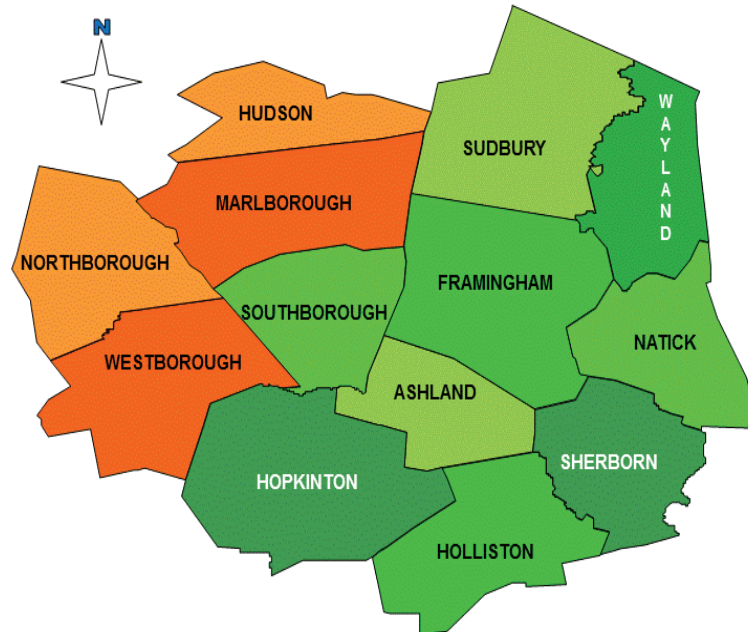


GREATER METROWEST Economic Profile 2012 ©



**Presented at the 20TH Annual MERCTM Conference:
Greater MetroWest: Insights from Census 2010
Plus the Regional Economic Profile**

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Framingham
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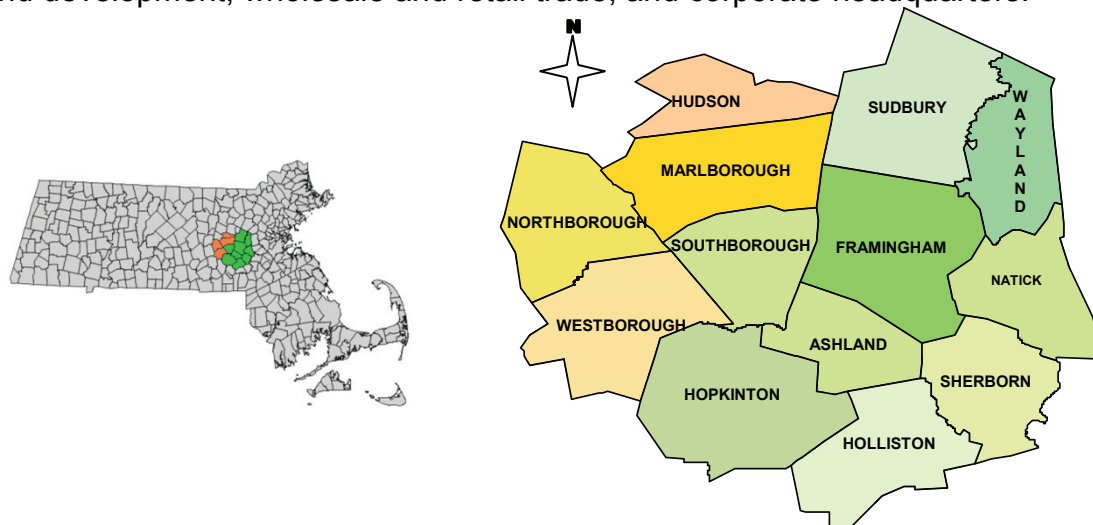
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INTRODUCTION

Greater MetroWest (GMW) includes thirteen Massachusetts communities located between Boston and Worcester: the nine towns of MetroWest include Ashland, Framingham, Holliston, Hopkinton, Sherborn, Southborough, Sudbury, and Wayland; and the four communities of the Greater Marlborough Region include Hudson, Marlborough, Northborough, and Westborough. With a population of about 281,000, GMW hosts a very well educated and highly skilled labor force of more than 154,000 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.

In 2010 Greater MetroWest businesses generated more than 175,000 jobs and a payroll of nearly \$12 billion. GMW provides 4.5% of the Massachusetts labor force, 5.6% of Massachusetts employment, and 6.6% of Massachusetts payroll. Home to thousands of small and medium sized businesses as well as large national firms like Astra Zeneca, Bose, Boston Scientific, Cumberland/Gulf, EMC, Genzyme, Intel, Mathworks, Raytheon, Staples, TJX, and the internationally known U.S. Army Natick Laboratories, GMW is a recognized center of research and development, wholesale and retail trade, and corporate headquarters.



The *2012 Greater MetroWest Economic Profile* includes the most recent economic data for the region and its individual communities, and trends over the past three decades 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.

2012 Greater MetroWest Economic Profile

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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.

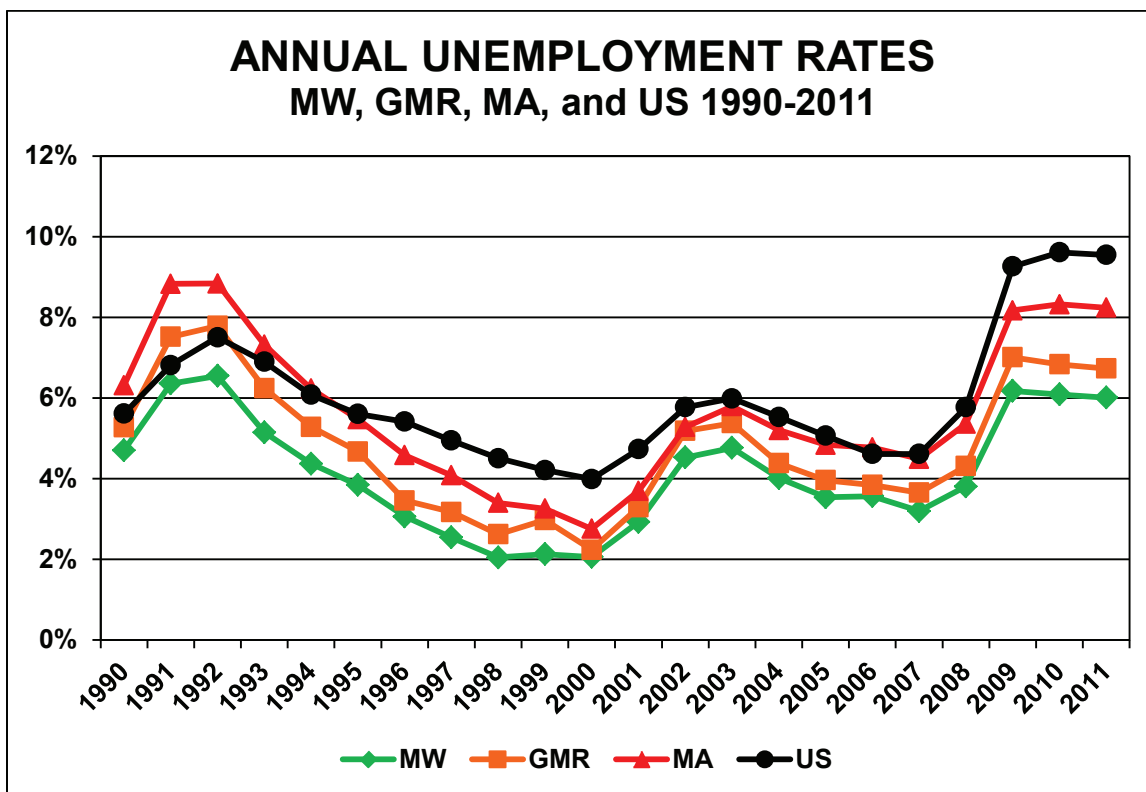
The unemployment rate is a measure of the amount of unutilized labor in the economy. The rate represents the proportion of unemployed individuals in the labor force. The **labor force** is defined as all civilian non-institutionalized persons age 16 and over who are either employed or unemployed. The **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 were temporarily absent due to vacation, illness, childcare problems or other personal obligations, whether or not they were paid during their absence. The **unemployed** are those who did not hold a job during the survey period but were actively seeking employment. For example, the February 2012 unemployment rate in Framingham of 5.2% was based on the following information: the size of the labor force was **estimated** at 38,057 workers, the sum of 36,064 residents who were employed and 1,993 residents who were unemployed. The rate, expressed as a percentage, was obtained by dividing the unemployed (1,993) by the labor force (36,064) and multiplying by 100 to get the unemployment rate of 5.2%.

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

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

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, September 2011.

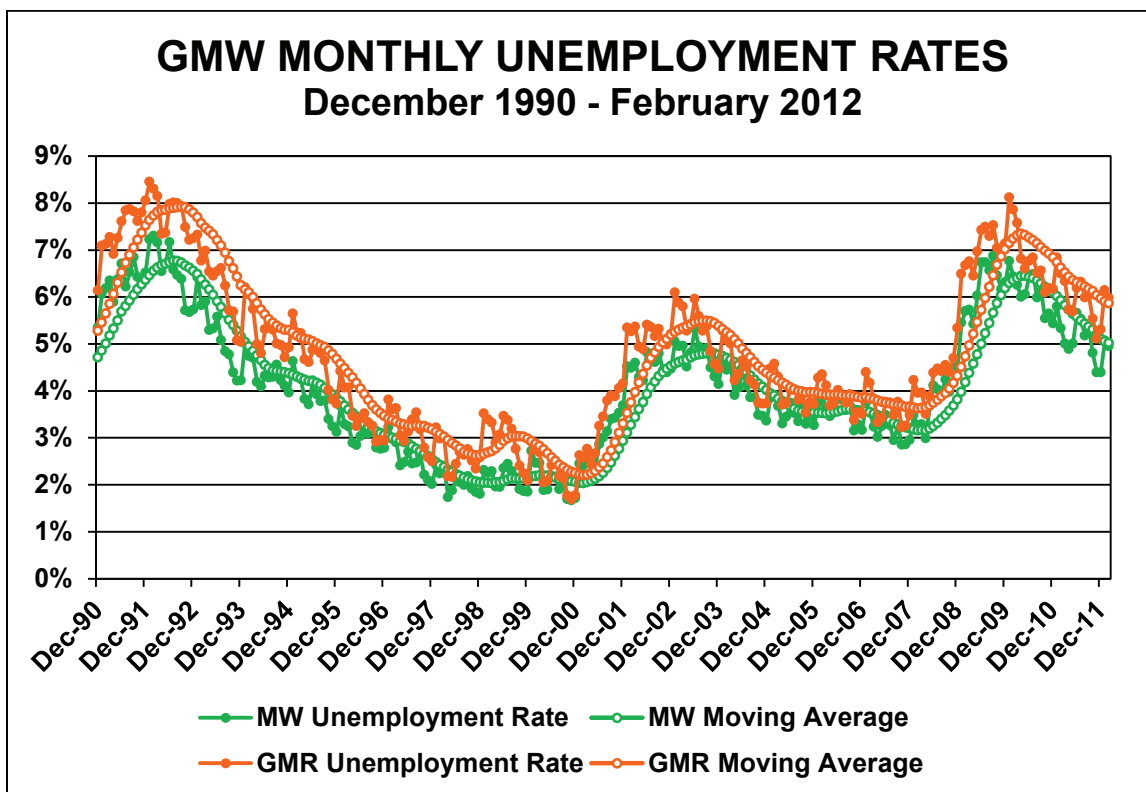
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The annual unemployment rates for MetroWest (MW), the Greater Marlborough Region (GMR), Massachusetts (MA), and the United States (US) from 1990 to 2011 are calculated by averaging the monthly unemployment rates for each year.
- In 2011, the annual unemployment rates in MetroWest, Greater Marlborough Region, and Massachusetts were 6.0%, 6.7%, and 8.2% respectively. These regions posted lower unemployment rates in 2011 than in 2010 with a decrease of -0.1%. The United States posted the same rate of 9.6% in both 2010 and 2011.
- Both MetroWest and the Greater Marlborough Region posted their highest unemployment rates in 1992 with 6.6% and 7.8% respectively. MetroWest had its lowest rate of 2% in 1998 while the Greater Marlborough Region posted its lowest rate of 2.2% in 2000.
- MetroWest and the Greater Marlborough Region have consistently recorded annual unemployment rates lower than both Massachusetts and the United States except in both 1991 and 1992 when the Greater Marlborough Region posted higher annual unemployment rates than the nation.

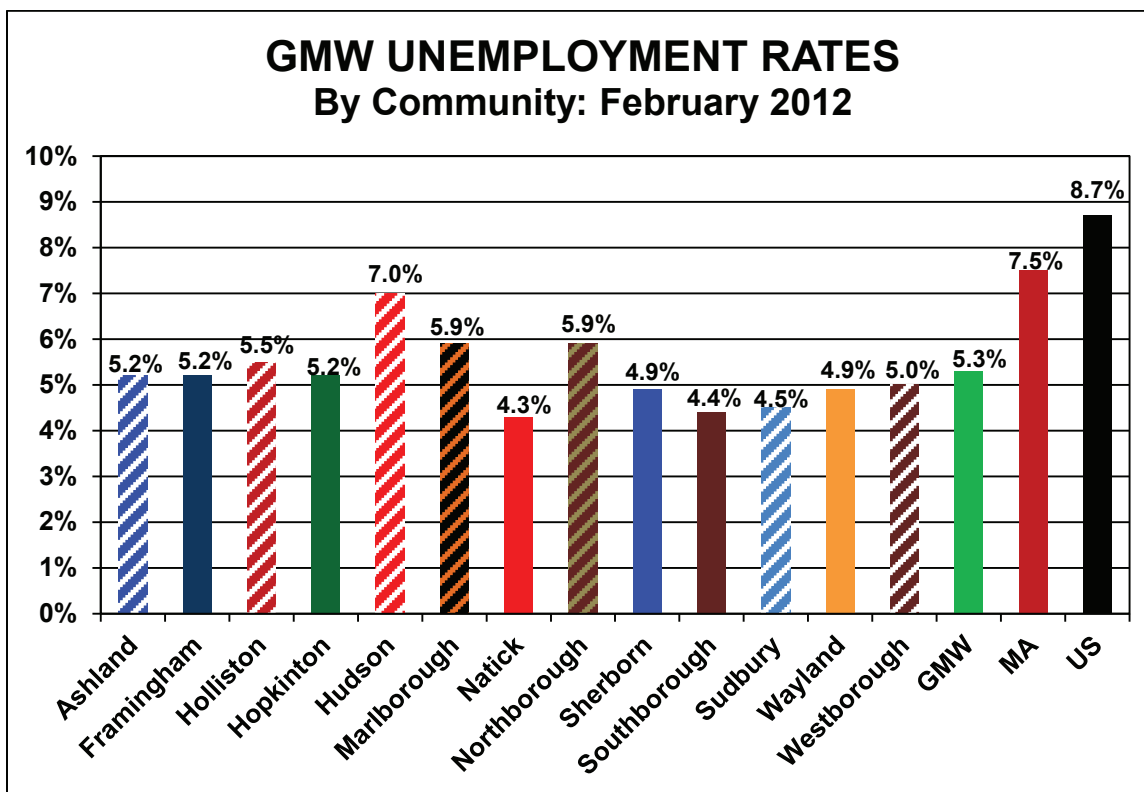
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- This graph examines the monthly unemployment rates and the 12-month moving average rates for MetroWest (shown in green) and the Greater Marlborough Region (shown in orange) from December 1990 to February 2012. The 12-month moving average smoothes out the seasonal variation of the data.
- During this period, MetroWest and the Great Marlborough Region both reached their lowest rates of 1.7% in November 2000. Historically, MetroWest and the Greater Marlborough Region unemployment rates peaked at 7.3% in February 1992 and 8.5% in January 1992, respectively.
- In February 2012, the unemployment rate in MetroWest was 4.9%, a decrease of -0.2% from the previous month's rate of 5.1%.
- The unemployment rate in the Greater Marlborough Region in February 2012 was 6.0%, a decrease of -0.1% from the previous month's rate of 6.1%.
- The 12-month moving average in both regions followed a similar pattern with their monthly rates from December 1990 to February 2012.

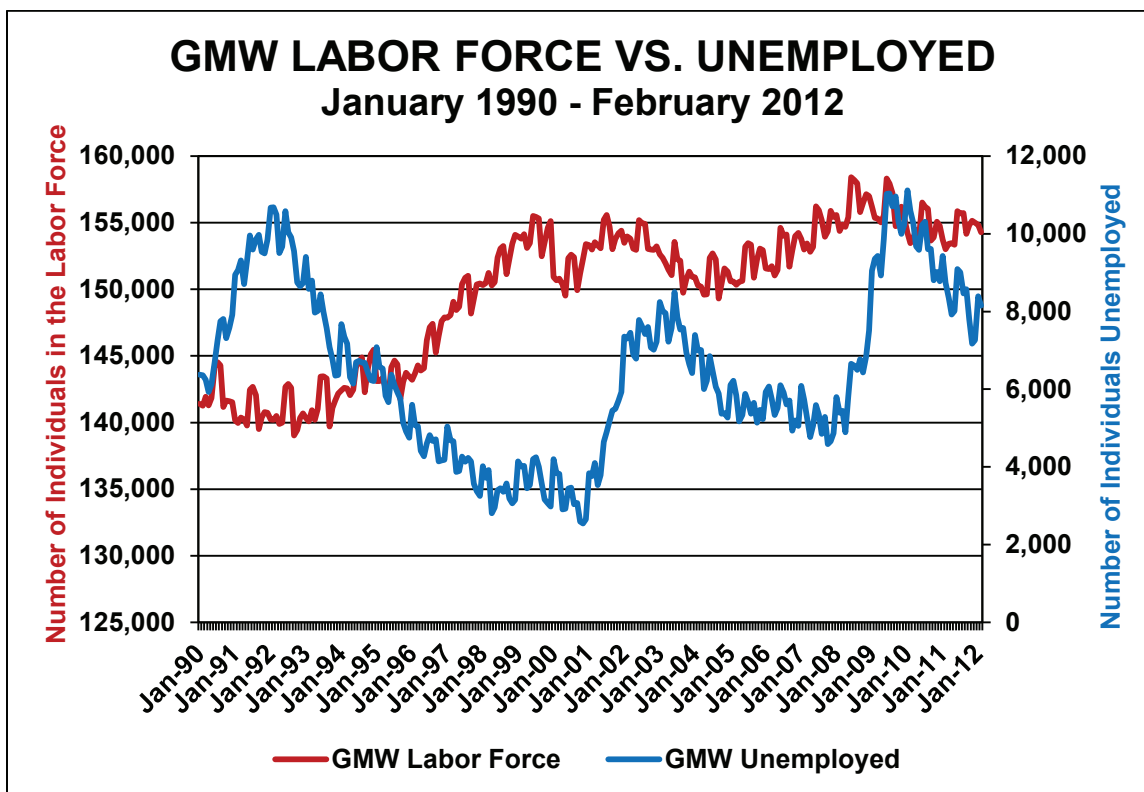
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- In February 2012, each of the thirteen communities in Greater MetroWest (GMW) posted lower unemployment rates than the Massachusetts rate and the United States rate of 7.5% and 8.7% respectively.
- The unemployment rate in Greater MetroWest was 5.3%. Holliston, Hudson, Marlborough, and Northborough were the only four communities that posted higher unemployment rates than Greater MetroWest's rate.
- Among the thirteen communities in Greater MetroWest, Hudson had the highest unemployment rate in February 2012 at 7.0%, followed by Marlborough and Northborough at 5.9%.
- Natick had the lowest unemployment rate in Greater MetroWest with 4.3%, followed by Southborough at 4.4%, and Sudbury at 4.5%.

GREATER METROWEST – UNEMPLOYMENT



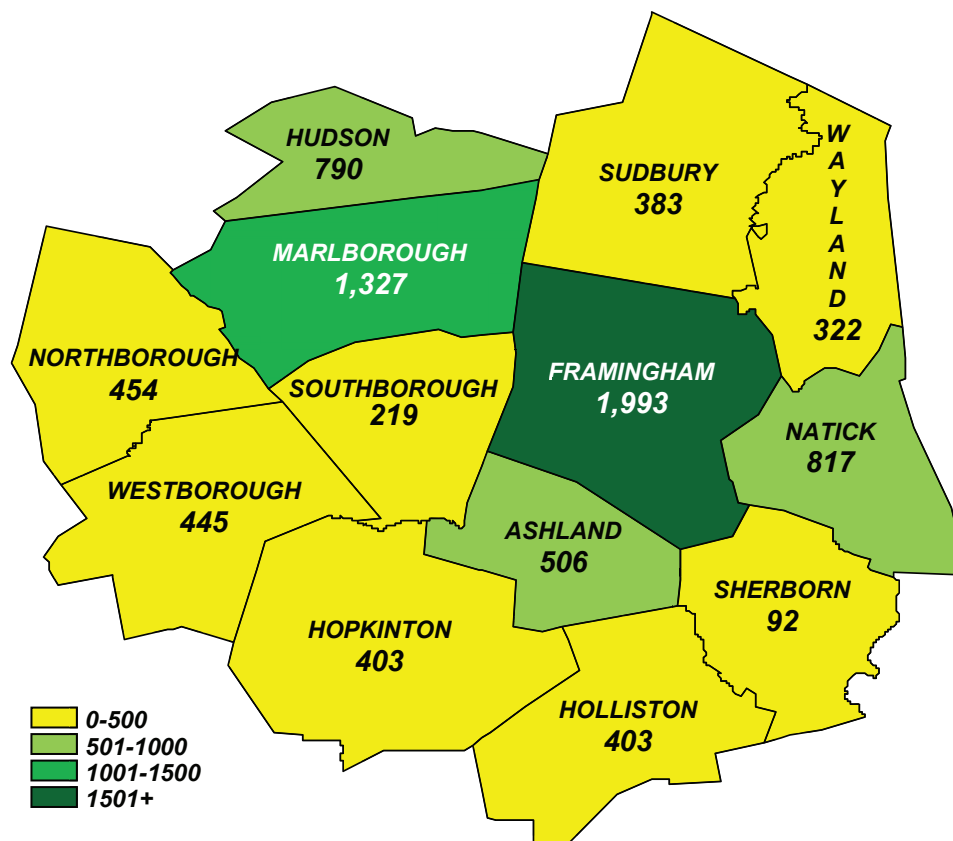
Source: MA EOLWD and MERC

- The number of individuals in the labor force is shown in red, measured by the left-hand scale, and the number of individuals unemployed is shown in blue, measured on the right-hand scale, for Greater MetroWest (GMW) between January 1990 and February 2012. The labor force includes individuals aged 16 years and older who were either employed or unemployed. An individual is unemployed if he or she did not have a job but was actively seeking employment.
- The total labor force reached its lowest point of 139,027 individuals in September 1992. Since then, the labor force has shown an upward trend with some fluctuations until June 2008 when it reached its highest point of 158,420 individuals. In February 2012, the total labor force in GMW was 154,282 individuals.
- The total number of individuals unemployed reached its lowest point of 2,545 individuals in November 2000. Since then, the number of unemployed individuals has fluctuated until it reached its highest point of 11,117 individuals in January 2010. In February 2012, there were 8,154 unemployed individuals in GMW.

GREATER METROWEST – UNEMPLOYMENT

GMW NUMBER OF UNEMPLOYED

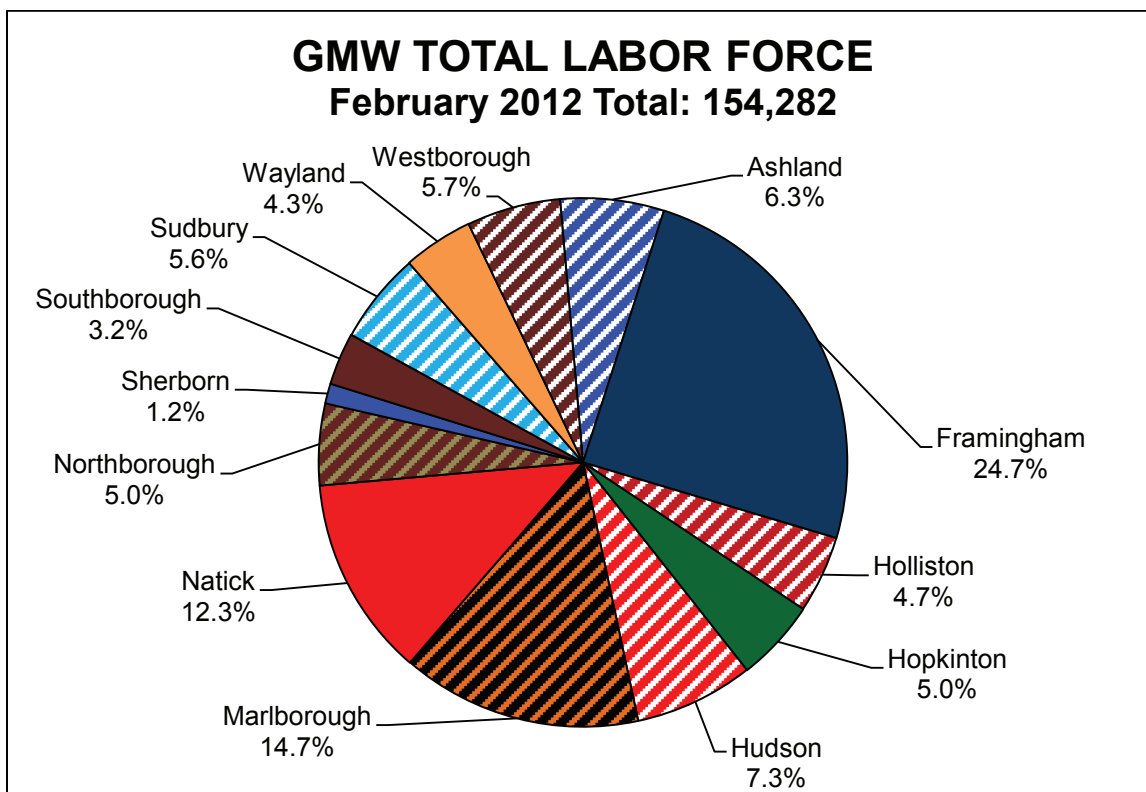
February 2012 Total: 8,154



Source: MA EOLWD and MERC

- The total number of unemployed individuals in Greater MetroWest (GMW) in February 2012 was 8,154.
- Among the thirteen communities in GMW, Framingham had the largest number of unemployed individuals with 1,993, followed by Marlborough and Natick with 1,327 and 817 individuals respectively. Together, Framingham, Marlborough, and Natick accounted for about 50% of the total number of individuals unemployed within GMW.
- Sherborn had the smallest number of unemployed individuals at 92, followed by Southborough and Wayland at 219 and 322 unemployed individuals respectively.

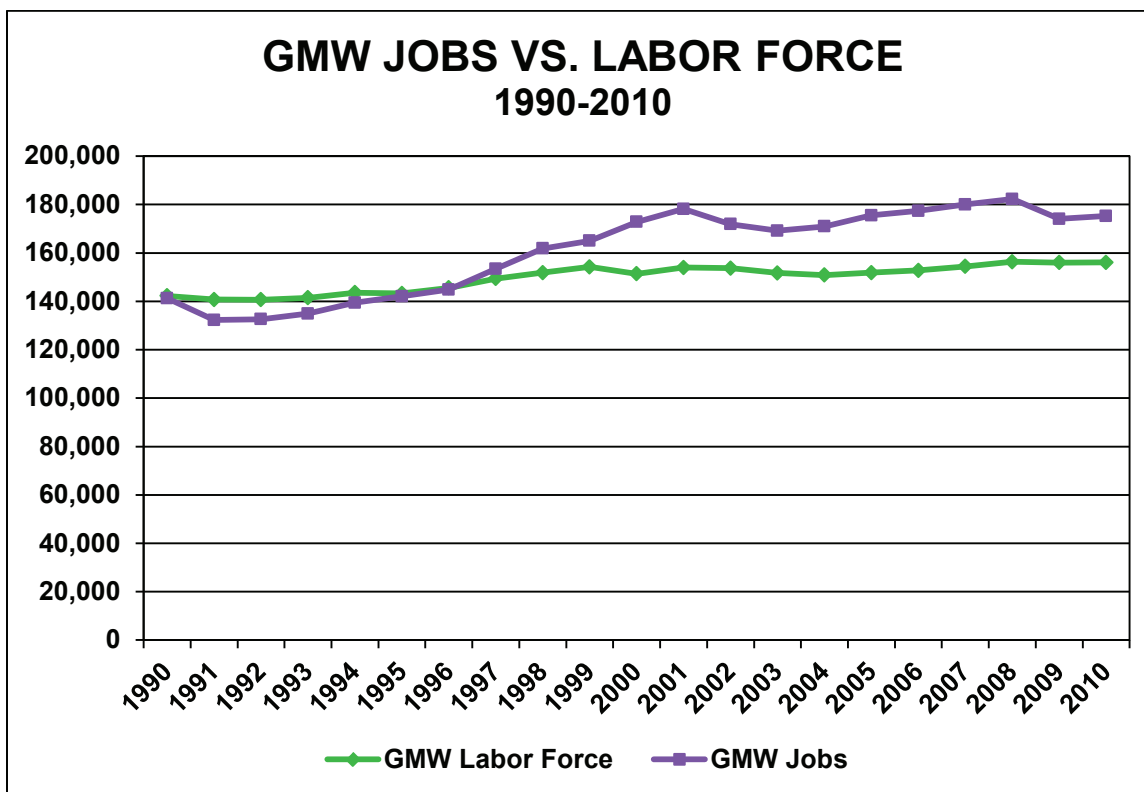
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The total labor force in Greater MetroWest (GMW) in February 2012 was 154,282 individuals.
- The Greater Marlborough Region contributed 50,446 individuals, or approximately 33% of the total labor force. MetroWest contributed 103,836 individuals, or approximately 67% of the total labor force.
- Among the communities in GMW, Framingham contributed the largest portion of the labor force with 24.7%, or 38,057 individuals. Marlborough was the second largest with 14.7%, or 22,660 individuals, followed by Natick with 12.3%, or 18,924 individuals. These three communities provided more than half of the total labor force in GMW.
- Sherborn had the smallest contribution to the total labor force with 1,886 individuals, or 1.2%, followed by Southborough with 4,938 individuals, or 3.2% and Wayland with 6,621 individuals, or 4.3%.

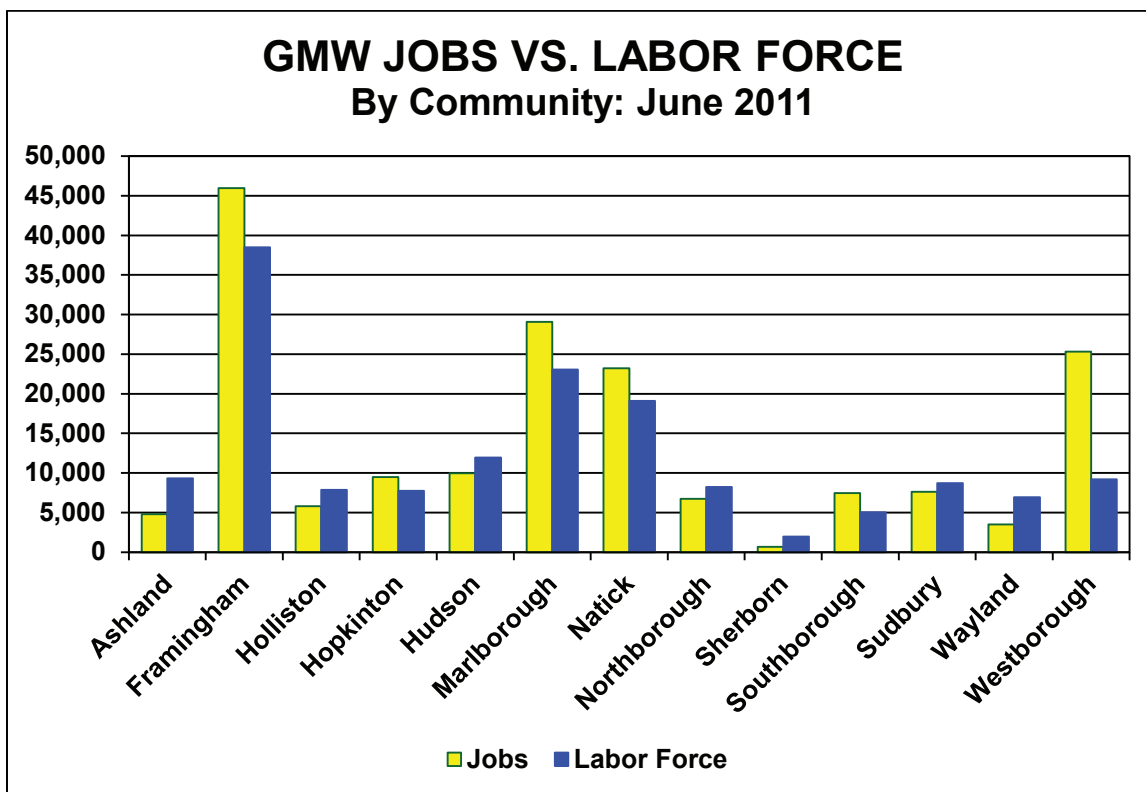
GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The total number of jobs (shown in purple) refers to the total number of jobs in establishments located in Greater MetroWest (GMW) and the total number of individuals in the labor force (shown in green) consists of residents in GMW currently employed or unemployed.
- During the period from 1990 to 2010, the number of jobs and individuals in the labor force were at their highest levels in 2008 when the number of jobs reached 182,265 and the number of individuals in the labor force was recorded at 156,552.
- From 1990 to 1996, the number of jobs in GMW was smaller than the number of individuals in the labor force, implying that the region was a net exporter of labor. Between 1997 and 2010, the number of individuals in the labor force was smaller than the number of jobs in the region, implying that the region was a net importer of labor.
- In 2010, the total number of jobs in GMW was 175,235, an increase of 1,159 jobs from the previous year; and the labor force was 156,054 individuals, a value similar to the previous year. So, there were about 19,000 more jobs than people in the labor force in 2010.

GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The total number of jobs, shown in yellow, is compared to the total number of individuals in the labor force, shown in blue, for each community in Greater MetroWest (GMW). Jobs refer to the number of jobs in the establishments that are located in each community while the labor force consists of all residents in each community who are either currently employed or unemployed.
- The total number of jobs was larger than the number of individuals in the labor force in Framingham, Hopkinton, Marlborough, Natick, Southborough, and Westborough. This implies that these six communities were net importers of labor. In the remaining seven communities, the number of individuals in the labor force was larger than the number of jobs, implying that these communities were net exporters of labor.
- In June 2011 there were 179,543 jobs in GMW. Framingham contributed the highest number with 45,951 jobs. The second highest number of jobs was provided by Marlborough with 29,065 jobs, followed by Westborough and Natick with 25,314 and 23,198 jobs respectively. These four communities contributed more than two-thirds of the total number of jobs.

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, and other substate economies. MERC has documented remarkable growth in regional employment and wages as well as major changes in industrial structure and employment over the past 30 years. For this publication MERC has developed employment data for Greater MetroWest.

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.

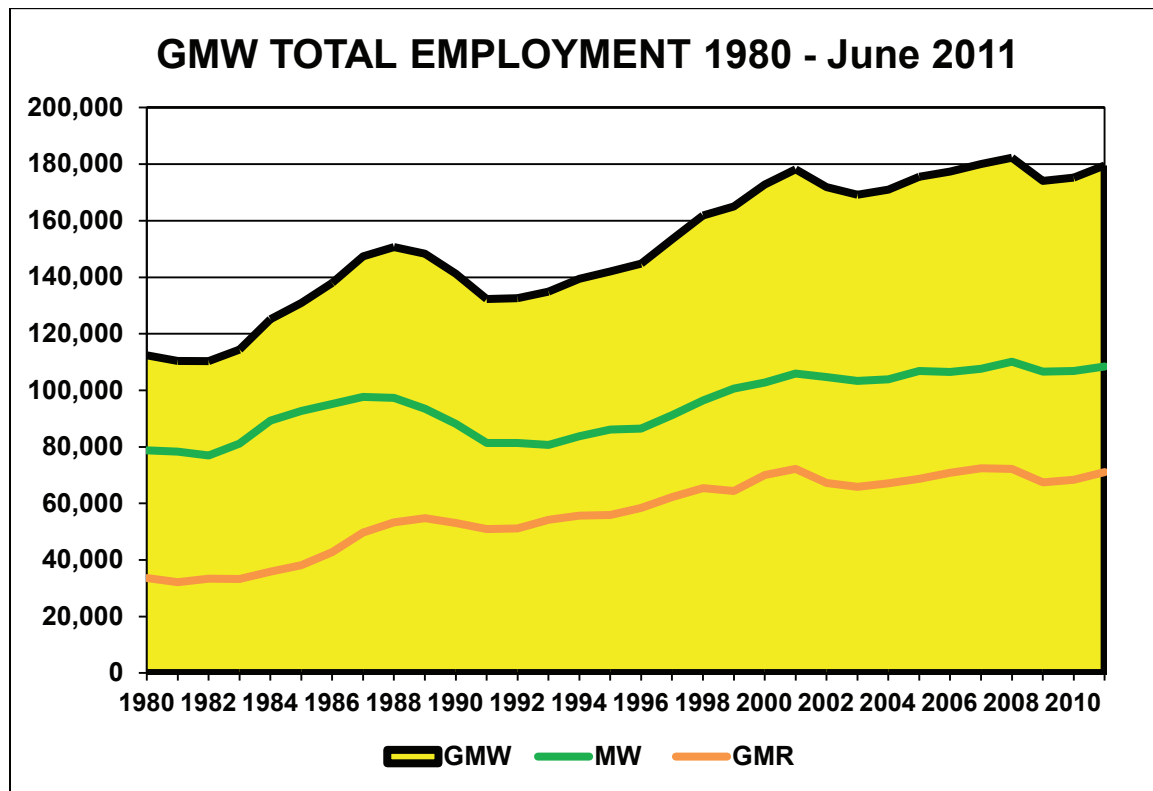
In 2002, for the first time, employers were classified by industry solely in accordance with the North American Industry Classification System (NAICS). NAICS groups together establishments that use the same processes to produce goods and services. NAICS has permanently replaced the Standard Industrial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

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

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

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).

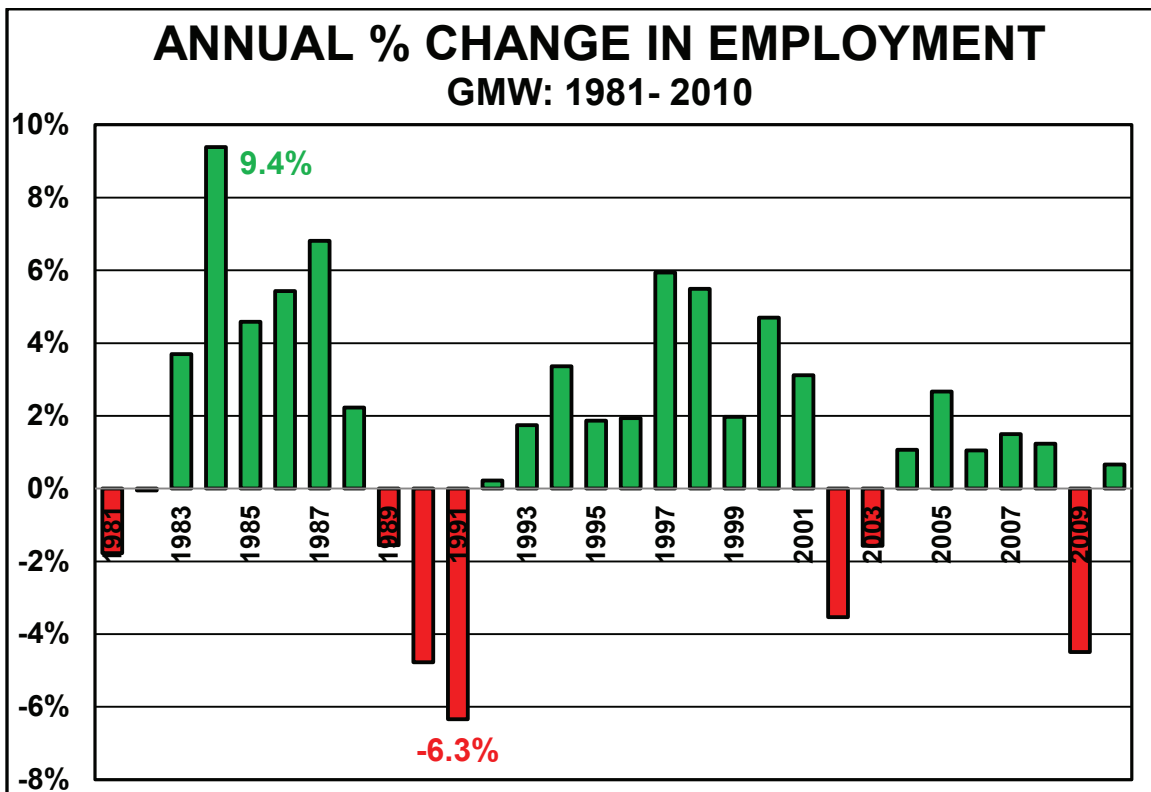
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Greater MetroWest (GMW) employment reached its historical peak of 182,300 jobs in 2008, then fell to 174,100 in 2009. In 2010 employment rose modestly to 175,200 jobs, up by 1,100 jobs, an increase of 0.7%.
- In June 2011 employment climbed to 179,500 jobs.
- In 1980 GMW employment totaled 112,400 jobs. By 2010 GMW employment had reached 175,200 jobs, a gain of 62,850 jobs or 56% over thirty years.
- Three business cycles impacted the last three decades with peaks occurring in 1988, 2001 and 2008.
- In 2010 MetroWest (MW) contributed 61%, or 106,800 jobs, to total employment compared to the Greater Marlborough Region (GMR) with 39% or 68,400 jobs. Over three decades MetroWest has always contributed the larger share of employment in GMW.

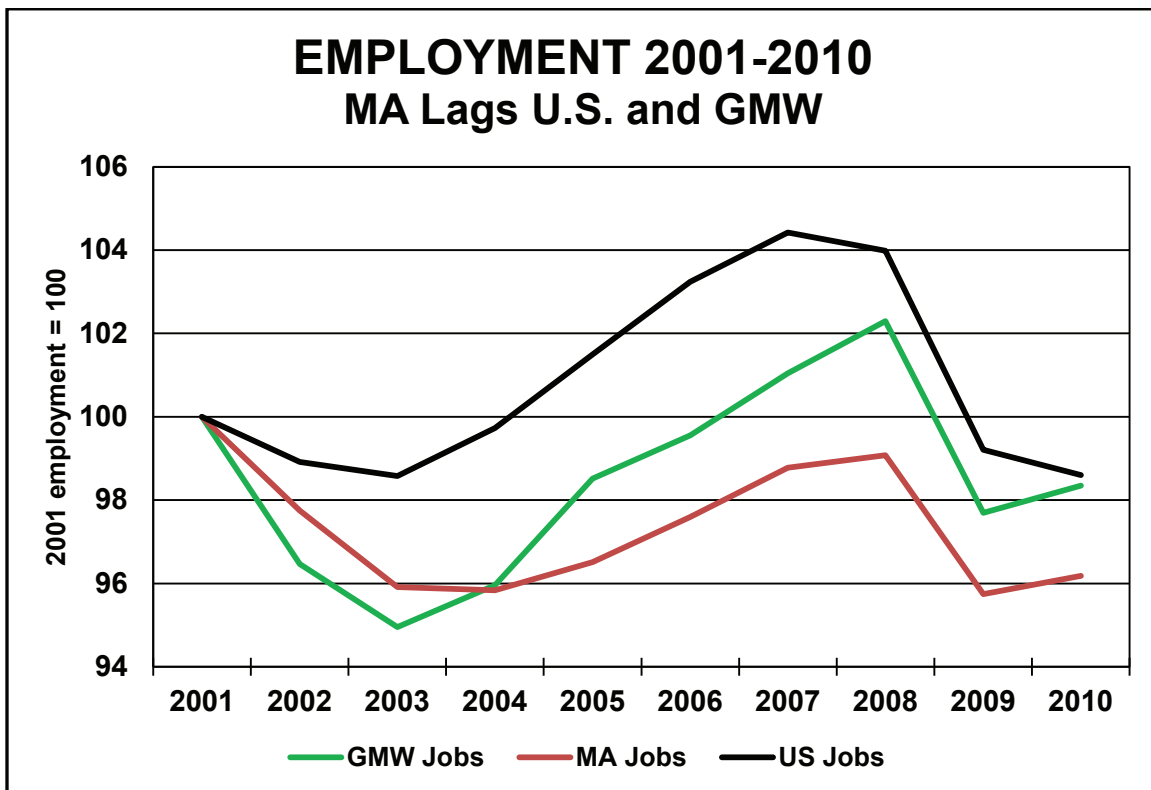
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Over the past thirty years three business cycles have reshaped the economy of Greater MetroWest (GMW). There have been three expansions and three recessions.
- The first of the three GMW expansions, 1983-88, lasted six years with an average annual growth rate of 5.3%. The second and longest expansion, 1992-2001, lasted ten years, with an average annual growth rate of 3%. The most recent expansion, 2004-2008, lasted five years with an average annual growth rate of 1.5%.
- The first and most severe of the three GMW recessions occurred in 1989-91 with an average annual decline in employment of -4.2%. The second recession, 2002-03, had an average annual decline of -2.6%. The one year recession of 2009, with an employment decline of -4.5% was the shortest of the three recessions.
- Over the past thirty years the largest single year percentage gain in employment, 9.4%, occurred in 1984. The largest single year percentage loss in employment, -6.3%, occurred in 1991.
- Despite the turbulence during the past three decades, GMW employment has risen at an average growth rate of 1.5%, a faster rate of increase than that of the state or nation.

GREATER METROWEST - EMPLOYMENT

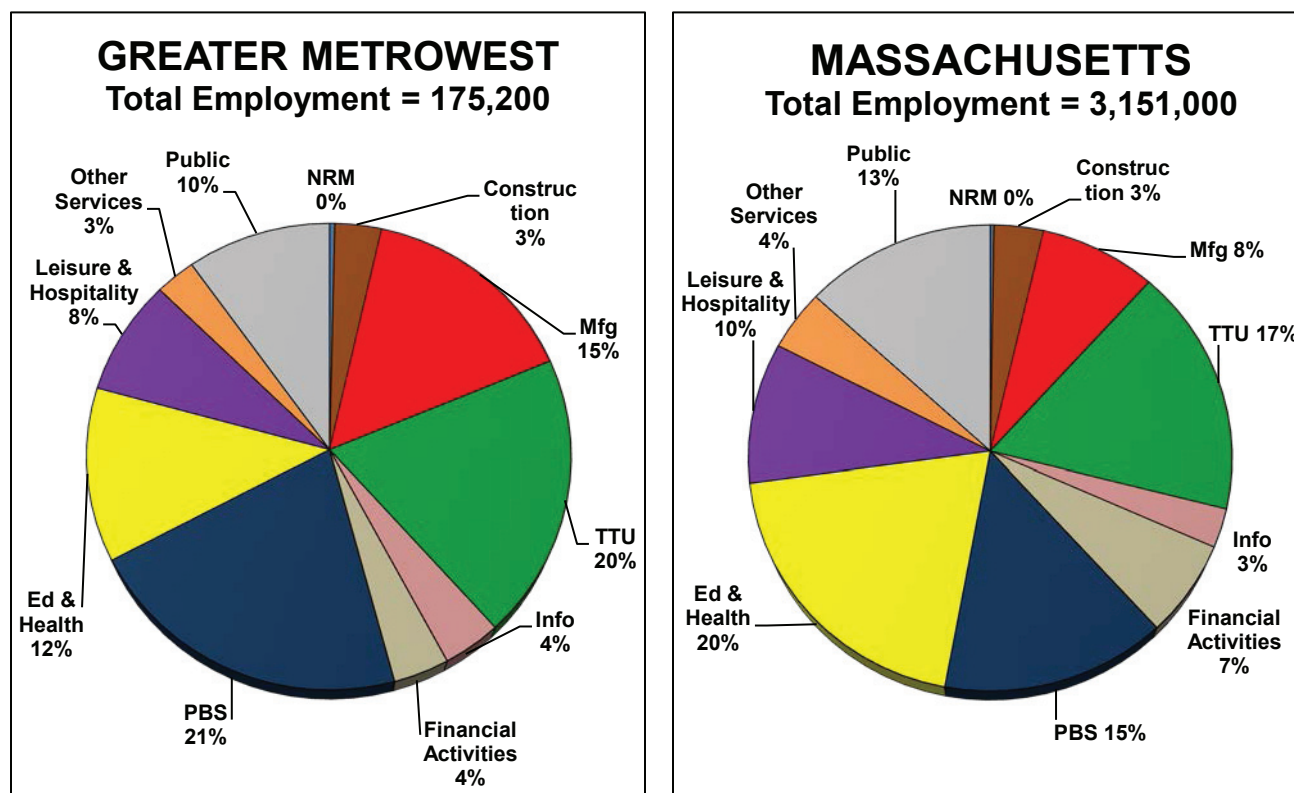


Source: BLS and MERC

- In order to compare the U.S., Massachusetts, and Greater MetroWest (GMW) economies, an indexed graph was used with 2001 employment = 100 in all regions.
- Since 2001 the US has outperformed the state and region. The country's employment index peaked at 104.4 in 2007, 4.4% higher than in 2001. GMW's employment index peaked a year later at 102.3, 2.3% higher than 2001. The state failed to top its 2001 level of employment.
- The U.S. index fell 1.4% from 2001-2003, dropping to 98.6. The nation then began a recovery, eclipsing 2001 employment levels from 2005-08 before entering a second recession. In 2010 the U.S. employment index was 1.4% below its 2001 level.
- The Massachusetts index fell from 100 in 2001 to 95.8 in 2004, a loss of -4.2%. The state recovered until 2008, but never reached its 2001 employment level again. The Commonwealth's index was at 96.2 in 2010, 3.8% below the 2001 level.
- GMW employment followed a similar trend as the U.S. The index bottomed in 2003 at 95.0, 5% below 2001. The region's economy then expanded until 2008, peaking at 102.3. GMW's employment index was at 98.4 in 2010, 1.6% below the 2001 level.

GREATER METROWEST - EMPLOYMENT

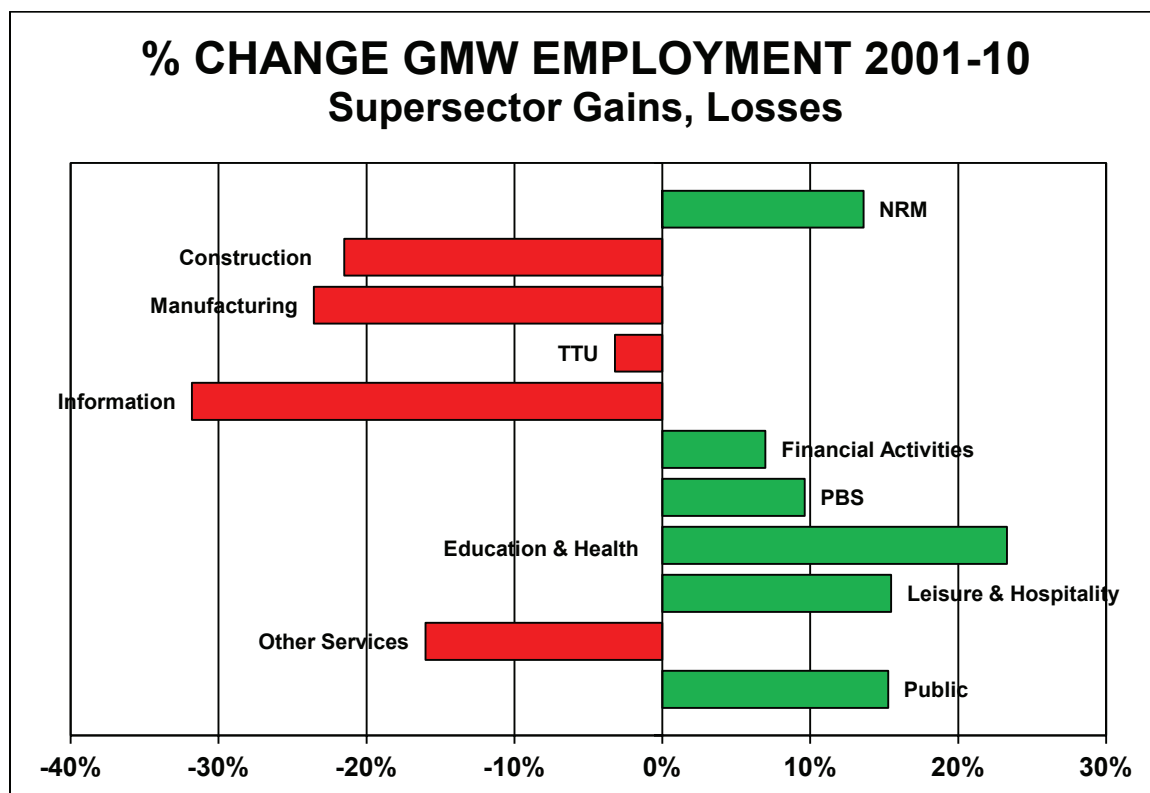
2010 EMPLOYMENT BY NAICS SUPERSECTORS Greater MetroWest vs. MA



Source: MA EOLWD and MERC

- In 2010 the Greater MetroWest (GMW) economy differed significantly from the Massachusetts economy.
- In GMW Professional and Business Services (PBS) with 21% of total regional employment, Trade, Transportation and Utilities (TTU), 20%, Manufacturing, 15%, and Education and Health (Ed & Health), 12%, produced two-thirds of regional employment.
- Four supersectors dominated Massachusetts employment contributing two-thirds of state employment: Education & Health Services with 20%, TTU, 17%, PBS, 15%, and Public, 13%.
- Four supersectors: Manufacturing, TTU, Information, PBS generated larger shares of GMW employment than state employment.
- Massachusetts had greater shares of employment in the Financial Activities, Education & Health, Leisure & Hospitality, and Public supersectors.

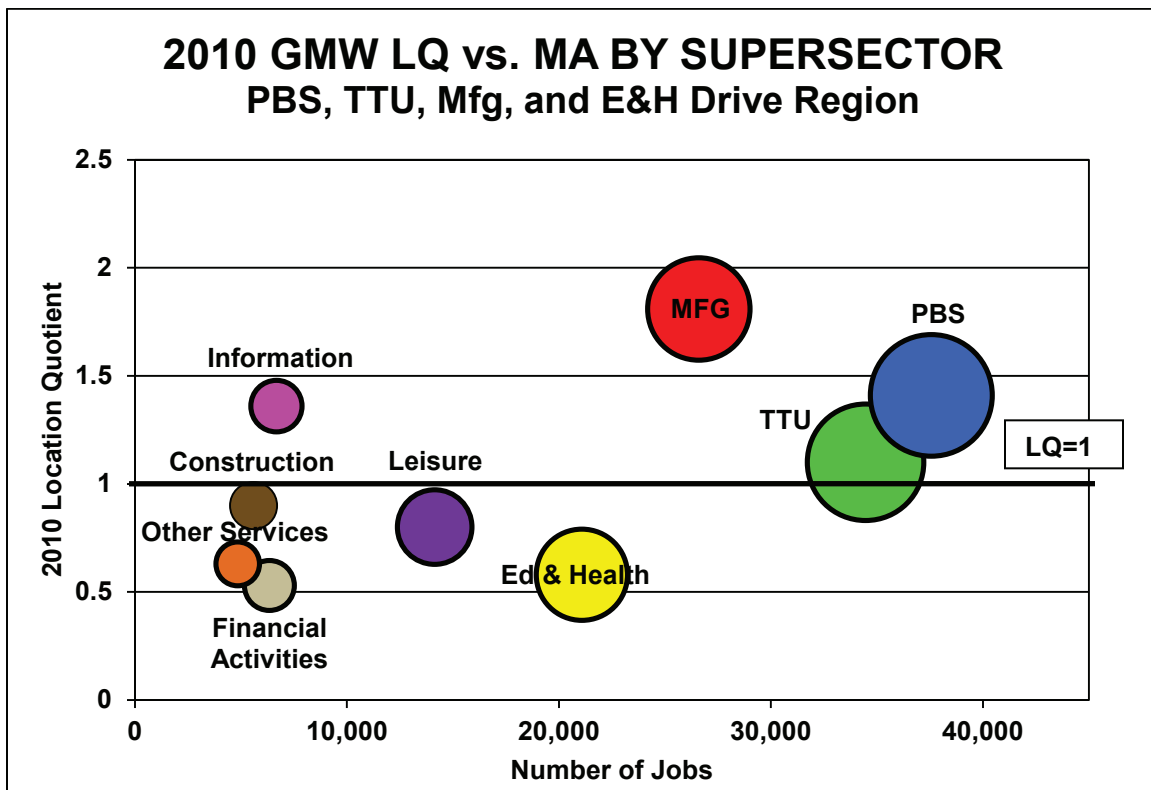
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Total employment in Greater MetroWest (GMW) fell from 178,200 in 2001 to 175,200 in 2010, a loss of 2,900 jobs, or -1.7%.
- Six supersectors increased employment from 2001-10. Four supersectors each added more than 1,500 jobs.
- Education & Health led all supersector growth, adding 4,000 jobs, a gain of 23.3%, the largest absolute and percentage gain among all supersectors. Professional & Business Services (PBS) followed, up 3,300 jobs, or 9.6%. Public (2,300 jobs, or 15.3%), Leisure & Hospitality (1,900 jobs, or 15.5%), Financial Services (400 jobs, or 7%), and Natural Resources & Mining (NRM) (70 jobs, or 13.6%) also gained employment.
- Five supersectors lost jobs from 2001-10 including the two highest wage supersectors, Manufacturing and Information. Manufacturing experienced the largest absolute decline, losing -8,200 jobs, or -23.6%. Information also dropped significantly, declining by -3,100 jobs, or -31.8%, the largest percentage decline among all supersectors. Construction (-1,500 jobs, or -21.5%), Trade, Transportation & Utilities (TTU) (-1,100 jobs, or -3.2%), and Other Services (-900 jobs, or -16%) also declined in employment.

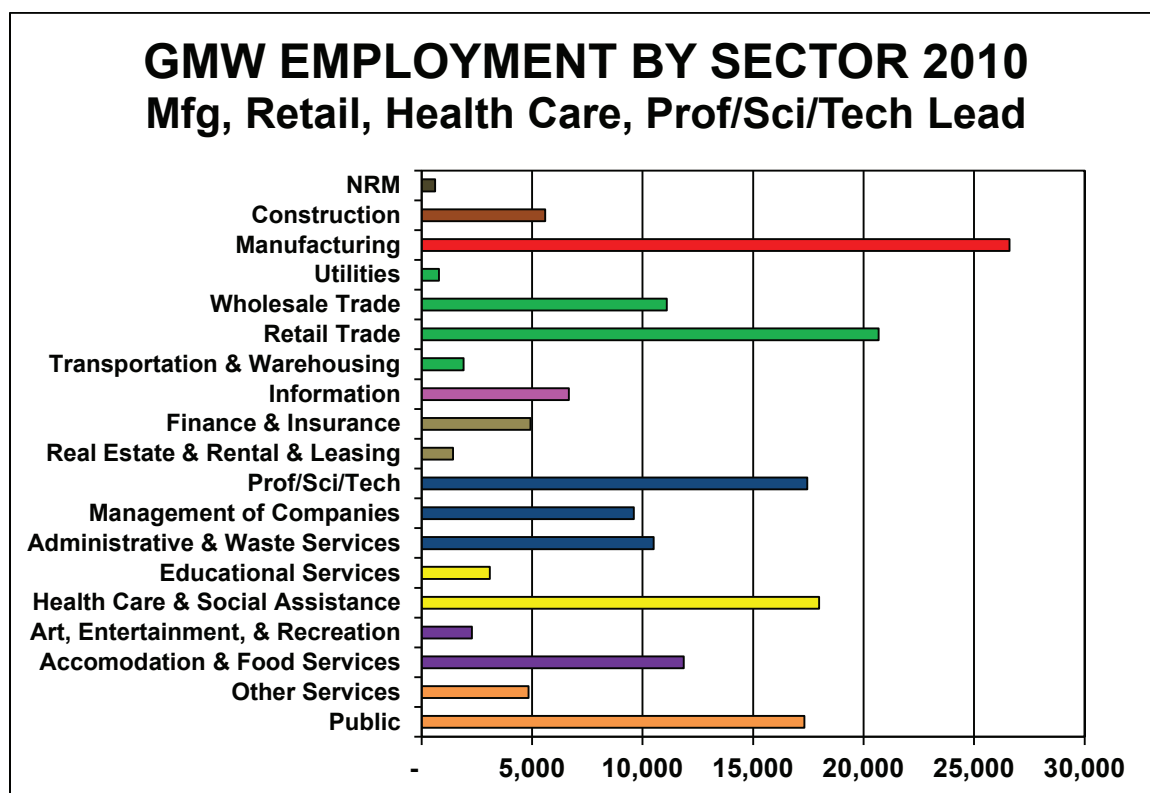
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Location quotients (LQ) compare the regional industry share of total private employment to the state share for the same industry in the same year. Circle size reflects the relative number of jobs in each supersector.
- A regional LQ greater than 1.0 shows an industry concentration higher than that of the state. In 2010 Manufacturing achieved the highest LQ, 1.81, or an 81% greater concentration of Manufacturing jobs in Greater MetroWest (GMW) than existed statewide.
- Professional and Business Services (PBS), Information and Trade, Transportation and Utilities (TTU) with LQs of 1.41, 1.36 and 1.1, each generated a higher industry concentration in GMW than existed statewide.
- A regional LQ less than 1.0 shows an industry concentration lower than that of the state. In 2010 GMW had five supersectors with LQs less than 1.0, including Education & Health (Ed & Health) (0.58), the region's fourth largest in employment and the fastest growing supersector.
- The high LQs for Manufacturing, PBS, and TTU, the region's three largest supersectors in employment, as well as Information, the region's highest wage supersector, confirm the importance of this cluster of GMW supersectors to the state's economy, along with the emerging Ed & Health supersector.

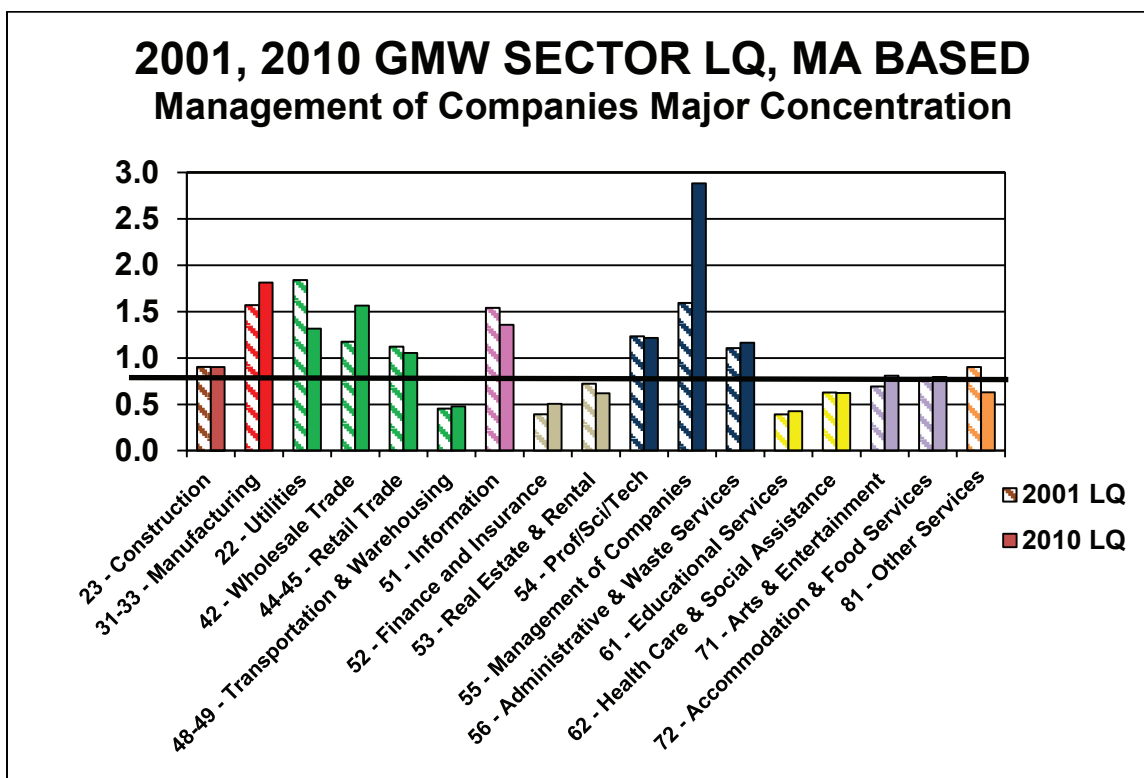
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- In 2010 Greater MetroWest (GMW) employment totaled 175,200 jobs, up 0.7% from 2009.
- The five largest sectors: Manufacturing, Retail Trade, Health Care and Social Assistance, Professional, Scientific and Technical (Prof/Sci/Tech) and Public, combined supplied nearly 100,000 jobs, or over half of all jobs in GMW.
- Manufacturing, the largest sector in 2010, generated 26,600 jobs, or 15.2% of all GMW employment. Retail Trade, the second largest sector, provided 20,700 jobs, or 11.8% of regional jobs. Health Care & Social Assistance produced 18,000 jobs or 10.3%, followed by Professional, Scientific & Technical Services (Prof/Sci/Tech), 17,500 jobs or 10%, and Public, 17,300 or 9.9%.
- Four sectors contributed between 9,000 and 12,000 jobs: Accommodation & Food Services (11,900 jobs, or 6.8%), Wholesale Trade (11,100 jobs, or 6.3%), Administrative & Waste Services (10,500 jobs, or 6%), and Management of Companies (9,600 jobs, or 5.5%)
- The remaining sectors each contributed fewer than 9,000 jobs in regional employment.

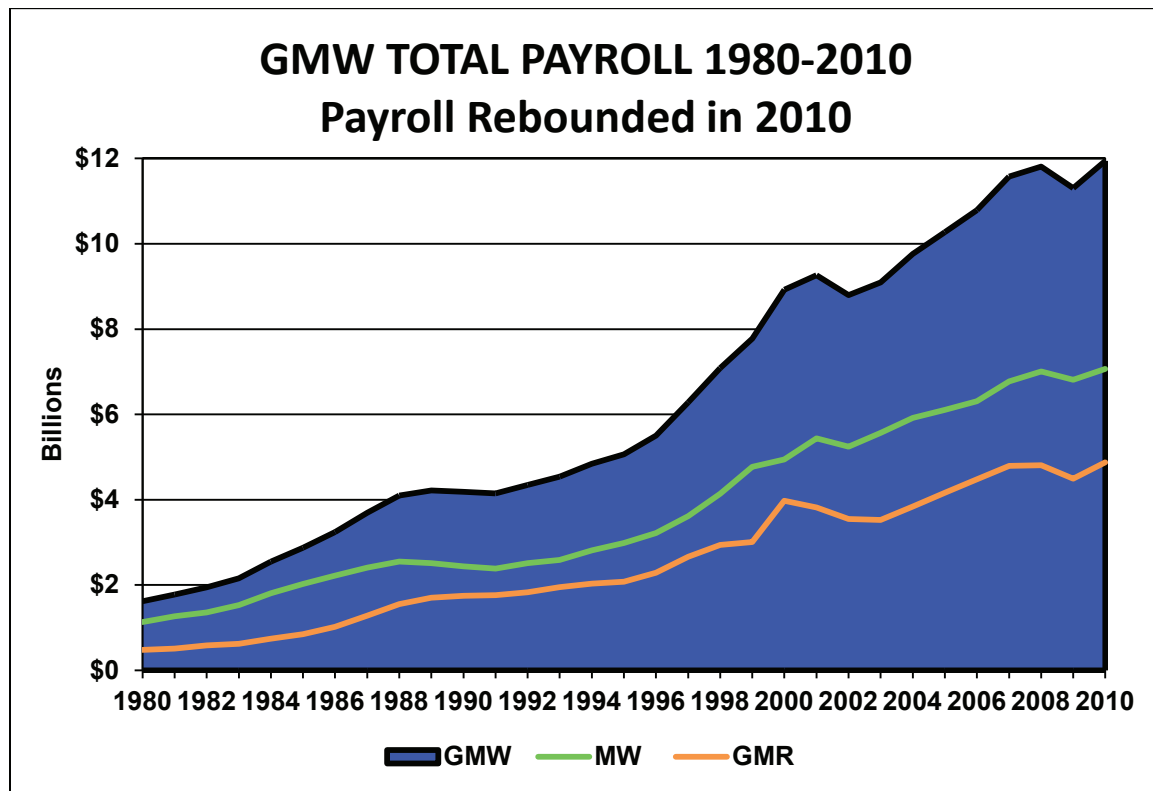
GREATER METROWEST - EMPLOYMENT



Source: MA EOLW and MERC

- Location Quotients (LQ) compare the regional industry share of total private employment to the state share for the same industry in the same year.
- A regional LQ greater than 1.0 shows an industry concentration higher than that of the state. In 2001 and 2010 LQs in eight GMW sectors exceeded 1.0: Manufacturing, Utilities, Wholesale Trade, Retail Trade, Information, Professional, Scientific & Technical Services (Prof/Sci/Tech), Management of Companies and Administrative & Waste Services.
- Three of the region's four top employment sectors: Manufacturing, Retail Trade, Prof/Sci/Tech, have industry concentrations greater than that of the state.
- Management of Companies had an exceptionally high concentration of employment in GMW in 2010, nearly three times that of the state. From 2001-10 the LQ for Management of Companies increased 81%, up from 1.59 to 2.88.
- A regional LQ less than 1.0 shows an industry concentration in GMW lower than that of the state. In 2001 and 2010 nine sectors had LQs less than 1.0, including Health Care & Social Assistance, the fourth largest sector in terms of employment.

GREATER METROWEST - EMPLOYMENT

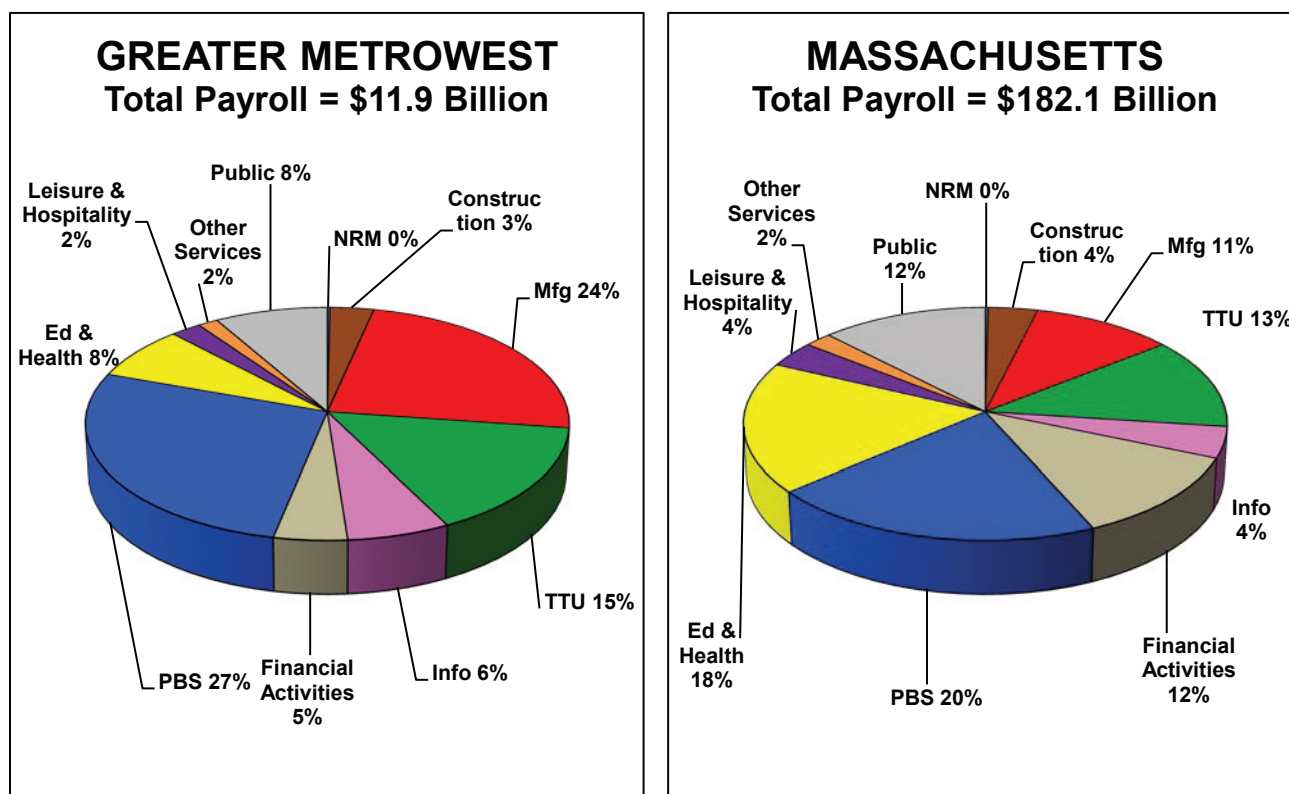


Source: MA EOLWD and MERC

- Greater MetroWest (GMW) payroll rose to \$11.9 billion in 2010, an increase of \$640 million or 5.6% since 2009.
- Total payroll in Greater MetroWest is measured in nominal or current dollars and is not corrected for inflation. In 1980 the GMW payroll totaled \$1.6 billion. By 2010 GMW payroll had reached \$11.9 billion, a gain of \$10.3 billion or 637% since 1980.
- During the three decades of substantial gains, two sharp declines in payroll occurred in the 2002 and 2008, both during recessions.
- In 2010 MetroWest (MW) contributed 59% or \$7.1 billion to total payroll compared to the Greater Marlborough Region (GMR) with 41% or \$4.9 billion. Over three decades MetroWest has always contributed the larger share of payroll in the combined region.

GREATER METROWEST - EMPLOYMENT

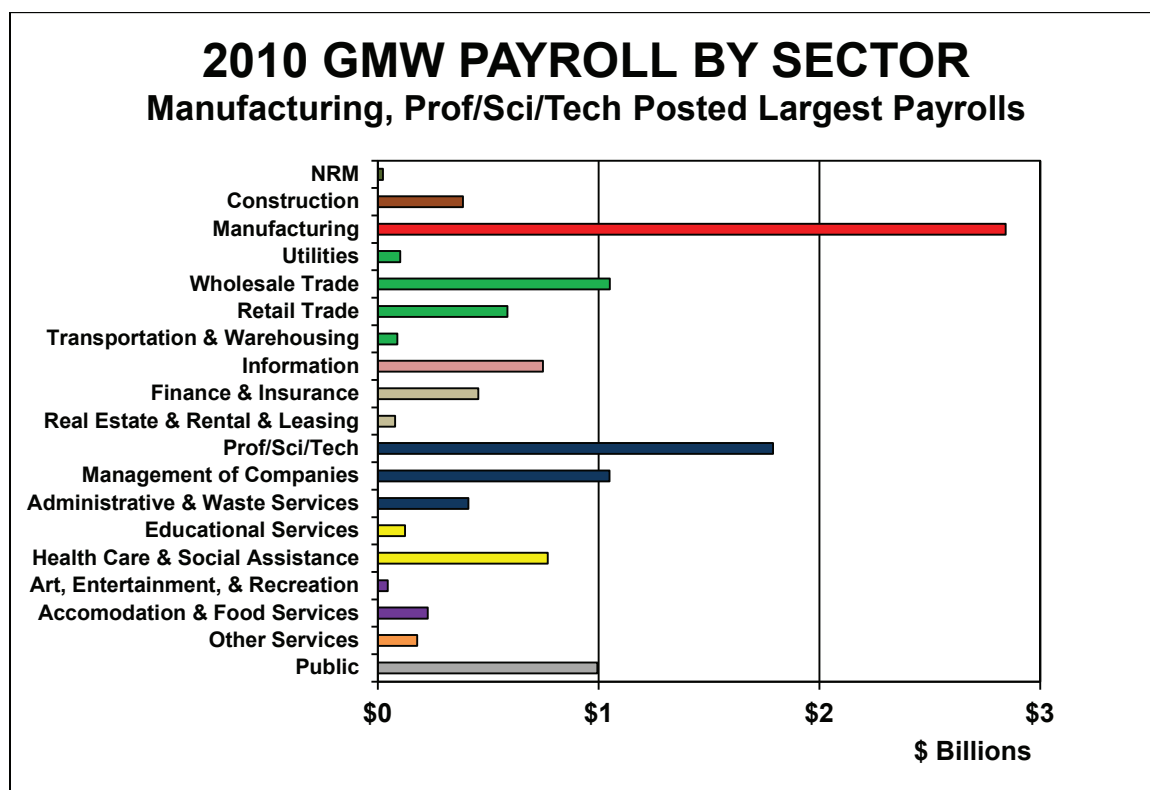
2010 PAYROLL BY NAICS SUPERSECTORS Greater MetroWest vs. MA



Source: MA EOLWD and MERC

- In 2010 the Massachusetts payroll totaled \$182.1 billion, increasing by \$5.6 billion or 3.2% from 2009. In 2010 Greater MetroWest payroll totaled \$11.9 billion, up 5.6% from 2009.
- The Professional and Business Services (PBS) supersector produced the largest share of payroll in the state and Greater MetroWest Region (GMW), \$37.2 billion (20%) and \$3.2 billion (27%), respectively. GMW generates 9% of the total Massachusetts PBS payroll.
- Education & Health Services provided the second highest share of state payroll, 18%, followed by Trade, Transportation and Utilities (TTU) at 13%, Financial Activities, 12% and Public, 12%.
- In contrast, Manufacturing (Mfg) produced the second highest share of regional payroll, \$2.8 billion or 24%, more than twice the Manufacturing share of total state payroll. TTU (15%), Education & Health (8%) and Public (8%) followed. GMW generates 15% of the total Massachusetts Manufacturing payroll.

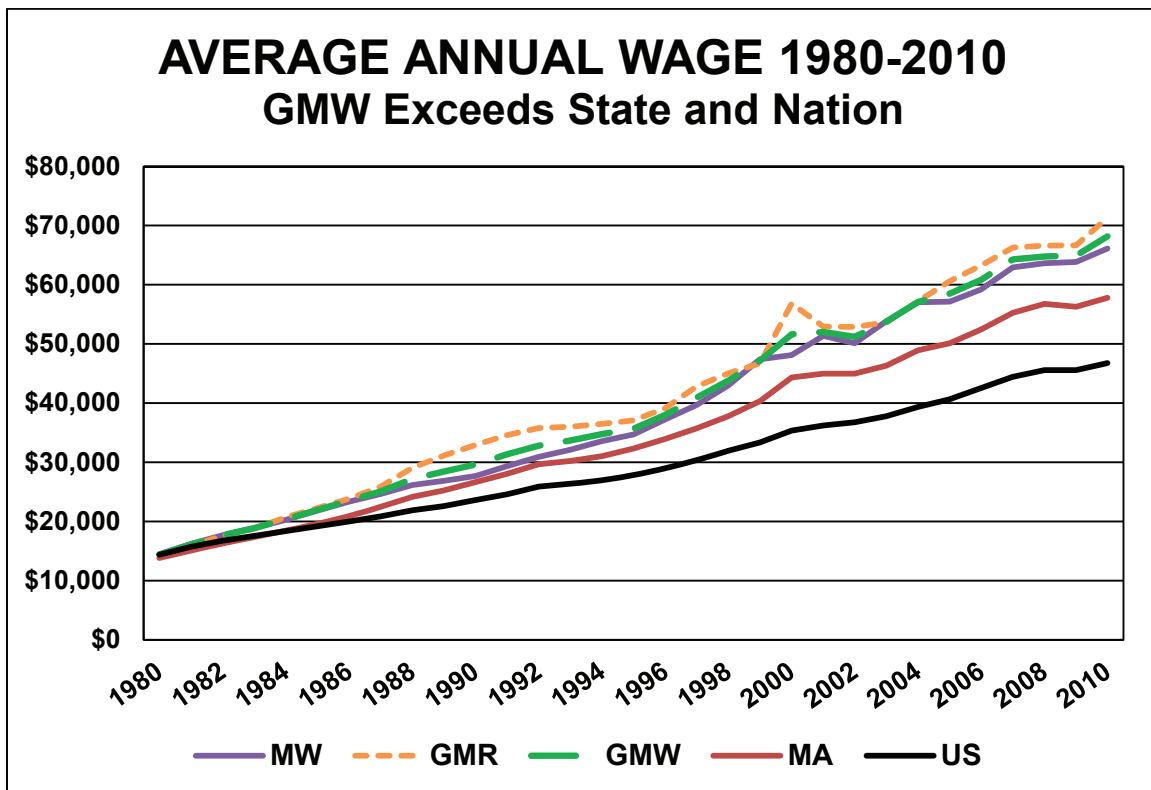
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- In 2010 payroll in Greater MetroWest (GMW) totaled \$11.9 billion, up \$640 million or 5.6% since 2009.
- Among all sectors Manufacturing posted the largest payroll in Greater MetroWest \$2.8 billion, or 24% of the total regional payroll. Professional, Scientific and Technical Services (Prof/Sci/Tech) produced the second largest payroll, \$1.8 billion, followed by Wholesale Trade at \$1.1 billion, and Management of Companies, \$1.0 billion.
- Together, these top four payroll generators: Manufacturing, Prof/Sci/Tech, Wholesale Trade, and Management of Companies, produced a combined payroll totaling \$6.7 billion or 56% of the region's payroll.
- The Public, Health Care & Social Assistance, Information and Retail Trade sectors each produced between \$500 million - \$1 billion in payroll.
- The Natural Resources and Mining (NRM), Arts, Entertainment & Recreation, Transportation & Warehousing, and Real Estate & Rental & Leasing sectors, each contributed less than \$100 million to total regional payroll.

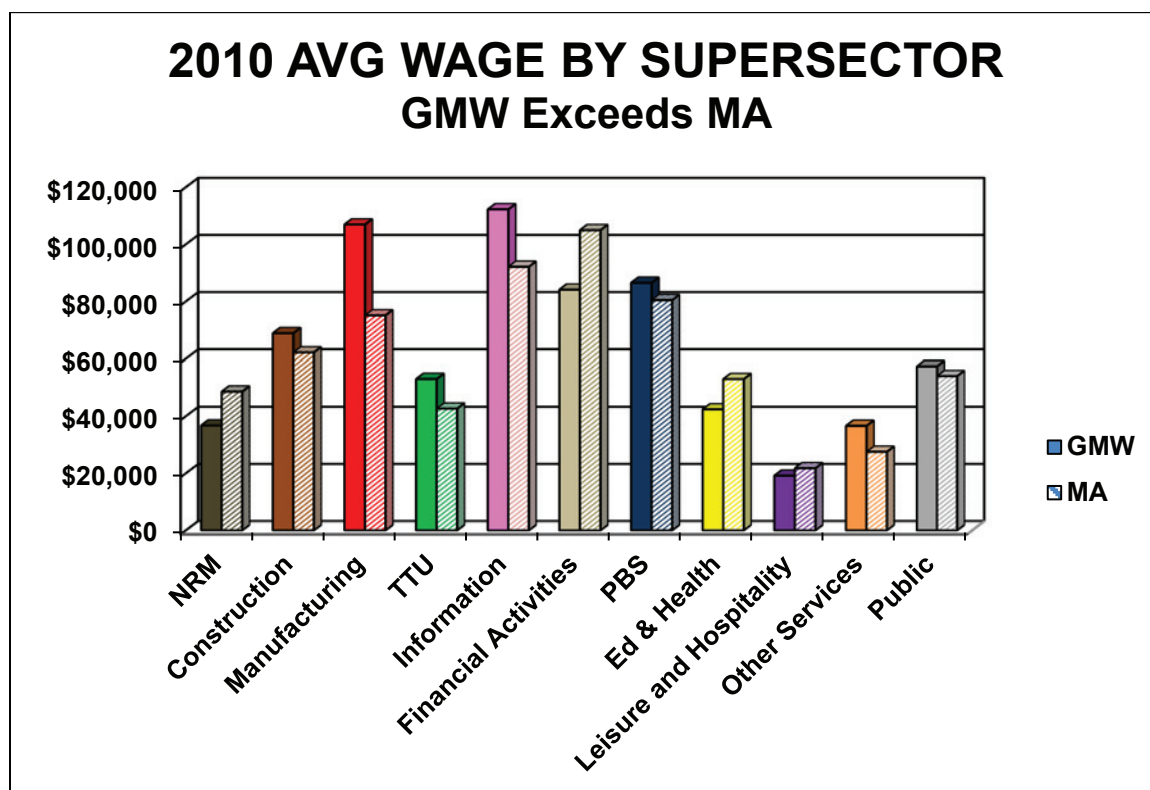
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- The average wage in each of the five regions shown has gradually increased from 1980-2010.
- Initially average annual wages hovered around \$14,000 across all the regions, but then began to diverge in the late 1980s.
- In 2010 the Greater Marlborough Region (GMR) led with an average annual wage of \$71,300, followed by Greater MetroWest (GMW), \$68,200, MetroWest (MW), \$66,100, Massachusetts (MA), \$57,800, and the U.S. (\$46,800).
- By 2010 clear gaps were evident between the average wages of each region. The GMW average annual wage exceeded the state average wage by \$10,400, or 18%. The Massachusetts average annual wage exceeded the U.S. average wage by \$11,000, or 24%.
- Over the three decades the average wage in GMR rose 395%, followed by GMW (373%), MW (359%), MA (318%), and the U.S. average wage rose 225%.

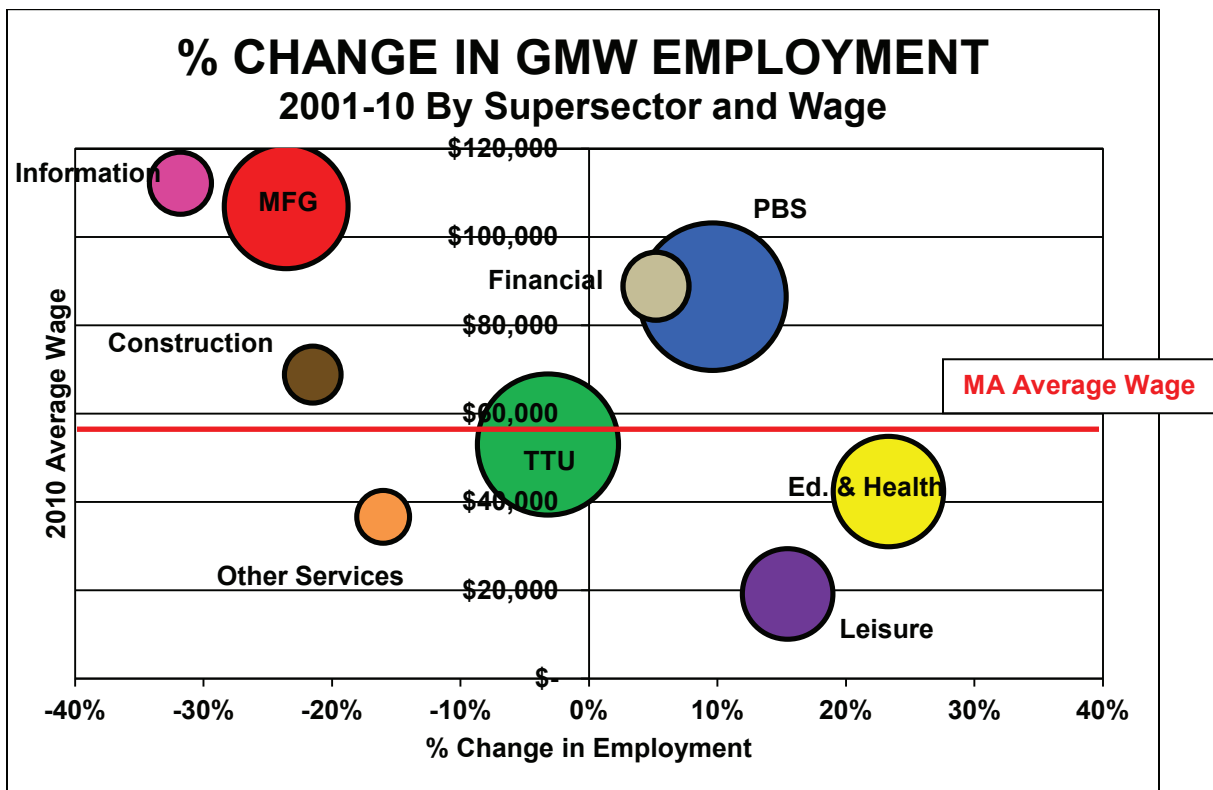
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- In 2010 the average annual wage for Massachusetts was \$57,800, 24% higher than the national average annual wage.
- Among all Massachusetts supersectors (striped bars), Financial Activities offered the highest average annual wage, \$104,900. Information produced the second largest average wage of \$92,100, followed by Professional and Business Services (PBS), \$80,400 and Manufacturing, \$75,100.
- The average annual wage for Greater MetroWest (GMW) was \$68,200, \$10,400 or 18% more than the state average wage, and \$21,400 or 46% more than the U.S. average wage.
- In Greater MetroWest (solid bars) Information generated the highest average annual wage, \$112,200, followed closely by Manufacturing with an average annual wage of \$106,900. PBS offered the third highest average annual wage of \$86,500.
- The average annual GMW wages exceeded the average wages of the state in seven supersectors: Construction, Manufacturing, TTU, Information, PBS, Other Services, and Public.

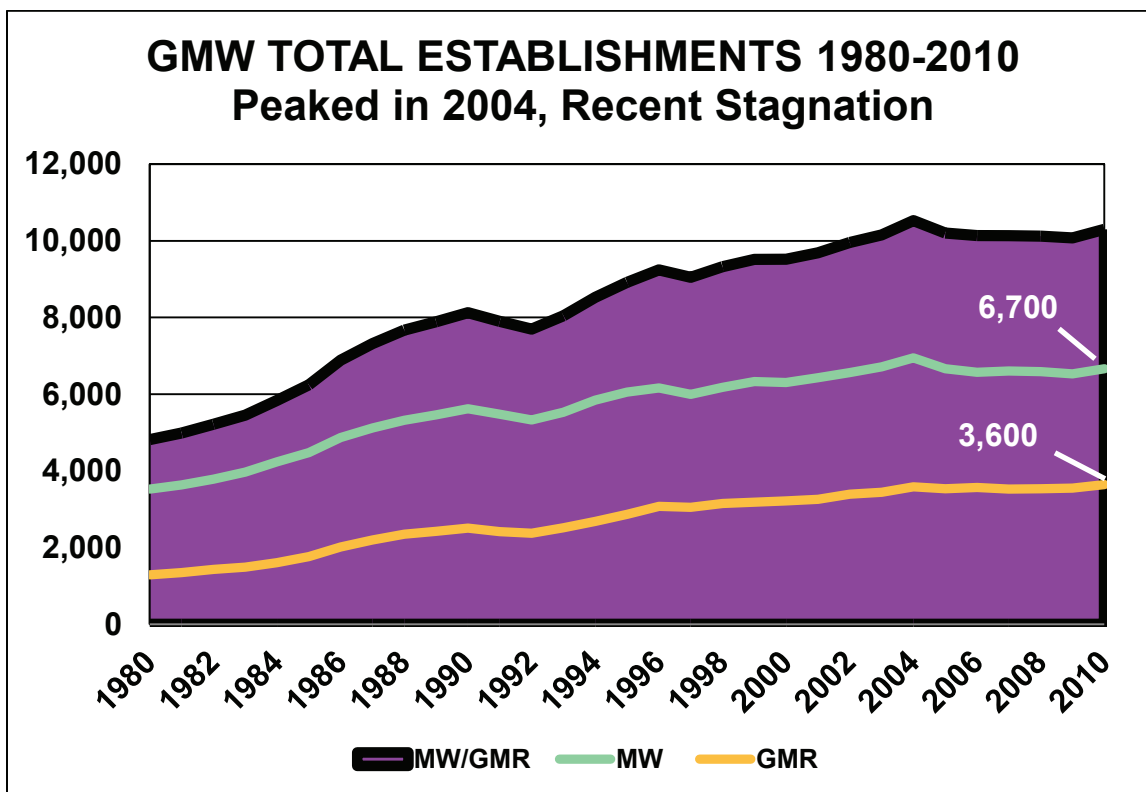
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- In 2010 Greater MetroWest (GMW) average wage stood at a record \$68,200 exceeding the Massachusetts average wage of \$57,800.
- Four private GMW supersectors added employment from 2001-2010: Education & Health (E&H) rose by 23%, Leisure & Hospitality up 15%, Professional & Business Services (PBS) up 10%, and Financial Services rose by 7%. Among these four supersectors, PBS and Financial Services exceeded the 2010 Massachusetts average wage. Circle size reflects the relative number of jobs in each supersector.
- Five supersectors lost employment from 2001-2010: Information fell -32%, Manufacturing (MFG) fell -24%, Construction fell by -22%, Other Services fell -16%, and Trade, Transportation, and Utilities fell by -3%. The average wage in four of these declining supersectors exceeded the Massachusetts average wage: Information, Manufacturing, and Construction.
- From 2001-10 three of the four largest supersectors in Greater MetroWest experienced significant changes in employment. Employment in the high wage Manufacturing supersector fell by -24%, while employment in the high wage PBS supersector rose by 10%. Employment in the lower wage E&H rose by 23% while TTU employment declined by -3%.

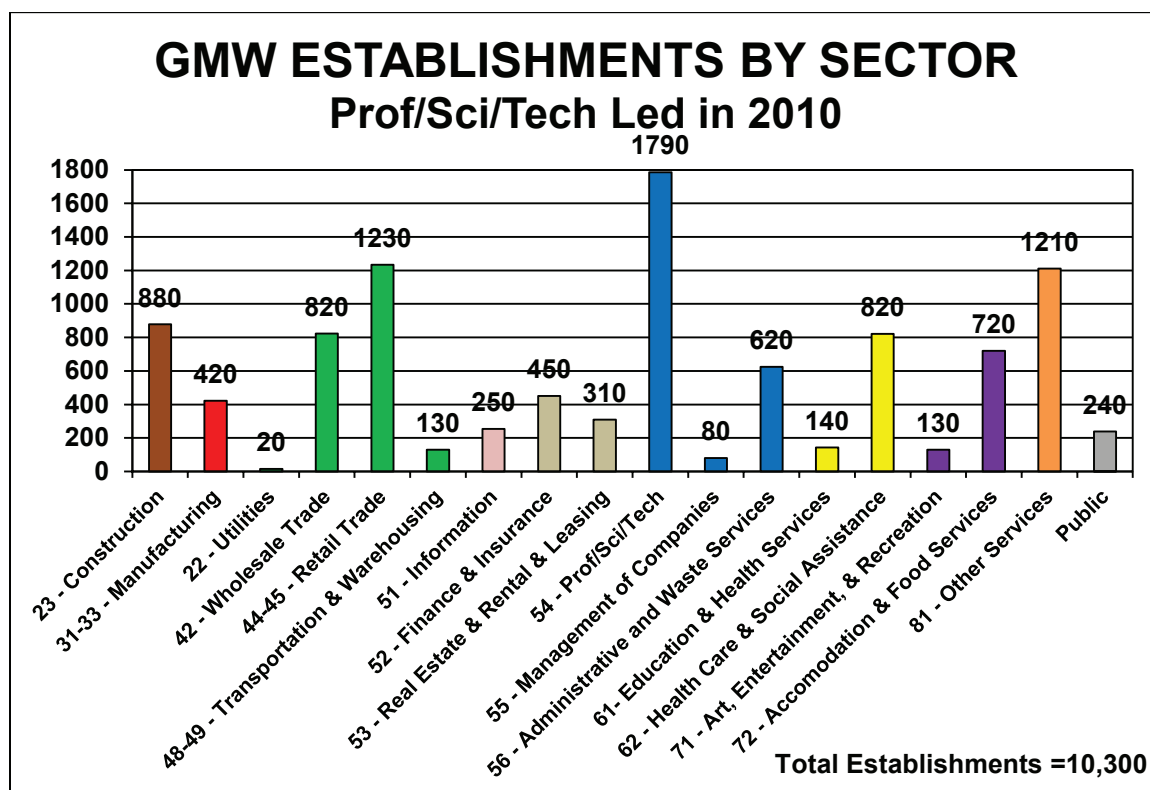
GREATER METROWEST- EMPLOYMENT



Source: MA EOLWD and MERC

- The number of establishments sited in Greater MetroWest (GMW), totaled 10,300 in 2010, a 2.2% increase from the previous year. Greater MetroWest refers to the combined MetroWest and the Greater Marlborough Region (MW/GMR)
- From 1980-2010, the number of establishments in GMW rose from 4,800 to 10,300, more than doubling over 30 years. The average annual rate of change over this time was 2.6%.
- From 1990 to 1992, the region experienced its largest percentage decline in total establishments from 8,130 to 7,700, a loss of 430 or -5.3%.
- The number of establishments in the region peaked in 2004 at 10,530 establishments, a 119% increase from 1980.
- Since 2004 the number of GMW establishments has remained relatively flat, and actually declined at an annual rate of -0.4% from 2004-10.
- In 2010 MetroWest (MW) establishments totaled 6,700 and Greater Marlborough Region (GMR) totaled 3,600. Over thirty years, the number of establishments in MW (green) grew at an annual rate of 2.1% and at 3.5% in GMR (orange).

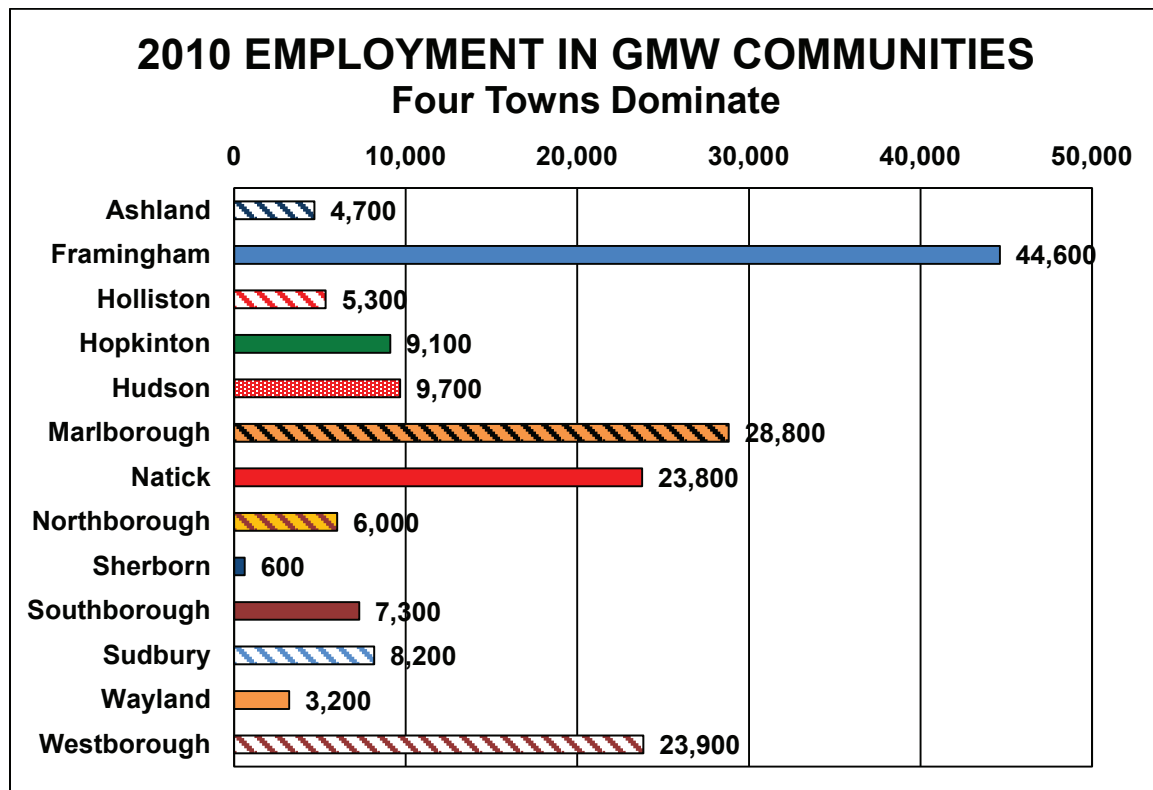
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- The number of establishments or separate places of work in Greater MetroWest (GMW) totaled 10,300, up 220 or 2.2% from 2009.
- In 2010 the Professional, Scientific and Technical Service (Prof/Sci/Tech) sector produced the largest number of establishments (1,790), or 17.4% of all GMW establishments.
- Retail Trade had the second largest (1,230) followed by Other Services (1,210), Construction (880), Wholesale Trade (820) and Health Care and Social Assistance (820).
- Management of Companies and Utilities each provided fewer than 100 establishments in Greater MetroWest with 80 and 20 establishments, respectively.
- The other ten sectors provided from 130-720 establishments in GMW.

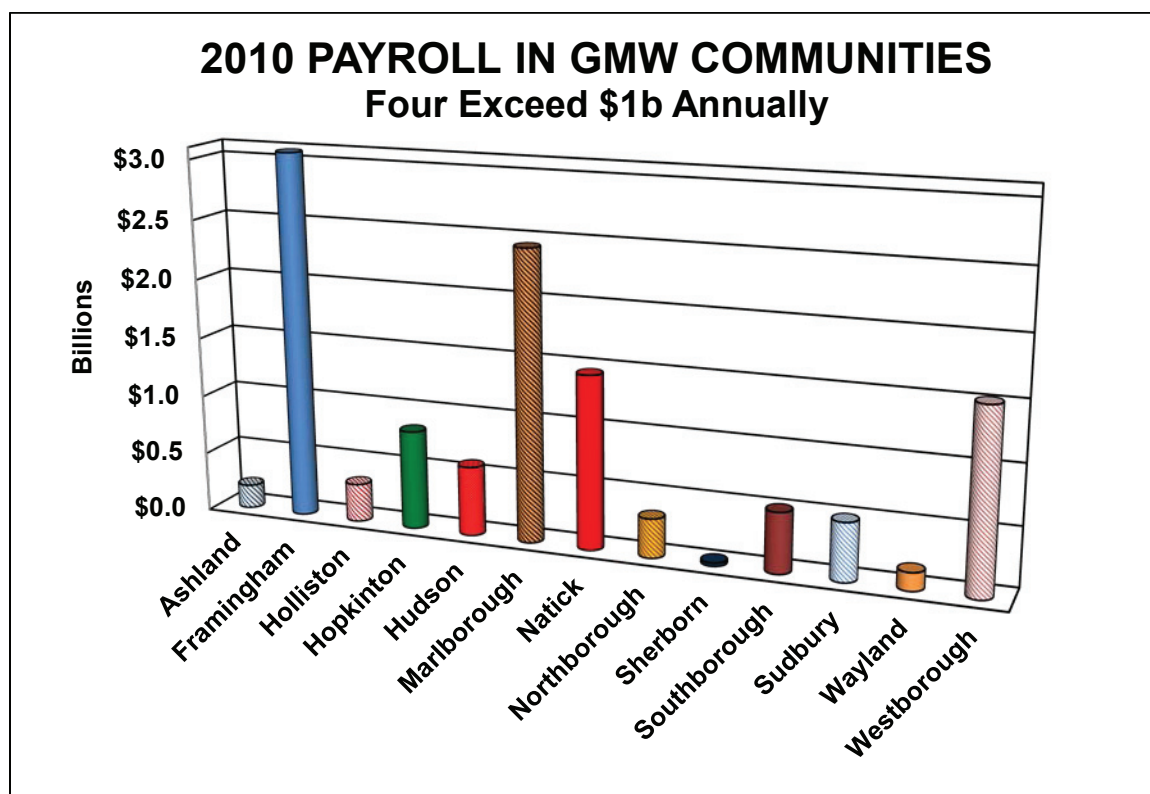
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Greater MetroWest (GMW) employment totaled 175,200 jobs in 2010, up 0.7% from 2009.
- The greatest contributor to GMW's job market in 2010 was Framingham, totaling 44,600 jobs. Framingham generated 55% more jobs than Marlborough, the community with the second most jobs (28,800).
- The four largest job markets in GMW, and the only communities with over 20,000 jobs, were Framingham, Marlborough, Westborough, and Natick.
- The community with the smallest number of jobs was Sherborn with 600. The community with the next lowest number of jobs was Wayland with 3,200 jobs, more than five times that of Sherborn.

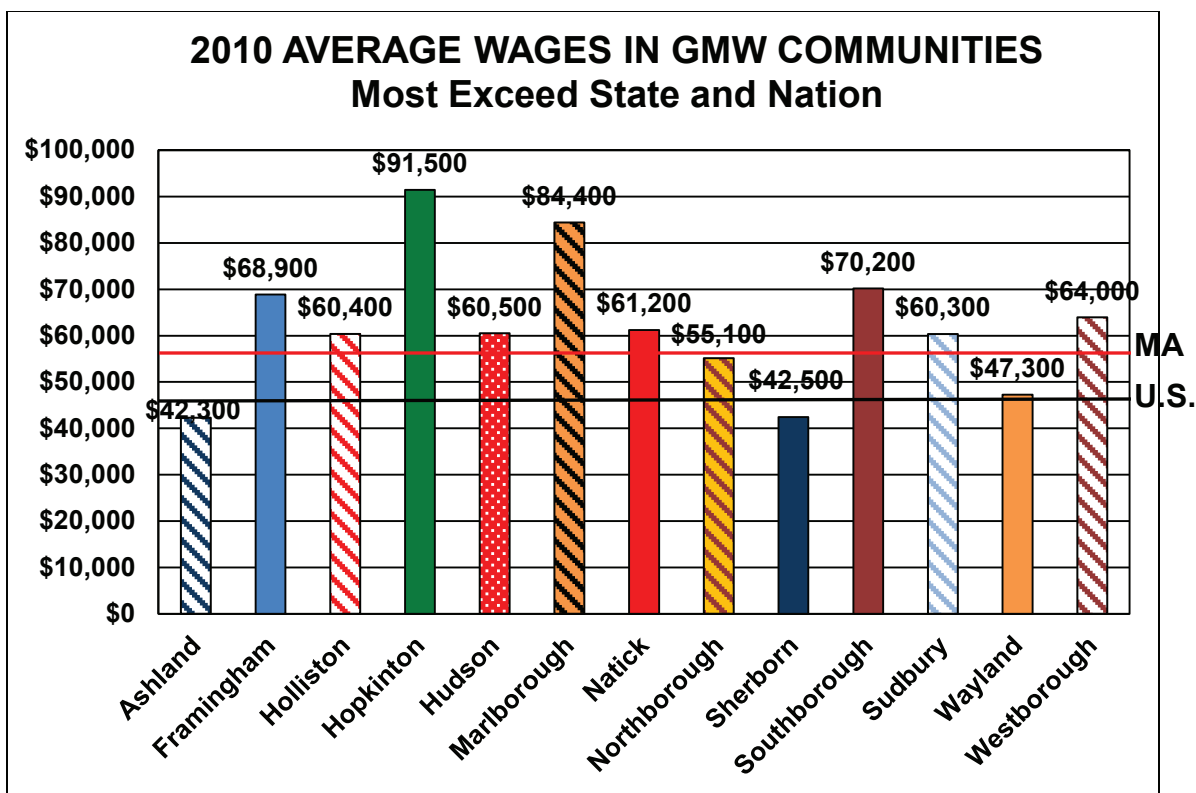
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Greater MetroWest (GMW) had a total payroll of over \$11.9 billion in 2010, up 5.6% from 2009.
- The community with the highest payroll, due to its large number of relatively high wage jobs, was Framingham, with a total payroll exceeding \$3 billion.
- The four GMW communities with the largest payrolls in descending order were Framingham (\$3.1 billion), Marlborough (\$2.4 billion), Westborough (\$1.5 billion), and Natick (\$1.5 billion). These were the only communities producing a payroll above \$1 billion. Combined, the four largest communities in terms of payroll generated \$8.5 billion or nearly three-quarters of the total regional payroll.
- The community with the smallest payroll of \$26.5 million was Sherborn. The next smallest payroll, \$152.2 million, belonged to Wayland. It was almost six times that of Sherborn.

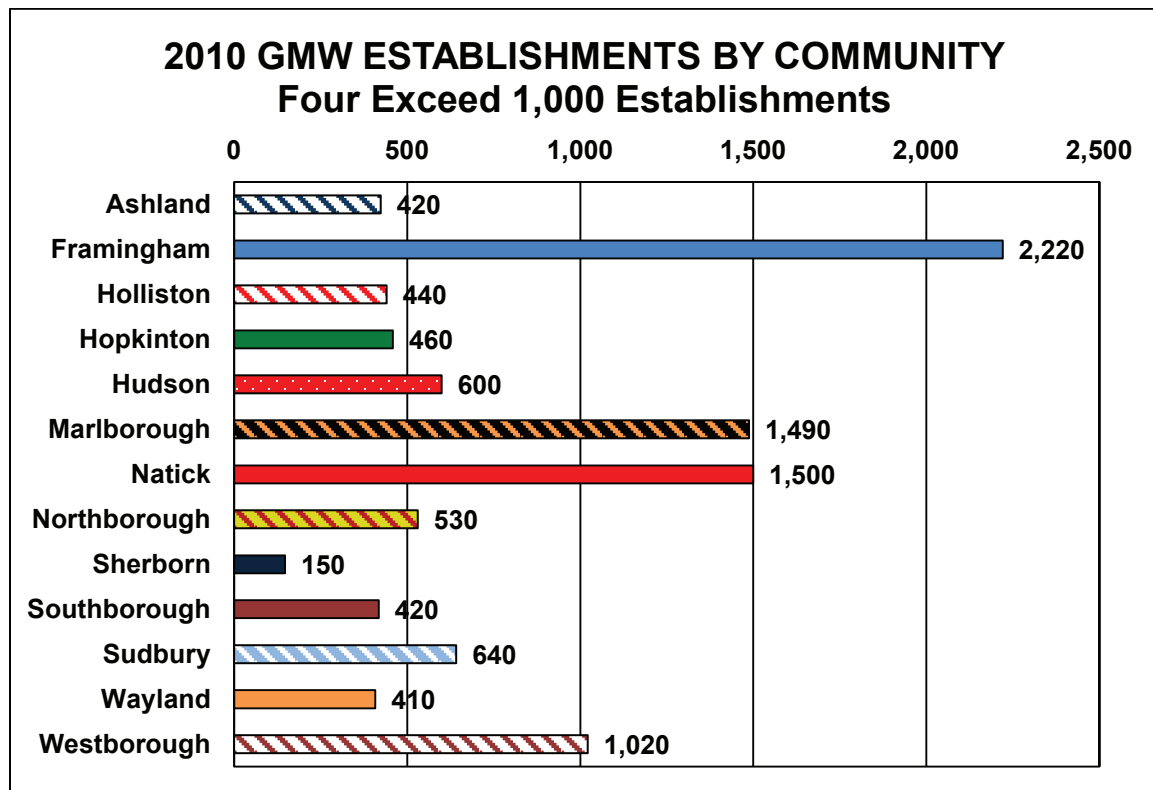
GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Greater MetroWest (GMW) had an average wage of \$68,200 in 2010, up 5% from 2009.
- The community with the highest average wage was Hopkinton at \$91,500, over 8% higher than Marlborough, the second highest average wage community.
- Average wages in nine GMW communities exceeded \$60,000 annually. The only three communities with average wages less than \$50,000 were Wayland, Sherborn, and Ashland.
- Ashland had the lowest average wage at \$42,300. This was less than half that of Hopkinton, the region's leader in average wage.
- Nine communities had a higher average wage than the Massachusetts average wage of \$57,800 (red line). All but two communities had a higher average wage than the United States average wage of \$46,800 (black line). Those two communities were Ashland and Sherborn.

GREATER METROWEST - EMPLOYMENT



Source: MA EOLWD and MERC

- Greater MetroWest (GMW) was home to 10,300 establishments or separate places of work in 2010, up 2.2% from 2009.
- Framingham had by far the most establishments at 2,220, 48% more than Natick, the town with the second highest number of establishments, 1,500.
- The four communities with the largest number of establishments in descending order were Framingham, Natick, Marlborough, and Westborough. These are the only communities with over 1,000 establishments.
- Three-fifths of all of GMW establishments were located in Framingham, Natick, Marlborough, and Westborough.
- Three communities had between 500-650 establishments: Hudson, Northborough, and Sudbury.
- The community with the fewest establishments was Sherborn with 150. Wayland had the second lowest number of establishments, 410, more than twice that of Sherborn.

GREATER METROWEST - EMPLOYMENT

Employment Comparison Greater MetroWest By Community 2010

Community/ Region	Number of Jobs*	Average Wage	Total Payroll* (millions)	Number of Establishments*	Largest Supersector
Ashland	4,690	\$42,300	\$198	420	TTU**
Framingham	44,630	\$68,900	\$3,074	2,220	PBS***
Holliston	5,340	\$60,400	\$322	440	PBS
Hopkinton	9,100	\$91,500	\$832	460	Manufacturing
Hudson	9,680	\$60,500	\$586	600	Manufacturing
Marlborough	28,830	\$84,400	\$2,433	1,490	TTU
Natick	23,780	\$61,200	\$1,455	1,500	TTU
Northborough	6,020	\$55,100	\$330	530	TTU
Sherborn	620	\$42,500	\$26	150	Public
Southborough	7,290	\$70,200	\$511	420	Education & Health
Sudbury	8,170	\$60,300	\$493	640	Manufacturing
Wayland	3,220	\$47,300	\$152	410	Public
Westborough	23,860	\$64,000	\$1,526	1,020	PBS
MetroWest CCSA	106,840	\$66,100	\$7,066	6,660	PBS
Greater Marlborough Region	68,390	\$71,300	\$4,877	3,640	TTU
Greater MetroWest	175,240	\$68,200	\$11,943	10,300	PBS
Massachusetts	3,151,000	\$57,800	\$182,122	221,850	Education & Health
United States	127,820,400	\$46,800	\$5,975,676	8,993,110	TTU

Source: MA EOLWD, BLS and MERC

*Rounded

**Trade, Transportation and Utilities (TTU)

***Professional and Business Services (PBS)

GREATER METROWEST - HOUSING

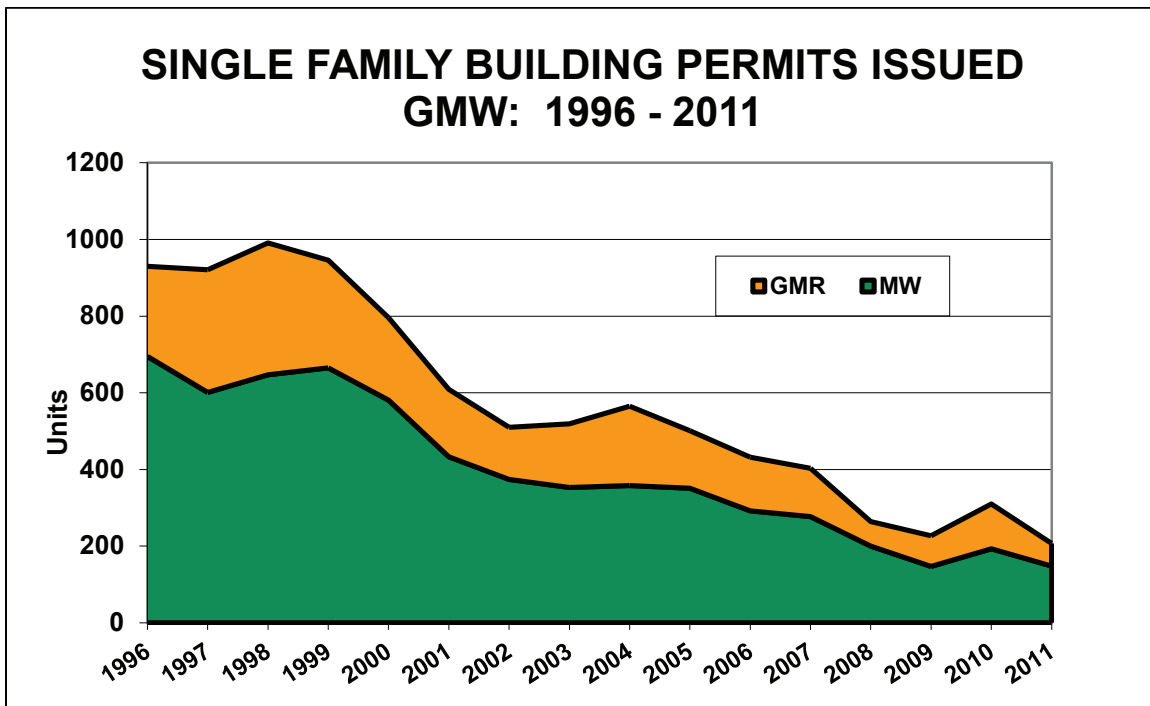
HOUSING

The MetroWest Economic Research Center (MERC) at Framingham State University collects and analyzes data on housing permits issued and existing home sales for Greater MetroWest, the aggregated MetroWest CCSA and Greater Marlborough 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 2011 is estimated using the December year-to-date values. Building permits data for Massachusetts and the United States are based on estimates published by the Federal Reserve Bank of Boston (FRBB).

Information on existing home sales is based on data published by The Warren Group for *Banker & Tradesman*. Most of these data are available from 1987 forward, and were significantly revised in the spring of 2008 in order to better capture market activity. Hence some of the housing figures in this report are not directly comparable to the values reported in previous MERC publications. Data are collected on single and multi-family residences sold in the thirteen communities. Median house price is measured at the 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.

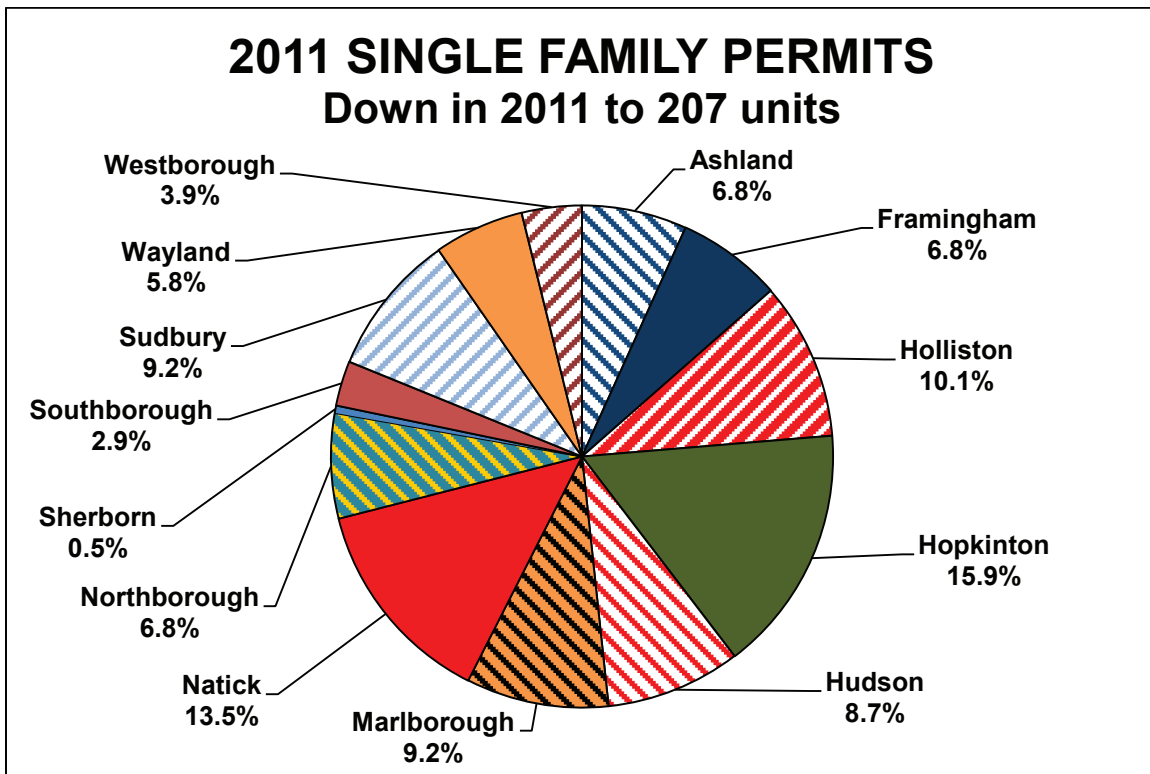
GREATER METROWEST – HOUSING



Source: U.S. Census, Federal Reserve Bank of Boston, and MERC

- New residential housing permits issued each year for single family homes in Greater MetroWest, indicated by the height of the graph above, peaked at nearly 1000 units in 1998. After increasing in 2010 for the first time since 2004, the number of permits issued in Greater MetroWest fell again in 2011 to about 207 units. a decline of about -33.0%.
- MetroWest, depicted in green, accounted for between 64% and 75% of the permits issued in the region over the time period, while the Greater Marlborough Region, in orange, accounted for between 25% and 36%.
- From 2010 to 2011, permits issued in Greater MetroWest fell by -33.0%. MetroWest permits decreased by -23.3% while Greater Marlborough permits decreased by -49.6%.
- Permits issued in Greater MetroWest are at extremely low levels and have been since before the “Great Recession.” They are fewer than one quarter of the number issued in the 1998 peak.

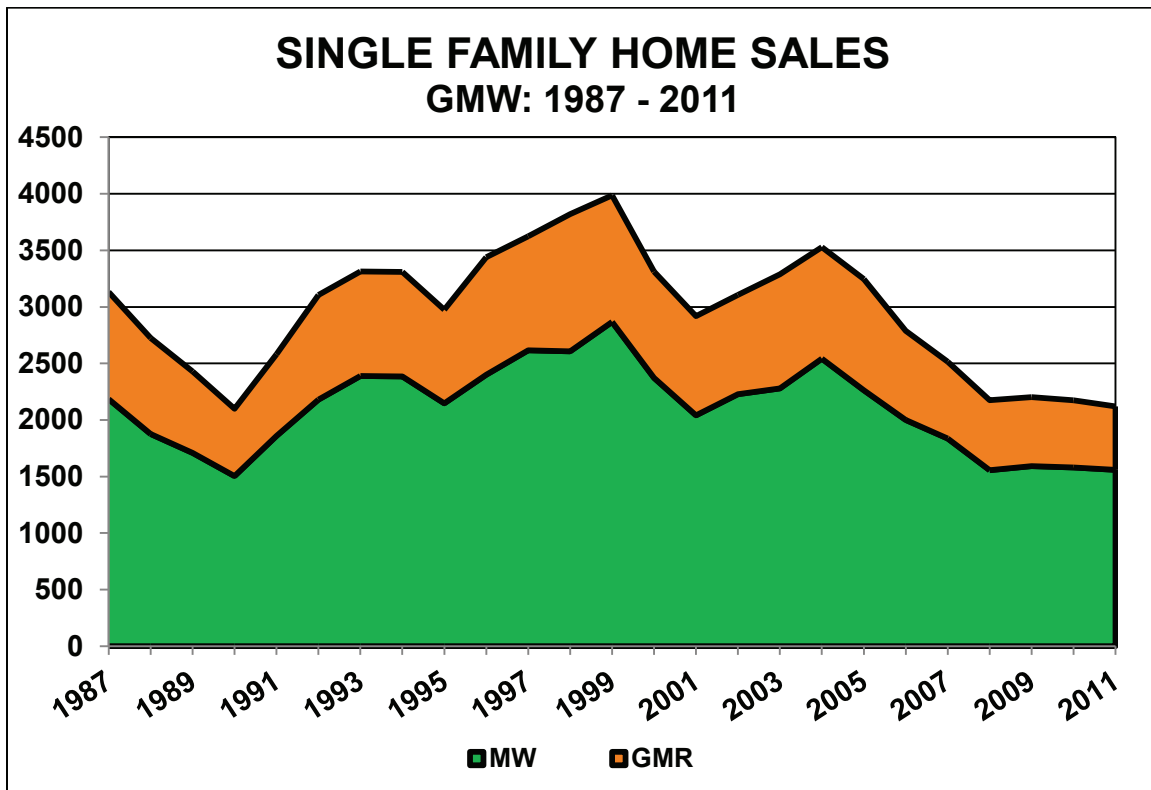
GREATER METROWEST – HOUSING



Source: U.S. Census, Federal Reserve Bank of Boston, and MERC

- New residential housing permits issued for single family homes in Greater MetroWest declined to about 207 permits issued in 2011 from a revised 2010 value of about 310 permits issued.
- Hopkinton and Natick contributed 15.9% and 13.5% respectively. Holliston contributed another 10.1%; and Marlborough and Sudbury each contributed 9.2%. Together these five communities made up more than half of Greater MetroWest's new permits issued for 2011.
- Ashland, Framingham, Hudson and Northborough each added between 6.7% and 8.7% to total regional permits issued. Sherborn, Southborough, Wayland and Westborough contributed the smallest amounts at 0.5%, 2.9%, 5.8% and 3.9% respectively.

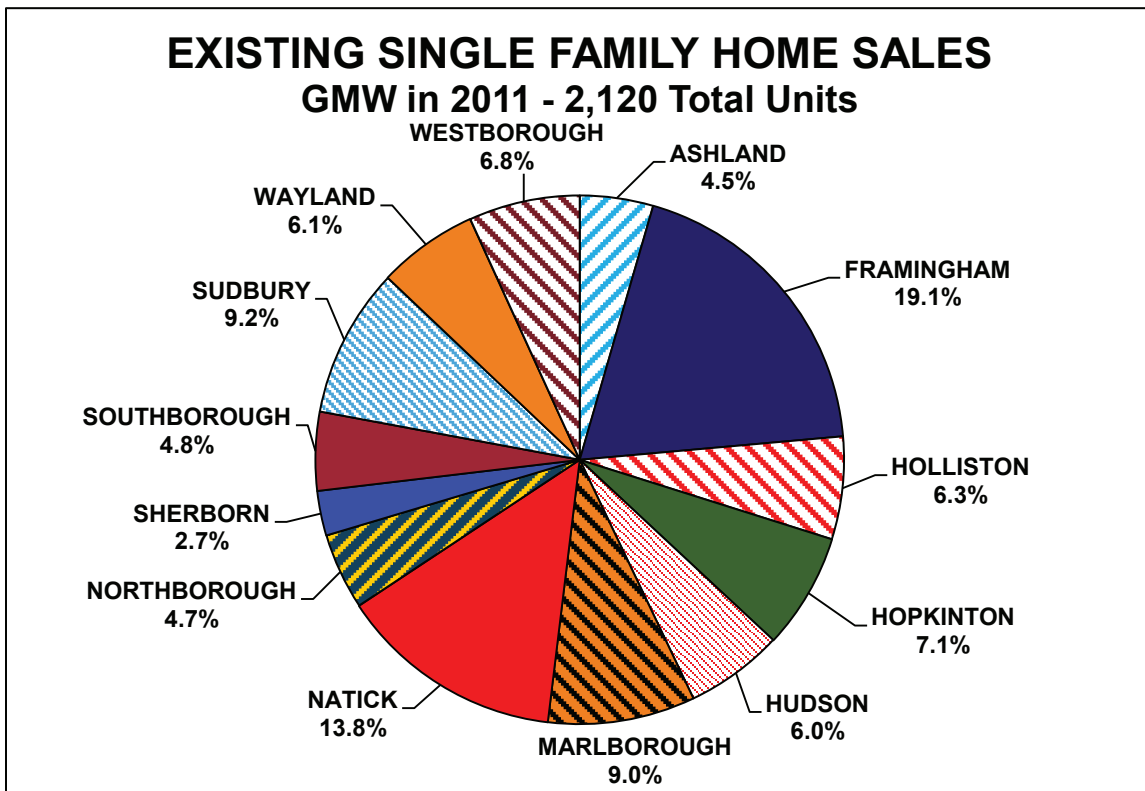
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- Single family home sales are shown for Greater MetroWest by the height of the graph depicted above. The data is shown over a 24 year period from 1987 to 2011. These sales consist of a different mix of homes sold each year. The green area above shows sales of existing homes in the nine towns of MetroWest (MW) while the orange area refers to the four communities of the Greater Marlborough Region (GMR). Comparably MW has a greater number of single family home sales than GMR.
- The smallest number single family homes sold annually in Greater MetroWest occurred in 1990 at 2,099 units sold. The second lowest value occurred in 2011 at 2,120 units sold. In contrast single family home sales in 1999 stood at almost 4000 units sold, the highest in the 24 year period covered.
- Single family home sales in Greater Marlborough were lowest in 2011 at about 561 units sold, a decrease of 33 units from the previous year. Single family home sales in MetroWest were at their lowest at 1,504 units sold in 1990. In 2011, single family home sales in MetroWest stood at 1,559. This represented a decrease from 2010 of 21 units sold.

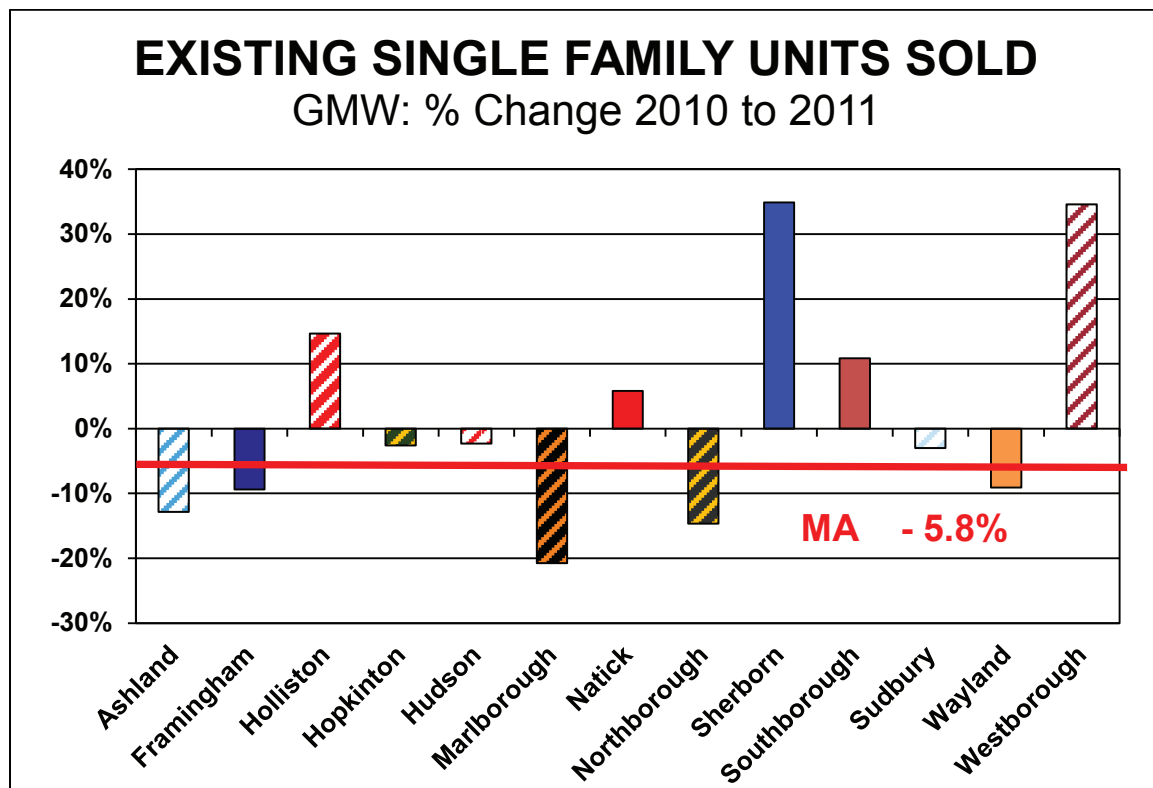
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- In 2011, 2,120 existing single-family homes were sold in Greater MetroWest (GMW). This represents a one-year decrease of about 54 homes.
- Together, Framingham and Natick made up 33% of the combined region's existing homes sold. Framingham had the highest percentage with 19.1%, followed by Natick with 13.8%.
- Marlborough and Sudbury each contributed about 9% to the region's total. Seven of the 13 communities each contributed between 5% and 7% of the existing single family homes sales in GMW. Hopkinton and Westborough contributed about 7% each. Holliston, Hudson, and Wayland each contributed about 6% while Northborough and Southborough each posted nearly 5% of regional sales.
- Sherborn and Ashland recorded the smallest proportions with 2.7% and 4.5%, respectively. In tiny Sherborn only 58 existing single family homes were sold in 2011.

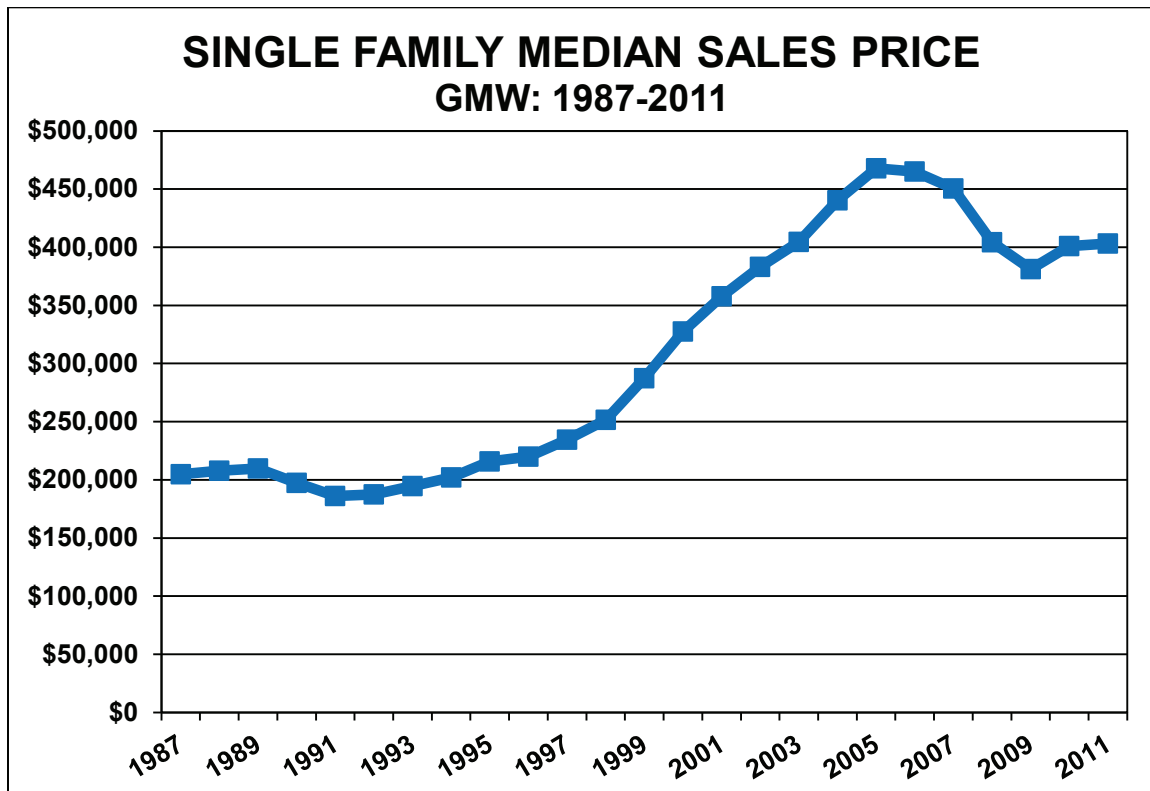
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- Above is a graph that shows the percent change for single family homes sold from 2010 to 2011 in each of the thirteen communities in Greater MetroWest (GMW) and in the Commonwealth of Massachusetts, shown by the red line.
- In 2011 there were 54 fewer units sold in Greater MetroWest compared to 2010. This represented a decrease of -2.5%. Sales in Massachusetts fell by nearly 2,400 units over the year, a decline of nearly -5.8%.
- Five of the 13 communities registered increases in units sold with Sherborn and Westborough recording the largest percent increases at about +35%. Natick had the smallest percentage increase of +5.8% while Holliston and Southborough had percentage increases of +14.7% and +10.9% respectively.
- The remaining eight communities, Ashland, Framingham, Hopkinton, Hudson, Marlborough, Northborough, Sudbury, and Wayland all recorded percentage declines in units sold. Hopkinton, Hudson and Sudbury each had decreases between -2.0% and -3.0%. Ashland, Framingham, and Wayland experienced declines between -9.0% and -13.0% and Northborough and Marlborough experienced the largest declines in units sold of about -15.0% and -21.0% respectively.

GREATER METROWEST – HOUSING

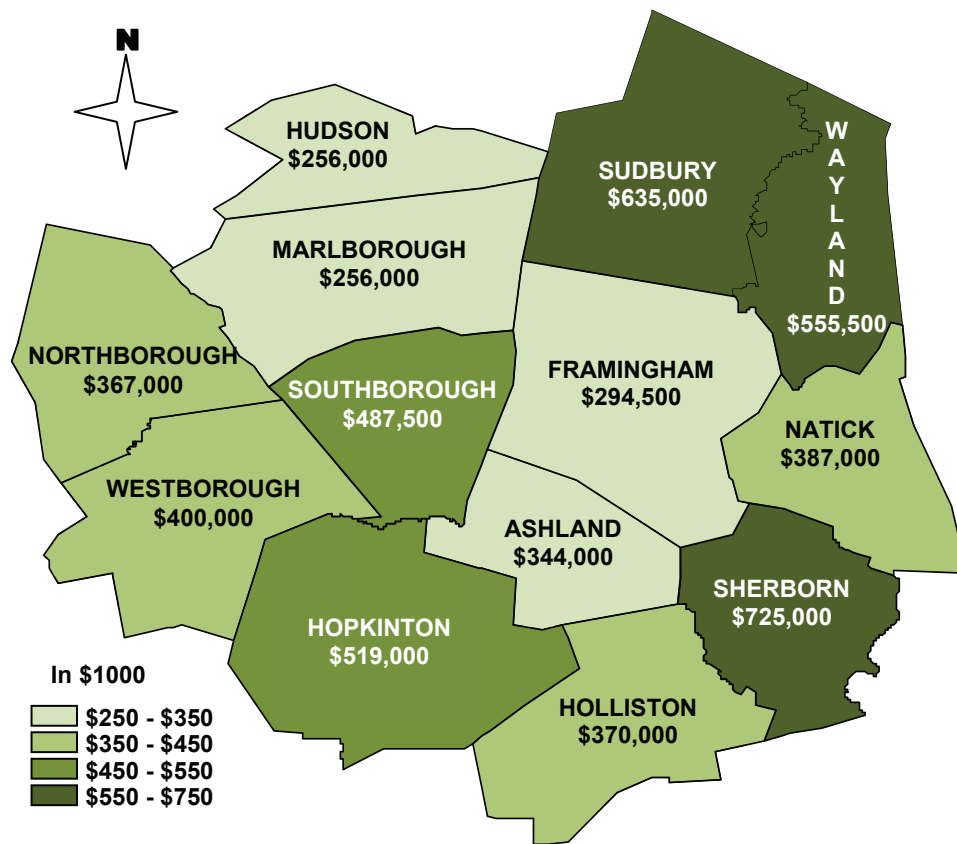


Source: The Warren Group and MERC

- The graph above shows the estimated median price for sales of existing single family homes in Greater MetroWest (GMW) over the 24 year period, 1987 to 2011. Please note that these sales represent a different mix of homes each year and, therefore, do not reflect the changes in the values of individual homes.
- From 1991 to 2005, when the data series peaked, the median sales price increased every year, increasing from \$186,101 in 1991 to \$467,723 in 2005. This represented an increase of approximately 151%.
- Beginning in 2006 the estimated median sale price declined, and this price decreased every year until 2009.
- In 2011, the estimated median sale price in this region was approximately \$403,100, representing a very small increase of 0.52% from the median sale price in 2010 of \$401,000.

GREATER METROWEST – HOUSING

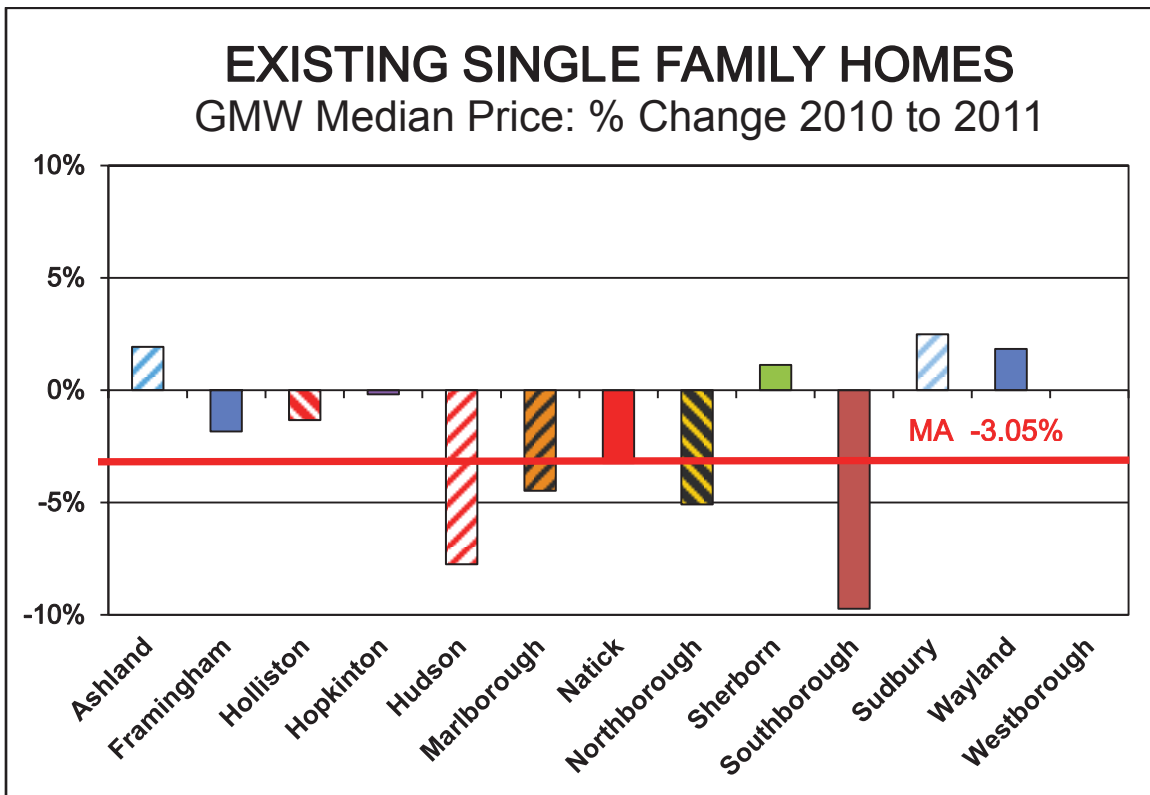
2011 SINGLE FAMILY EXISTING HOME PRICES Greater MetroWest Communities



Source: The Warren Group and MERC

- The map above shows the 2011 median sales prices for the 13 communities in Greater MetroWest (GMW). Median sales prices ranged from a low of \$256,000 in Marlborough and Hudson to a high of \$725,000 in Sherborn.
- Eight of the 13 communities had median sales prices under \$450,000. Ashland, Framingham, Hudson, and Marlborough all posted median sales prices between \$250,000 and \$350,000. Holliston, Natick, Northborough, and Westborough all posted median sales prices between \$350,000 and \$450,000.
- The remaining five communities had median sales prices above \$450,000. Hopkinton had a median sales price of \$519,000 and Southborough had a median sales price of \$487,500. Sherborn, Sudbury and Wayland posted the highest median sales prices at \$725,000, \$635,000, and \$555,500 respectively.

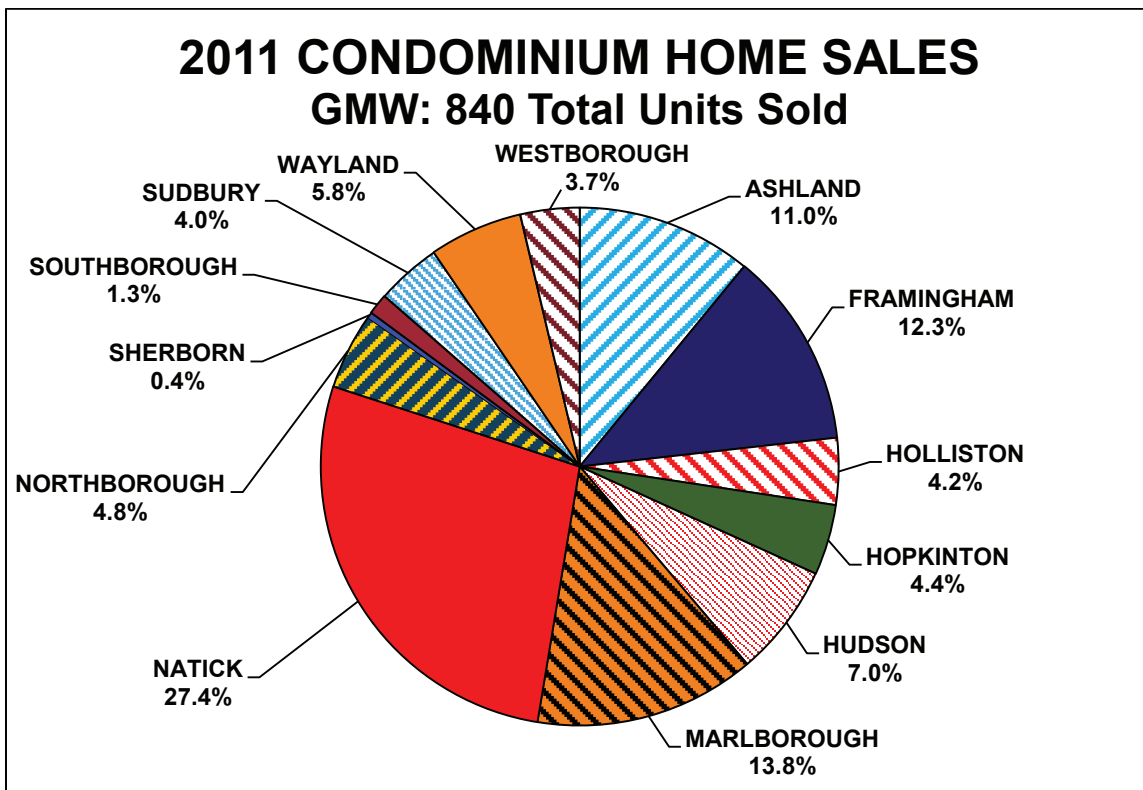
GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The estimated median sales price for existing single family homes in Greater MetroWest (GMW) increased +0.5% from about \$401,000 in 2010 to \$403,100 in 2011. In contrast, Massachusetts median price registered a large decrease of -3.05% falling from \$295,000 in 2010 to \$286,000 in 2011.
- Within the region Southborough had the greatest percentage decrease in median price falling from \$540,000 in 2010 to \$487,500 in 2011, a loss of -9.7%. Hudson, Marlborough and Northborough also had percentage decreases higher than that of Massachusetts.
- Natick's decrease was just above the state's at -3.3%; while Framingham, Holliston and Hopkinton registered declines of less than -2.0%. Westborough's median sales price in 2011 was the same as in 2010, so with no change, the bar in the graph above coincides with the axis.
- Four communities, Ashland, Sherborn, Sudbury and Wayland all recorded median price increases of between +1.3% and +2.5% from 2010 to 2011.

GREATER METROWEST – HOUSING

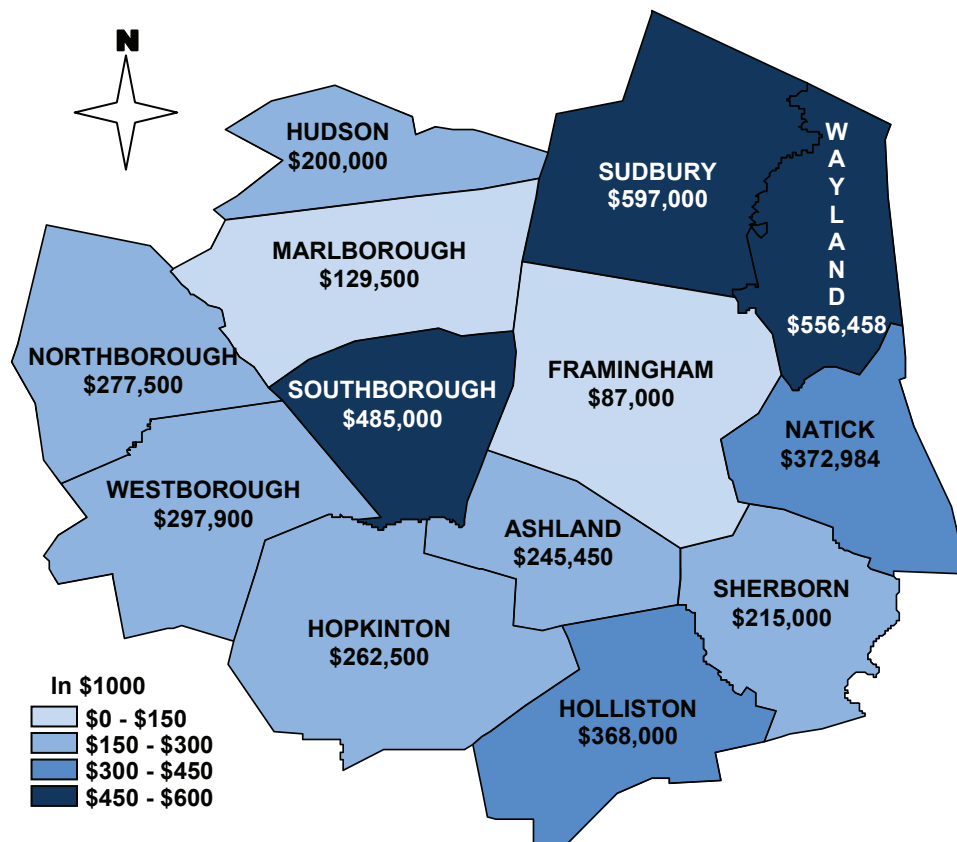


Source: The Warren Group and MERC

- In 2011 840 condominiums were sold in the thirteen communities of Greater MetroWest (GMW). This represents a one year decrease of 8.9%.
- Condo sales in three of the communities, Framingham, Marlborough, and Natick dominated the region making up more than half, 53%, of the total units sold in GMW. Natick alone contributed 27.4% to the region's sales. Framingham and Marlborough contributed 12.3% and 13.8% respectively.
- Holliston, Hopkinton, Northborough, Sherborn, Southborough, Sudbury, and Westborough each contributed 5.0% or less. Sherborn contributed the smallest number of sales with only 3 condominiums sold, which was less than 1.0% of the total regional condo sales.
- The remaining three communities, Ashland, Hudson, and Wayland each contributed between 5.8% and 11.0% of the regional condominium sales. Ashland contributed 11.0%, Hudson contributed 7.0%, and Wayland contributed 5.8%.

GREATER METROWEST – HOUSING

2011 CONDOMINIUM PRICES Greater MetroWest Communities



Source: The Warren Group and MERC

- In 2011, the estimated median price for condominium sales in Greater MetroWest was about \$286,500, an 11.2% increase compared to 2010.
- Two communities, Framingham and Marlborough, had median condominium prices under \$150,000. Framingham had the lowest price in the region at \$87,000. Six of the communities, Ashland, Hopkinton, Hudson, Northborough, Sherborn, and Westborough had median sales prices ranging from \$150,000 to \$300,000.
- The remaining five communities had median condominium prices over \$300,000. Holliston and Natick recorded median condominium prices between \$300,000 and \$400,000. Southborough, Sudbury, and Wayland had median condominium prices over \$450,000. In 2011 Sudbury had the highest median condominium price within the region at \$597,000.

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. In addition to the overall cost of living index, MERC also calculates separate indexes for each of these sub-categories.

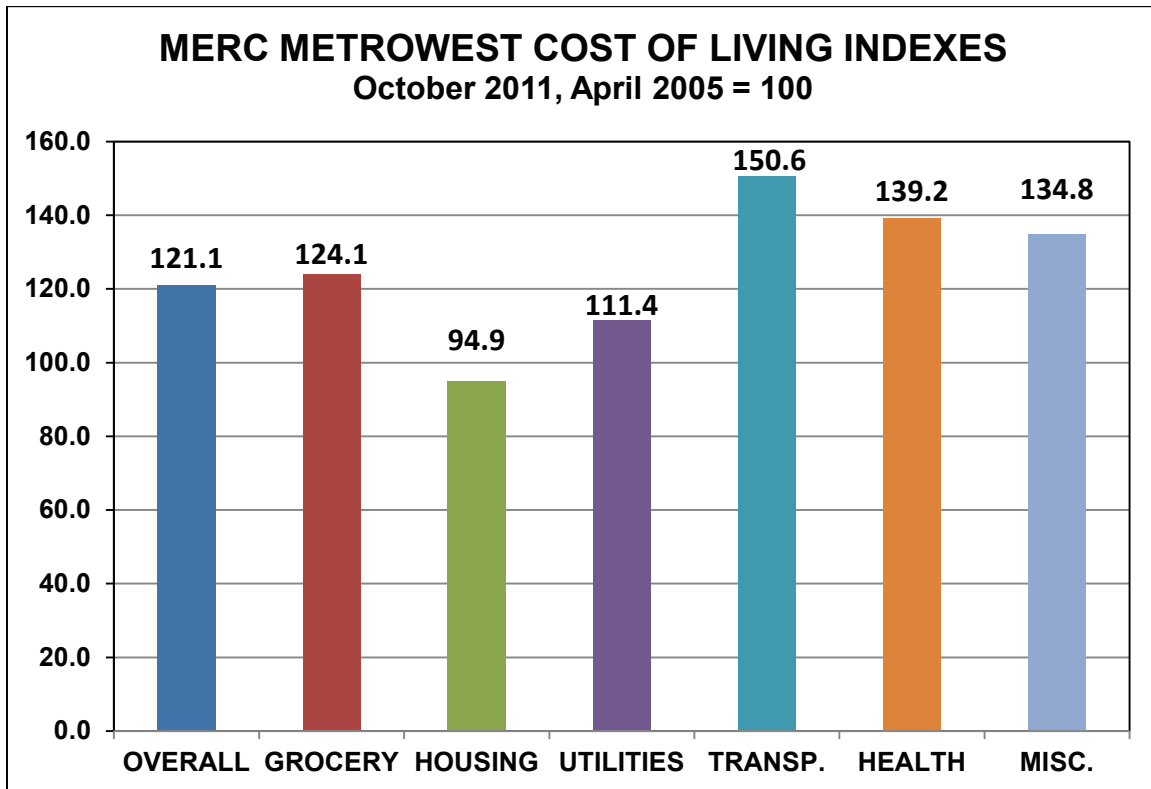
During each survey period, MERC gathers data on the prices of these items from over 100 businesses in the MetroWest area and calculates the average price of each item. These average prices are then used to calculate an index for each of the six categories mentioned above and, from them, the overall cost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

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

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

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

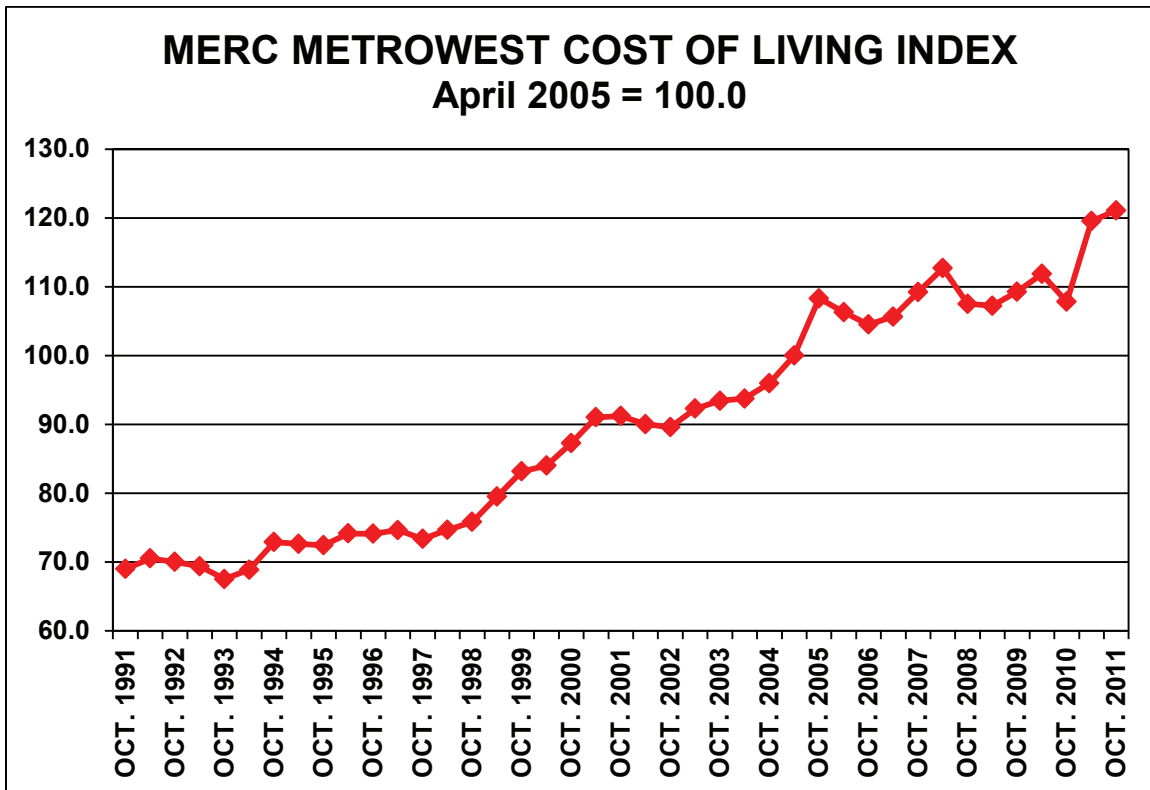
GREATER METROWEST – COST OF LIVING



Source: MERC

- The MERC Overall Cost of Living Index for MetroWest was 121.1 in October 2011. This means that the cost of living in MetroWest was about 21% higher in October of last year than it was in April 2005. This is a 12.3% increase in the Index from one year earlier.
- The Transportation Index had the highest value, 150.6, in October 2011 survey. While this high value suggests that transportation costs were about 50% higher than in April 2005, it is actually 3.8% lower than it was six months earlier.
- The lowest index was the Housing Index with a value of 94.9. This was the seventh consecutive survey in which this index was below 100.0, a clear effect of the problems in housing markets since the most recent recession.
- Every one of the six sub-indexes was higher than it was one year earlier. The Utilities and Transportation Indexes were both over 20% higher than they were in October 2010. The indexes for Health Care and Miscellaneous Goods and Services were about 15% higher.

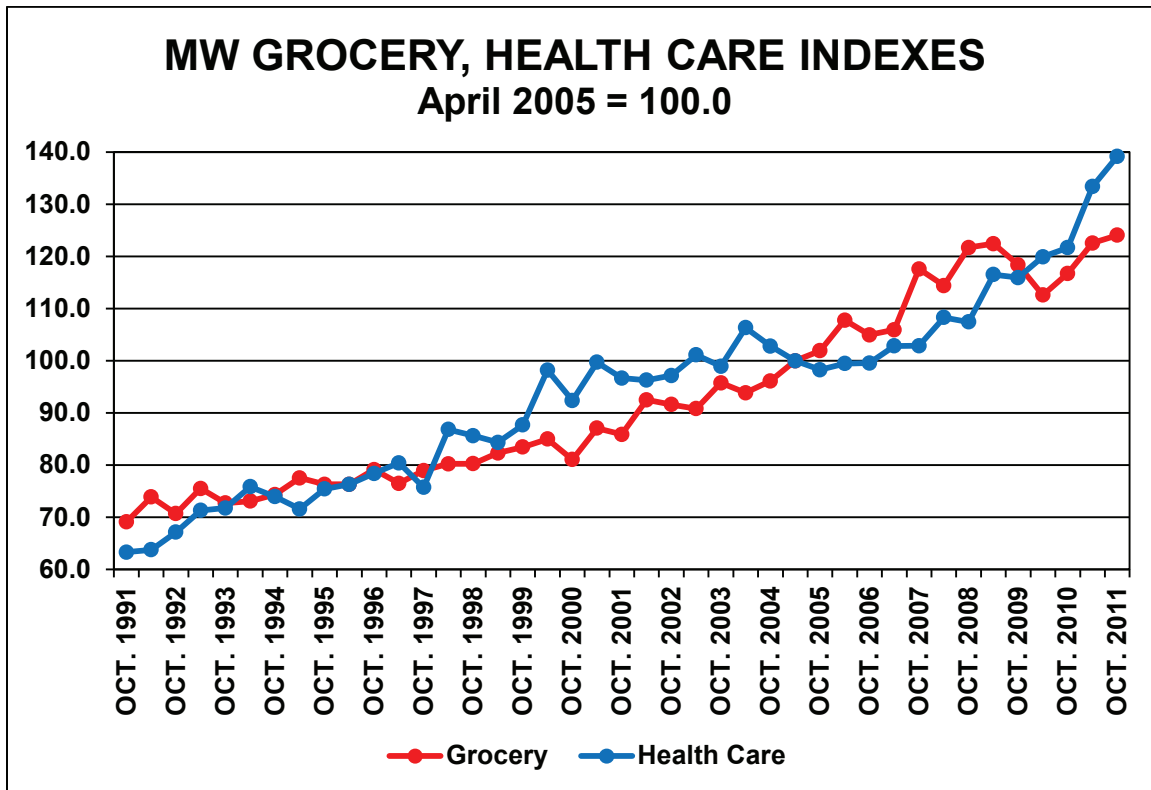
GREATER METROWEST – COST OF LIVING



Source: MERC

- In the last year, October 2010 to October 2011, the MERC MetroWest Cost of Living Index rose by 12.3%. This is the largest increase seen since the 12.8% increase between October 2004 and October 2005.
- Over the entire period shown on the graph, this index rose about 75.3%, which translates into an average annual increase of 2.85%.
- The Index peaked in April 2008 at 112.7, meaning that at that time the cost of living in MetroWest was about 13% higher than it was three years earlier. The Index then fell and stayed below this peak value for 2 and ½ years before rising to 119.5 in April 2011 and then to its current value six months later.

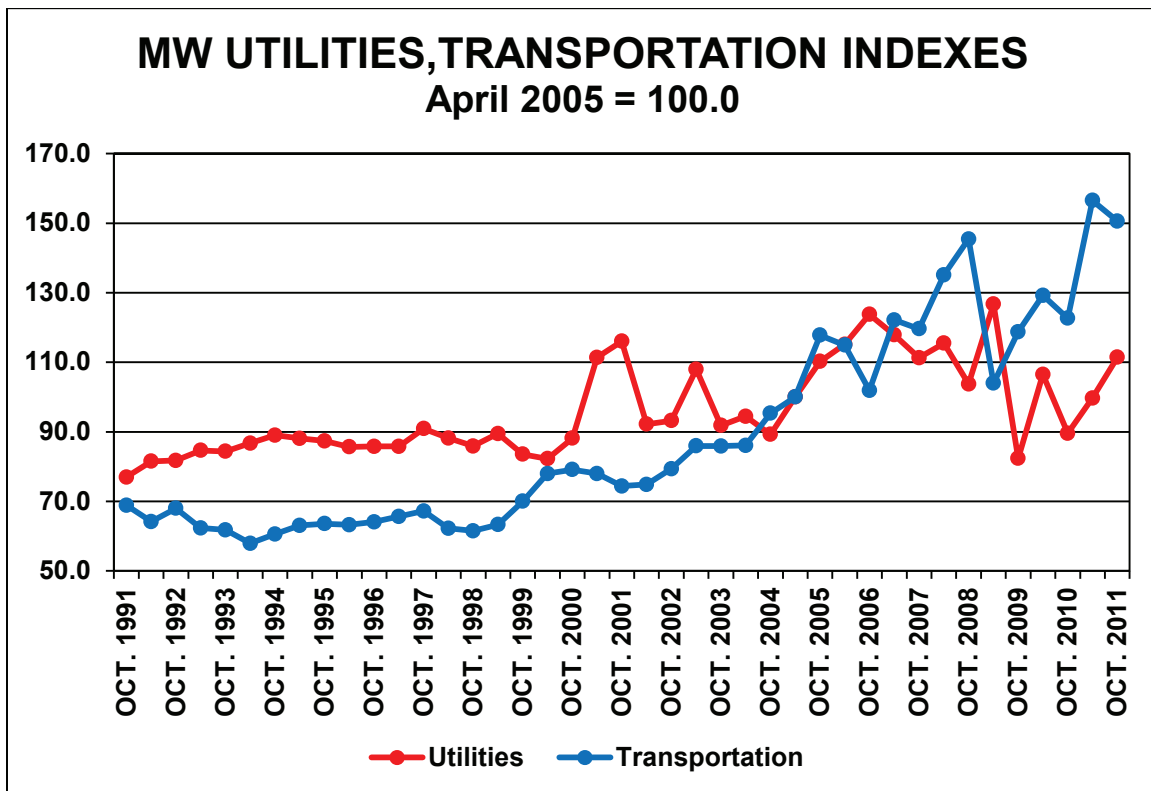
GREATER METROWEST – COST OF LIVING



Source: MERC

- Over the 20 year period shown on the graph the Health Care and Grocery Items Indexes rose at a very steady rate, with relatively little fluctuation.
- The Health Care Index had the largest overall increase (120.6%) among the six sub-indexes. This represents an average annual increase of slightly over 4% per year.
- The Grocery Items Index increased at an average rate of just under 3% per year; resulting in an overall increase of almost 80% in 20 years.
- During the last year shown on the graph, October 2010 to October 2011, the Health Care Index increased by 14.4%; the second largest 12 month increase seen during the 20 years.
- Between October 2010 and October 2011, the Grocery Items Index increased by 6.3% to 124.1.

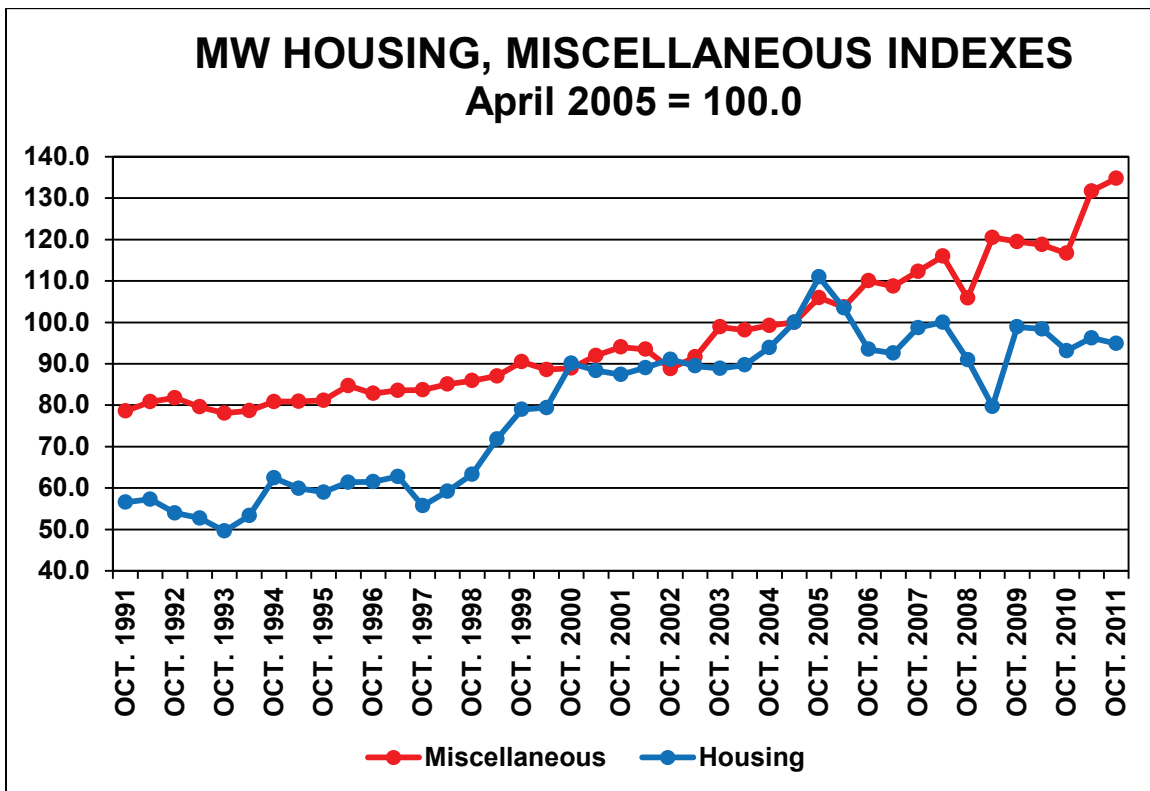
GREATER METROWEST – COST OF LIVING



Source: MERC

- The behavior of the Utilities and Transportation Indexes over the 20 years was quite similar. Both showed little variation during the initial years and have become much more erratic more recently.
- Between October 1991 and October 2000, the Utilities Index had increased an average of only 1.5% per year, and the largest 12 month change ever seen was an 8.1% drop between April 1999 and April 2000. Since that time 13 of the 22 one year changes have been over 10%, ranging from an increase of 35.4% to a drop of 20.6%.
- In October 1999 the Transportation Index stood at 70.0, virtually unchanged from its October 1991 level (68.9). Over the next five years it rose at a slightly faster rate, and then began to exhibit much more variability. Beginning with the April 2005 survey, only twice have we seen a 12 month change in the index of less than 10%.
- Over the entire period shown on the graph the Utilities Index rose by almost 45%, or at an average annual rate of just under 1.9% per year. In contrast, the Transportation Index increased at a rate of 4.0%, per year resulting in a rise of 118.6% in 20 years.

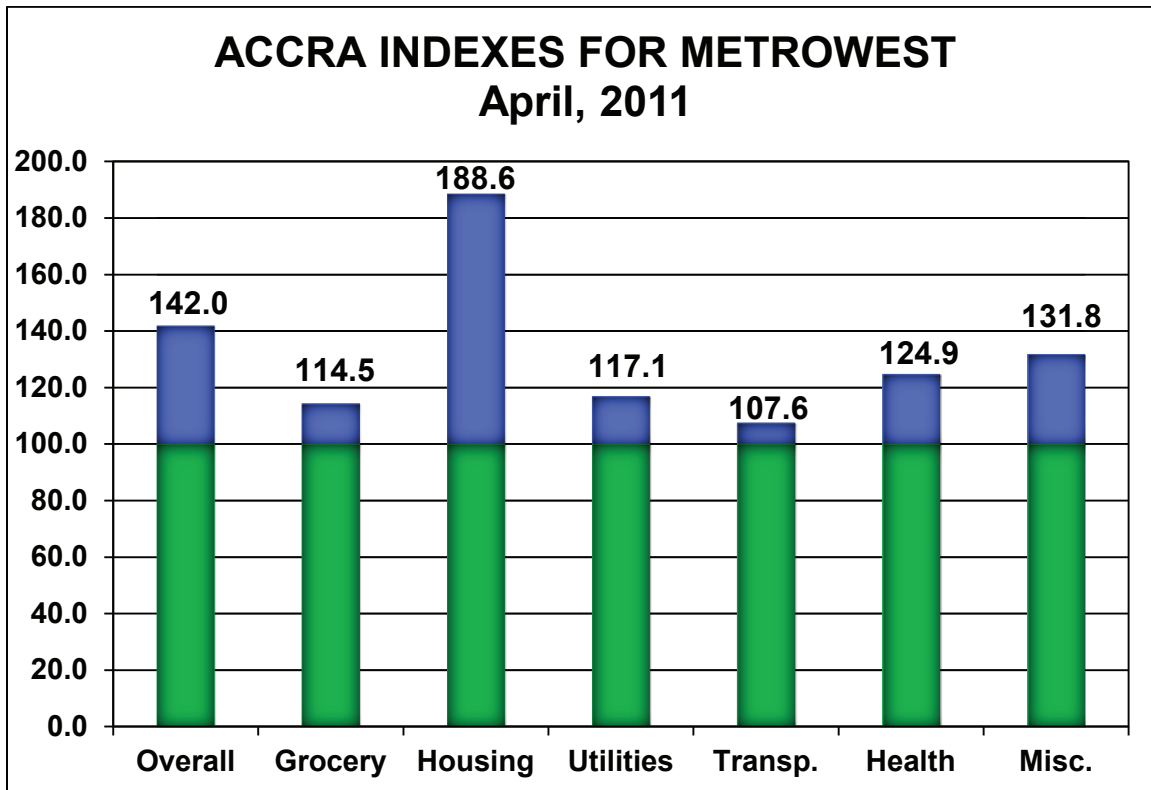
GREATER METROWEST – COST OF LIVING



Source: MERC

- In October 2011, the Housing Index was 94.9, implying that October 2011 housing costs were about 5% lower than they were in April 2005. This value was only slightly higher (1.9%) than its value one year earlier.
- In October 1997 the Housing Index had a value of 55.7, slightly lower than its initial (October 1991) value of 56.6. Subsequently, the index rose very steadily until it peaked at 110.9 in October of 2005. In the 16 surveys conducted during that time, only 3 times did the index fall from its value 12 months earlier.
- Since that peak, MERC has done 12 surveys. In 6 of them the index fell from where it was one year earlier. The largest decline occurred between April 2008 and April 2009, a drop of 20.3%.
- In contrast, the Miscellaneous Goods and Services Index was much less volatile. It rose at an average annual rate of 2.7% per year over the 20 years, just slightly above the 2.6% average increase in the Housing Index.
- This index has changed by more than 10% over 1 year only 4 times since 1991. However, 2 of the 4 occurred in the 2 most recent surveys; with the largest, an increase of 15.5% happening between October 2010 and October 2011.

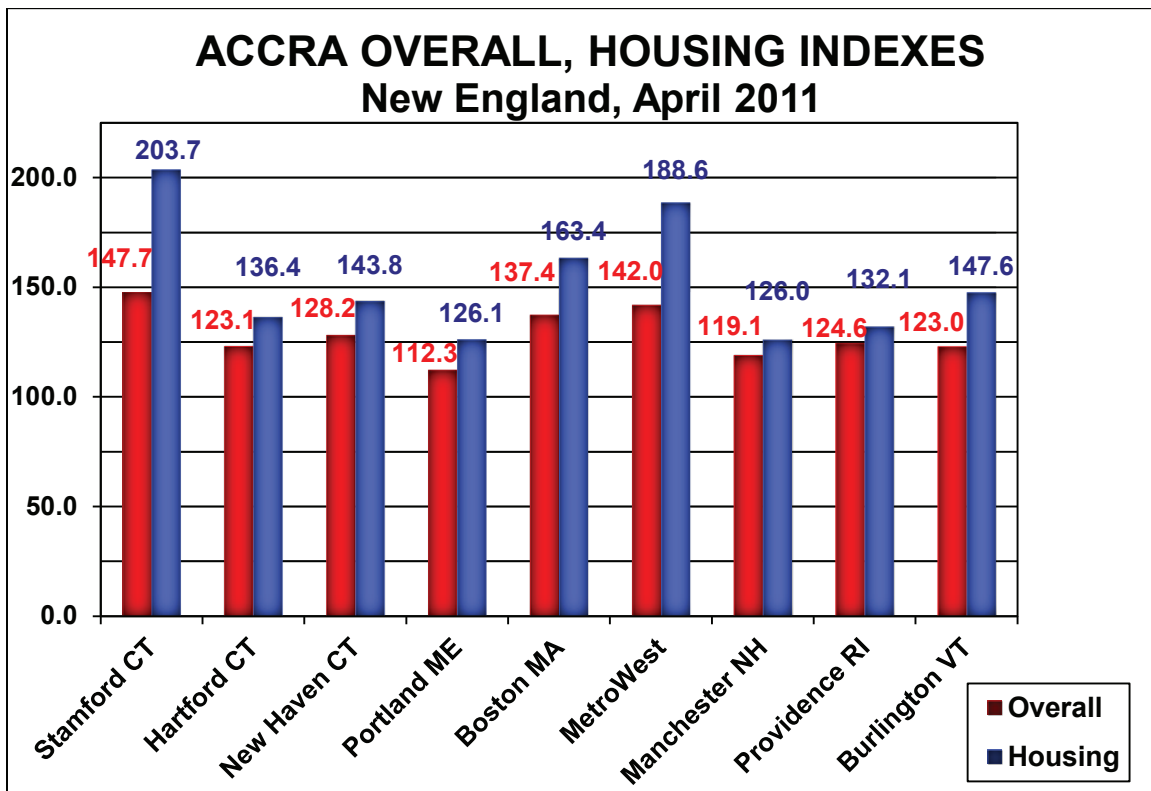
GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- The Overall ACCRA Cost of Living Index for MetroWest (142.0) shows that the cost of living in MetroWest was about 42% above the national average in April 2011. The national average equals 100.0 and is shown by the green segment of each bar. This result is similar to results from the vast majority of prior surveys.
- Continuing with a trend that appears in almost every ACCRA report since we began participating in 1991, all of the indexes for MetroWest were significantly (more than 3 percentage points) higher than the national average.
- As is almost always the case, the Housing Index was the highest index with a value of 188.6. This implies that housing costs in MetroWest in April 2011 were almost 89% higher than the national average.
- The Transportation Index had the lowest value at 107.6. It was followed by the Grocery Items and Utilities Indexes, which were the second and third lowest indexes, with values of 114.5 and 117.1 respectively.

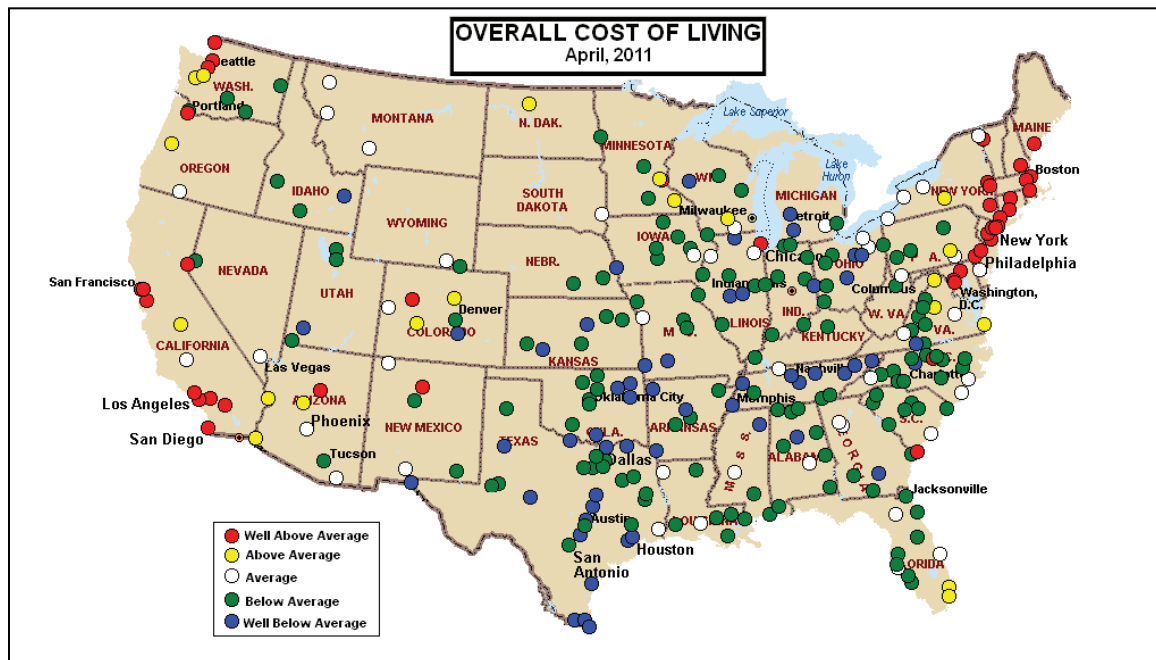
GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- The above graph shows the Overall Cost of Living Indexes (in red) and the Housing Indexes (in blue) for MetroWest, Boston and the other 7 areas in New England that participated in the April 2011 C2ER survey. Every one of these indexes is well above the national average of 100.0.
- The participating New England community with the highest Overall Cost of Living Index in April 2011 was Stamford, CT at 147.7. This means that Stamford, CT had a cost of living that was around 48% higher than the national average. The next highest Overall Indexes were those for MetroWest (142.0) and Boston (137.4). The lowest Overall Index in the region was the Portland, Maine index with a value of 112.3.
- The communities with the 3 highest Overall Indexes also had the 3 highest Housing Indexes: Stamford at 203.7, MetroWest at 188.6 and Boston at 163.4.
- In every one of these 9 New England communities the Housing Index was higher than the Overall Index. This suggests that the high cost of housing in New England is a significant contributor to the high cost of living in this region.

GREATER METROWEST – COST OF LIVING

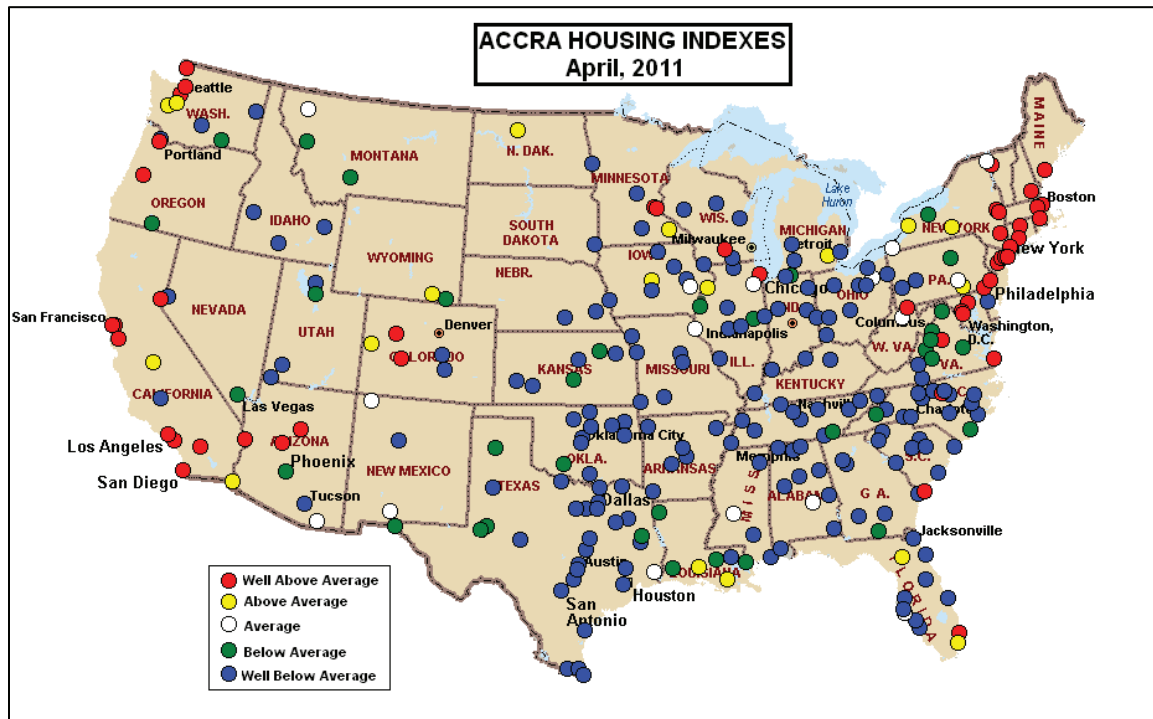


Source: C2ER and MERC

- Communities with the highest living costs (red dots) were mostly located in the Northeast or on the West Coast. Manhattan (220.7) had the highest Overall Index followed by Brooklyn (182.1) and Honolulu (166.1). MetroWest was the 11th highest at 142.0 and Boston was 14th with an Overall Index of 137.4.
- Twenty-one of the 35 highest Overall Indexes in the survey were found in the area between New England and Washington D.C., while another 8 were on the West coast.
- Harlingen, TX had the lowest Overall Index for April 2011, with an Index of 80.6, which means that the overall cost of living in Harlingen was about 20% lower than the national average and about 43% lower than MetroWest. The next lowest Overall Indexes were both found in Texas: Sherman-Denison at 84.4 and McAllen with an index of 84.7.
- In all, 53 of the 305 communities participating in the April 2011 survey had Overall Indexes below 90.0; more than 10% lower than the national average.

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

GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- This map is exactly the same as the previous one, except that it shows Housing, rather than Overall, Indexes from April 2011. Similar to the previous map, the red circles, indicating Indexes above 110, are concentrated primarily in the Northeast and on the West coast.
- One notable difference, however, is that while the highest Overall Index was 220.7, the highest Housing Index was 416.0; implying housing costs over 4 times the national average. Both of these values were found in Manhattan.
- While 48 of the 305 communities participating in the April 2011 survey had Overall Indexes above 110.0, there were 60 communities reporting Housing Indexes above that figure.
- At the other end of the spectrum, 57.7% of these areas had Housing Indexes well below average i.e. indexes more than 10% below the national average. The lowest Housing Index, 67.0, over 30% lower than the national average was found in Cedar City, Utah.

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

GREATER METROWEST - MUNICIPAL REVENUE

MUNICIPAL REVENUE

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

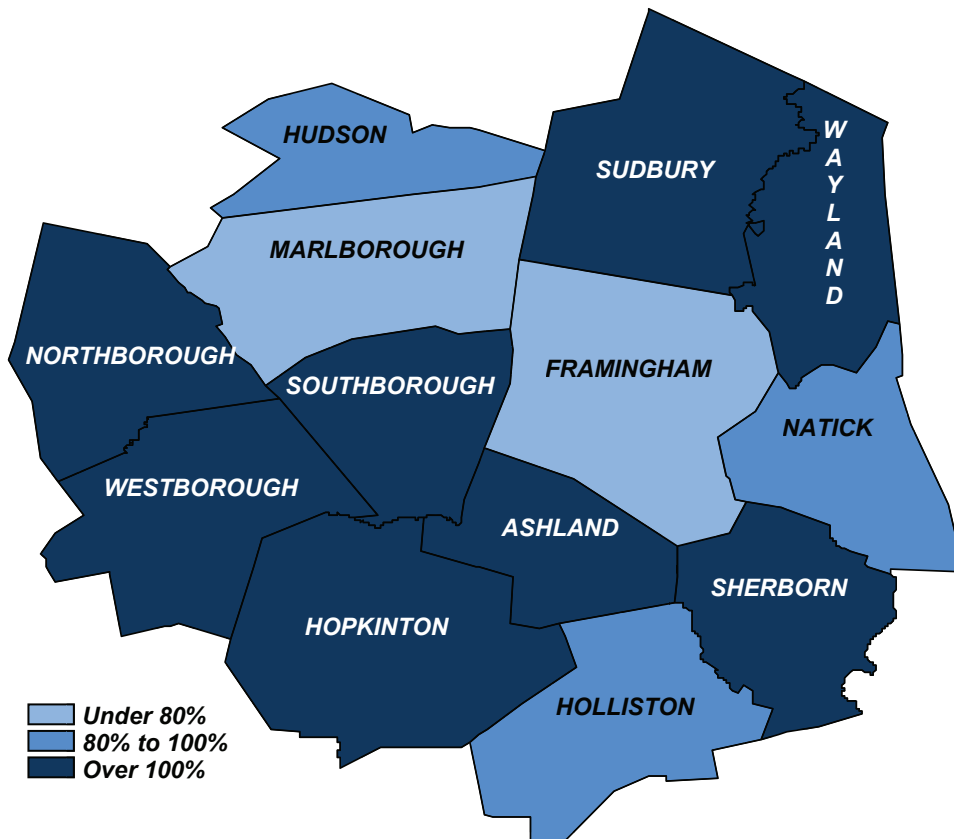
Unless otherwise stated, revenue presented in this report represents budgeted revenue reported to the Massachusetts Department of Revenue, Division of Local Services by the respective municipalities. It consists of the total tax levy, state aid, local receipts and an “all other” category. The tax levy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

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

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

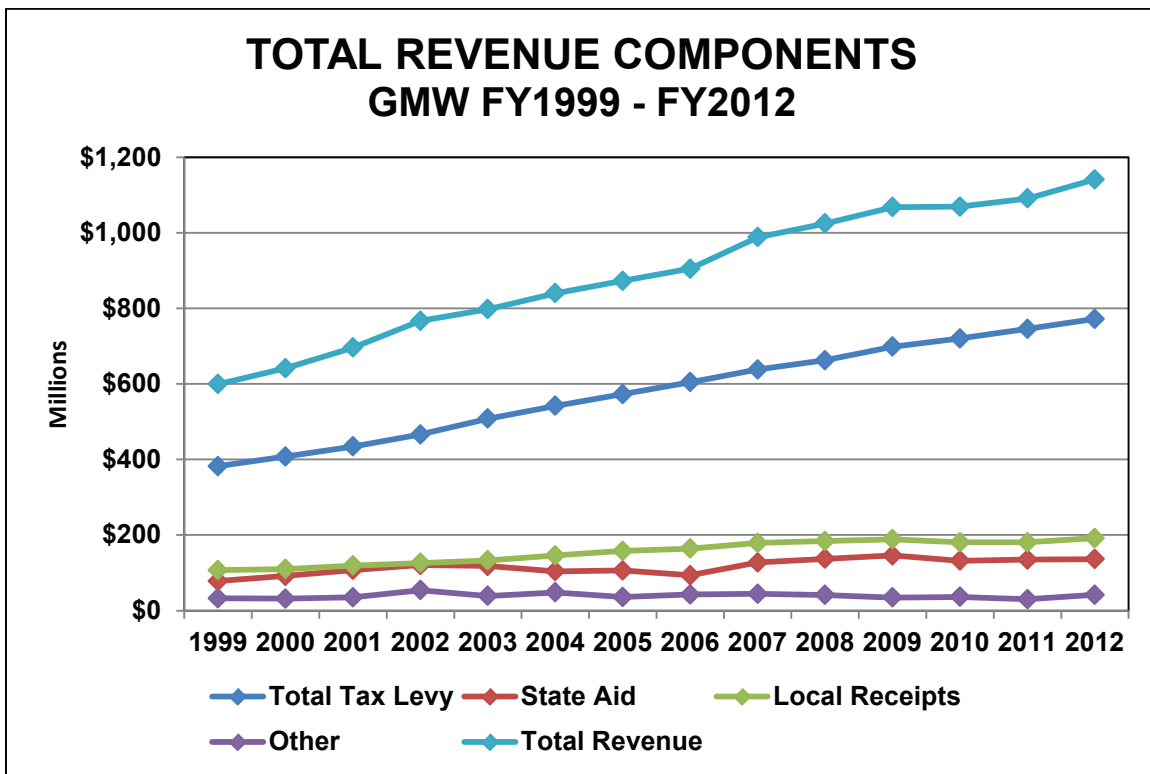
GMW GROWTH IN MUNICIPAL REVENUE FY1999 – FY2012



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue percentage growth from FY1999 to FY2012 in the Greater MetroWest region is divided into three intervals: less than 80%, 80% to 100% and greater than 100%.
- From FY1999 to FY2012 total GMW municipal revenue increased from \$599.3 million to \$1.1 billion, a gain of 90.4%.
- Eight of the thirteen communities in GMW experienced a growth rate of more than 100% over the thirteen year period. Two communities had growth rates of less than 80% and the remaining three had growth rates in the 80% to 100% interval.
- The community with the highest growth rate over the period was Southborough with a 134% increase. The smallest growth rate over the period occurred in Framingham at 71.4%.

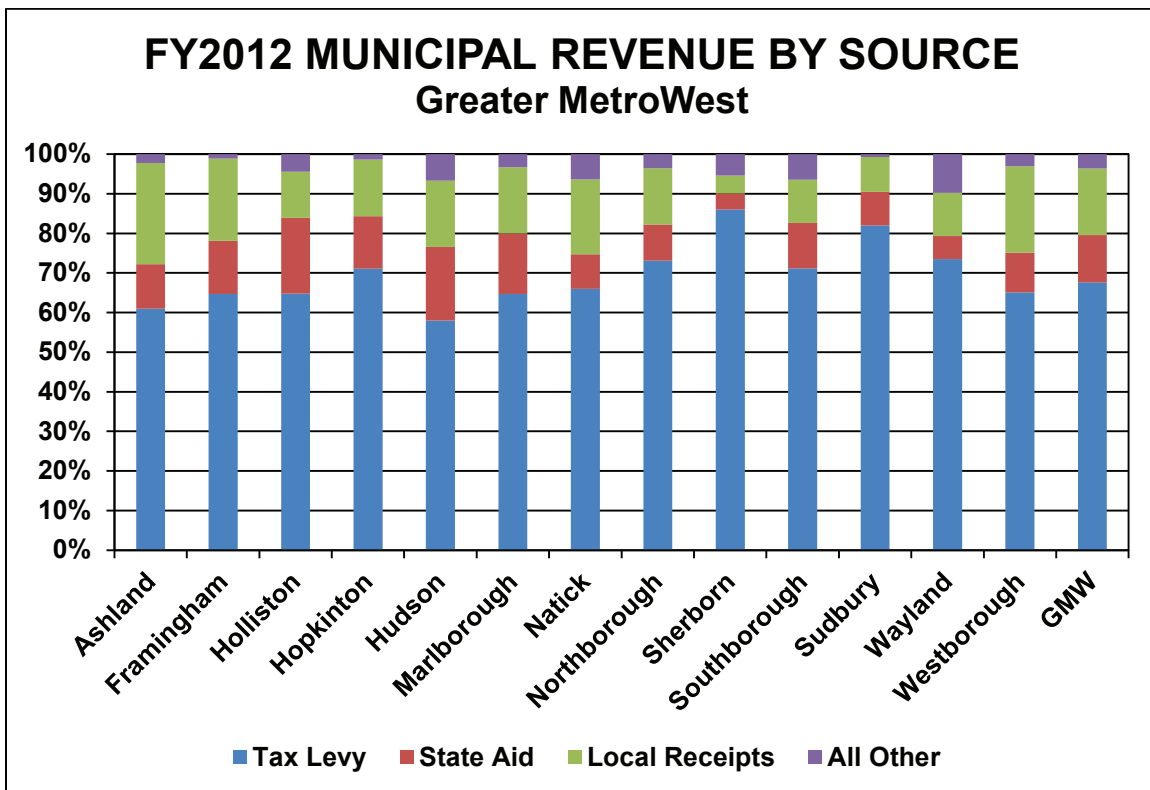
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS and MERC

- Total municipal revenue for Greater MetroWest (GMW) rose from \$599.3 million in FY1999 to \$1,141.3 million in FY2012, an increase of 90%.
- The tax levy for the region grew every year which lead to an increase from \$382.3 million in FY1999 to \$771.9 million in FY2012. In both FY2011 and FY2012, the tax levy rose 3.5% from the year before.
- The highest value for local receipts was reached in FY2012 at \$191.4 million, an increase of 5.9% since FY2011 and 79% since FY1999.
- State aid for GMW was one of the lowest contributors to total revenue, starting at \$78 million in FY1999 to a peak in FY2009 at \$146 million. In the current fiscal year state aid is \$136.2 million.
- The “other” category was the lowest contributor in the period. In FY1999 “other” was at \$32.2 million and in FY2012 it reached \$41.8 million. The highest amount over the period was in FY2002 at \$53.8 million. The FY2012 total is 22.3% less than that of its highest year.

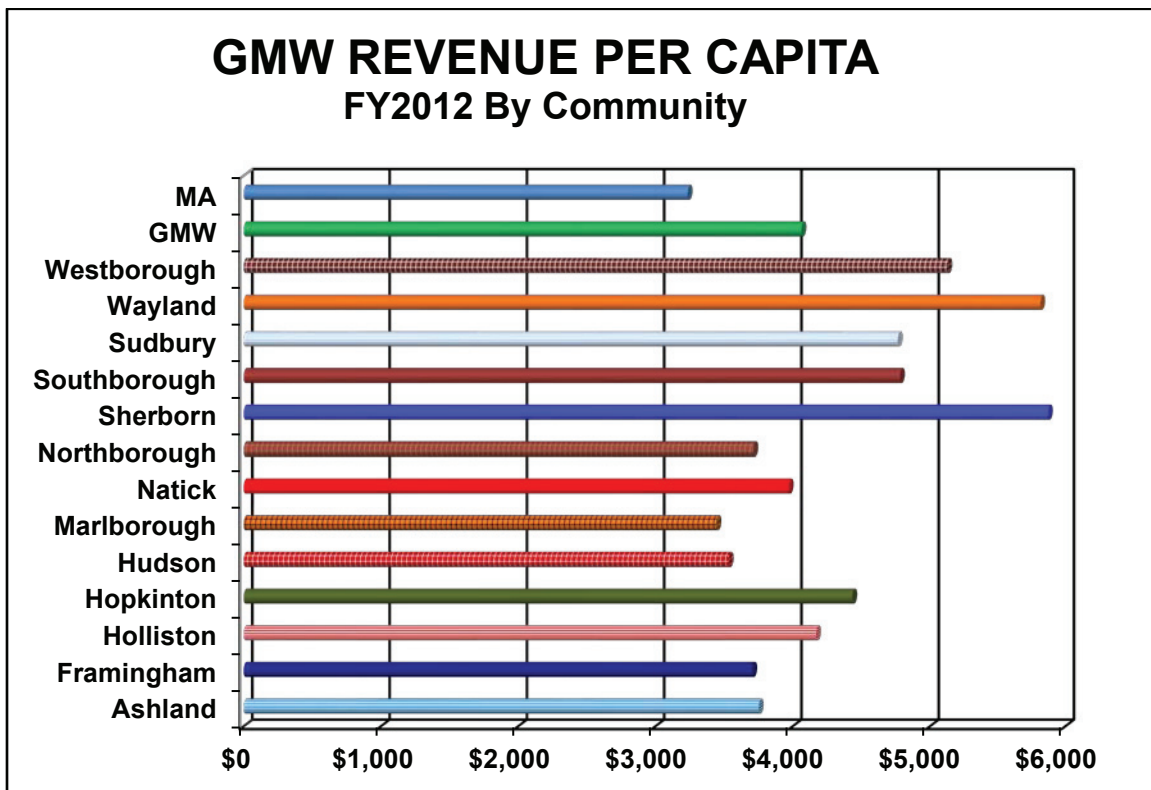
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2012 the municipal revenue components for Greater MetroWest varied by community. The total tax levy represented the largest contributor in each of the thirteen communities including the region. The percent of municipal revenue contributed by the tax levy ranged from a low of 58% in Hudson to a high of 86% in Sherborn.
- State aid as a percentage of total revenue varied from a low of 4% in Sherborn to its highest percentage in Holliston and Hudson at 19%.
- Local receipts ranged from 5% in Sherborn to a high of 26% in Ashland, a difference of about 21%.
- The “all other” category had the smallest contribution to municipal revenue; it registered a low of just 1% in the three communities of Framingham, Hopkinton and Sudbury. The highest percentage was in Wayland where 10% of municipal revenue came from the all other category.

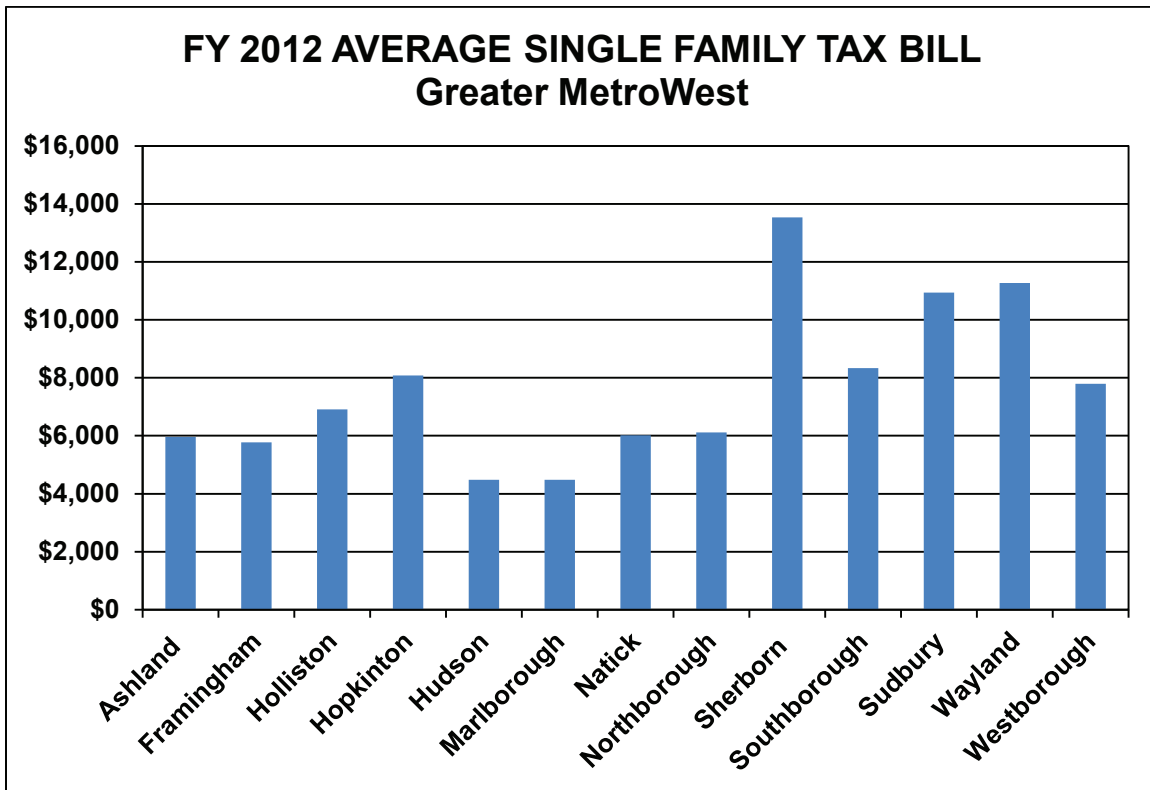
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for the Greater MetroWest (GMW) communities in FY2012 can be viewed as spending per capita because communities are required to balance their budget. All thirteen communities had municipal revenue per capita that was above the average in the state.
- Of the thirteen GMW communities, Sherborn had the highest municipal revenue per capita at \$5,871 slightly above Wayland at \$5,814. Marlborough recorded the lowest at \$3,444, just slightly lower than Hudson at \$3,534.
- Six of the thirteen communities fell below the GMW municipal revenue per capita average of \$4,063; Northborough, Natick, Marlborough, Hudson, Framingham and Ashland.
- The remaining seven communities each were above the GMW municipal revenue per capita average by at least \$100.

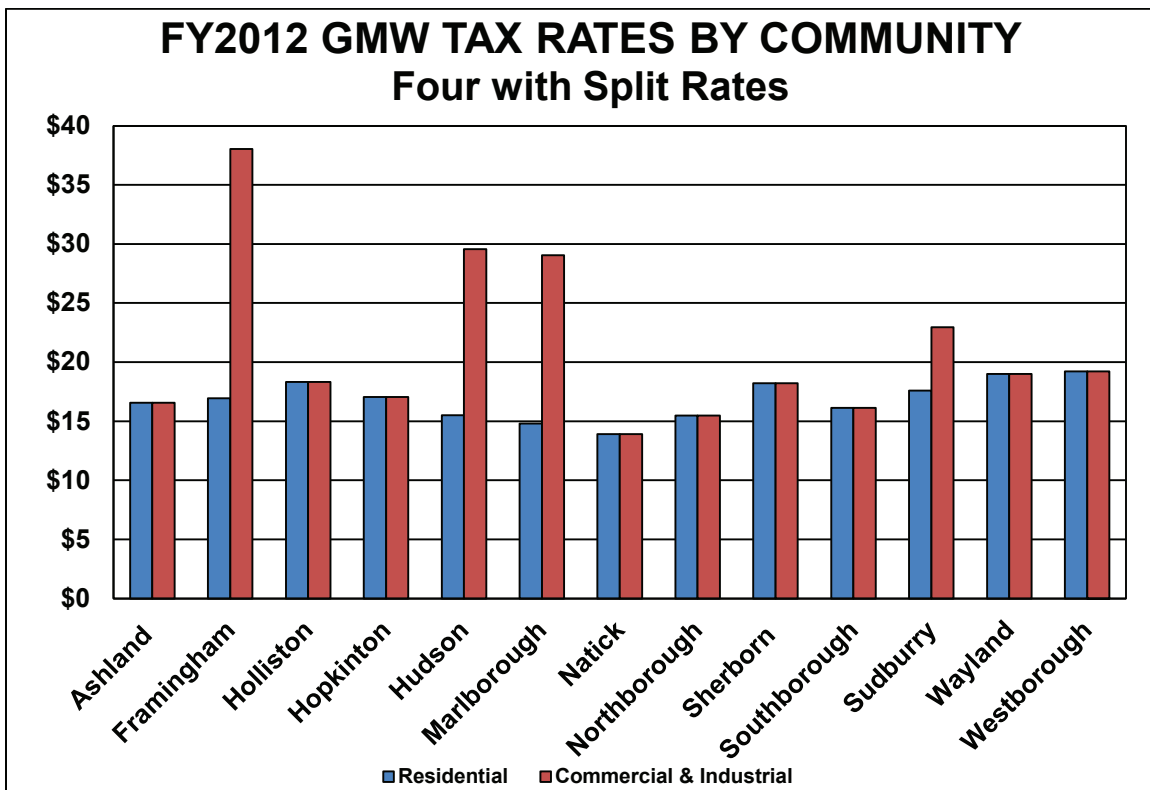
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family residential tax bill in FY2011 differed by community, and ranged from a low of \$4,476 in Marlborough to a high of \$13,534 in Sherborn.
- Of the eleven remaining communities the average single family tax bill ranged from \$4,485 in Hudson to \$11,274 in Wayland
- To find the average assessed value for single family homes, the total single family assessed value for each community is divided by the number of single family parcels in the specified communities.
- The average single family tax bill is determined by applying the respective residential tax rate to the average single family assessed value for each community.

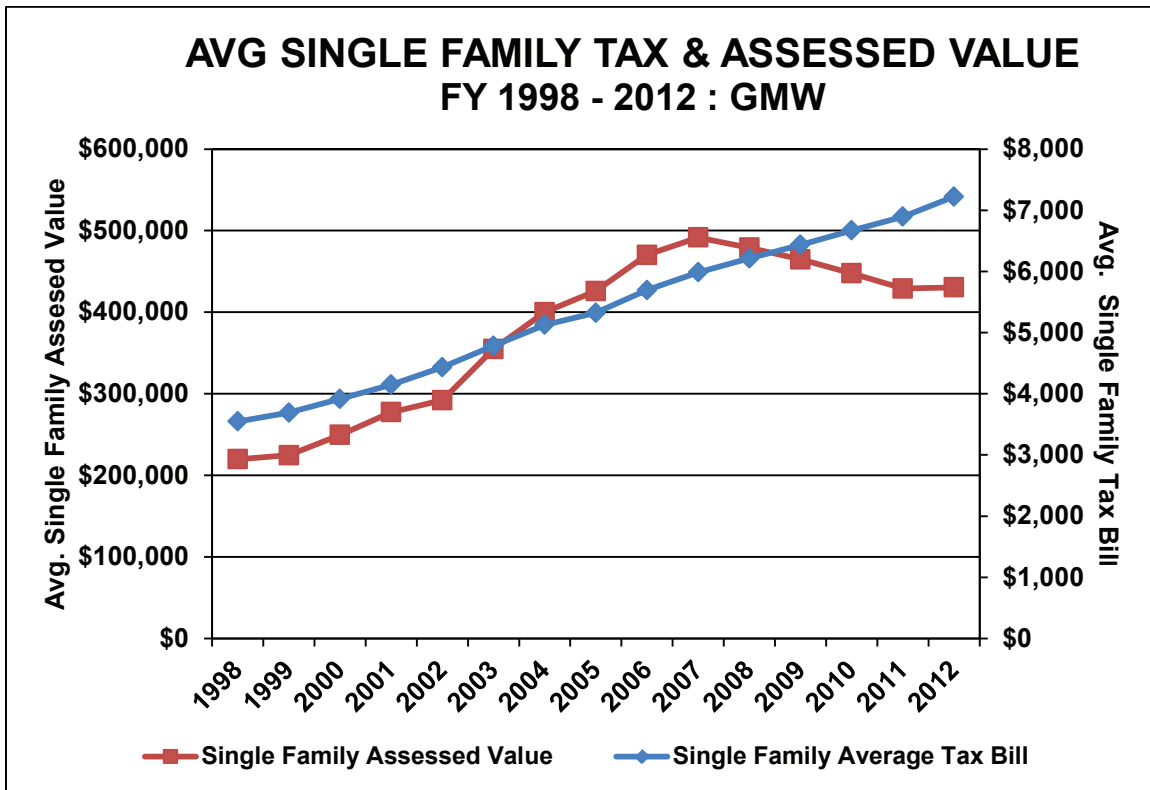
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- This graph compares the residential and commercial & industrial tax rates per \$1,000 of assessed value for the communities of Greater MetroWest.
- In the region, nine of the thirteen communities had the same rates for both residential and commercial & industrial property.
- The four communities with split rates in Greater MetroWest were: Framingham, Hudson, Marlborough and Sudbury.
- In FY2012, Natick had the lowest rates for both residential and commercial & industrial tax rates at \$13.91. Framingham had the highest for commercial & industrial tax rates at \$38.05. The four split rate communities had the highest commercial & industrial rates.

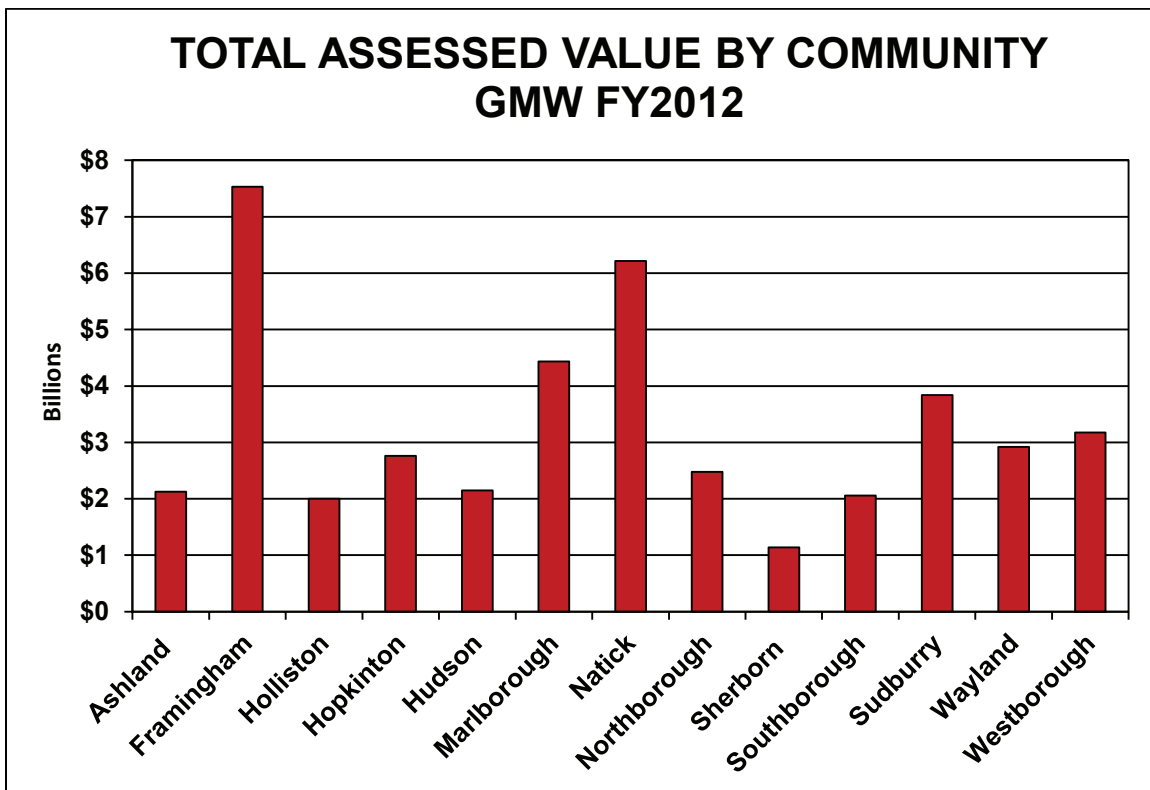
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family assessed value for Greater MetroWest (GMW), excluding Marlborough is shown on the left vertical axis, and the average single family tax bill is shown on the right vertical axis.
- The average single family tax bill increased from a low of \$3,548 in FY1998 to a high of \$7,221 in FY2012. This showed an increase of 103.5% over the period. Each year the average single family tax bill increased.
- From FY1998 to FY2012 the average single family assessed value fluctuated over the period. The lowest average assessed value was in FY1998 at \$219,736 while there was a peak in FY2007 at \$491,630. After FY2007 the average assessed value fell until FY2012 where a slight increase occurred from FY2011.
- The average single family tax bill for the region was determined by calculating a residential tax rate for the region and applying this to average single family assessed value. The rate was determined by dividing the residential tax levy by the residential assessed value for the region. The average single family assessed value for the region was determined by dividing total single family assessed value for the region by total single family dwellings.

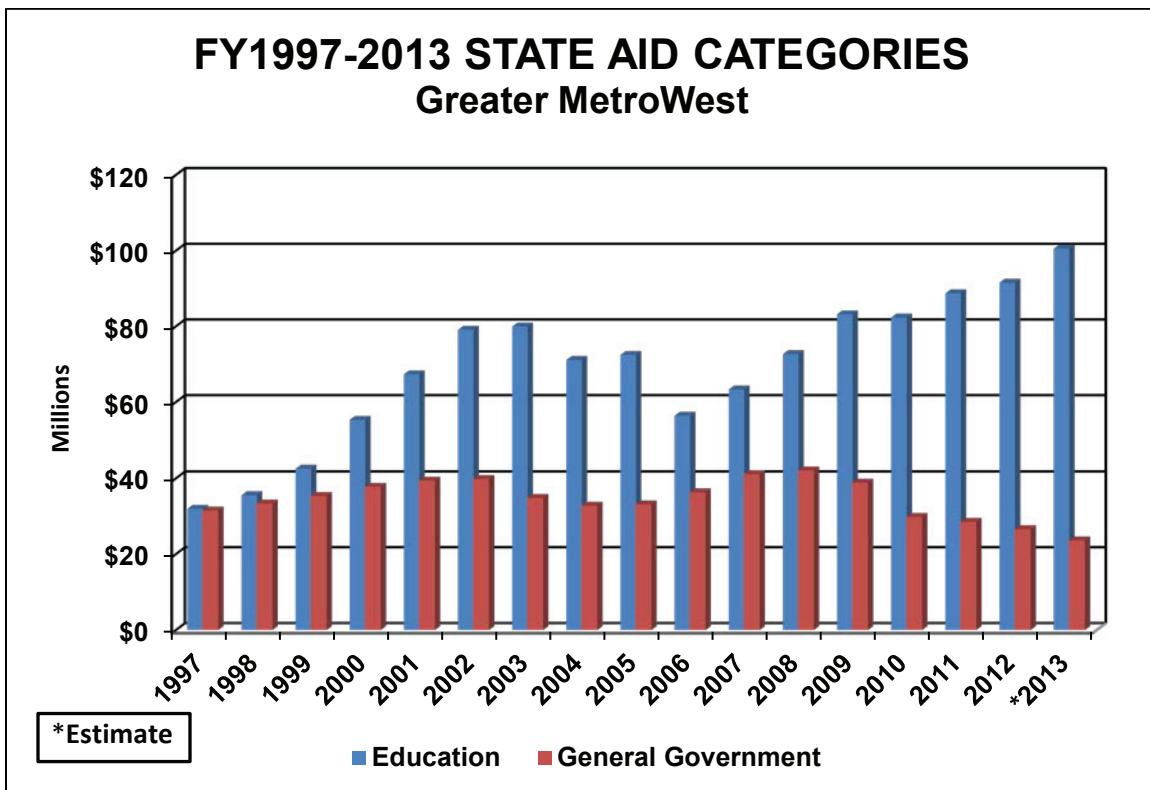
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS and MERC

- In FY 2012 total assessed value for all the property in the thirteen communities that make up Greater MetroWest was about \$42.8 billion, an amount that has been on the decline since FY2007.
- The total assessed value by community varied from a high of approximately \$7.5 billion in Framingham to a low of approximately \$1.1 billion in Sherborn.
- Assessed value in the remaining communities ranged from \$6.2 billion in Natick to approximately \$2 billion in Holliston.

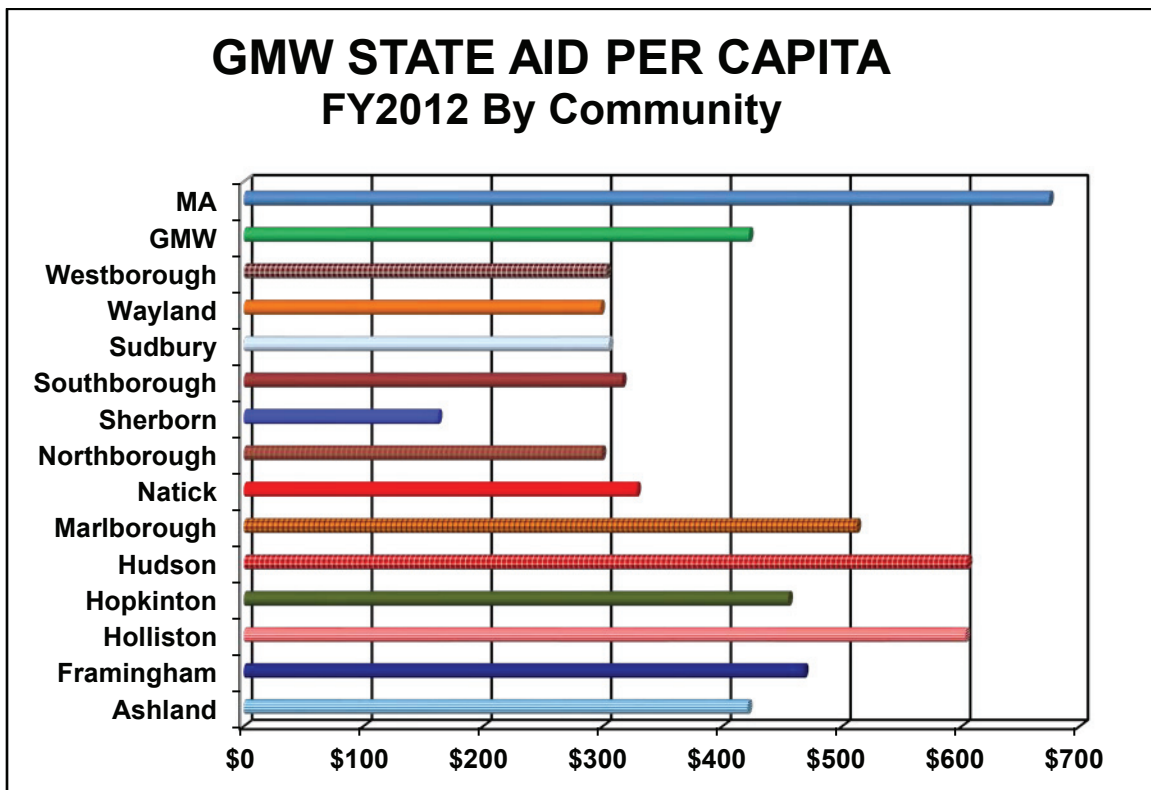
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- State aid for education in Greater MetroWest (GMW) increased from \$31.9 million in FY1997 to an estimated \$100.5 million in FY2013, or three times the FY1997 amount. Over the period there has been an annual increase in state aid for education with the exception of three periods of decline. State aid for education did not reach a new high point until FY2009 and after a year of decline rates are in a positive growth period.
- The highest amount of state aid for education for GMW was recorded in FY2012 at \$91.5 million and is estimated to grow higher in FY2013.
- State aid for the general government in Greater MetroWest for the same period, had a much smaller range from a low of \$26.6 million in FY2012 to a high of \$42.1 million in FY2008.
- Since the high point in FY2008 general government state aid has continued to decrease.
- The total state aid has varied over this timeframe with periods of increase and decline. Currently total state aid is increasing and is estimated to increase in FY2013 as well.

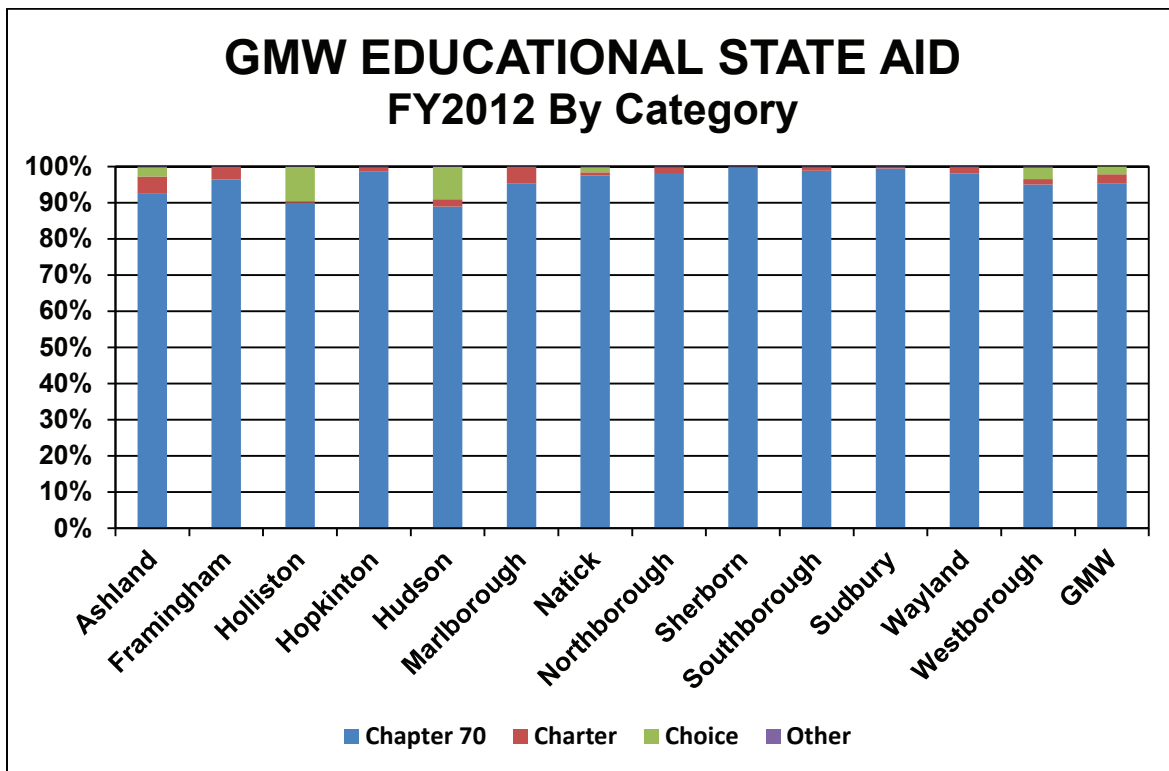
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- This graph shows per capita state aid given directly to each of the 13 communities in Greater MetroWest (GMW) as well as averages for the region and the state for FY2012. State aid per capita is calculated by dividing the sum of the aid given to a community by the population of the community.
- State aid given to the communities ranged from a low of \$162 per person in Sherborn to a high of \$605 per person in Hudson. The regional average for state aid per capita was \$422 per person.
- The Massachusetts average state aid per capita for all municipalities was \$674 per person. All thirteen communities in Greater MetroWest received less than the Massachusetts average.

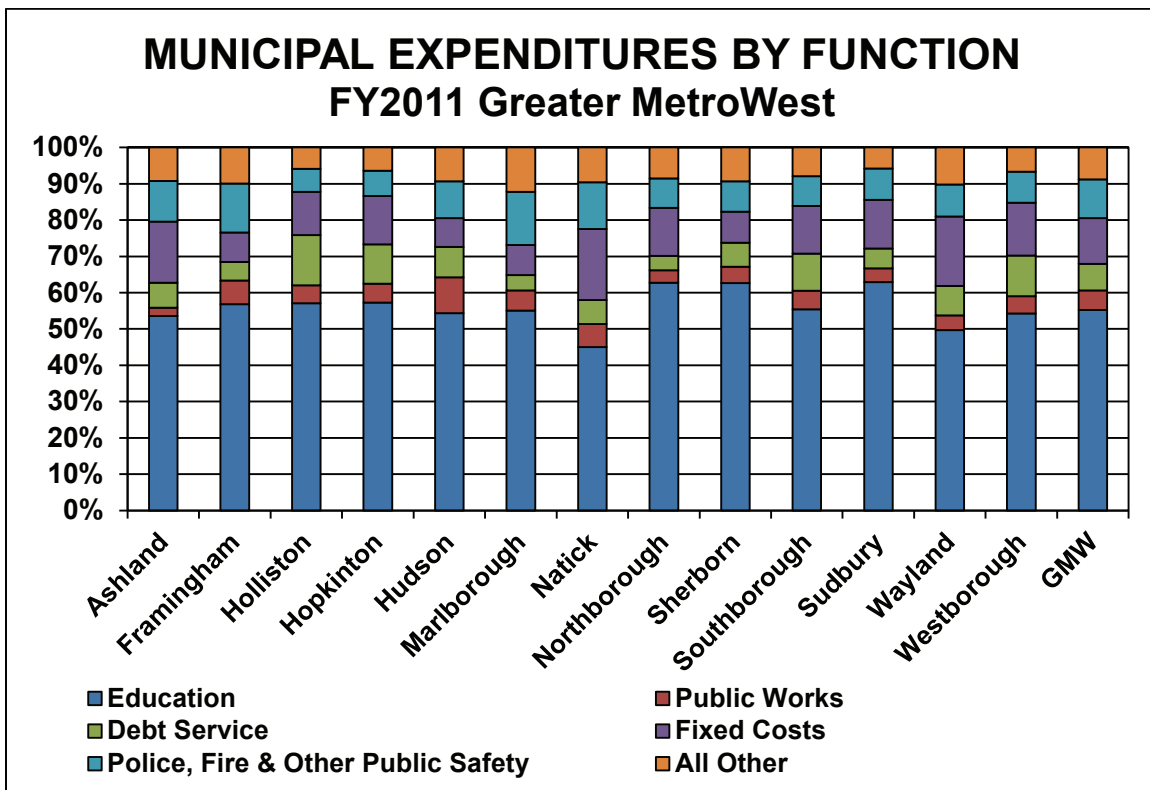
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2012 Greater MetroWest (GMW) received educational state aid in excess of \$91.5 million. This graph breaks down the aid into three major categories: Chapter 70, charter tuition assessment reimbursement, and school choice. A fourth category, called “other” is too insignificant to appear on the graphs.
- Community totals for educational state aid ranged from a low of \$501,653 in Sherborn to a high of \$22,840,629 in Framingham. Please note, that Sherborn’s regional schools received additional funds.
- Chapter 70 accounts for 95.3% of the educational state aid received by the region. Totals of Chapter 70 state aid range from 99.6% in Sherborn to 88.9% in Hudson.
- Twelve of the communities, all except Sherborn, received aid for charter tuition assessment reimbursement. These totals ranged from \$11,708 in Sudbury to \$780,041 in Framingham. Of the thirteen communities, only Ashland, Holliston, Hudson, Natick and Westborough received state aid for school choice tuition.

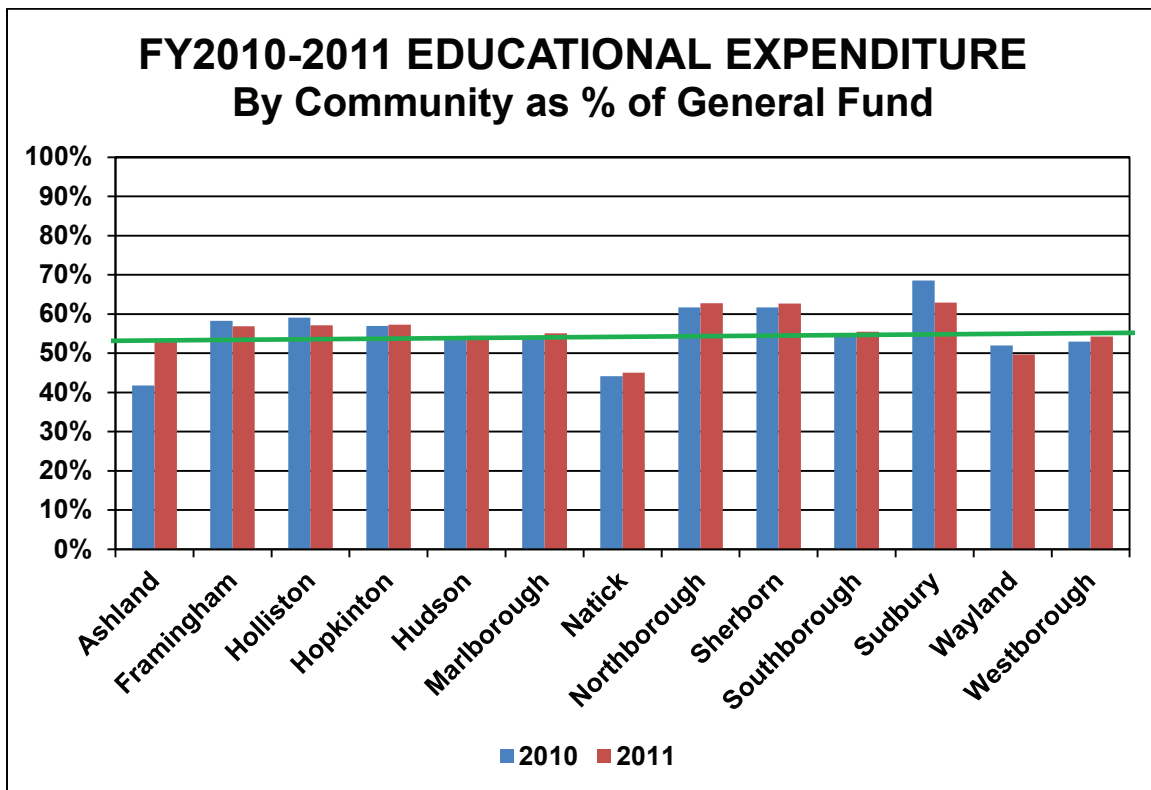
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Total general fund expenditures in FY2011 in Greater MetroWest (GMW) were \$890.5 million, an increase of \$12 million from FY2010.
- Municipal expenditures are classified into six main categories: education, public works, debt service, fixed costs, police, fire & other public safety and all other.
- Of the thirteen communities, only Natick and Wayland had less than 50% of their municipal expenditures go to education. These totals ranged from a low of 45.1% in Natick to 62.9% in Sudbury compared to the GMW average of 55.2%.
- The remaining categories varied by community. For the region fixed cost was the second highest expenditure at 12.6%. Public works had the lowest expenditure in the region, at just 5.4%. Debt services, police, fire and other public safety and “all other” had percentages of 7.3%, 10.6% and 8.8% respectively for the region.

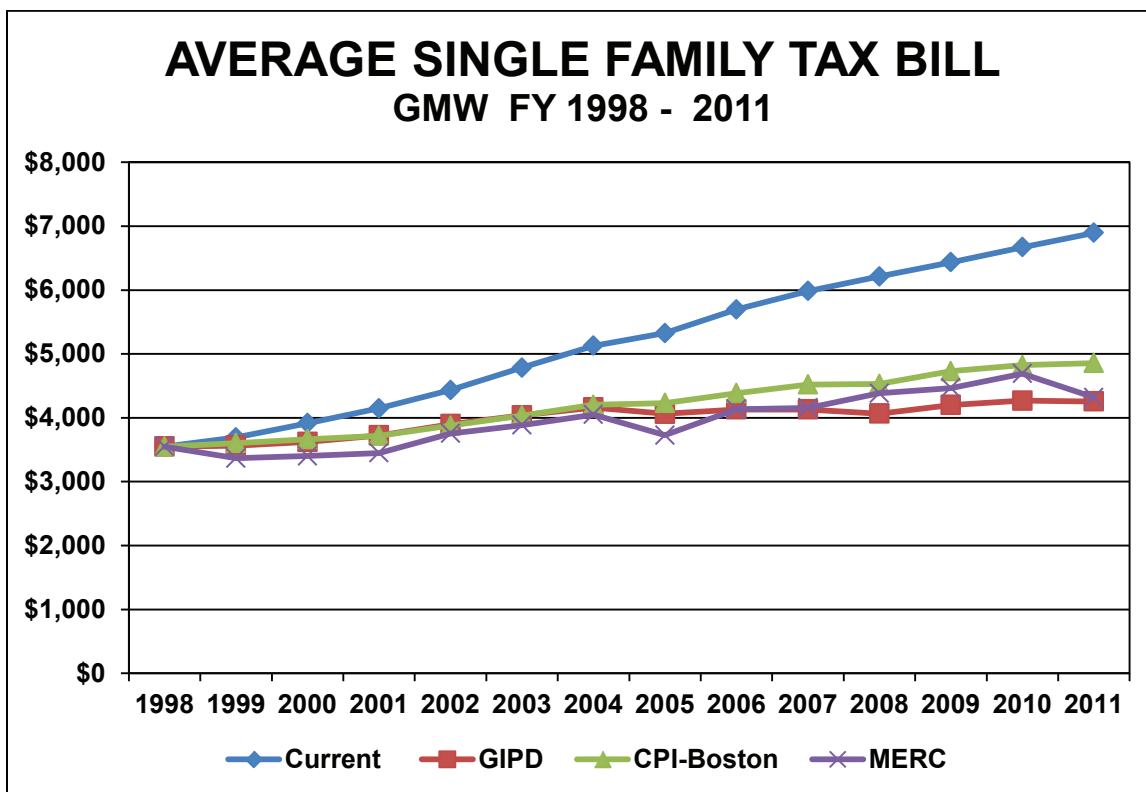
GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- This graph shows educational expenditures as a percentage of the general fund in FY2010 in blue and FY2011 in red for the communities that make up Greater MetroWest (GMW).
- In 2010, total educational expenditures in GMW totaled \$480 million or 55% of the total general fund expenditures for GMW. In FY2011 the total educational expenditure was \$492 million, also 55% of total general fund expenditures. The green line represents the GMW average of 55% for both FY2010 and FY2011.
- Of the thirteen communities seven had educational expenditure percentages that were higher than the 55% GMW average in both fiscal years FY2010 and FY2011. Those communities were: Framingham, Holliston, Hopkinton, Northborough, Sherborn, Southborough and Sudbury.
- The six remaining communities either had one or both years at or below the 55% regional average. Those communities were: Ashland, Hudson, Marlborough, Natick, Wayland and Westborough.

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 FY1998 to FY2011. The values are measured in nominal, or current, dollars and also adjusted for inflation.
- The actual single family tax bill, shown in blue, increased every year during this time period from \$3,548 in FY1998 to \$6,896 in FY2011.
- Three different price indexes were used to reveal the inflation-adjusted dollar increase for the average single family tax bill: MERC's MetroWest Cost of Living Index, the Boston Consumer Price Index (CPI) and the State and Local Government Implicit Price Deflator (GIPD).
- All three inflation adjustments yielded higher total tax bills in FY2011 than in FY1998. The Boston CPI produced the largest increase in the tax bill over the period, an increase of \$1,310, followed by the MERC index at \$771 and the GIPD increasing \$708.

GREATER METROWEST - K-12 ENROLLMENT

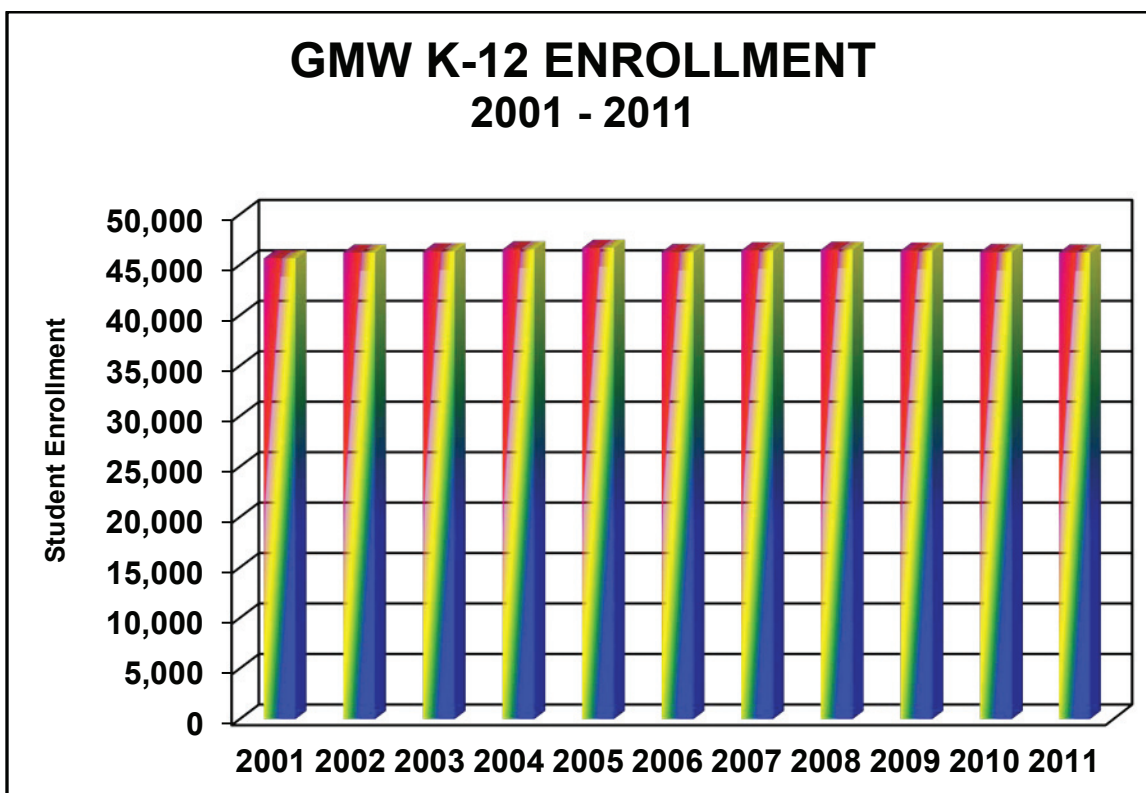
K-12 PUBLIC SCHOOL ENROLLMENT

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

In many communities kindergarten enrollment typically increases 10% upon entry into the first grade; this is noted with an asterisk* next to K.

The Massachusetts Department of the Elementary and Secondary Education implemented a student enrollment database, the Student Information Management System (S.I.M.S.) in 2000. The MERC K-12 data presented in this report are obtained from both the October 2011 S.I.M.S. student census and data provided directly to MERC by the local school districts.

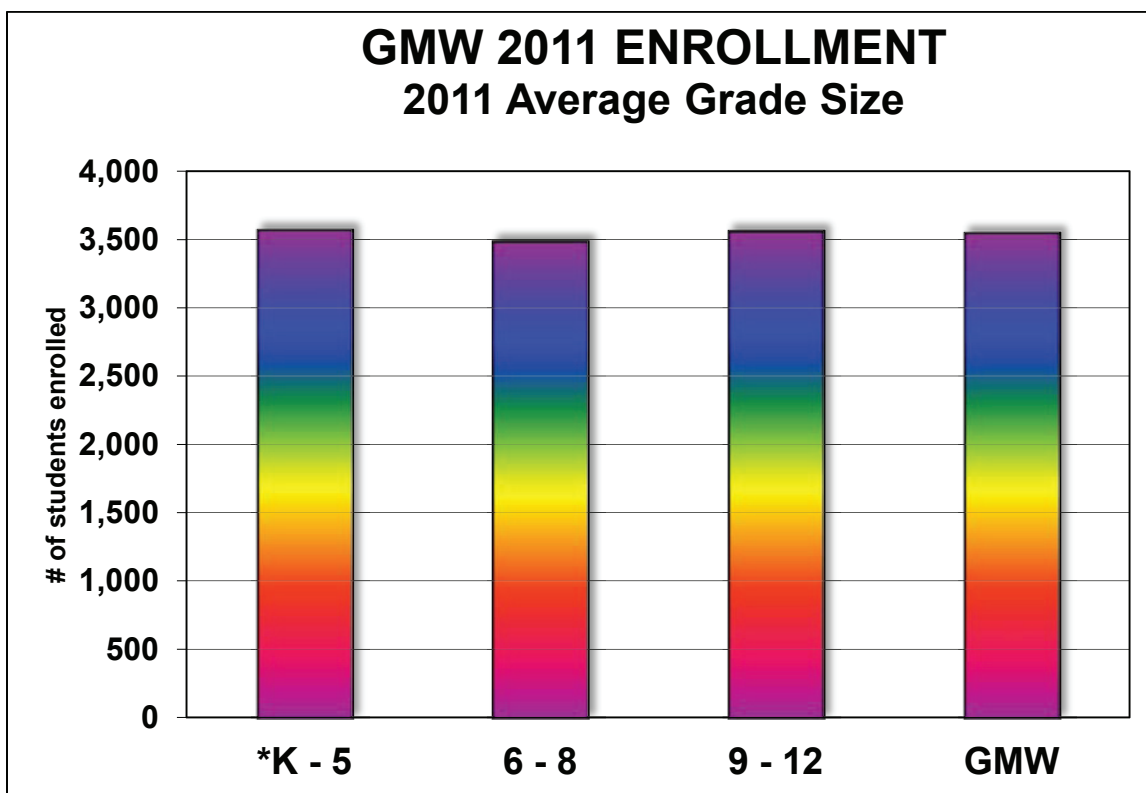
GREATER METROWEST – K-12 ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Public school enrollment in Greater MetroWest (GMW) experienced a 1.16% increase from 2001 to 2011. Student enrollment in 2001 was 45,631 and was 46,162 in 2011. The student enrollment for the vocational schools is included in the above graph but enrollment in charter schools is not included.
- Student enrollment in Greater MetroWest increased by 2.3% from 2001 to 2005.
- Greater MetroWest student enrollment from 2005 to 2011 declined by 1.11%.

GREATER METROWEST – K-12 ENROLLMENT

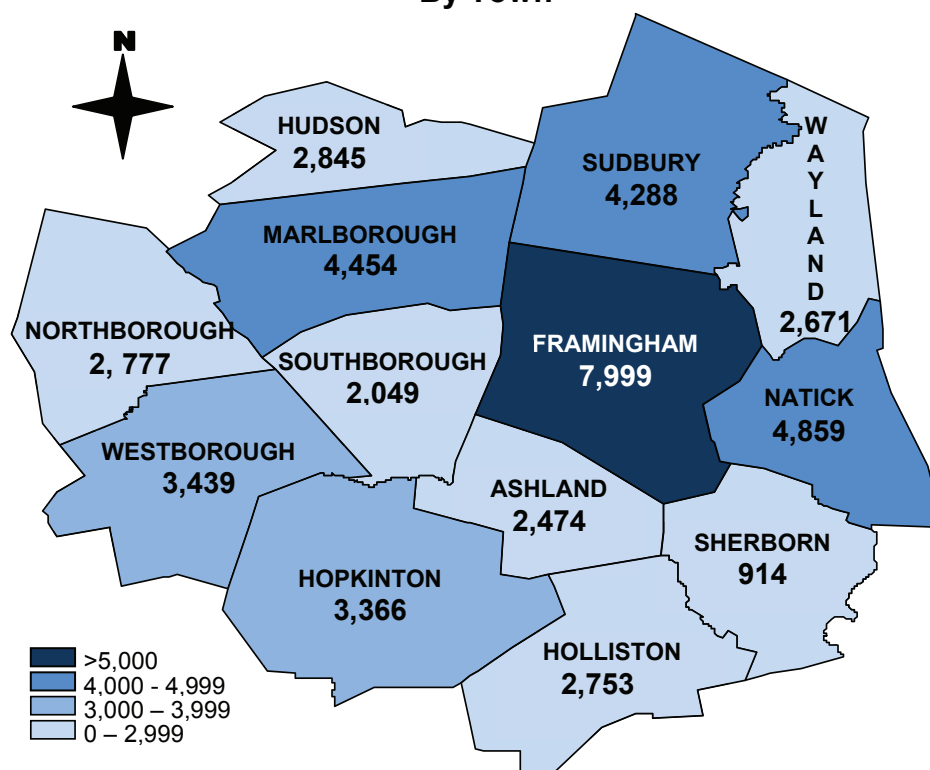


Source: MA Department of Elementary and Secondary Education and MERC

- Greater MetroWest (GMW) K-12 public school enrollment averaged 3,551 students per grade in 2011. The regional average grade enrollment decreased 0.23% from 2010 to 2011.
- In 2011 the average number of students per grade at the elementary school level, kindergarten through fifth grade, was 3,573. This represents an increase of 0.11% from 2010.
- At the middle school level, grades 6 through 8, the average number of students per grade was 3,489, an increase of 0.40% compared to 2010.
- The average number of students per grade at the high school level was 3,565, a decrease of 1.17% relative to 2010.
- Charter school enrollment is not included in the average grade size calculations.

GREATER METROWEST - K-12 ENROLLMENT

GMW 2011 Public School Enrollment By Town

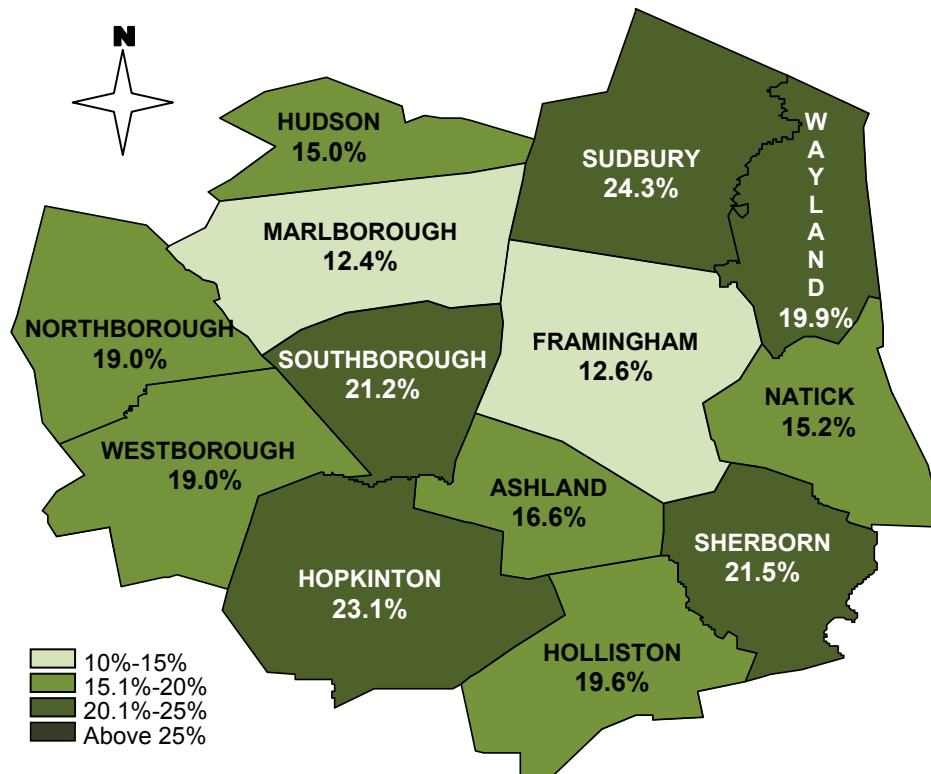


Source: MA Department of Elementary and Secondary Education and MERC

- K-12 public school enrollment in Greater MetroWest (GMW) totaled 44,888 students. This figure does not include students enrolled in charter schools and vocational schools.
- The community reporting the highest enrollment was Framingham having a student enrollment of 7,999. In October 2011, Marlborough, Natick, and Sudbury had enrollments between 4,000 and 4,900 students. Hopkinton and Westborough each had about 3,400 students enrolled.
- Ashland, Holliston, Hudson, Northborough, Southborough, and Wayland had enrollments between 2,000 and 3,000 students. Sherborn reported the smallest enrollment at 914 students.
- Enrollment in vocational high school for Greater MetroWest totaled 1,274 students in 2011. These students are not included in the figure reported in the map above. Vocational student enrollment had a slight decrease from 2010.
- Enrollment in the charter schools totaled 1,232 students in 2011, up 1.4% from 2010.

GREATER METROWEST – K-12 ENROLLMENT

GMW PUBLIC SCHOOL ENROLLMENT As Percentage of 2011 Population



Source: U. S. Census and MERC

- K -12 public school enrollment in Greater MetroWest (GMW) for 2011 was 46,162 students. This figure does not include 1,232 students enrolled in charter schools.
- This map measures the proportion of the community's population enrolled in public school. Public school enrollment in 2011 is given as a percentage of 2011 population estimated from recent census data. The highest percentage occurred in Sudbury, followed closely by Hopkinton. In these communities, about 1 in 4 residents were in public schools.
- Over 20% of the population in the communities of Hopkinton, Sherborn, Southborough, and Sudbury attend public school.
- Framingham and Marlborough with the largest populations and public school enrollments also reported the smallest percentage of population in public school. About 1 in 8 residents are enrolled in public school.

APPENDIX

North American Industry Classification System (NAICS)

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

NAICS Supersectors*

Goods-Producing Domain (GPD)

Natural Resources and Mining Supersector

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

Construction Supersector

- 23 Construction

Manufacturing Supersector

- 31-33 Manufacturing

Service Producing Domain (SPD)

Trade, Transportation and Utilities Supersector

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

Information Supersector

- 51 Information

Financial Activities Supersector

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

Professional and Business Services Supersector **

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

Education and Health Services Supersector

- 61 Educational Services
- 62 Health Care and Social Assistance

Leisure and Hospitality Supersector

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

Other Services Supersector

- 81 Other Services (except Public Administration)

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

NAICS Sectors

Natural Resources and Mining Supersector:

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

APPENDIX

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

Construction Supersector:

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

Manufacturing Supersector:

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

Trade, Transportation and Utilities Supersector:

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

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

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

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

Information Supersector:

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

Financial Activities Supersector:

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

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

Professional and Business Services Supersector:**

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

APPENDIX

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

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

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

Education and Health Services Supersector:

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

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

Leisure and Hospitality Supersector:

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

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

Other Services Supersector:

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

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

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

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

SOURCES

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