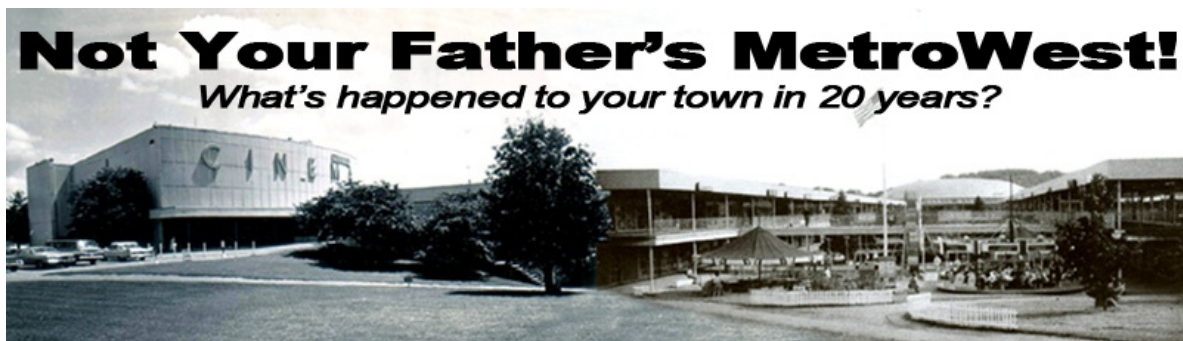


# **METROWEST/GREATER MARLBOROUGH**

# **Economic Profile 2011<sup>©</sup>**

In conjunction with the 19<sup>TH</sup> Annual MERC<sup>TM</sup> Conference



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**May 2011**



**Framingham**  
State University

MetroWest Economic  
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# Framingham State University

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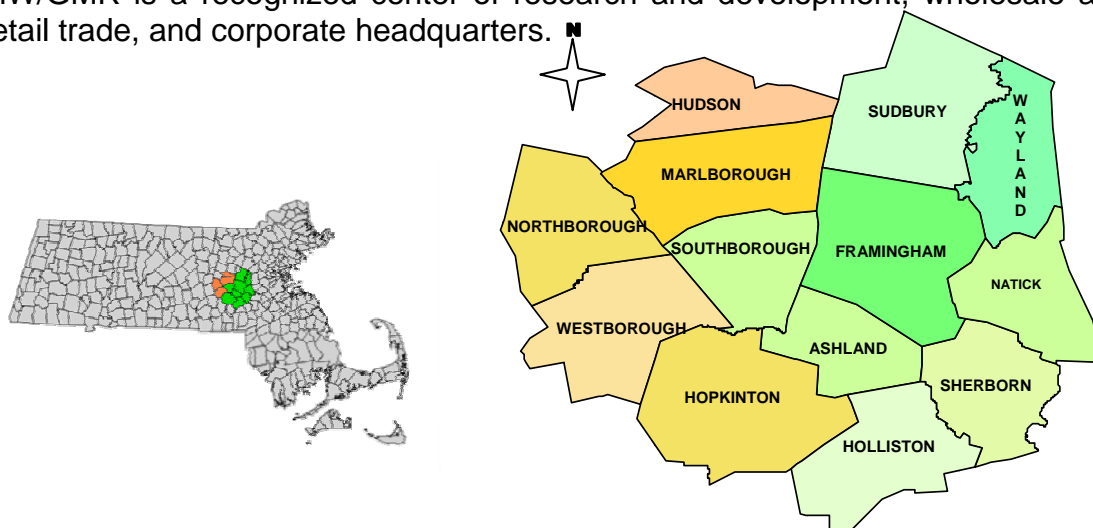


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## INTRODUCTION

The combined MetroWest and Greater Marlborough Region (MW/GMR) includes thirteen communities located between Boston and Worcester: the nine towns of the MetroWest Cohesive Commercial Statistical Area (CCSA), and the four communities of the Greater Marlborough Region. With a population of about 281,000, the region hosts a very well educated and highly skilled labor force of nearly 155,000 individuals who reside in households with high incomes when compared to the state and the nation. Strategically located between Boston and Worcester, MW/GMR 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 2009 the MetroWest/Greater Marlborough Region businesses generated more than 174,000 jobs and a payroll exceeding \$11.3 billion. The region provides 4.5% of the Massachusetts labor force, 5.6% of Massachusetts employment and 6.4% 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, MW/GMR is a recognized center of research and development, wholesale and retail trade, and corporate headquarters.



The *2011 MetroWest/Greater Marlborough Region 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.

# **MetroWest / Greater Marlborough Economic Profile 2011**

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# **METROWEST/GREATER MARLBOROUGH - UNEMPLOYMENT**

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

Each month the MetroWest Economic Research Center (MERC) at Framingham State University calculates a composite unemployment rate for the combined MetroWest and Greater Marlborough Region. The unemployment rate is household-based and reflects the labor market status of the **residents** of the region. The information for the rate is obtained from the Massachusetts Department of Workforce Development, Division of Unemployment Assistance 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 2011 unemployment rate in Framingham of 5.9% was based on the following information: the size of the labor force was **estimated** at 37,661 workers, the sum of 35,421 residents who were employed and 2,240 residents who were unemployed. The rate, expressed as a percentage, was obtained by dividing the unemployed (2,240) by the labor force (37,661) and multiplying by 100 to get the unemployment rate of 5.9%.

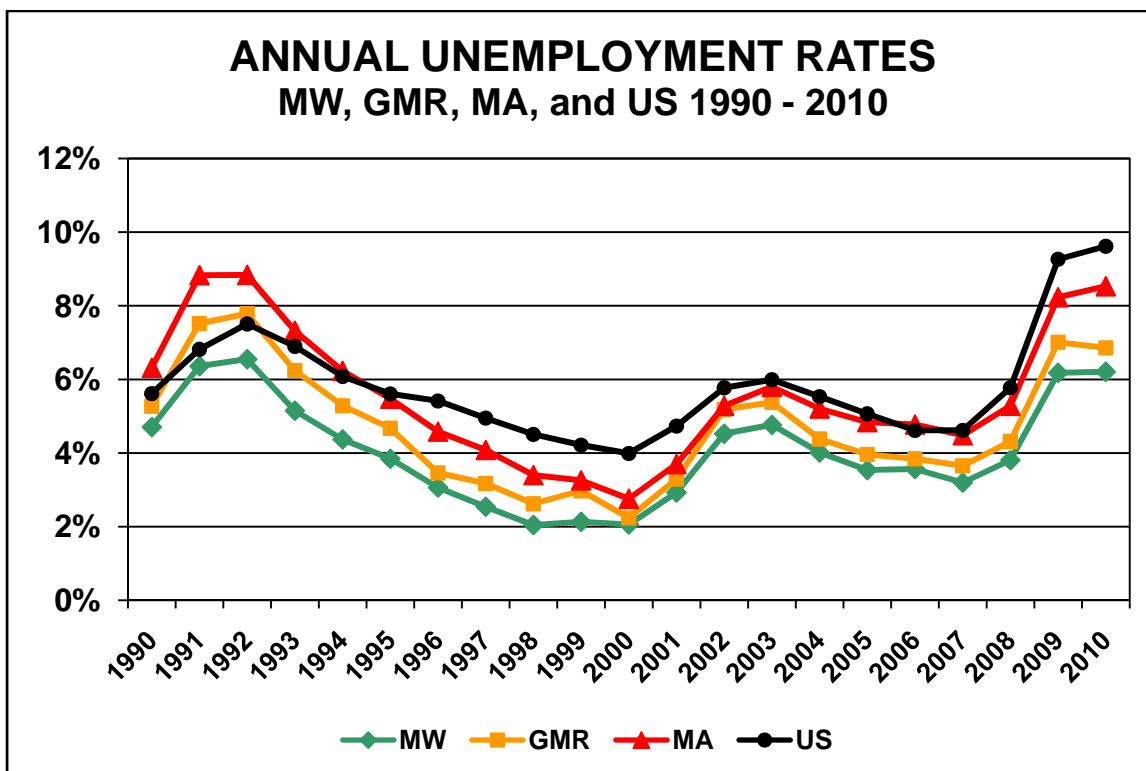
Not everyone in the working age population is included in the labor force. Individuals who were in the working age population but who could not be classified as employed or unemployed (a full time homemaker, for example) would not be counted in the labor force.

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

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<sup>1</sup>The definition of terms such as labor force, employed, and unemployed are based on those in *The BLS Handbook of Methods*, U. S. Bureau of Labor Statistics, April 2003.

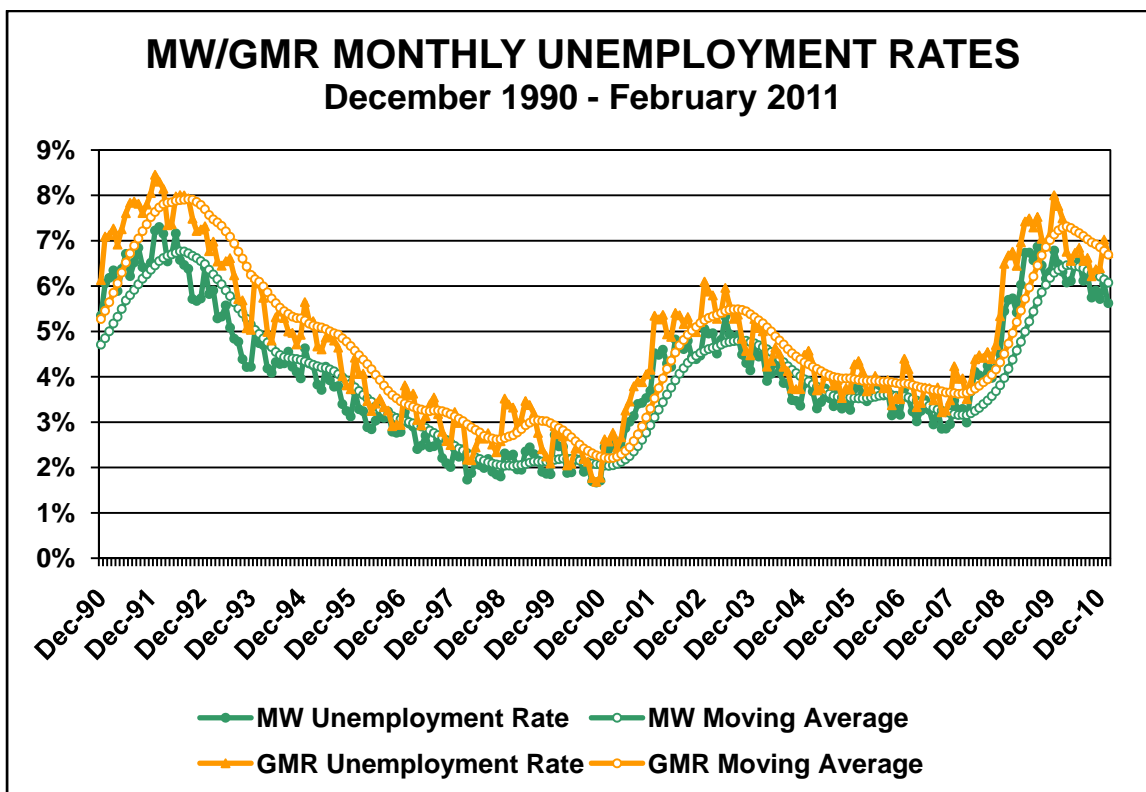
## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT



Source: MA Division of Unemployment Assistance and MERC

- The annual unemployment rates for MetroWest, the Greater Marlborough Region, Massachusetts and the United States from 1990 to 2010 are calculated by averaging the monthly unemployment rates for each year.
- In 2010 the annual unemployment rate in MetroWest remained at its 2009 rate of 6.2%, after rising from 3.8% in 2008.
- The annual unemployment rate in the Greater Marlborough Region decreased slightly from 7.0% in 2009 to 6.9% in 2010, the first decrease since 2007.
- Both Massachusetts and the United States displayed increases in their unemployment rates of 0.3% in 2010. Massachusetts witnessed an increase from 8.2% in 2009 to 8.5% in 2010 while the nation posted an increase from 9.3% to 9.6% in the same period.
- 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.

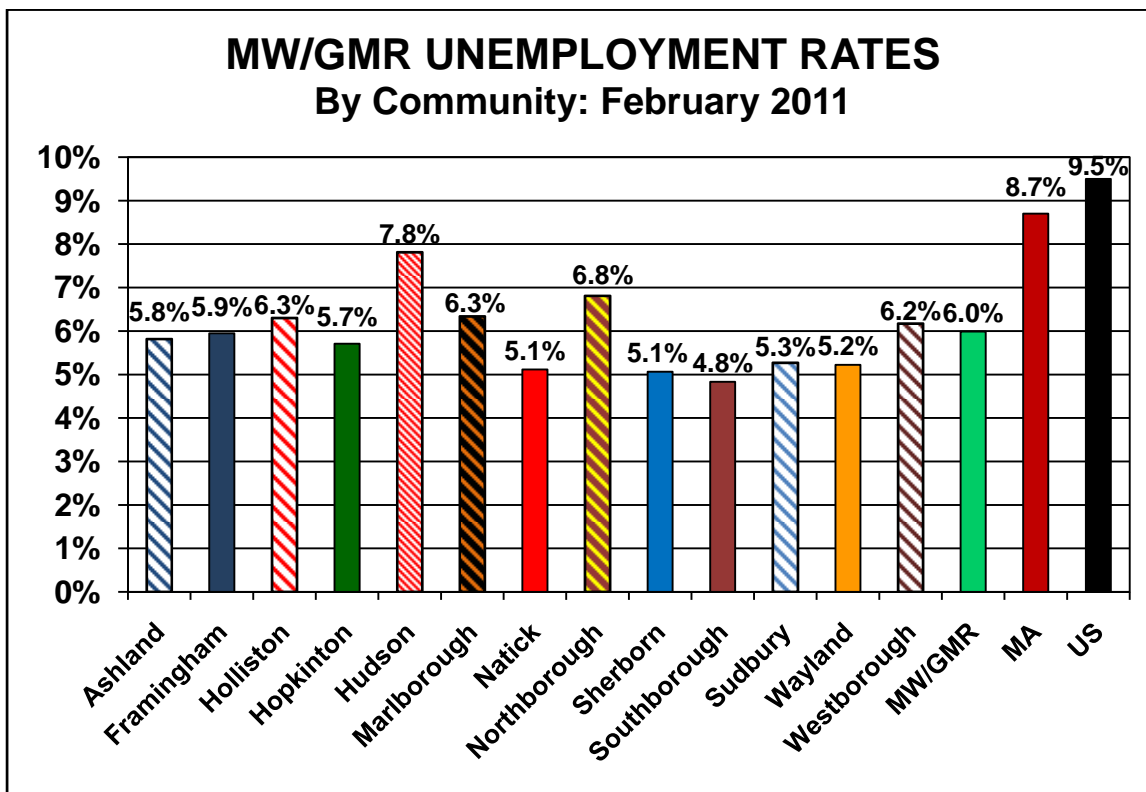
## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT



Source: MA Division of Unemployment Assistance and MERC

- This graph examines the monthly unemployment rate and the 12-month moving average rate for MetroWest (shown in green) and the Greater Marlborough Region (shown in orange) from December 1990 to February 2011. The 12-month moving average smooths out the seasonal variation of the data.
- In February 2011 the unemployment rate in MetroWest was 5.6%, a decrease of -0.4% from the previous month's rate of 6.0%. The unemployment rate in the Greater Marlborough Region in February 2011 was 6.7%, a decrease of -0.3% from the previous month's rate of 7.0%
- In the most recent recession, unemployment rates in MetroWest and the Greater Marlborough Region peaked in January 2010 at 6.8% and 8.0% respectively. These peaks were lower than the peaks reached during the recession in the early 1990s, when unemployment rates in MetroWest and the Greater Marlborough Region reached 7.3% in February 1992 and 8.5% in January 1992 respectively.

## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT

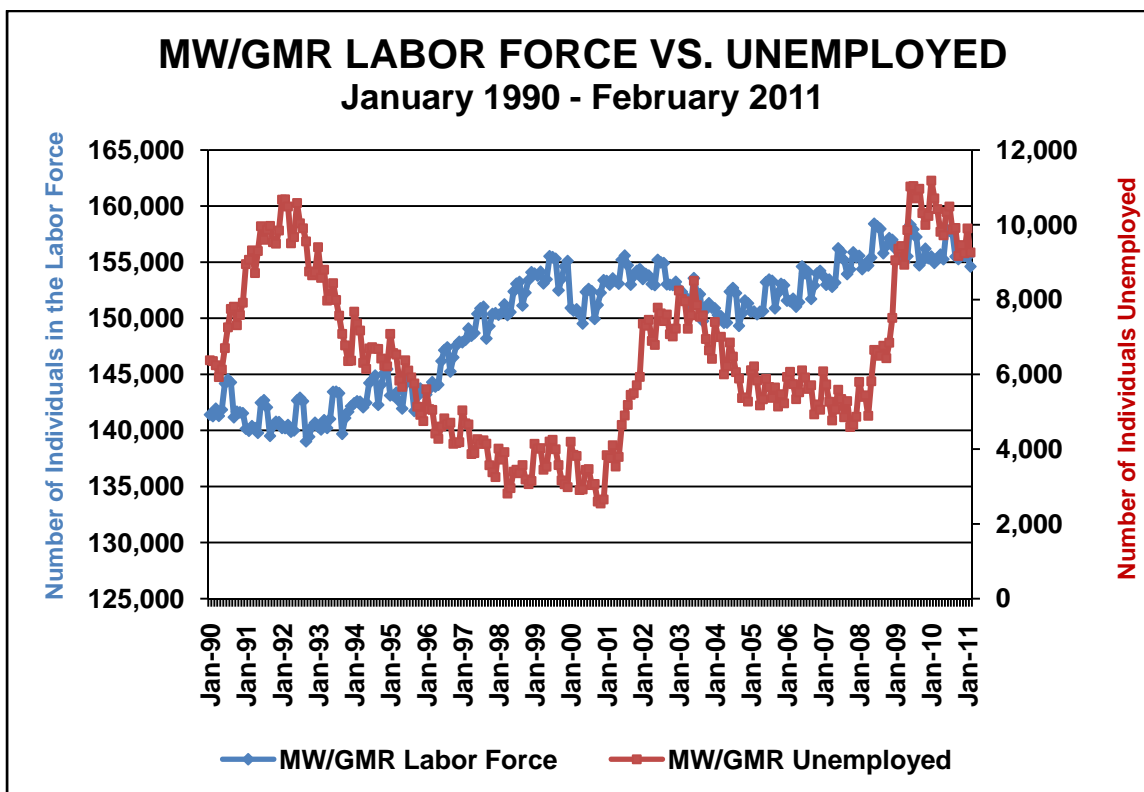


Source: MA Division of Unemployment Assistance and MERC

- In February 2011 each of the thirteen communities in the combined MetroWest and Greater Marlborough Region (MW/GMR) posted lower unemployment rates than the Massachusetts rate and the United States rate of 8.7% and 9.5% respectively.
- Among the thirteen communities in MW/GMR, Holliston, Hudson, Marlborough, Northborough and Westborough were the five communities that posted unemployment rates higher than the combined region's rate of 6.0% in February 2011.
- Hudson posted the highest unemployment rate of 7.8%. The second highest unemployment rate in the combined region was posted by Northborough at 6.8%, followed by Holliston and Marlborough at 6.3%.
- The lowest unemployment rate in the combined region in February 2011 was posted by Southborough at 4.8%, followed by Natick and Sherborn at 5.1%.



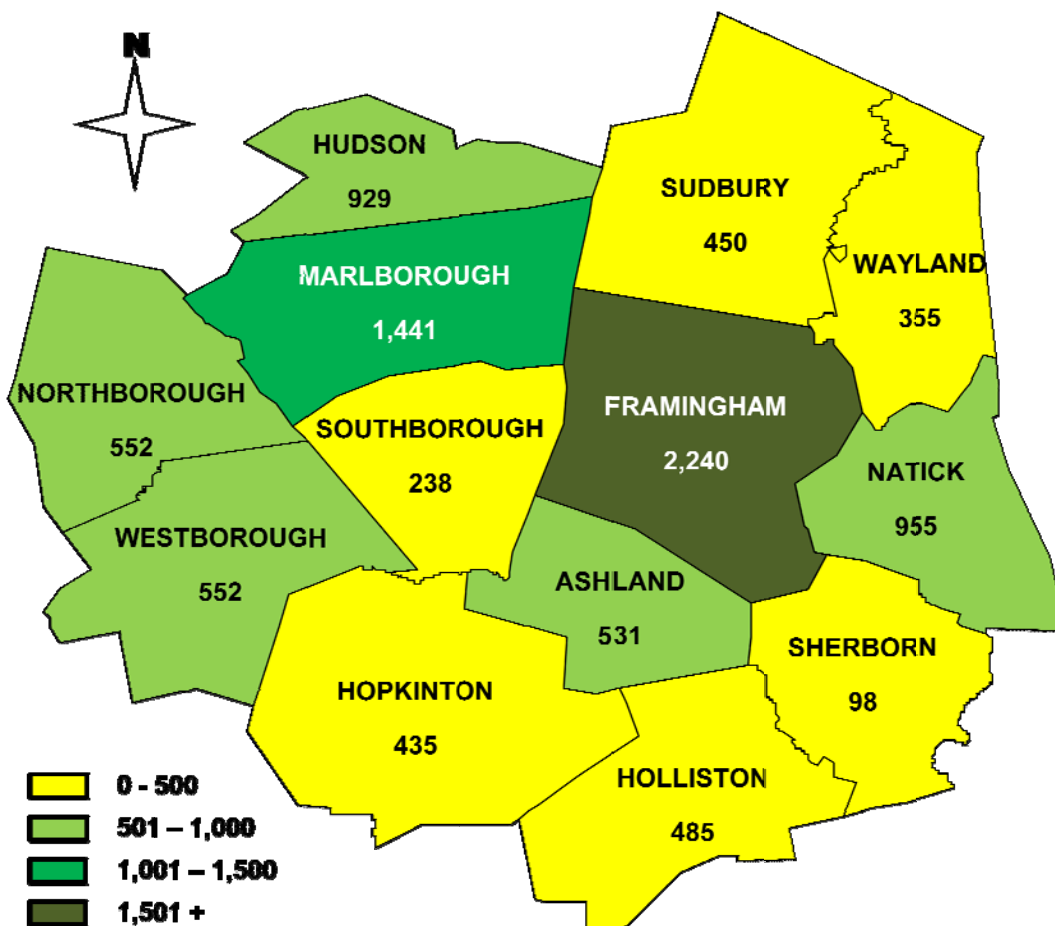
## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT



Source: MA Division of Unemployment Assistance and MERC

- The number of individuals in the labor force in the combined MetroWest and Greater Marlborough Region (MW/GMR) between January 1990 and February 2011 is shown in blue, measured on the left-hand scale, and the number of individuals unemployed is shown in red, measured on the right-hand scale. 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 modest fluctuation until reaching its highest point of 158,420 in June 2008. In February 2011, the total labor force in the combined region was 154,611 individuals.
- The total number of individuals unemployed reached its lowest point of 2,545 individuals in November 2000. Since then, the number of individuals fluctuated until reaching its highest point of 11,184 persons unemployed in January 2010. In February 2011 the number of individuals unemployed was 9,261.

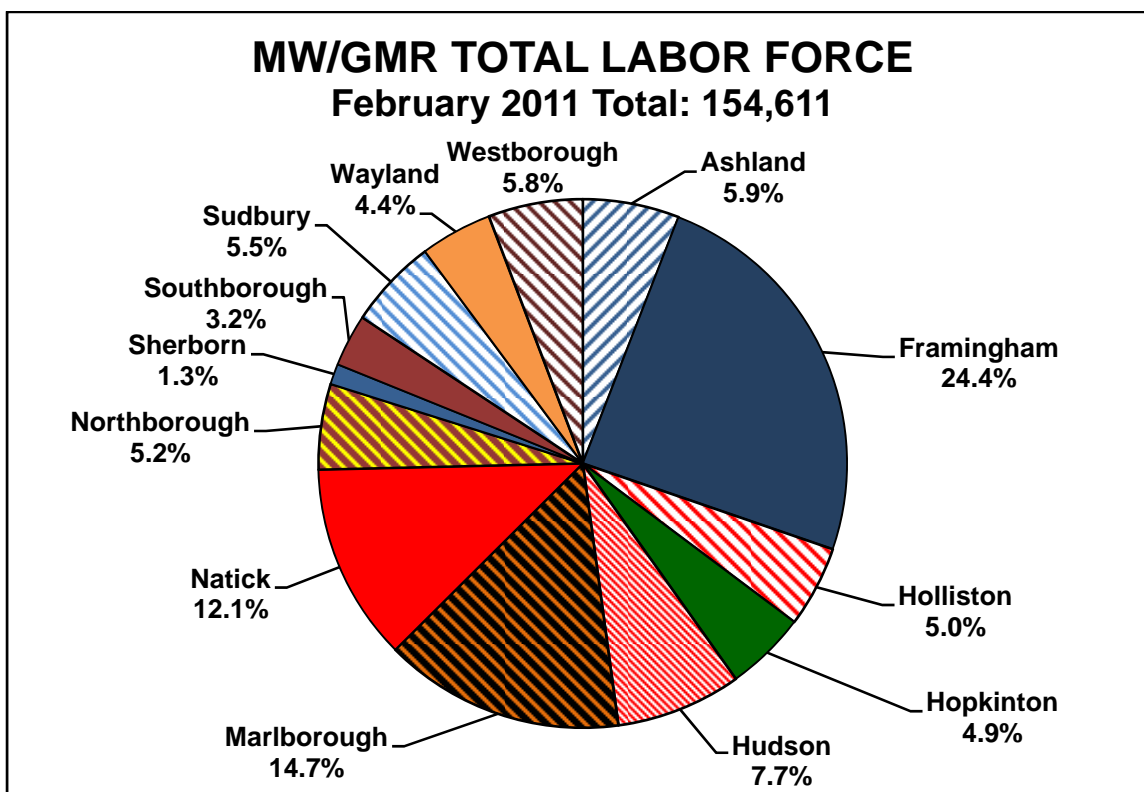
**MW/GMR NUMBER OF UNEMPLOYED**  
**February 2011 Total: 9,261**



*Source: MA Division of Unemployment Assistance and MERC*

- In February 2011 the total number of unemployed individuals in the combined MetroWest and Greater Marlborough Region (MW/GMR) was 9,261.
- Among the thirteen communities in the combined region, Framingham had the largest number of unemployed individuals with 2,240, followed by Marlborough with 1,441 individuals and Natick with 955 individuals. Together, Framingham, Marlborough and Natick accounted for half of the total number of individuals unemployed within the combined region.
- Sherborn had the smallest number of unemployed individuals at 98, followed by Southborough and Wayland at 238 and 355 individuals respectively.

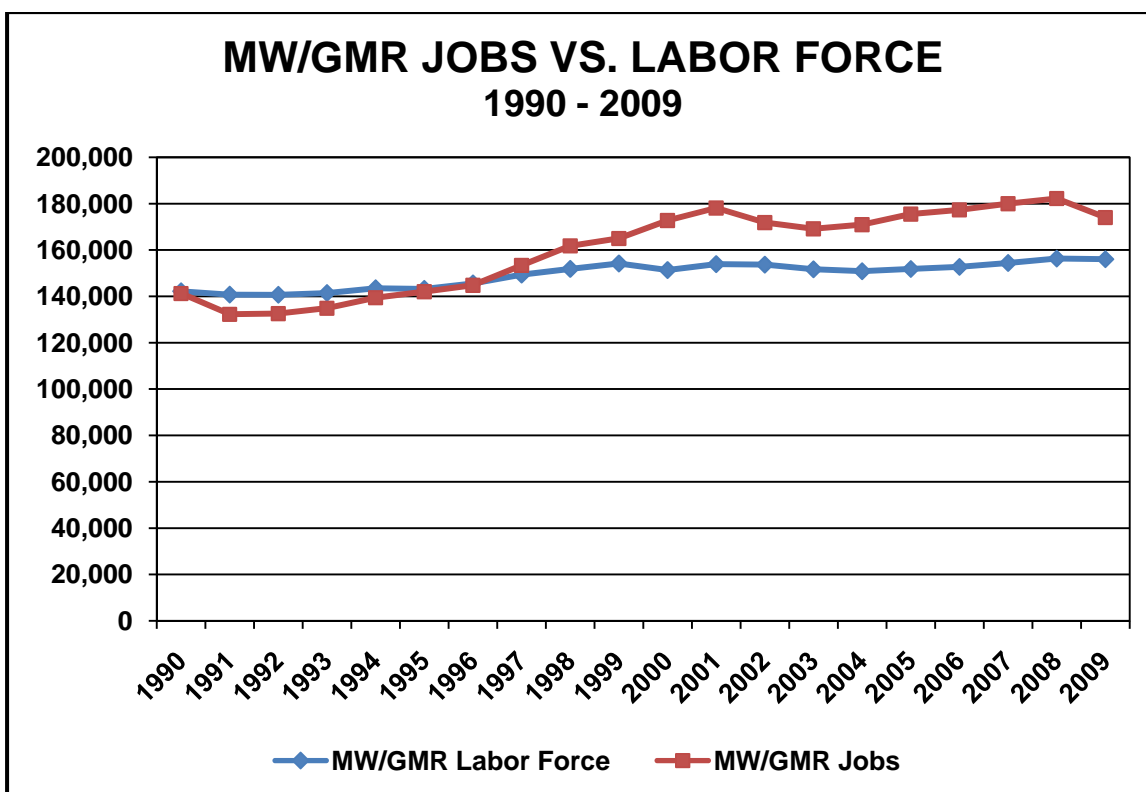
## **METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT**



*Source: MA Division of Unemployment Assistance and MERC*

- The total labor force in the combined MetroWest and Greater Marlborough Region (MW/GMR) in February 2011 was 154,611 individuals.
- The Greater Marlborough Region contributed 51,653 individuals, or approximately 33% of the total labor force while MetroWest contributed 102,958 individuals, or approximately 67% of the total labor force.
- Among the communities in the combined region, Framingham contributed the largest portion of the labor force with 24.4%, or 37,661 individuals. Marlborough was the second largest contributor at 14.7%, or 22,727 individuals, followed by Natick at 12.1%, or 18,670 individuals. About half of the total labor force in the combined region was provided by these three communities.
- Sherborn was the smallest contributor to the labor force in the combined region with 1.3%, or 1,935 individuals, followed by Southborough with 3.2%, or 4,925 individuals, and Wayland with 4.4%, or 6,795 individuals.

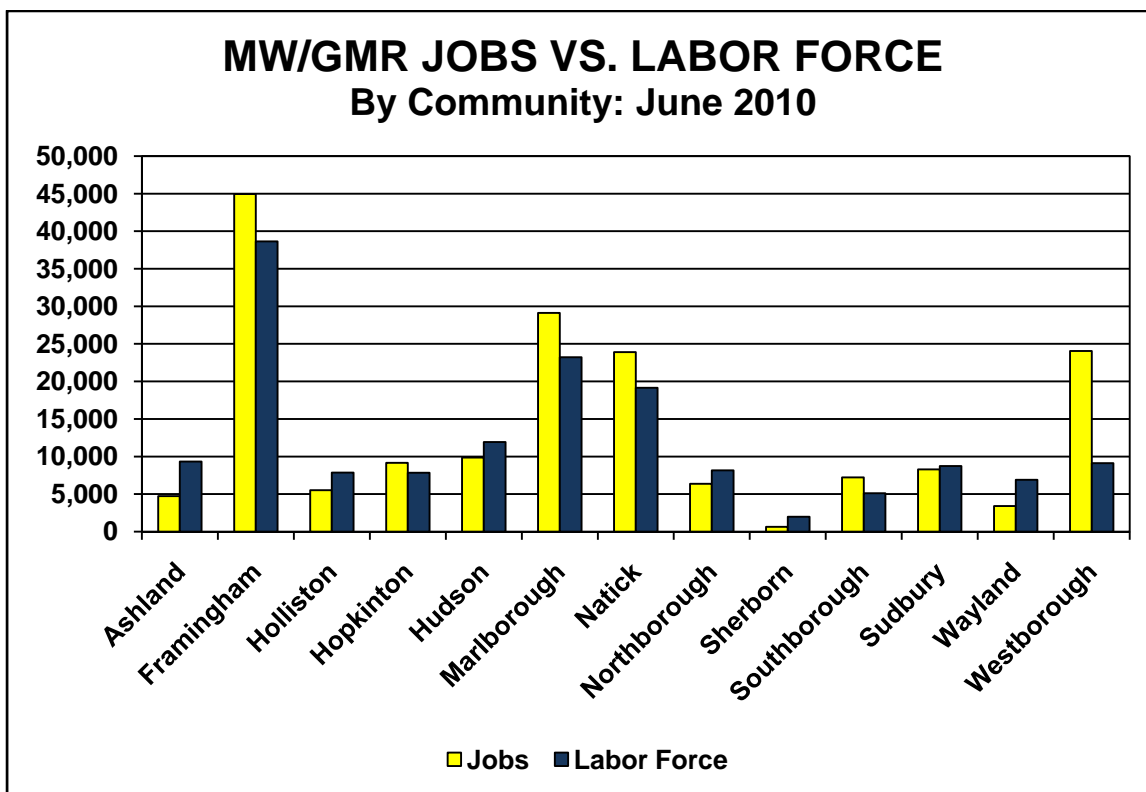
## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT



Source: MA Division of Unemployment Assistance and MERC

- The total number of individuals in the labor force is shown in blue and the total number of jobs is shown in red in the combined MetroWest and Greater Marlborough Region (MW/GMR) from 1990 to 2009. Jobs refer to the total number of jobs in establishments located in MW/GMR while the labor force consists of residents in MW/GMR that are currently employed or unemployed.
- From 1990 to 1996, the number of jobs in MW/GMR was smaller than the number of individuals in the labor force, implying that the region was a net exporter of labor. Between 1997 and 2009, 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.
- From 2008 to 2009 the number of jobs in MW/GMR decreased by 8,189 jobs, the largest single-year decrease in the number of jobs in MW/GMR in the last two decades.

## METROWEST/GREATER MARLBOROUGH – UNEMPLOYMENT



Source: MA Division of Unemployment Assistance 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, in each community in the combined MetroWest and Greater Marlborough Region (MW/GMR) in June 2010. 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.
- In June 2010 there were 177,196 jobs in MW/GMR. Framingham contributed the highest number of jobs with 44,941. The second highest number of jobs was provided by Marlborough with 29,116 jobs, followed by Westborough with 24,046 jobs and Natick with 23,904 jobs. About two-thirds of the total number of jobs in the combined region in June 2010 was provided by these four communities.
- The total number of jobs in Framingham, Hopkinton, Marlborough, Natick, Southborough and Westborough was larger than the number of individuals in the labor force. 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.

# **METROWEST/GREATER MARLBOROUGH - EMPLOYMENT**

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

The MetroWest Economic Research Center (MERC) at Framingham State University maintains an employment database for the MetroWest CCSA™, the Greater Marlborough Region, the South Shore CCSA, the 495/MetroWest Corridor, and other substate economies. MERC has documented remarkable growth in regional employment and wages as well as major changes in the type and location of industrial employment over the past 30 years. For this publication MERC has developed employment data for the combined MetroWest/Greater Marlborough Region.

MERC research relies on the Massachusetts Executive Office of Labor and Workforce Development, Division of Unemployment Assistance, ES-202 series to develop time series for employment, payroll, wages and establishments in the MetroWest/Greater Marlborough Region. ES-202 data are derived from reports filed by all employers subject to unemployment laws, both state and federal.

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. Since 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.

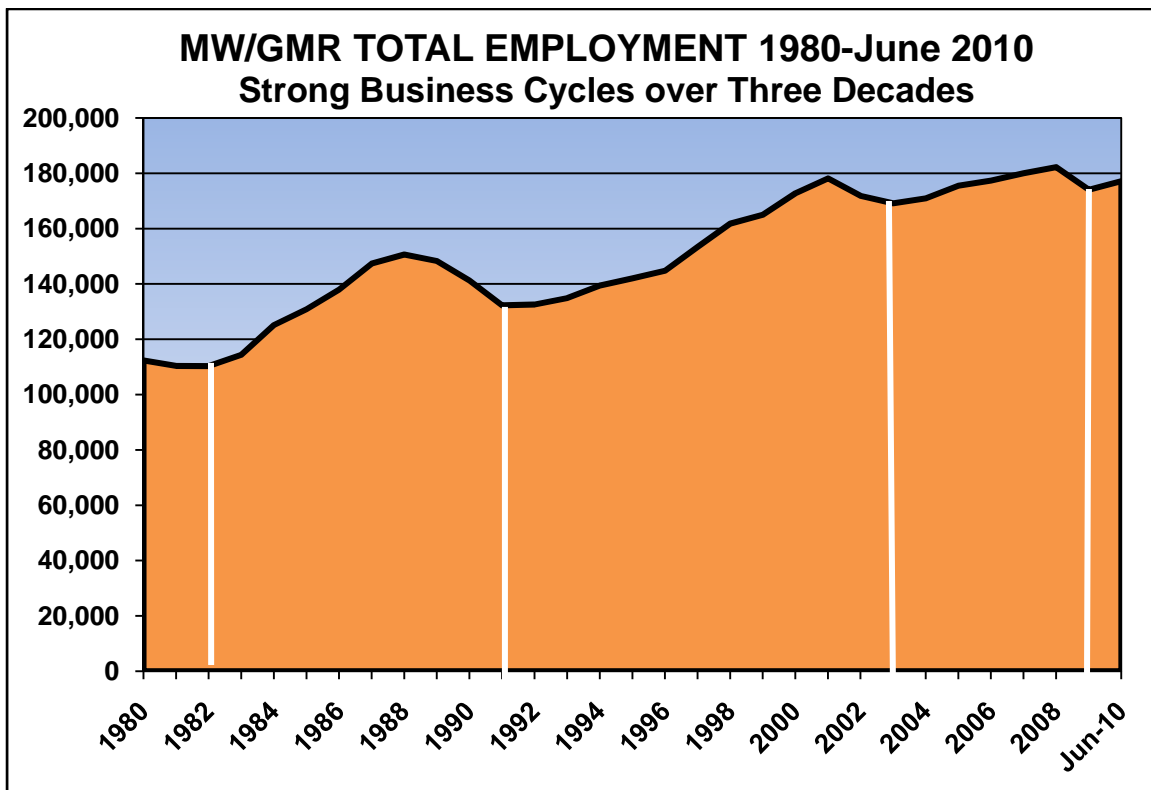
In the ES-202 series **employment** refers to the count of all persons on the payroll of establishments subject to the law, who worked full-time or part-time within the 13 communities of the MetroWest/Great Marlborough Region. Annual **payroll** includes all wages and salaries paid to covered employees 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 (*MetroWest/Greater Marlborough - Employment*) refer to business establishments, *not* residents, located within the 13 communities. Please also note that totals may not always add due to rounding.

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<sup>1</sup>The definition of terms included in this introduction 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*, and the *North American Industry Classification System - United States, 2002*.

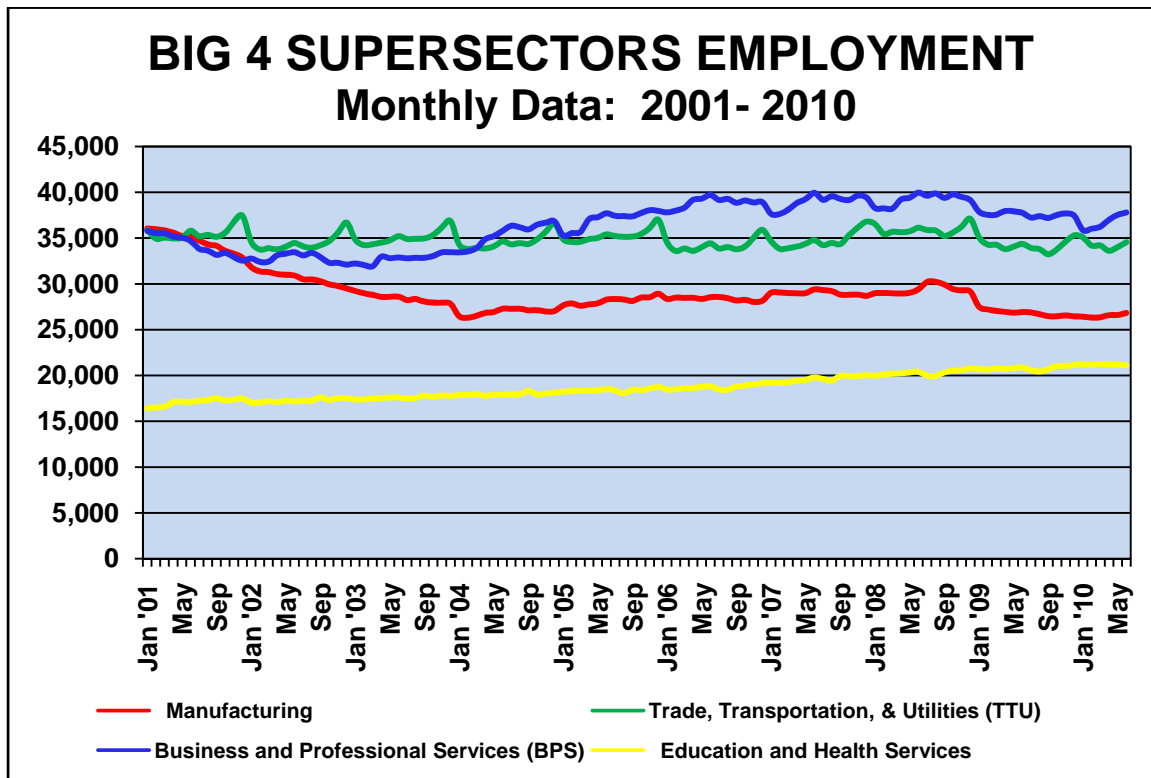
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- Employment in the MetroWest/Greater Marlborough Region (MW/GMR) reached a historical peak of 182,300 jobs in 2008. However, in 2009 employment fell by 8,200 jobs or -4.5% to 174,100 jobs.
- By June 2010 employment had increased to 177,200 jobs.
- During the 2001 - 03 recession, MW/GMR lost 9,000 jobs, a decline of -5%. This decrease exceeded the amount of jobs lost in the 2008 - 09 recession.
- In 1988 MW/GMR employment peaked at 150,700, followed by the 1989 - 91 recession. During this recession the region experienced much more severe losses in employment, down 18,400 jobs or -12.2%.
- Although the region experienced four recessions over three decades, overall MW/GMR employment has increased, adding 61,700 jobs, a 54.9% gain since 1980.

## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT

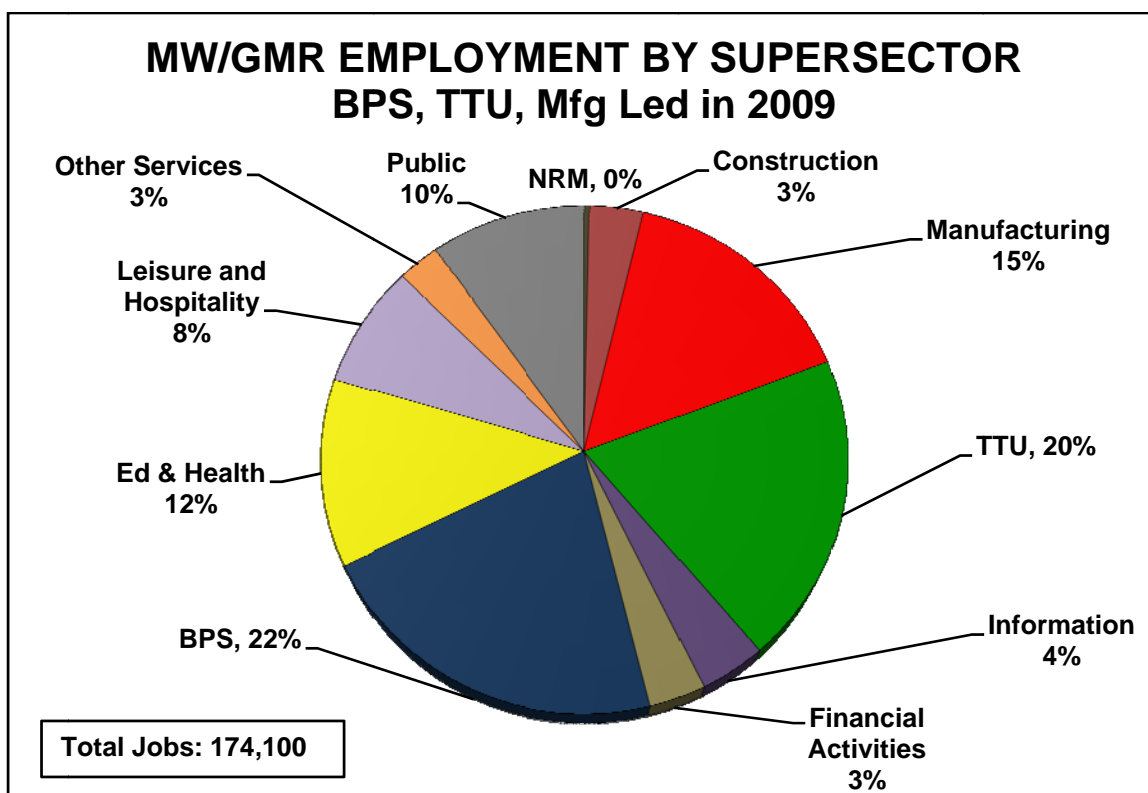


Source: MA Division of Unemployment Assistance, MERC

- MERC at Framingham State University tracks monthly employment data for the MetroWest/Greater Marlborough Region (MW/GMR). Jobs are classified into the 11 supersectors of the North American Industry Classification System (NAICS).
- Four supersectors: Manufacturing, Trade, Transportation & Utilities (TTU), Business & Professional Services (BPS), and Education & Health Services provide over two-thirds of all MW/GMR jobs.
- In January 2001 employment in three of these supersectors: Manufacturing, BPS, and TTU hovered around 36,000 jobs with Education & Health at 16,000 jobs.
- Each of the four supersectors then experienced different employment trends over the decade. Manufacturing employment declined steadily from January 2001 to January 2004, rose from 2004 to 2008, and fell again from September 2008 to February 2009.
- TTU employment remained virtually unchanged, experiencing only seasonal changes.
- BPS, while experiencing some volatility, added jobs from 2001 to 2009. Education & Health Services consistently added jobs in MW/GMR throughout the decade.



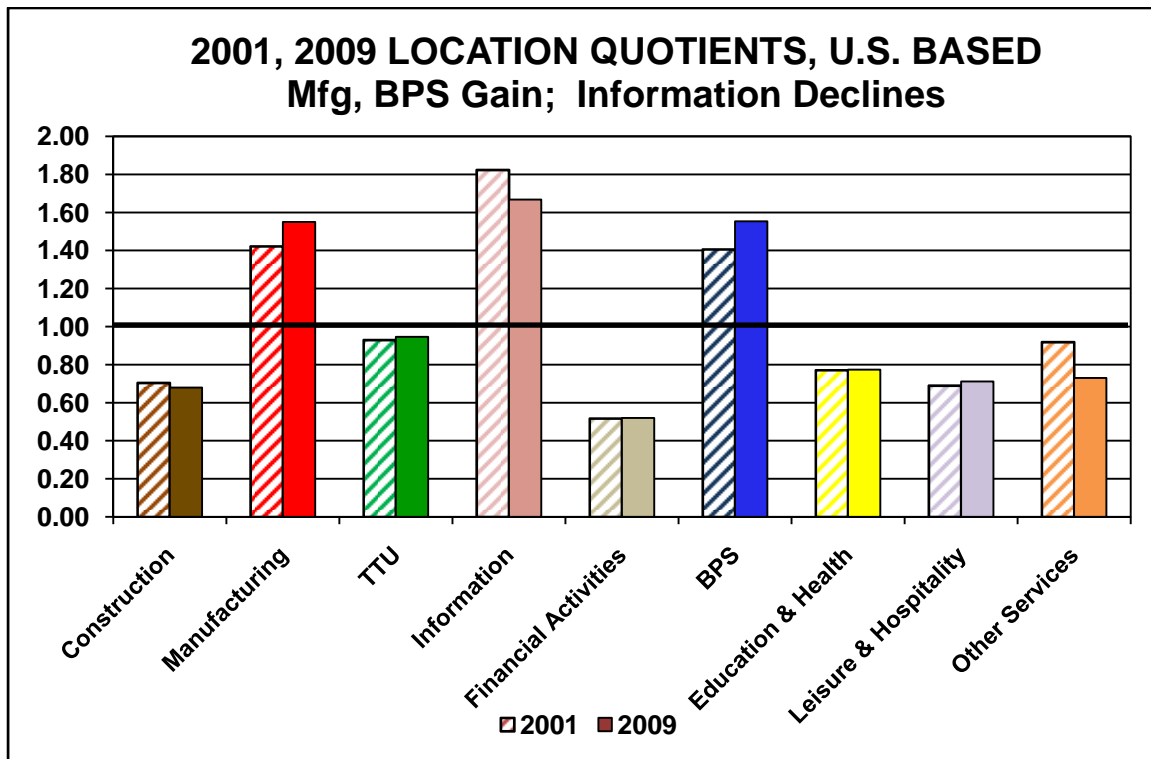
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- Annual employment in the MetroWest/Greater Marlborough Region (MW/GMR) fell from 182,300 in 2008 to 174,100 in 2009, a loss of 8,200 jobs, or -4.5%.
- Among all supersectors in 2009, Business and Professional Services (BPS) produced the largest share of MW/GMR employment, 22% or 37,600 jobs. Trade, Transportation, and Utilities (TTU) followed with 20%, or 34,200 jobs.
- Manufacturing generated the third largest share of jobs at 15% of the total, or 26,900 jobs, followed by Education & Health Services at 12% and 20,800 jobs.
- Together BPS, TTU, Manufacturing, and Education & Health, supplied 119,500 jobs or 69% of regional employment.
- Two smaller supersectors combined produced 18% of regional employment: Public with 10% of the total or 17,200 jobs, and Leisure & Hospitality with 8% and 13,600 jobs.
- The remaining supersectors each contributed less than 5% of regional employment.

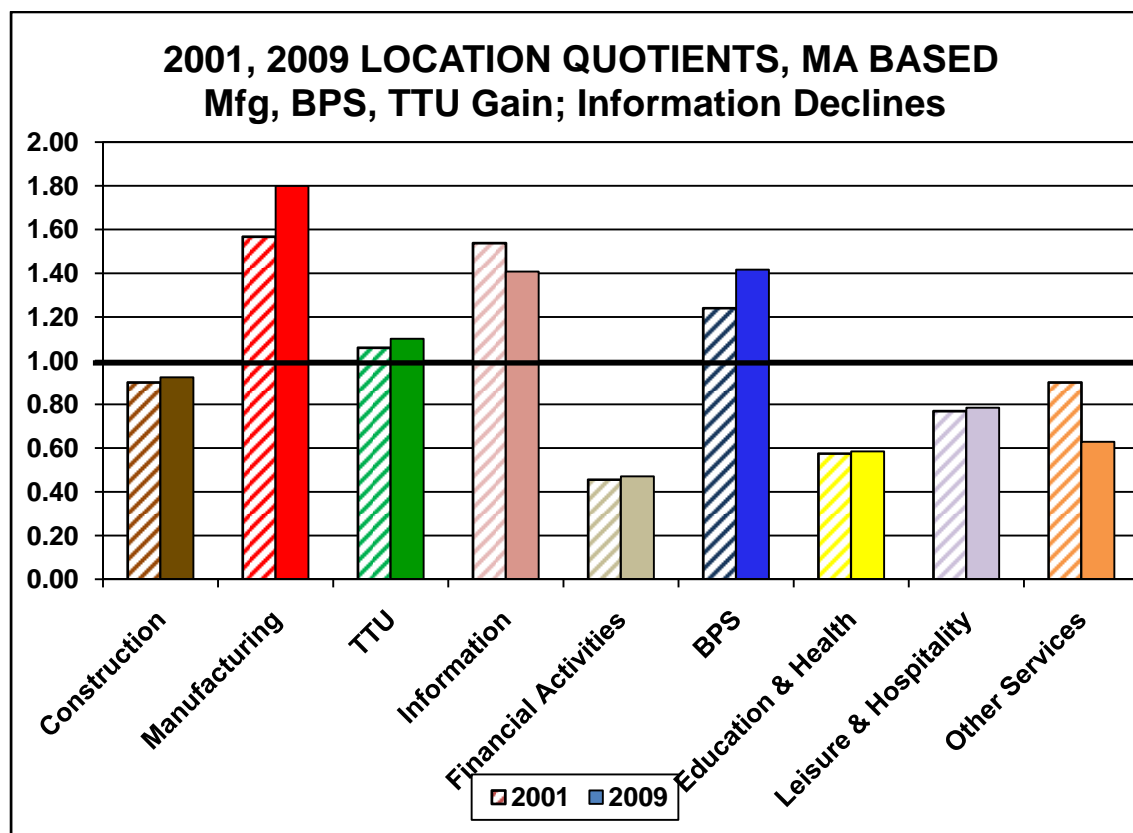
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- Location quotients (LQ) can be used to compare the regional industry share of total private employment to the national 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 nation. In 2009 (solid colored bar), Information achieved the highest LQ, 1.67, or a 67% greater concentration of Information jobs in MW/GMR than in the nation. However, in 2001 the Information LQ had been 1.87 (striped bar).
- Manufacturing, with a 2001 LQ of 1.42, gained industry share in relation to the nation with a LQ of 1.55 in 2009. The LQ for Business & Professional Services (BPS) also rose from 1.41 in 2001 to 1.55 in 2009, a gain of 9.9%.
- Most of the supersectors in MW/GMR remained relatively stable compared to national concentrations of these supersectors.
- A gain (or loss) in LQ does not necessarily mean an increase (or decrease) of jobs. For example, from 2001 to 2009 Manufacturing lost 22.8% of its jobs in MW/GMR, but the LQ increased by 9%. This meant that the nation lost manufacturing jobs at a faster rate than the region.

## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- Location quotients (LQ) can be used to compare the regional industry share of total private employment to the state share for the same industry in the same year. A gain (or loss) in LQ does not necessarily indicate an increase (or decrease) of jobs.
- A regional LQ greater than 1.0 shows an industry concentration higher than that of the state. In 2009 Manufacturing achieved the highest LQ, 1.80, or an 80% greater concentration of manufacturing jobs in MetroWest/Greater Marlborough (MW/GMR) than existed statewide. The Manufacturing LQ in 2009 was about 14.8% higher than its 2001 LQ of 1.57.
- Business & Professional Services (BPS) gained in job concentration. In 2001 BPS had a LQ of 1.24. By 2009 its LQ had risen to 1.42, up about 14.2%.
- Information and Other Services were the only two supersectors to experience declines in LQ from 2001 to 09. The LQ for Information dropped from 1.54 to 1.41, or approximately -8.5%, while the Other Services LQ fell from 0.9 to 0.63, or -30.2%.

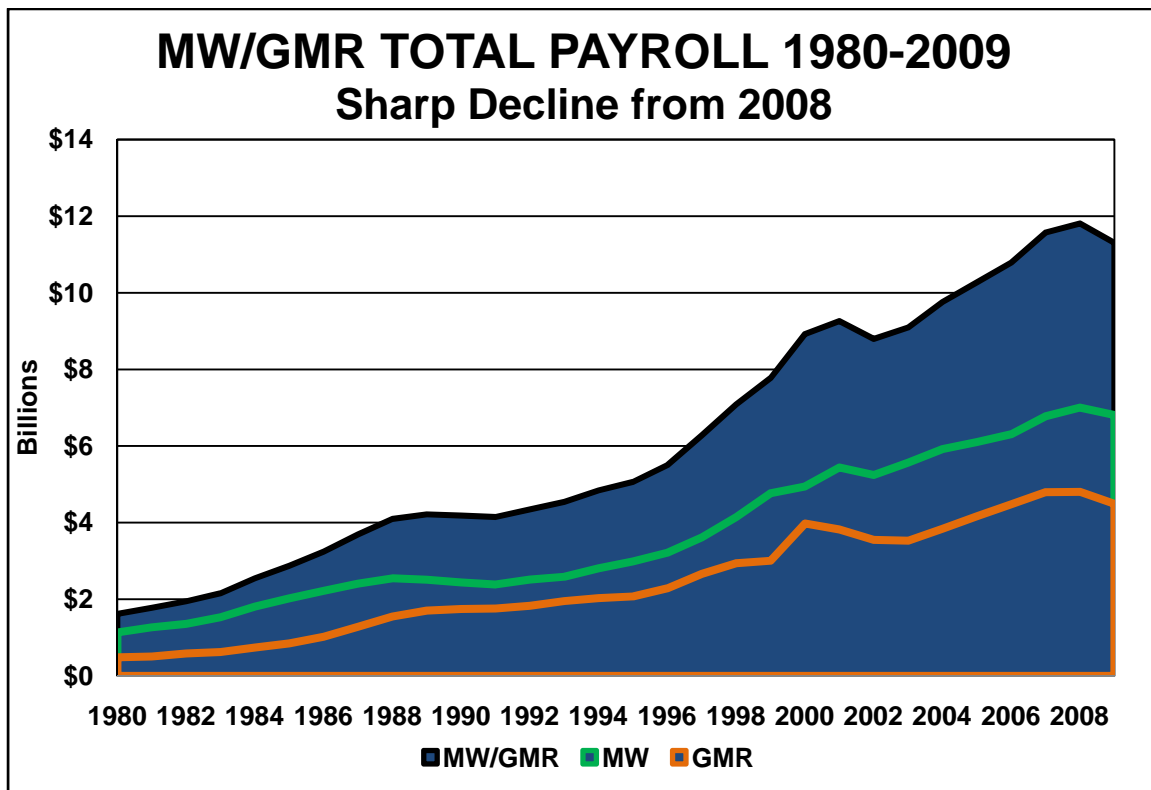
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 MetroWest/Greater Marlborough Region (MW/GMR) employment totaled 174,100 jobs, down -4.5% from 2008.
- Among the 19 sectors, Manufacturing generated the highest number of jobs, 26,900, or 15.4% of all jobs in MW/GMR. Retail Trade, the second largest sector, provided 20,400 jobs or 11.7%.
- The third largest sector, Health Care & Social Assistance, produced 18,000 jobs or 10.3% of regional employment, followed by Professional, Scientific, and Technical Services with 17,800 jobs or 10.2%.
- Four sectors provided between 10,000 and 20,000 jobs or 5.8% to 10% of regional employment: Public (17,200 jobs at 9.9%), Accommodation & Food Services (11,400 jobs at 6.5%), Wholesale Trade (11,300 jobs at 6.5%) and Administrative & Waste Services (10,000 jobs at 5.8%).
- The remaining sectors each contributed fewer than 10,000 jobs to regional employment.

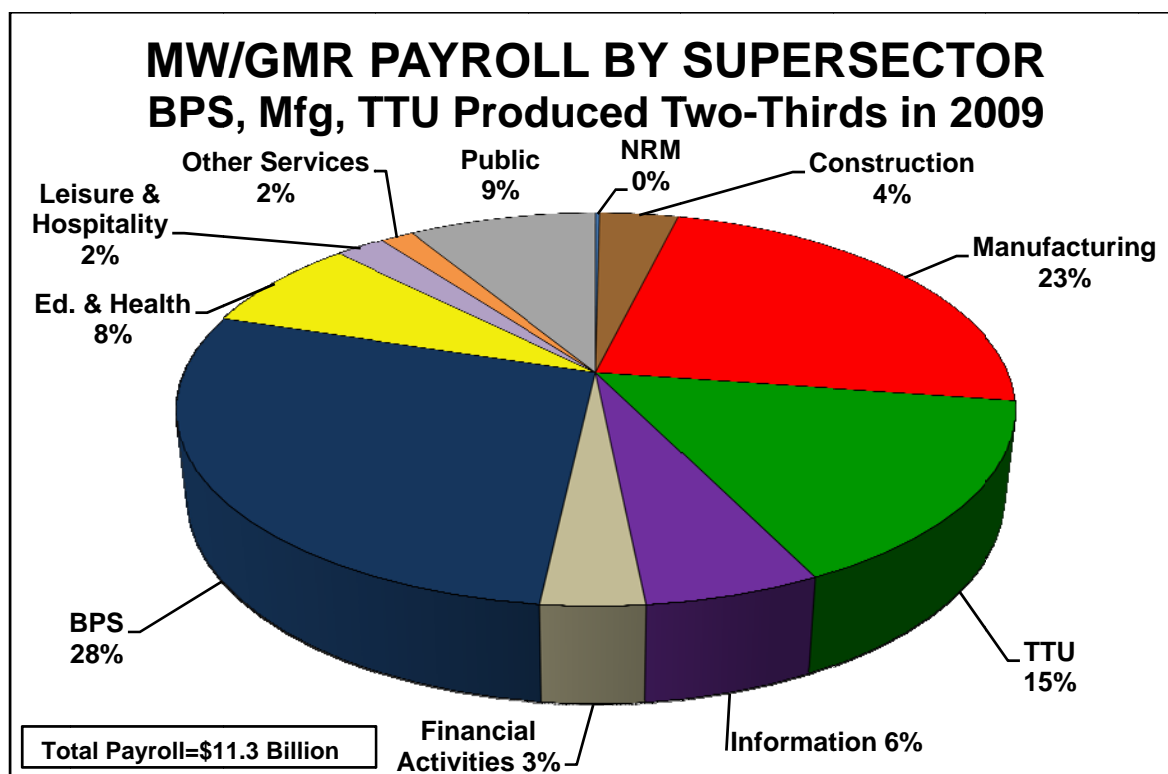
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- MetroWest/Greater Marlborough Region (MW/GMR) payroll fell to \$11.3 billion in 2009, a decline of \$500 million or -4.3% from 2008.
- Total payroll in the MW/GMR region is measured in nominal or current dollars and is not corrected for inflation. In 1980 the MW/GMR payroll totaled \$1.6 billion. By 2009 MW/GMR payroll had reached \$11.3 billion, a gain of \$9.7 billion or 597% since 1980.
- In 2009 MetroWest (MW) contributed 60% or \$6.8 billion to total payroll compared to the Greater Marlborough Region (GMR) with 40% or \$4.5 billion. Over three decades MetroWest has always contributed the larger share of payroll in the combined region.
- The GMR payroll (orange line) rose continuously from 1980 until its first peak of \$4 billion in 2000. It then fell by -11%, to \$3.5 billion in 2003. Following the recession, the GMR payroll rose again to peak in 2008 at \$4.8 billion before declining again in 2009.
- MetroWest (green line) showed a similar trend in payroll gains with more modest declines.

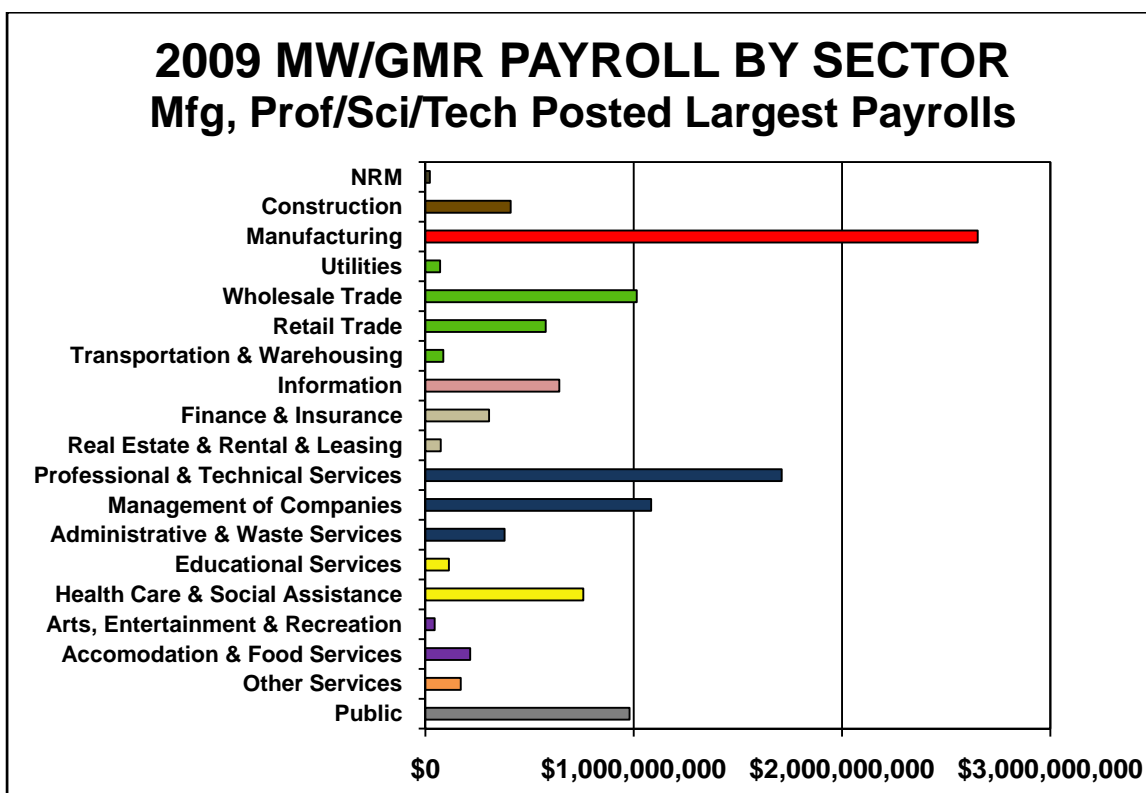
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 MetroWest/Greater Marlborough Region (MW/GMR) total payroll was \$11.3 billion, a decrease of \$500 million, or -4.3% relative to 2008.
- Three supersectors dominated MW/GMR payroll in 2009. Business & Professional Services (BPS) generated \$3.2 billion or 28% of regional payroll. Manufacturing produced \$2.7 billion or 23% of regional payroll. Trade, Transportation & Utilities (TTU) provided \$1.7 billion, or 15% of regional payroll. Combined, the three supersectors generated \$7.6 billion or two-thirds of regional payroll.
- Three supersectors generated between 5% and 10% of regional payroll: Public (\$980 million, 9%), Education & Health (\$871 million, 8%) and Information (\$643 million, 6%).
- In 2009 Education & Health generated 12% of MW/GMR employment but only 8% of regional payroll. In contrast, Information generated 4% of regional employment but 6% of regional payroll.
- The remaining supersectors each contributed less than 5% to regional payroll.

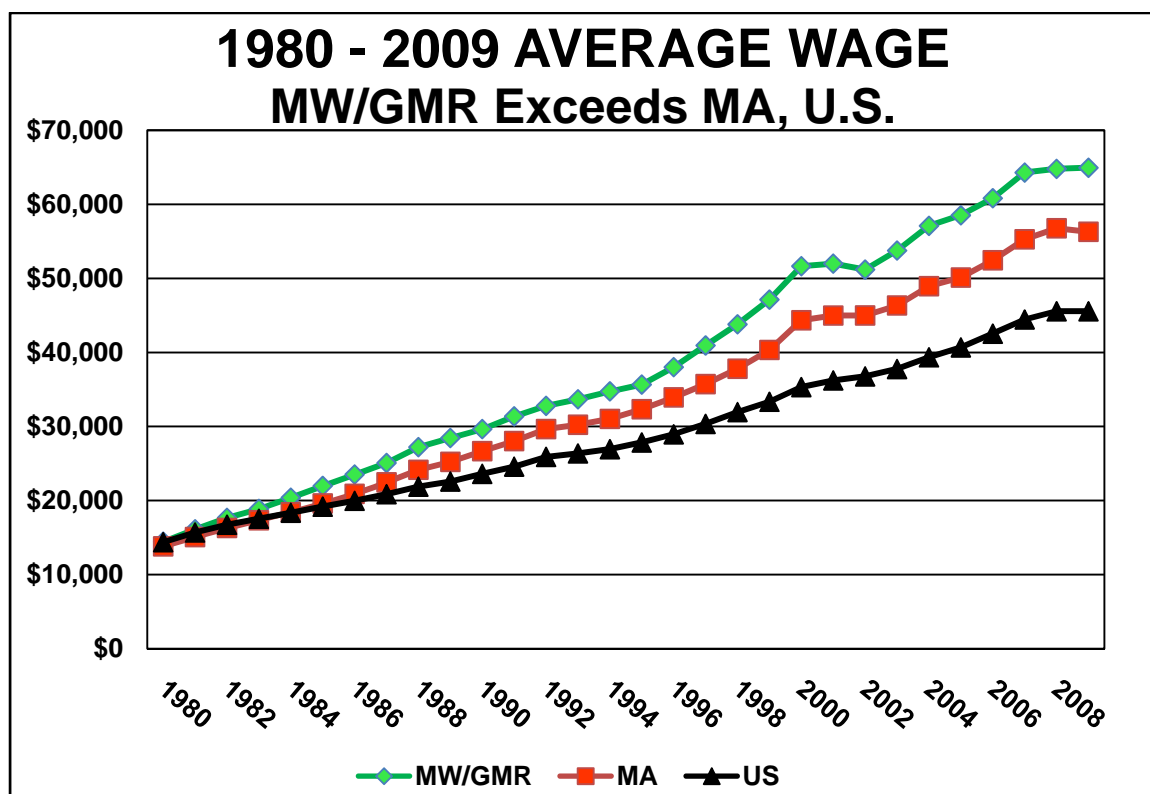
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 payroll in the MetroWest/Greater Marlborough Region (MW/GMR) totaled \$11.3 billion, down \$500 million or -4.3% from 2008.
- Manufacturing posted the largest payroll, \$2.7 billion, or 23% of the total regional payroll. Professional, Scientific, and Technical Services produced the second largest payroll, \$1.7 billion, followed by Management of Companies at \$1.1 billion, and Wholesale Trade at \$1.0 billion.
- Together, the top four payroll generators: Manufacturing, Professional, Scientific and Technical Services, Management of Companies and Wholesale Trade, produced a combined payroll of \$6.5 billion or 57% of the region's payroll.
- The Public, Health Care & Social Assistance, Information, and Retail Trade sectors produced between \$500 million and \$1 billion in payroll.
- Natural Resources and Mining (NRM), Art, Entertainment & Recreation, Utilities, Real Estate & Rental & Leasing, and Transportation & Warehousing, each contributed less than \$100 million to total regional payroll.

## METROWEST/GREATER MARLBROUGH – EMPLOYMENT

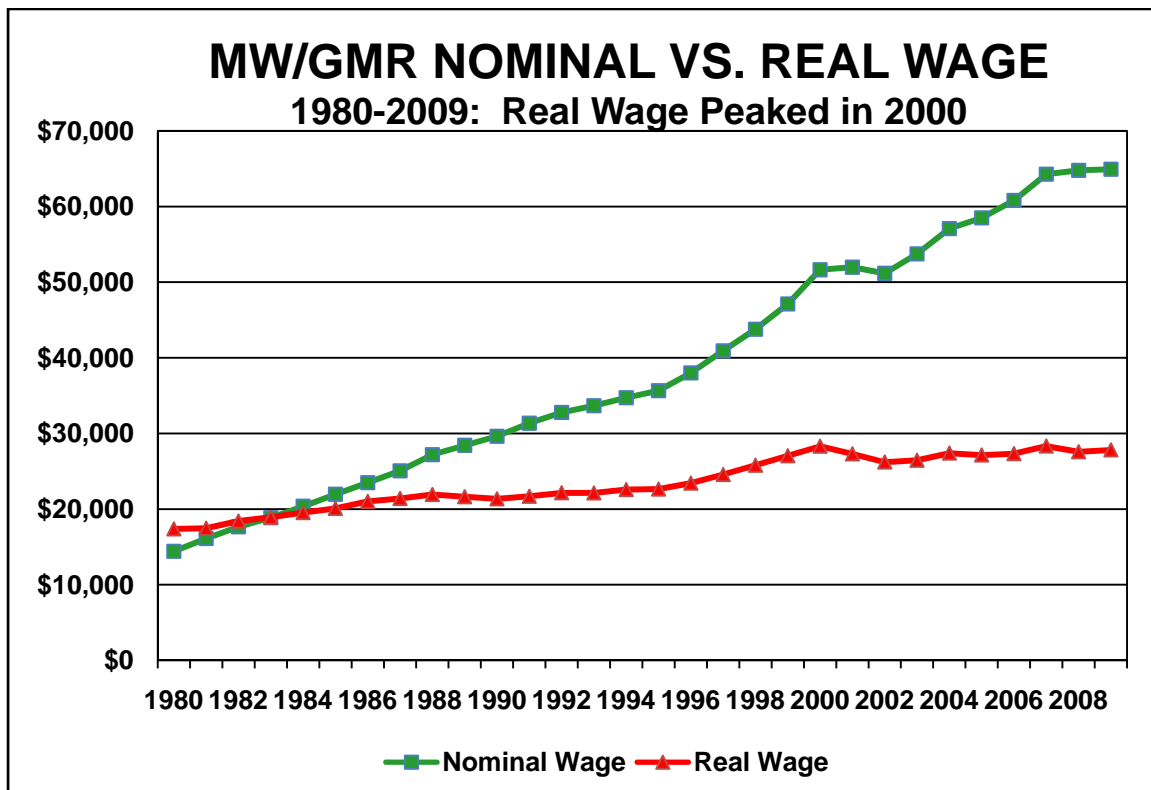


Source: MA Division of Unemployment Assistance, MERC

- In 2009 the MetroWest/Greater Marlborough Region (MW/GMR) average annual wage reached a historical peak of \$64,900, an increase of \$150 or 0.2% from 2008.
- In 2009 the MW/GMR average annual wage exceeded the Massachusetts average wage of \$56,300 by \$8,700 or 15.4%, and the U.S. average wage of \$45,600 by \$19,400 or 42.6%.
- For three decades the MW/GMR average annual wage has exceeded both the Massachusetts and U.S. average annual wages.
- In 1980 the average annual wages of the MW/GMR, MA, and U.S. ranged from \$13,800 to \$14,400. Over the years the gaps between the regional, state and national average annual wages widened.
- From 1980 to 1983 the nation recorded a slightly higher average wage than the state. However, starting in 1984 the state's average wage surpassed that of the nation but always remained lower than that of the MW/GMR.



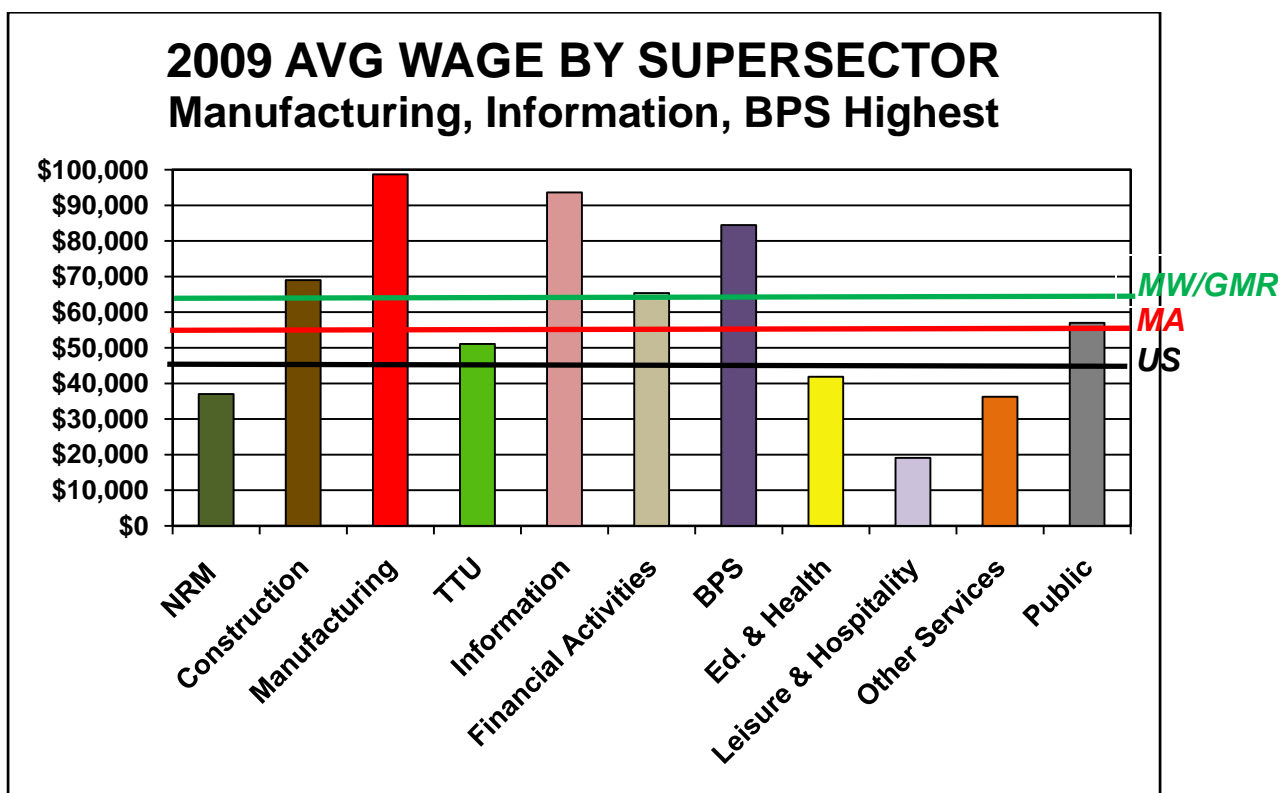
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 the MetroWest/Greater Marlborough Region (MW/GMR) average annual nominal wage reached a record high of \$64,900, an increase of 0.2% or \$150 from 2008. The nominal wage is measured in current dollars and not adjusted for inflation.
- From 1980 to 2009 the nominal wage has risen steadily from \$14,400 to \$64,900, an increase of \$50,500 or 350%.
- The nominal wage declined only once, falling from \$52,000 in 2001 to \$51,200 in 2002, a decrease of \$800 or -1.6%.
- The real wage is the average annual nominal wage corrected for inflation using the Consumer Price Index (CPI) Boston for Urban Wage Earners and Clerical workers.
- Over the 1980-2009 period the MW/GMR real wage rose from \$17,400 to \$27,800, an increase of \$10,400 or 60.1%. However, the increase in real wage largely occurred during first two decades of the period (1980-2000).
- Since 2000 the MW/GMR real wage has stagnated. In 2009 the real wage increased to \$27,800, up \$240 or 0.9% from 2008. However, the real wage peaked at \$28,300 in 2000.

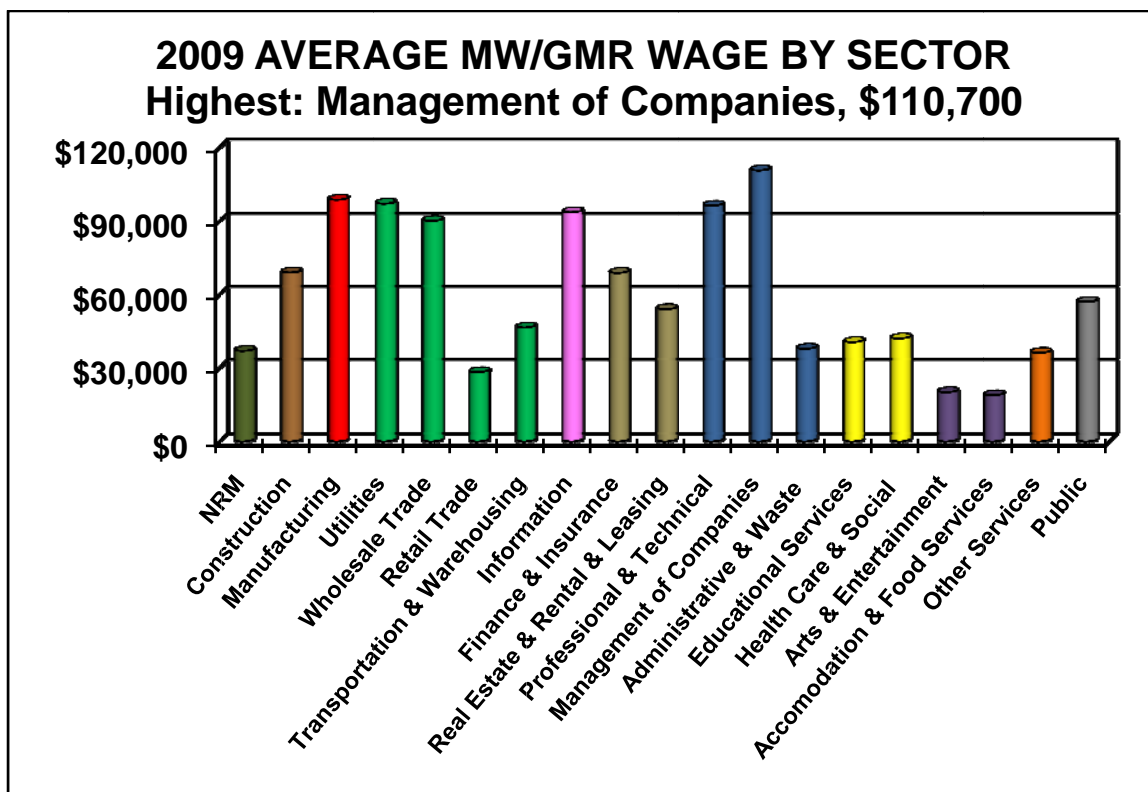
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 the average annual wage for MetroWest/Greater Marlborough Region (MW/GMR) was \$64,900, 15% higher than the Massachusetts average annual wage of \$56,300, and 42% higher than the United States average annual wage of \$45,600.
- The average wage in five supersectors in MW/GMR: Construction, Manufacturing, Information, Financial Activities, and Business and Professional Services (BPS) exceeded the regional and state average wages.
- The average annual wages in seven of the MW/GMR supersectors: Construction, Manufacturing, TTU, Information, Financial Activities, BPS, and Public exceeded the average annual wage of the United States.
- Among the supersectors, Manufacturing generated the highest average annual wage, \$98,700, followed by Information, \$93,600, and BPS, \$84,400.
- Leisure & Hospitality posted the lowest average annual wage, \$19,100.
- In 2009 the average MW/GMR private sector wage equaled \$65,800, 15.4% higher than the average MW/GMR public sector wage of \$57,000.

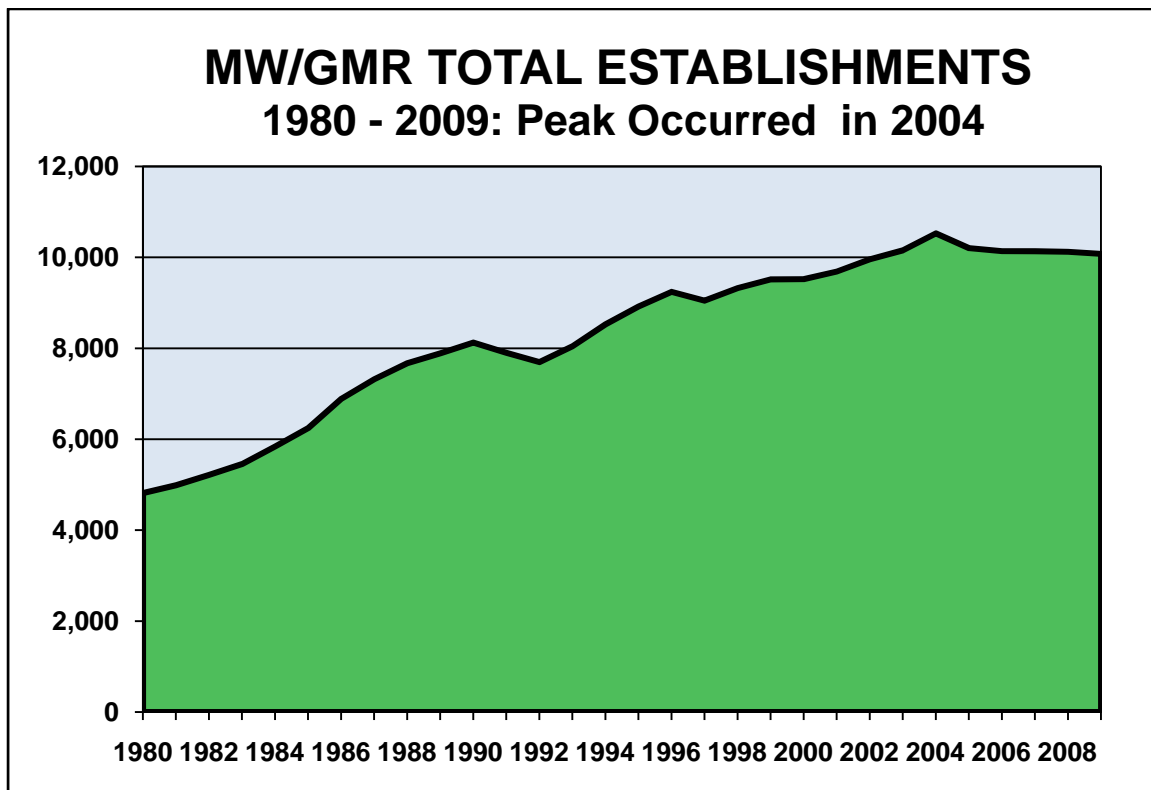
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 the MetroWest/Greater Marlborough Region (MW/GMR) generated a record \$64,900 average annual wage, up 0.2% from 2008.
- Among all the sectors, Management of Companies posted the highest average annual wage in MW/GMR, \$110,700.
- Five sectors: Manufacturing (\$98,700), Utilities (\$97,100), Professional, Scientific, and Technical Services (\$96,300), Information (\$93,600), and Wholesale Trade (\$90,100) also recorded high average annual wages.
- Two additional sectors recorded average annual wages exceeding \$60,000: Construction (\$69,000), and Finance and Insurance (\$68,800).
- Among all the sectors, Accommodation and Food Services offered the lowest average annual wage at \$18,900, followed by Arts, Entertainment, and Recreation at \$20,100.

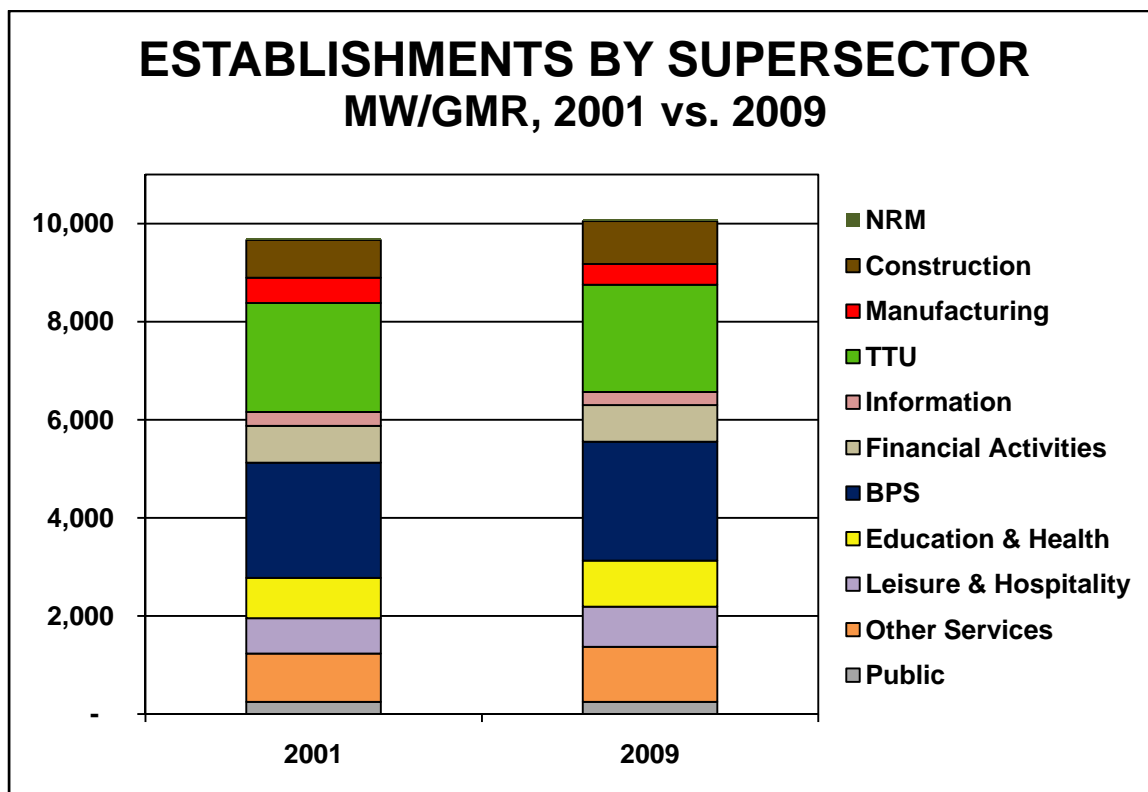
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- The number of establishments or separate places of work in the MetroWest/Greater Marlborough Region (MW/GMR) totaled 10,080 in 2009, down 50 establishments from 2008.
- Total establishments in MW/GMR peaked at 10,530 in 2004, but declined to 10,080 in 2009. This reflects a loss of 450 establishments or -4.3% over five years.
- From 1980 to 2009 the number of establishments in MW/GMR increased by 5,260 or 109.2%. The number of establishments in MW/GMR grew at an average annual rate of 2.7%, higher than the Massachusetts average annual rate of 2.1% and the nation's average annual rate of 2.4%.
- The number of establishments declined in three different periods. From 1990 to 1992 MW/GMR lost 430 establishments or -5.3%. A second decline of 200 establishments, or -2.1%, occurred in 1997. After a steady increase, MW/GMR experienced another drop in establishments in 2005 that continued through 2009.

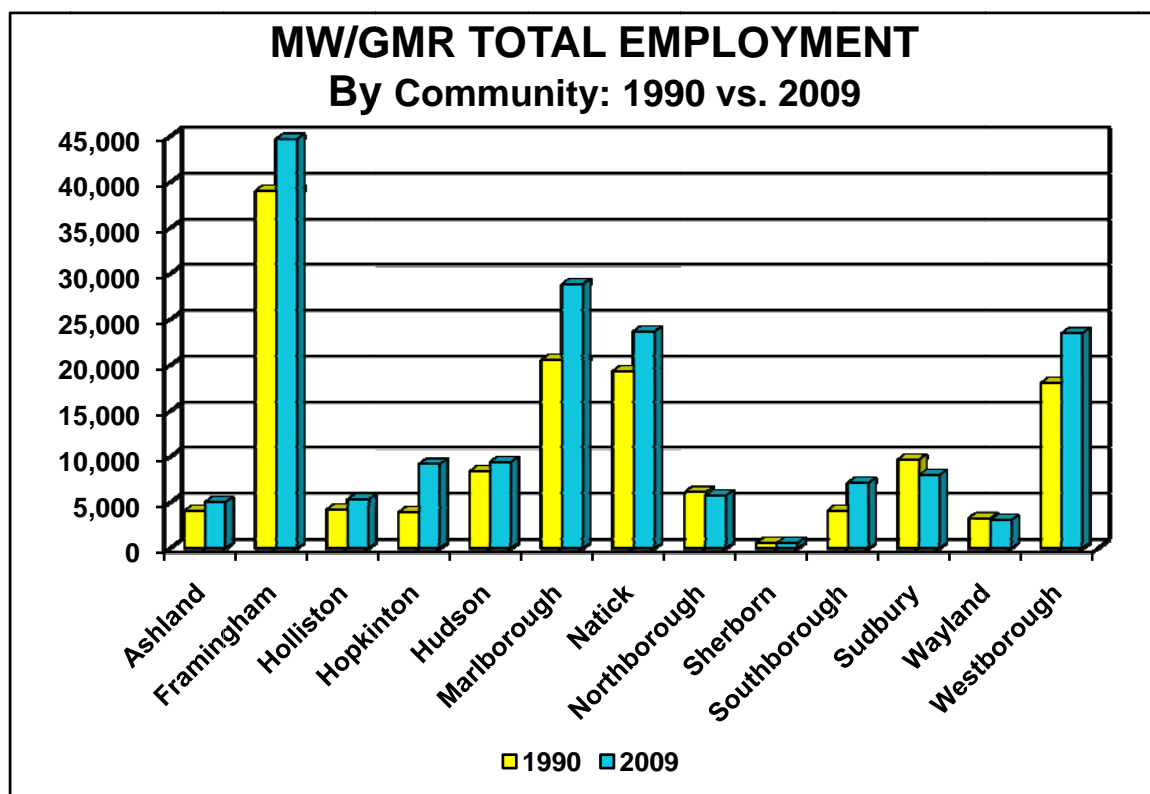
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- The total number of establishments or separate places of work for MetroWest/Greater Marlborough Region (MW/GMR) increased from 9,690 in 2001 to 10,080 establishments in 2009, a gain of 390 establishments, or 4% over the decade.
- In 2009 three supersectors provided over half of MW/GMR establishments: Business and Professional Services (BPS) with 2,420 establishments, Trade, Transportation & Utilities (TTU), with 2,190 establishments, and Other Services with 1,020 establishments.
- Seven supersectors added establishments from 2001 to 2009: Construction, Financial Activities, BPS, Education and Health, Leisure and Hospitality, Other Services and Public.
- Three supersectors lost establishments from 2001 to 2009: Manufacturing, Trade, Transportation, and Utilities, and Information.

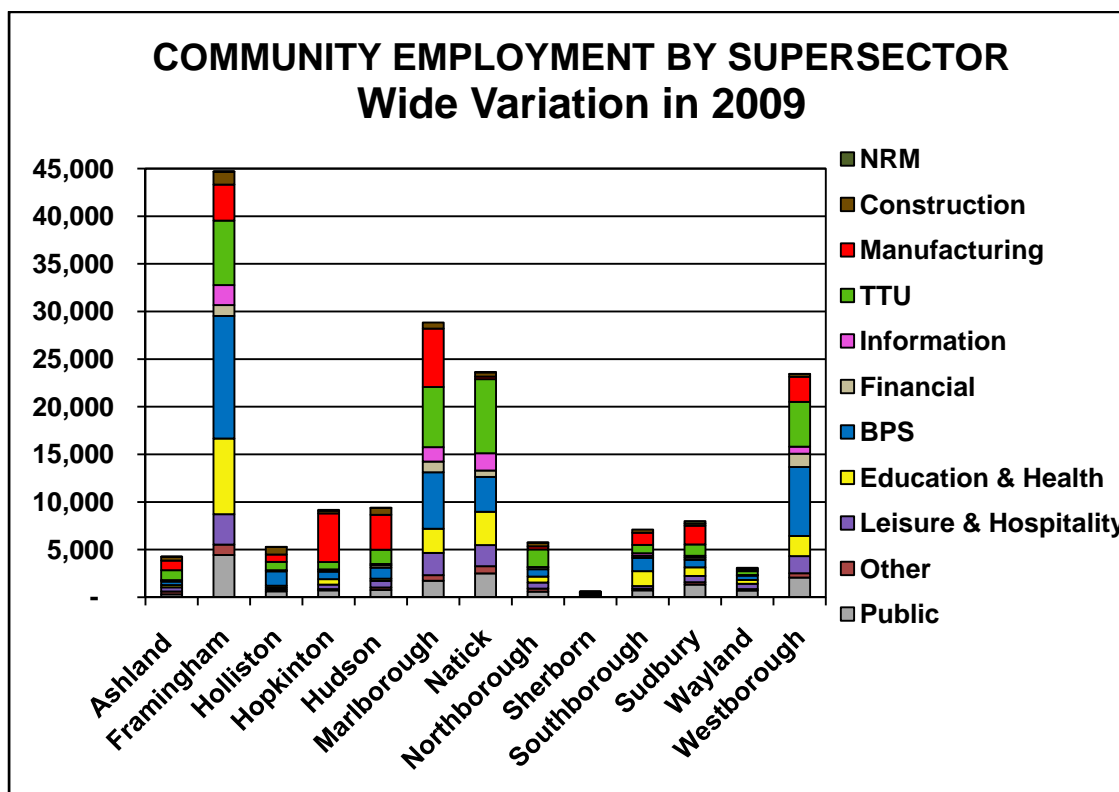
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 MetroWest/Greater Marlborough Region (MW/GMR) employment totaled 174,100 jobs, an increase of 32,800 or 23.2% from 1990, when regional employment totaled 141,250 jobs.
- In 2009 four communities: Framingham (44,700 jobs), Marlborough (28,800 jobs), Natick (23,600 jobs), and Westborough (23,500 jobs) provided 69% of MW/GMR employment.
- From 1990 to 2009 Marlborough recorded the largest absolute gain in employment, up 8,300 jobs, followed by Framingham with an increase of 5,700 jobs, Westborough (+5,400 jobs), and Hopkinton (+5,300 jobs).
- Three communities lost employment over the two decades. Sudbury incurred the largest loss, -1700 jobs, followed by Northborough (-350 jobs) and Wayland (-200 jobs).
- In terms of percentage change, Hopkinton, with a gain of 135%, more than doubled its employment from 1990 to 2009. Southborough, up 73.6%, and Marlborough, up 40.4%, followed.
- Over the two decades Sudbury incurred the largest percentage job loss, -17.6%, followed by Wayland (-5.9%), and Northborough (-5.7%).

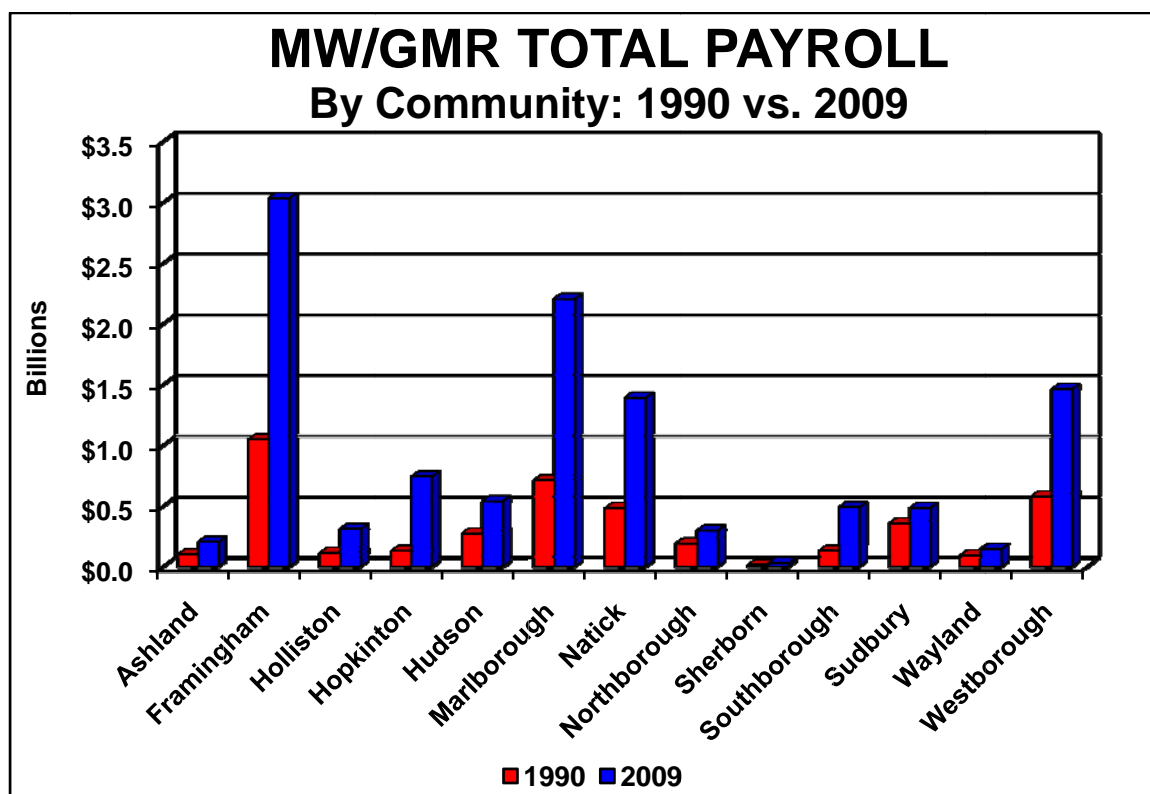
## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Department of Unemployment Assistance, MERC

- Annual employment in the MetroWest/Greater Marlborough Region (MW/GMR) totaled 174,100 in 2009.
- In 2009 four supersectors: Business and Professional Services (BPS) in blue, Trade, Transportation, and Utilities (TTU) in green, Manufacturing in red and Education & Health in yellow provided 69% of MW/GMR employment. The distribution of supersector jobs varied widely by community.
- Framingham (12,900 jobs), Westborough (7,200) and Marlborough (5,900) led in BPS employment.
- Four communities had high concentrations of TTU employment: Natick (7,800 jobs), Framingham (6,800), Marlborough (6,300) and Westborough (4,700).
- Manufacturing employment was concentrated in Marlborough (6,100 jobs), Hopkinton (5,100), Framingham (3,800) and Hudson (3,700).
- Framingham generated the highest number of Education & Health jobs, 7,950, followed by Natick with 3,500.

## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT

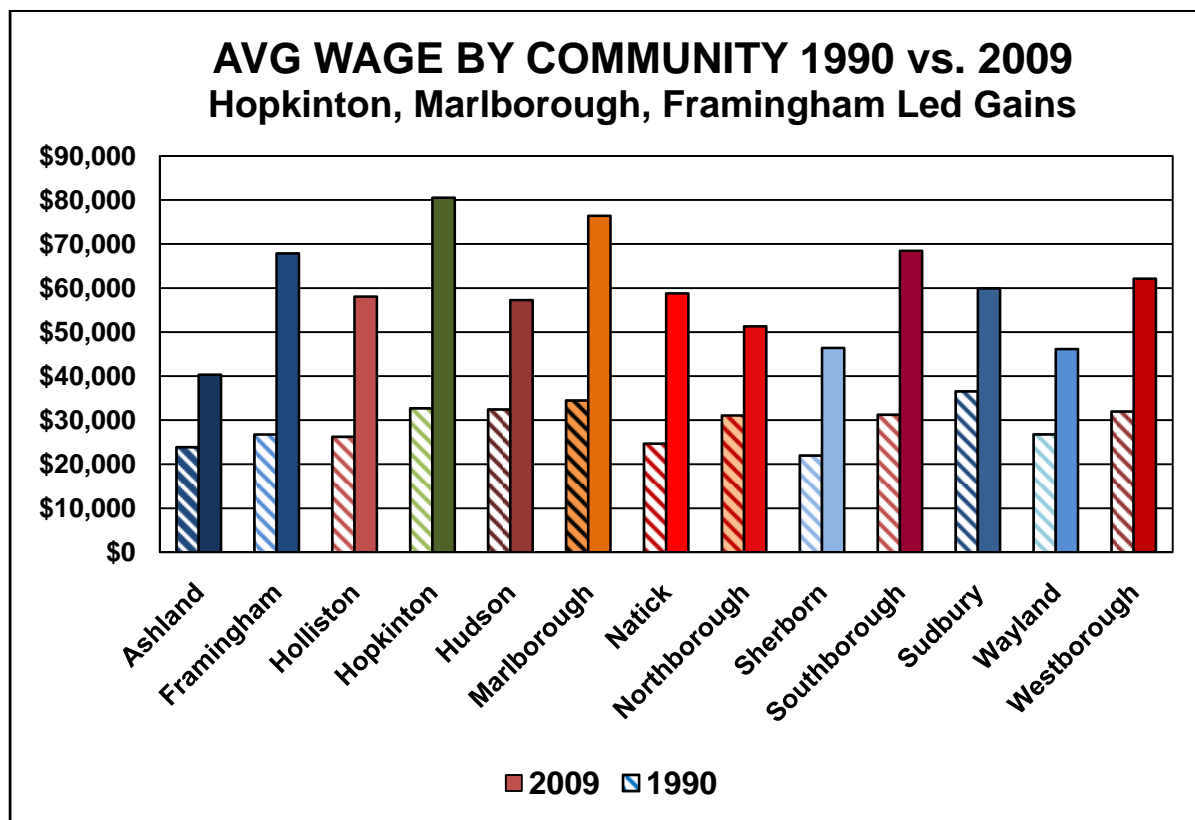


Source: MA Division of Unemployment Assistance, MERC

- In 2009 MetroWest/Greater Marlborough Region (MW/GMR) payroll totaled \$11.3 billion, compared to \$4.2 billion in 1990. This reflects an increase of \$7.1 billion or 170%.
- Four communities accounted for \$8.1 billion or 71.5% of regional payroll in 2009: Framingham (\$3 billion), Marlborough (\$2.2 billion), Westborough (\$1.5 billion) and Natick (\$1.4 billion).
- From 1990 to 2009 Framingham recorded the largest absolute gain, \$2 billion, as its payroll tripled from \$1 billion to \$3 billion. Marlborough reported the second largest gain, \$1.5 billion, followed by Natick, \$910 million, and Westborough, \$880 million.
- Among the thirteen communities, Hopkinton experienced the largest growth in payroll in terms of percentage gain, climbing from \$130 million in 1990 to \$740 million in 2009, a gain of \$610 million or 480%.



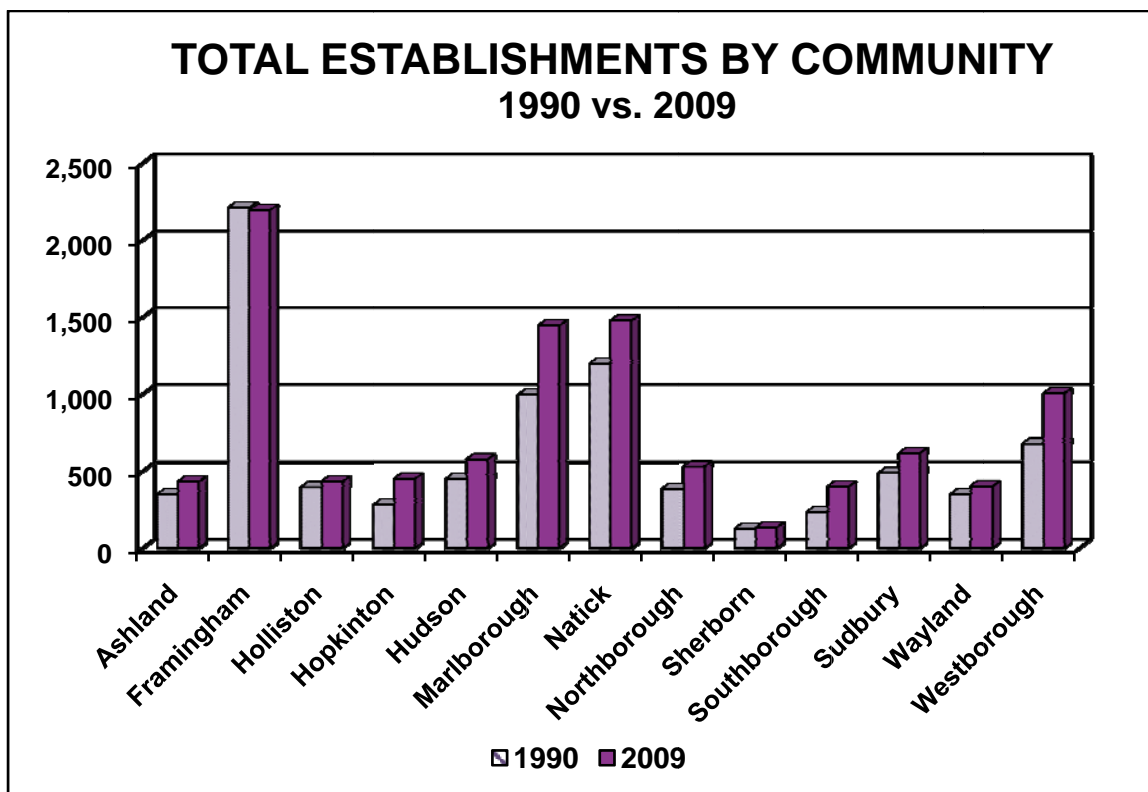
## METROWEST/GREATER MARLBOROUGH REGION - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 the average annual wage for the MetroWest/Greater Marlborough Region (MW/GMR) was \$64,900, compared to \$29,600 in 1990. The 2009 wage reflects an increase of \$35,300 or 119% from 1990.
- In terms of absolute numbers, Hopkinton experienced the largest increase as its average wage rose from \$32,700 in 1990 to \$80,500 in 2009, a gain \$47,800.
- Marlborough's average annual wage climbed from \$34,500 in 1990 to \$76,400 in 2009, a gain of \$41,900. Similarly, Framingham's average annual wage increased by \$41,100, from \$26,800 in 1990 to \$67,900 in 2009.
- The three communities that recorded the highest percentage gains in average annual wage from 1990-2009 were Framingham, up 154%, Hopkinton, up 146%, and Natick, up 138%.
- In 2009 nine communities exceeded the Massachusetts average wage of \$56,300. Ashland, Northborough, Sherborn and Wayland did not.

## METROWEST/GREATER MARLBOROUGH - EMPLOYMENT



Source: MA Division of Unemployment Assistance, MERC

- In 2009 the number of establishments or separate places of work within the thirteen communities of the MetroWest/Greater Marlborough Region (MW/GMR) totaled 10,080, up 1,950 or 24% from 1990.
- In 2009 Framingham had the largest number of establishments (2,200), followed by Natick (1,500), Marlborough (1,400), and Westborough (1,000). The same four communities led in number of establishments in 1990.
- From 1990 to 2009, Marlborough added the largest number of establishments, 449, followed by Westborough with 326 establishments, and Natick with 278 establishments.
- In terms of percentage gain, Southborough experienced the highest increase in establishments, 70.1%, followed by Hopkinton, 60.5%, and Westborough, 48.2%.
- Among the thirteen communities, only Framingham lost establishments over the period. Framingham lost 20 places of work or -0.8%.

# **METROWEST/GREATER MARLBOROUGH - EMPLOYMENT**

## **Employment Comparison MetroWest/Greater Marlborough Region (MW/GMR) By Community 2009**

<b>Community/ Region</b>	<b>Number of Jobs*</b>	<b>Average Wage*</b>	<b>Total Payroll* (millions)</b>	<b>Number of Establish- ments*</b>	<b>Largest Supersector</b>
Ashland	5,000	\$40,330	\$202	430	TTU**
Framingham	44,700	\$67,900	\$3,034	2,190	BPS***
Holliston	5,300	\$58,100	\$307	430	BPS
Hopkinton	9,200	\$80,500	\$739	450	Manufacturing
Hudson	9,400	\$57,300	\$538	580	Manufacturing
Marlborough	28,800	\$76,400	\$2,203	1,440	TTU
Natick	23,700	\$58,800	\$1,391	1,480	TTU
Northborough	5,800	\$51,300	\$296	530	TTU
Sherborn	600	\$46,400	\$29	130	Public
Southborough	7,100	\$68,500	\$487	400	Education & Health
Sudbury	8,000	\$59,900	\$479	620	Manufacturing
Wayland	3,100	\$46,200	\$143	400	Public
Westborough	23,500	\$62,200	\$1,458	1,000	BPS
MetroWest CCSA	106,600	\$63,900	\$6,811	6,530	BPS
Greater Marlborough Region	67,400	\$66,600	\$4,494	3,550	BPS
MW/GMR	174,100	\$64,900	\$11,300	10,100	BPS
Massachusetts	3,136,500	\$56,300	\$176,500	213,960	Education & Health

*Source: MA Division of Unemployment Assistance, BLS, MERC*

\*Rounded

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

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

### JOB CREATION AND DESTRUCTION

The dynamic nature of the MetroWest/Greater Marlborough Region (MW/GMR) economy is captured by MERC at Framingham State University by estimating both *net* employment change and *gross* employment change, or gross job flows. MERC does this by calculating the year-to-year employment changes in each of the major industry categories in each of the thirteen MW/GMR communities. MERC then determines whether or not the number of jobs in one industry, manufacturing for example, in any one of the thirteen communities increased. If it did, that number is recorded before it can be offset by another community in which the number of manufacturing jobs may have decreased that year. By working with these figures, MERC is able to decompose the *net* employment change into its two components: job creation and job destruction.

**Job creation** is the sum, across MW/GMR communities and industries, of employment gains at new and growing establishments. **Job destruction** equals the sum of employment losses at closing and shrinking establishments. **Net job change** is a measure of the *net* change in total employment from one year to the next. It is also equal to the difference between job creation and job destruction. The combination of job creation and job destruction is also referred to as job reallocation or job churning. Because it measures the number of jobs that are either gained or lost in a given year, the sum of job creation and job destruction is a better indicator of economic activity, or *churning*, than the more commonly used *net* employment change.

For example, in 2009, job creation for MW/GMR was estimated at 3,400 and job destruction at 11,600. The difference in these numbers (3,400 -11,600) results in a *net* decrease of 8,200 jobs. The sum of job creation and job destruction (3,400+11,600) yields the extent of job reallocation or job churning, with 15,000 jobs either added to or cut from the job market.

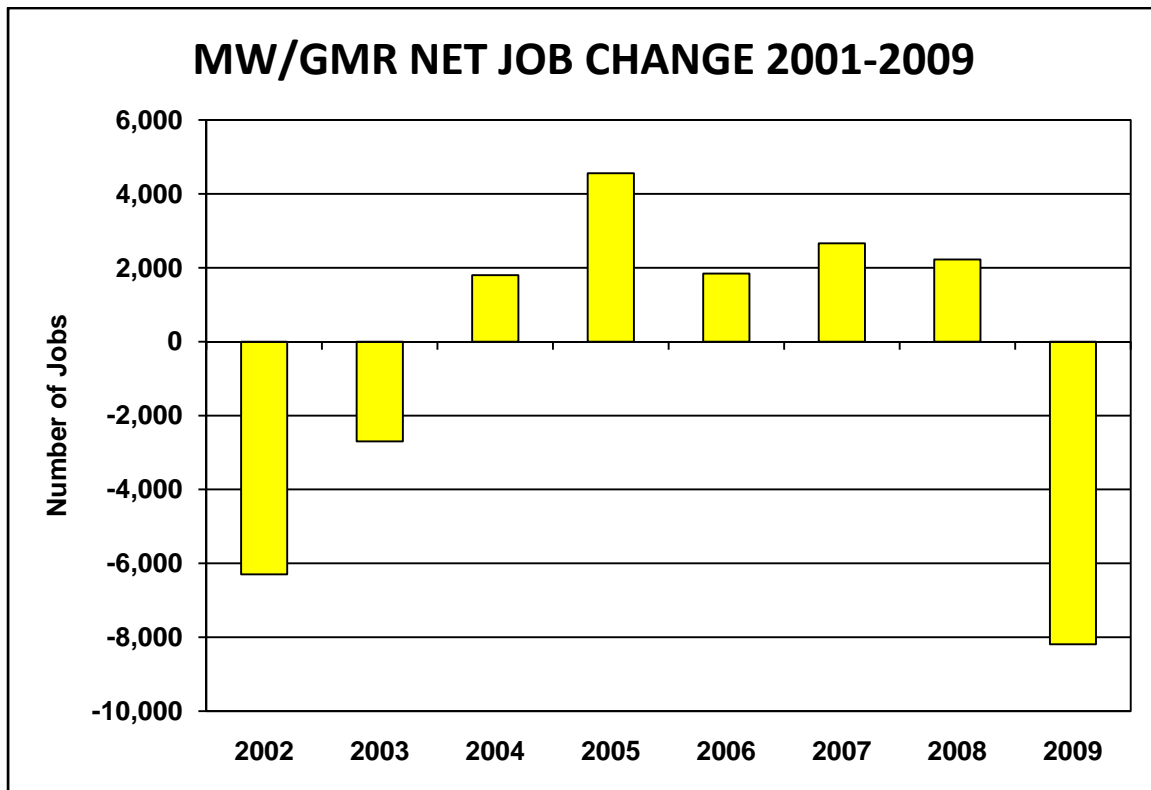
Decomposing the net job change into its components of job creation and job destruction reveals a higher level of job market activity, or **job churning**, than is revealed by the net change number alone.\*

Estimation of job creation and job destruction relies on the NAICS employment database for MW/GMR maintained by MERC. Please see the Appendix for more detailed information about NAICS.

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\*NOTE: The numbers for job creation and job destruction that follow measure only the tip of an iceberg and are missing several levels of activity that would result in even greater rates of churning. For example, in a given year, one manufacturing plant in Marlborough may lay off a worker and another manufacturing plant in Marlborough may hire a worker – same community, same industry category – so this change would not be caught. Also, within a single establishment, one job might be created while another is destroyed. This job destruction and job creation would also not be captured. Finally, our data looks only at annual job flows. Quarterly or monthly data would capture more of the job creation and job destruction which is on-going in a dynamic economy.

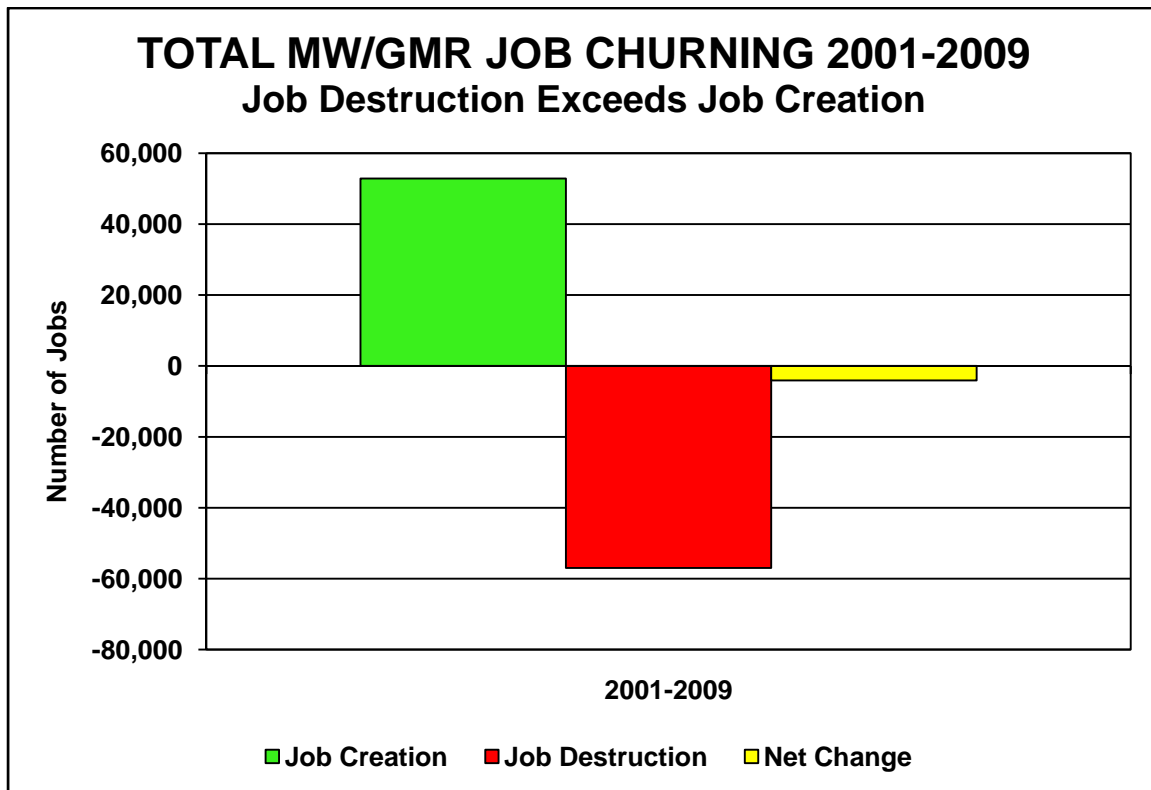
## METROWEST/GREATER MARLBOROUGH – JOB CHURNING



Source: MA Division of Unemployment Assistance, MERC

- Annual net job change in the combined MetroWest/Greater Marlborough Region (MW/GMR) is a measurement of the change in total employment from one year to the next. When the net change is positive, more jobs were created than destroyed during that year and the regional employment increased. When the change is negative, more jobs were destroyed than created during that year and regional employment declines.
- Between 2002 and 2009, MW/GMR experienced two periods of declining employment, or contraction (2002 - 2003 and 2009), and one period of increasing employment, or expansion (2004 - 2008).
- In the 2002 - 2003 contraction, the MetroWest/Greater Marlborough Region lost 9,000 jobs. In the subsequent expansion in 2004 through 2008, MW/GMR regained all these jobs plus an additional 4,100 jobs. However, the contraction in 2009 resulted in those 4,100 job gains erased, plus the destruction of an additional 4,100 jobs.

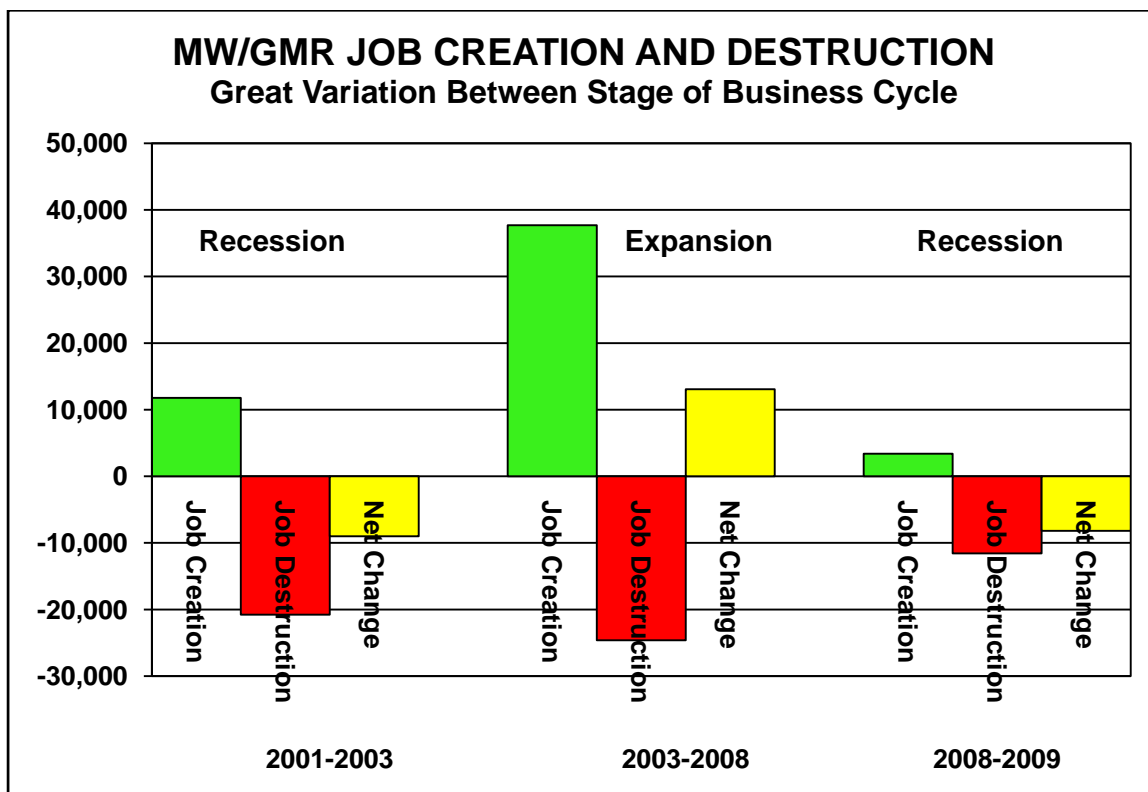
## METROWEST/GREATER MARLBOROUGH– JOB CHURNING



Source: MA Division of Unemployment Assistance, MERC

- The MetroWest Economic Research Center (MERC) @ Framingham State University measures job churning using three statistics: job creation, job destruction, and net change. Job creation (green) is the number of jobs added, job destruction (red) is the number of jobs destroyed, and net change (yellow) is the sum of the two statistics.
- From 2001 to 2009, the MetroWest/Greater Marlborough Region (MW/GMR) created 52,900 new jobs. However, over the same time period 57,000 jobs were destroyed. This led to a net change of -4,100 jobs as more jobs were destroyed than created.
- Although creation and destruction are characteristic of a dynamic economy much of this churning is due to the two contractions and one expansion MW/GMR has experienced over the past decade. For sustained economic growth, new productive job creation must outpace the inevitable job destruction.

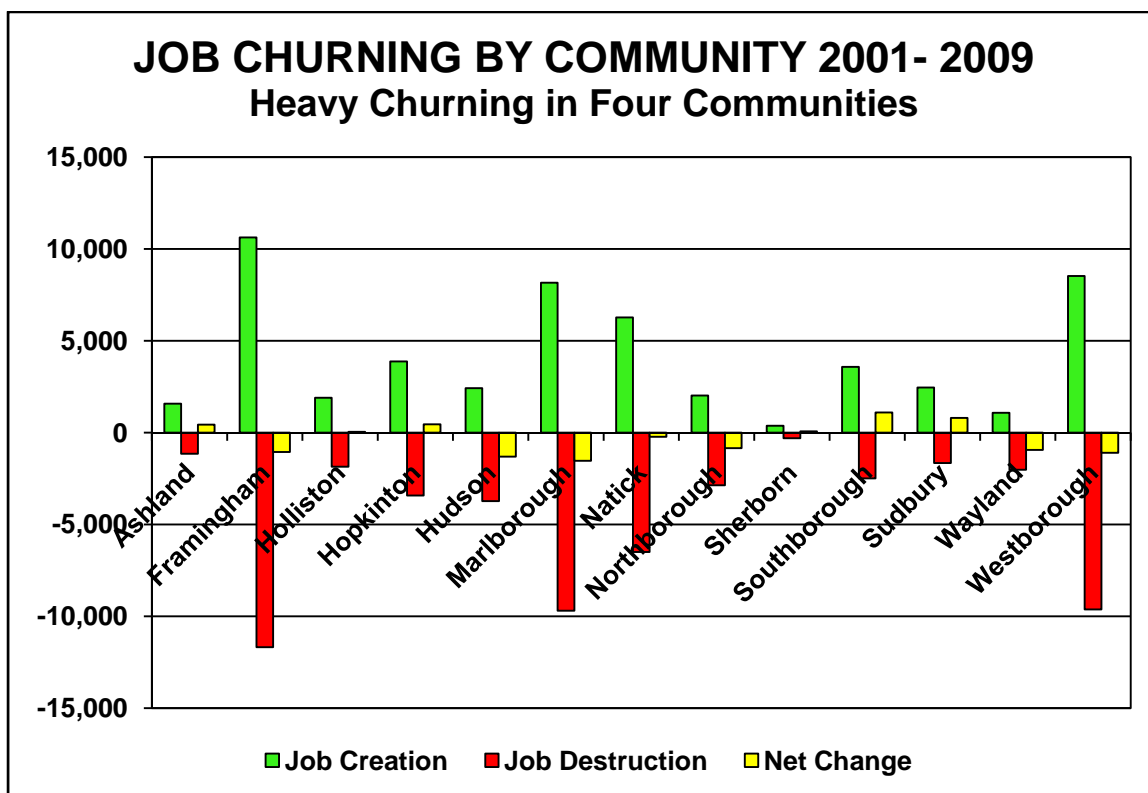
## METROWEST/GREATER MARLBOROUGH – JOB CHURNING



Source: MA Division of Unemployment Assistance, MERC

- Measuring gross job flows provides a deeper understanding of the MetroWest/Greater Marlborough Region (MW/GMR) economy by decomposing the net change in employment into its components of job creation and job destruction.
- In the 2001- 2003 recession, MW/GMR created 11,800 new jobs, however 20,800 existing jobs were destroyed, leading to a net change of -9,000 jobs in the region. It is typical to see greater job destruction than creation in a recession.
- During the 2003 - 2008 expansion, MW/GMR created 37,700 new jobs and destroyed 24,600 existing jobs. This led to a net gain of 13,100 jobs. It is typical to see greater job creation than job destruction in an expansion.
- In the 2008 - 2009 recession, MW/GMR created only 3,400 new jobs. However, job destruction resulted in the loss of 11,600 existing jobs in MW/GMR. This led to a net change in employment of -8,200 jobs.

## METROWEST/GREATER MARLBOROUGH – JOB CHURNING



Source: MA Division of Unemployment Assistance, MERC

- Job churning seeks to measure the number of jobs created and jobs destroyed in order to provide a clearer picture of the net change in jobs in an economy.
- From 2001- 09 four communities experienced heavy churning and net job losses. These communities were: Framingham, Marlborough, Natick, and Westborough. Framingham experienced the greatest churning, creating 10,600 new jobs, but also destroying 11,700 existing jobs for a net job loss of 1,100 jobs.
- Westborough created 8,500 new jobs, the second largest number of new jobs from 2001 through 2009; however, Westborough also destroyed 9,600 existing jobs, resulting in a net loss of 1,100 jobs. Marlborough also created 8,200 new jobs while destroying 9,700 existing jobs, resulting in a net loss of 1,500. Natick created 6,300 new jobs and destroyed 6,500 existing jobs, resulting in a net loss of 200 jobs.
- Of the thirteen MW/GMR communities, only four experienced modest positive net changes in employment, meaning that these communities created more new jobs than were destroyed. These four communities were: Ashland, Hopkinton, Southborough, and Sudbury.



## **METROWEST/GREATER MARLBOROUGH – HOUSING**

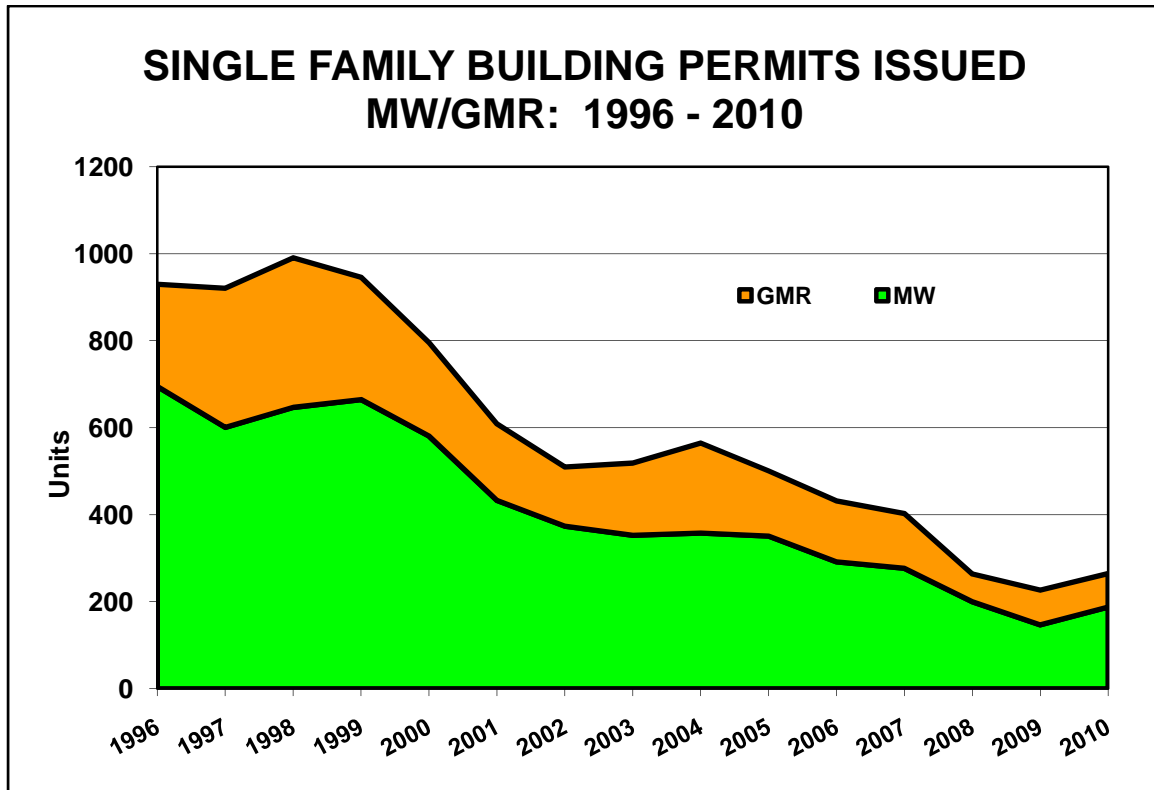
### **HOUSING**

The MetroWest Economic Research Center (MERC) at Framingham State University collects and analyzes data on housing permits issued and existing home sales for the combined MetroWest and Greater Marlborough Region (MW/GMR). The MetroWest CCSA includes the communities of Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Southborough, Sudbury and Wayland. The Greater Marlborough Region includes the communities of 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 2010 is estimated using the December year-to-date values. Building permits data for Massachusetts and the United States are based on estimates published by the Federal Reserve Bank of Boston (FRBB).

Information on existing home sales is based on data published by The Warren Group for *Banker & Tradesman*. Most of these data are available from 1987 forward, and were significantly revised in the spring of 2008 in order to better capture market activity. Hence some of the housing figures in this report are not directly comparable to the values reported in previous MERC publications. Data are collected on single and multi-family residences sold in the thirteen communities. Median house price is measured at the 50<sup>th</sup> percentile in each 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.

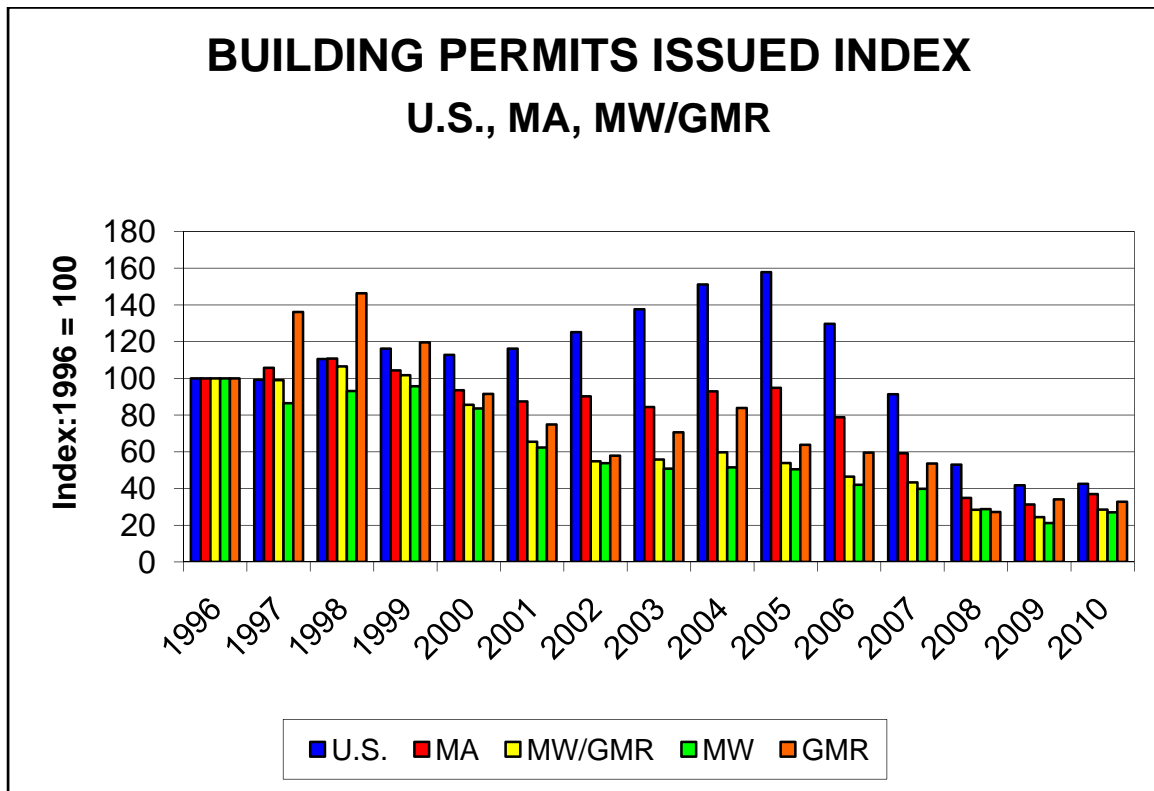
## METROWEST/GREATER MARLBOROUGH – HOUSING



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

- New residential housing permits issued each year for single family homes in the combined MetroWest and Greater Marlborough Region (MW/GMR), indicated by the height of the graph above, peaked at nearly 1000 units in 1998. For the first time since 2004 permits in the combined region saw an increase to an estimated 254 permits issued in 2010.
- MetroWest, depicted in green, accounted for between 64% and 75% of the combined region's permits issued over the time period, while Greater Marlborough Region accounted for between 25% and 36%. Between 2009 and 2010 permits issued in MetroWest increased from 147 to 188; in the same time period permits issued in Greater Marlborough decreased by 14 units to an estimated 66 permits.
- Though the permits increased for the first time since 2004 they total to only a little more than a quarter, 27%, of the 1998 peak.

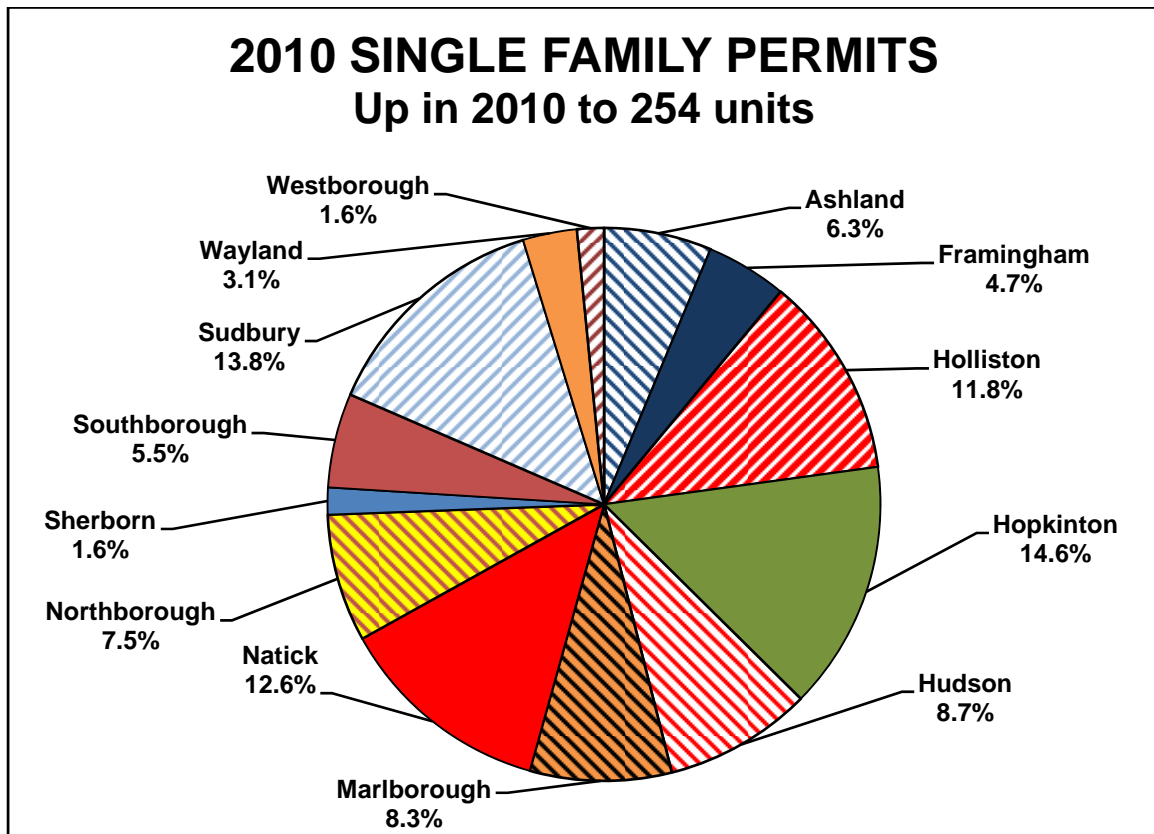
## METROWEST/GREATER MARLBOROUGH – HOUSING



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

- The graph above compares permits issued for new single family homes in the United States, Massachusetts, MetroWest, Greater Marlborough, and the combined MetroWest and Greater Marlborough Region (MW/GMR) from the base year of 1996 to 2010.
- The housing permit index for the United States reached a high of 158 in 2005, meaning that permits issued for new single family homes in the United States were 58% higher than in the base year of 1996. The United States index fell dramatically to a low of 41 in 2009, permits issued in 2009 were 41% of the number issued in 1996. For the first time in five years the index rose in 2010 but only slightly to 43, or 43% of the number issued in 1996.
- The Massachusetts index also rose slightly from 2009 to 2010 increasing from 31 to 37. This indicates that the level of single family residential building activity in the state was 37% of the activity in 1996. The MetroWest index increased from 21 to 27 from 2009 to 2010. The Greater Marlborough Region index was the only one of these five indexes to decline from 2009 to 2010 falling from 34 to 32.7.
- For the first time since the 2004 peak the MW/GMR index registered an increase in 2010, rising from 24 to 27, i.e., 27% of the 1996 value.

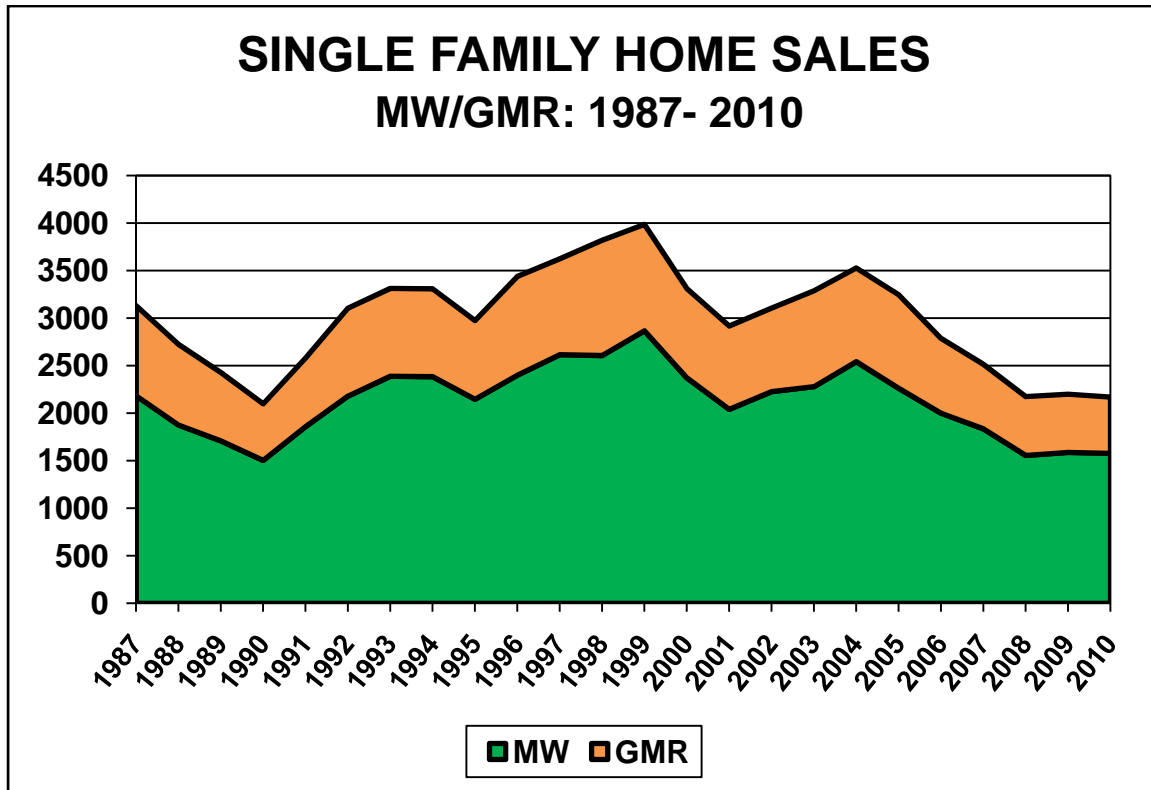
## METROWEST/GREATER MARLBOROUGH – HOUSING



Source: U.S. Census and MERC

- New residential housing permits issued for single-family homes in the combined MetroWest and Greater Marlborough Region (MW/GMR) rose for the first time since 2004 to 254 permits issued.
- Holliston, Hopkinton, Natick, and Sudbury contributed 11.8%, 14.6%, 12.6% and 13.8% respectively. Together these four communities make up more than half of MW/GMR's new permits issued for 2010.
- Hudson, Marlborough, and Northborough each contributed between 7.0% and 9.0% of the regional total. Ashland, Framingham, and Southborough provided 6.3%, 4.7% and 5.5% respectively, while Wayland generated 3.1%.
- Sherborn and Westborough each contributed 1.6% to regional permits issued for single family homes in 2010.

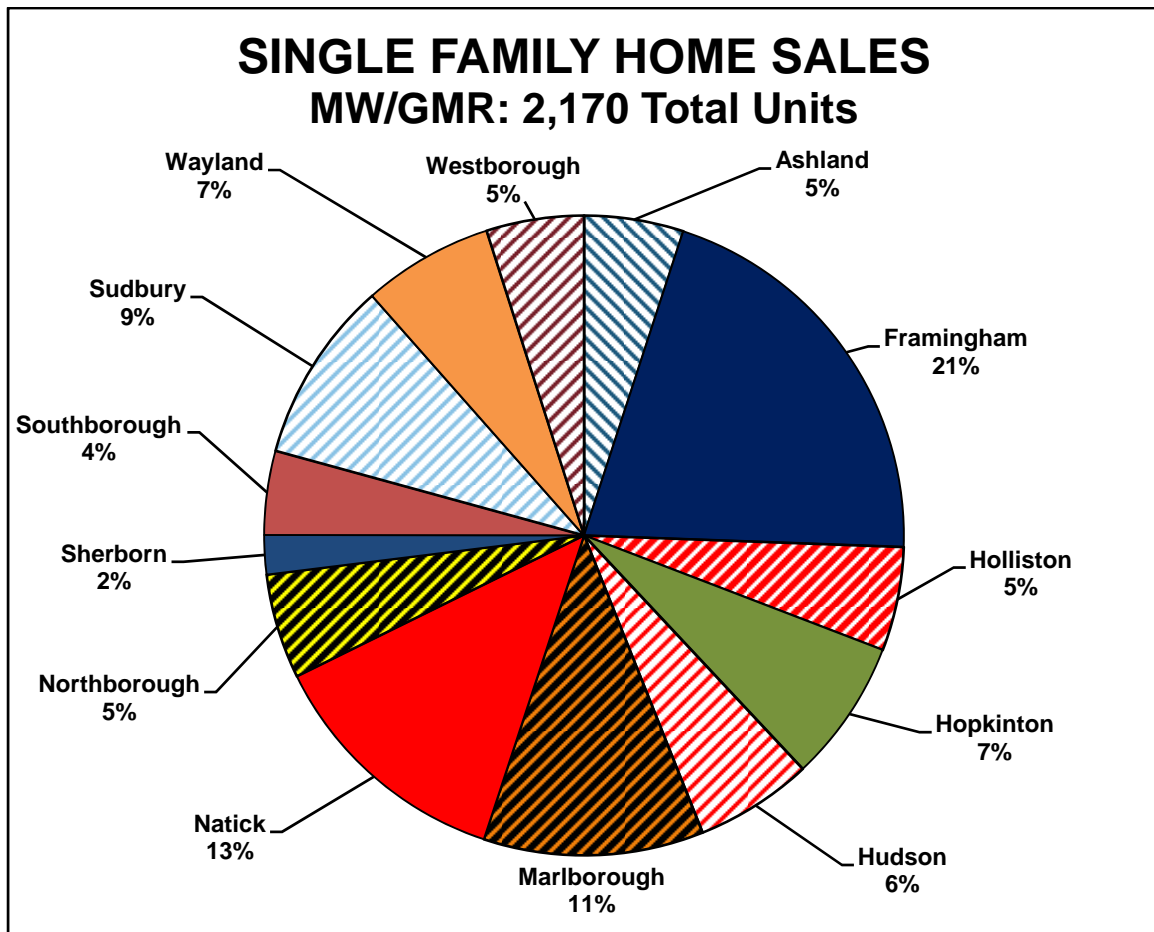
## METROWEST/GREATER MARLBOROUGH – HOUSING



Source: The Warren Group and MERC

- This graph displays sales of existing single-family homes in the combined MetroWest and Greater Marlborough Region (MW/GMR) from 1987 to 2010.
- The green area in the graph above represents single family home sales in the MetroWest (MW) region while the orange area represents single family home sales in the Greater Marlborough Region (GMR). The height of the graph shows the total single family home sales for MW/GMR.
- In 2010 existing single family home sales in the combined region totaled 2,170 units, 31 less than the 2009 value of 2,201. MW and GMR made up 72.7% and 27.3%, respectively, of the regional values.
- GMR had 592 existing single family home sales in 2010. This is the smallest annual number of home sales in the 23 year period depicted above. It is 3 units fewer than the previous low of 595 posted in 1990 and 21 fewer than 2009's value of 613.
- In 2010 MW had 1,578 existing single family home sales which was 10 fewer than in 2009, and 74 higher than the 1990 low of 1,504.

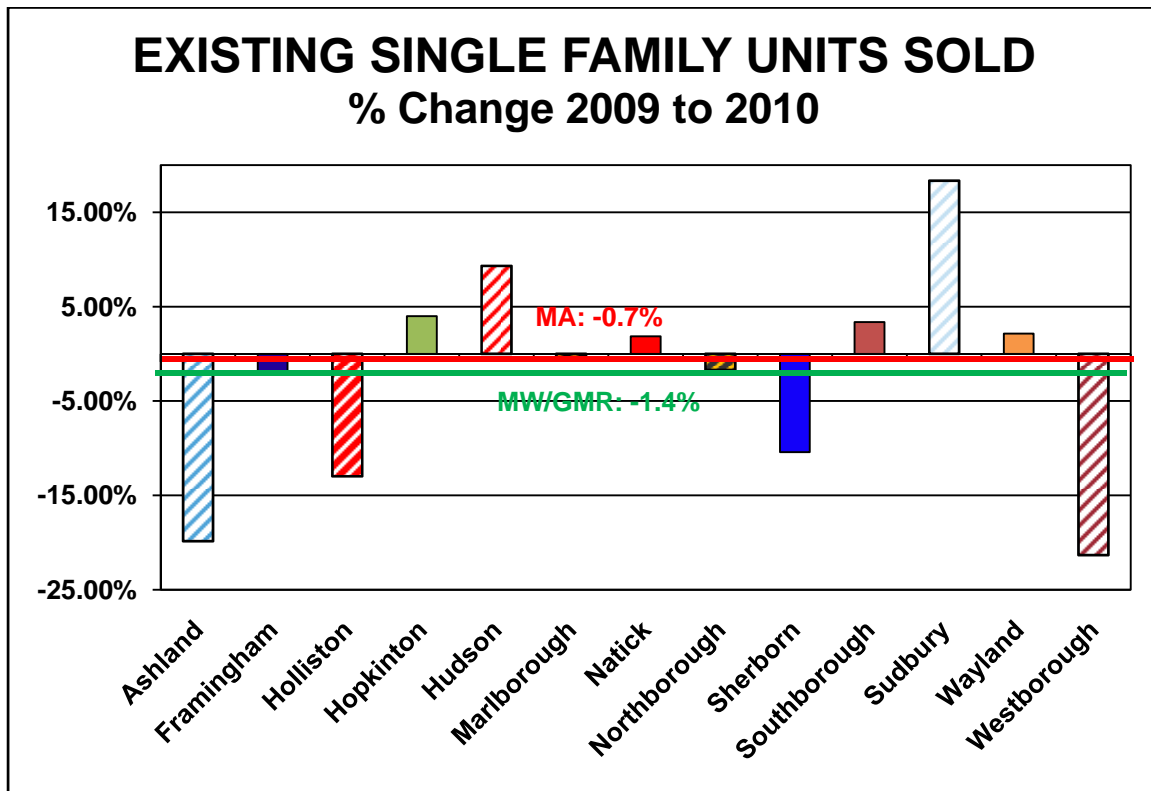
## METROWEST/GREATER MARLBOROUGH – HOUSING



Source: The Warren Group and MERC

- In 2010, 2,170 existing single-family homes were sold in the combined MetroWest and Greater Marlborough Region (MW/GMR). This represents a one-year decrease of about -1.43%
- Framingham, Natick, and Marlborough together made up nearly half, 45%, of the combined region's existing homes sold. Framingham had the highest percentage with 21%, followed by Natick and Marlborough with 13% and 11%, respectively.
- Eight of the 13 communities each contributed 5-10% of the combined region's total. Sudbury contributed 9%, Wayland and Hopkinton contributed 7%, Hudson contributed 6%, and Ashland, Westborough, Holliston, and Northborough contributed 5%.
- Southborough and Sherborn recorded the smallest proportions with 4% and 2%, respectively. In Sherborn only 43 existing single family homes were sold in 2010.

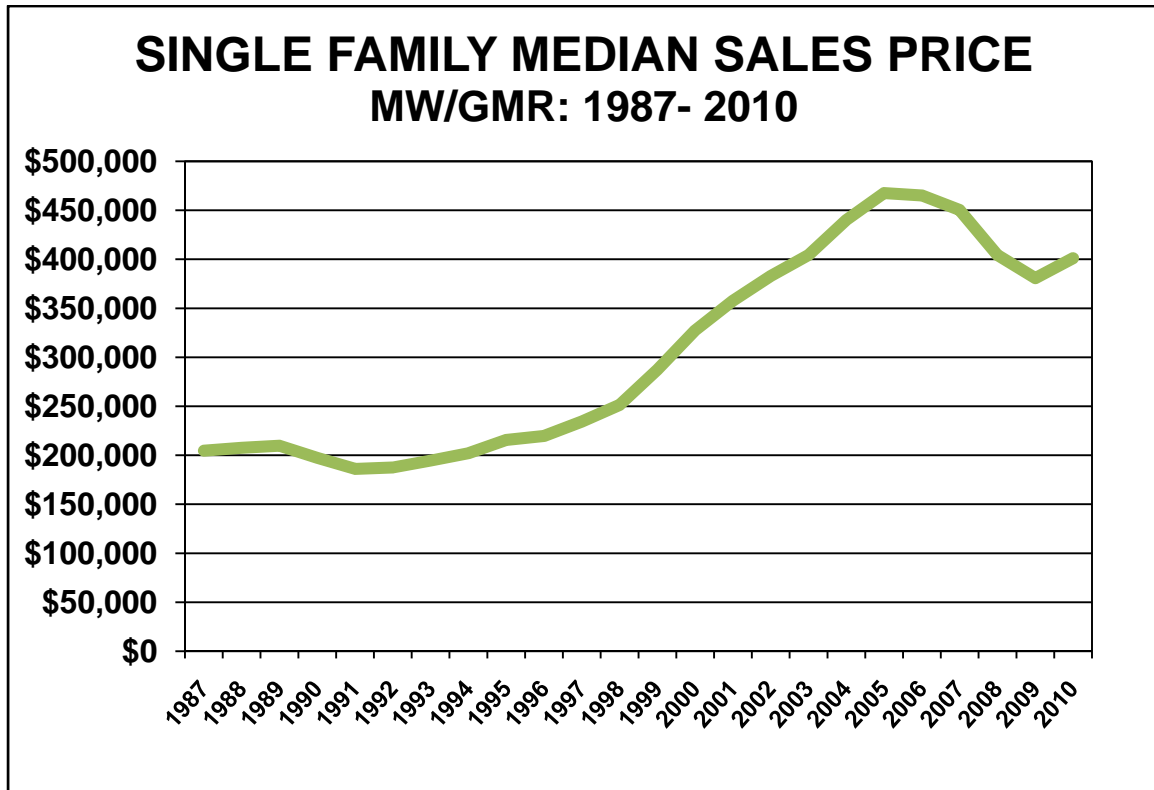
## METROWEST/GREATER MARLBOROUGH – HOUSING



Source: The Warren Group and MERC

- Above is a graph that displays the percent change in existing single family units sold from 2009 to 2010 in each of the thirteen communities in the MetroWest and Greater Marlborough Region (MW/GMR). Also shown are the annual percentage declines for Massachusetts (red line) and the combined region (green line).
- In 2010 MW/GMR registered 31 fewer units sold compared to 2009. This decrease represented a 1.4% decline, a rate twice as high as for the state. In 2010, sales in Massachusetts declined 304 units, a decrease of 0.7%.
- Six of the 13 communities registered percentage increases in units sold with Sudbury having the largest percent increase of 18.3%. Natick had the smallest percentage increase of only 1.9%. Hopkinton, Hudson, Southborough and Wayland each had percentage increases ranging from 2.1% in Wayland to 9.3% in Hudson.
- The remaining seven communities, Ashland, Framingham, Holliston, Marlborough, Northborough, Sherborn, and Westborough all recorded percentage declines in units sold. Ashland and Westborough had the greatest declines with 19.9% and 21.3% respectively. Holliston also had a decrease in the double digits of 13%. Marlborough experienced a decrease in units sold of 0.4%.

## METROWEST/GREATER MARLBOROUGH – HOUSING

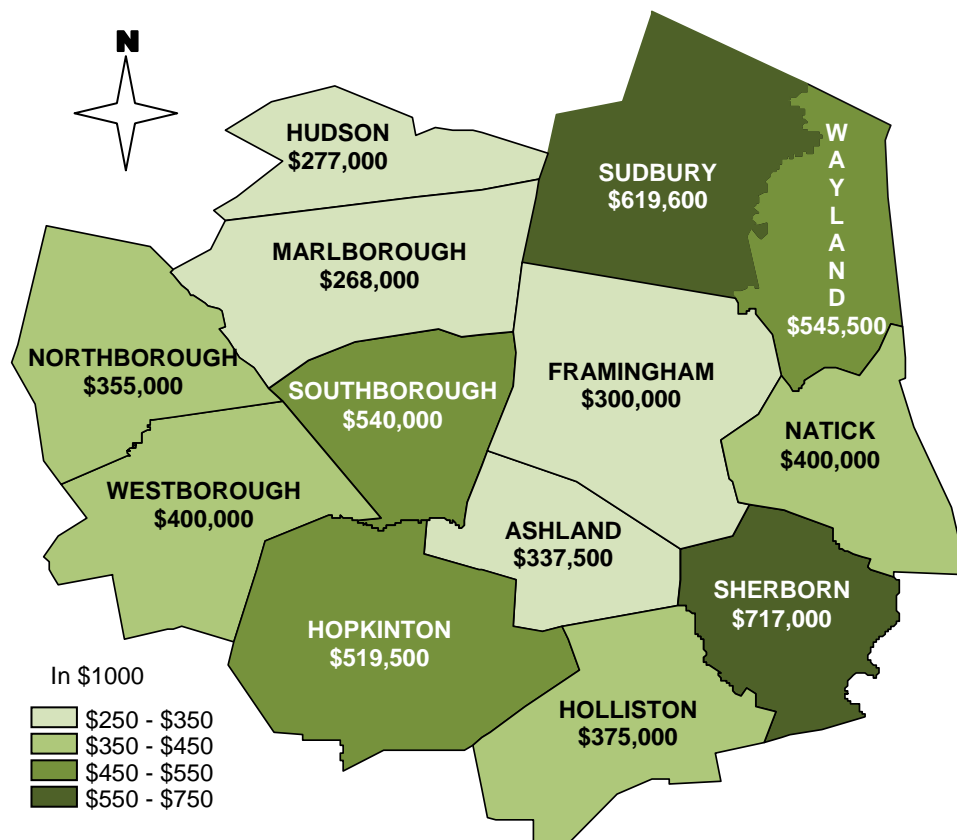


Source: The Warren Group and MERC

- The graph above shows the estimated median price for sales of existing single family homes in the combined MetroWest and Greater Marlborough Region (MW/GMR). It should be noted that these sales represent a different mix of homes each year.
- 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%.
- After 2005 the estimated median sale price started to decline, and decreased every year until 2009. In 2010 the estimated median sales price for existing single-family homes in MW/GMR was \$401,240. This was \$20,462, or 5%, greater than the 2009 value.



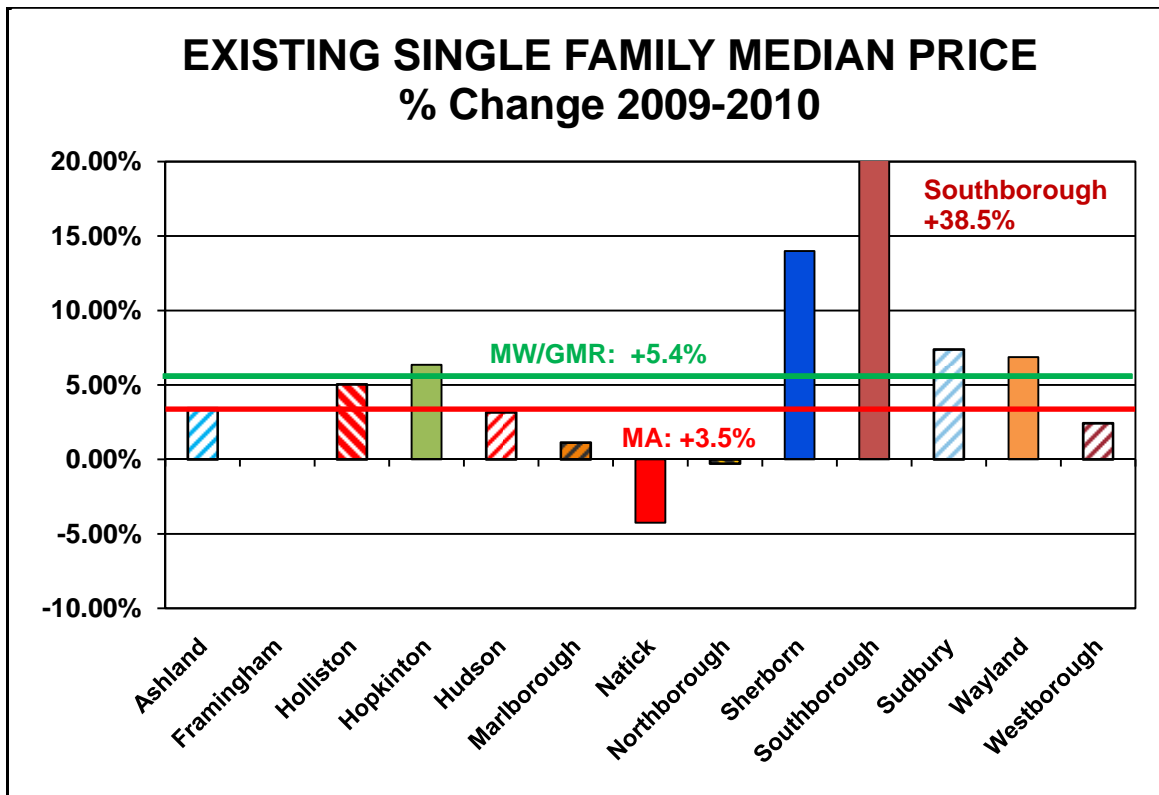
## **2010 EXISTING SINGLE FAMILY HOME PRICES METROWEST/GREATER MARLBOROUGH**



Source: The Warren Group and MERC

- The map above shows the 2010 median sales prices for existing single family homes in the 13 communities in the combined MetroWest and Greater Marlborough Region (MW/GMR). Median sales prices ranged from a low of \$268,000 in Marlborough to a high of \$717,000 in Sherborn.
- Eight of the 13 communities had median sales prices under \$450,000. Ashland, Framingham, Hudson, and Marlborough all posted median sales price 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 each had a median sales price above \$500,000. Hopkinton, Southborough, and Wayland, had median sales prices ranging from \$500,000 to \$550,000. Sudbury and Sherborn posted the highest median sales prices at \$619,600 and \$717,000 respectively.

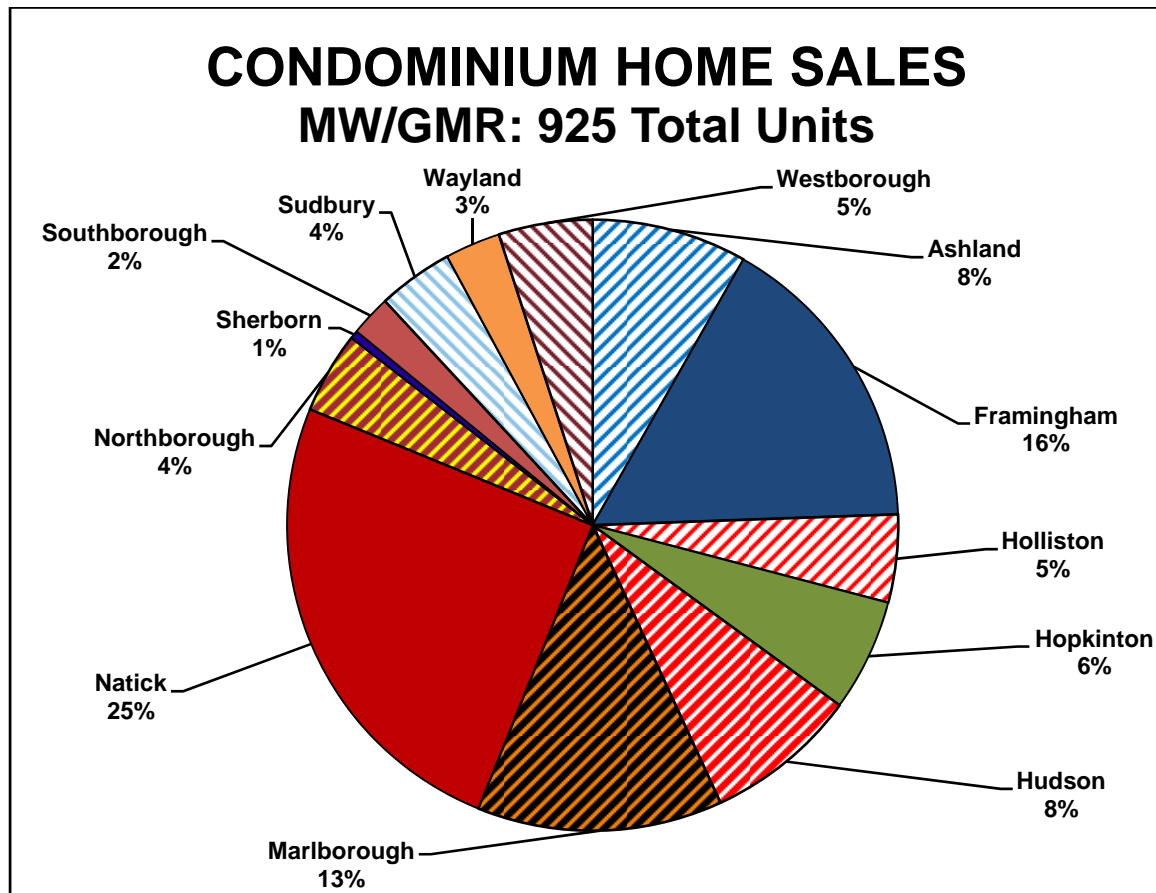
## METROWEST/GREATER MARLBOROUGH – HOUSING



Source: The Warren Group and MERC

- The estimated median sales price for existing single family homes in the combined MetroWest and Greater Marlborough Region (MW/GMR) increased 5.4% from \$380,778 in 2009 to \$401,240 in 2010. Massachusetts registered a smaller gain of 3.5% increasing from \$285,000 in 2009 to \$295,000 in 2010.
- Within MW/GMR Southborough had the greatest increase in median sales price rising from \$390,000 in 2009 to \$540,000 in 2010, a gain of 38.5%. Sherborn had the second greatest rate of increase at 14%.
- Only two communities, Natick and Northborough, experienced a decline in median sales price for the year. Natick's median sales price dropped from \$417,750 to \$400,000, a 4.25% decline. Northborough only declined 0.28% with a decrease of \$1000.
- Lastly Framingham registered no change in median price from 2009 to 2010. The remaining eight communities recorded median price increases between 2% and 8%.

## METROWEST/GREATER MARLBOROUGH – HOUSING

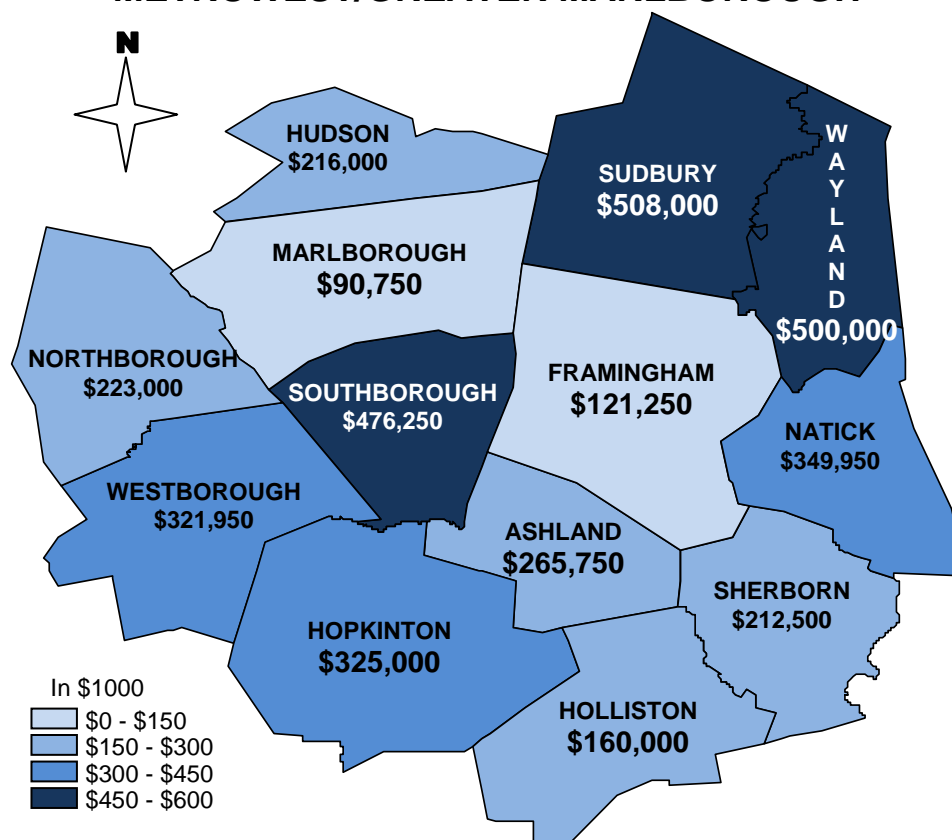


Source: The Warren Group and MERC

- In 2010 925 condominiums were sold in the combined MetroWest and Greater Marlborough Region (MW/GMR). This represents a one year increase of 1.5%.
- Three of the communities, Framingham, Marlborough, and Natick, dominate the region making up more than half, 54%, of the units sold in MW/GMR. Natick alone contributed a quarter of the combined region sales. Framingham and Marlborough contributed 16% and 13% respectively.
- Holliston, Northborough, Sherborn, Southborough, Sudbury, Wayland, and Westborough each contributed 5% or less. Sherborn contributed the smallest number of sales with only 1% of the total regional condo sales.
- The remaining three communities, Ashland, Hopkinton, and Hudson each contributed between 6% and 10% of the regional condominium sales. Ashland and Hudson each contributed 8% and Hopkinton contributed 6%.

## METROWEST/GREATER MARLBOROUGH – HOUSING

### 2010 CONDOMINIUM PRICES METROWEST/GREATER MARLBOROUGH



Source: The Warren Group and MERC

- In 2010, the estimated median price for condominium sales in the MetroWest and Greater Marlborough Region (MW/GMR) was \$257,101, a 14.3% increase compared to 2009.
- Two communities, Framingham and Marlborough, had median condominium prices under \$150,000. Marlborough had the lowest price in the combined region at \$90,750. Five of the communities, Ashland, Holliston, Hudson, Northborough, and Sherborn, had median sales prices ranging from \$150,000 to \$300,000.
- The remaining six communities had median condominium prices over \$300,000. Natick, Hopkinton, and Westborough recorded median condominium prices between \$300,000 and \$450,000. Southborough, Sudbury, and Wayland had median condominium prices over \$450,000. In 2010 Sudbury had the highest median condominium price within the combined region at \$508,000.

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

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

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

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

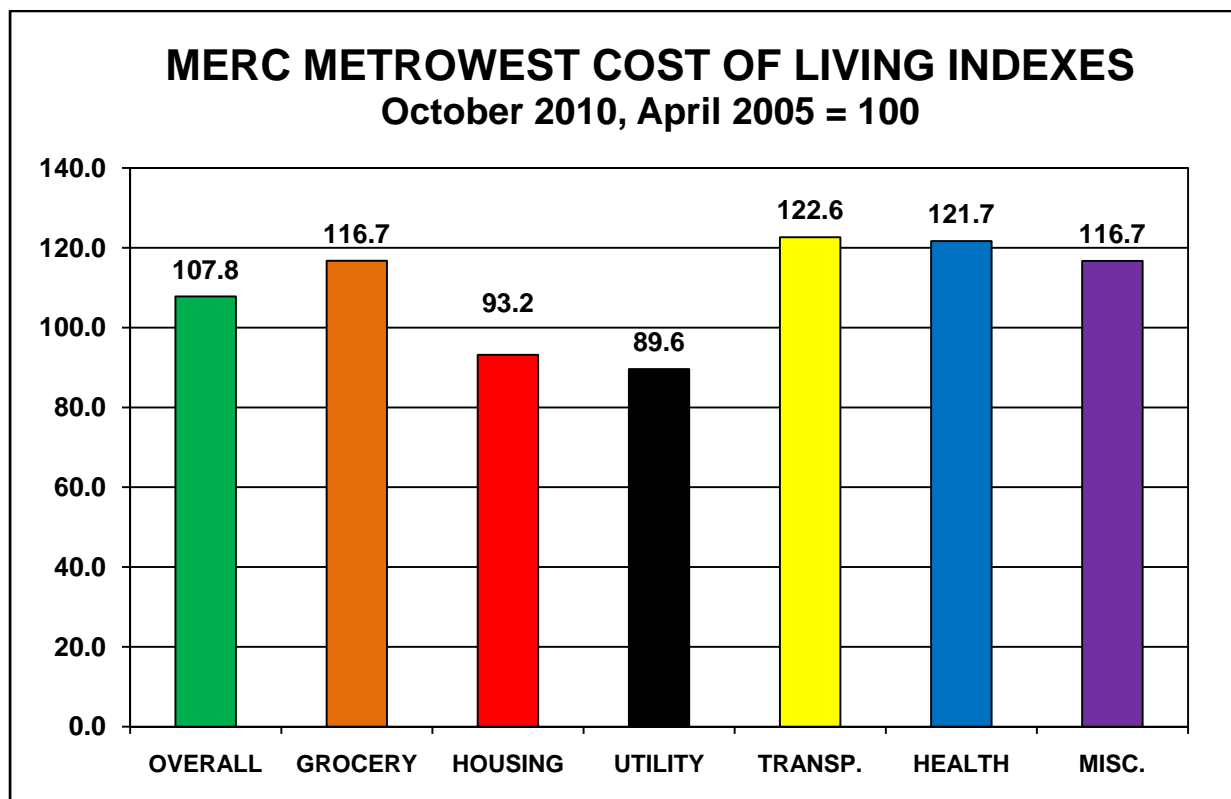
In addition to using this data to track the cost of living in MetroWest over time, MERC also sends its survey results to C2ER to be included in that group’s survey of living costs across the nation. The data from MetroWest are combined with the same data from approximately 300 other U.S. communities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

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

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

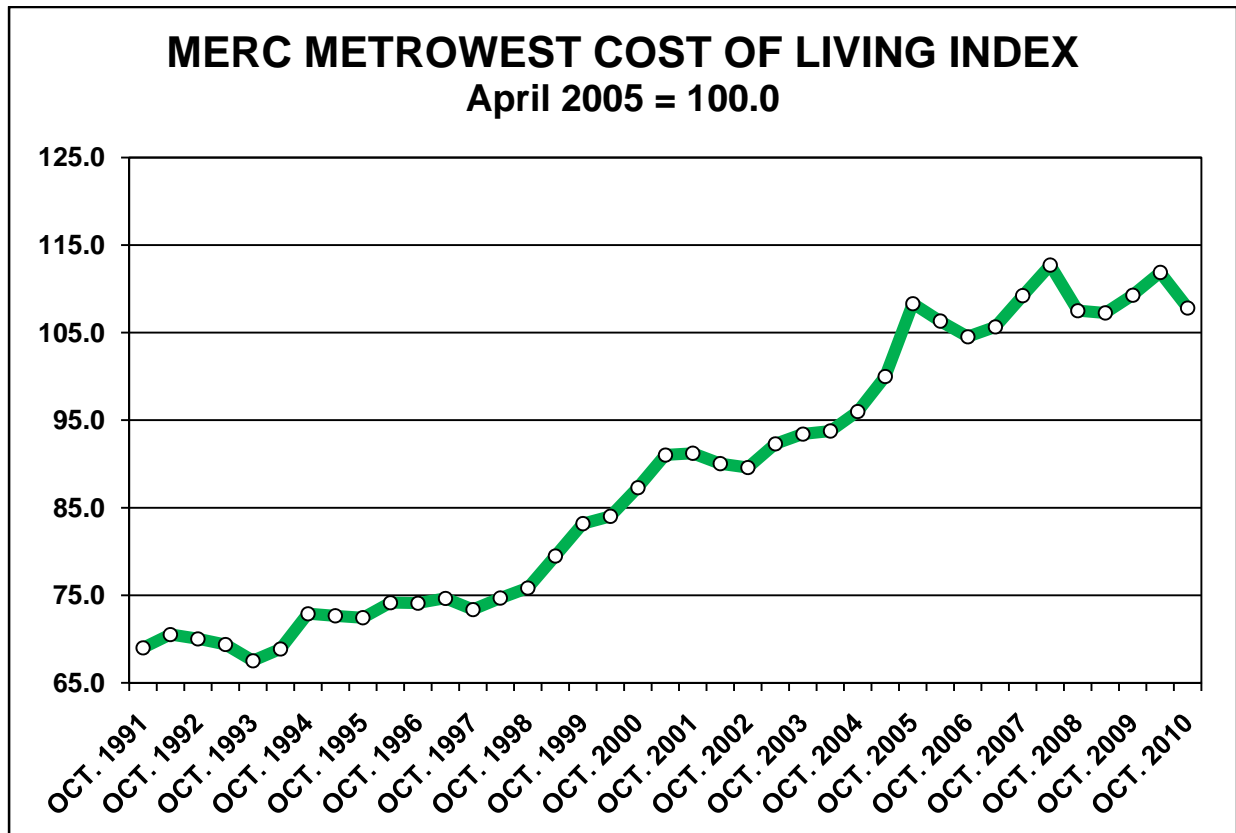
## METROWEST/GREATER MARLBOROUGH – COST OF LIVING



Source: MERC

- In October 2010 the MERC Overall Cost of Living Index for MetroWest was 107.8. This represents a decrease of 3.7% from April 2010. It also means that the cost of living in MetroWest was roughly 7.8% higher in October of last year than it was in April 2005.
- The Utilities Index registered the lowest value at 89.6 in October 2010. This represents a decrease of about 15.9% in the six months since the April 2010 survey. It also means that utility costs in MetroWest were about 10.4% lower in October 2010 than they were in April 2005.
- The Transportation Index recorded the highest value at 122.6 in October 2010. Although this index has a relatively high value, it has actually decreased by 15.7% since the October 2008 peak of 145.4.
- All of the Indexes except Grocery Items and Health Care decreased from April 2010 to October 2010. Both of these experienced small increases, with the Grocery Items Index rising by 3.6% and the Health Care Index rising by 1.5%.

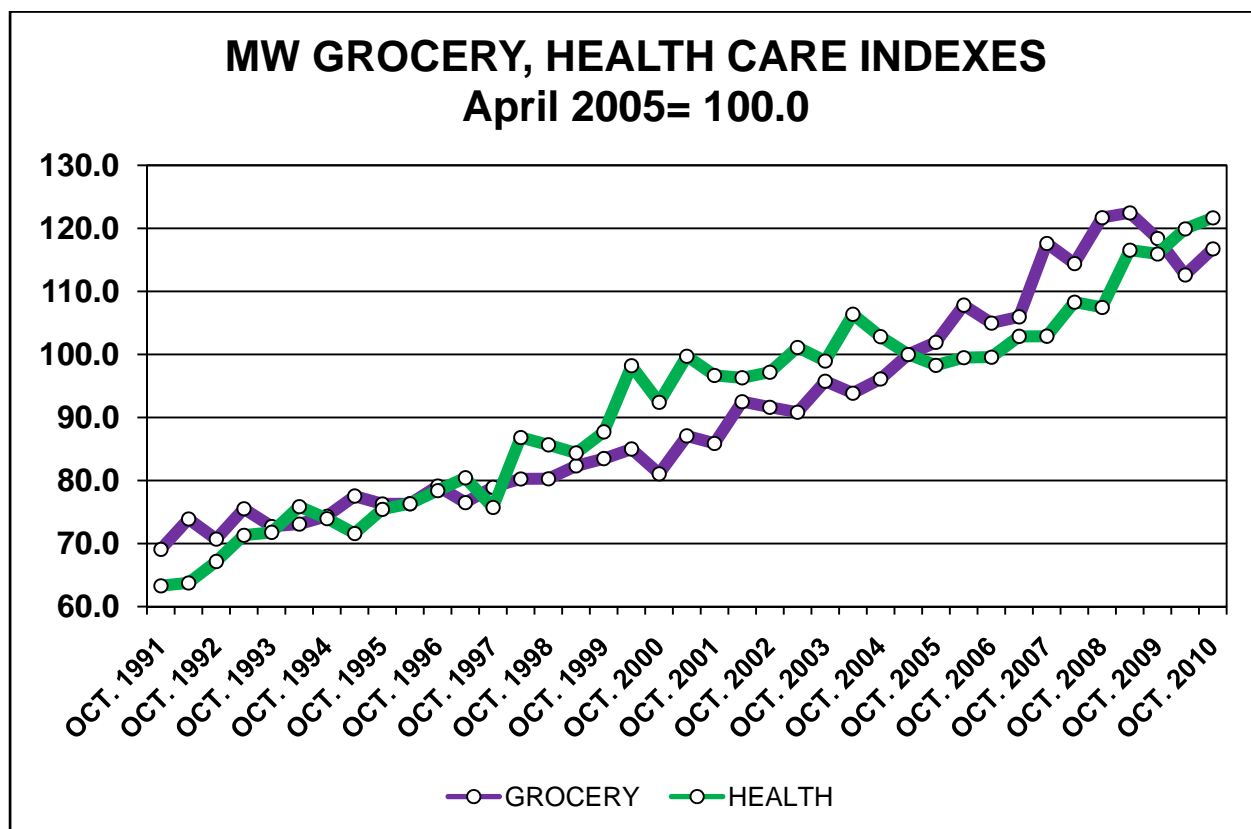
## METROWEST/GREATER MARLBOROUGH - COST OF LIVING



Source: MERC

- In the most current pricing period, October 2010, the MERC Overall Cost of Living Index fell about 3.7% from the previous period; it decreased from 111.9 in April 2010 to 107.8 in October.
- The October index value of nearly 108 implies that the cost of living in MetroWest has risen approximately 8% since the April 2005 survey.
- The Overall Index has been increasing at an average rate of about 2.4% annually since MERC began doing its cost of living survey in October 1991.
- From October 1991 to October 2010, the Index rose about 56.2%.
- The Overall Index reached a peak of 112.7 in April 2008, meaning that at its peak the cost of living in MetroWest was about 13% higher than it was in the base period, April 2005 when the Index had a value of 100.0. From this peak in April 2008, the Overall Cost of Living Index decreased by approximately 4.3% in October 2010.

## METROWEST/GREATER MARLBOROUGH – COST OF LIVING

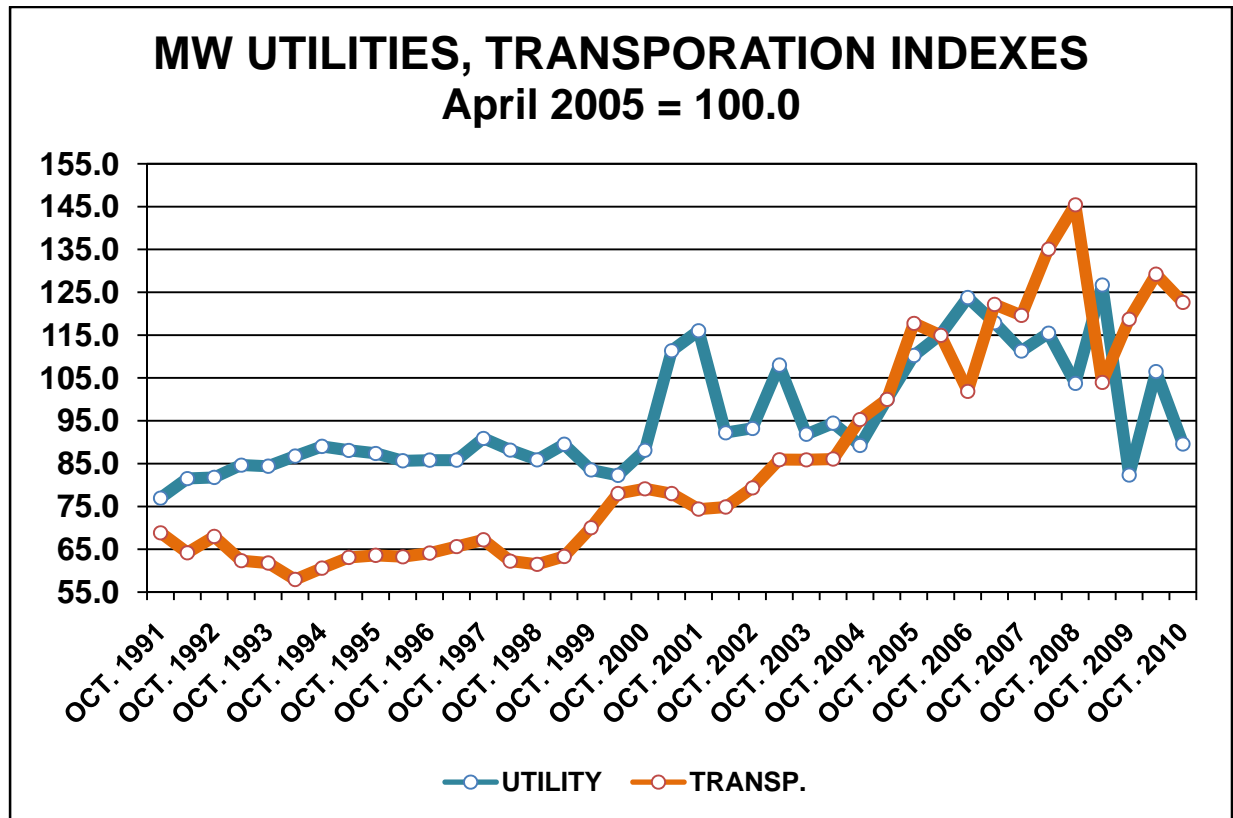


Source: MERC

- From October 1991 to October 2010, the Health Care Index had the largest overall increase (92.3%) among the six sub-indexes. This represents an average annual increase of 3.5% per year.
- The Grocery Items Index increased at an average rate of about 2.8% per year; resulting in a total rise of 68.9% in 19 years.
- The Grocery Items and Health Care Indexes were the only two indexes out of the six that increased from April 2010 to October 2010.
- From April 2010 to October 2010, the Grocery Items Index increased by 3.6% to 116.7.
- Likewise, the Health Care Index increased by 1.5% to 121.7. Although the index rose, the change was within the margin of error of 3% to 4%, and was not significant. Therefore, there might actually have been no change in health care costs in MetroWest during that six month time period.



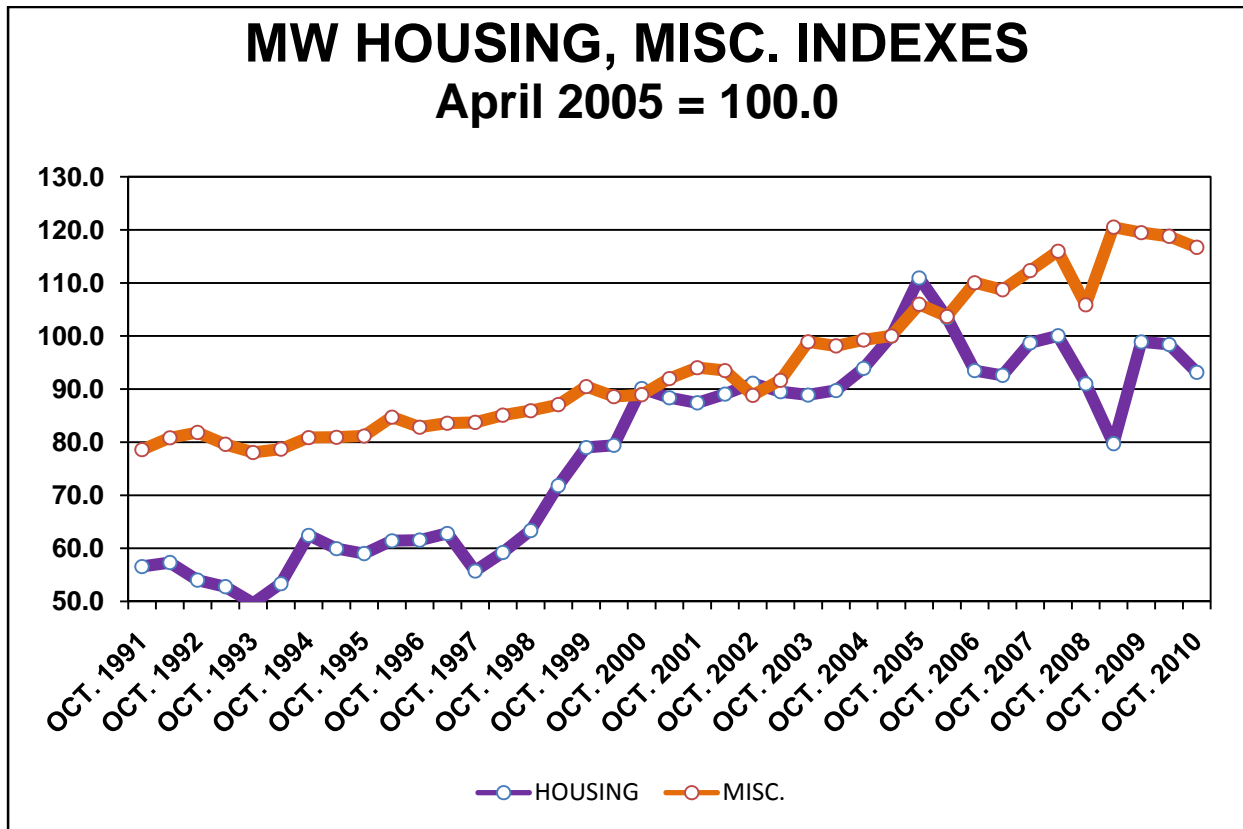
## METROWEST/GREATER MARLBOROUGH - COST OF LIVING



Source: MERC

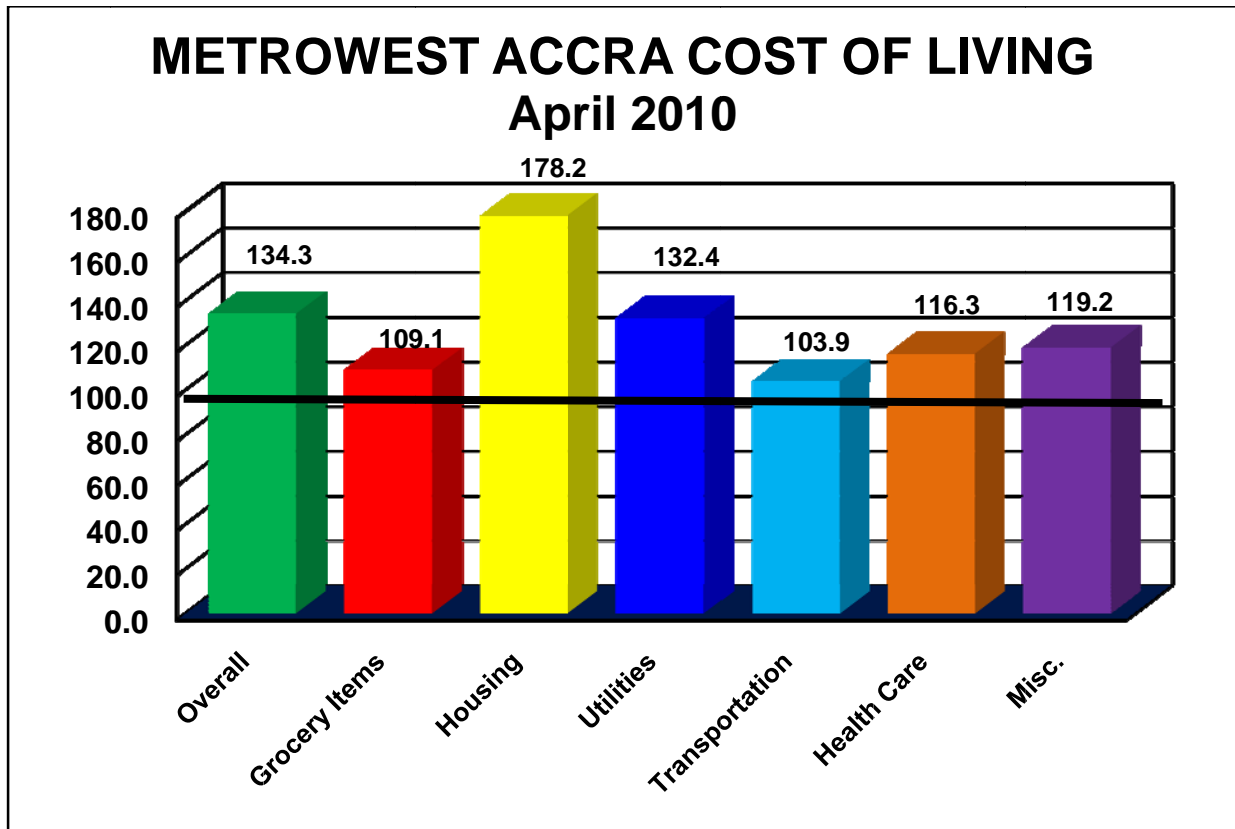
- Between April 2010 and October 2010, the Utilities Index experienced the sharpest decline out of the six sub-indexes. The Utilities Index decreased 15.9% to 89.6.
- Between October 1991 and October 2010, the Utilities Index increased 16.3%, which represents an average annual increase of only 0.8% per year. This is the smallest average annual increase per year out of the six sub-indexes.
- The Transportation Index decreased 5.1% from 129.2 in April 2010 to 122.6 in October 2010. This implies that in October 2010, transportation costs were about 23% higher than they were in April 2005.
- From October 1991 to the current pricing period, the Transportation Index rose 77.9%, representing an average annual increase of 3.1% per year.
- These two indexes were two of the most volatile of the six sub-indexes, with volatility being much greater over the most recent 9 or 10 years than it was earlier.
- The largest six-month decrease in the Utilities Index occurred from April 2009 to October 2009, a decline of around 35%. This decline came after a 22% increase from October 2008 to April 2009 and was followed by a subsequent 29% increase from October 2009 to April 2010.

## METROWEST/GREATER MARLBOROUGH - COST OF LIVING



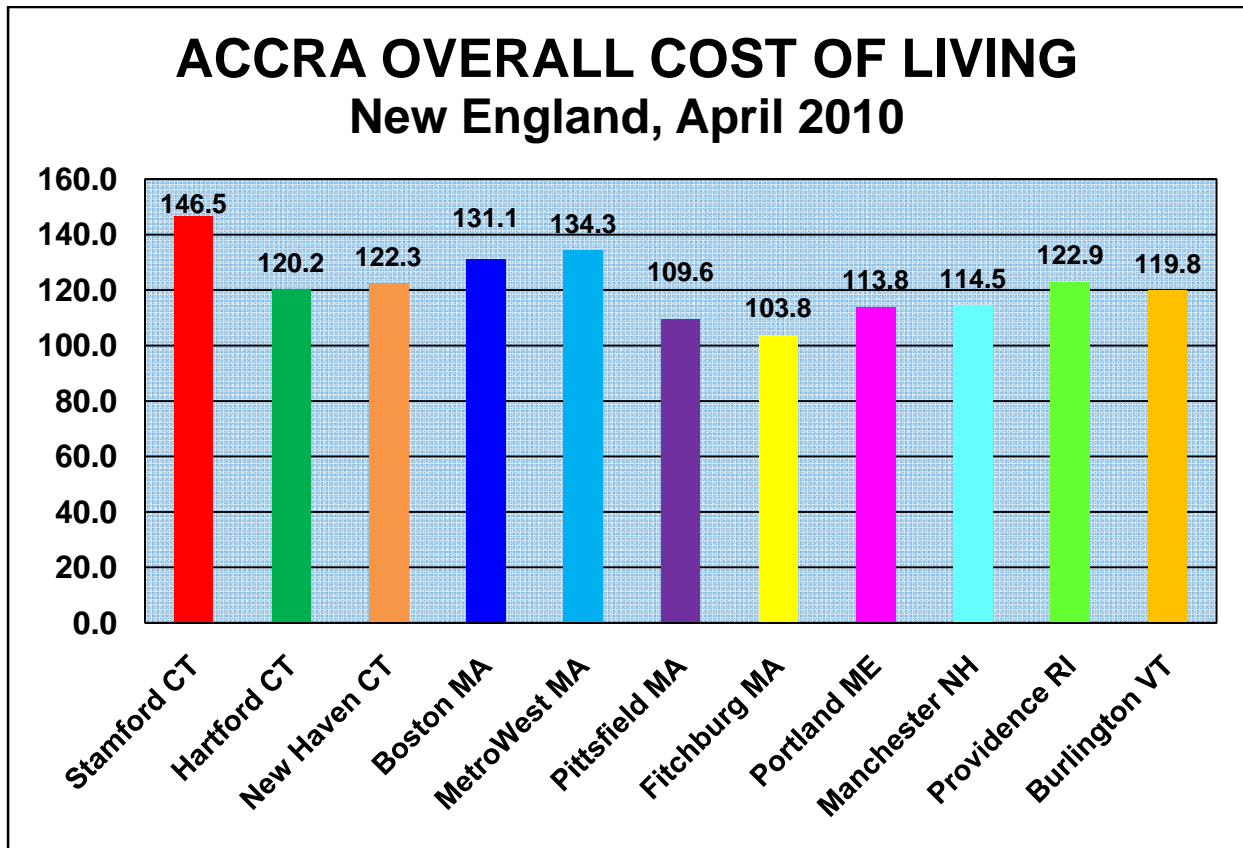
Source: MERC

- In October 2010, the Housing Index was 93.2, representing a 5.3% decrease from April 2010. The index value of 93.2 implies that October 2010 housing costs were about 7% lower than they were in April 2005.
- The Housing Index increased 64.7% from October 1991 to October 2010 with an average annual increase of 2.7%.
- The Miscellaneous Goods and Services Index had a value of 116.7 in October 2010, a decline of only 1.8% from April 2010.
- From October 1991 to October 2010, the Miscellaneous Goods and Services Index increased by 48.5%, growing at an average annual rate of 2.1% over the past 19 years.
- The Housing Index reached its peak in October 2005 with a value of 110.9. The Miscellaneous Goods and Services Index reached its peak in April 2009 with a value of 120.5.



Source: C2ER and MERC

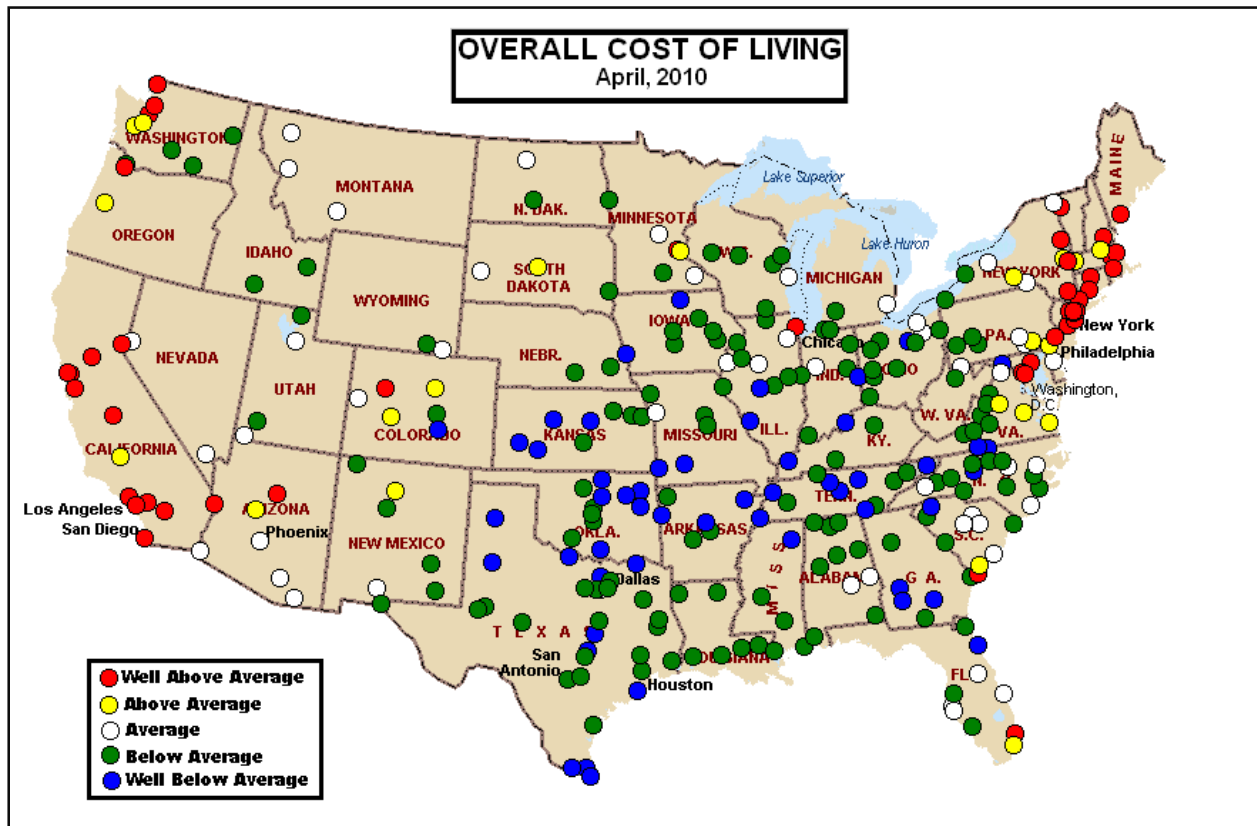
- The Overall ACCRA Cost of Living Index for MetroWest (134.3) shows that the cost of living in MetroWest was about 34% higher than the national average in April 2010. The national average equals 100.0 and is shown by the black line. This result is similar to results from the vast majority of prior surveys.
- Continuing with a trend that appears in almost every ACCRA report since MERC began participating in 1991, all of the indexes for MetroWest were significantly (more than 3 percentage points) higher than the national average.
- The Housing Index was the highest index with a value of 178.2. This implies that housing costs in MetroWest in April 2010 were about 78% higher than the national average.
- The Transportation Index had the lowest value at 103.9. The Grocery Items Index and the Health Care Index were the second and third lowest indexes, with values of 109.1 and 116.3 respectively.



Source: C2ER and MERC

- The above graph shows the Overall Cost of Living Indexes for MetroWest, Boston and the other nine areas in New England that participated in the April 2010 C2ER survey. All of these areas had Overall Indexes above the national average of 100.0.
- The participating New England community with the highest Overall Cost of Living Index in April 2010 was Stamford, CT at 146.5. This means that Stamford had a cost of living that was around 46% higher than the national average.
- At 134.3, MetroWest had the second highest Overall Cost of Living Index, followed by Boston, which had an index of 131.1. By this measure, MetroWest had a cost of living that was about 34% higher than the national average while the cost of living in Boston was about 31% above the national average.
- The area with the lowest Overall Cost of Living Index in New England in April 2010 was Fitchburg, MA with an Overall Index of 103.8.

## METROWEST/GREATER MARLBOROUGH - 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 (209.7) had the highest Overall Index followed by Brooklyn (177.7) and Honolulu (166.7). MetroWest had the 15<sup>th</sup> highest at 134.4 and Boston had the 18<sup>th</sup> highest at 131.1.
- Twenty of the 25 places with the highest Overall Indexes in the survey were located either in the northeast or in California.
- Harlingen, TX had the lowest Overall Index for April 2010, with an Index of 81.8. This means that the overall cost of living in Harlingen, TX was almost 20% lower than the national average and about 39% lower than MetroWest. This was just slightly lower than Pryor Creek, OK and Salina, KS, which had Indexes of 84.3 and 84.6 respectively.
- Below average living costs, denoted by the blue and green dots, were found primarily in the Southeast and Midwest.

*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.*

### **MUNICIPAL REVENUE**

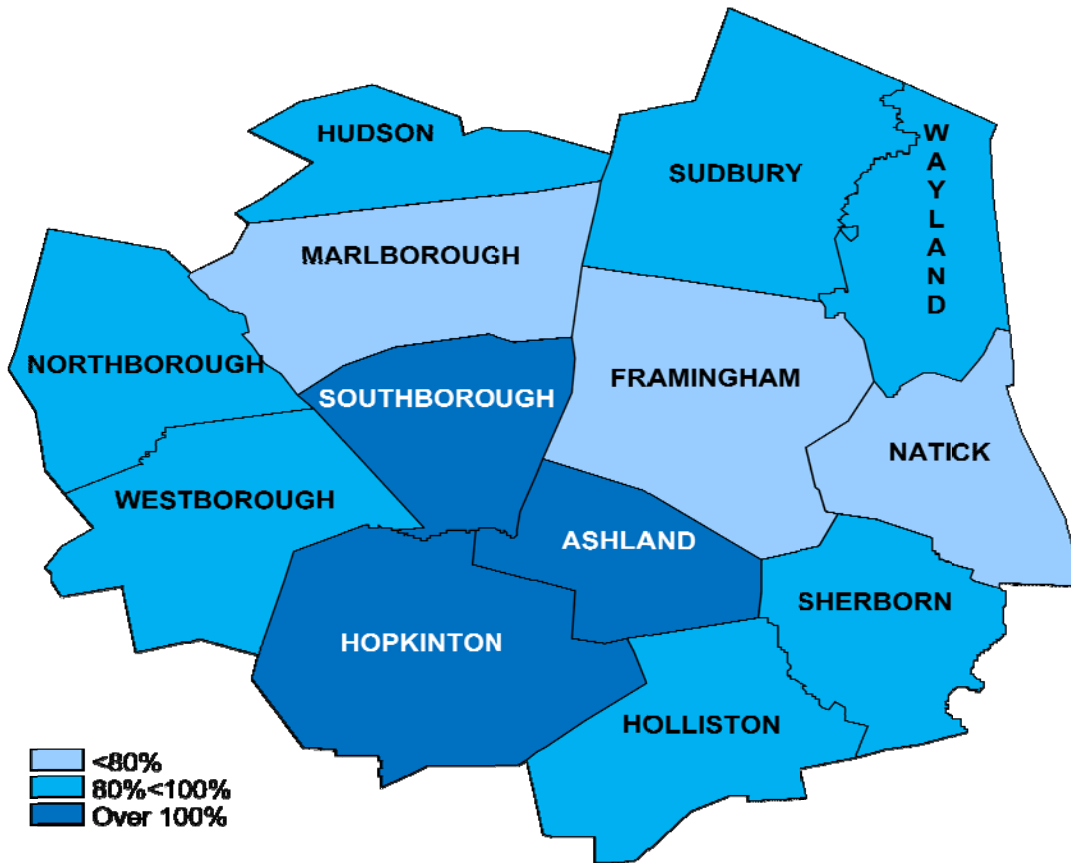
Municipalities report budgeted revenue, actual revenue and actual expenditures to the Massachusetts Department of Revenue (DOR), Division of Local Services (DLS) on form Schedule A which includes a tax recapitulation report. The DLS of the DOR prepares many analyses from these reports. The MetroWest 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).

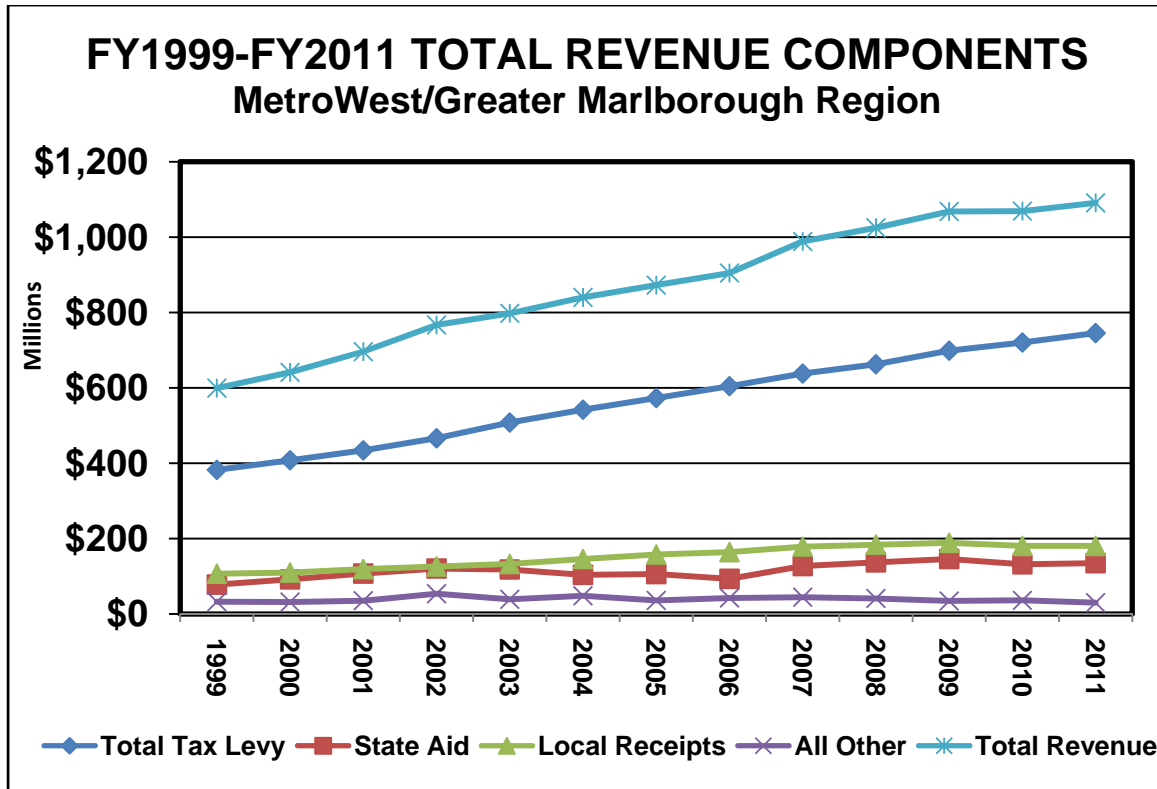
**MW/GMR GROWTH IN MUNICIPAL REVENUE  
FY1999 - FY2011**



*Source: MA Dept. of Revenue, DLS, and MERC*

- Municipal revenue percentage growth from FY1999 to FY2011 in the combined MetroWest and Greater Marlborough Region (MW/GMR) is divided into three intervals: less than 80%, 80% to less than 100%, and greater than 100%.
- From FY1999 to FY2011 total MW/GMR municipal revenue increased from \$599.3 million to \$1.09 billion, a gain of 82%.
- Seven of the communities in MW/GMR experienced municipal revenue growth between 80% and 100% over the twelve year period FY1999 to FY2011. Three communities experienced growth of less than 80%; and three experienced municipal revenue growth of more than 100%.
- The community with the greatest rate of growth in municipal revenue was Southborough, rising from \$20.0 million in FY1999 to \$45.5 million in FY2011, a gain of 127.8%. The town with the smallest growth in municipal revenue was Natick where municipal revenue increased by 64% during the same period.

## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE

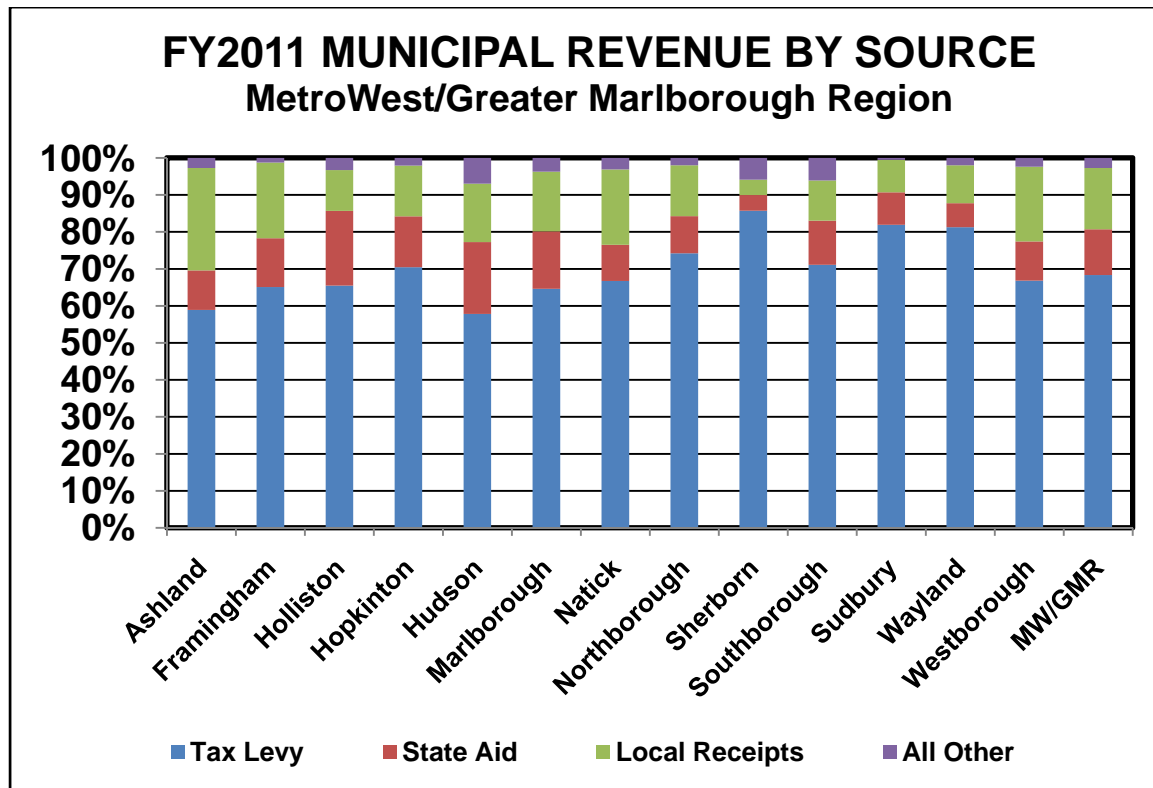


Source: MA Department of Revenue, DLS, and MERC

- Total municipal revenue for the combined MetroWest and Greater Marlborough Region (MW/GMR) rose from \$599.3 million in FY1999 to \$1,090.9 million in FY2011, an increase of 82.0%.
- The tax levy for the region rose every single year resulting in a total increase of 95.0% from \$382.3 million in FY1999 to \$745.5 million in FY2011. From FY2010 to FY2011 the tax levy increased 3.5%.
- State aid for MW/GMR rose from approximately \$78.0 million in FY1999 to \$120.7 million in FY2002 and decreased to \$93.4 million in FY2006, before rising again. State aid peaked at \$146.0 million in FY2009 and decreased to \$134.9 million in FY2011.
- Local receipts reached its highest value of \$188.9 million in FY2009 and then dropped to \$180.7 million in FY2010 and FY2011, a decrease of 4.3%.
- For the same time period the “all other” category decreased 7.0% from \$32.2 million in FY1999 to \$29.8 million in FY2011, while exhibiting some volatility over the period.



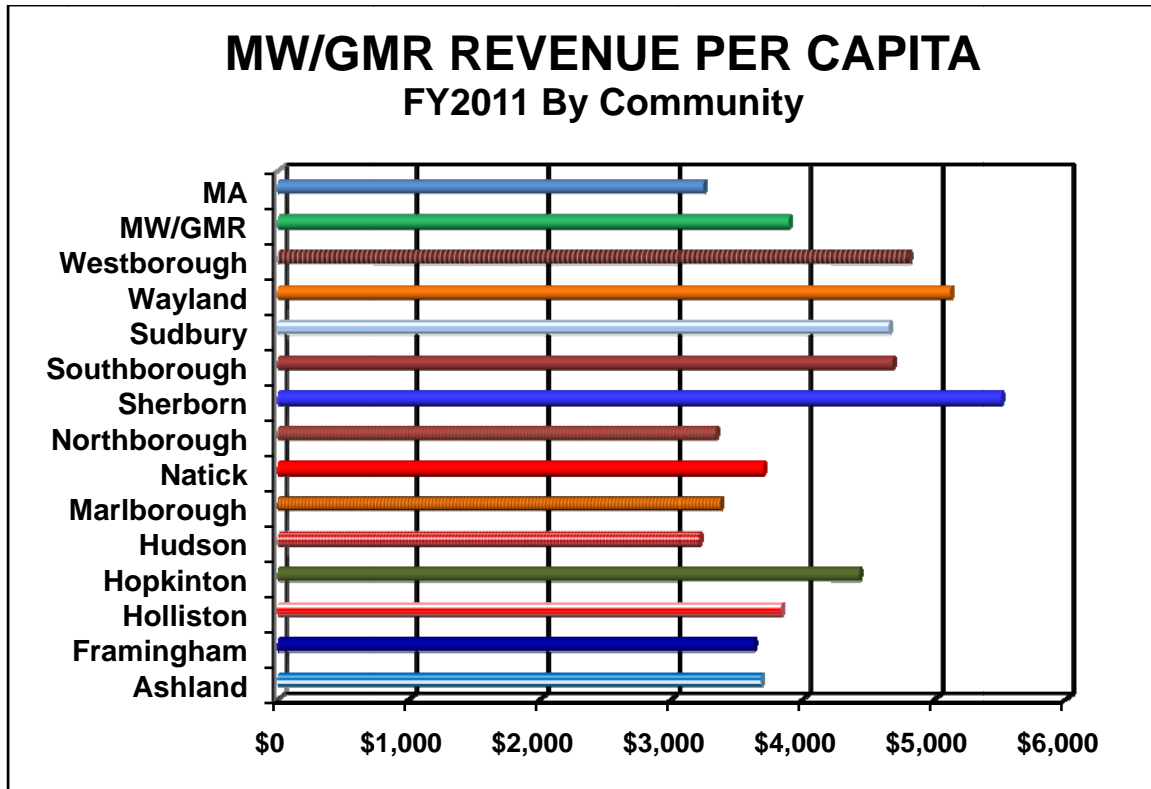
## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2011 municipal revenue components for the MetroWest and Greater Marlborough Region (MW/GMR) varied significantly by community. The total tax levy was the biggest contributor to municipal revenue in all communities, ranging from 57.8% in Hudson to 85.7% in Sherborn. The combined region had an average of 68.3% of total revenue derived from the tax levy.
- State aid as a percentage of total revenue varied from 4.2% in Sherborn to 20.2% in Holliston and averaged 12.4% for MW/GMR in FY2011.
- Local receipts ranged from 4.2% in Sherborn to 27.7% in Ashland. The regional average for local receipts was 16.6%.
- The “all other” category was the smallest contributor to municipal revenue and ranged between 0.5% in Sudbury and 6.9% in Hudson. The “all other” category averaged 2.7% of MW/GMR municipal revenue.

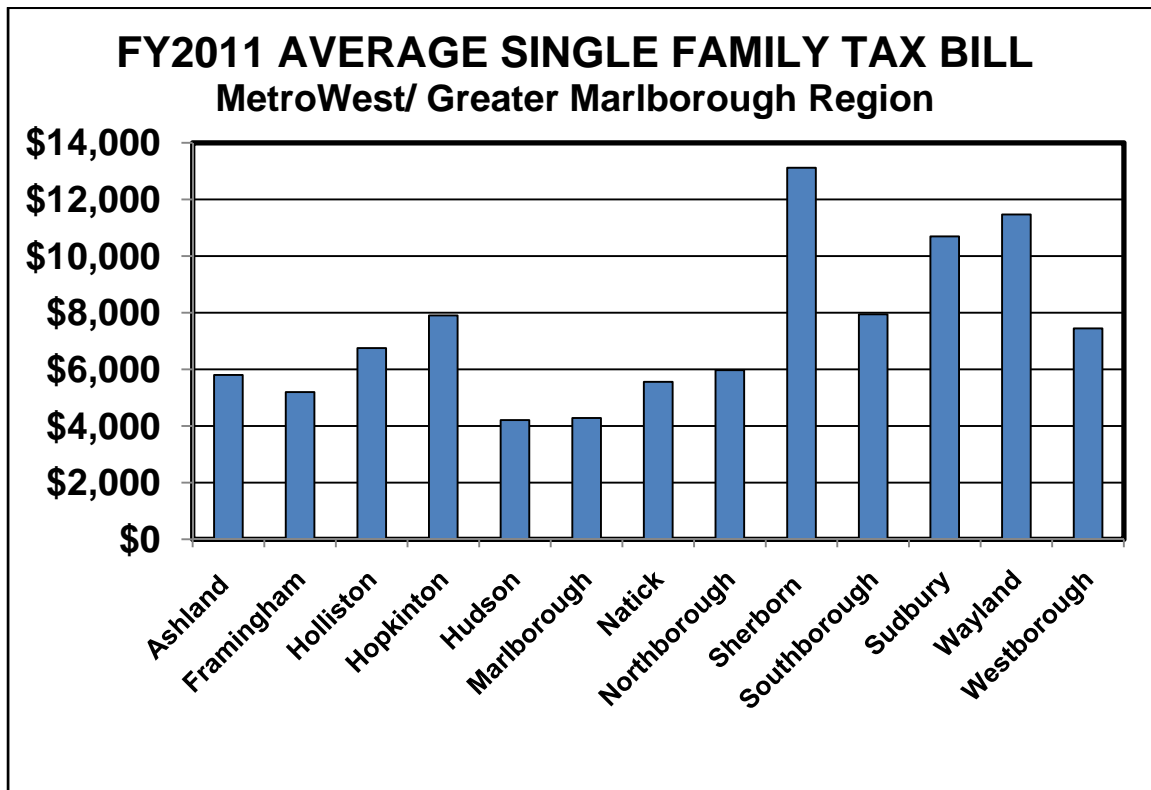
## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for the MetroWest and Greater Marlborough (MW/GMR) communities for FY2010 can be viewed as spending per capita as communities are required to balance their budget. All the communities, except Hudson (\$3,200), had municipal revenue per capita that was above the state average of \$3,234.
- Municipal revenue per capita for the MW/GMR communities for FY2011 ranged from a low of \$3,200 in Hudson, followed closely by Northborough (\$3,326) and Marlborough (\$3,360), to a high of \$5,503 in Sherborn.
- The seven communities of Ashland, Framingham, Holliston, Hudson, Marlborough, Natick, and Northborough, had municipal revenue per capita for FY2011 that fell below the regional average of \$3,886.
- The six communities of Hopkinton, Sherborn, Southborough, Sudbury, Wayland, and Westborough, had municipal revenue that exceeded the \$3,886 regional average.

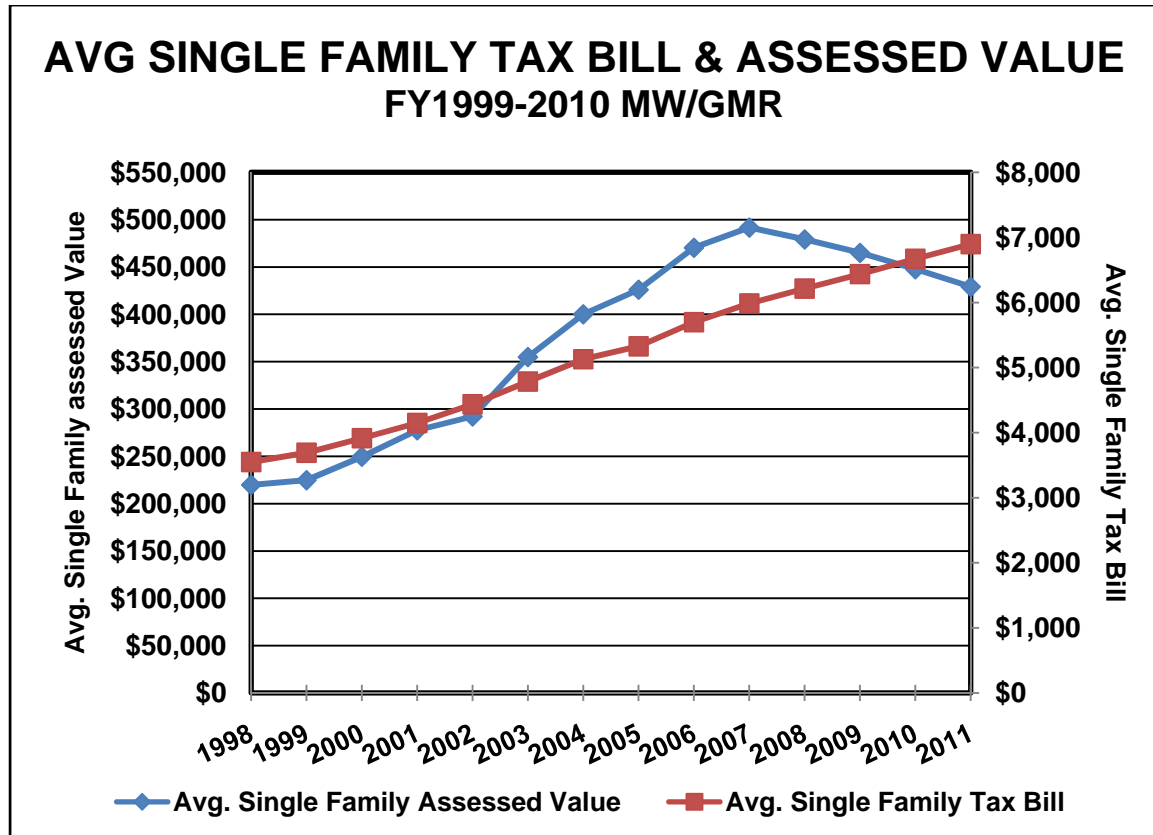
## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family residential tax bill in FY2010 varied widely by community, ranging from a low of \$4,210 in Hudson to a high of \$13,119 in Sherborn.
- The remaining eleven communities' average single family tax bills ranged from \$4,280 in Marlborough to \$11,471 in Wayland.
- The average single family tax bill is determined by applying the respective residential tax rate to the average single family assessed value in that community.
- The average assessed value for single family homes is determined by dividing the total single family assessed value for each community by the number of single family dwellings in that community.

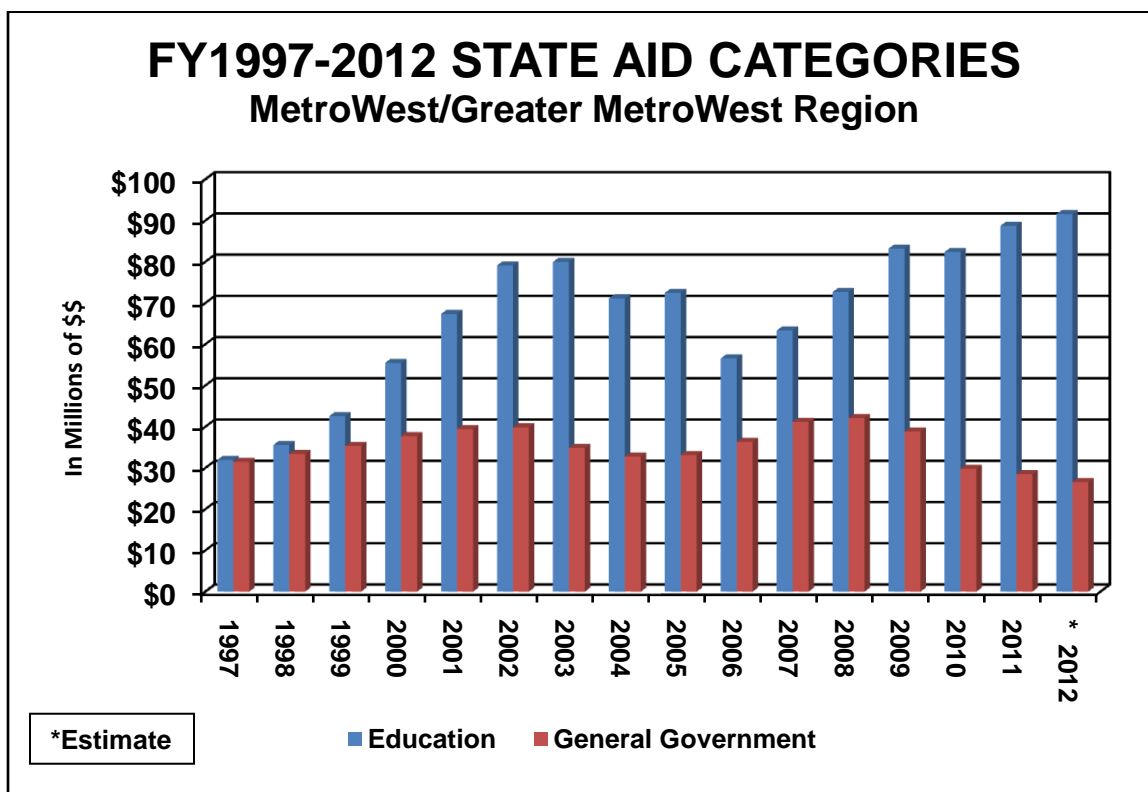
## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family tax bill for the MetroWest and Greater Marlborough Region (MW/GMR), excluding Marlborough, is shown on the right vertical axis, and the average single family assessed value is shown on the left vertical axis.
- The average single family tax bill increased from \$3,548 in FY1998 to \$6,896 in FY2011. This represented an average annual rate of increase of about 5.2%.
- The average single family assessed value fluctuated over this time period. It climbed to a peak of \$491,630 in FY2007 and then fell each year to \$429,115 in FY2011, for a total decrease of -13% over the four years.
- The average single family tax bill for the region was determined by calculating a residential tax rate for the region and applying this rate 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.

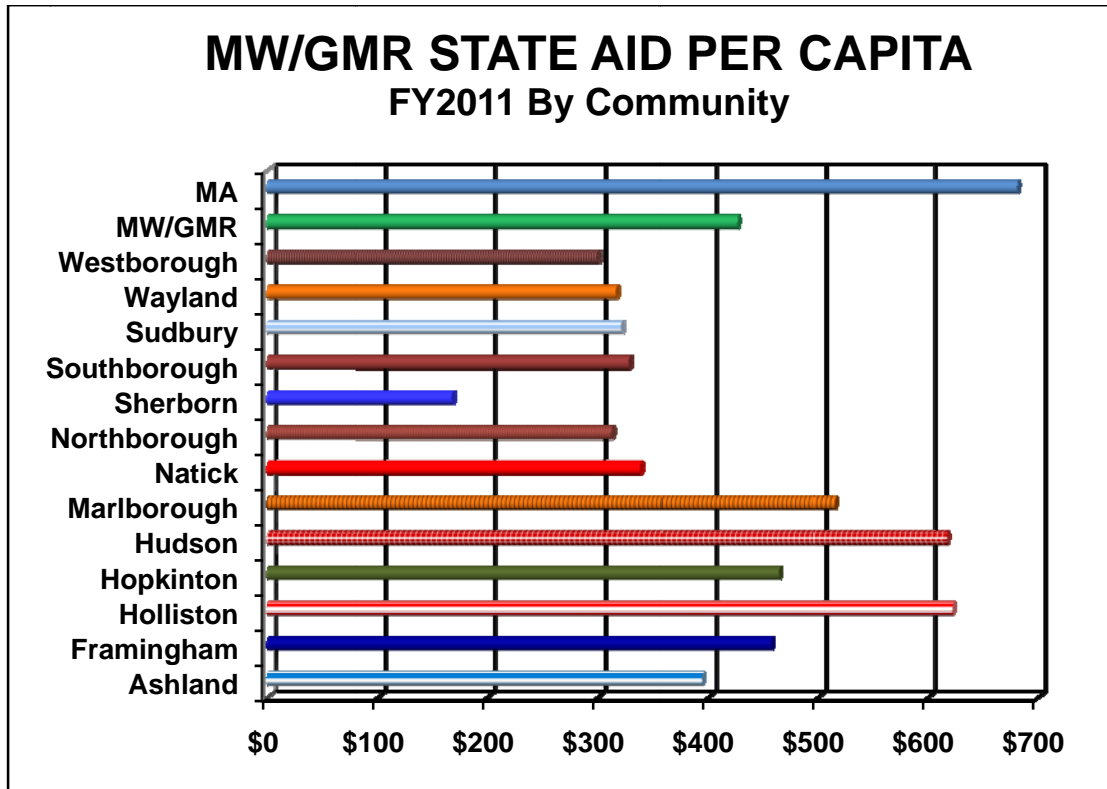
## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

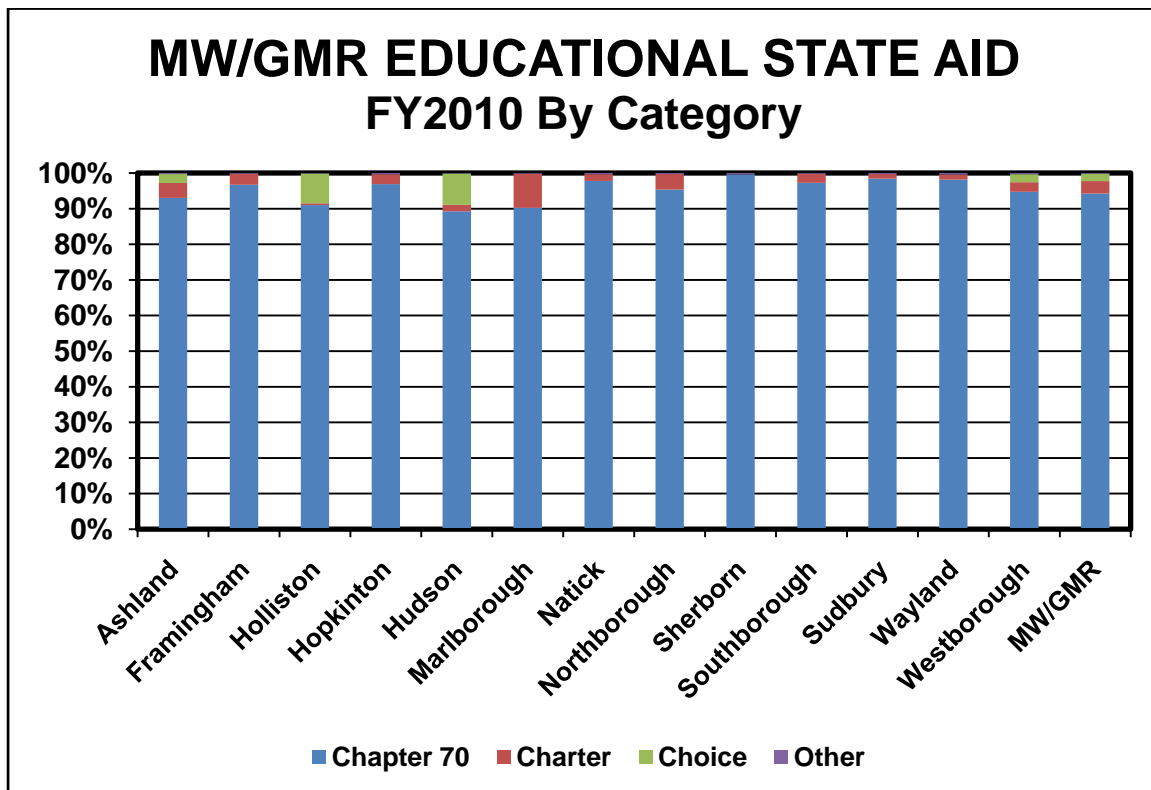
- State aid for education in the combined MetroWest and Greater Marlborough Region (MW/GMR) increased from \$31.9 million in FY1997 to an estimated value of \$91.6 million in FY2012. State aid for education in MW/GMR increased each year over the prior year during this period, except for FY2004, FY2006 and FY2010. State aid allocated to regional and vocational schools is not included. Noteworthy, the amount for FY2006 and later years does not include an estimated \$20 million yearly in continuing school construction reimbursement that is now accounted for by the Massachusetts School Building Authority (MSBA). In FY2011 the communities of MW/GMR received the largest amount of state aid for education to date at \$88.7 million.
- State aid for general government in MW/GMR ranged between approximately \$29.0 million and \$42.0 million. Over the period FY1997-FY2010, MW/GMR received its smallest amount of \$28.5 million in FY2011.
- State aid given directly to the thirteen MW/GMR communities for FY2011 as shown in this graph was \$117.3 million, up 4.5% from FY2010. State aid allocated to regional and vocational schools is not included.

## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



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

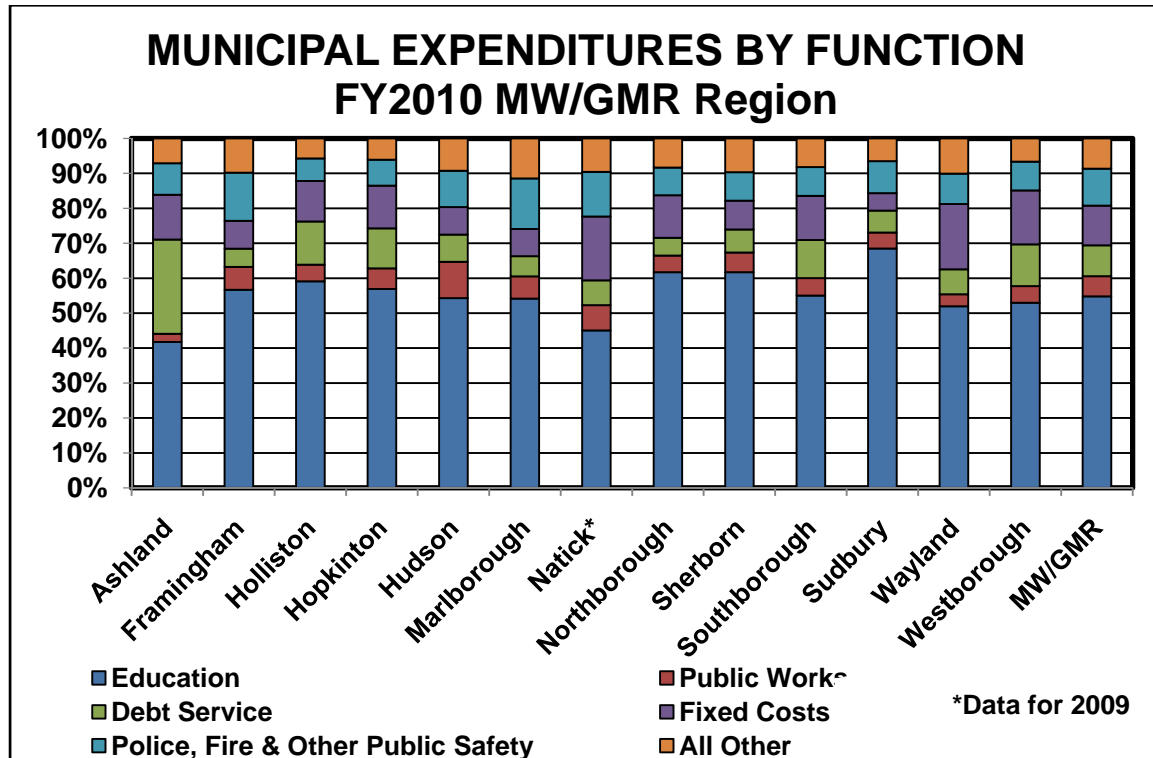
- This graph displays per capita state aid given directly to the respective communities for FY2011. State aid per capita is calculated by dividing the sum of the aid given to a community by the population of the community.
- The values ranged from a low of \$168 for Sherborn to a high of \$622 in Holliston. State aid per capita in the combined MetroWest and Greater Marlborough region (MW/GMR) averaged at \$426.
- The Massachusetts average of state aid per capita for all municipalities was \$681. Each of the thirteen MW/GMR municipalities received less than the average value for all municipalities in the Commonwealth.



Source: MA Department of Revenue, DLS, and MERC

- In FY2010 the MetroWest and Greater Marlborough Region (MW/GMR) received educational state aid in excess of \$82.3 million. This graph groups the educational state aid into three major components: Chapter 70 in blue, charter tuition assessment reimbursement in red, and school choice receiving tuition in green. A fourth component, “other”, is so insignificant it does not appear on the graph.
- Community totals for educational state aid ranged from \$530,098 in Sherborn to \$16,793,161 in Framingham. Though, please note that Sherborn received additional funds through its Dover-Sherborn regional middle and high schools.
- Chapter 70 accounts for 94.3% of the educational state aid received in MW/GMR. It ranges from 99.6% of the total aid received in Sherborn to 89.3% in Hudson.
- Twelve of the communities, all but Sherborn, received aid for charter tuition assessment reimbursement, which ranged from \$38,251 in Holliston to \$1,210,016 in Marlborough. The four communities of Ashland (\$122,993), Holliston (\$617,149), Hudson (\$810,197), and Westborough (\$102,500) received state aid for school choice tuition.

## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE

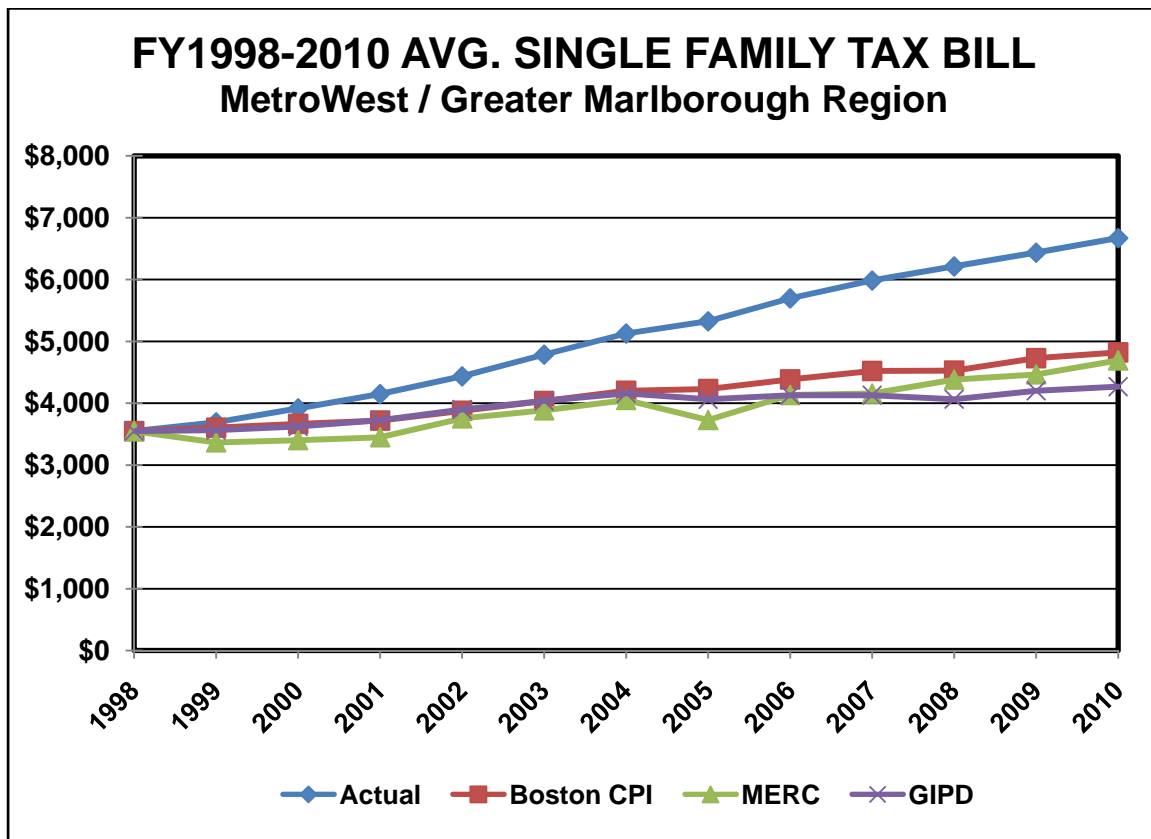


Source: MA Department of Revenue, DLS, and MERC

- Total general fund expenditures in FY2010, the most recent figures available, in the MetroWest and Greater Marlborough Region (MW/GMR) were approximately \$876.5 million, up from FY2009 expenditures of \$854.1 million. This chart uses FY2009 municipal data for the community of Natick as the FY2010 data was not available at time of publication.
- Municipal expenditures are classified into six main categories: education, public works, debt service, fixed costs, all other, and the police, fire, and other public safety function.
- In each of the communities in MW/GMR, the education category makes up a majority of total expenditures, ranging from 68.5% in Sudbury to 45.1% in Natick, with a regional average for education of 55% of total expenditures.
- The remaining categories also varied by community. In MW/GMR fixed cost was the second highest expenditure at 11.4%, followed by police, fire, and other public safety at 10.6%. All other, debt service, and public works represented 8.6%, 8.8%, and 5.7% of the total expenditures respectively in the MetroWest and Greater Marlborough Region.



## METROWEST/GREATER MARLBOROUGH - MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

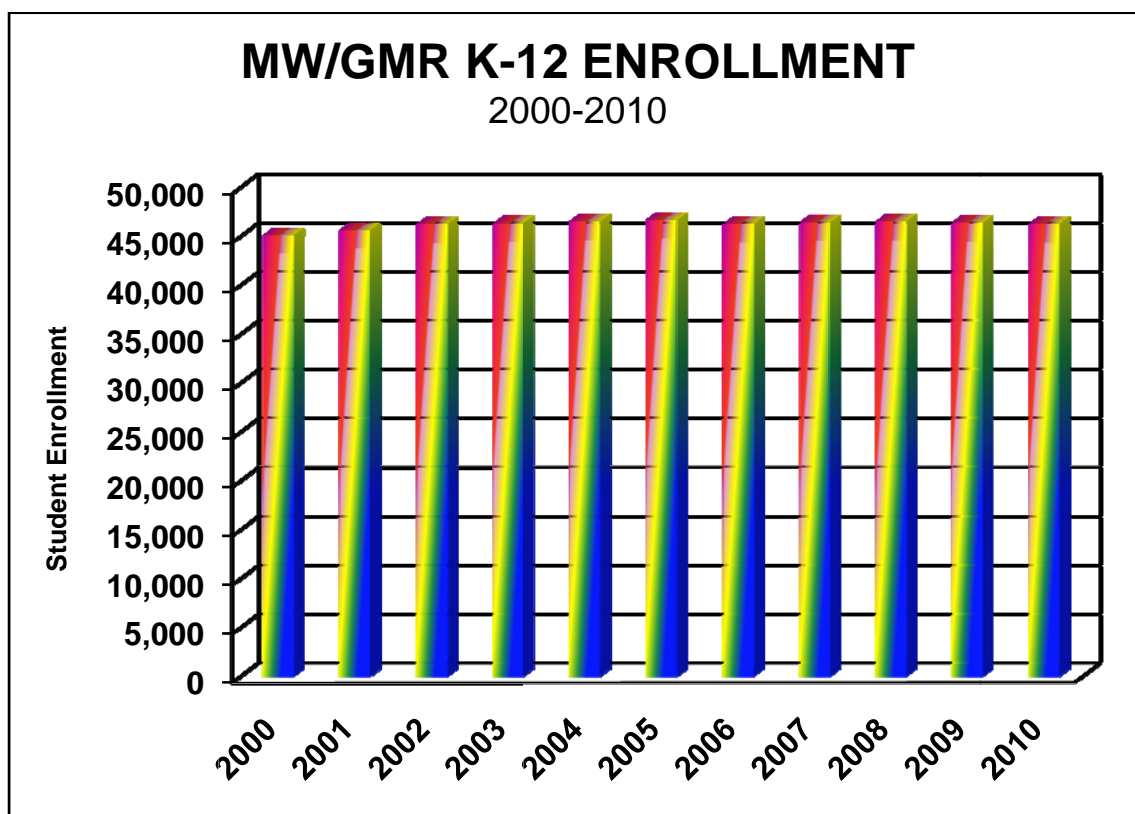
- This graph depicts the average single family tax bill in the combined MetroWest and Greater Marlborough Region (MW/GMR) for FY1998 through FY2010. The values are measured in nominal dollars and adjusted for inflation. Adjusting for changes in the price level yields the real cost of the tax bill in constant 1998 dollars.
- The actual single family tax bill, shown in blue, increased every year during this time period climbing from \$3,548 in FY1998 to \$6,675 in FY2010.
- Three different price indexes were used to reveal the real dollar increase of the average single family tax bill: The MERC MetroWest Cost of Living Index, the Boston Consumer Price Index (CPI) for all urban consumers, and the State and Local Government Implicit Price Deflator (GIPD).
- When adjusted using these indexes, the real tax bill increased the greatest amount from FY1998 to FY2009 using the Boston CPI to \$4,823. The MERC and GIPD Indexes adjust the real tax bill to \$4,693 and \$4,269 respectively.

## **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. The MetroWest CCSA and the Greater Marlborough Region 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.

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 2010 S.I.M.S. student census and data provided directly to MERC by the local school districts.

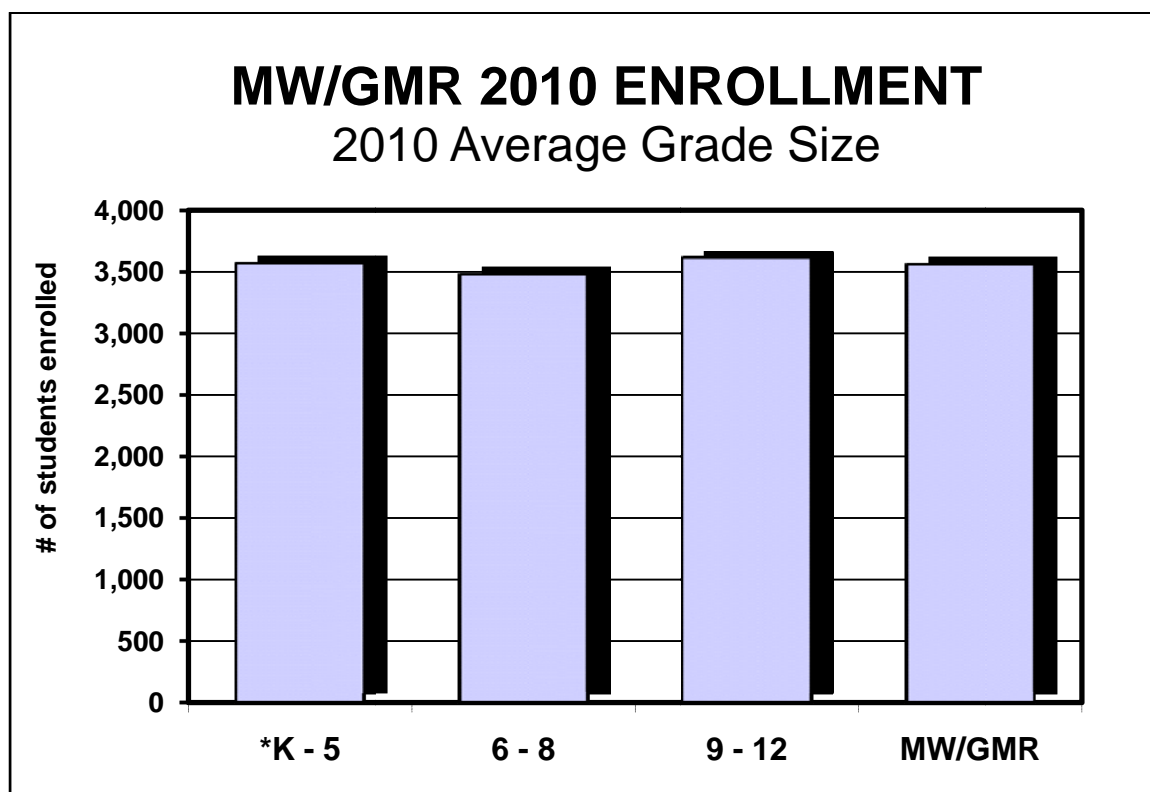
## METROWEST/GREATER MARLBOROUGH - K-12 ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Public school enrollment in the MetroWest/Greater Marlborough Region (MW/GWR) experienced a 2.6% increase from 2000 to 2010. Student enrollment in 2000 was 43,835 and was 44,990 in 2010. The enrollment for the vocational and charter schools are not included in the above graph.
- Enrollments in MW/GMR started to level out in 2000 after recording 2% to 4% annual increases from 1993 to 2000.
- In two years, 2001 and 2002, the region experienced annual increases of just over 1%. In four other years, 2003, 2004, 2007, and 2008 there were modest increases (less than 1%) in public school enrollments. In the remaining four years, 2005, 2006, 2009, and 2010 public school enrollments declined minimally, with decreases of less than 1%.

## METROWEST/GREATER MARLBOROUGH - K-12 ENROLLMENT

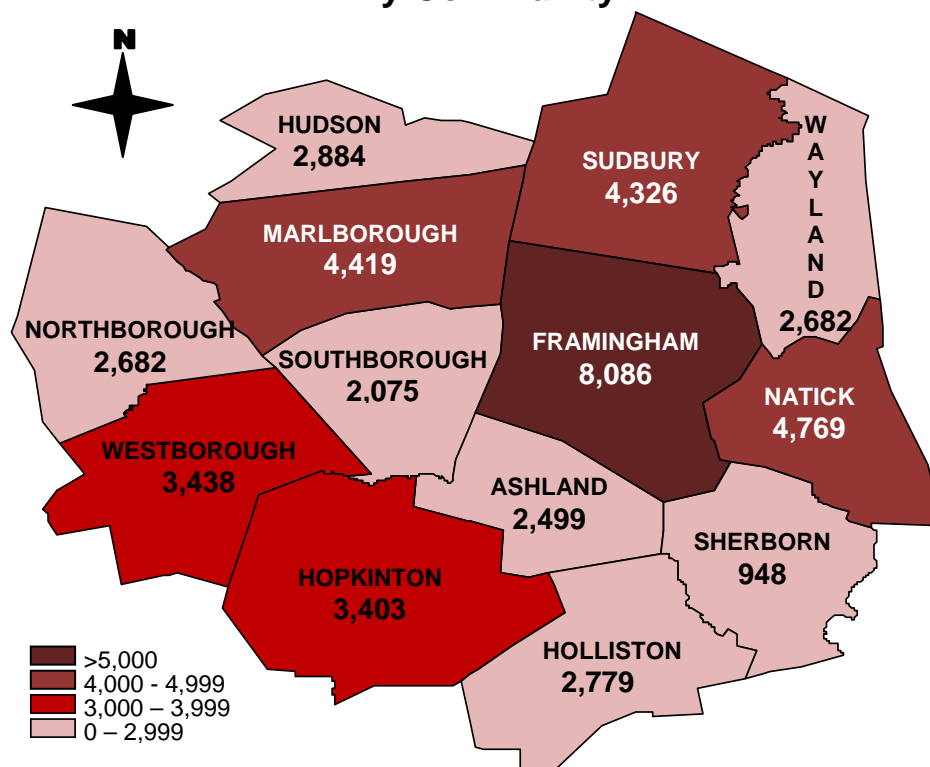


Source: MA Department of Elementary and Secondary Education and MERC

- The 2010 MetroWest/Greater Marlborough Region (MW/GWR) K-12 public school enrollment averaged 3,559 students per grade. The regional average grade enrollment decreased 0.31% from 2009.
- In 2010 the average number of students per grade at the elementary school level, kindergarten through fifth grade, was 3,569. This represents an increase of 0.62% from 2009.
- At the middle school level, grades 6 through 8, the average number of students per grade was 3,475, a decrease of 0.74% compared to 2009.
- The average number of students per grade at the high school level was 3,607 in 2010, a decrease of 1.31% relative to 2009.
- Charter school student enrollment is not included in the average grade size calculations.

## METROWEST/GREATER MARLBOROUGH - K-12 ENROLLMENT

### MW/GMR 2010 Public School Enrollment By Community

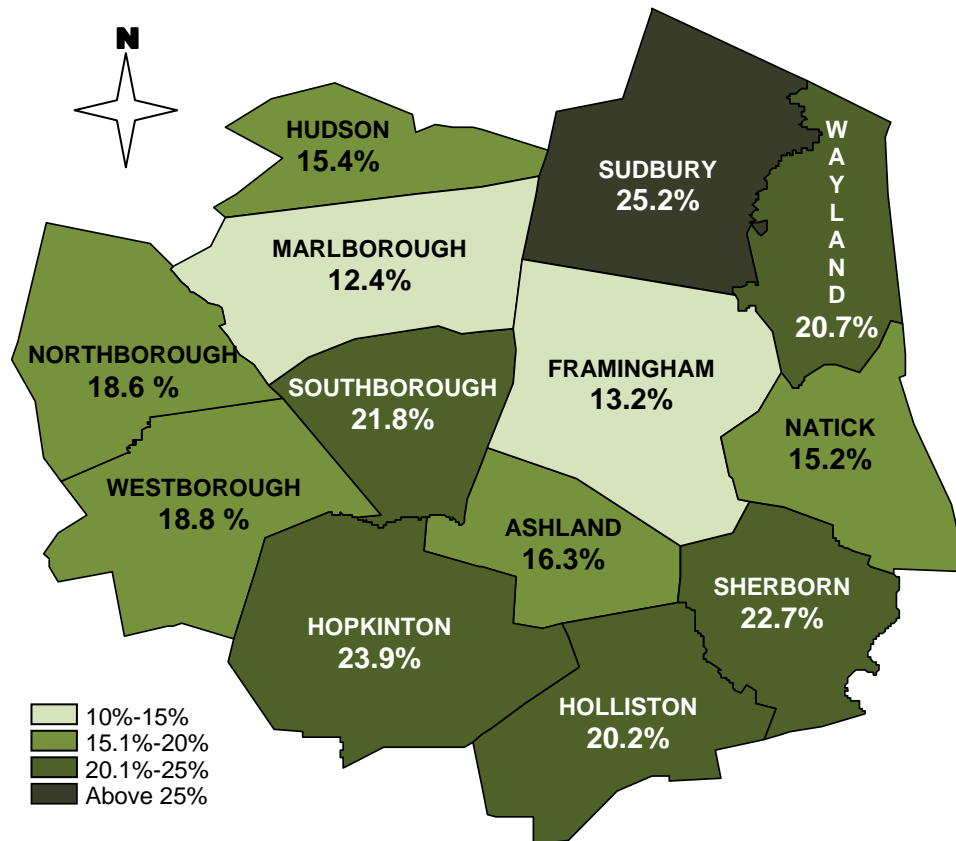


Source: MA Department of Elementary and Secondary Education and MERC

- K-12 public school enrollment in the combined MetroWest and Greater Marlborough (MW/GMR) totaled 44,990 students. This figure does not include student enrolled in charter schools and vocational schools.
- The community reporting the highest enrollment was Framingham with a student enrollment of 8,086. The towns of Marlborough, Natick, and Sudbury have enrollment between 4,000 to 5,000 students. Hopkinton and Westborough each had about 3,400 students enrolled.
- Ashland, Holliston, Hudson, Northborough, Southborough, and Wayland had enrollment between 2,000 and 3,000 students. Sherborn reported the smallest enrollment at 948 students.
- Enrollment in vocational high school for MW/GWR totaled 1,277 students in 2010. These students are not included in the figure reported in the map above. Vocational student enrollment has increased 5.9% from 2009 to 2010.
- Enrollment in the charter schools, also not accounted for on the map, totaled 1,215 students in 2010, up 6.0% from 2009.

## **MW/GMR PUBLIC SCHOOL ENROLLMENT**

As Percentage of 2010 Population



*Source: MA Department of Elementary and Secondary Education, U. S. Census and MERC*

- K-12 public school enrollment in the combined MetroWest and Greater Marlborough Region (MW/GMR) for 2010 was 46,267 students. This figure includes vocational school students, but does not include 1,215 students enrolled in charter schools.
- This map measures the proportion of each community enrolled in public schools. Public school enrollment in 2010 is given as a percentage of 2010 population. The highest enrollment as percentage of population occurred in Sudbury, followed by Hopkinton. In these two communities about 1 in 4 residents was enrolled in a public school.
- More than 20% of the population in the communities of Holliston, Hopkinton, Sherborn, Southborough, Sudbury and Wayland attend public school.
- Framingham, Marlborough, and Natick, with the largest populations and public school enrollments, reported the smallest percentage of the population in public schools.

## **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 (BLS)
- Federal Reserve Bank of Boston (FRBB)
- Massachusetts Department of Elementary and Secondary Education (MA DOE)
- Massachusetts Department of Revenue, Division of Local Services (MA DOR)
- Massachusetts Division of Unemployment Assistance (MA DUI)
- MetroWest Economic Research Center (MERC)
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- Massachusetts Department of Revenue, Division of Local Services
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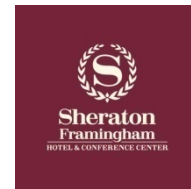
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