MERC™ | MetroWest Economic Research Center
FRAMINGHAM STATE UNIVERSITY

ECONOMIC UPDATE

Issue 41   **Spring 2020**

South Shore Continues to Spend Large Amount on Education

By: Mary Elizabeth Gallagher

The South Shore (SS) region is comprised of eleven communities: Abington, Braintree, Cohasset, Hanover, Hingham, Milton, Norwell, Quincy, Randolph, Rockland, and Weymouth. To track spending, Municipal Expenditure is categorized into six categories: Education, Debt Service, Police, Fire, & Other Public Safety, Public Works, Fixed Costs, and "All Other." This article will discuss the municipalities size by area and density, their total general fund expenditure, and their expenditure by function in the communities of the South Shore.

There are major differences in the land area of each SS municipality when compared to the respective densities. As seen above in Figure 1, the left panel reflects the size of each community in square miles while the graph on the right panel represents the density (population per square mile) of each community in the South Shore. The communities in South Shore comprise a total area of 158.5 square miles. Hingham had the largest area with 22.2 square miles followed by Norwell (20.9), Weymouth (16.8) and Quincy (16.6). The size of the remaining seven communities in South Shore ranged from 15.6 square miles in Hanover to

Figure 1
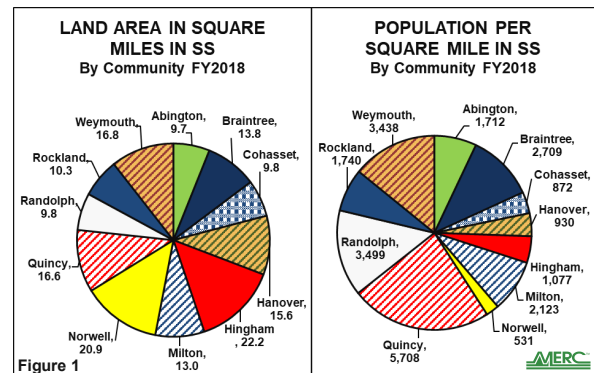
Employment Change in GMW Communities Following the Great Recession

By: Abraham Gomez

The Great Recession of 2009 dramatically impacted the Greater MetroWest region (GMW) as employment fell from 182,270 in 2008 to 174,080 in 2009, a loss of 8,190 jobs or – 4.5% of total regional employment. In addition, all 13 GMW communities suffered job losses in 2009 showing the breadth of the recession. GMW subsequently recovered from the Great Recession and employment expanded to reach a record 191,890 in 2018, a gain of over 17,800 jobs or 9.3%. But what about the 13 GMW communities? This article will discuss net job change by GMW community, 2009—2018, identifying which communities gained or lost

The Greater MetroWest Labor Market: An Analysis of Job Postings

By: Ramon Valdivieso

Ramon Valdivieso
Research Assistant
Focus
Labor Markets
Major
MBA Candidate
YOG 2021

In an increasingly digital world, data analysis plays a fundamental role. Online job portals are an important tool for both employers and job seekers. Through web portals, employers can filter the appropriate candidates and select those who have the skills that the firm seeks. This article relies on Labor Insight™ to analyze Greater MetroWest (GMW) labor market data.* The tool uses Artificial Intelligence and Big Data to extract information about job postings from the web. It also groups and eliminates duplicates. Postings are then filtered and stored in order to issue reports that allow data analysis.

This information is relevant to fill-in the gaps that exist when using traditional information. Traditional information can be understood as the information that comes from accredited sources such as government agencies. Two traditional sources of Labor-Market information are the BLS (Bureau of Labor and Statistics) and the JOLTS (Job Openings and Labor Turnover Survey). This data is usually tabulated on a fixed period of time (i.e. monthly). Real-time data allows a more dynamic approach to analyze the labor market.

The nature of the data analyzed through Labor Insight™ is different than traditional data. It is very likely that the two types of data can yield similar conclusions, but the objective is to complement the data to draw better conclusions and have a clearer picture of the labor market.

The researcher has to take into account three issues particular to analytic tools that use Artificial Intelligence and Big Data. The first is that 'not all jobs are posted online,' i.e., there are jobs that are offered through unions or through word of mouth. The second

is that there may also be human error in entering data into employment platforms. In addition, each platform is different. Thus, data consolidation is a complicated task. The third peculiarity is that the technology and science used for the collection of this data, Artificial Intelligence and Big Data, is under constant change.

Data that can be found in a job posting in this dataset includes job description, location, information about the company, the rating of both the job and the company, the salary, the reviews about the organization, and the benefits. According to the Labor Insight™ software usage guide, a job posting has an average of 70 data entry fields, between required fields and optional fields.

For GMW, in 2016, there were a total of 48,392 job postings. In 2019, there were a total of 65,318 job postings. There was a growth of about 35% between the year 2016 and 2019.
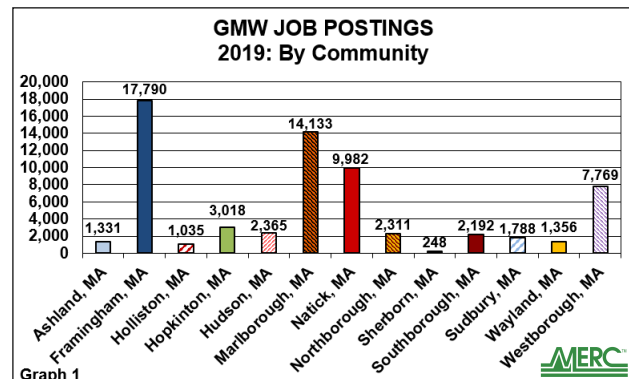
Graph 1

Graph 1 above shows the total job postings for 2019 by the community where the job was being advertised. The highest number of job postings within Greater MetroWest were in Framingham with about 18,000 jobs, Marlborough with about 14,000 jobs, Natick with 10,000 jobs, and Westborough with about 7,800 jobs. The chances of getting a job in these communities are higher than in the smaller communities. The rest of the communities within the region had fewer online postings. For

The Population Aged 55 Years and Older in the Greater MetroWest Region

By: Madison Scott

Madison Scott
Intern II
Focus
Census & Cost of Living
Major
Economics
YOG 2020

On a yearly basis, the United States Census Bureau conducts the American Community Survey (ACS). Annually, the ACS compiles a vast array of databases that examine the population's social, economic, demographic, and housing characteristics. Data are recorded for over 578,000 geographical areas across the United States. The most recent ACS 5-year estimates spanning from fiscal year 2013 through 2017 revealed a solid population of residents aged 55+ in the Greater MetroWest (GMW) region.

According to the 2017 ACS, it is estimated that the Greater MetroWest region had a population of nearly 300,000 residents. Of that population, 25.7% were aged 19 years-old or younger and 45.9% were aged 20 to 54 years. A more comprehensive analysis of the GMW's population aged 55 years or older is depicted in Graph 1 below, showing that of the entire Greater MetroWest region's population, 13.7% were between 55-64 years, 8.5% were between 65-74 years; 4.2% 75-84 years, and only 2.0% aged 85 years or older. Accumulatively, the residents in these age brackets accounted for 28.4% of the Greater MetroWest region's total population.

Graph 2 below shows the percentage of the total population aged 55+ for the Greater MetroWest region and all of its constituent communities, as well as the state of Massachusetts and the United States. As of 2017, approximately one out of every four (28.4%) residents in the Greater MetroWest region was 55 years or older. This is 1.3% less than the percentage of 55+ residents for Massachusetts, where 28.7% of the residents were 55 years or older; but 2.9% higher than the United States where 27.6% of the residents were 55 years or older.

% POPULATION AGED 55 YEARS+
**by Geographical Area**
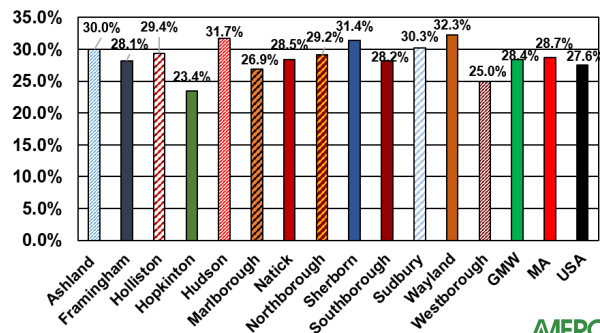
Graph 2

The Greater MetroWest community with the largest percentage of its total population aged 55 years or older was Wayland, with 32.3% of the community's 13,700 residents. This is about 12.5% higher than the percentage of 55+ residents for Massachusetts and 17.0% higher than the United States. The community with the smallest percentage of its total population aged 55+ was Hopkinton, at just 23.4%. This distribution of residents aged 55+ is 19.2% less than that of Massachusetts and 15.2% less than the United States.

Over the past two decades, the 55+ population for the Greater MetroWest region has shown a substantial increase. In the 2000 Census, the population aged 55 years or older accounted for 20.4% of the total GMW population and in the 2010 Cen-

GMW AGE DISTRIBUTION 55 YEARS +
by Age Bracket

Graph 1

☐ 19 and under ☐ 20-54 years ☐ 55-64 years
☐ 65-74 years ☐ 75-84 years ☐ 85 years+
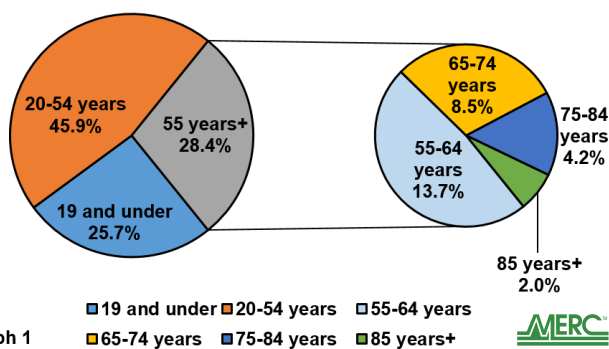
sus, 25.2%; while the 2017 ACS estimated that the population aged 55 years or older accounted for 28.4% of the total GMW population—an estimated 8 percentage point increase from the 2000 Census.

Graph 3 below illustrates that although, the number of GMW residents aged 55+ has risen substantially over time, the age distribution within the 55 and older population has fluctuated minimally. For all three surveys, the 55-64 years of age group is the largest group within the 55+ population, accounting for 43.0% or more of that age bracket in all surveys conducted. The 2000 Census reported this age group to be 43.0% of the total 55+ population; the 2010 Census, 48.7%; and the 2017 ACS estimates, 48.1%.

Similarly, all three surveys consistently reported that the least populated age-bracket within the region's total 55+ population was the 85 years or older age group. The population aged 85 years or older accounted for 8.0% or less for the total 55+ population in all three surveys. The 2000 Census found that 7.6% of the GMW's 55+ population was 85 years or older; the 2010 Census, 8.0%; and the ACS 2017 estimates 7.1%, nearly 6,000 residents.

Meanwhile, the 65-74 years and 75-84 years age groups were relatively similar for all three surveys, plus or minus 5 percentage points. In both the 2000 and 2010 Censuses as well as the 2017 ACS estimates, the 65-74 years age group accounted for between 26.3 to 30.2% of the GMW's total 55+ population; and the 75 to 84 years group, between 14.9 to 19.2%.

To summarize, about one quarter of the Greater MetroWest region is aged 55 years or older. The GMW population aged 55 years+ has shown steady growth over the past couple of decades; yet the age distribution within this population has remained relatively uniform over time. •

GMW 55+ AGE DISTRIBUTION OVER TIME
By Year: 2000, 2010, & 2017

Graph 3   ■ 55-64 ■ 65-74 ■ 75-84 ■ 85+
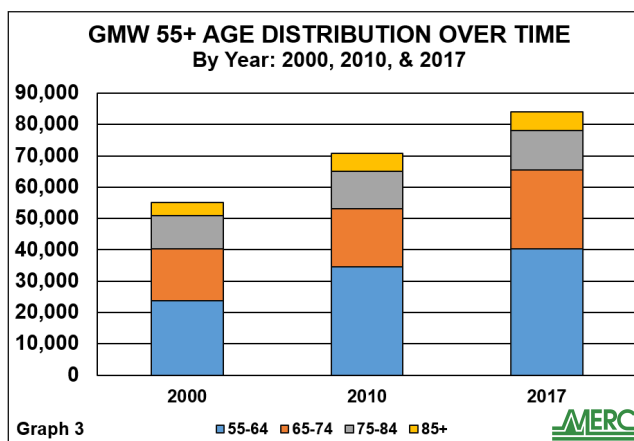
How MERC Handled the COVID-19 Pandemic

This semester, MERC was fortunate enough to be moved into a new spacious office with plenty of room for faculty members to congregate and interns to collaborate. Only a few months after moving in, all non-essential businesses closed due to the COVID-19 outbreak and with it, so did the MERC office. Prior to spring break, we had a full semester ahead, and while things changed, interns and faculty worked hard from home to keep things moving. These modified duties include: weekly meetings being held via video conference using Zoom; the intended classroom visits to spread word about the MERC internship opportunities were conducted by interns who attended the classes virtually; and interns actively made phone calls to the historically underrepresented communities within the region to inform them about the 2020 US Census, the importance of filling out, and answering questions in order to be counted. Unfortunately, a few events had to be canceled such as our visits to local high school to spread word of the importance of economic data, MERC, and Framingham State in general, along with the MERC annual conference. While many businesses are feeling the effects of the COVID-19 pandemic, MERC remains committed to continue our three fold-mission of economic research, education through internship, and economic outreach.

Mary Elizabeth Gallagher
Intern III
Focus
Municipal Revenue
Major
Finance
YOG 2020

9.7 square miles in Abington.

The population density (population per square mile) varies considerably across the eleven SS communities, as seen on the right panel in Pie Graph 1, page 1. Although, a community may have a large land area, such as Norwell at 20.9 square miles, the population density is only 531 per square mile; compared to Quincy at a smaller land area of 16.6 square miles and a larger population density at 5,708 per square mile. Quincy is the most densely populated community in the South Shore, followed by Randolph (3,499) and Weymouth (3,438). Abington, Braintree, Hingham, and Rockland fell between 1,000 and 3,000 while Cohasset, Hanover, and Norwell had a population density of less than 1,000 individuals per square mile. The average population density for South Shore was 2,172 individuals per square mile; about three times higher than individuals per square mile for Massachusetts.

Figure 2 below shows the combined total of these categories (Education, Debt Service, Police, Fire, & Other Public Safety, Public Works, Fixed Costs, and "All Other")

MUNICIPAL GENERAL FUND EXPENDITURE
South Shore Communities FY2018 Total: $1.1B

Figure 2
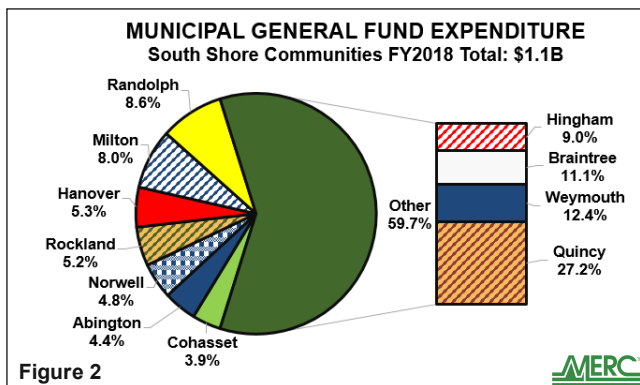
by SS community. In FY2018, these general fund expenditures reached over $1.1 billion dollars in the South Shore. The four communities with the highest expenditures (Hingham, Braintree, Weymouth, and Quincy) were responsible for 59.7% of the total SS expenditure. Norwell, Abington, and Cohasset each made up less than 5.0% of the total SS expenditure, collectively totaling about $146.6 million. The communities of Milton and Randolph had similar expenditure at 8.0% and 8.6%, respectively, totaling $185.3 million.

FIVE LARGEST COMMUNITIES BY EXPENDITURE
By South Shore Community FY2019
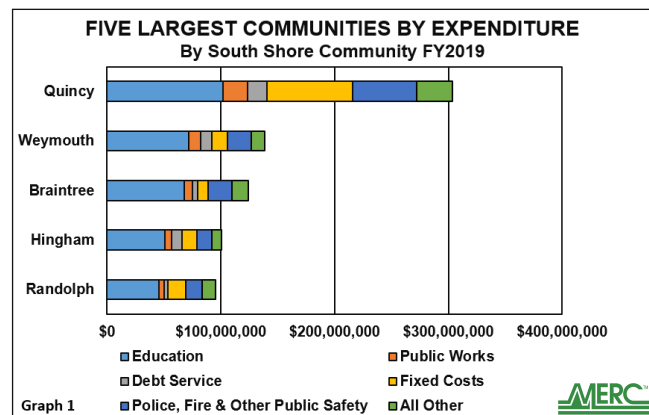
Graph 1

The five largest communities by expenditure in South Shore include the following: Quincy, Weymouth, Braintree, Hingham, and Randolph, as seen above in Graph 1. Quincy, which had the highest amount of spending among all the communities, had collectively spent a total of $303.2 million on Education, Debt Service, Police, Fire, & Other Public Safety, Public Works, Fixed Costs, and "All Other" in FY2018. Hingham and Randolph had a similar collective expenditure total of $100.7 million and $95.6 million, respectively, in FY2018. Both communities spent less than a third the total spending of Quincy. Weymouth had a collective expenditure of $138.6 million, followed by Braintree at $123.9 million in FY2018. These five communities each spent the most on Education. Education made up over 50.0% of the total expenditure in Hingham, Braintree and Weymouth. Quincy spent 33.5% of their to-

Abraham Gomez
Intern III
Focus
Employment
Major
Economics
YOG 2020

employment following the Great Recession. In addition, this article will rank the 13 GMW communities by numbers of jobs in both 2009 and 2018 to ascertain whether shifts in ranking had occurred between 2009 and 2018.

Following the Great Recession of 2009, ten GMW communities gained employment, while only three lost employment. Framingham led in absolute net change adding 4,520 jobs, an increase of 10.1%, as seen in Graph 1 below. Three other communities gained more than 2,000 jobs: Northborough, Marlborough, and Hopkinton. Since 2009, Northborough gained 3,860 jobs, a 66.9% increase. Although Northborough had the second highest absolute net increase in employment, the town generated the largest increase in percentage net change in employment among the 13 communities. Marlborough added 3,090 jobs, an increase of 10.7%, followed by Hopkinton which added 2,130 jobs, up 23.2%. Three communities gained between 1,000 to 2,000 jobs: Westborough, Holliston, and Southborough. Westborough rose by 1,880 jobs, an increase of 8.0%, followed by Holliston which rose by 1,450, or 27.4%. Southborough added 1,190 jobs, up 16.7%. Three communities produced

gains between 0 to 1,000 jobs. Wayland added 980 jobs, an increase of 31.7%, followed by Hudson, up 510 jobs or 5.5%. Sherborn had the smallest absolute net change, up 80 jobs or 13.0%.

However, three GMW communities lost jobs between 2009 and 2018: Sudbury, Natick, and Ashland. Sudbury saw both the largest absolute and percentage declines with 1,360 job losses, a percentage change of -17.0%. Natick saw the second largest absolute decline with 420 job losses, or -1.8%, followed by Ashland, with 100 job losses, or -2.0%. In conclusion, nine years after the Great Recession, three communities had not recovered, but lost further jobs.

GMW EMPLOYMENT BY COMMUNITY
2009 - 2018; Framingham, Marlborough Led
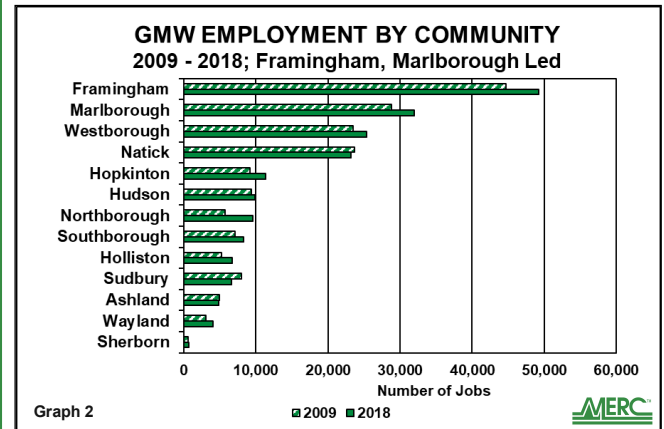
Graph 2

How did the 13 GMW Communities rank in total employment in 2009 and 2018? Graph 2 above shows the 13 communities of GMW ranked by their number of jobs in 2009 in stripes, and 2018 in solid. In 2009, Framingham led with the highest employment, 44,700 jobs, followed by Marlborough with 28,830 jobs, and Natick with 23,650 jobs. By 2018, nine years after the Great Recession, Framingham continued to lead with 49,220 jobs, followed by Marlborough with 31,920 jobs. Following 2009, Westborough surpassed Natick in employment to become the third largest GMW community in employment in 2018 with 25,340 jobs. Natick, which had lost more jobs since the Great Recession, fell to fourth place with 23,230 jobs. Ashland and Sudbury also saw further losses in employment in the nine years following 2009. Sudbury dropped from the 7th highest community in 2009, to the 10th highest in commu-

NET CHANGE IN EMPLOYMENT BY COMMUNITY
**2009 to 2018; Ten Gain, Three Decline**

Graph 1
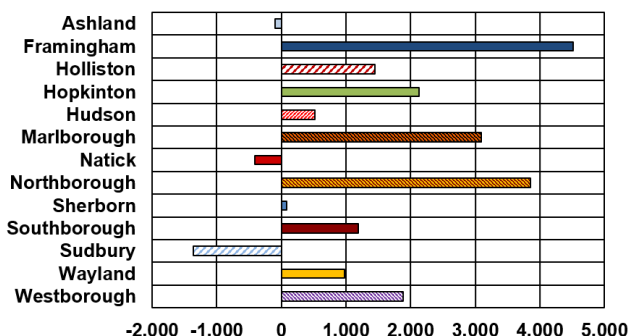
tal expenditure on Education; the smallest percent despite spending the most at $101.6 million in FY2018.

Municipal expenditures are categorized into six main categories: Education, Debt Service, Police, Fire, & Other Public Safety, Public Works, Fixed Costs, and "All Other," as shown in Graph 2 below. The respective expenditures are shown as percentages of total expenditures in the graph. Fixed employee benefits for all municipal employees are included in fixed costs. In FY2018, these general fund expenditures reached over $1.1 billion dollars in South Shore. Education expenditures comprised the largest portion of each community in GMW. The following communities include those with more than 50% of total expenditure allocated to Education: Braintree (54.6%), Hingham (50.2%), Milton (54.0%), and Weymouth (51.8%). The smallest category was Debt Services; Abington spent the largest share in this category at $5.3 million or 10.1% of total spending, while Randolph spent the smallest share at $2.9 million or 3.0% of total expenditure. The Police, Fire & Other Public Safety category made up around 10.0% to 20.0% of the SS total expenditure; the least spending found in Abington and the largest share in Quincy at 10.9% and 18.6% of total expenditure, respectfully. •
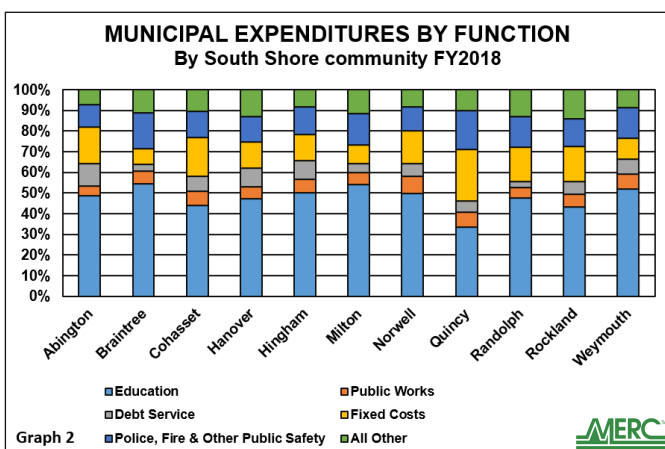
nity by employment in 2018, as its jobs fell from 8,000 to 6,640. The remaining ten communities witnessed an increase in employment, with a notable gain in Northborough, which ranked 9th highest in employment with 5,760 jobs in 2009. In the nine years following the Great Recession, Northborough moved up to the 7th highest community in employment with 9,620 jobs. Sherborn, Wayland and Ashland did not change rank in the nine years after the Great Recession, with Ashland still ranked 11th, followed by Wayland ranked 12th, and Sherborn ranked 13th.

In summary, ten GMW communities rose in employment, while three declined in the nine years following the Great Recession. Framingham had the highest absolute net gain in employment, adding 4,520 jobs. Northborough had the highest percentage net increase in employment with 66.9%. Westborough, with 25,340 jobs in 2018, replaced Natick as 3rd highest in jobs in 2018. Northborough also rose from 9th to 7th rank in employment, with 9,620 jobs in 2018. •

MERC Cost of Living Survey

After MERC interns actively organized routes, updated reporting forms, and mailed surveys to dentists' and doctors' offices, the Council for Community and Economic Research (C2ER) cancelled the survey on March 18th. Quarter 2's data collection will be replaced with Quarter 4 in October, when the annual report is typically published. The annual report C2ER publishes will be delayed this year.

Typically, every March and October, MERC interns gathers prices of normal everyday goods such as gasoline, ibuprofen, groceries and professional services such as eye exams and physical exams. The information obtained is used to help compare and contrast MetroWest to other regions across the country. The data is reported to C2ER, which manages the national survey and publishes an annual report in the same month. The survey is conducted by collecting price data on goods and services from many local establishments in the MetroWest region.
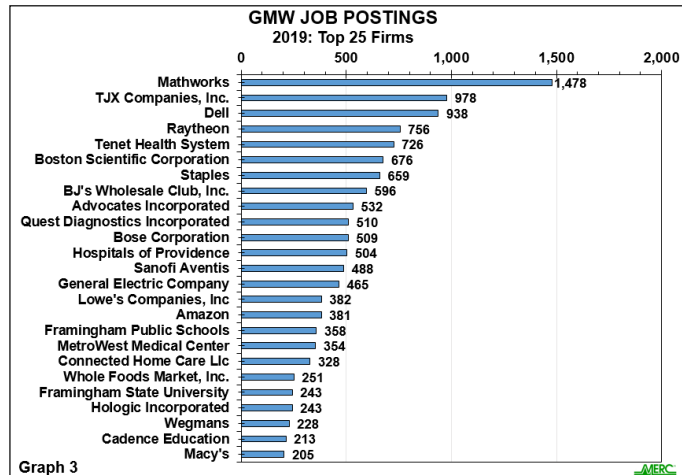
MUNICIPAL EXPENDITURES BY FUNCTION
By South Shore community FY2018

Graph 2

Legend:
- Education
- Public Works
- Debt Service
- Fixed Costs
- Police, Fire & Other Public Safety
- All Other

example, Sherborn was the smallest with 248 job postings.

Graph 2 below shows the percentage growth of job postings between 2016 and 2019 for the communities that make up GMW. It is divided into 4 categories: high growth (communities with 76% growth or more), medium-high growth (communities with growth between 40% and 75.99%), medium-low growth (communities with growth between 25% and 39.99%), and low growth (communities with growth less than 25%).The community with the highest growth is Sherborn. The communities with medium-high growth are Hudson, Sudbury, Wayland, Natick, Ashland and Holliston. The communities with medium-low growth are Northborough, Hopkinton, Southborough and Marlborough. The communities with low growth are Framingham and Westborough. It is interesting to mention that smaller communities had higher percentage growth than large communities. (Also, note that there are smaller "denominators" small towns).

Through the analysis of these data, it has been possible to identify the top 25 firms for 2019 identified as the firms who have posted the most jobs online in the region. It is notable that these firms belong to different industries. This indicates that there is diversity in the opportunities that employers offer in GMW. The top 3 firms were MathWorks, TJX Companies Inc. and Dell. Framingham State University was also part of this list and 243 job postings were regis-

tered. The top 25 firms for 2019 accounted for approximately 20% of the total job postings in Greater MetroWest.

GMW JOB POSTINGS
2019: Top 25 Firms

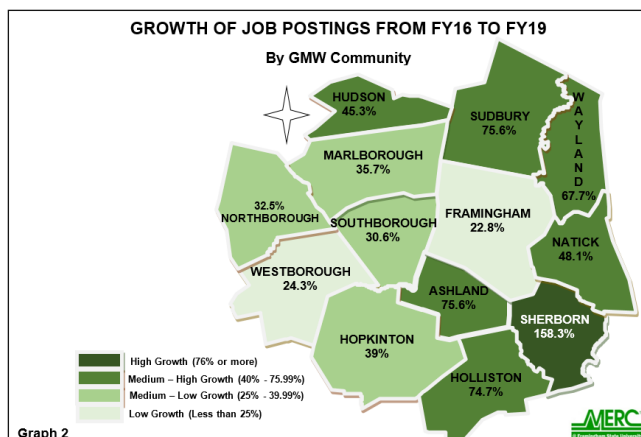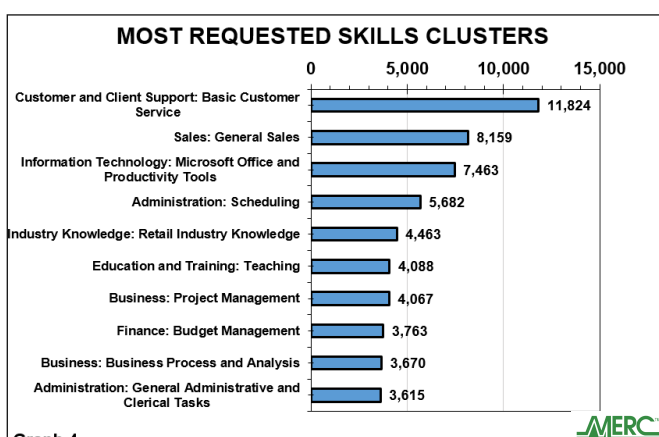| Firm	Postings
Mathworks	1,478
TJX Companies, Inc.	978
Dell	938
Raytheon	756
Tenet Health System	726
Boston Scientific Corporation	676
Staples	659
BJ's Wholesale Club, Inc.	596
Advocates Incorporated	532
Quest Diagnostics Incorporated	510
Bose Corporation	509
Hospitals of Providence	504
Sanofi Aventis	488
General Electric Company	465
Lowe's Companies, Inc	382
Amazon	381
Framingham Public Schools	358
MetroWest Medical Center	354
Connected Home Care Llc	328
Whole Foods Market, Inc.	251
Framingham State University	243
Hologic Incorporated	243
Wegmans	228
Cadence Education	213
Macy's	205

Graph 3

The general skills that employers sought within GMW during 2019 were those shown in Graph 4 below. The basic skills that job seekers need to have in order to find a job online are Customer Service, Productivity Tools and Sales.

This data is intended to help our community to understand with more accuracy the dynamics of the GMW Labor Market. Real-time data, such as job postings, allows us to understand a more dynamic panorama and make faster decisions. It is important to monitor job postings to find out where new job opportunities will be and which sectors will offer these jobs. This information is crucial for employers, job seekers, policy makers, and educational institutions. •

GROWTH OF JOB POSTINGS FROM FY16 TO FY19
By GMW Community

HUDSON 45.3%
SUDBURY 75.6%
WAYLAND 67.7%
MARLBOROUGH 35.7%
NORTHBOROUGH 32.5%
SOUTHBOROUGH 30.6%
FRAMINGHAM 22.8%
NATICK 48.1%
WESTBOROUGH 24.3%
ASHLAND 75.6%
SHERBORN 158.3%
HOPKINTON 39%
HOLLISTON 74.7%

High Growth (76% or more)
Medium – High Growth (40% - 75.99%)
Medium – Low Growth (25% - 39.99%)
Low Growth (Less than 25%)

Graph 2

MOST REQUESTED SKILLS CLUSTERS

Skill Cluster	Count
Customer and Client Support: Basic Customer Service	11,824
Sales: General Sales	8,159
Information Technology: Microsoft Office and Productivity Tools	7,463
Administration: Scheduling	5,682
Industry Knowledge: Retail Industry Knowledge	4,463
Education and Training: Teaching	4,088
Business: Project Management	4,067
Finance: Budget Management	3,763
Business: Business Process and Analysis	3,670
Administration: General Administrative and Clerical Tasks	3,615

Graph 4

Blackstone Valley, South Shore Led Regional Job Gains in 2018

By: Abraham Gomez

In 2018, five of the six regions analyzed by the MetroWest Economic Research Center (MERC) witnessed an increase in employment. Blackstone Valley (BV), Greater MetroWest (GMW), Greater Marlborough Region (GMR), the South Shore (SS), and the 495/MetroWest corridor (495/MW) all saw gains in employment from 2017 to 2018. Employment in the MetroWest region (MW) remained flat with a slight decline in employment of - 0.04%.

BV, which consists of eleven communities, produced 29,310 jobs in 2018. From 2017 to 2018, BV employment increased by 1.2% with 350 jobs, which is the largest percentage gain among the six sub-state regions.

GMW, which includes the four communities from GMR, plus the nine communities from MW, provided 191,890 jobs in 2018. GMW employment increased by 0.3% with 520 jobs from 2017 to 2018. GMR generated 76,780 jobs in 2018, an increase by 0.7%, or 560 jobs from 2017. MW was the only region that declined in employment from 2017 to 2018. MetroWest produced 115,110 jobs, with a minimal decrease of 0.04%, or 40 jobs losses from 2017.

SS, which consists of eleven communities, produced 164,560 jobs with a gain of 1.0%, or 1,560 jobs from 2017 to 2018. SS generated the largest absolute gain among all six sub-state regions. The 495/MetroWest corridor, consists of 35 communities and provided 337,440 jobs in 2018. From 2017 to 2018, the 495/MetroWest corridor rose by 0.4%, or 1,390 jobs.
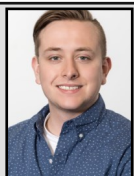
As for the state and the nation, Massachusetts generated 3,586,110 jobs in 2018, an increase of 1.2%, or 42,020 jobs from 2017. The United States produced 146.1M jobs in 2018, a 1.6% increase, or 2.27M from 2017. BV was the only region that had an equal or higher percentage increase in employment than the state of Massachusetts. The United States employment gains exceeded all six substate regions and Massachusetts.

In summary, this data shows that employment across the board continued to increase in 2018, with the exception of MetroWest which remained stable. Blackstone Valley led with the largest percentage gain in employment with 1.2% increase from 2017 to 2018. The South Shore region had the largest absolute gain in employment with 1,560 new jobs. •

REGIONAL % NET CHANGE IN JOBS 2017—2018; BV, SS Led

Graph 1
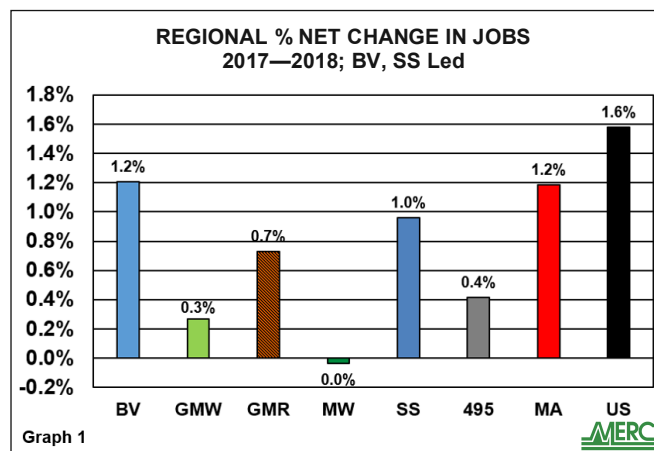
Past Interns: Where are They Now?

"I interned four semesters at MERC and worked on Municipal Revenue and Employment. Since leaving MERC and FSU in 2019, I began working for National Grid in Cyber Security. Even though the field I am in now is very different from what I did at MERC, I can say my experience at MERC has helped me tremendously in my career. Interning for MERC taught me how to think analytically, how to work with data to make decisions, and how to solve problems. All these skills especially helped me in interviewing for my current position, as well as being able to provide value to my team."
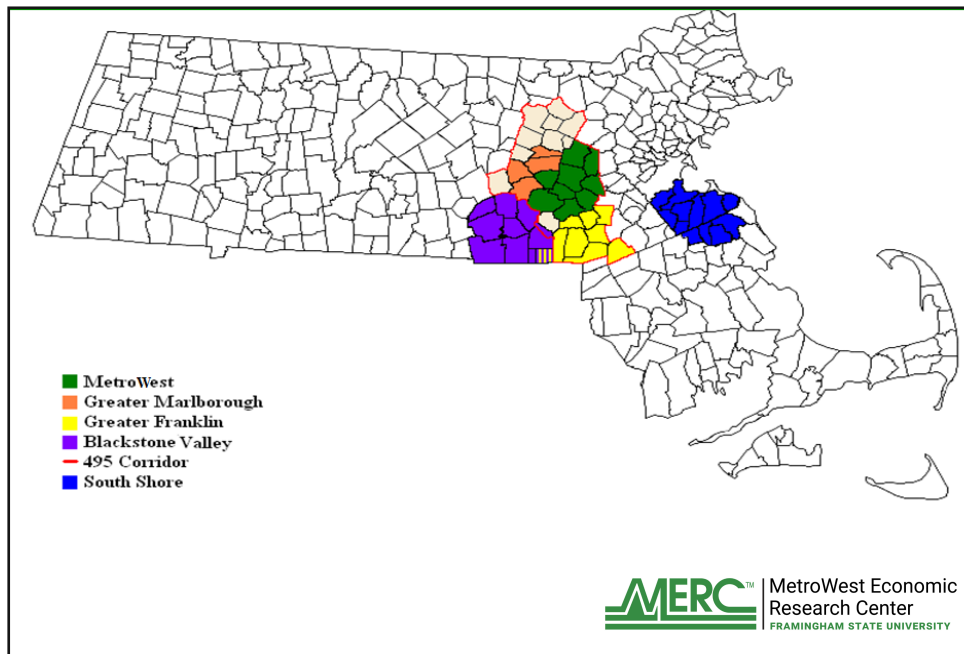
Steven DeMeo
YOG 2019

"I interned at MERC for three semesters and my focus was Unemployment. Since graduating, I have been trying to uncover what I would like to do for my career. I started working for Citizens Bank right after graduation and have been a licensed banker. Recently, I was accepted into graduate school where I will be pursuing a Master of Economics. From my time at MERC, I discovered that I would like a career path in analytics and will be starting an analytical role within my company I work for starting in June. I am grateful that MERC gave me the skills to research, understand, organize, interpret, and present data."

Kelsi Gunarathne
YOG 2019

MERC SUBSTATE REGIONS MAP

February 2020 UNEMPLOYMENT RATES Not Seasonally Adjusted (Preliminary Data)	

MERC provides economic data and analysis for the six 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™.

495/MW	**2.7%**
Blackstone Valley	**3.3%**
Blackstone	3.8%
Douglas	3.3%
Grafton	2.8%
Hopedale	3.3%
Mendon	3.1%
Millbury	3.4%
Millville	4.5%
Northbridge	3.9%
Sutton	2.7%
Upton	3.0%
Uxbridge	3.5%
Greater Franklin	**3.1%**
Bellingham	3.5%
Blackstone	3.8%
Foxborough	3.1%
Franklin	3.0%
Medfield	2.5%
Medway	2.9%
Millis	3.4%
Norfolk	2.9%
Wrentham	2.8%
Greater Marlborough	**3.1%**
Hudson	3.4%
Marlborough	3.3%
Northborough	2.8%
Westborough	2.5%
MetroWest	**2.4%**
Ashland	2.3%
Framingham	2.4%
Holliston	2.7%
Hopkinton	2.3%
Natick	2.3%
Sherborn	2.0%
Southborough	2.5%
Sudbury	2.2%
Wayland	2.2%
South Shore	**3.0%**
Abington	3.8%
Braintree	2.7%
Cohasset	2.4%
Hanover	2.6%
Hingham	2.5%
Milton	2.4%
Norwell	2.6%
Quincy	2.9%
Randolph	3.6%
Rockland	3.8%
Weymouth	3.4%
MA	**3.3%**
US	**3.8%**

Legend:
- ■ MetroWest
- ■ Greater Marlborough
- ■ Greater Franklin
- ■ Blackstone Valley
- — 495 Corridor
- ■ South Shore

MERC™ MetroWest Economic Research Center
FRAMINGHAM STATE UNIVERSITY

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 February 2020. MERC uses the U-3 rate, which is the official unemployment rate.

Measures: U.S. February 2020

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	**1.9%**
U-3	Total unemployed persons, as a percentage of the civilian labor force (the official unemployment rate)	**3.8%**
U-4	Total unemployed persons plus discouraged workers, as a percentage of the civilian labor force plus discourage workers	**4.0%**
U-5	(U-4) plus all other "marginal attached" workers, as a percentage of the civilian labor force plus all "marginally attached" workers	**4.7%**
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	**7.4%**

Spring 2020 Advisory Board Meeting

MERC Interns: Spring 2020

Back Row: Jarrett Rehbein, Ramon Valdivieso, Aline Ventura Dropsy, Valeria Arauz, Darian Kianfar, Muhammadirfan Noor, Greg Bowe
Front Row: Madison Scott, Mary Elizabeth Gallagher, Zakariah Peters, Abraham Gomez

28th MERC Annual Conference

The 28th Annual MetroWest Economic Research Center Conference scheduled for Thursday, May 28, 2020 has been canceled due to the COVID-19 Pandemic.

Please visit www.merc-online.org
or call (508) 626-4033
for more information about MERC.

Follow MERC on your favorite social media!

Follow MERC on Facebook, Twitter, and LinkedIn to receive economic updates and learn about MERC research.

**www.merc-online.org
@MERC_FSU**

THANK YOU TO OUR SPONSORS