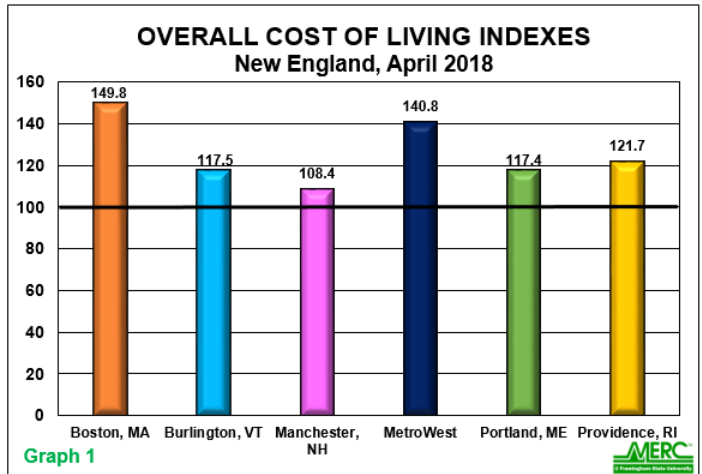


ECONOMIC UPDATE

INSIDE THIS ISSUE:		Issue 38	Fall 2018
How Does the Cost of Living in MetroWest Compare Across New England?	1	How Does the Cost of Living in MetroWest Compare Across New England? By: Jennifer Pinto <p>The Council for Community and Economic Research (C2ER) organizes a national Cost of Living Survey to estimate the differences in the cost of living in communities across the country. Price data is collected on 57 goods and services that are specified by C2ER. Collectively, these items represent a “market basket” of goods and services that are typically consumed by a professional household. The data is organized into 6 sub-indexes: Health Care, Housing, Grocery Items, Utilities, Transportation, and Miscellaneous Goods and Services. The Overall Cost of Living Index is a weighted average of the six sub-indexes. The following analysis compares MetroWest to six New England communities from the April 2018 C2ER survey.</p> <p>Graph 1 above analyzes the Overall Cost of Living Indexes from the New England communities in April 2018. The Index assumes a base value of 100.0, which is the national average. These communities were selected to illustrate how MetroWest compares to other cities across New England. Boston recorded the highest Overall Index at 149.8, followed by</p>	
Housing in the Greater Franklin Region	1	Housing in the Greater Franklin Region By: Christopher Goodwin <p>The MetroWest Economic Research Center, also known as MERC, located at Framingham State University collects data on occupied housing units annually. The data for this article comes solely from American Community Survey 2012-2016 5-year estimates, conducted by the US Census Bureau. The US Census Bureau uses surveys to gather information on housing, population, and several other important characteristics. The Greater Franklin Region, or GFR, is made up of the following communities: Bellingham, Blackstone, Foxborough, Franklin, Medfield, Medway, Millis, Norfolk, and Wrentham.</p>	
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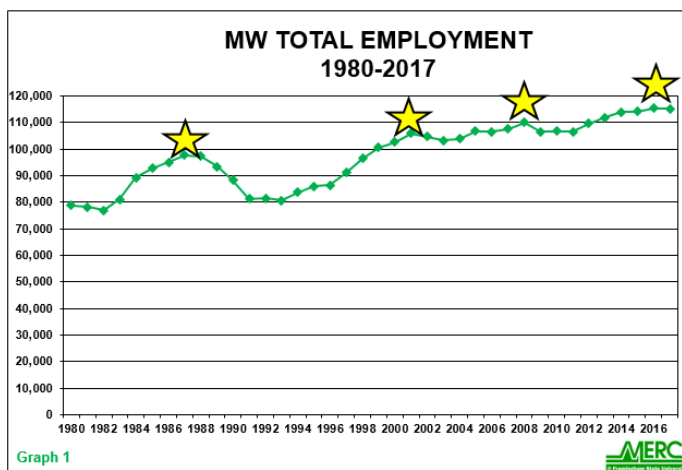
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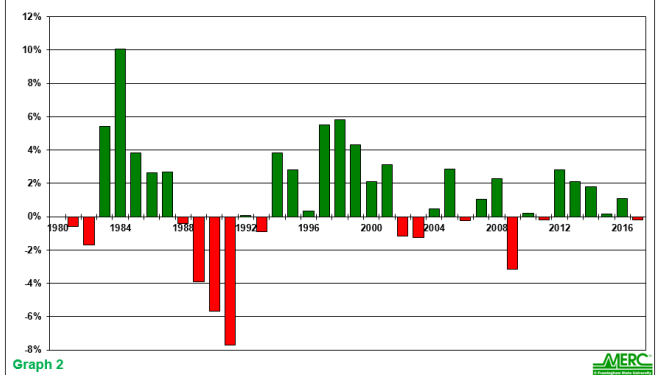
By: Bryanah Johnson

With the founding of MERC in 1991, MERC faculty at the request of the MetroWest Chamber of Commerce, chose the MetroWest region to be the first substate economy to be analyzed. The MetroWest (MW) region includes nine communities: Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Southborough, Sudbury, and Wayland. To analyze employment in the region, MERC utilizes

ES202 data from the Massachusetts Executive Office of Labor and Workforce Development (EOLWD). It should be noted that employment data refers to jobs located at establishments or separate places of work within one of the nine communities. The individuals who hold these jobs may or may not live within these nine communities. In 2017 a record 7,350 MetroWest establishments generated 115,150 jobs and a payroll of \$8.8 billion, both down slightly from 2016. This article will document the pronounced regional growth and business cycles since 1980, the first year of the MERC databases. The article will also compare the most recent annual employment and average annual wages for the nine individual MetroWest communities.



ANNUAL % CHANGE IN MW EMPLOYMENT 1980-2017



MetroWest employment grew from 78,750 jobs in 1980 to 115,150 jobs in 2017, a remarkable gain of 36,400 jobs, or 46.2%. See Graph 1 below. But this growth was turbulent, not smooth, with four business cycles occurring over 38 years. Four expansions peaked in 1987, 2001, 2008, and 2016 (represented on the graph by stars). Additionally, four recessions had troughs occurring in 1982, 1993, 2003, and 2010.

Another way to see the business cycles is to look at the net percentage annual change in employment. See Graph 2 above. The green bars in the graph represent growth in jobs and times of expansions, while the red bars represent declines in jobs and times of recessions. The recessions and expansions occurring between 1981 and 2001 were more volatile than those occurring between 2002 and 2017. In the first business cycle, from 1982-1987 employment rose by 20,740 jobs, or 26.9%. Growth in all five years exceeded 2% annually. In 1984, MetroWest employment grew by 10%, the largest increase in a single year over the last 38 years. In contrast, during the 1988-1993 recession, MetroWest jobs fell by 17,000 jobs or 17.4%. The worst declines occurred in 1989 (-3.9%), 1990 (-5.7%), and 1991 (-7.7%). In more recent business cycles, employment increased by less than 3% annually. Smaller declines during re-

Revenue Continues to Rise in South Shore



**Kenneth
Stahovich**

Intern II

Focus

Municipal Revenue

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Economics
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By: Kenneth Stahovich

The South Shore (SS) region is made up of eleven communities; Abington, Braintree, Cohasset, Hanover, Hingham, Milton, Norwell, Quincy, Randolph, Rockland, and Weymouth. Every year MERC is tasked with the responsibility of updating information on municipal revenue for multiple areas including the South Shore. This data comes from the Massachusetts Department of Revenue, Division of Local Services.

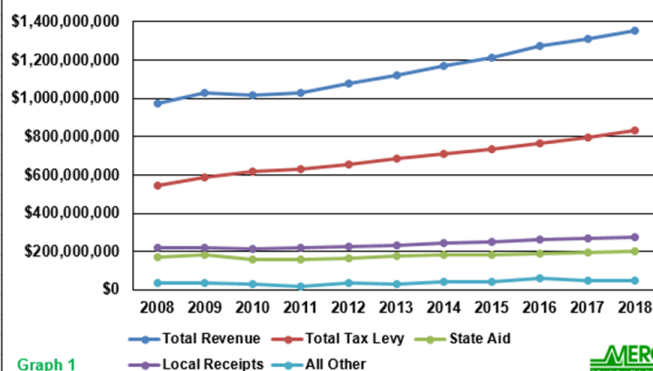
Municipal revenue is made up of multiple components, the total tax levy, state aid, local receipts, and "all other." Although not shown in Graph 1 below, total tax levy separates even further, specifically into four separate categories: industrial, commercial, residential, and personal property. State aid itself has two different categories; state aid for education and state aid for general government operation. State aid for education comes in the form of Chapter 70 funds and is determined by student enrollment categories, income of the residents, and the property assessments of the community, which again is not displayed in the graphs. The last two sections that make up total revenue are local receipts and "all other;" local receipts involve

all the charges from local revenue sources like sewer, water, and motor vehicle excise; "all other" includes available free cash.

Graph 1 below shows the total revenue broken down into the five components in the South Shore from FY2008 through FY2018. The total municipal revenue for the South Shore is represented by the top line in the graph and it shows a steady increase throughout the graph except for FY2009 to FY2010. In FY2008 total revenue was \$973 million and by FY2018 it totaled \$1.4 billion showing a 43.8% increase. As for total tax levy, it continuously increased throughout the 10 years shown in Graph 1, starting off at \$546 million and reaching as high as \$832 million. As for the remaining three components, state aid, local receipts, and "all other" the amounts and increases were much smaller than the tax levy. As represented in Graph 1 local receipts started at \$220 million in FY2008 and ended up at \$275 million in FY2018 while having back to back years of declining totals coming from FY2009 and FY2010. State aid totaled \$172 million in FY2008 which is more than 100 million dollars less than local receipts total of \$275 million in FY2018; "all other's" \$34 million was by far the smallest total of all the components. "All other" ended FY2018 (\$45M) with a larger amount then in FY2008 (\$34M) and actually fluctuated the most out of all the components shown in the graph.

Graph 2 on page 9 represents the Average Single Family Tax Bill in FY2018 for all the communities that make up the South Shore. Of all the communities the tax bill in Cohasset was the highest at \$12,275 with Norwell being the next highest coming in at \$10,193. Of the remaining nine communities, none surpassed the \$10,000 mark, although Hingham (\$9,489), Milton (\$9,103), and Hanover (\$8,002) all came close. Abington's aver-

**TOTAL REVENUE COMPONENTS
South Shore FY2018**



Graph 1



Greater Marlborough Region Remains Afloat

By: Kelsi Gunarathne



Kelsi Gunarathne

Intern II

Focus

Unemployment

Major

Economics

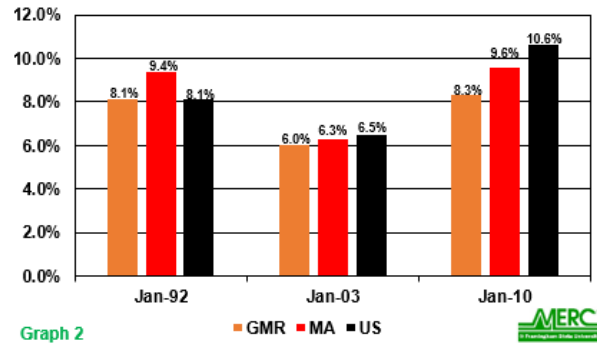
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The MetroWest Economic Research Center (MERC) collects unemployment and labor force data for different sub-state regions in Massachusetts, including the Greater Marlborough Region known as GMR. GMR includes four communities: Hudson, Marlborough, Northborough, and Westborough. During the period from 1990 to 2017, GMR, Massachusetts, and the nation reached their lowest unemployment rates in 2000. GMR and Massachusetts posted rates of 2.2% and 2.7%, respectively, while the nation posted an unemployment rate of 4.0%. On the other hand, in the last 28 years GMR reached its highest rate of 7.5% in 1992, whereas Massachusetts reached its highest unemployment rate in 1991 at 8.6%, and the nation reached its highest in 2010 at 9.6%. Moreover, there were three noticeable unemployment spikes throughout this 28-year period and in fact, the overall pattern of these unemployment rates during this entire period basically follows the business cycle pattern of the US economy, representing the last three recessions in the US: 1990s, early 2000s, and 2007-2010. See Graph 1 below.

Looking into monthly unemployment rates in GMR during the recessions, the three months that stood out the most were January 1992, January 2003, and January 2010. These are the months when GMR posted the highest monthly unemployment rates during recessionary periods where unemployment rates were abnormally high. In all recessions, GMR monthly unemployment rates stayed consistently below the state and the nation's except in 1992 where GMR's rate equaled the nation's. Similarly, the state always posted lower monthly unemployment rates than the nation's except in January 1992 when the state's rate was 1.3 percentage points above the nation. See Graph 2 above. Among all of the recessions, the highest monthly unemployment rates were posted in January 2010 when the US rate was 10.6%, followed by the state at 9.6%, and then GMR at 8.3%. Compared to the other two recessions in the 1990s and 2007-2010, January 2003 had the lowest rate with the US at 6.5%, the state at 6.3%, and GMR at 6.0%. This shows that during recessions GMR has fared relatively better than the state and nation by upholding lower unemployment rates.

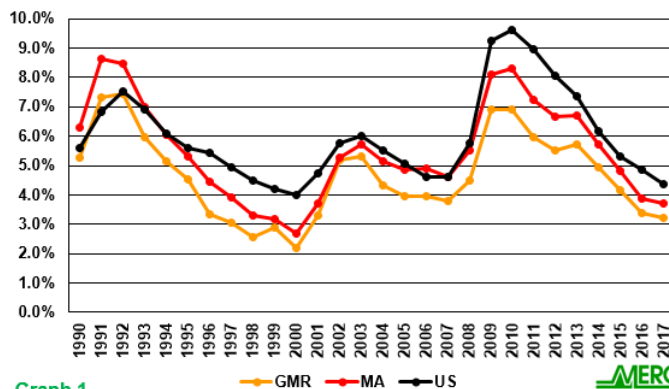
When analyzing the recent unemployment data from communities in GMR, the highest unemployment rate in July 2018 was posted by Hudson at 3.9% with Northborough following closely behind at 3.8%. See Graph 3 on page 8. The lowest unemployment rate by community posted was Marlborough at 3.2% with Westborough landing the second lowest rate of 3.4%. When comparing GMR, Mas-

HIGH UNEMPLOYMENT RATES
GMR, MA, and US comparison



Graph 2

ANNUAL UNEMPLOYMENT RATES
GMR, MA, and US: 1990 - 2017



Graph 1

Continued on page 8

Foreign-Born Population in Greater Framingham

By: Jonathan Vos



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Greater Framingham is a region that consists of three communities: Framingham, Marlborough, and Natick. The data used in this report comes from the 5-year, 2016 American Community Survey (ACS) Public Use Microdata Sample (PUMS), specifically the Public Use Microdata Area (PUMA) 25-504. For the purposes of this article, Greater Framingham

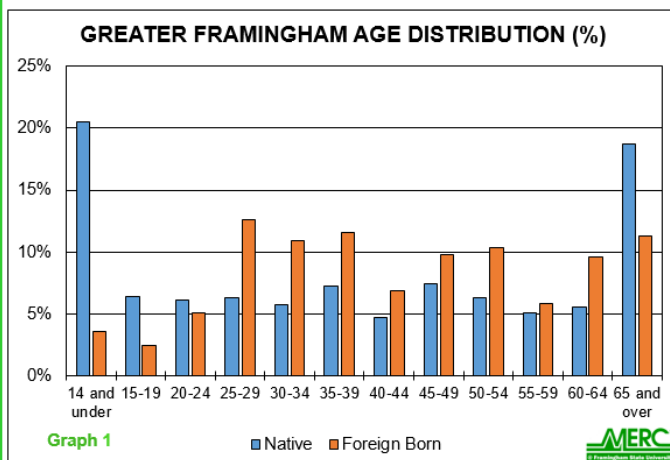
corresponds to the geographical boundaries set by this PUMA. The population within this region can be divided into two separate categories based on origin of birth: the native population and the foreign-born population, which includes all people born outside of the United States. This article will present information on the characteristics of the age distribution and level of educational attainment of the foreign-born and native populations in this region, with the native population serving as a benchmark for comparison in many cases.

Graph 1 shows the age distribution of the two population groups in Greater Framingham. Among the foreign-born population, the two youngest age brackets (14 and under, and 15-19) are the smallest of the distri-

bution at 3.6% and 2.4%, respectively. After these two age ranges, the third smallest category is the 20-24 year-old group with 5.1%. This implies that only 10.1% of the foreign-born population is under the age of 25. However, the next three chronological age groups, 25-29, 30-34, and 35-39, represent more than a third of the population at 12.6%, 10.9% and 11.6%, respectively, for a total of 35.1%. Beyond the age range of 20-24, the foreign-born population has a larger portion represented in every age bracket with the exception of age 65 and over at 11.3%, compared to the native population at 18.7%. Overall, this is reflective of a large majority of the foreign-born population, some 85.1%, being relatively evenly distributed among the categories within the working-age range.

In contrast to the foreign-born population, the native population age can be described as bifurcated, with high concentrations on each end of the distribution. The 14 year-old and under category is the single largest for the native population, with 20.5%. The 65 year-old and above category is the second largest at 18.7%. No other age bracket has more than 10% of the population. The third largest age group among the native population is the 45-49 year-old at 7.4%. The native population has more than a third of the total, 39.2%, as being concentrated within just two age brackets neither of which constitutes a working-age group. This leads to a smaller portion of their population as being of the working age, at 60.8%, significantly less than the foreign-born population. In part, this is because any children of the foreign-born population born in the United States automatically count as part of the native population.

Graph 2 presents the various levels of educational attainment achieved by the two populations of Greater Framingham. The foreign-born population's single largest degree of educational attainment is High



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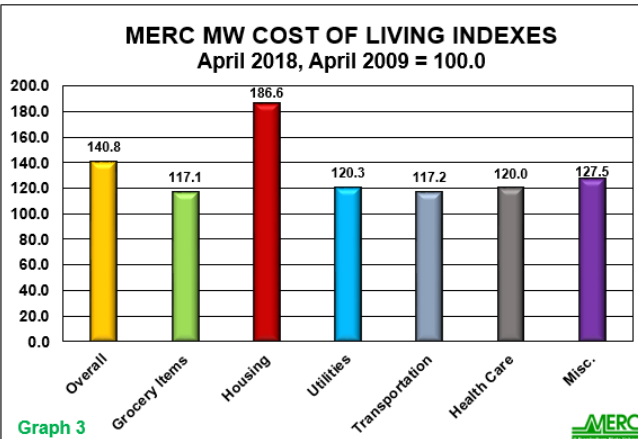
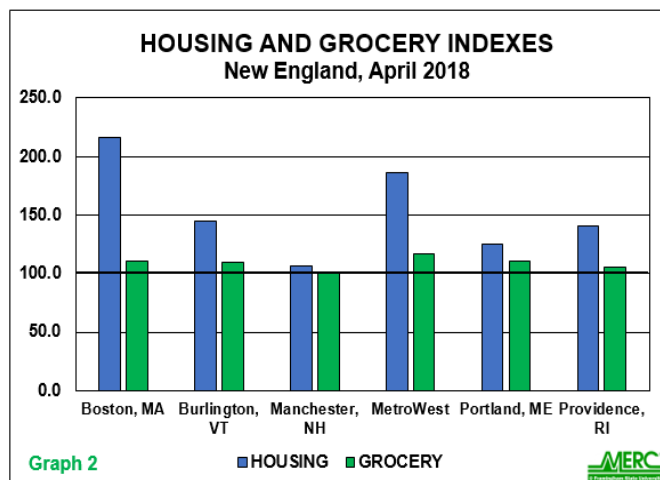
Jennifer Pinto

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MetroWest with an Index value of 140.8. Both areas were over 40% more expensive than the national average. All the New England communities represented in this analysis were above the national average. Manchester, NH recorded the lowest Index value of the six communities at 108.4, which is still over 8% above the national average.

Graph 2 below depicts a comparison of the Housing (blue) and Grocery Items (green)

Indexes between MetroWest and the five other New England communities examined in this analysis. All communities had both Housing and Grocery Indexes above the national average with the exception of the Grocery Items Index in Manchester, NH. Manchester's Grocery Items Index recorded a value of 100.0, exactly equal to the national average. Among the six communities, Boston, MA had the highest Housing Index at 216.0. This means that housing costs in Boston, MA were 116% above the national average. MetroWest had the highest Grocery Items Index at 117.1 indicating that in MetroWest, groceries are on average 17%



more expensive than the national average. Manchester, NH recorded the lowest Housing and Grocery Items Index values at 106.4 and 100.0, respectively. Despite being the lowest in New England, these values are still at or above the national averages.

Lastly, Graph 3 above illustrates MetroWest's Overall Cost of Living Index and each sub-index for the April 2018 survey. The Overall Cost of Living Index for the MetroWest region was 140.8. This indicates that the Cost of Living in MetroWest was about 41% higher in April 2018 than the national average. The Housing Index had the highest Index value at 186.6. One can conclude that the high cost of housing in MetroWest is a driving force behind the high Overall Cost of Living Index recorded for the region. The lowest index value was Grocery Items, followed by Transportation at 117.1 and 117.2, respectively. None of the Indexes in MetroWest fell below the national average during this survey.

To summarize, all of the New England communities analyzed have higher Overall Indexes than the national average. When looking at the Housing and Grocery Items Indexes, Boston has the highest Housing Index and Manchester, NH has the lowest Housing Index. MetroWest had the highest Grocery Items Index of the six communities and Manchester, NH had the lowest at the national average. When looking at MetroWest alone, the Housing Index had the highest value and the lowest index value was the Grocery Items Index. ■

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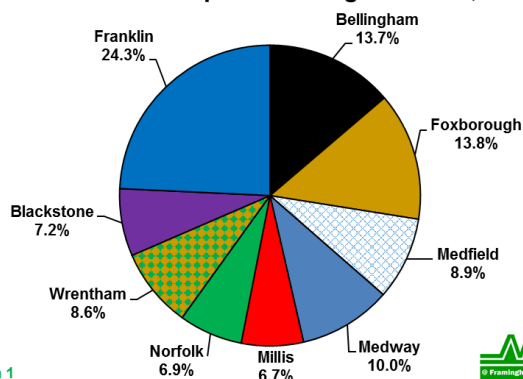
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Graph 1 below represents the total occupied housing units as a percentage in the Greater Franklin Region by community. According to the 2016 ACS, the total number of occupied housing units in the GFR was 46,130 units. Franklin makes up the largest number of units in the region with 11,191 housing units or 24.3%. Foxborough and Bellingham had 13.8% and 13.7%, respectively. These three communities, combined, accounted for 51.8% or 23,885 housing units. Blackstone, Medfield,

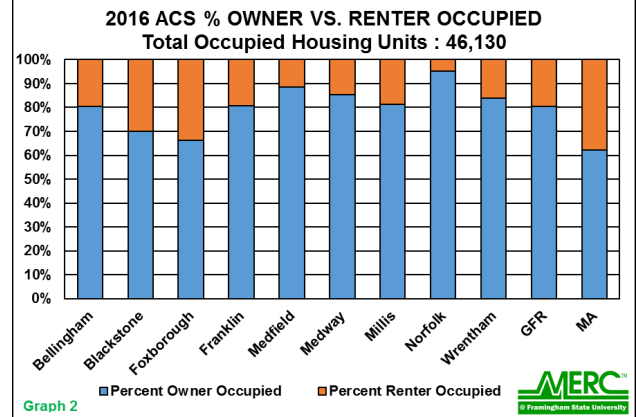
Medway, and Wrentham all had between 7% and 10%. Norfolk and Millis had 6.9% and 6.7% of the occupied households, respectively. These are the communities with the smallest number of occupied housing units; combined they represent 13.6% or 6,235 occupied households in the region.

Graph 2 above represents the percent owner occupied versus the renter occupied housing units in the communities of GFR, and in Massachusetts as a whole. Massachusetts had 62.1% owner occupied and 37.9% renter occupied households, which was the highest percentage of renter occupied units in all the communities and regions

2016 OCCUPIED HOUSING UNITS
Total GFR Occupied Housing Units: 46,130



Graph 1



on the graph. Norfolk had 95.1% owner and 4.9% renter occupied, and this is the largest difference between owner and renter occupied households. The communities of Bellingham, Franklin, Medfield, Medway, Millis, and Wrentham were all 80% or more owner occupied and less than 20% renter occupied. Blackstone and Foxborough had 70.1% and 66.3% owner occupied, respectively; so these two communities were about 1/3 renter occupied.

Graph 3, on page 12, represents median housing costs for the region. Selected monthly owner costs are calculated from the sum of payments for mortgages, real estate taxes, insurances, utilities, fuel, mobile home costs, and condominium fees. Gross rent is defined as the amount of the contract rent plus the estimated average monthly cost of utilities and fuels. The largest median cost occurred in owner occupied households in Medfield at \$2,763 and the largest median renter cost occurred in Millis with \$1,544. The lowest overall cost was registered in renter occupied households in Blackstone at \$853. There are large differences in owner versus renter costs in Blackstone and Medfield, which both had owner median costs more than double the renter median costs. Owner median costs in Franklin, Medway, Norfolk, Wrentham, and GFR as a whole all were almost double the renter median costs. Bellingham and Foxborough have costs fairly close to

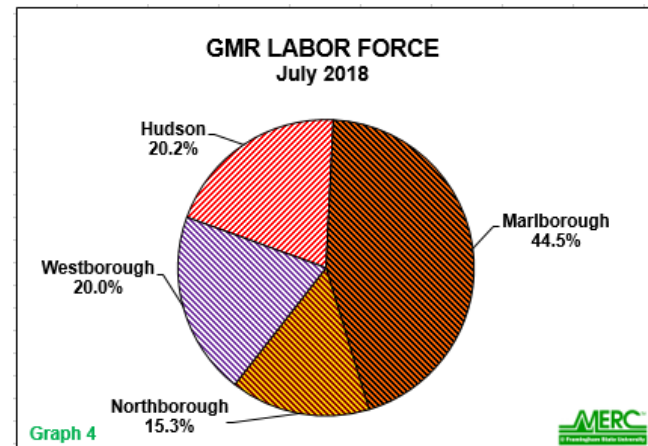
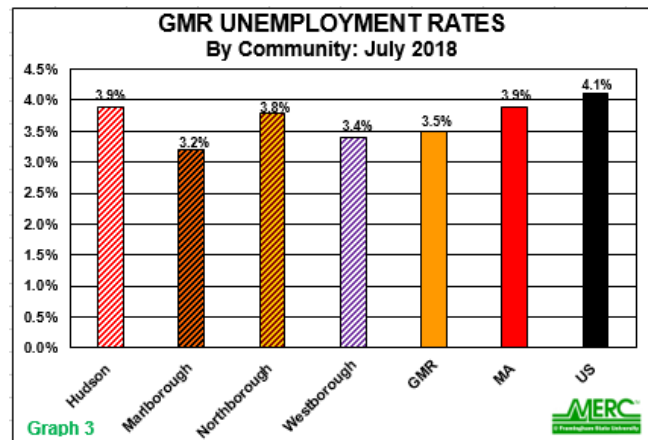
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sachusetts, and the US, GMR had the lowest unemployment rate at 3.5%, lower than the state and nation at 3.9% and 4.1%, respectively.

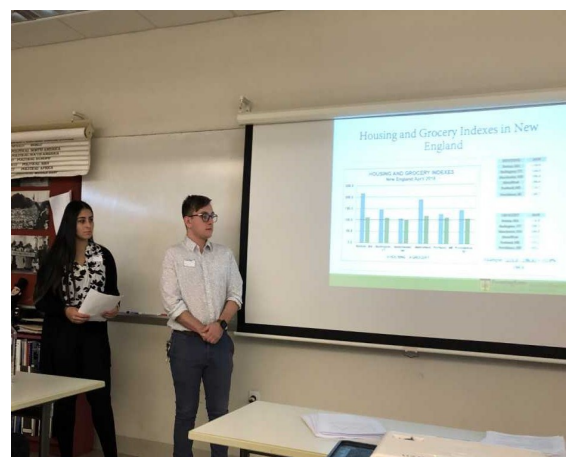
Since the unemployment rate is the ratio of the number of the unemployed to the number of individuals participating in the labor force, then it would be interesting to review the total number in the labor force in GMR. In July 2018, GMR had 54,999 individuals in the labor force with Marlborough making up 44.5% of the total labor force or 24,475 individuals. See Graph 4. Hudson and Westborough each contributed about 20.0% into the labor force. The community contributing the least was Northborough with 8,395 individuals making up 15.3% of GMR.

Overall, in terms of unemployment rates, GMR is doing relatively better than the state and nation by keeping rates afloat during tough recessionary times as well as in the recent period. In July 2018, all communities in GMR posted lower unemployment rates than the nation's rate of 4.1%. Looking into the labor force composition, Marlborough continued to contribute significantly into the labor force by making up almost half of the total labor force.



High School Visit

MERC senior interns Kenneth Stahovich, Jennifer Pinto, Kelsi Gunarathne, and Steven DeMeo continued the tradition in Fall 2018 by coordinating a high school visit this semester to Lincoln-Sudbury High School. The four interns shared their research along with their MERC experiences with high school economics classes. The program is intended to stimulate thought and discussion pertaining to economics while also trying to spark interest for collegiate studies. The presentation allows high school students to be more aware of the broad impact economics plays in everyday life, and how they can apply economics to their future endeavors.

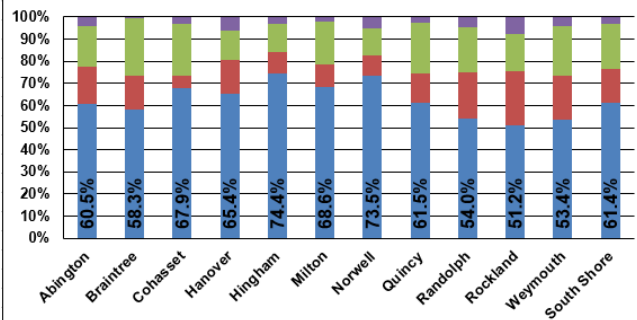


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age single family tax bill (\$6,113) was less than half of Cohasset's. Among Braintree, Quincy, Randolph, Rockland, and Weymouth, the average single family tax bill was \$5,033 with none of those communities surpassing \$5,800. Weymouth had the lowest tax bill at \$4,441.

Graph 3 at right shows the division of revenue in FY2018 in the South Shore area by four categories: total tax levy, state aid, local receipts, and "all other." Total tax levy held the largest share of municipal revenue while "all other" had the lowest with state aid and local receipts filling out the middle. About 61% was the average total tax levy for the South Shore in FY2018, with a high of 74% recorded in Hingham, and a low of 51% recorded in Rockland. The average of Local Receipts

MUNICIPAL REVENUE BY SOURCE South Shore FY2018



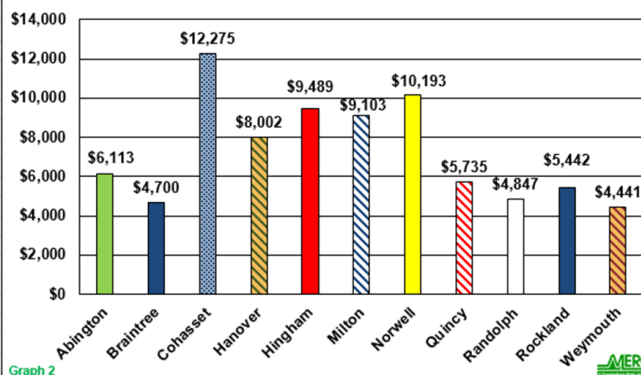
Graph 3



was 20% which was the second largest of the four categories making up the graph. From this section, Braintree was the highest of all eleven communities at 26% while Norwell held the lowest at 12%. Next up was state aid which held an average of 15%, while ranging from 25% (Rockland) all the way down to 6% (Cohasset). "All other" averaged 3% of municipal revenue for the South Shore in FY2018 with Braintree having the lowest percentage at 0.4 and Rockland having the highest "all other" share of municipal revenue at 8%.

In conclusion, the South Shore's total revenue continues its steady increase through FY2018. The total tax levy source remains the largest portion of revenue for each individual town. On average in the South Shore region in FY2018 the single family tax bill was about \$7,304. ■

AVERAGE SINGLE FAMILY TAX BILL South Shore Communities FY2018



Graph 2



Federal Reserve Challenge



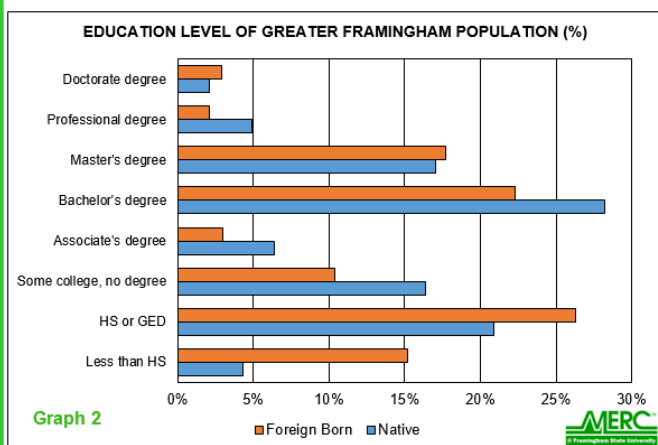
For the second year in a row, five MERC interns participated in the College Federal Reserve Challenge hosted at the Federal Reserve of Boston. The Fed Challenge is a competition between dozens of New England colleges and universities. The challenge is designed to connect economics to the real-world by role playing as monetary policymakers. Participating in this role involved analyzing and presenting economic conditions to a panel of economists and recommending implications for monetary policies to better the future of the current conditions. The interns that participated were: Shayne Burke, Kelsi Gunarathne, Joe Perry, Jennifer Pinto, and Jonathan Vos. Additionally, the challenge would not have been complete without the guidance of Dr. Luis Rosero and Dr. Fahline Sjuib, co-directors of MERC.

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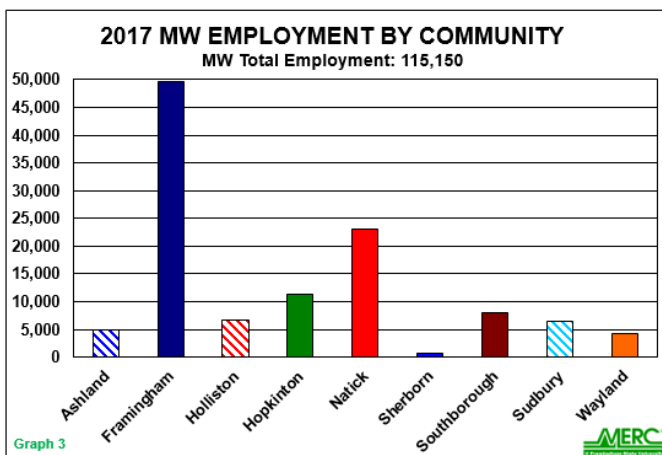
School or General Education Diploma (HS or GED) with 26.3%, while the second largest is a Bachelor's degree 22.3%. Alone, these two categories of educational attainment account for nearly half of the foreign-born population at 48.6%. The next two largest areas, Master's degree at 17.7% and a Less than HS at 15.2% account for nearly a third at 32.9%. The four smallest areas of educational attainment, collectively, account for 18.5% of the population, with Professional degree at the smallest with 2.1%, then Doctorate with 2.9%, followed closely by Associate's at 3.0%. The last of these is Some College, No Degree at 10.4%, larger than the previous three areas combined.

Regarding the native population, as seen in Graph 2, the most predominant level of educational attainment among this population is Bachelor's degree at 28.2% of their population, followed by HS or GED at 20.9%. This is the opposite of the foreign population, which, as said above, have HS or GED as their largest segment and Bachelor's degree as their second. Combined, Bachelor's degrees and HS or GED represent a 49.1% of the native population, almost exactly equal to that of the foreign-born at 48.6%. The next two largest categories of educational attainment are Master's degree at 17% and Some College, No Degree at 16.4%, for a total of 33.4%. The remaining 18% of the population is divided amongst Associate's degrees at 6.4%, Professional degree at 4.9%, Less than HS at 4.3% and lastly, the smallest segment, which is Doctorate degrees at 2.1%. When Doctorate degrees are totaled together with Professional and Master's degrees, the portion of the native population represented by this post-baccalaureate category is 24.0%, slightly higher than the foreign-born population at 22.4%.

Overall, the foreign-born and native populations of Greater Framingham have starkly different age distributions and varying levels of educational attainment. The foreign-born population is more heavily dominated by the working-age group, with only a small minority falling in either the 14 year-old and under or the 65 year-old and above categories. By contrast, these two age groups represent a considerable portion of the native population. Regarding educational attainment, the largest difference is that a considerable portion of the foreign-born population has a low level of educational attainment. However, it must be noted that the foreign-born population is also more likely to have an exceptionally high level of educational attainment. The foreign-born population, when compared to the native population, is more likely to be within the working-age range and have either a low level of formal educational attainment, or a significant degree of educational attainment. This is important because it tells us that although the foreign-born population is dominated by people within the working age, they tend to have a more polarized level of educational attainment at either very low or very high levels compared to the native population. The characteristics presented here for this key segment of the population have important implications as the foreign-born population and their children will continue to play a growing role in the economic future of Greater Framingham. ■



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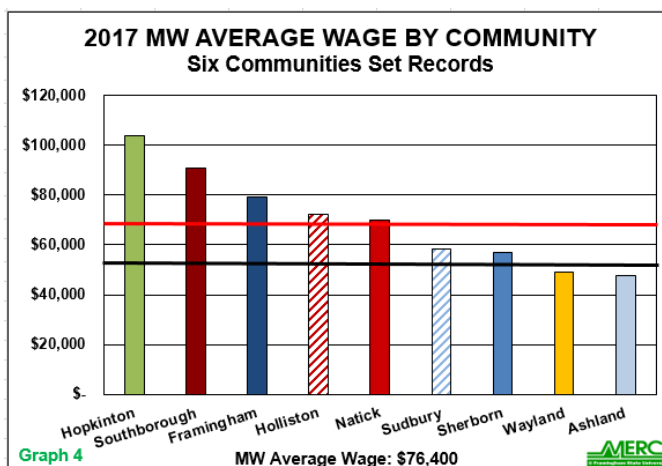
cessions also occurred in the latter two business cycles, including the 2009 Great Recession (-3.2%). While 2017 may appear to be a decrease from 2016, it is not necessarily indicative of a new recession beginning, and may simply represent a temporary leveling off from the record employment experienced in 2016.

Regarding employment within the individual communities, MetroWest generated 115,150 jobs in 2017, a decrease of 0.2% from 115,350 in 2016. Among all nine communities, Framingham generated the highest employment with 49,700 jobs in 2017, or 43.2% of all jobs in MW. See Graph 3 above. Natick followed with 23,150 jobs, or 20.1%. These two communities combined generated more than 3 out of 5 jobs in MetroWest. Four communities produced between 5,000 and 11,500 jobs: Hopkinton (11,250), Southborough (8,100), Holliston (6,600), and Sudbury (6,500). The remaining three communities had fewer than 5,000 jobs in 2017: Ashland, Wayland, and Sherborn. In contrast to the slight decline in MetroWest employment in 2017, four communities produced record highs in jobs shown on Graph 3 above: Framingham, Holliston, Sherborn, and Southborough.

In 2017, MetroWest produced an annual average wage of \$76,400, a decrease of 2.4% from 2016. When calculating annual average wages, it should be noted that

this includes: salaries, bonuses, vacation time, and stock options, and should not be considered simply the take-home pay. Despite the decline, the 2017 regional annual average wage was 9.3% higher than the state average wage of \$69,900 shown in red, and 37.9% higher than the US annual average wage of \$55,400 shown in black on Graph 4 below. Among the nine communities of MW, three generated annual average wages above the regional average wage. Hopkinton led the region with an average wage of \$103,850, followed by Southborough with \$90,700, and Framingham, with \$79,300. Ashland generated the lowest annual average wage, \$47,450. The remaining five communities produced average wages between \$48,000 and \$73,000. Similarly to employment, individual communities outperformed the region. Six communities: Ashland, Framingham, Holliston, Natick, Southborough and Wayland recorded historical highs in average annual wages in 2017.

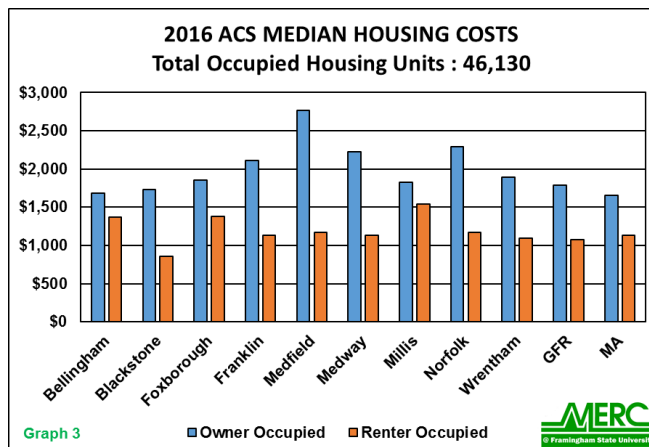
In conclusion, MW produced solid job growth over almost four decades, despite four business cycles. MetroWest remains a high wage region in a high wage state, and overall wage growth has outperformed the state and the country since 1980. In 2017, MetroWest experienced slight declines from its record 2016 employment and average annual wage. Locally, Framingham and Natick combined provided over 60% of regional employment, and Hopkinton, Southborough and Framingham produced the highest average annual wages. ■



Continued from page 7

one another. Millis had owner costs 18% more than renter costs, which is the closest in the region. GFR as a whole had median owner costs of \$1,785 and median renter costs of \$1,071, the owner median costs are 67% greater than renter median costs.

Overall, Franklin had the most total occupied households in the region at nearly one in four households. Franklin, Bellingham, and Foxborough, combined, accounted for more than half of the occupied housing units in the region. Norfolk and Millis are each slightly less than 7% of the total occupied households. Massachusetts had about 60% owner and 40% renter occupied households, whereas Norfolk had nearly 95% owner and 5% renter occupied households. Medfield had the highest cost with owner occupied median housing costs totaling nearly \$2,800 a month, however Blackstone renter occupied households were the smallest at close to \$900 monthly. Owner occupied costs in Millis were approximately 20% greater than renter costs, but in Medfield the owner costs were more than double the renter median housing costs. ■

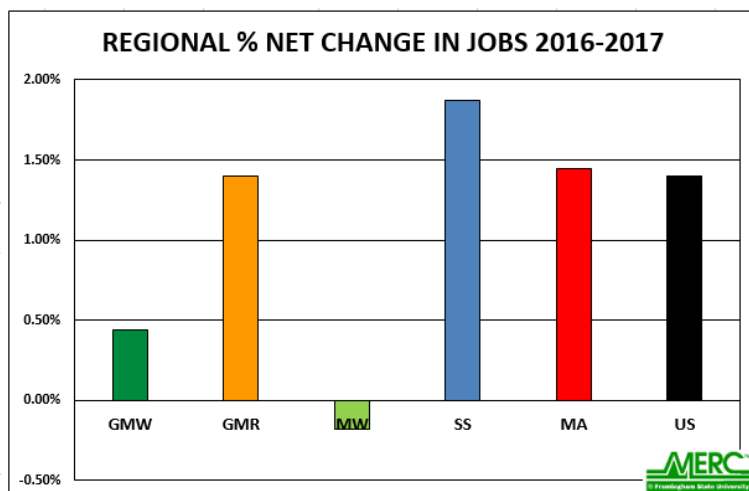


Regional Comparison of Jobs 2016-2017

By: Bryanah Johnson

Overall, 2017 was a year of growth for three regions analyzed by the MetroWest Economic Research Center (MERC). Greater MetroWest, Greater Marlborough, and the South Shore all gained employment from 2016 to 2017, while MetroWest declined in employment. The South Shore, which consists of 11 communities, produced 163,000 jobs in 2017, while Greater MetroWest produced 191,400 jobs. Greater MetroWest combines the nine communities of MetroWest, with 115,150 jobs and the four communities of the Greater Marlborough Region, with 76,200 jobs.

Greater MetroWest employment rose by 0.4%, or 850 jobs. MetroWest, the only region to have a decrease in employment from 2016 to 2017, fell by 0.2%, or -200 jobs. Greater Marlborough employment increased by 1.4%, or 1,050 jobs. Based on percentages, the Greater Marlborough Region produced similar growth to MA and the US. Only the South Shore had an employment gain higher than the state and United States from 2016 to 2017, with 1.9%, or 3,000 jobs, compared to 1.45% and 1.40%, respectively. In 2017, the state generated 3,544,100 jobs and the US generated 143,859,900 jobs. Employment for Blackstone Valley and 495/MW are pending and will follow at a later date. ■



Record Highs for GMW in 2017

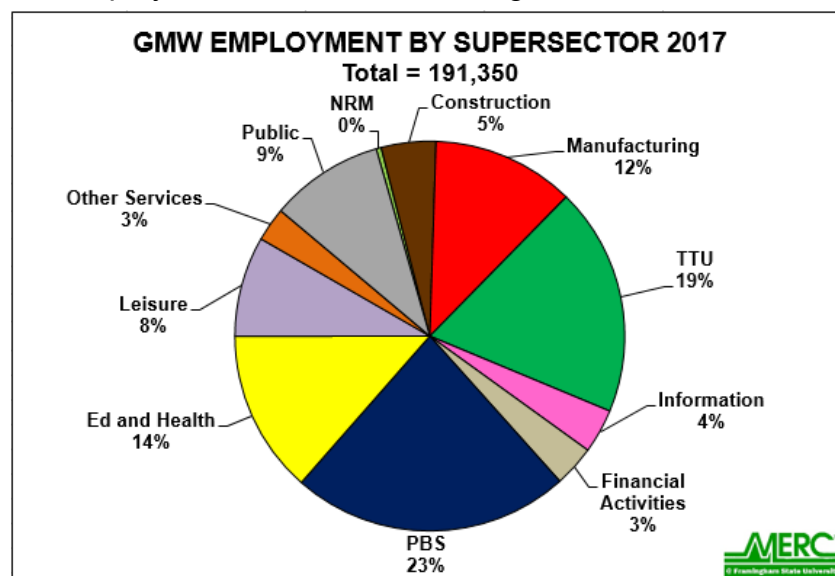
By: Steven DeMeo

In 2017 Greater MetroWest (GMW) employment rose for the 8th straight year, reaching a record breaking 191,350 jobs. The region gained 800 jobs or 0.4% since 2016. Total payroll, which includes base pay, bonuses, stock options, sick leave, etc. rose to \$14.7 billion in 2017 from \$14.6 billion in 2016, up 0.8%. The GMW annual average wage also increased to a record \$76,800, up 0.4% from 2016. Lastly, GMW establishments rose to a record breaking 11,450 places of work, up 130, or 1.1%.

Each NAICS supersector in GMW experienced a change in its total number of jobs in 2017. Four NAICS supersectors dominated GMW in 2017: Professional and Business Services (PBS), Trade Transportation and Utilities (TTU), Education and Health Care, and Manufacturing. Combined, these four supersectors accounted 67.4% of all jobs in GMW. PBS rose to 44,200 jobs in 2017, up 400 jobs, or 0.9%. TTU increased as well, from 36,000 jobs in 2016 to 36,250 jobs in 2017, up 0.7%, or 250 jobs. Education and Health Care, the 3rd largest supersector, reached 25,900 jobs in 2017, up 400 jobs or 1.6%. Manufacturing, which previously until 2016 had more jobs than Education and Health Care, lost 1,400 jobs in 2017, a 5.7% loss, falling to 22,650 total jobs.

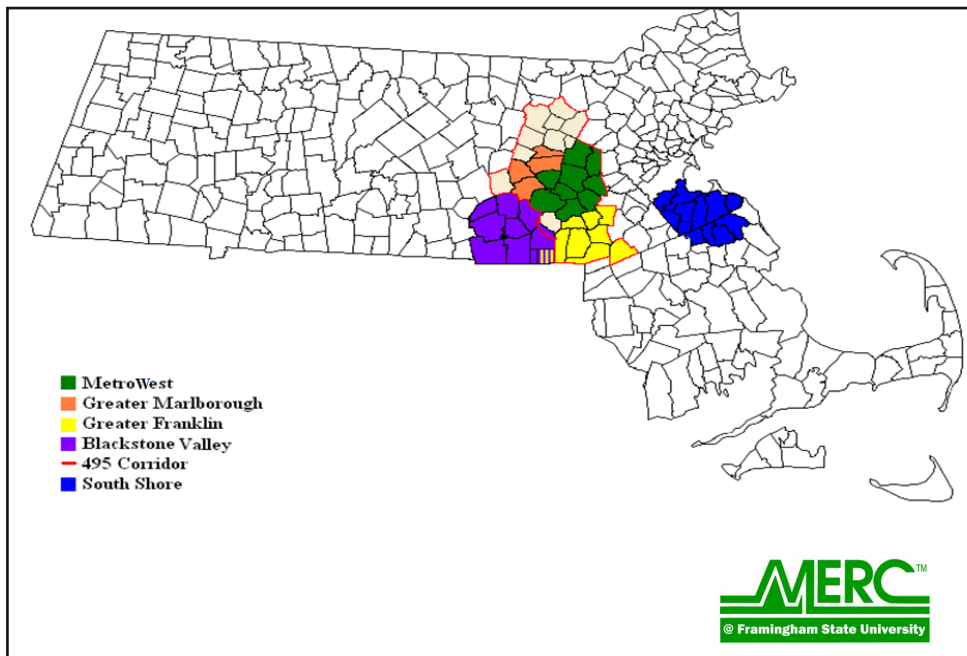
How did the other NAICS supersectors perform in 2017? From the graph below, we can analyze the next group of supersectors: Public, Leisure and Hospitality, Construction, and Information. This “middle group” of supersectors accounted for 26% of total jobs in GMW. Public rose by 1.1%, a gain of 200 jobs to reach a total of 18,000 jobs in 2017. Leisure and Hospitality rose from 15,650 jobs in 2016 to 15,950 jobs in 2017, a gain of 1.9% or 300 jobs. Construction rose a significant amount in 2017, from 8,200 to 8,650, up 350 jobs, or 5.7%. Lastly, Information is now at 7,000 jobs, up 100 jobs or 1.4%. The smallest 3 supersectors, Financial Activities, Other Services, and Natural Resources and Mining (NRM) made up just 6.6% of GMW jobs. Financial Activities rose 1.4% to reach 6,550 jobs in 2017. Other Services rose just 0.5% to reach 5,400 jobs, while NRM lost 10 jobs falling to 800 jobs in 2017.

In summary, GMW broke several records in 2017: total employment, total payroll, average wage, and total establishments. Four supersectors: PBS, TTU, Education and Health Care, and Manufacturing dominated the GMW region producing two-thirds of total employment. Lastly, Education and Health Care now firmly holds the position as the third largest GMW supersector in employment, with Manufacturing fourth. ■



MERC SUBSTATE REGIONS MAP

MERC provides economic data and analysis for the 6 sub-state regions shown on the map: MetroWest CCSA™, Greater Marlborough Region, Greater Franklin Region, Blackstone Valley, 495/MetroWest Corridor, and the South Shore CCSA™.



There are several categories of unemployment rates. U-1 through U-6, not seasonally adjusted, are reported below for the U.S. period rates in September 2018. MERC uses the U-3 rate, which is the official unemployment rate.

Measures: U.S. September 2018

U-1	Persons unemployed 15 weeks or longer, as a percentage of the civilian labor force	1.3%
U-2	Job losers and persons who completed temporary jobs, as a percentage of the civilian labor force	1.5%
U-3	Total unemployed persons, as a percentage of the civilian labor force (the official unemployment rate)	3.6%
U-4	Total unemployed persons plus discouraged workers, as a percentage of the civilian labor force plus discouraged workers	3.8%
U-5	(U-4) plus all other "marginal attached" workers, as a percentage of the civilian labor force plus all "marginally attached" workers	4.5%
U-6	Total unemployed persons, plus all "marginally attached" workers, plus all persons employed part time for economic reasons, as a percentage of the civilian labor force plus all "marginally attached" workers	7.1%

September 2018 UNEMPLOYMENT RATES Not Seasonally Adjusted (Preliminary Data)

495/MW	2.7%
Blackstone Valley	3.0%
Blackstone	3.7%
Douglas	3.1%
Grafton	2.8%
Hopedale	2.7%
Mendon	3.4%
Millbury	3.2%
Millville	2.7%
Northbridge	3.0%
Sutton	2.5%
Upton	2.9%
Uxbridge	3.2%
Greater Franklin	2.9%
Bellingham	3.3%
Blackstone	3.7%
Foxborough	3.0%
Franklin	2.8%
Medfield	2.4%
Medway	3.0%
Millis	3.3%
Norfolk	2.4%
Wrentham	2.5%
Greater Marlborough	2.8%
Hudson	3.1%
Marlborough	2.7%
Northborough	2.9%
Westborough	2.7%
MetroWest	2.5%
Ashland	2.3%
Framingham	2.6%
Holliston	2.6%
Hopkinton	2.6%
Natick	2.5%
Sherborn	2.0%
Southborough	2.5%
Sudbury	2.6%
Wayland	2.8%
Milford	3.3%
South Shore	3.2%
Abington	3.7%
Braintree	3.4%
Cohasset	2.9%
Hanover	2.6%
Hingham	3.0%
Milton	3.0%
Norwell	3.0%
Quincy	3.1%
Randolph	3.7%
Rockland	3.2%
Weymouth	3.3%
Massachusetts	3.2%
United States	3.6%

A Peek Inside MERC



MERC Interns: Fall 2018



Back Row: Shayne Burke, Joseph Perry, Jonathan Vos, Christopher Goodwin, Brian Bissonnette, Kenneth Stahovich

Front Row: Peter Schiloski, Tess Marchioni, Kelsi Gunarathne, Ariane DeSouza, Jennifer Pinto, Bryanah Johnson, Steven DeMeo

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SAVE THE DATE!

27th Annual
MERC Conference
Wednesday, May 22, 2019, 8:00 a.m.
Sheraton Framingham

Keynote Speaker:
Rosalin Acosta
Secretary, Executive Office of Labor
and Workforce Development



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