

**NOMIC UPDA** 

# Issue 29

South

Milton.

#### Spring 2014

## **INSIDE THIS ISSUE:**

#### Examining the Demographics of the South Shore Census

## **By: Terel Soares**

The

Shore

Abington, Braintree, Co-

hasset, Hanover, Hingham,

Norwell,

Randolph, Rockland, and

Weymouth. According to

Quincy,

**Examining the** Demographics of the South Shore Census

Cost of Living **Reaches New** Peak

1

**Developing an** Economic Index 2 for MW

# **Municipal Reve**nue and Expenditures for 495/MW Region

South Shore	
Employment – A	
Diverse	ľ
Economy	

Unemployment **Rates and** MERC **Coverage Map** 

10

11

11

A Peek Inside MERC

# **MERC Interns** Spring 2014

©2014 Framingham State University - MetroWest Economic Research Center



the 2010 Census, the South Shore had a total population of 328,431 individuals. Graph 1 above shows age distribution for the South Shore, the state, and the nation. Both Massachusetts and the South Shore had the highest

Continued on page 8

# MetroWest Cost of Living Reaches New Peak

#### **By: Jay Nicholls**

Research Center (MERC) at Frama cost of living survey twice per October. The survey gathers price data from numerous retail stores, other businesses around MetroWest Region. includes the following nine towns: Ashland, Framingham, Holliston, Natick. Sherborn, Hopkinton, Southborough, Sudbury and Way-

The MetroWest Economic group of items, known as the "market basket." These items represent purchases typiingham State University conducts cally made by professional and executive households. The goods and services in this year; once in April and again in market basket were selected by the Council for Community and Economic Research (C2ER), based on consumer spending sursupermarkets, gas stations, and veys conducted by the U.S. Bureau of Labor the Statistics. The items are grouped into six This region categories; housing, utilities, grocery items, transportation, health care, and miscellaneous goods and services. Average prices of the items in each category are used to create sub-indexes for all six categories. The land. The goal of these surveys is Overall Cost of Living Index is a weighted to determine the average cost of a average of these sub-indexes. These num-Continued on page 6

#### Page 2



Andre Fernandes Intern II Focus Economic Index <u>Major</u> Economics YOG 2014

#### **Developing an Economic Index for MetroWest**

#### **By: Andre Fernandes**

Business cycle indicators, also known as cyclical indicators, are useful tools in analyzing periods of economic expansion and contraction. The cyclical indicators are classified into three categories that provide a different insight into an economy's behavior: Initially, leading indicators shift direction in advance of the business cycle; therefore, they are considered to have a predictive quality that is pivotal for detecting economic turns. These may include the number of

housing permits or want ads

in the newspaper which may foreshadow future economic activity. Secondly, coincident indicators measure the current state of the economy and portray aggregate economic activity. Coincident indicators include employment and unemployment data which indicate what is currently happening in the economy. Lastly, lagging indicators shift direction after coincident indices which is too late to remedy economic downturns; however, lagging indicators, which include changes in the Consumer Price Index and average duration of unemployment, have become a useful tool in confirming economic cycles.

One well-known national cyclical index is the Chicago Fed National Activity Index (CFNAI)



published monthly by the Federal Reserve Bank of Chicago, depicted in Graph 1 below. The CFNAI is designed to gauge economic activity using a weighted average of 85 existing monthly indicators of national activity. The data for the CFNAI are separated into four categories: 1) Production and income; 2) Employment, unemployment, and hours; 3) Personal consumption and housing; and 4) Sales, orders, and inventories. Because monthly data are often noisy, it is common for cyclical indicators to rely on a three month moving average. Additionally, business cycle indicators are centered at 0 which indicates that an economy is growing at a long-run, stable trend. Observed in Graph 1 below are the two last major recessions: in 2001 the graph clearly indicates a drastic decline in national economic activity which is consistent with the dot-com bust where increasing funds were directed to internet companies-a trend that was not sustainable—which resulted in many companies failing; and in 2008-2009 a sharp decline in economic activity is observed again due to the recession attributed to the financial crisis and the bursting of the housing bubble.

Using the same method as the Federal Reserve, Dr. Timothy Duy, Professor of Economics at the University of Oregon, created the Oregon Regional Economic Index. This monthly state and sub-state index supplies business leaders, government representatives, and academia with current economic data for metropolitan regions in Oregon. One purpose in creating sub-state indices is to show that economic activity differs among different metropolitan regions. When analyzing state data, there is an assumption of economic homogeneity among all areas in the state which overlooks important differences in local economies. As depicted on Graph 2 on page 7 the economic index for the Portland Metro region indicates a decrease in economic activity during the last two major recessions. In 2001, the index shows the effects of the dot-com bust and in 2008-2009 the sharp decrease in economic activity is attributed to the recession caused by the financial crisis and collapse of the housing market.



**Kristen Peterson** Intern II Focus Municipal Revenue Major Business Admin. YOG 2014

#### Municipal Revenue and Expenditures for 495/MW Region

#### **By: Kristen Peterson**

Each year, the MetroWest Economic Research Center collects data on Municipal Revenue and Expenditures for the 495/MetroWest Region (495/ MW). The region covers a large geographical area consisting of 33 communities. With the recent \$1.4 billion, a gain of 97%. This was the addition of Upton, the region is bounded by several communities including Littleton to the north of the region, Shrewsbury to the west, Natick to the east, and Foxborough located in the southeast corner of the region. There are four components that make up Municipal Revenue:

total tax levy, state aid, local receipts and an "all other" category. The tax levy is comprised of personal property and industrial, commercial, open space and residential real estate taxes. State aid is made up of state aid for education and for general government. Local receipts are comprised of motor vehicle excise taxes, licenses and charges for services. The "all other" category includes available free cash.

Graph 1 below illustrates the change in total revenue as well as the four categories that make up total revenue for the 495/MetroWest region from FY2000 to FY2013. Total municipal revenue for the 495/MW Region rose from \$1.2 billion in FY2000 to \$2.1billion in FY2013, a total increase of 84%. Over the same period of time, the total tax levy for the region in blue increased significantly from \$708 million to



#### **A MERC TIDBIT**

The Real Estate Tax Levy on Single Family Residences comprise the major portion of the 495/MW Region total tax levy.

only category to experience a steady year to year increase which on average was about 5.4% per year. State aid climbed from \$203 million in FY2000 to its peak of \$333 million in FY2009, before declining to \$302 million in FY2010 and then gradually increasing by 11% to \$321 million in FY2013. Revenue from local receipts peaked in FY2013 at \$335 million, an increase of 5.3% since FY2012 and an increase of 83% since the start of the period in FY2000. The "all other" category which includes available free cash of \$97 million accounted for 4.5% of Municipal Revenue for FY2013. This category reached its peak in FY2002 at \$101 million and was the lowest contributor to total revenue throughout the fourteen year period.

Graph 2 on page 5 displays the Residential and Commercial & Industrial (C & I) tax levies by community for FY2013 for the three smallest and three largest municipalities in terms of total tax levy. Among all 33 communities of the 495/MW Region, the residential tax levy and C & I tax levy varied greatly. In terms of absolute dollars, Framingham, Natick, and Marlborough each produced the largest residential and C & I tax levies within the region. Framingham had the largest contribution to the region's tax levies with \$99 million in residential tax levies and \$58 million in commercial and industrial tax levy. Natick produced a higher overall residential tax levy than Marlborough at \$69 million, while Marlborough produced a higher overall C & I tax levy than Natick at \$34 million. Framingham, Natick, and Marlborough together contributed over \$322 million in residential and C & I tax levies for the region

#### Page 4

#### **By: Thierry Aka**

# <u>South Shore Employment — A Diverse Economy</u>





The South Shore (SS) includes eleven communities: Abington, Braintree, Cohasset, Hanover, Hingham, Milton, Norwell, Quincy, Randolph, Rockland and Weymouth. In 2012 SS employment, payroll and average wage rose compared to 2011, while the number of establishments fell. As an overview, 2012 SS employment totaled 147,300 jobs, a 1.5% increase from 2011, and regional payroll totaled \$7.6 billion, up 3.6%. The 2012 SS average wage was \$51,800, up 2.0% from 2011. In contrast, the number of establishments, 11,130, decreased by 3.3% from 2011.

Among the 11 communities, see Graph 1 below, Quincy produced 45,900 jobs or 31.2% of regional employment, followed by Braintree with 27,000 jobs, or 18.3% of the SS's employment. Weymouth and Hingham followed with 18,100 and 13,400 jobs, or 12.3% and 9.1%, respective-ly. The seven remaining communities had between 2,600 jobs and 8,400 jobs. The two communities with the lowest number of jobs were Abington with 3,900 jobs and Cohasset with 2,600 jobs.

SS payroll totaled \$7.6 billion in 2012 with two communities generating half the regional





payroll. Quincy produced the highest payroll, \$2.6 billion or 34.0%, followed by Braintree with \$1.4 billion or 17.8%. The four communities which recorded between \$498 million and \$900 million of total payrolls were Weymouth with \$884 million or 11.6%, Hingham with \$668 million or 8.8%, Norwell with \$500 million or 6.6%, and Rockland with \$498 million or 6.5%.

Among the 11 communities, Rockland offered the highest average annual wage at \$66,700, followed by Norwell, \$59,700, and Quincy, \$56,500. Rockland, Norwell and Quincy offered a higher average wage than the SS average of \$51,800, as shown by the blue line. The only communities with average wages less than \$40,000 were Hanover, \$39,700, Abington, \$37,500 and Cohasset, \$35,600. See Graph 2 above.

Examining employment by NAICS supersectors showed that four supersectors produced the highest number of jobs, as shown by Graph 3 on page 5. Trade Transportation and Utilities (TTU) led with 28,500 jobs or 19.3% of regional employment. Education and Health Services contributed the second highest, 26,700 jobs or 18.1%. Professional and Business Services (PBS) and Financial Activities followed with 19,100 jobs or 13.0% and 18,300 jobs or 12.4 % of total employment, respectively. Combined, the top four supersectors generated 92,600 jobs or approximately two-thirds of the regional employment.

The Financial Activities supersector produced the largest share of payroll in the SS at \$1.4 billion or 17.7%. PBS provided the second largest share of regional payroll at \$1.3 billion or 17.5%, followed by Education and Health Services

#### <u>South Shore Employment — A Diverse Economy</u>

#### Continued from page 4

with almost \$1.3 billion or 16.5%, and TTU with \$1.2 billion or 15.3%.

In 2012 the average annual wage for the SS was \$51,800 which was 14.9% lower than the state (MA) annual average wage of \$60,900. Among all the eleven NAICS supersectors, Information offered the highest average annual wage, \$83,200. Financial Activities produced the second largest average wage of \$73,800, followed by Construction, \$73,500 and PBS, \$69,900. However, Leisure and Hospitality at \$18,500 recorded the lowest annual average wage among all the supersectors, approximately one quarter of the highest average wage in Information.

In summary, while Quincy dominated all the other communities in terms of employment

and payroll, the SS offers a diverse economy built on four major supersectors: Financial Activities, PBS, TTU and Education and Health Services.■



Current MERC Advisory Board co-chair David Bennett will be honored as the Department of Economics and Business Administration's "Business Person of the Year for 2014" at the awards ceremony on April 24. We thank Dave and his MERC co-chair, Susanne Morreale Leeber, a previous recipient of the award, for all their important and effective work on behalf of MERC. Thank You! MERC would like to recognize and thank Carol Ann Oliver, Senior Broker at the Hogan Group, for serving as a MERC Advisory Board member for more than ten years. Best wishes, Carol Ann!

#### Continued from page 3 Municipal Revenue and Expenditures for 495/MW Region

which in total produced \$1.4 billion in tax levies. Berlin, Hopedale, and Boxborough were the three communities that produced the smallest residential and C & I tax levies for the 495/MW Region. Berlin only accounted for about \$2.6 million in C & I tax levies and \$5.9 million in residential which in total was approximately a \$149 million difference compared to comparison to the largest contributor, Framingham.

The third graph on page 9 shows the General Fund Expenditures for the 33 community 495/MW Region for FY2012. General Fund Expenditures are made up of six functions: Education, Public Works, Debt Services, Fixed Costs, Police, Fire and Other Public Safety and an "All Other" category. Total General Fund Expenditures for the region equaled \$1.7 billion, for which Education made up the largest share in the time period at 55.3% or \$948 million.



#### Page 6

Continued from page 1





bers are also included in a national survey of about 300 urban areas put together by C2ER.

The Overall MetroWest Cost of Living Index is shown in Graph 1 above using April 2009 as the base with a value of 100.0. The graph spans from the first survey in October 1991 until the most recent one in October 2013 when the index reached a high of 117.0. This means that in October 2013 the cost of living in MetroWest was about 17% higher than it was in April 2009. This was up 4.3% from the previous survey in April 2013, which recorded a value of 112.2, implying that the cost of living last April was approximately 12% higher than April 2009. The previous maximum was in October 2011 at a value of 115.8, after which the index dropped in both April 2012 and October 2012 to values of 114.6 and 111.7, respectively. The index rose over the next year by 4.7% to its most recent Over the entire period shown on the value. graph, this index rose about 81.2%, which translates into an average annual increase of 2.6%.

Graph 2 on the right shows the MetroWest Housing Index from October 1991 through

#### MetroWest Cost of Living Reaches New Peak

October 2013. October 2005 recorded the highest value of the Housing Index in the history of the survey, at 142.8. This means that housing costs in the area were approximately 43% higher in October 2005 than they were in April 2009. There were three sharp declines in the Housing Index over the past decade. The first drop was from October 2005 to October 2006, where the Index fell 16.8% from 142.8 to 118.8. The second drop happened during the recent recession from April 2008 to April 2009, where the Housing Index fell significantly from 126.7 to 100.0. However, the Index made a quick recovery, rising to 124.8 in October of 2009. The third drop in the Index occurred between April 2011 and October 2012, a decline from 121.4 to 102.4. Another quick recovery was made, however, and by October 2013 the Housing Index reached a value of 120.9.

The third graph on page 7 compares index numbers from April 2009, the base year, and the most recent survey done in October The six sub-indexes, as well as the 2013. Overall Cost of Living Index are shown. All of the indexes saw increases except for the Utility Index which fell slightly from 100.0 to 98.2. The sub-index with the biggest gain was the Transportation Index, rising to a value of 151.8; which means the transportation costs were nearly 52% higher in October 2013 than they were in April 2009. Following that was the Health Care Index which rose to 131.8, and the Housing Index which rose nearly 21% to 120.9. The Grocerv Items Index and Miscellaneous Goods and



#### Page 7

Continued from page 6

## MetroWest Cost of Living Reaches New Peak

Services Index both registered modest gains of 11.0% and 8.1%, respectively.■



#### From the C2ER Website: Cost of Living Index (COLI) Data Users and Subscribers

The Cost of Living Index is the most reliable source of city-to-city comparisons of key consumer costs available anywhere. COLI data is recognized by the U.S. Census Bureau, US Bureau of Labor Statistics, CNN Money, and the President's Council of Economic Advisors. Our data and methodology are described in detail and completely transparent to users. Both data and methodology are reviewed by an Advisory Board composed of academic researchers and government officials. The Cost of Living Index is referenced in the US Census Bureau's Statistical Abstract of the US.

#### **Developing an Economic Index for MetroWest**

#### Continued from page 2

Under the direction of Dr. Michael Enz. Associate Professor of Economics and Business Administration at Framingham State University, the MetroWest Economic Research Center is currently working on creating its own monthly economic index for the MetroWest region. MERC research shows that MetroWest has a different economic profile than other regions in the Commonwealth. This led to the decision to create an Economic Index for MetroWest. It is our hope that this economic index may help businesses and government representatives to better understand the state of the local economy and analyze how national economic events affect the economy of this region. The faculty and interns at MERC are currently developing the coincident index. Once completed, a leading index will be created for the nine MetroWest communities. Our economic index may include data on housing permits, labor force, unemployment rate, employment, jobless claims, and want ads.■



# **Downtown Natick Business Project**

Currently, several interns are working in conjunction with the Office of Community Development for the Town of Natick . These interns are administering surveys to collect data on local business and property owners. This data will be compiled into a report and then returned to the Office of Community Development for interpretation.

### Page 8

#### **Examining the Demographics of the South Shore Census**



Continued from page 1

Terel Soares Intern II Focus Census <u>Major</u> Business Admin. YOG 2014

percentages in the 45-59 age group category: 22.2% of the Massachusetts population was in this age category and 22.9% of the South Shore's population was between 45 and 59 vears of age. The nation's highest percentage was in the age group category of 15-29 years with a percentage of 21%. The nation, the state, and the South Shore all had the lowest percentage of populations in the 75 and older age group. The U.S. registered 6% in this age group, Massachusetts had 6.8%, and the South Shore had 7.8%.





Graph 2 below shows the median age for the individual communities, the region, the state, and the nation. The U.S. recorded the lowest of all median ages according to the 2010 Census with a median age of 37.2 years. Massachusetts recorded the second lowest median age with an age of 39.1 years. The median ages of the eleven communities that make up the South Shore ranged from 39.2 years to 44.4 years. Four of these communities recorded median ages below that of the South Shore, an estimated median age of 40.9 years. These communities are Quincy, 39.2 years, Abington, 39.5 years, Randolph, 39.9 years, and Rockland, 40.2 years. All other communities in the region had higher median ages than that of the South Shore. The oldest median age is reqistered in Hingham at 44.4 years. Following Hingham, Norwell had the second highest

Continued on page 9

#### 2010 Hispanic/Latino Populations in the South Shore Communities

Abington — 1.9%	Hingham — 1.1%	Randolph — 6.4%	South Shore — 2.9%
Braintree — 2.5%	Milton — 3.3%	Rockland — 2.0%	Massachusetts — 9.6%
Cohasset — 1.3%	Norwell — 1.2%	Weymouth — 2.6%	United States — 16.3%
Hanover — 0.9%	Quincy — 3.3%		

# Continued from page 5 Municipal Revenue and Expenditures for 495/MW Region

Fixed costs accounted for 12.1%, while police, fire, and other public safety expenditures accounted for approximately 10.2% of general funding expenditures. Together, these two functions made up approximately \$383 million of general fund expenditures. Debt service and public works accounted for 8.7% and 4.3%, respectively. The remaining categories in the graph accounted for 9.4% of general fund expenditures and are identified as "all other" in the graph.■



#### Intern of the Week

Look for updates on MERC's Facebook and Twitter about the senior intern of the week and the highlight intern I of the week. The interns who are highlighted are chosen based upon their hard work and

#### dedication to MERC.

#### MERC Student-Athletes

Congratulations to the following interns on their teams' regular season and playoff performances: Kristen Hoffman & Samantha Irvine – Women's Basketball and Jay Nicholls & Herbert Kyles –

Men's Hockey

#### Continued from page 8

### **Examining the Demographics of the South Shore Census**

median age, 43.8 years, and Cohasset with the third highest median age at 43.6 years.

Graph 3 on page 8 shows the race distribution on the South Shore. Among the total population of 328,431 individuals, those who selfidentified as white dominated in size, accounted for roughly 79% of the total population or 258,618 individuals. The next largest category for race on the South Shore was the Asian population, making up around 10% of the total South Shore population, or 32,947 individuals. The Black or African American population had the third highest percentage of the South Shore population at about 7%, or 24,158 individuals. The two categories of Other, One Race and Two or More Races represented the smallest percentages of the South Shore's total population. The category of Other, One Race represented around 2% of the South Shore's total population or 6,251 individuals, which is the smallest category. Two or More Races also made up roughly 2% of the total population with 6,457 individuals. Of the minority population on the South Shore, the largest self-identified race was Asian, making up roughly 47.2% of the total minority population.■

# FOLLOW MERC ON YOUR FAVORITE SOCIAL MEDIA!

Information on MERC can be found on a number of different social media platforms, including Facebook, Twitter and LinkedIn. We invite MERC alumni and members of the community to view our pages and follow us to receive updates on the data analysis and economic research that MERC is doing. It is our hope that through social media, we will engage new people and re-engage those who have been involved with MERC in the past.



\*\*Links can be found on the MERC website: www.merc-online.org\*\*

# **MERC SUBSTATE REGIONS MAP**

Page 10

MERC provides economic data and analysis for the 6 substate 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 February 2014. MERC uses the U-3 rate, which is the official unemployment rate.

	Measures: U.S. February 2014	
<u>U-1</u>	Persons unemployed 15 weeks or longer, as a percentage of the civil- ian labor force	3
<u>U-2</u>	Job losers and persons who completed temporary jobs, as a percent- age of the civilian labor force	3
<u>U-3</u>	Total unemployed persons, as a percentage of the civilian labor force ( the official unemployment rate)	7
<u>U-4</u>	Total unemployed persons plus discouraged workers, as a percentage of the civilian labor force plus discourage workers	7
<u>U-5</u>	(U-4) plus all other "marginal attached" workers, as a percentage of the civilian labor force plus all "marginally attached" workers	8
<u>U-6</u>	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	13

	February 2014					
-	Not Seasonally Adjusted					
	(Preliminary Dat	a)				
	495/MW	5.4%				
	Blackstone Valley	7.1%				
	Blackstone	10.1%				
	Grafton	6.4% 6.2%				
	Hopedale	5.6%				
	Mendon	5.3%				
_	Millbury	7.5% 9.4%				
_	Northbridge	7.8%				
	Sutton	6.6%				
	Upton Uxbridge	5.9%				
	Oxbildge	7.070				
	Greater Franklin	6.5%				
	Bellingham	7.9% 10.1%				
	Foxborough	6.5%				
	Franklin	5.5%				
	Medfield	5.2%				
	Medway Millis	5.2% 6.6%				
	Norfolk	6.2%				
	Wrentham	6.2%				
	Greater Marlborough	5.9%				
	Hudson Marlborough	6.8% 5.9%				
	Northborough	5.5%				
	Westborough	5.3%				
	MetroWest	4.6%				
	Ashland	4.8%				
	Holliston	4.7 % 5.5%				
	Hopkinton	4.5%				
	Natick	4.5%				
	Snerborn	4.3% 4.2%				
	Sudbury	3.9%				
	Wayland	4.3%				
	Milford	6.9%				
	South Shore	6.0%				
	Abington	7.2%				
	Braintree	6.1% 4.5%				
D	Hanover	5.3%				
	Hingham	4.4%				
D	Milton	5.1%				
	Quincy	5.2% 5.9%				
	Randolph	6.4%				
	Rockland	7.5%				
	Massachusetts	6.6%				
	United States	7.0%				

.6%

.9%

.0%

5%

4%

1%

# Page 11

# A Peek Inside MERC





















# MERC Interns: Spring 2014

Intern I Marcella Bentes Henrique DaSilva Romery Gonzales Kristen Hurley Samantha Irvine Dan Smith Intern II Thierry Aka Andre Fernandes



Intern II Jay Nicholls Kristen Peterson Terel Soares Intern III Kristen Hoffman Mitch Kelley Jackie O'Brien Allyson Sorgini Katelyn Thornton Intern IV Herbert Kyles



# Save the Date: 22nd Annual MERC Conference

MetroWest Economic Research Center Framingham State University 100 State Street Framingham, MA 01701-9101



Wednesday, April 30, 2014

7:30 - 10:30 AM

**Sheraton Framingham** 

1657 Worcester Road-Rt.9

Framingham

Phone: (508) 626-4018 Fax: (508) 626-4018 Www.merc-online.org

MERC Executive Board: Maureen Dunne Donald MacRitchie Martha Meaney Fahlino Sjuib

Newsletter Editor: Thierry Aka



# gro.aniino-aram.www

🛗 Wednesday, April 30, 2014

THE MASSACHUSETTS

INNOVATION ECONOMY