

Labor Force Trends in New York State:

An Economic Development Region Analysis

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I. Executive Summary

The objective of this white paper is to expand on the September 2017 “Labor Force Trends in New York State” report authored by the Office of the New York State Comptroller, and to highlight its findings in regards to the 10 Economic Development Regions of New York State.

The September report’s key findings are that 1) the labor force for New York State has been decreasing and 2) there has been a surge in participation of older individuals (65+ years and older) in the labor force.

This white paper will discuss Finding 1, which is notably prevalent in 5 of the 10 Economic Development Regions. Additionally, this white paper will discuss Finding 2 by exploring changes in population growth and labor force shares of “aged-out” prime working age individuals (65+). Unlike the September 2017 report, this paper has a focus on examining labor force trends by Economic Development Region.

This paper is organized in the following manner: First, an overview discussion of the New York labor force by Economic Development Region is entertained for the 2010-2016 timeframe on topics of the labor force population, the unemployment rate, the number of individuals employed, and the labor force participation rate. Following, factors affecting the aforementioned topics are examined more closely, including population growth and migration.

The findings of labor force trends that are presented in this white paper, by economic development region, are summarized in Table 1 below.

Trend In:	Economic Development region									
	Central New York	Finger Lakes	Mohawk Valley	North Country	Southern Tier	Western	Capital region	Long Island	Mid-Hudson	New York City
Population over the age of 16	↑	↑	↓	↓	↓	↑	↑	↑	↑	↑
Labor Force Participation Rate	↓	↓	↓	↓	↓	↓	↓	↑	↓	↑
Labor Force Population	↓	↓	↓	↓	↓	↓	↓	↑	↓	↑
Unemployment Rate	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Number of Individuals Employed	↓	↓	↓	↓	↓	↓	↑	↑	↑	↑
Outward Migration	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Population of Prime Working Age (25-54)	↓	↓	↓	↓	↓	↓	↓	↓	↓	↑

II. New York Economic Development Regions

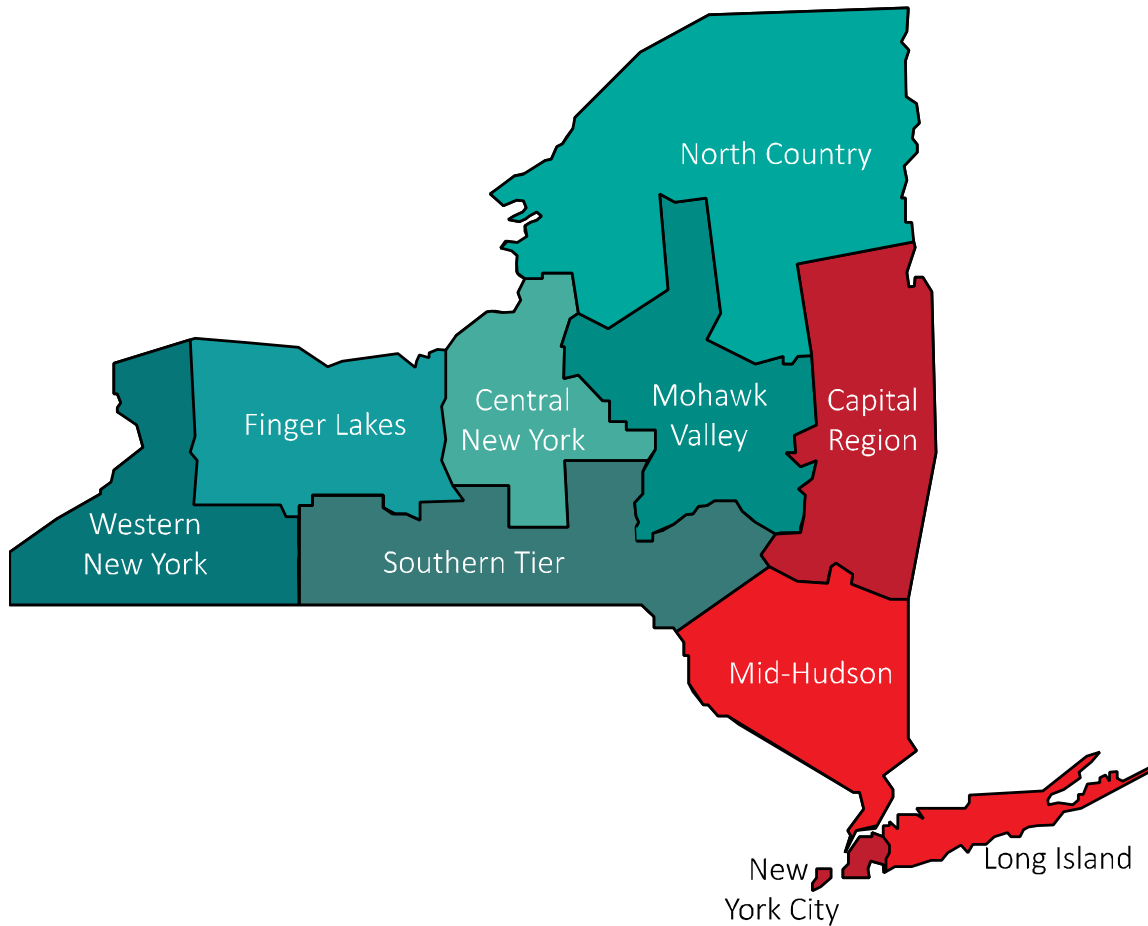
New York State has 10 Economic Development Regions, as seen in Figure 1. Each region is unique in its strata of industry and accompanying demographic composition.

One of the underlying themes from the September 2017 report is the repetitive finding that there are two different conditions of the economic labor markets found in New York State. Due to the difference in economic and demographic conditions of the “upstate” regions of New York, and the “downstate” regions of New York, this report will use this framework in discussing the labor market.

The similarities in the labor market health of the Central New York (or “Central”), Western New York (or “Western”), Finger Lakes, Mohawk Valley, Southern Tier, and North Country region motivate their grouping. Keeping this in mind, the same reasoning motivates the grouping of the Capital region, Mid-Hudson, New York City, and Long Island region. I will refer to the first group as “upstate” New York and the latter as “downstate” New York.

As such, this report groups these regions into the two clusters found in Illustration 1 below, where the teal regions will be discussed together and the auburn regions will be discussed together. The clustering of the teal and auburn Economic Development Regions respectively will become a theme in this report’s analyses, and supporting figures and graphs.

Illustration 1: Economic Development Regions of New York State

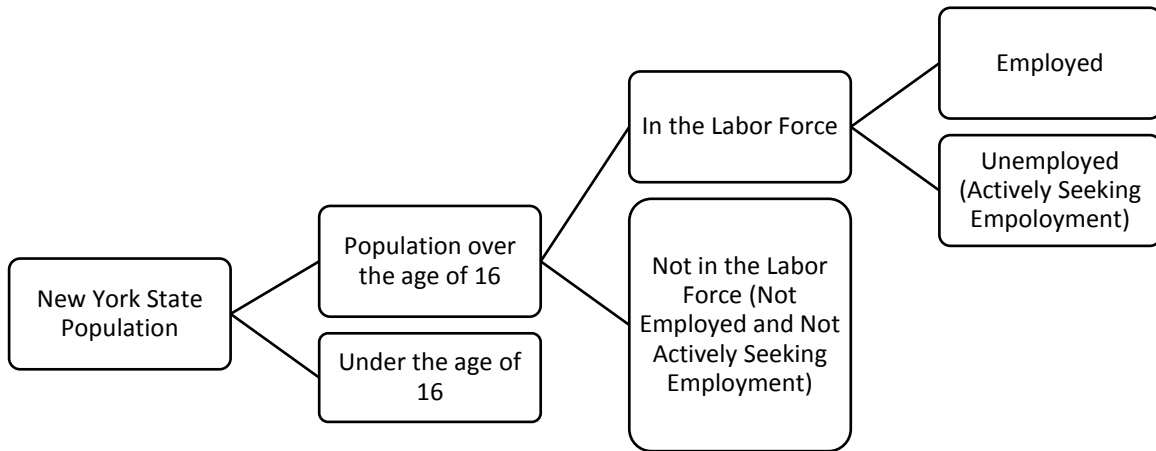


III. New York Labor Force (2010-2016)

i. An Overview of the Labor Force Components

This section is an overview of the New York labor force from 2010 to 2016. In order to thoroughly examine the labor force, different components of the labor force will be discussed. As seen in Illustration 2, the New York State population is broken down into different components that make up the labor force. Firstly, the working age population is considered due to federal law, older than 16. Those that are older than 16 are considered “in the labor force” if they are employed or are unemployed and actively seeking employment. Those considered “not in the labor force” are individuals that are older than age 16, but not employed, and not seeking employment. In 2016, New York State had a labor force of over 9.5 million people.

Illustration 2: The Labor Force Components



ii. The Labor Force

The labor force is the sum of the number of individuals over the age of 16 that are employed and those that are unemployed and seeking work

$$\text{Labor Force} = (\text{Unemployed and Seeking Work} + \text{Employed} \mid \text{Age} > 16)$$

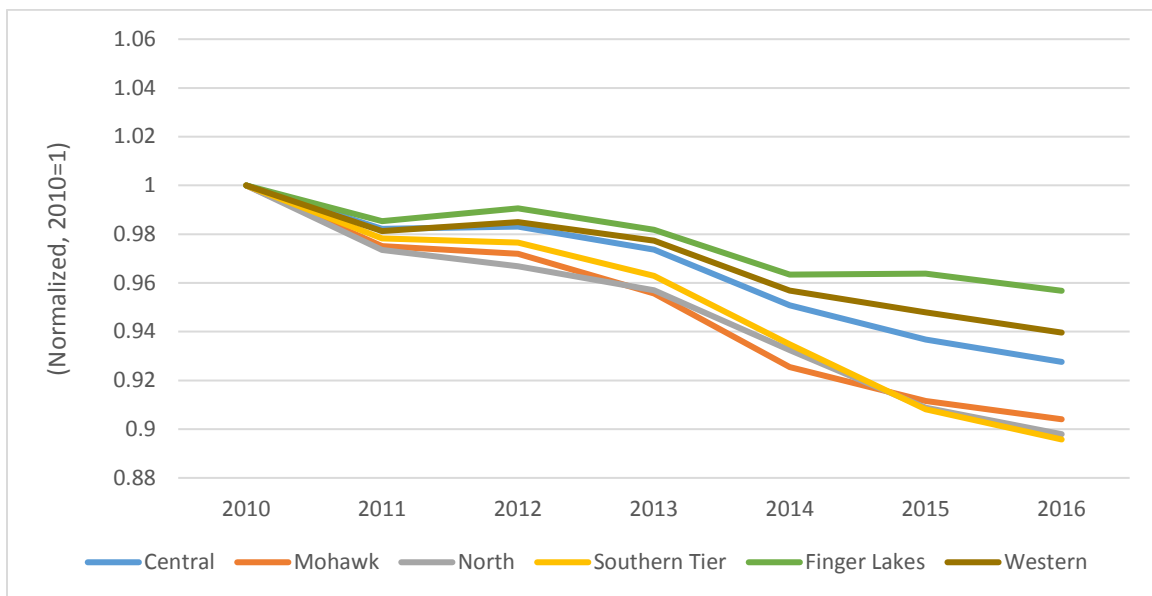
According to the September 2017 report, New York State’s labor force has increased by less than 1% cumulatively in the past five years. This growth is considered to be less than three times the national average of 3.6%. Rather than examining this change on a state level, Economic Development Regions can reveal rich heterogeneity in labor force growth from 2010-2016. The labor force population for these different Economic Development Regions are summarized in Table 2.

Economic Development region	Year						
	2010	2011	2012	2013	2014	2015	2016
Central	395,826	388,758	389,124	385,384	376,338	370,793	367,167
Mohawk Valley	241,628	235,618	234,858	230,915	223,605	220,260	218,445
North Country	196,214	191,008	189,703	187,775	182,946	178,321	176,188
Southern Tier	323,240	316,216	315,676	311,242	302,154	293,535	289,548
Capital region	561,803	550,161	556,724	554,606	545,883	547,288	545,933
Finger Lakes	613,791	604,799	608,002	602,603	591,297	591,546	587,257
Long Island	1,469,298	1,453,816	1,473,007	1,474,391	1,459,362	1,478,017	1,476,584
Mid-Hudson	1,141,820	1,125,930	1,131,898	1,126,028	1,115,056	1,127,788	1,125,811
New York City	3,950,404	3,962,835	4,022,461	4,064,738	4,102,965	4,118,858	4,138,534
Western	701,338	688,229	690,787	685,405	671,113	664,810	658,991

In grouping the Economic Development Regions in the clusters as described in Section II, regional differences in the “economic health” such as the growth and decline of the labor force are revealed. For instance, the New York City region and those bordering (the “downstate” regions) had steady increases in their labor force population. In contrast, “upstate” New York regions had a decline in their labor force population. These differences are represented in Figures 1 and 2 whereby the 2010 labor force population is normalized to 1.

From 2010 to 2016, the labor force population decreased in all regions except for the Long Island and New York City region. Figure 1 plots the labor force of the Central New York, Mohawk Valley, North Country, Southern Tier, Finger Lakes, and Western New York regions, which experienced decreases of 4 percent or greater. The Southern Tier, North Country, and Mohawk Valley regions had the largest decrease in the labor force from 2010-2016 by roughly 10 percent.

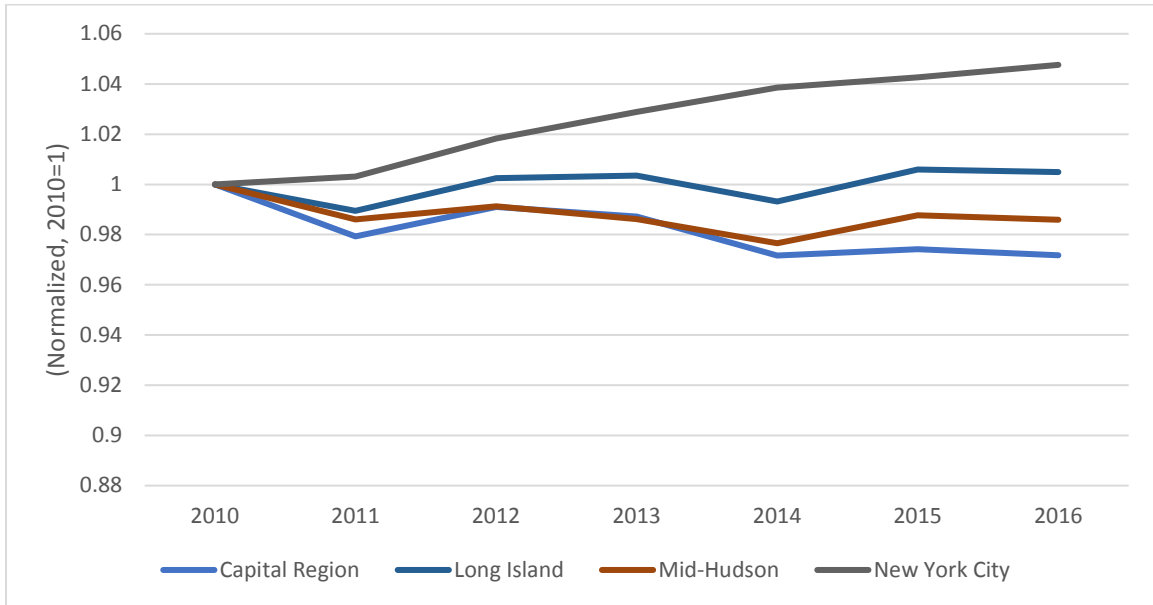
Figure 1: Labor Force by Economic Development Region (2010-2016; Upstate regions)



Data Source: BLS Local Area Unemployment Statistics

In contrast, as seen in Figure 2, the labor force in the New York City region increased roughly by 5 percent and in Long Island by 0.5 percent. Similarly to the other six regions in Figure 1, the Capital and Mid-Hudson regions all experienced declines in their labor force population; however these declines are relatively smaller ranging around 2 to 3 percent.

Figure 2: Labor Force by Economic Development Region (2010-2016); Downstate regions



Data Source: BLS Local Area Unemployment Statistics

iii. The Unemployment Rate

The unemployment rate is the fraction of those considered in the labor force that are unemployed and actively searching for a job divided by the labor force population. The unemployment rate does not consider the number of individuals who have opted out of participating in the labor force (those not seeking employment) and those under the age of 16 years old.

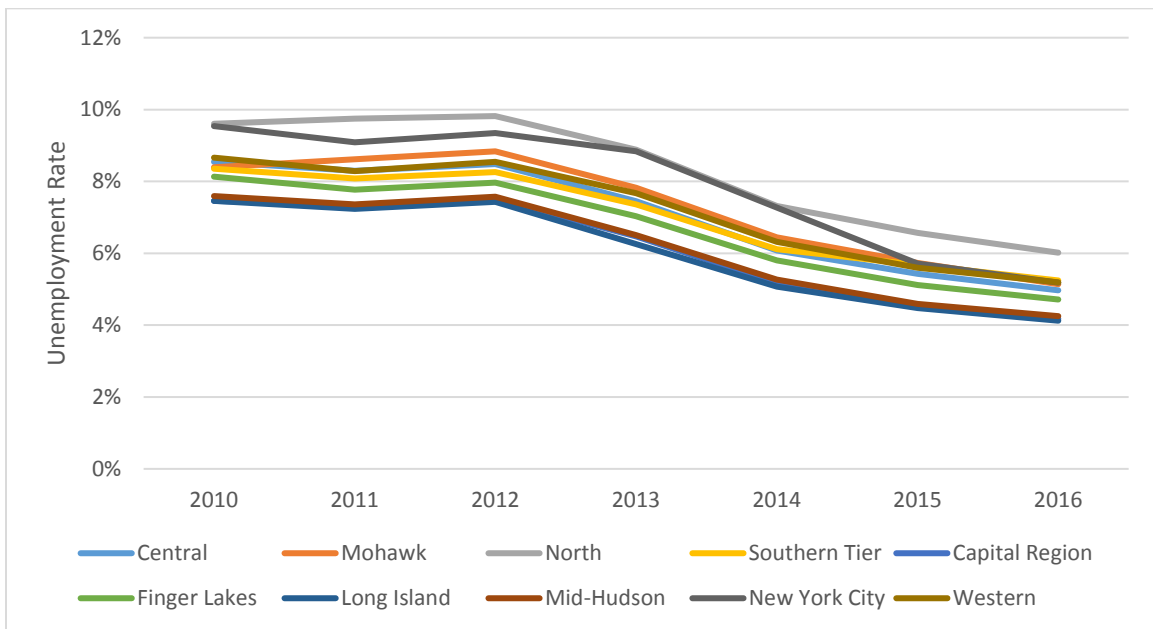
$$\text{Unemployment Rate} = \frac{\text{Number of Individuals Unemployed but Actively Seeking Employment}}{\text{The Labor Force Population}}$$

Across New York, the unemployment rate decreased from 2010-2016 for all Economic Development Regions. The different unemployment rates for each year are found in Table 3.

Economic Development region	Year						
	2010	2011	2012	2013	2014	2015	2016
Central New York	8.5%	8.3%	8.5%	7.5%	6.1%	5.4%	5.0%
Mohawk Valley	8.4%	8.6%	8.8%	7.8%	6.5%	5.7%	5.1%
North Country	9.6%	9.7%	9.8%	8.9%	7.3%	6.6%	6.0%
Southern Tier	8.4%	8.1%	8.3%	7.4%	6.1%	5.7%	5.2%
Capital	7.5%	7.3%	7.5%	6.5%	5.2%	4.5%	4.2%
Finger Lakes	8.1%	7.8%	8.0%	7.0%	5.8%	5.1%	4.7%
Long Island	7.5%	7.2%	7.4%	6.3%	5.1%	4.5%	4.1%
Mid-Hudson	7.6%	7.4%	7.6%	6.5%	5.3%	4.6%	4.3%
New York City	9.5%	9.1%	9.4%	8.8%	7.3%	5.7%	5.2%
Western New York	8.7%	8.3%	8.5%	7.7%	6.3%	5.6%	5.2%

From 2010 to 2016, all Economic Development Regions have experienced a decline in their unemployment rates between -3.3% to -3.5 percentage points. Only the New York City region had the most substantial and largest decline in unemployment rate from 9.5% to 5.2%. Figure 3 illustrates the change in unemployment rate overtime summarized from Table 3.

Figure 3: Unemployment Rate by Economic Development Region (2010-2016)



Data Source: BLS Local Area Unemployment Statistics

iv. The Number of Individuals Employed

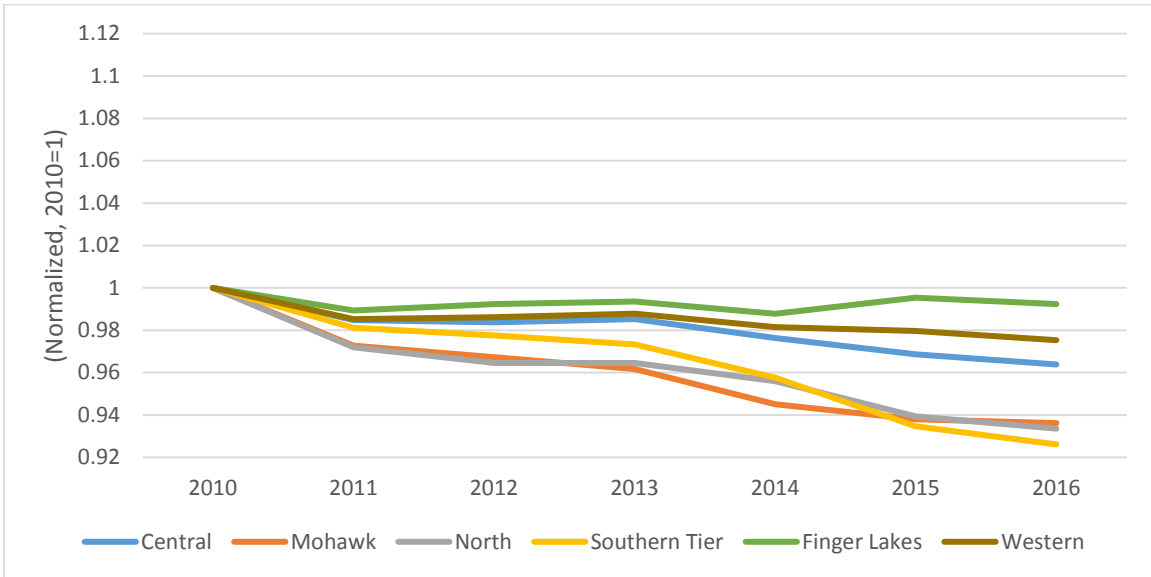
Consider a population with a labor force of 100 persons with 30 individuals employed and 70 individuals unemployed and another population with a labor force of 200 persons with 60 individuals employed and 140 individuals unemployed. These two populations would have the same unemployment rate even though an additional individual working, on the margin, has substantial differences to labor force changes.

Therefore, it is worth evaluating other factors, such as considering the number of individuals employed. Considering the example above, the second population has more individuals employed.

$$\text{Number of Individuals Employed} = \text{Labor Force} - \text{The Number of Individuals Unemployed}$$

By examining the number of individuals employed from 2010 to 2016, similar patterns are found paralleling those of the labor force population from Section 3. Here, the areas in “upstate” New York, which had a decline in the labor force population also appear to have a decline in the number of individuals employed too. This trend is illustrated in Figure 4 below, whereby the number of those employed in 2010 is normalized to 1.

Figure 4: Number of Individuals Employed by Economic Development Region (2010-2016); Upstate regions



Data Source: BLS Local Area Unemployment Statistics

Because the unemployment rate has decreased in the past 6 years the decline in the number of individuals is rather noteworthy. For as observed, although the proportion of unemployed to the labor force has declined, the number of people employed can still shrink. Therefore it is not that the unemployment rate has declined, because more people are necessarily being employed.

For instance, consider some labor statistics of the Central region:

2010	2016
Unemployment Rate: 8.5%	Unemployment Rate: 5%
Number of Those Employed: 362,181	Number of Those Employed: 348,809
Number of Those Unemployed: 33,645	Number of Those Unemployed: 18,358
Labor Force Population: 395,826	Labor Force Population: 367,167

Data Source: BLS Local Area Unemployment Statistics, American Community Survey

As seen above, the unemployment rate did decline, but the number of those employed also shrank too. For the Central region, the decrease in the unemployment rate was due to less people being unemployed, but not because they found jobs. In fact, the number of those unemployed may have declined because people were discouraged and stopped looking for work. Or, maybe because they “aged” out of the workforce such as retiring. Another option would be that these workers decided to migrate out of the county in search for work in another economic development region. These arguments can further be strengthened by the reduction in the labor force population and a negative net number of those employed, both possible if

workers aged out, stopped looking for work, or moved. However, this is the story for “upstate” New York. In contrast, the New York City region and its surrounding Economic Development Regions have an opposite story.

Now consider the Long Island region which has a comparable decline in the unemployment rate as the Central region.

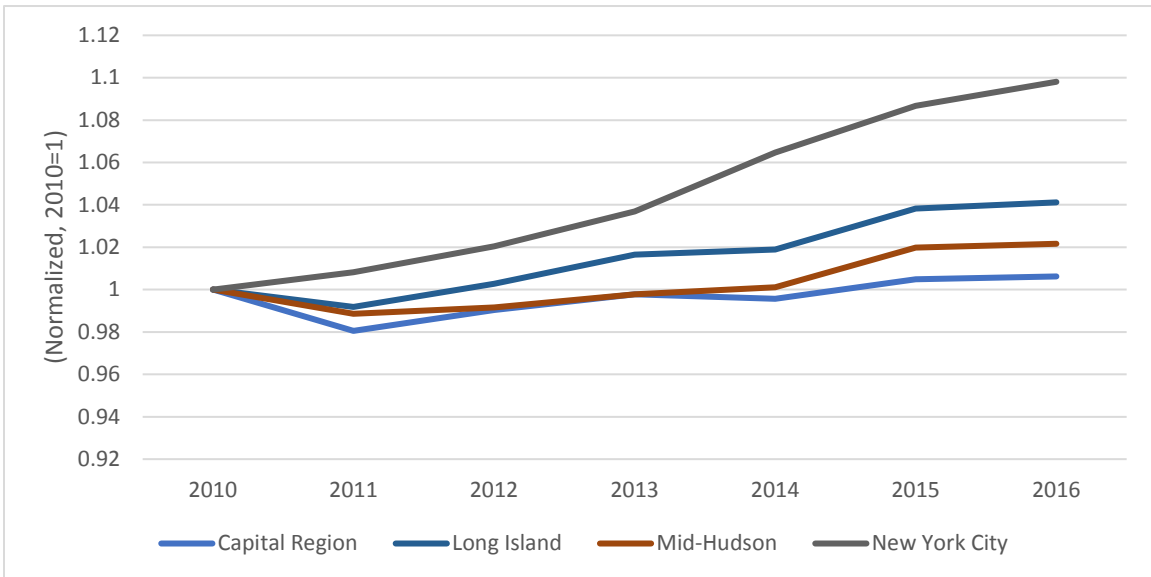
2010	2016
Unemployment Rate: 7.5%	Unemployment Rate: 4.1%
Number of Those Employed: 1,359,101	Number of Those Employed: 1,416,044
Number of Those Unemployed: 110,197	Number of Those Unemployed: 60,540
Labor Force Population: 1,469,298	Labor Force Population: 1,476,584

Data Source: BLS Local Area Unemployment Statistics, American Community Survey

The Long Island region, like the Central region, experienced a decline in the unemployment rate due to a reduction in the number of those unemployed. But unlike the Central region, the Long Island region experienced a decline in its unemployment rate in part due to an increase in the number of those employed. Therefore the net gain in the labor force population for Long Island was accompanied with an increase in the number of individuals employed and a decrease in those unemployed.

The 2010 to 2016 change in the number of those employed in the New York City region and its surrounding regions is graphed in Figure 5. Here, the 2010 number of those employed is normalized to 1.

Figure 5: Number of Individuals Employed by Economic Development Region (2010-2016); Downstate regions



Data Source: BLS Local Area Unemployment Statistics

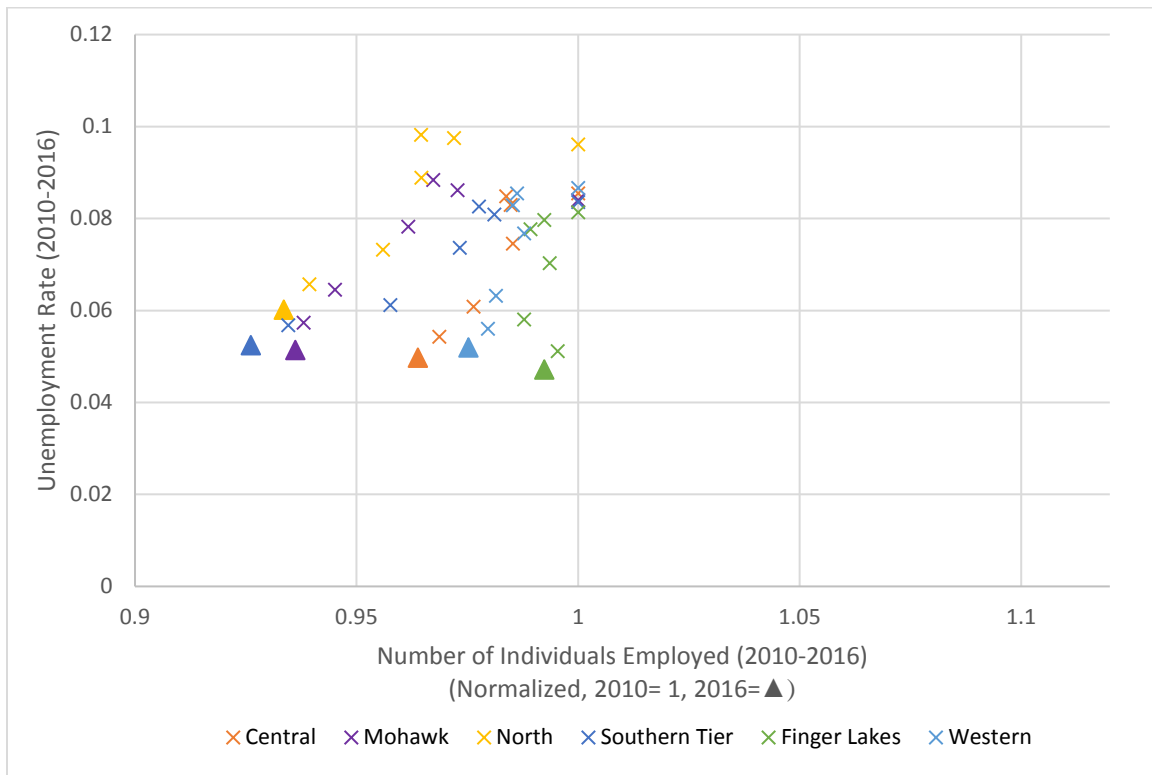
v. **The Relationship between the Unemployment Rate and the Number of Individuals Employed**

Further examining the differences between the unemployment rate and the number of individuals employed reveals differences in the health of “upstate” New York and “downstate” New York. Figures 6 and 7 summarize the exercise done previously for the Central region and Long Island region, but for all Economic Development Regions for years 2010-2016.

Here, the unemployment rate is on the vertical axis while the normalized number of those employed (normalized to 2010) is on the horizontal axis. In comparing Figure 6 to Figure 7, we notice that in Figure 6 for “upstate” New York that decreases in the unemployment rate are related to decreases in the number of individuals employed from 2010 to 2016. The 2016 observation for all the Economic Development Regions is represented by a triangle. In examining Figure 7, the converse is true for “downstate” New York. Here, these regions had decreases in the unemployment rate as well, but also had this accompanied by gains in the number of individuals employed.

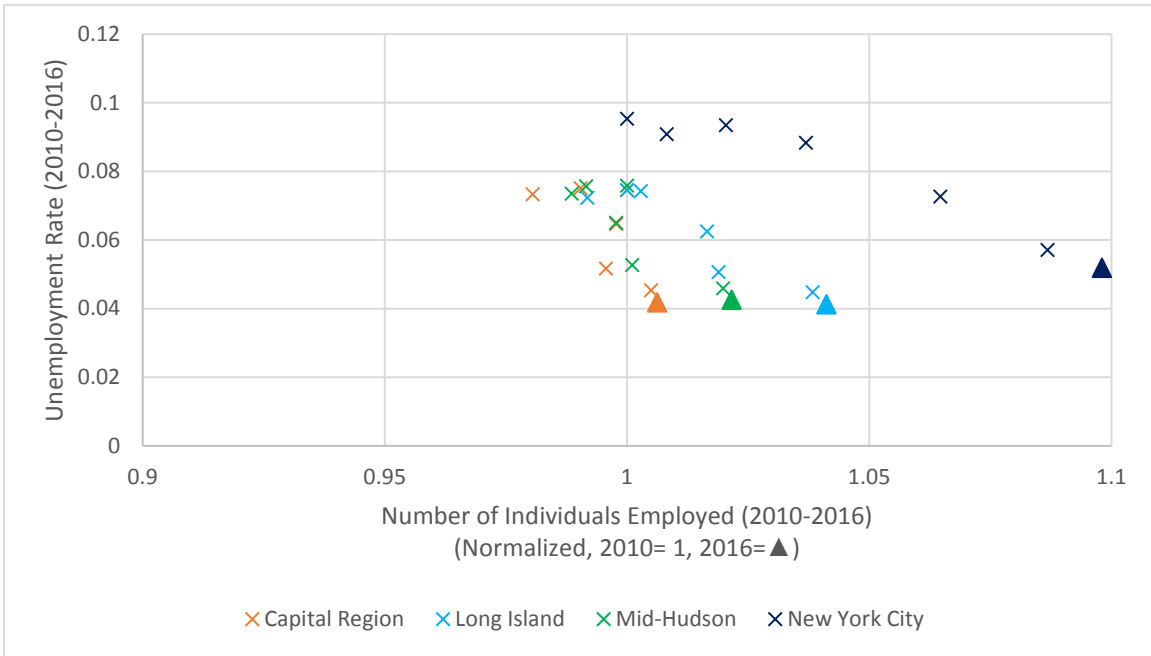
Changes in the number of individuals employed is related to the labor force participation rate, which is discussed in the next section.

Figure 6: Annual Number of Individuals Employed and the Unemployment Rate by Economic Development Region (2010-2016); Upstate regions



Data Source: BLS Local Area Unemployment Statistics

Figure 7: Annual Number of Individuals Employed and the Unemployment Rate by Economic Development Region (2010-2016); Downstate regions



Data Source: BLS Local Area Unemployment Statistics

vi. The Labor Force Participation Rate

The labor force participation rate is the proportion of the population that is of working age (16+ years and older) who is engaged in the labor force.

$$\text{Labor Force Participation Rate} = \frac{\text{Labor Force}}{\text{Population of Individuals of working age (>16 years)}}$$

Relating to the previous section, if more people were discouraged and decided to stop searching for work and dropped out of the labor force, the labor force participation rate would decline.

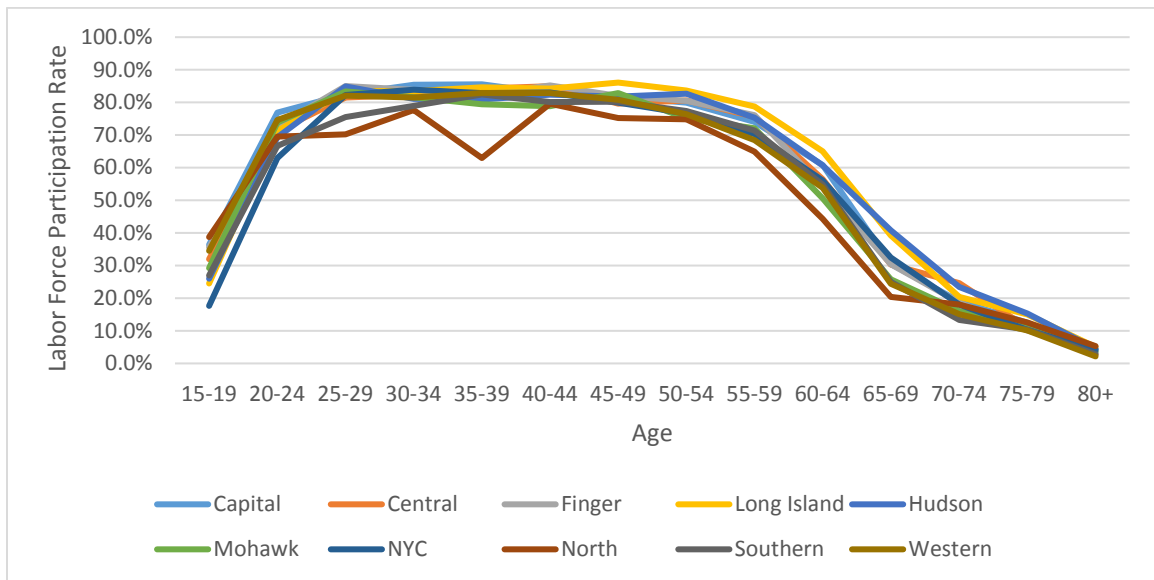
It should be noted that the labor force participation rate varies by age group. For instance, individuals 16-24 years old typically have lower levels of participation rate due to postponing employment for education (i.e. going to college or tech school). Or, older individuals, 55 years and older, have lower levels of participation rates due to retirement or health reasons. And lastly, those 24 to 54 years in age have the highest levels of participation rates as they are considered part of the “prime working age group.”

As seen in Figure 8 which plots the 2016 labor force participation rate by age group, this pattern holds for almost all Economic Development Regions, besides the North Country region which

has a slight dip in the participation rate for 35-39 year old individuals. Although there are similarities between the regional prime working age labor participation rates, there are significant differences in the labor participation rate for those older than 60.

The variation in the labor force participation rate of elderly individuals throughout New York may imply differences in the opportunities available (i.e. occupation) or socio-economic status (i.e. retirement, healthcare costs) for elderly in the different regions. Policymakers may be interested in examining, for instance, why the labor force participation rate for elderly in the Long Island or the Mid-Hudson region is 20% higher than those in the Western New York or North Country region. What pulls the elderly to the labor force in Long Island and what pushes them out of the labor force in the North County? Why do the elderly work in New York State? Future research could investigate the health of the elderly people in these regions, the access to public services they have, or the types of industries that employ these elderly people.

Figure 8: Labor Force Participation Rate by Age by region (2016)

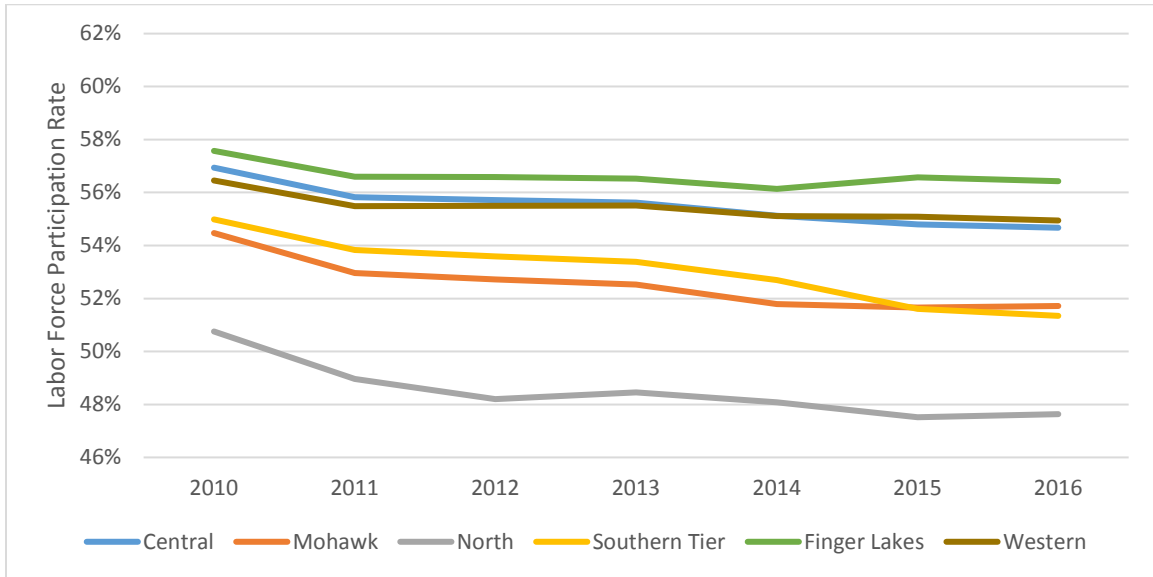


Data Source: American Community Survey

Besides age groups, variation in the labor force participation rate may be due to regional differences. Below, in Figures 9 and 10, are the changes in the labor force participation rate for the “upstate” and “downstate” New York regions.

Figure 9 helps add context to the decline in the number of individuals employed, in “upstate” New York, as demonstrated in the previous example using Central region data. For the past 5 years, there has been an increase in people opting out of the labor force “upstate” New York. The labor force participation rate has declined from 1-3% for all regions in “upstate” New York, with some regions having much lower levels of participation than others. For instance, in the Central region less than 48% of those older than 16 are actively looking for employment or are employed while in the Finger Lakes region this is 57%.

Figure 9: Labor Force Participation Rate by Economic Development Region (2010-2016);
Upstate regions



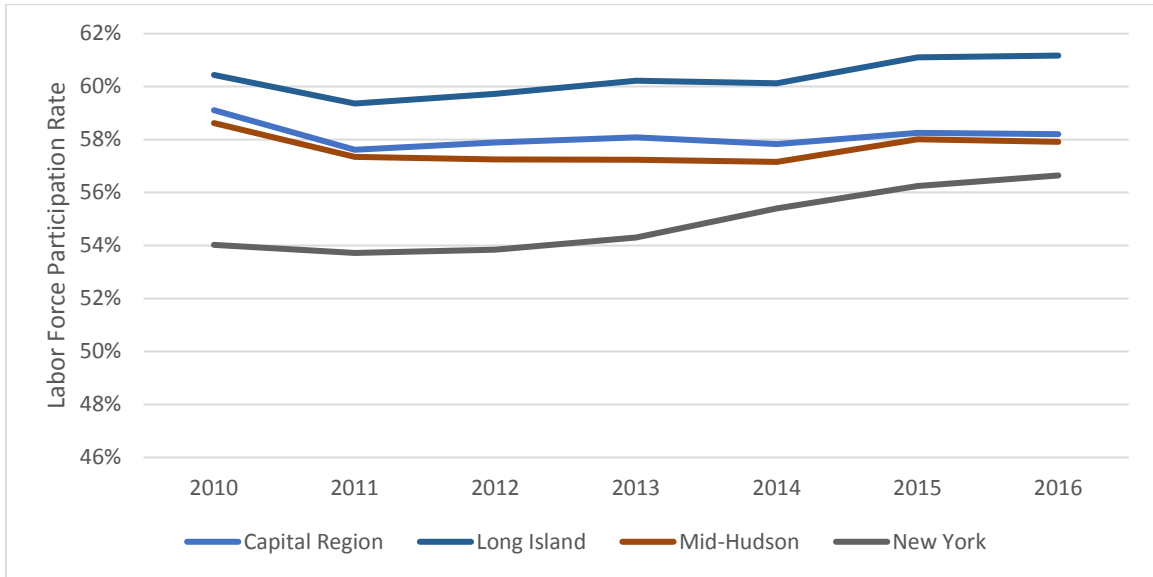
Data Source: American Community Survey

In contrast, Figure 10 for “downstate” New York confirms earlier findings that the labor force participation rate is increasing in part due to the fact the labor force is increasing as well as the number of individuals employed. As discussed in the Long Island region data example earlier, this is not because more individuals are being unemployed. The labor force participation is increasing because of an increase in the number of individuals employed.

$$\uparrow \text{Labor Force Participation Rate} = \frac{(\downarrow \text{Unemployed and actively searching} + \uparrow \text{Employed})}{\text{Population of Individuals of working age (>16 years)}}$$

As seen in the equation above, the labor force participation rate is not only a function of changes in the number of individuals employed and unemployed, but also changes in the working age population too. Therefore population change and its effects on the labor force will be discussed in section 4.1 below.

Figure 10: Labor Force Participation Rate by Economic Development Region (2010-2016);
Downstate regions



Data Source: American Community Survey

However it should be noted that in Figure 10, the Capital region and the Mid-Hudson region experience declines in the labor force participation rate as do regions found in Figure 9. However, compared to the “upstate” New York regions, the Capital region and Mid-Hudson region have higher labor force participation rates.

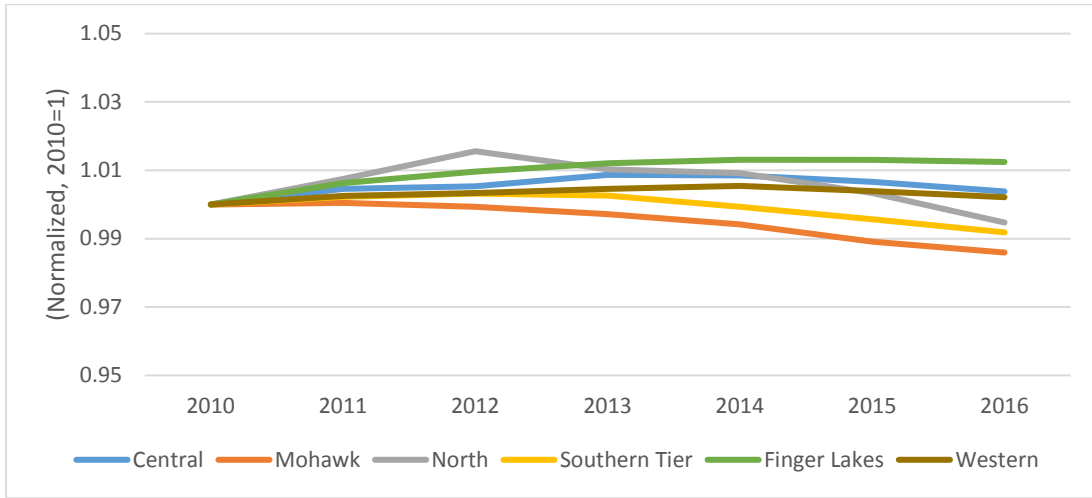
IV. Components Affecting the Labor Force (2010-2016)

i. Can Growth or Decline in Labor Force be explained by Trends in the Working Age Population?

The labor force is composed of individuals that are of working age. Those younger than 16 are automatically considered to be not part of the labor market. Therefore decline or growth in the working age population has implications to the number of laborers available to work and the labor force participation rate (the fraction of the working age population engaged in the labor force). Subsequently, this has implications on the unemployment rate.

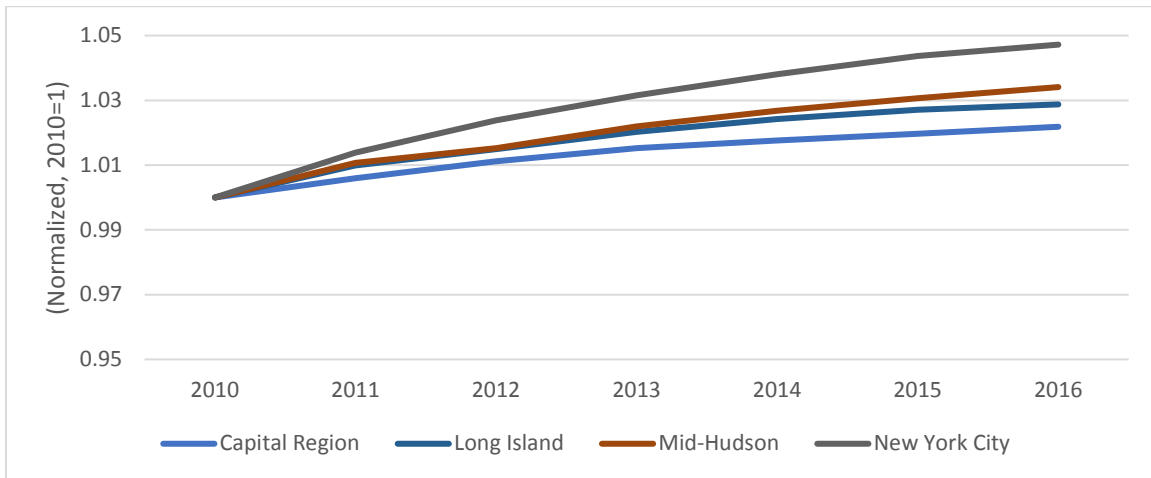
Figures 11 and 12 below illustrate the change in the working age population from 2010 to 2016, whereby the 2010 population is normalized to 1. As seen in Figure 12, all of the “downstate” Economic Development Regions experienced gains in the working age population. In contrast, in Figure 11, only four of the six “upstate” regions had growth in the working age population.

*Figure 11: Working Age Population by Economic Development Region (2010-2016);
Upstate regions*



Data Source: U.S. Census Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States

*Figure 12: Working Age Population by Economic Development Region (2010-2016);
Downstate regions*



Data Source: U.S. Census Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States

However, just because there are more people that are of working age, and thus eligible to be part of the labor force this does not automatically translate to a growth in the labor force. Therefore a revisit to the labor force participation rate is necessary to understand how population growth relates to the population of the labor force.

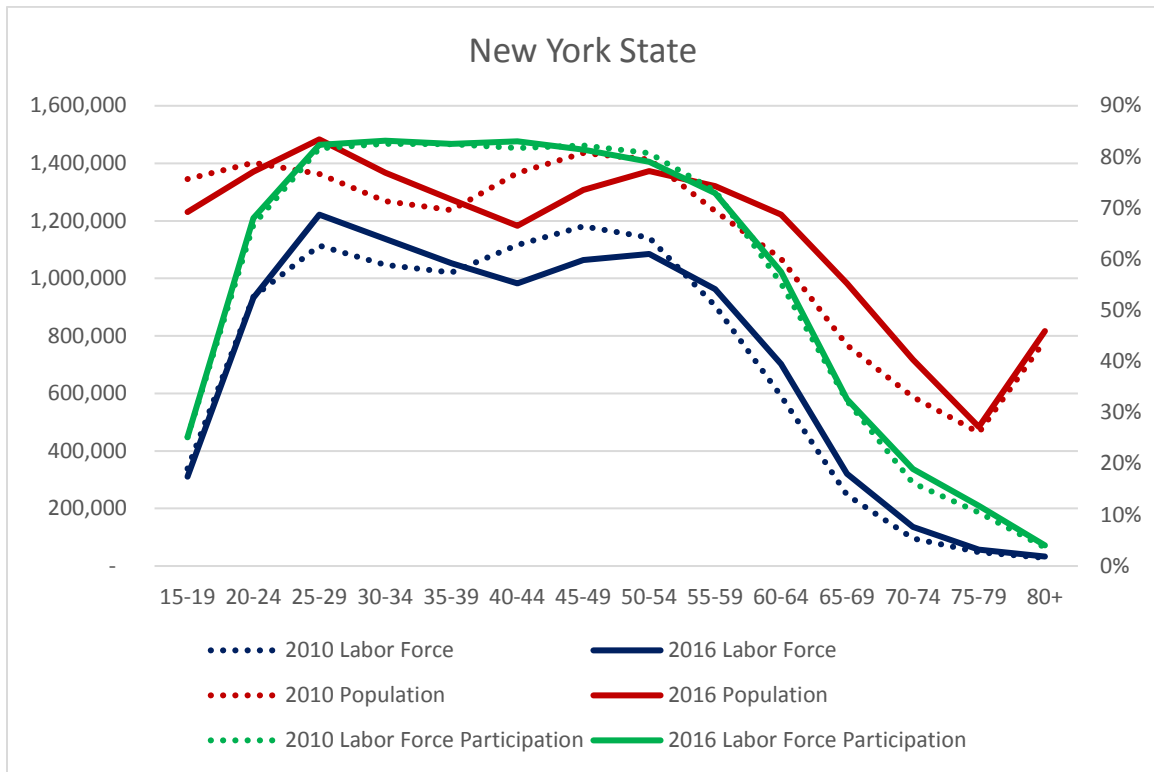
ii. The Relationship between Population Growth and the Labor Force Participation Rate

Although the population for New York State has increased from 2010 to 2016, there has not been the same proportional increase in the labor force. This is because the growth in the working age population has primarily been of older individuals who often opt out of working (i.e. retiring, medical reasons). Furthermore the labor force of those in the prime working age has decreased for the State, particularly for ages 35-54.

As seen in Figure 13, the 2010 population has shifted to the right in 2016, with the corresponding growth in the older population due to the aging Baby Boomers. However, even though there has been a growth in the population over the age of 54, the labor force participation rate is unchanged. Therefore, although there are more people over the age of 54 in 2016, there has not been significant growth in those individuals choosing to participate in the labor force.

Concerning previous findings, this may imply that although there has been growth in the working age population (i.e. more older individuals), areas such as the Central New York region can still have a declining labor force (i.e. these older individuals choose to opt out of the labor force).

Figure 13: The Labor Force, Population, and Labor Force Participation Rate for New York State (2010-2016)



Data Source: American Community Survey

In fact, as seen in Figure 13, the labor force participation rate barely changes from 2010 to 2016, besides a small increase in those older than 65. Interestingly, the share of the labor force and

population composed of those in the prime working age (25-54) has decreased. The share of the labor force and the share of the working age population is calculated in the following manner:

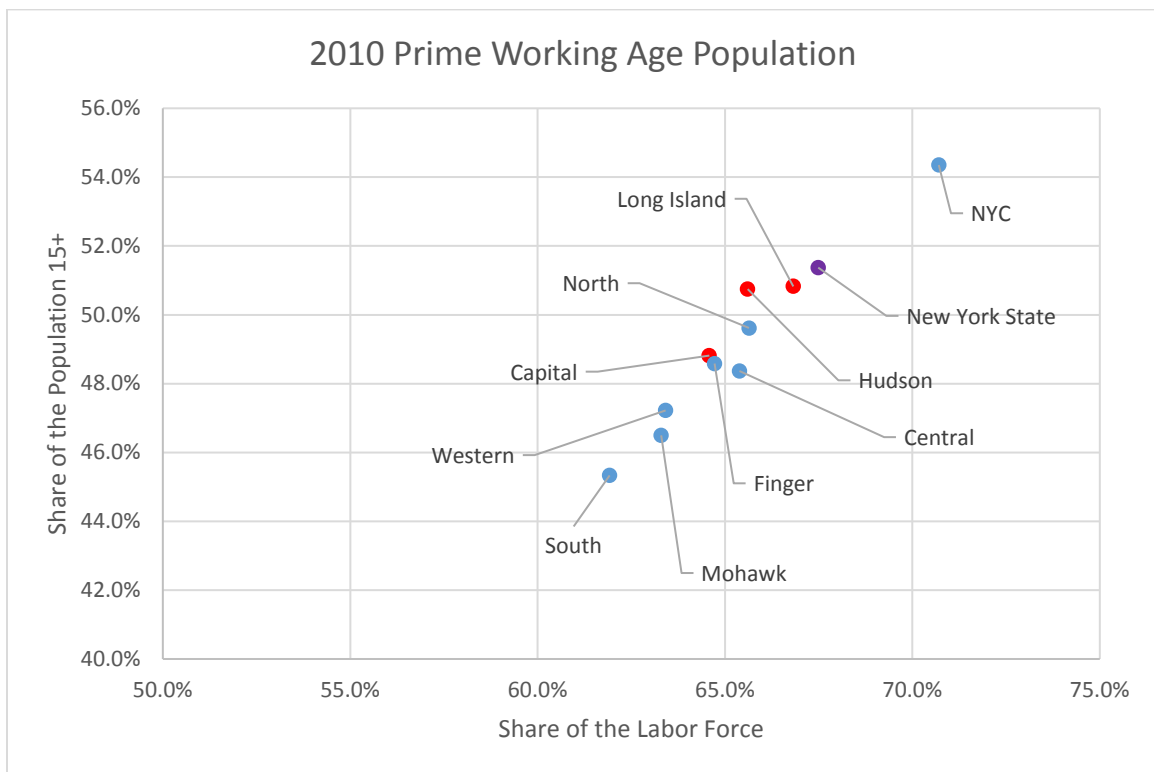
$$\text{Share of the labor force} = \frac{\text{Population in labor force between age } x \text{ and } y}{\text{Population in Labor Force}}$$

$$\text{Share of the population} = \frac{\text{Population between age } x \text{ and } y}{\text{Working Age Population}}$$

Figures for each of the Economic Development Regions' labor force and population in 2010 and 2016 can be found in Section VII.

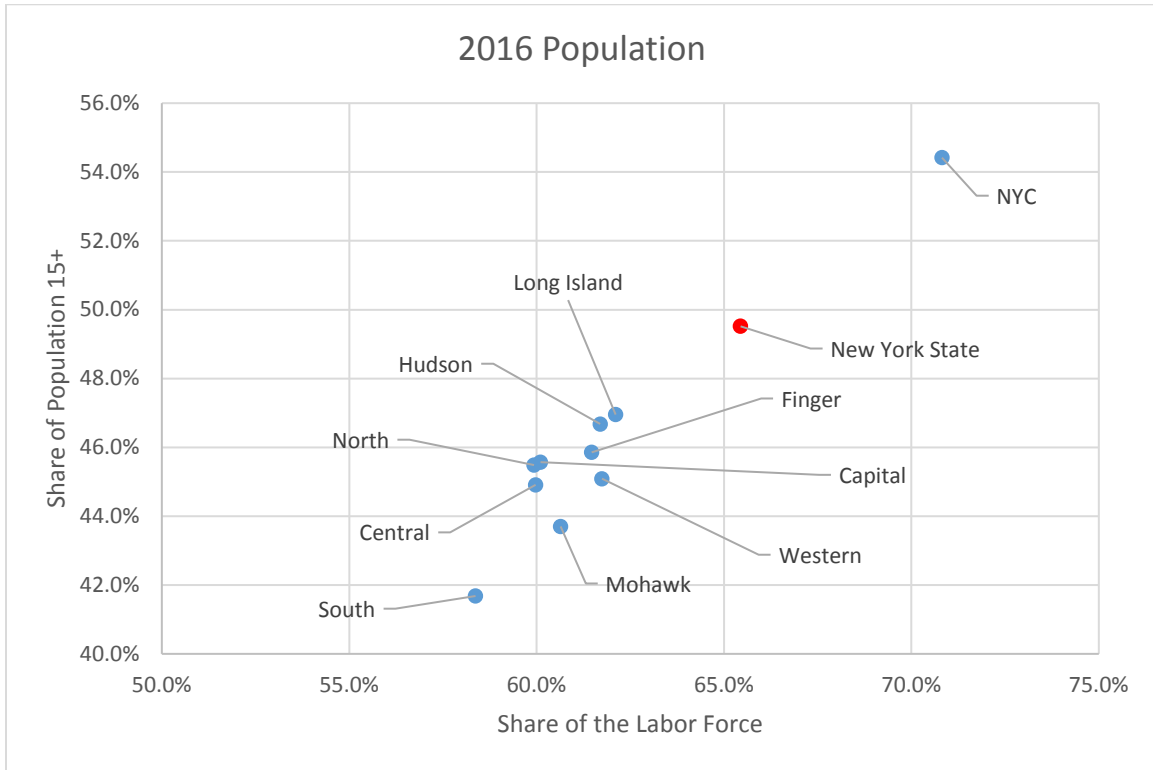
Figure 14 and Figure 15 graphs the relationship between the shares of the prime working age population of the working age population on the share of the prime working age labor force on the labor force. It should be noted that the average is heavily skewed by New York City.

Figure 14: Labor Force and Population Shares of the Prime Working Age Population by region 25-54 (2010)



Purple Dot indicates New York State, Red Dots indicate "upstate" NY regions,
 Blue Dots indicate "downstate" NY regions
 Data Source: American Community Survey

Figure 15: Labor Force and Population Shares of the Prime Working Age Population by region 25-54 (2016)



Purple Dot indicates New York State, Red Dots indicate "upstate" NY regions,
 Blue Dots indicate "downstate" NY regions
 Data Source: American Community Survey

Taking into consideration all the regions, New York State had a decrease in the share of the labor force for those in the prime working age from 67.5% to 65.4%. As seen in Table 4, for all regions besides the New York City region, the share of the labor force composed of those aged 25-64 decreased by 1-6%. Similarly, for all regions besides the New York City region the share of the working age population composed of those aged 25-64 decreased too.

	2010		2016	
	Share of the Labor Force	Share of the Population 15+	Share of the Labor Force	Share of the Population 15+
Capital	64.6%	48.8%	60.1%	45.6%
Central New York	65.4%	48.4%	60.0%	44.9%
Finger Lakes	64.7%	48.6%	61.5%	45.9%
Long Island	66.8%	50.8%	62.1%	47.0%
Mid-Hudson	65.6%	50.7%	61.7%	46.7%
Mohawk Valley	63.3%	46.5%	60.6%	43.7%
New York City	70.7%	54.4%	70.8%	54.4%
North Country	65.6%	49.6%	59.9%	45.5%
Southern Tier	61.9%	45.3%	58.4%	41.7%
Western New York	63.4%	47.2%	61.7%	45.1%
New York State	67.5%	51.4%	65.4%	49.5%

One of the most interesting findings from the September 2017 report was that there was more participation of the elderly in the labor force. This is in fact true overall, whereby the share of the labor force older than 55 increased from 19.5% to 31.2% from 2010 to 2016. All Economic Development Regions had the proportion of the labor force older than 55 increase by 10-13% over the past 6 years. Additionally, the share of the working age population older than 55 increased by 10-14% over the past 6 years—due to aging Baby Boomers.

	2010		2016	
	Share of the Labor Force	Share of the Population 15+	Share of the Labor Force	Share of the Population 15+
Capital	20.8%	24.0%	33.7%	37.2%
Central New York	19.8%	24.4%	32.3%	36.5%
Finger Lakes	20.3%	23.7%	32.9%	37.4%
Long Island	21.9%	25.9%	33.1%	37.0%
Mid-Hudson	22.0%	25.4%	32.6%	36.2%
Mohawk Valley	22.3%	24.3%	36.5%	39.7%
New York City	17.4%	19.0%	28.2%	30.7%
North Country	17.2%	21.1%	31.4%	35.6%
Southern Tier	21.5%	24.2%	34.4%	38.2%
Western New York	20.3%	23.1%	35.0%	38.6%
New York State	19.5%	22.1%	31.2%	34.4%

iii. **Can Growth or Decline in the Labor Force be explained by Trends in Domestic Migration?**

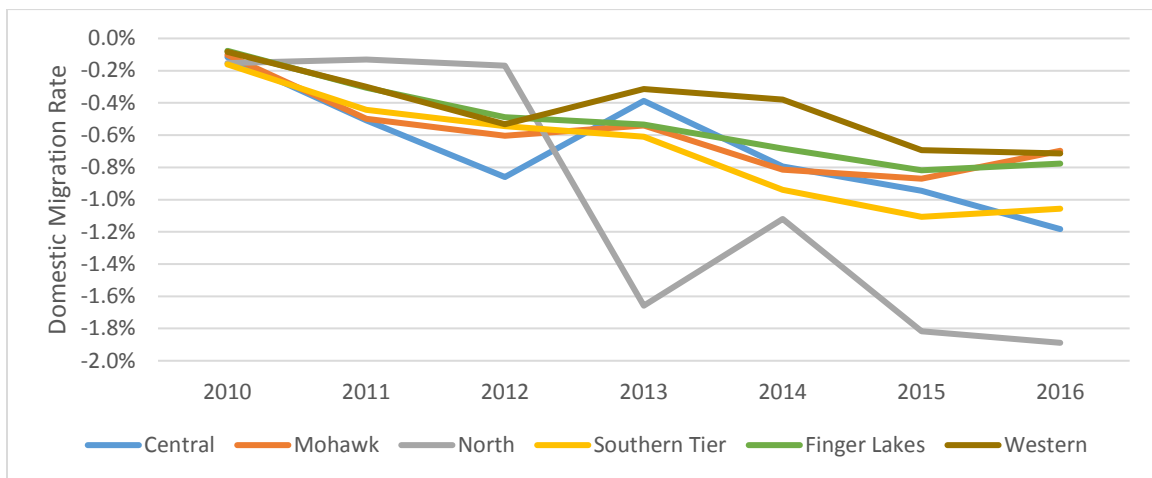
As seen previously in Figure 14 and Figure 15, certain Economic Development Regions have experienced a decline in their working age population while others have gained. This may be due not only to natural population growth and decline, but the influence of domestic migration. More people emigrating out of a region would decrease its population and shrink the number of possible laborers, the converse is true for those immigrating to a region.

Figure 16 and Figure 17 illustrate the rate of domestic migration (net)¹ over time for “upstate” and “downstate” New York.

$$\text{Domestic Migration Rate} = \frac{\text{People Moving to region (domestic)} - \text{People Leaving region (domestic)}}{\text{Total Population for region}}$$

We should notice all areas had more individuals leaving their respective regions rather than immigrating to them domestically. Future studies could explore the push and pull reason for why individuals are leaving New York State.

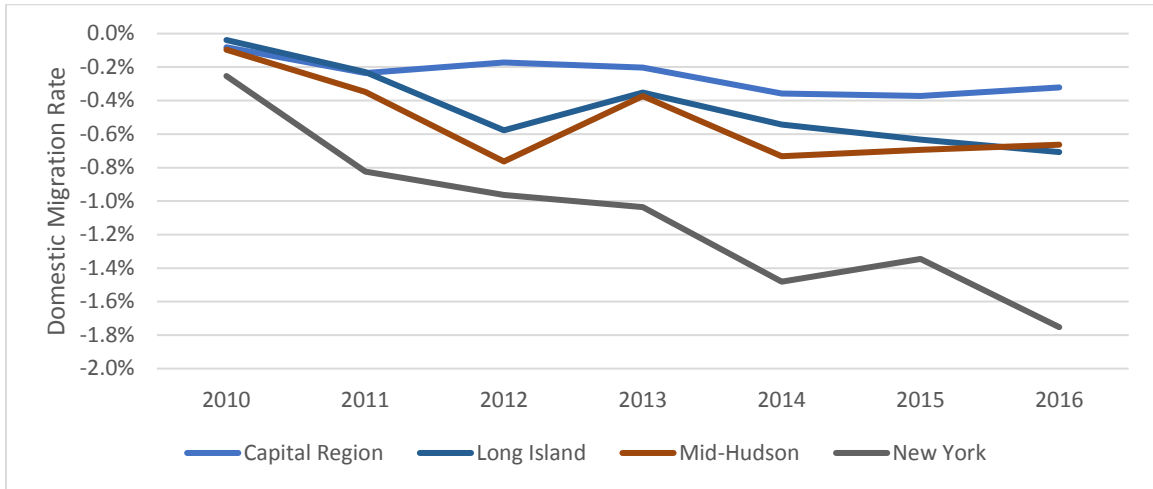
Figure 16: Domestic Migration Rate by Economic Development Region; Upstate regions



Data Source: U.S. Census Bureau Population Estimates

¹ It should be noted that net domestic migration and international migration does not distinguish between those of working age population (16 years and older) from the general population. Therefore it would be incorrect to equate the migration rate as the in-flow or out-flow of working-age migration. However, the migration rate can serve as a useful proxy for the movement of the labor force.

Figure 17: Domestic Migration Rate by Economic Development Region (2010-2016); Downstate regions



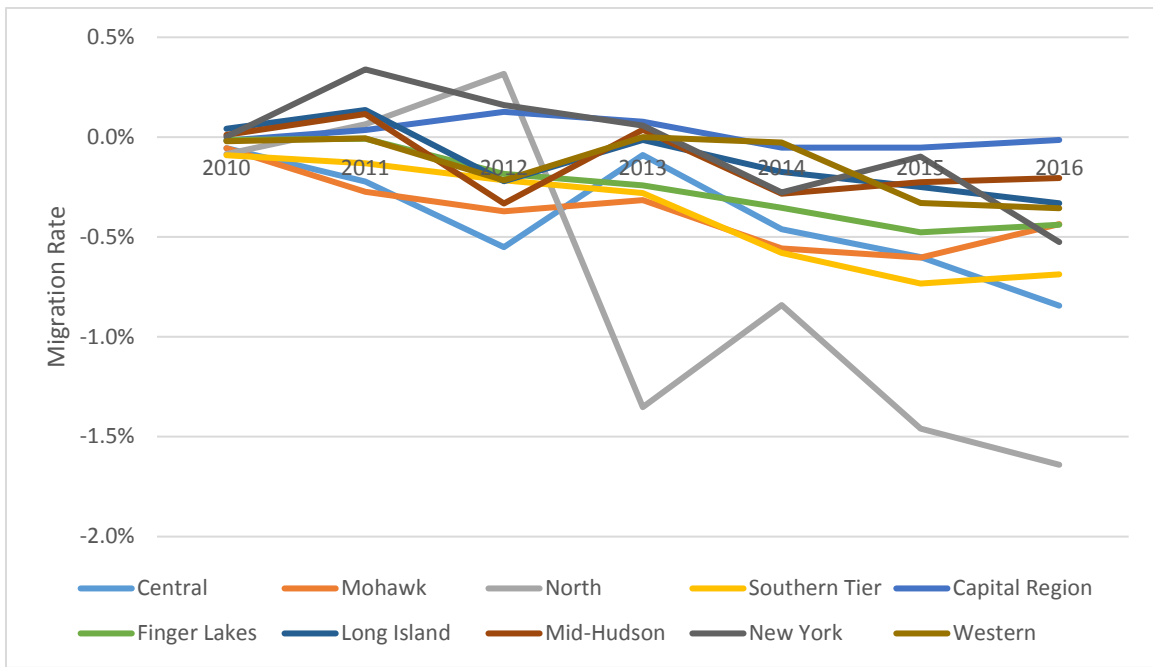
Data Source: U.S. Census Bureau Population Estimates

iv. Can Growth in the Labor Force be explained by Trends in Migration?

The migration rate is the summation of the domestic and international migration divided by the population for a given year. As seen in Figure 16, all regions in 2016 experienced a negative domestic migration rate, where more individuals were leaving the regions than moving to the region from other states or from other countries.

$$\text{Migration Rate} = \frac{\text{People Moving to region} - \text{People Leaving region (domestic, international)}}{\text{Total Population for region}}$$

Figure 18: Migration Rate by Economic Development Region (2010-2016)



Data Source: U.S. Census Bureau Population Estimates

It should be noted that all regions experienced positive net international migration where more individuals outside of the United States were moving to New York than New Yorkers leaving the United States.

By considering international population flows, it can be noted that some regions from 2010-2013 experienced positive migration. Specifically, there were overall more individuals domestically and internationally moving to these regions than these regional New Yorkers exiting the region, taking into consideration findings from Figures 16 and 17.

V. Conclusion

In the past six years, the New York labor force has changed, but the changes it has experienced differ regionally. The population over the age of 16 has increased for 7 of the 10 Economic Development Regions, however only 1 of the 10 Economic Development Regions has experienced growth in the population of prime working age individuals (25-54). With the decrease in the employment rate over the past few years, only 4 of the 10 Economic Development Regions saw this accompanied with more people employed.

In the other 6 of 10 regions that did not experience growth in the number of individuals employed, they experienced declines in their labor force population and participation rate. Since 2010, the labor force participation rate has remained unchanged. However the share of the elderly in the labor force has increased in the past few years due to the aging of the Baby

Boomers and national trends of new elderly laborer behavior (i.e. more older people working). Additionally, the entire state has experienced a deficit in migration, where more people are leaving the state than entering which factors into the number of laborers in the workforce.

Policymakers could further investigate the various push and pull factors affecting the labor force population such as migration, job opportunities, lifecycle (i.e. education, retirement). Motivations to participate in these different labor markets could interest policymakers as well. Additionally, further investigations could highlight the regional differences found in this paper between the “upstate” and “downstate” New York such as industry makeup or opportunities for the elderly to participate in the workforce.

VI. References

The New York State Comptroller Report on Labor Force Trends in New York State:
<https://www.osc.state.ny.us/reports/economic/labor-force-trends-nys-2017.pdf>

Profiles for each Economic Development Region can be found at
<https://regionalcouncils.ny.gov/>

Appendix A. Population and Labor Force by region (2010,2016)

The following figures all use data from the American Community Survey.

