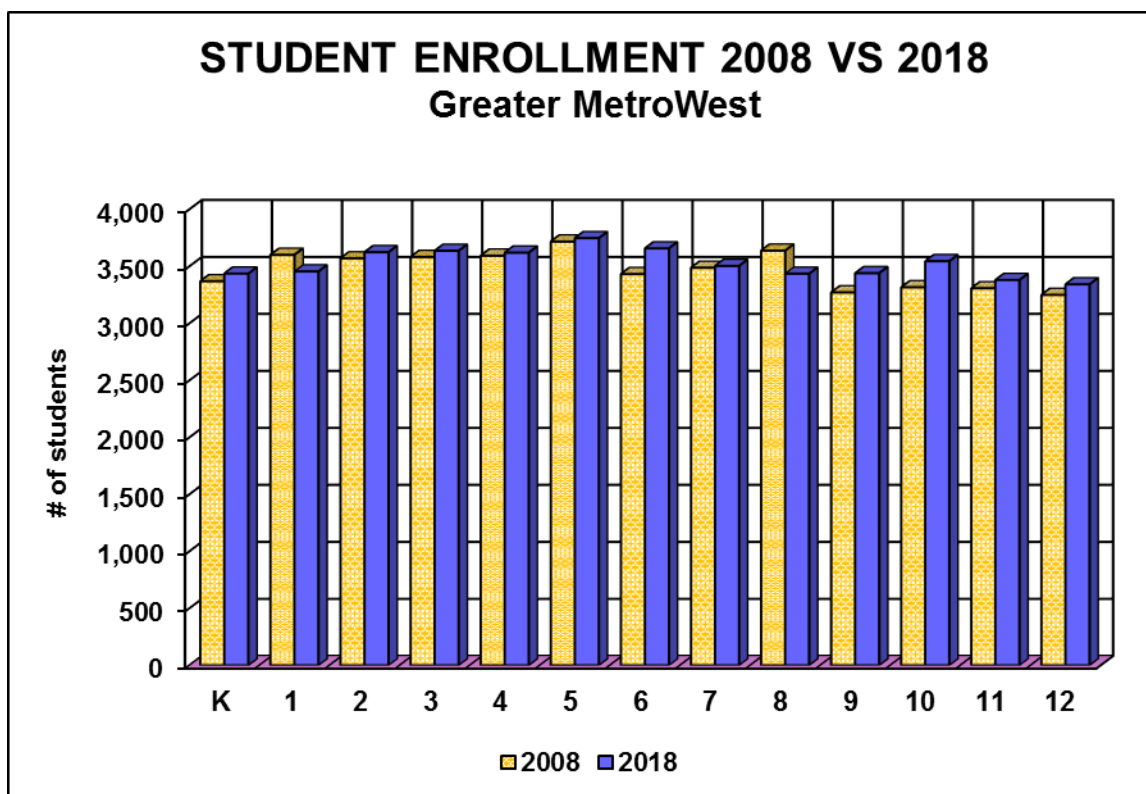
GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- The graph shows the percentage of students with disabilities. The percentage 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 those with any of the following: autism, communication impairment, developmental delay, emotional impairment, health impairment, intellectual impairment, neurological impairment, physical impairment and sensory impairment.
- Northborough (5.8%) and Sudbury (3.7%) had the largest increase in students with disabilities.
- Hudson (3.9%) and Marlborough (4.7%) had the largest decrease in students with disabilities.
- Hopkinton and Natick showed a slight decrease in students with disabilities while the remaining communities showed an increase.

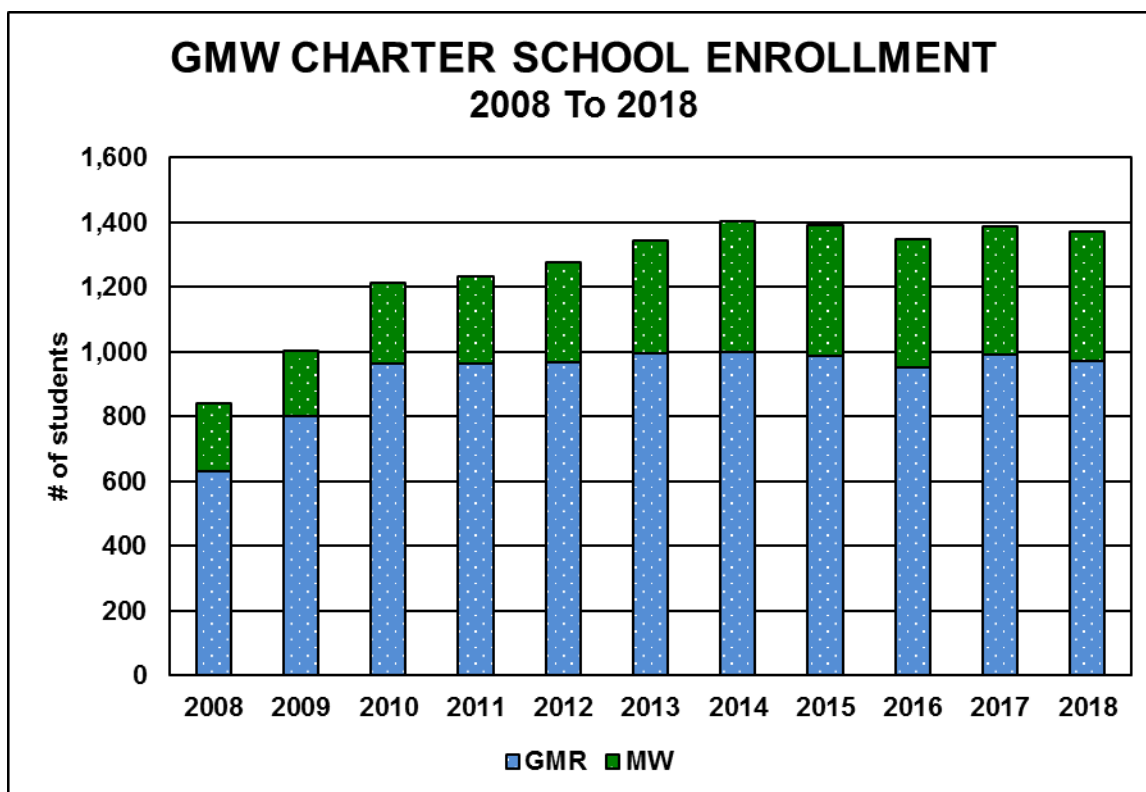
GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- The above graph compares public student enrollment in Greater MetroWest (GMW) in 2008 and 2018 by grade.
- Student enrollment in 2008 was 45,143 and by 2018 the enrollment increased to 45,833, an increase 1.5%. The enrollment does not include vocational schools and charter schools.
- Grade 1 student enrollment in 2008 was 3,601; however, by 2018 the enrollment decreased by 4.0% to 3,456 students.
- Grade 8 enrollment in 2008 was 3,638 students which decreased by 5.6% in 2018 to 3,436 students.
- Grade 6 student enrollment in 2008 was 3,433. In 2018, the number grew by 225 to 3,658 students, showing an increase of 6.6%. Grade 10 student enrollment had an increase of 6.9% from 3,317 in 2008 to 3,546 students in 2018.
- The high school student enrollment in 2008 was 13,147 and increased by 4.3% in 2018 to 13,711 students.

GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Charter school enrollment for Greater MetroWest (GMW) was 843 students in 2008 and in 2018 the student enrollment rose to 1,372, representing a 62.8% increase.
- MetroWest regional charter school enrollment increased from 210 in 2008 to 398 students in 2018, which is equivalent to an increase of 89.5%.
- Greater Marlborough Region (GMR) charter school enrollment went from 633 in 2008 to 974 students in 2018, showing an increase of 53.9%.
- Between 2008 and 2014, total charter school enrollment grew from 843 students to 1,402 students, representing a 66.3% increase.
- Charter school enrollment in GMW reached its peak in 2014 when it reached 1,402 students. However, since then the number of students has declined. By 2018, 1,372 were enrolled in GMW Charter schools. That is a 2.1% decline over the past four years.

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.

APPENDIX

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.

APPENDIX

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.

APPENDIX

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)
- MetroWest Economic Research Center (MERC)
- United States Census Bureau, U.S. Department of Commerce

ACKNOWLEDGEMENTS

The MetroWest Economic Research Center (MERC) at Framingham State University would like to acknowledge the contributions of the following individuals and organizations:

- Office staffs of the building departments and assessors for Ashland, Framingham, Holliston, Hopkinton, Hudson, Marlborough, Natick, Northborough, Sherborn, Southborough, Sudbury, Wayland, Westborough
- Office staffs of the public school districts serving the towns of Ashland, Framingham, Holliston, Hopkinton, Hudson, Marlborough, Natick, Northborough, Sherborn, Southborough, Sudbury, Wayland, Westborough
- Massachusetts Department of Elementary and Secondary Education, Data Collection staff
- Area merchants who participate in the MetroWest Cost of Living Survey
- Commonwealth of Massachusetts
- **The Conference Sponsors:** Avidia Bank, Middlesex Savings Bank, EVERSOURCE, Coan Heating & Air Conditioning, Main Street Bank, Marlborough Regional Chamber of Commerce, MetroWest Chamber of Commerce, NBC10 Boston, MetroWest Daily News and Framingham State University



METROWEST ECONOMIC RESEARCH CENTER

At Framingham State University
100 State Street, Framingham, MA 01701-9101
508-626-4033 – FAX: 508-626-4018
www.merc-online.org

Maureen Dunne, M.B.A.	508-626-4033	mdunne@framingham.edu
Laura Lamontagne, Ph.D.	508-626-4889	llamontagne@framingham.edu
Lori Lavigne, Ph.D.	508-626-4857	llavigne@framingham.edu
Donald MacRitchie, M.A.	508-626-4033	dmacritchie@framingham.edu
Martha Meaney, M.A.	508-626-4033	mmeaney@framingham.edu
Mary Phelan, M.B.A., C.P.A.	508-626-4033	mphelan@framingham.edu
Luis Rosero, Ph.D.	508-626-5716	lrosero@framingham.edu
Fahlino Sjuib, Ph.D.	508-626-4884	fsjuib@framingham.edu
Beverly Soriano, M.S., C.P.A.	508-626-4856	bsoriano@framingham.edu

MERC Executive Board:

Maureen Dunne, M.B.A.
Donald MacRitchie, M.A.
Martha Meaney, M.A.
Fahlino Sjuib, Ph.D.
Beverly Soriano, M.S., C.P.A.

For additional copies or further information, please contact:

MetroWest Economic Research Center

Framingham State University

Framingham, MA 01701-9101

508-626-4033

merc@framingham.edu

Conference Sponsors:



METROWEST ECONOMIC RESEARCH CENTER
at Framingham State University
100 State Street, Framingham, MA 01701-9101
508-626-4033 – FAX: 508-626-4018
www.merc-online.org