

An Evaluation of the Youth Labor Market in Metro North

February 12, 2019



UMASS DONAHUE INSTITUTE
Economic & Public
Policy Research

An Evaluation of the Youth Labor Market in Metro North

Prepared by the UMass Donahue Institute's
Economic & Public Policy Research Group

Project Manager

Rod Motamedi

Project Staff

Chris Jurek

Gail Waterhouse

Nicoya Borella

The University of Massachusetts Donahue Institute is an outreach and economic development arm of the University of Massachusetts President's Office. Established in 1971, the Institute strives to connect its clients with the resources of the University, bridging theory and innovation with real world public and private sector applications. For more information: www.donahue.umassp.edu.

The Institute's Economic and Public Policy Research (EPPR) group is a leading provider of applied research, helping clients make more informed decisions about strategic economic and public policy issues.

EPPR produces in-depth economic impact and industry studies that help clients build credibility, gain visibility, educate constituents, and plan economic development initiatives. EPPR is known for providing unbiased economic analysis on state-level economic policy issues in Massachusetts and beyond, and has completed a number of industry studies on IT, defense industries, telecommunications, health care, and transportation. Their trademark publication is called *MassBenchmarks*, an economic journal that presents timely information concerning the performance of and prospects for the Massachusetts economy, including economic analyses of key industries that make up the economic base of the state.



UMASS DONAHUE INSTITUTE
Economic & Public
Policy Research

Contents

Introduction	1
Youth Labor Force in Metro North	2
Regional Findings	2
Intraregional Differences	10
Comparison of Youth Workers by Industry and Occupation	23
Review of Barriers to Youth Engagement and Resources Available	25
Conclusions	28

List of Figures

Figure 1. Youth Population of Metro North by Age Cohort.....	2
Figure 2. Non-Hispanic White as Share of Youth Population by Age Cohort	3
Figure 3. Nativity of Youth Population (Ages 16-24).....	3
Figure 4. Employment Status by Year and Race/Ethnicity (Ages 16-24).....	4
Figure 5. Number of Employed by Year and Race/Ethnicity (Ages 16-24).....	5
Figure 6. Employment Status in 2016 by Age Cohort and Race/Ethnicity	5
Figure 7. Number of Employed in 2016 by Age Cohort and Race/Ethnicity	6
Figure 8. Status in 2016 for 16-19 Cohort by Race/Ethnicity	7
Figure 9. Status in 2016 for 20-24 Cohort by Race/Ethnicity	8
Figure 10. Share Employed or Enrolled in 2016 by Age Cohort and Race/Ethnicity	8
Figure 11. Enrollment Rate by Age Cohort and Sex	9
Figure 12. Labor Force Participation Rate in 2016 by Age Cohort and Race/Ethnicity.....	10
Figure 13. Cities and Towns of Metro North by Type	10
Figure 14. Share of Regional Youth Population by City/Town Type (Ages 15-24).....	11
Figure 15. Share of Non-Hispanic White Youth by Year and City/Town Type (Ages 15-24).....	12
Figure 16. Share of Not Enrolled by Year and City/Town Type (Ages 15-24).....	13
Figure 17. Share of Not Enrolled in 2016 by Age Cohort and City/Town Type	13
Figure 18. High School Graduation Rate by Year and City/Town Type	14
Figure 19. High School Graduation Rate for Class of 2017 by Sex and City/Town Type ...	15
Figure 20. High School Graduation Rate in Metro North by Year and Race/Ethnicity	15
Figure 21. High School Graduation Rate for Class of 2017 by Race/Ethnicity and City/Town Type	16
Figure 22. College Enrollment by Year and City/Town Type	17
Figure 23. College Enrollment Rate for Class of 2017 by Sex and City/Town Type	17
Figure 24. College Enrollment Rate in Metro North by Year and Race/Ethnicity.....	18
Figure 25. College Enrollment Rate for Class of 2017 by Race/Ethnicity and City/Town Type	19

Figure 26. Labor Force Participation Rate by Year and City/Town Type (Ages 15-24)20

Figure 27. Unemployment Rate by Year and City/Town Type (Ages 15-24)21

Figure 28. Labor Force Participation Rate in 2016 by Age Cohort and City/Town Type...22

Figure 29. Unemployment Rate in 2016 by Age Cohort and City/Town Type22

Figure 30. Share of Employment by Year and Industry (Ages 16-24)23

Figure 31. Share of Employment by Year and Occupation (Ages 16-24)24

Introduction

Recent work by the UMass Donahue Institute (UMDI) showed that the youth labor market in Massachusetts has changed over the past few decades. Most notably, the Commonwealth's rate of employment for those 16 to 24 years old has fallen since the 1980s taking Massachusetts from the top ten in the nation to the bottom 15. The study also found that participation in the labor market depends on the socioeconomic characteristics of the individual such as race, sex, nativity, and educational attainment. Where these characteristics align with those of historically disadvantaged groups, they serve to further hinder access to the benefits gained from early employment.

It is within the context of these earlier findings that UMDI set out to examine the youth labor market within the service area of the MassHire Metro North Workforce Board (MNWB). The region is comprised of 20 diverse cities and towns including Gateway Cities, urban core cities, and suburbs. The cities and towns also differ in their socioeconomic characteristics leading local youth labor market conditions to likely diverge from regional average conditions. The goal of this study is to elaborate and expand on the state-level findings from previous work to specifically identify trends in the service area of MNWB.

The main research method for this study was a compilation and analysis of existing, publically-available data on the region's youth.¹ The key source was the American Community Survey (ACS) from the US Census Bureau. We relied on both pre-tabulated ACS data and, where needed, custom tabulations created using the ACS public use microdata sample (PUMS). The PUMS data allows users to query the ACS data using multiple attributes simultaneously in ways that do not exist in the pre-tabulated data. For example, researchers can ask for the number of people who are white, non-Hispanic, between 16 and 19, live in metro north, and are employed.

To supplement the ACS data, we conducted a small focus group and pulled data from the Massachusetts Department of Elementary and Secondary Education (DESE). The focus group was with five participants of the Youth Build program at Just-A-Start in Cambridge. The purpose was to test the findings from the data with actual youth and to hear anything they could offer that is not captured in the data, such as the elements of successful outreach and training programs. The DESE data were used to evaluate high school graduation and college enrollment rates for local students.

This report begins with an analysis of the regional youth labor market and then examines interregional differences. After the data is reviewed, the report moves on to review barriers to education and employment and resources available to address them.

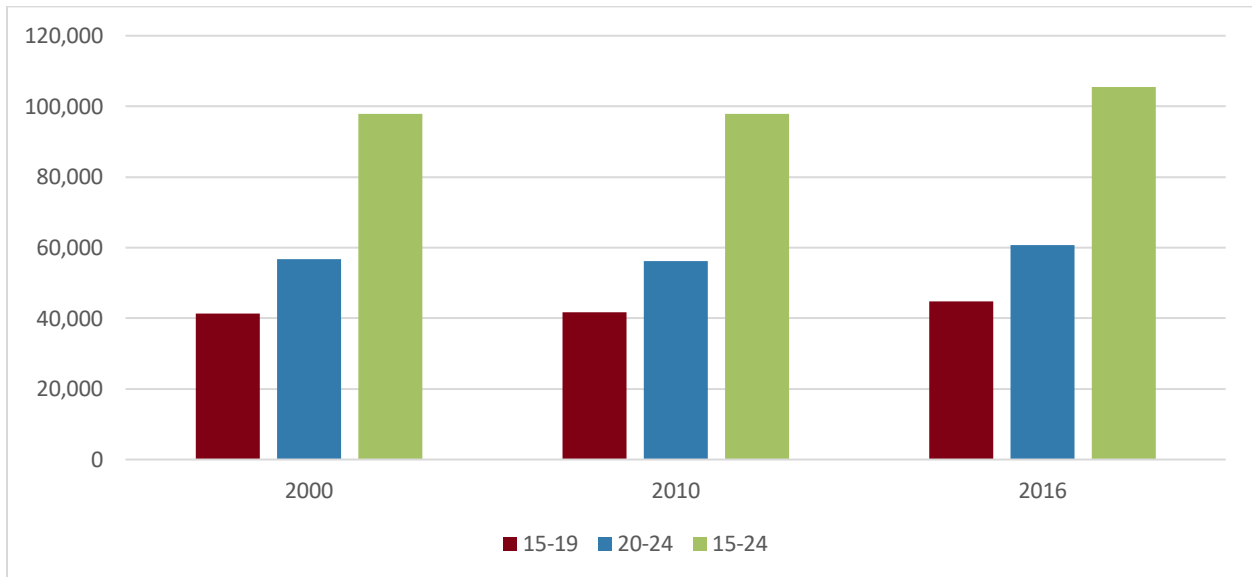
¹ For this study, we defined youth as those between 15 or 16 and 24, depending on the source. ACS uses 15-19 and 20-24 as its relevant cohorts while ACS PUMS uses 16-19 and 20-24.

Youth Labor Force in Metro North

Regional Findings

From 2000 to 2016, the youth population of metro north has grown by 7.7 percent or 7,500 people. During that time, most of the absolute and relative growth came from the 20-24-year-old cohort. The story is more nuanced when looking at the changes from 2000 to 2010 and from 2010 to 2016. The total youth population actually fell slightly (148) from 2000 to 2010 entirely as a result of losses of 510 in the 20 to 24 cohort. Because the population in 2010 is essentially the same as the population in 2000, all the net growth in both percentage and absolute terms observed relative to 2000 has in fact happened in the years since 2010. These findings suggest that movement of economic migrants and college students are key population drivers in metro north.

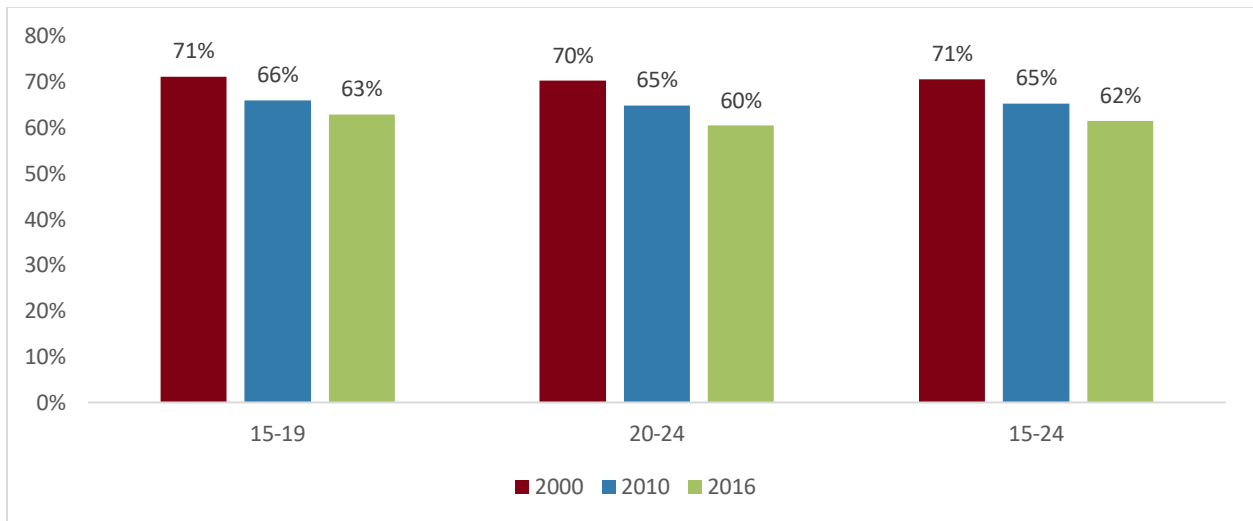
Figure 1. Youth Population of Metro North by Age Cohort



Source: ACS

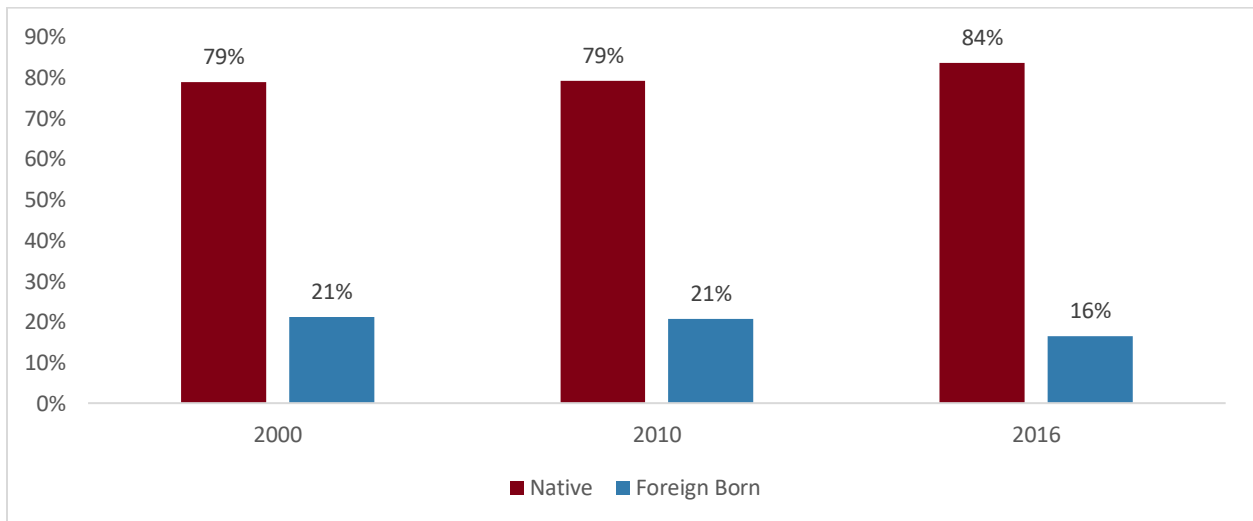
As the population has grown, it has become more diverse. Since 2000, the share of youth identifying as non-Hispanic and white alone has fallen though in absolute terms they have grown along with other cohorts. The share of 15 to 24 year olds who were non-Hispanic white dropped from 71 percent to 62 percent. While racial and ethnic diversity is increasing, the number of foreign-born youth is decreasing. Though international migration remains an important component of the state's population growth, this data suggests that the international migrants living in the metro north region are primarily, and increasingly, adults.

Figure 2. Non-Hispanic White as Share of Youth Population by Age Cohort²



Source: ACS

Figure 3. Nativity of Youth Population (Ages 16-24)

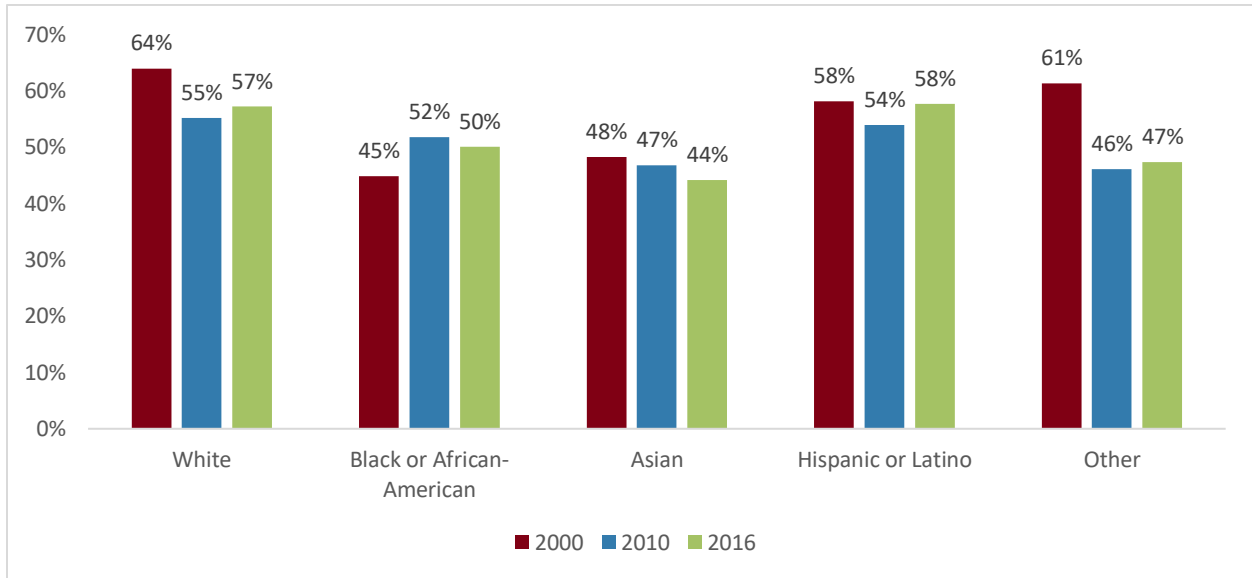


Source: ACS PUMS

² Due to data availability, data sourced from the ACS (excluding PUMS) contains a small amount of double-counting in the non-white Hispanic cohorts. We estimate approximately 2,300 youth (or 5.5% of the total) are counted both in their identified races and as Hispanic. The double-counting arises because, for the measures we used, the ACS does not provide tables for non-Hispanic non-white populations. This double-counting does not impact city/town totals and has no material impact on the findings presented in this report.

The gradual increase in the share of population comprised of minority youth also implies an increase in the share of people who are at risk of the structural problems facing these populations. Figure 4 shows the share of the youth population that is employed decreased over time for most race and ethnic groups while also showing differences among the groups. When examining the details, we see that the employment rate for white and Hispanic youth started apart in 2000 but is now nearly identical while that of Asian youth is lower than that of black youth.

Figure 4. Employment Status by Year and Race/Ethnicity (Ages 16-24)³

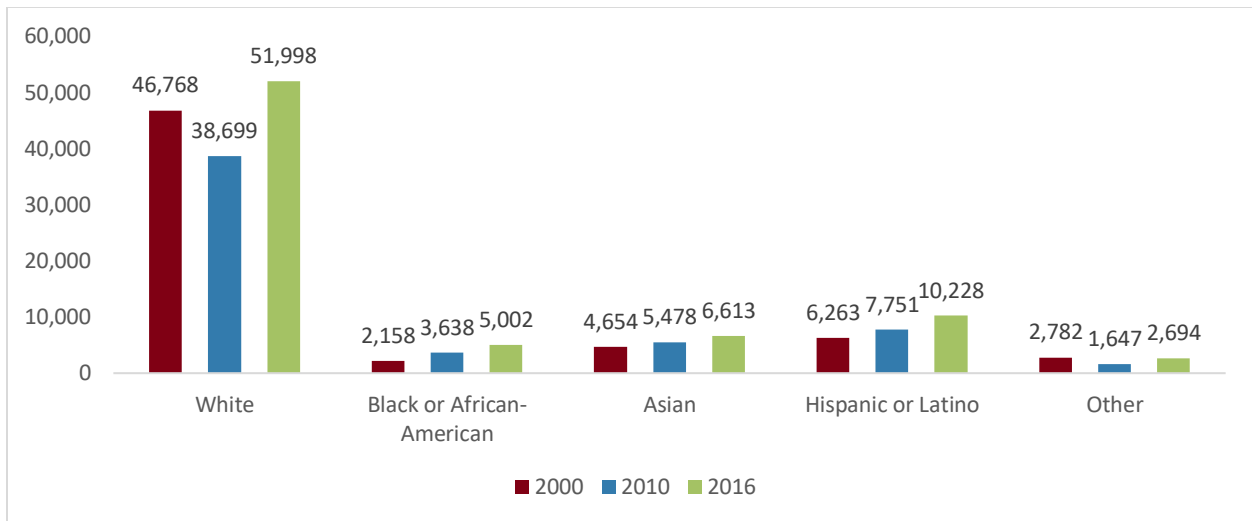


Source: ACS PUMS

Equal or similar rates of employment do not mean similar numbers of employed. As Figure 2 shows, non-Hispanic white youth are 62 percent of all youth in metro north but when coupled with higher rates of employment they form 69 percent of all employed youth. Figure 5 shows that there were nearly 52,000 employed white youth in metro north in 2016 compared to less than 10,300 for each other race or ethnicity. The pattern of employment over time for white youth also differs from most of their peers. While black, Asian, and Hispanic youth employment numbers have grown in each of the observed years, white and other races showed a notable dip in 2010 compared to 2000 and 2016. In the case of these groups, the numbers of employed match changes in rates of employed. In the case of black, Asian, and Hispanic youth, their growing populations caused the numbers of employed to continue growing despite uneven employment rates.

³ In this and subsequent charts, the race "Other" refers to the sum of all other races not noted on the chart including Native American or Alaskan, Pacific Islander, More than One Race, and Some Other Race.

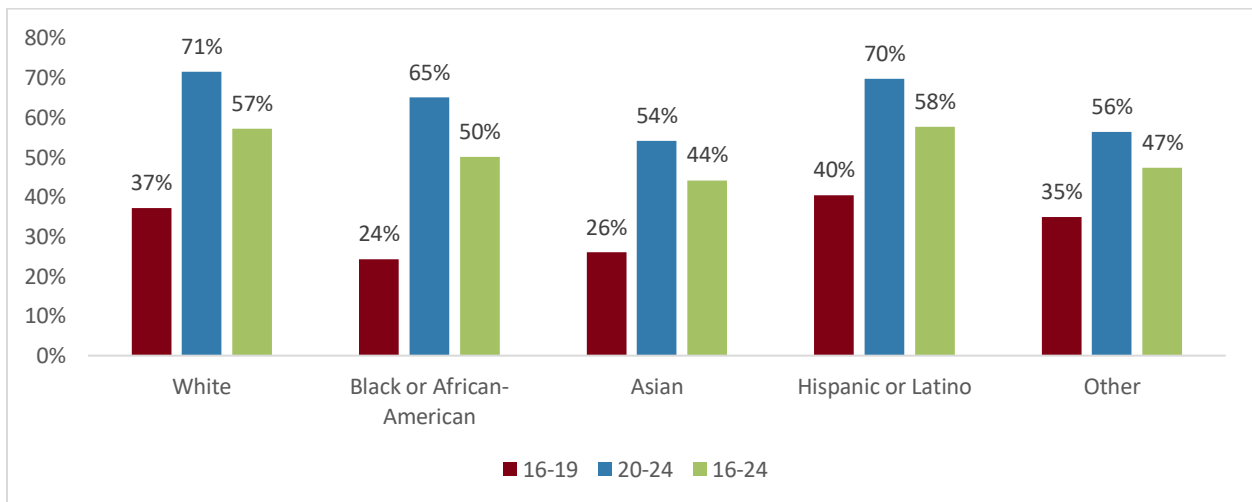
Figure 5. Number of Employed by Year and Race/Ethnicity (Ages 16-24)



Source: ACS PUMS

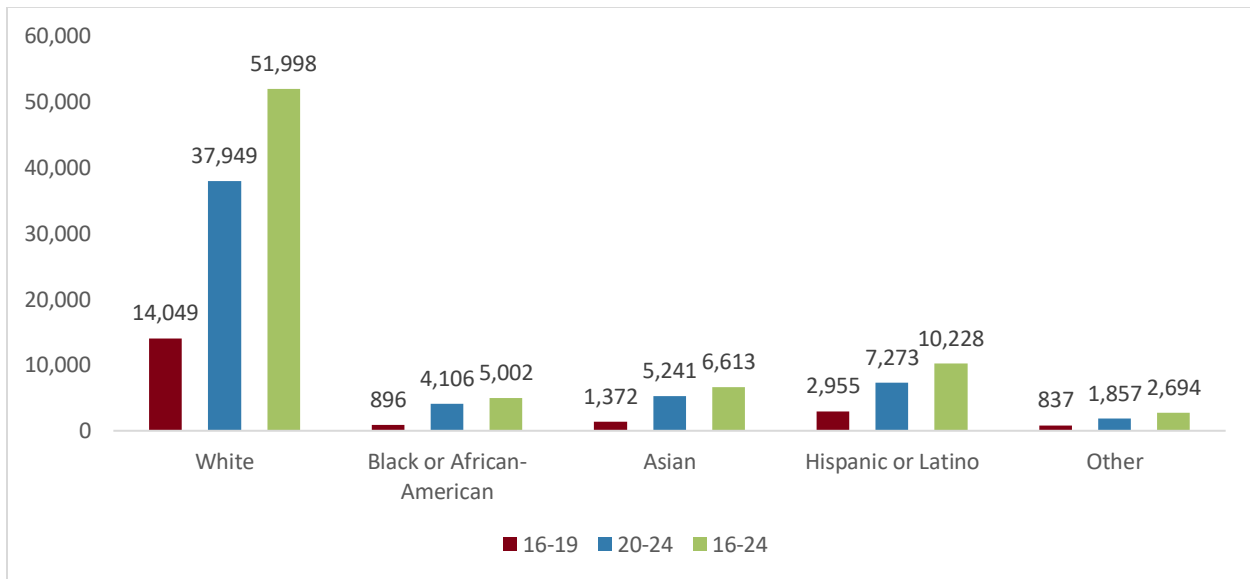
The patterns among the different groups are more apparent when focusing on the breakdown between age cohorts in the most current year. In 2016, the employment status of white and Hispanic youth is nearly identical in all age cohorts: 16-19, 20-24, and 16-24. At the same time, the employment status of Asian youth is lower than all other groups including that of black or African-American youth. Taken in isolation, this data suggests that many of the structural problems of the past have been resolved while Asian youth are now in need of greater attention from service providers. Unfortunately, the remainder of the data does not support these conclusions.

Figure 6. Employment Status in 2016 by Age Cohort and Race/Ethnicity



Source: ACS PUMS

Figure 7. Number of Employed in 2016 by Age Cohort and Race/Ethnicity

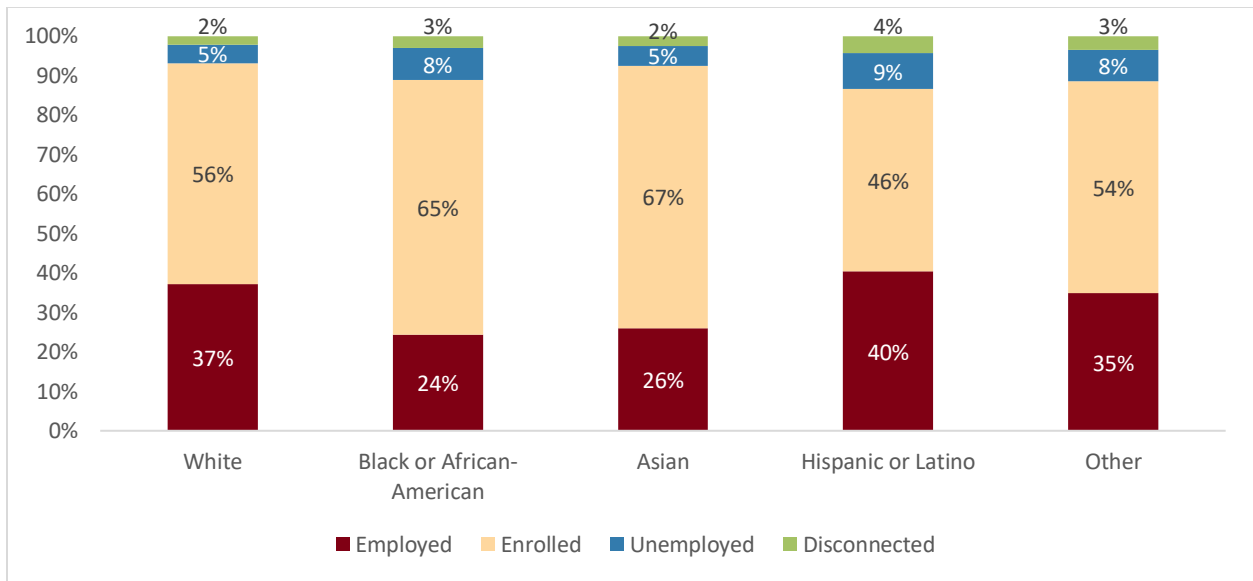


Source: ACS PUMS

The previous figures only show employment which limits their ability to speak to the overall relationship between youth and the labor market. Unlike with adults, low employment rates are not necessarily problematic for youth because education is a common alternative to employment at these ages. Because the employment rate only measures the share of the population that is employed, it is silent on how the rest of the population is occupying its time. The remaining shares are either unemployed or not in the labor force. Those who are not in the labor force can either be enrolled in education or disconnected from the labor force (i.e. not employed, not actively seeking employment, and not enrolled at an educational institution).

Figure 8 shows the status in 2016 of the 16-19 cohort by race and ethnicity. At the younger end of the youth labor market we would expect, and in fact find, large shares of the population enrolled in an educational institution. However, even in this age range, there is considerable diversity in status. Less than half of Hispanic youth are enrolled while 56 percent of white youth are. Though their employment status is similar, more Hispanic youth are either unemployed or disconnected from the labor market compared to their white counterparts. This figure highlights that though Hispanic 16 to 19 year olds have higher employment rates than all other groups, as a whole they do not necessarily have the best overall outcomes in the labor market. Interestingly, Figure 8 also shows that Asian and black or African American youth have similar measures across all status types while having dramatically different results in the next age cohort. It is unclear why this is though some, albeit unverified, possibilities are that black youth take longer to finish high school while Asian youth transition directly to higher education and/or that black students enroll in higher education at similar rates but remain enrolled for fewer years.

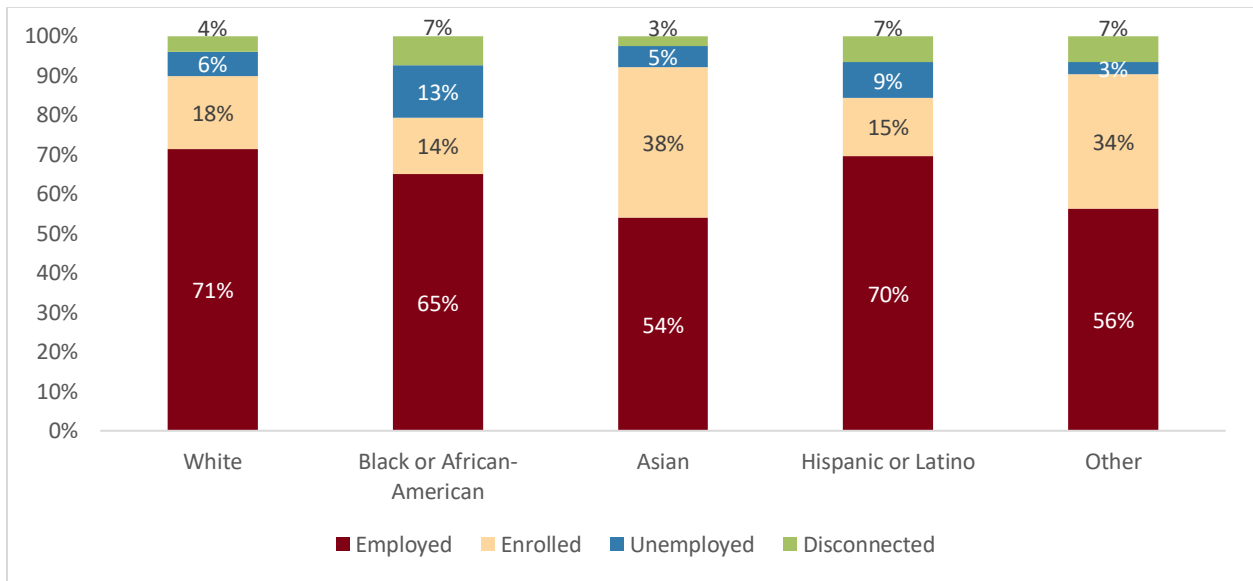
Figure 8. Status in 2016 for 16-19 Cohort by Race/Ethnicity



Source: ACS PUMS

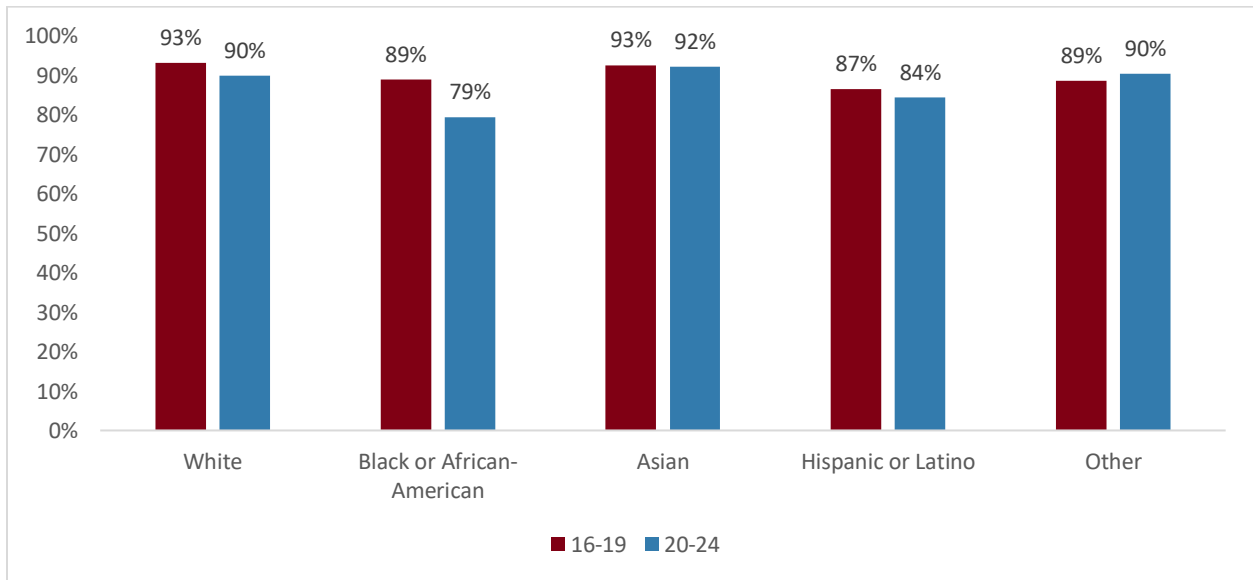
Figure 9 shows the same measures as Figure 8 but for the 20 to 24 year old cohort. As expected, in this age range employment replaces school enrollment as the most prominent labor market status for all races/ethnicities. But again, outcomes are very different. Asian youth displayed the lowest share of employed among all groups in Figure 6 which would suggest poor labor market outcomes. However, Figure 9 reveals that the low employment share is explained by a very high enrollment share. When taking employment and enrollment together, Asian youth have the highest level of connection to the labor market (92 percent). Similarly, even though the employment share for black or African-American youth is 10 percent higher than that for Asian youth, they have the lowest connection to the labor market at 79 percent. The summary of connection status is shown for both age cohorts and all race/ethnicity groups in Figure 10.

Figure 9. Status in 2016 for 20-24 Cohort by Race/Ethnicity



Source: ACS PUMS

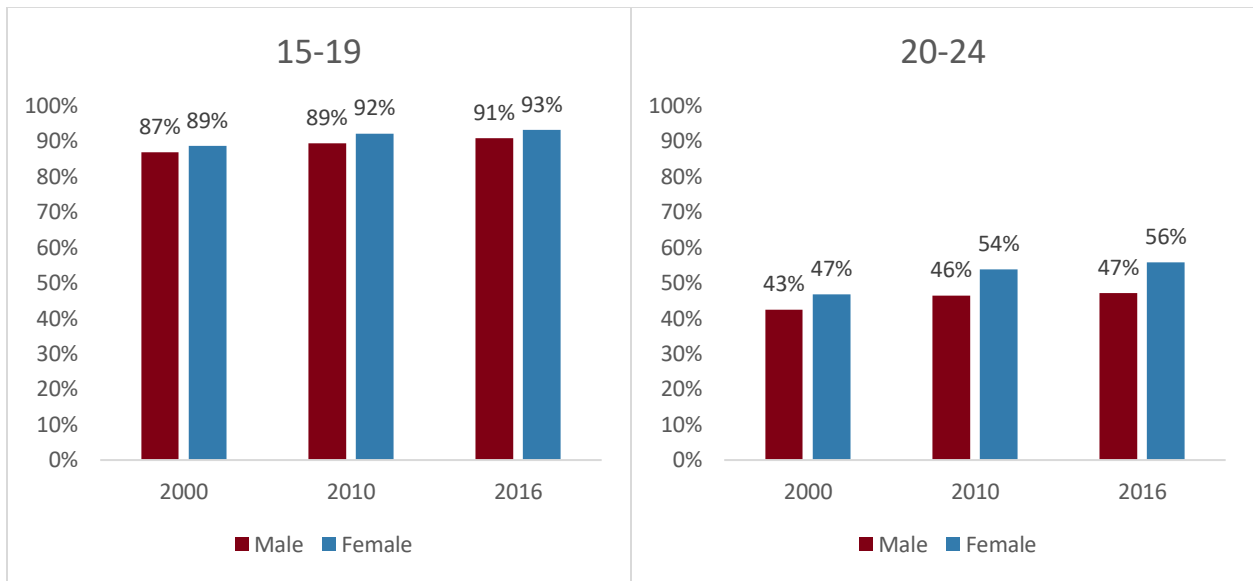
Figure 10. Share Employed or Enrolled in 2016 by Age Cohort and Race/Ethnicity



Source: ACS PUMS

School enrollment is also a function of sex. Female youth of both cohorts are more likely to be enrolled than their male counterparts. This difference is especially true at the older end suggesting that in metro north as elsewhere, female enrollment in higher education exceeds male enrollment.

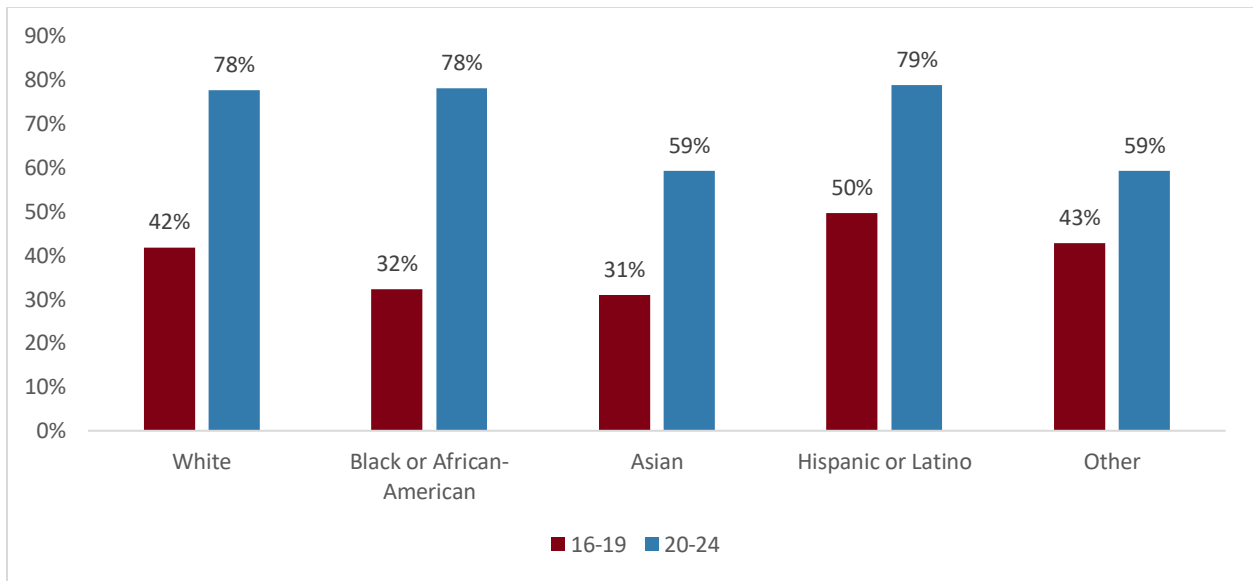
Figure 11. Enrollment Rate by Age Cohort and Sex



Source: ACS

Adding together employment and enrollment rates gives a sense of what share of youth are actively using their time versus those that are unemployed or disconnected. Another way to summarize the connection of youth to the labor market is to combine the shares that are employed and unemployed to find the share of youth that are participating in the labor market. The data shows that in 2016, white, black or African-American, and Hispanic or Latino youth have nearly identical labor force participation rates in the 20 to 24 year old cohort meaning that equal shares either have jobs or are actively seeking employment. However, when this finding is combined with the data in Figure 9 we see that the balance between the share employed and unemployed is different between the race/ethnic groups. Though their participation rates are the same, white youth have half the share of unemployed than black youth and two-thirds that of Hispanic youth.

Figure 12. Labor Force Participation Rate in 2016 by Age Cohort and Race/Ethnicity



Source: ACS PUMS

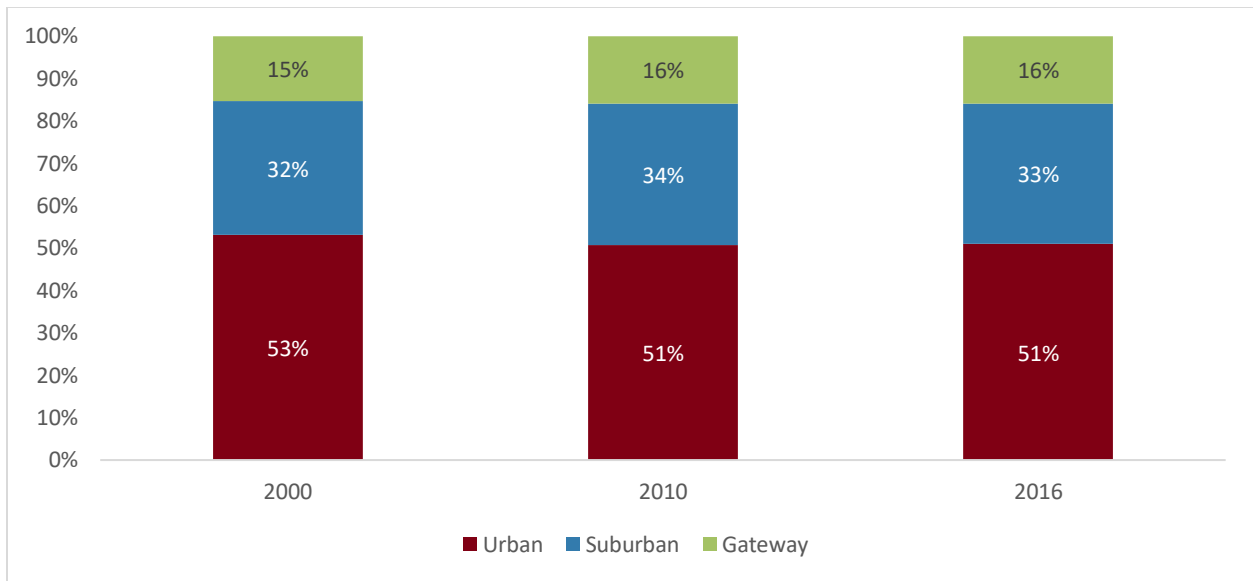
Intraregional Differences

To make the analysis of intraregional differences more meaningful than simply comparing each of the 20 communities to each other in isolation, we combined the cities and towns into one of three categories: urban, suburban, and Gateway City. Figure 13 below shows how each community was classified. For context, the four cities that comprise the urban group account for half the region’s population, the suburban communities a third, and the Gateway Cities the remaining 15 or 16 percent. Figure 14 shows that these shares have been consistent through time.

Figure 13. Cities and Towns of Metro North by Type

Name	Type	Name	Type
Arlington	<i>Suburban</i>	Reading	<i>Suburban</i>
Belmont	<i>Suburban</i>	Revere	<i>Gateway</i>
Burlington	<i>Suburban</i>	Somerville	<i>Urban</i>
Cambridge	<i>Urban</i>	Stoneham	<i>Suburban</i>
Chelsea	<i>Gateway</i>	Wakefield	<i>Suburban</i>
Everett	<i>Gateway</i>	Watertown	<i>Suburban</i>
Malden	<i>Urban</i>	Wilmington	<i>Suburban</i>
Medford	<i>Urban</i>	Winchester	<i>Suburban</i>
Melrose	<i>Suburban</i>	Winthrop	<i>Suburban</i>
North Reading	<i>Suburban</i>	Woburn	<i>Suburban</i>

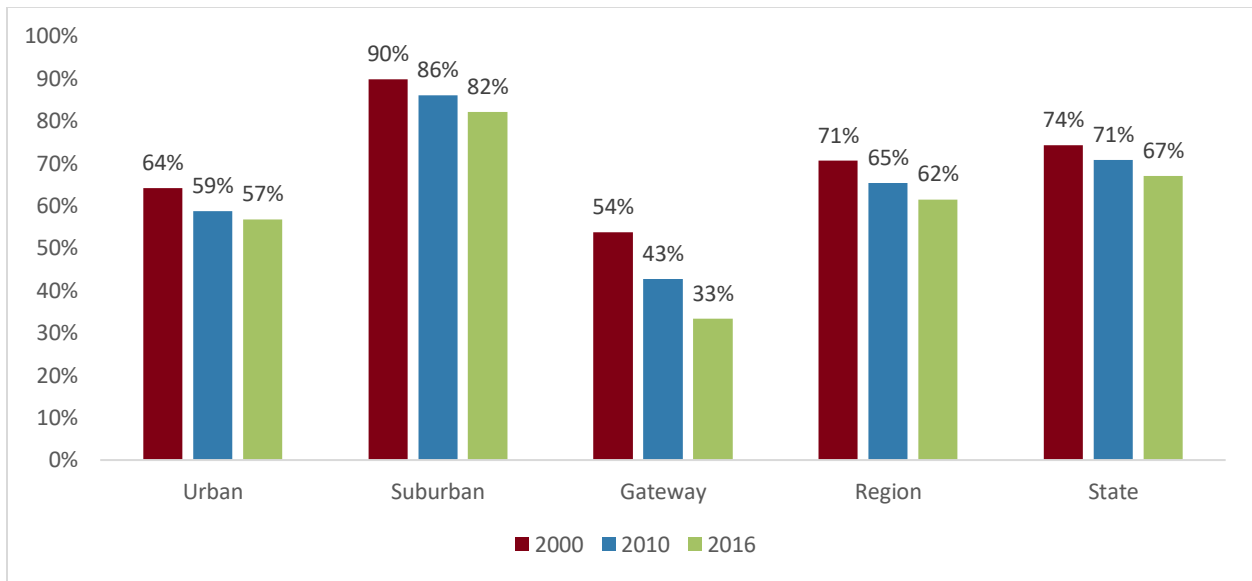
Figure 14. Share of Regional Youth Population by City/Town Type (Ages 15-24)



Source: ACS

The youth in the region as a whole have been and continue to be predominantly non-Hispanic white though their share has decreased from 74 percent to 67 percent since 2000. The urban and Gateway Cities together comprise two-thirds of the population and are notably more diverse than the suburban communities with current shares of non-Hispanic whites of 57 percent and 33 percent, respectively, as opposed to 82 percent for the suburban communities. At a more granular level, the range among the individual communities is quite large. At the high end, the youth of North Reading are 94 percent non-Hispanic white while the youth of Chelsea are 14 percent non-Hispanic white. While the share of non-Hispanic white youth is the same among the two age cohorts in the region (around 60 percent), among the communities there are again large differences. For example, in Melrose 90 percent of the younger cohort (16-19) and 77 percent of the older cohort (20-24) are non-Hispanic white while in Somerville the pattern is opposite with 56 percent and 69 percent, respectively. In both cases, the gap is 13 percent.

Figure 15. Share of Non-Hispanic White Youth by Year and City/Town Type (Ages 15-24)

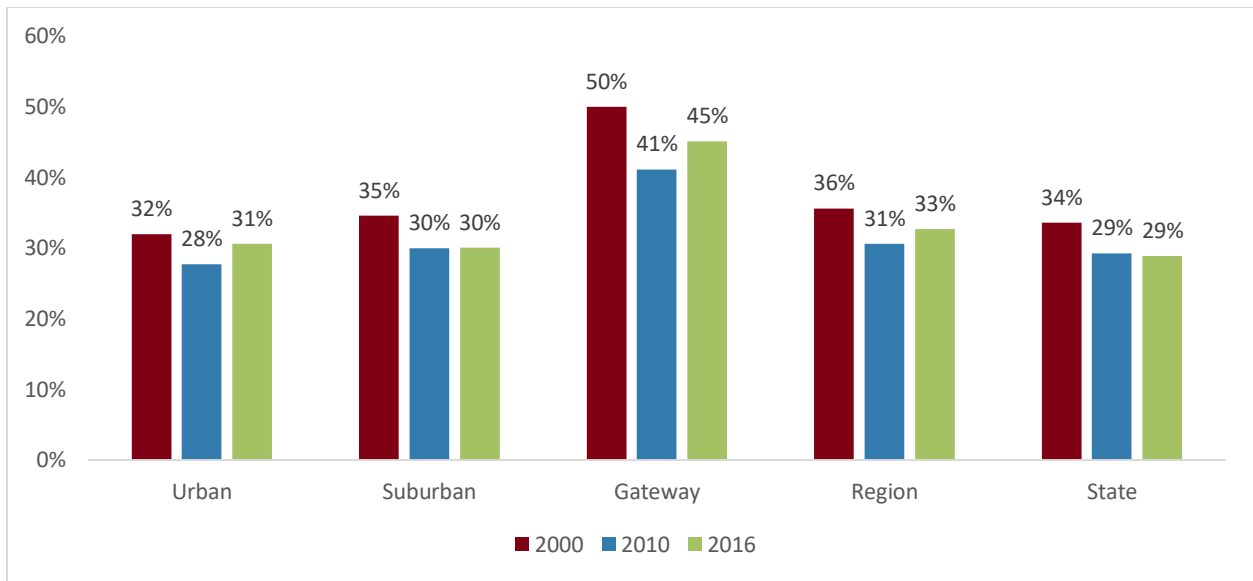


Source: ACS

In the regional analysis, we found that enrollment differed by race/ethnicity. That pattern changes when examining the share of youth not enrolled in school by community type. Based on the findings of the regional analysis and composition of population found the in sub-regional analysis, we would expect that the urban cities and the Gateway Cities would have lower enrollment rates than the suburban communities. However, what we find is that the urban communities and the suburban communities are nearly identical while the Gateway Cities stand apart. Put another way, based on the regional findings the urban communities have higher shares of youth enrolled in school than their share of white youth would imply.

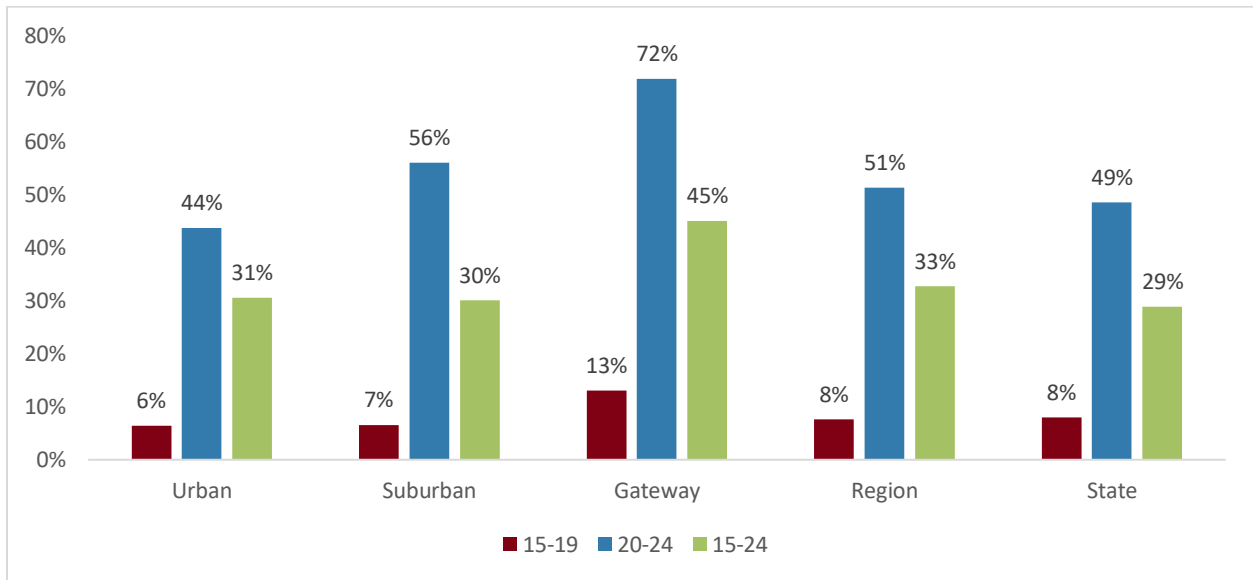
We suspect that the difference in enrollment rates versus white youth population can largely be explained by the higher share of Asian youth in the population of the urban communities. The regional analysis showed that Asian youth have the highest levels of enrollment across both age cohorts. The urban youth are 17 percent Asian compared to six and five percent for the suburban and Gateway Cities, respectively. If the share of non-Hispanic white is summed with the share of Asian youth, the urban and suburban communities have similar shares of 45 and 49 percent while the Gateway Cities are at 21 percent. These statistics imply that black and Hispanic youth are a greater share of the non-white youth population of the Gateway Cities and urban youth face the same barriers to education as those in the Gateway Cities.

Figure 16. Share of Not Enrolled by Year and City/Town Type (Ages 15-24)



Source: ACS

Figure 17. Share of Not Enrolled in 2016 by Age Cohort and City/Town Type



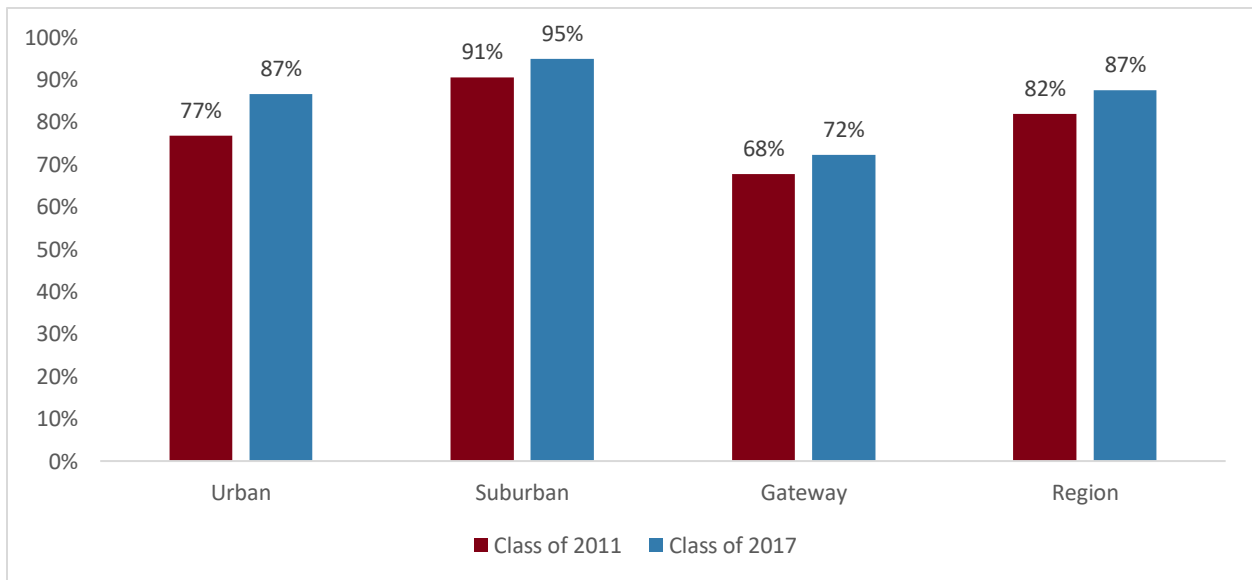
Source: ACS

A corollary to the enrollment rates above are high school graduation and college enrollment rates. The ACS data used for the enrollment analysis already shown examines the share of residents of the relevant age who are enrolled in education of some kind (either high school or college). As a result, it includes

youth who move to the region to attend school, a factor more relevant in the 20 to 24 cohort than the 15 to 19 cohort due to the older cohort being entirely of college age rather than a mix of high school and college ages. Because of a focus on residents, ACS data does not specifically address the outcomes of youth educated in the region. To supplement, we have included data from the Department of Elementary and Secondary Education (DESE) on high school graduation and college enrollment rates for the classes of 2011 and 2017 by sex, race/ethnicity, and city/town type.

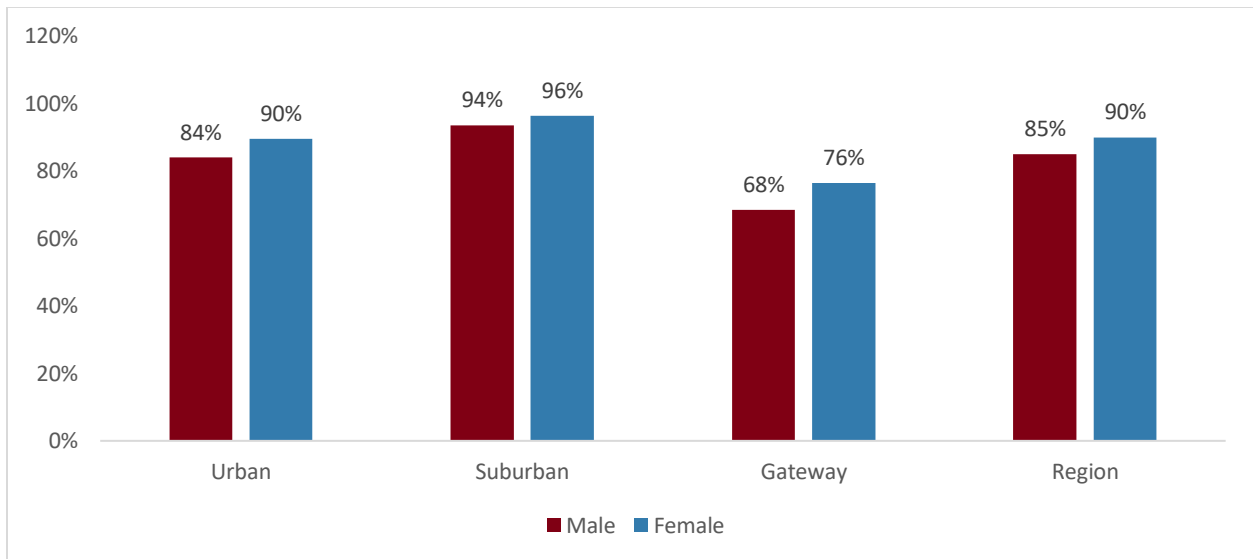
Since 2011, high school graduation rates have improved across all community types and demographic groups. Regionally, rates have increased from 82 percent to 87 percent. For both the class of 2011 and 2017, graduation rates were lowest in the Gateway Cities and highest in the suburbs. Across all regions, female students graduated at higher rates than male students, though again outcomes in the Gateway Cities were worse than in other communities such that the female cohort there graduated at a lower rate than the lowest male cohort elsewhere. The Gateway Cities also had the highest gap between male and female graduation rates at eight percent though the six percent gap in the urban communities is close behind.

Figure 18. High School Graduation Rate by Year and City/Town Type



Source: DESE

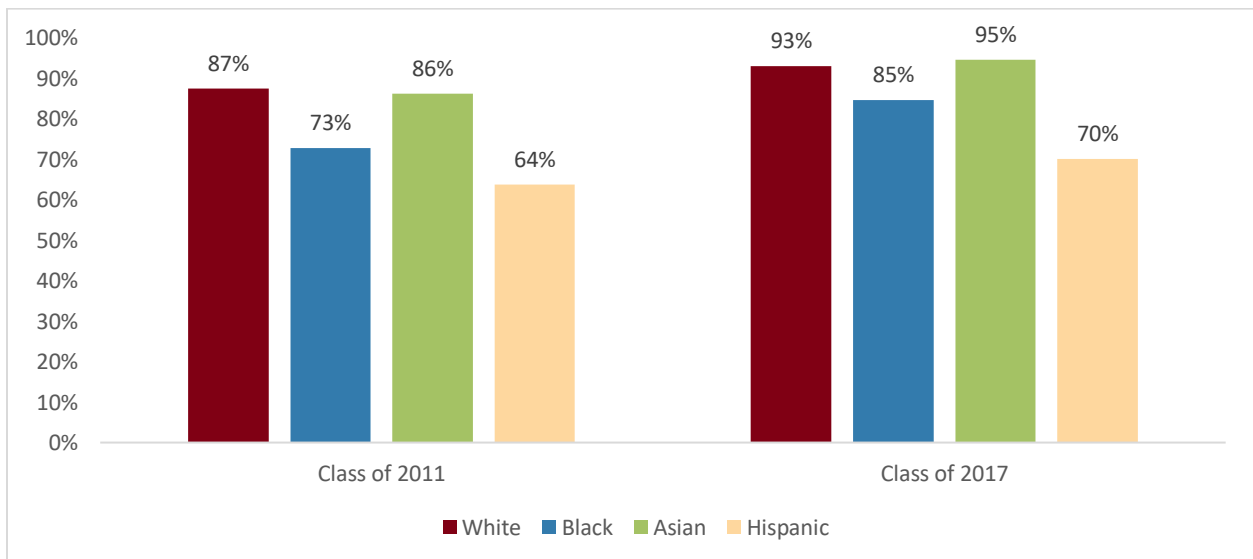
Figure 19. High School Graduation Rate for Class of 2017 by Sex and City/Town Type



Source: DESE

Figure 20 shows the high school graduation rate by race/ethnicity in both 2011 and 2017. It also shows that rates have improved markedly across the region for all groups, though black and Hispanic students continue to graduate at lower rates than white and Asian students. The disparity continues to hold even after adjusting for community type.

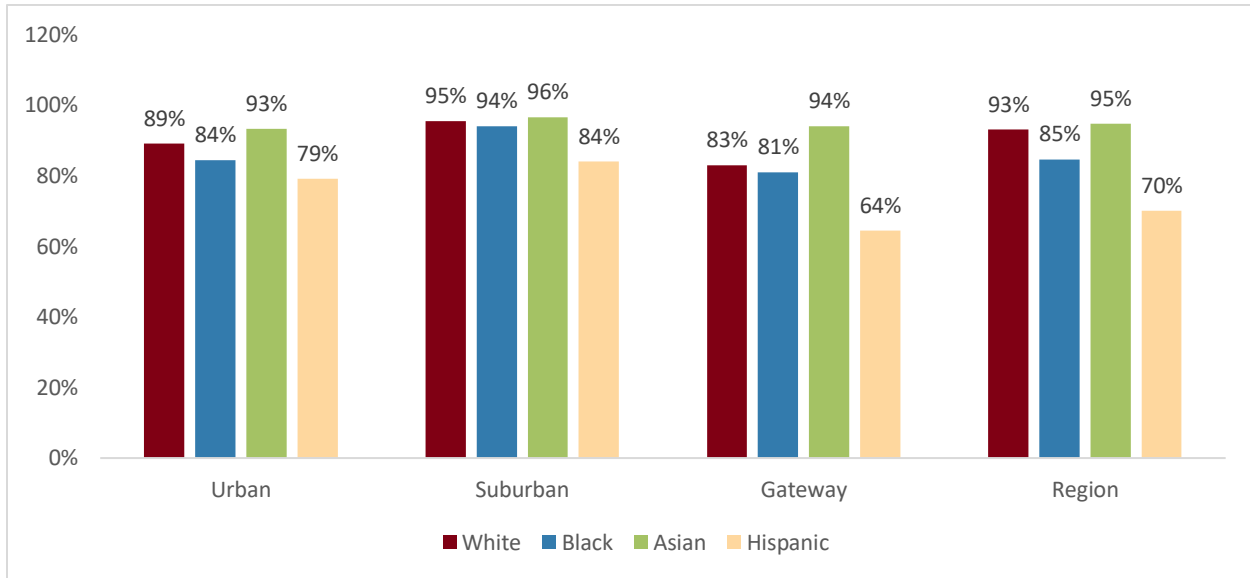
Figure 20. High School Graduation Rate in Metro North by Year and Race/Ethnicity



Source: DESE

By focusing only on 2017, we can further disaggregate high school graduation rates to examine rates across race/ethnicity and community type. Here the data shows that all groups but Asian students have their lowest graduation rates in Gateway Cities. Hispanic students in the suburbs have rates 20 percent higher than their peers in the Gateway Cities; white and black students show over 10 percent improvement. The graduation rates for Asian students are nearly identical across all community types and are higher than all other groups.

Figure 21. High School Graduation Rate for Class of 2017 by Race/Ethnicity and City/Town Type

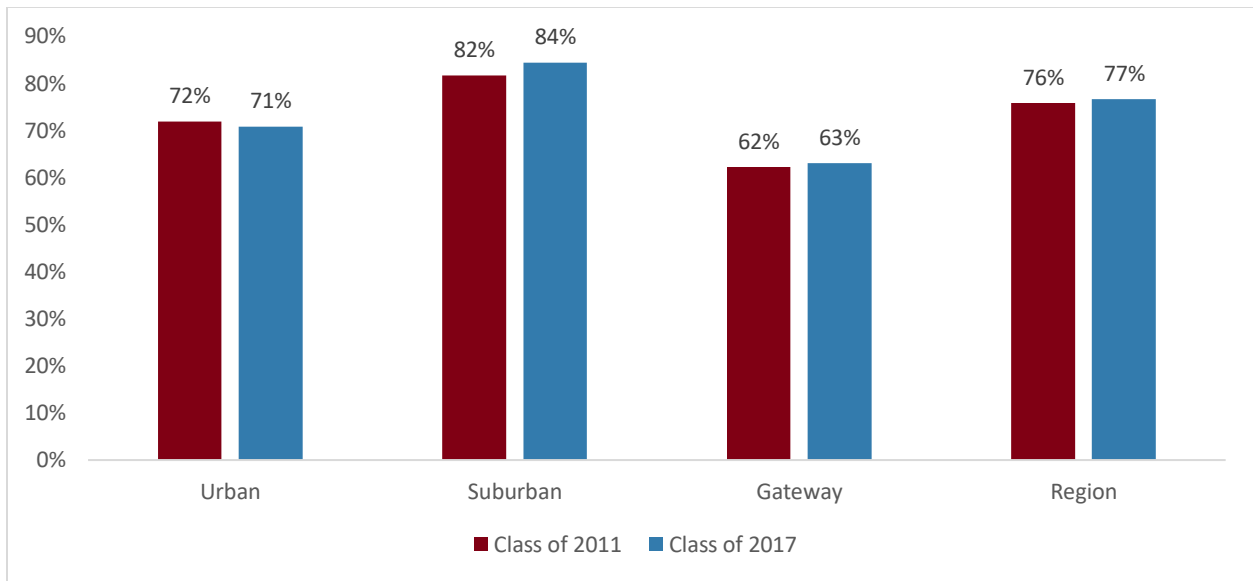


Source: DESE

The share of students that enroll in college after graduation reflects the same overall pattern among the community types as high school graduation rates though it does not reflect the same increases over time.⁴ Across the region, the enrollment rate has essentially been flat and currently averages 77 percent. Again similar to graduation rates, female students enroll in college at higher rates than male students in every community type. Here however, the differences are much more dramatic. The largest gap in graduation rates was eight percent which is smaller than the smallest difference in enrollment rates. Across the region, the average gap in college enrollment rates is 12 percent versus five percent for high school graduation rates.

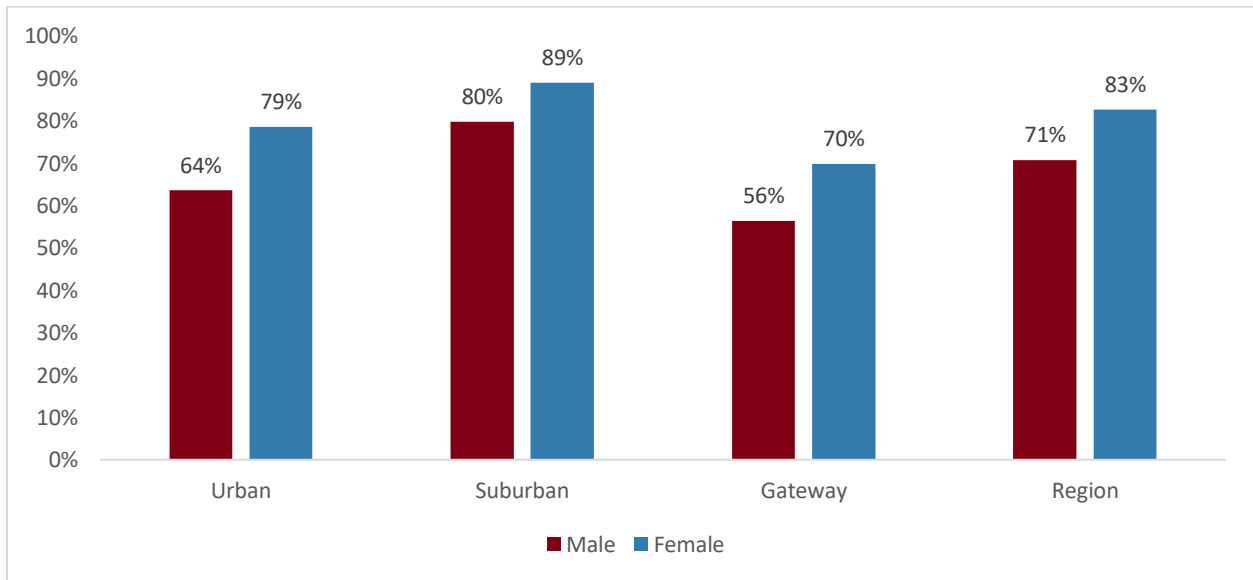
⁴ For 2011, college enrollment reflects the share of high school graduates enrolling in college within 16 months of graduating. For 2017, due to data availability, it is by March of the following year.

Figure 22. College Enrollment by Year and City/Town Type



Source: DESE

Figure 23. College Enrollment Rate for Class of 2017 by Sex and City/Town Type

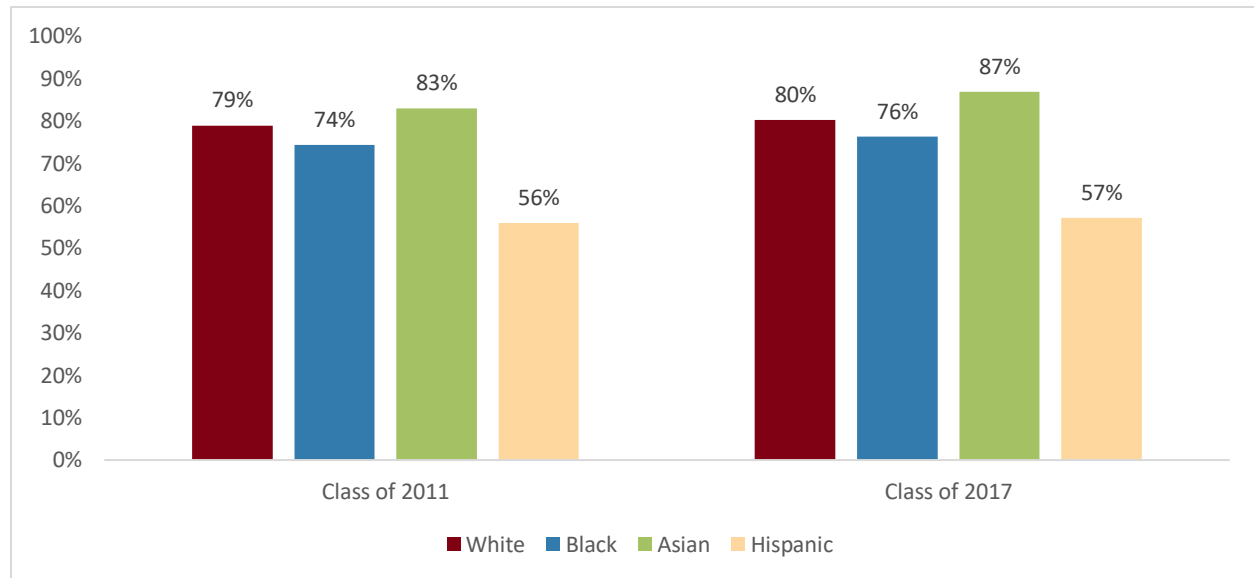


Source: DESE

Much as the regional data would suggest, the enrollment rates by race/ethnicity have increased, though only in the low single digits for all groups. Though there are some limitations with the college enrollment data by race (see notes for Figure 24 and Figure 25), the data is sufficiently robust to show that Hispanic

youth have a markedly lower rate of college enrollment than all other groups, though still over half enroll in college.

Figure 24. College Enrollment Rate in Metro North by Year and Race/Ethnicity⁵

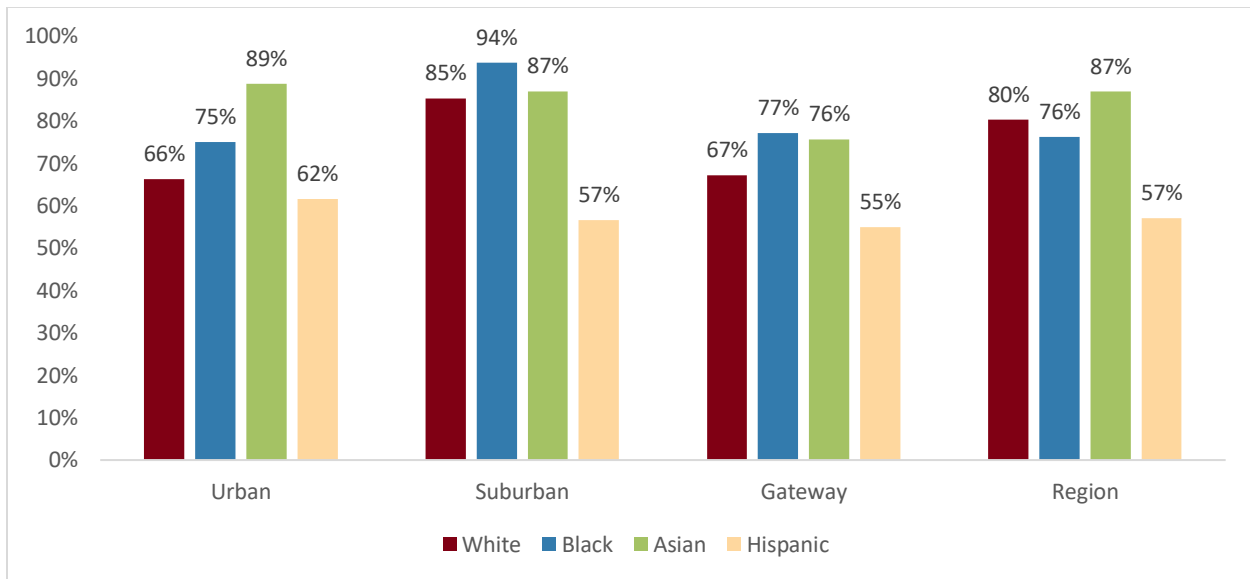


Source: DESE

Across communities, the data suggests that black and Asian students have a higher rates of college enrollment than white students yet at the regional level only Asian students retain a higher rate. The disparity is due to the number of students in each community and how they impact the average. The data only includes enrollment rates for 16 black suburban students while counting over 2,500 white suburban students. Nearly three-quarters of white youth are in the suburban schools while only three percent of black students (with full data availability) are there. That being said, the data availability is sufficient to suggest that in urban communities and Gateway Cities, a higher share of black students are enrolling in college compared to white students. This data may explain some of the similarity in enrollment status between black and Asian students seen in Figure 8.

⁵ The findings in this chart for **non-white students** should be used with care. Due to data suppression from DESE for cohorts less than 15, most of the **suburban communities** do not have statistics on the share of black, Asian, and Hispanic students enrolling in college. This chart only shows rates for communities with data for both graduates *and* enrollees and thus in some instances excludes graduation rates from nearly all suburban communities, e.g. of the 13 suburban communities only one (Melrose) had reportable data on college enrollment for black students in 2017 even though all 13 had black graduates.

Figure 25. College Enrollment Rate for Class of 2017 by Race/Ethnicity and City/Town Type⁶

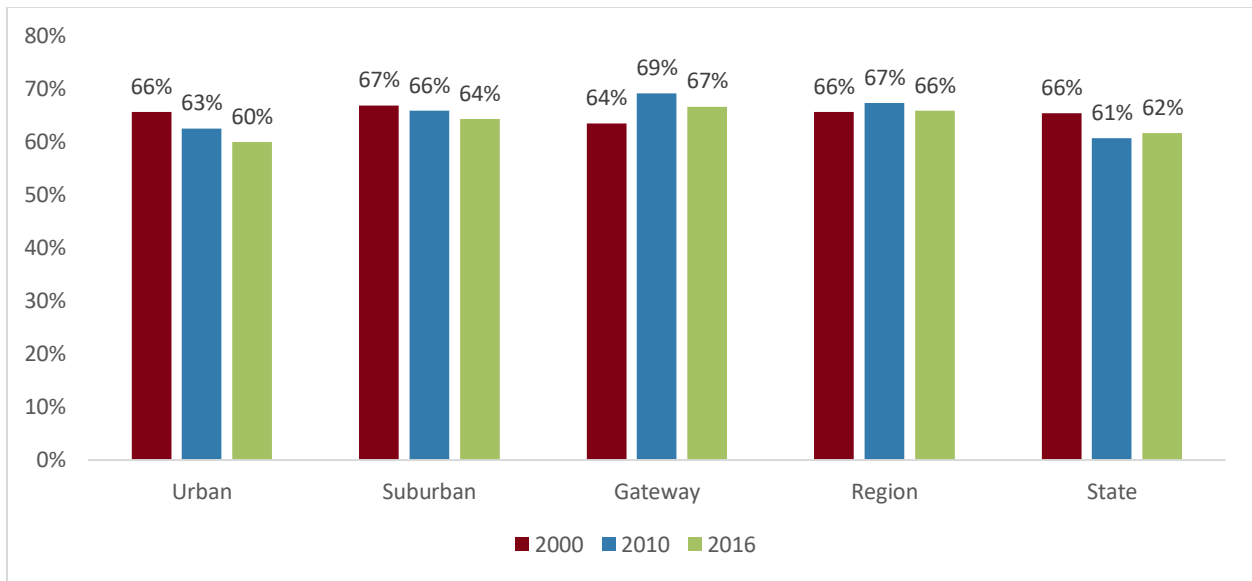


Source: DESE

Most youth not enrolled will choose to participate in the labor market. Across all community types and years, labor force participation rates (LFPR) are broadly similar, hovering around mid-60 percent. However, unemployment rates differ substantially. With similar participation rates and different unemployment rates, we can conclude that the employment rates also differ among the community types. For example, in 2016 the LFPR in the urban communities was 60 percent which is lower, but not substantially different, than the 67 percent seen in the Gateway Cities but the urban communities have an unemployment rate of eight percent compared to the 15 percent seen in the Gateway Cities. If the unemployment rate in the urban communities were of the same proportion to its LFPR as that of the Gateway Cities, its unemployment rate would be 13 rather than 8 percent. Generally, the differences suggest that urban youth have an easier time finding work than their peers in either suburban communities or Gateway Cities.

⁶ See previous note. Here the breakout by city/town type allows for a closer examination of college enrollment rates with nearly all of the suppressed data isolated in the observations for the suburban communities.

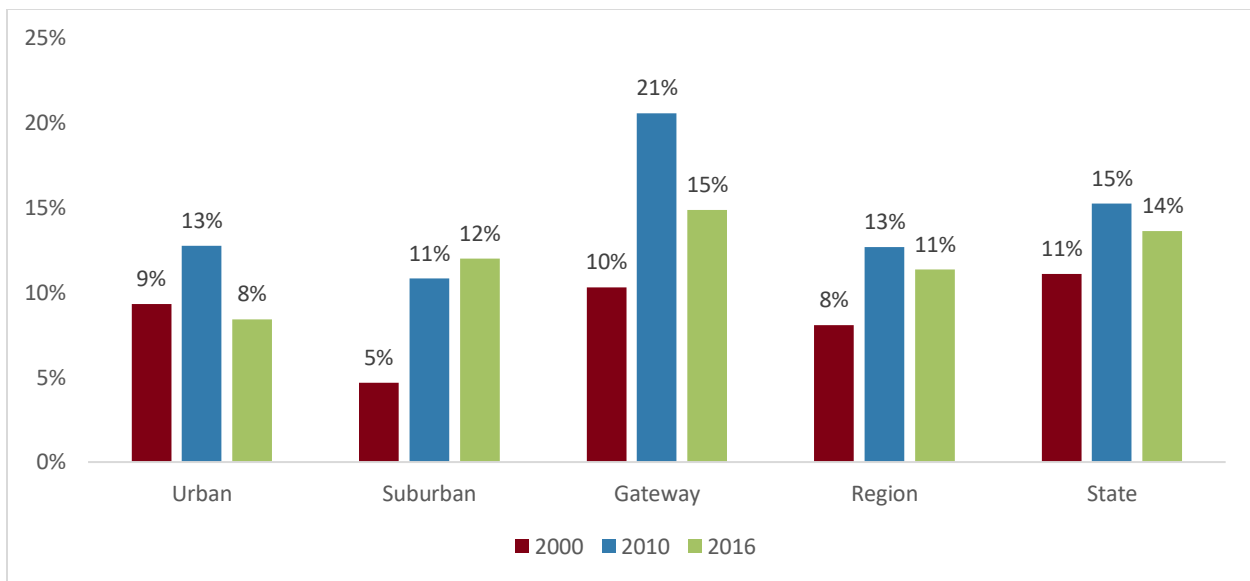
Figure 26. Labor Force Participation Rate by Year and City/Town Type (Ages 15-24)



Source: ACS

The changes over time in the LFPR and unemployment rate also imply differences in the ability of youth to find work. LFPR in the urban and suburban communities have fallen over the analysis period but their patterns of unemployment differ. In the urban communities, unemployment rates were highest in 2010 but have since come down while in the suburban communities the unemployment rate has continued to increase. The findings for the Gateway Cities are a mix of the other two: a significant drop in unemployment post-recession while remaining higher than in 2000. These findings also suggest that youth in the urban communities have fewer barriers to employment. It should be noted that this data does not tell us anything about job quality which could be materially different for youth depending on their place of residence.

Figure 27. Unemployment Rate by Year and City/Town Type (Ages 15-24)

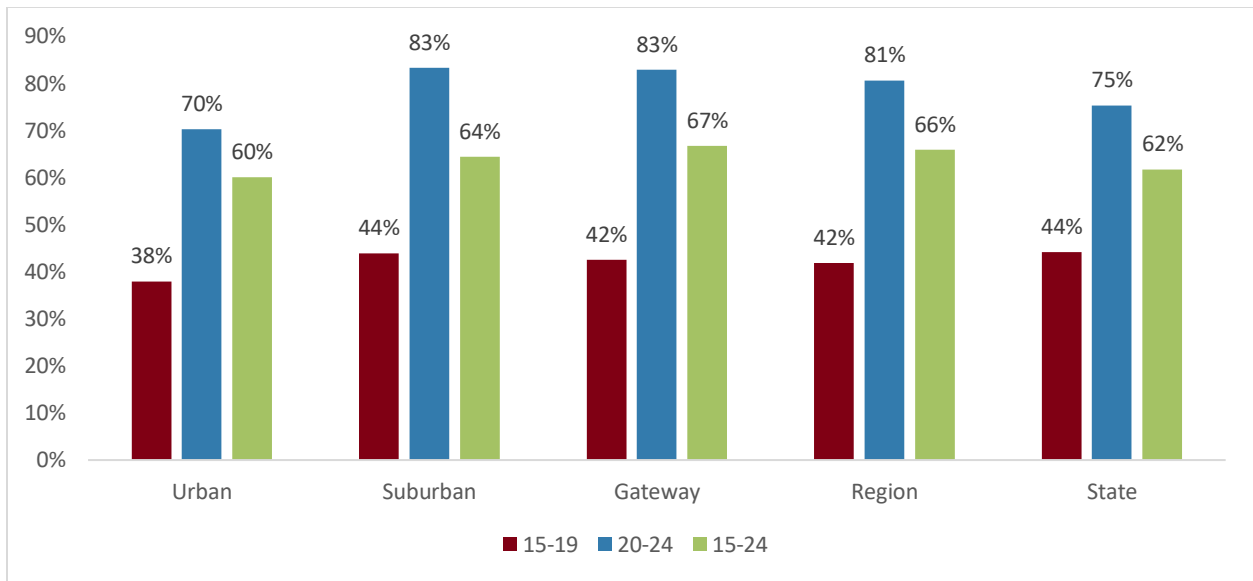


Source: ACS

Focusing on the most recent year and breaking down the data by age cohort, two consistent patterns emerge from the LFPR and unemployment rates. First, unsurprisingly, the older cohort (20-24) has considerably higher levels of labor force participation across all community types. In all but the urban communities, the LFPR is over 80 percent. The lower rate seen in the urban communities is likely a result of the high levels of enrollment found in these cities as those enrolled in school are often not labor force participants.

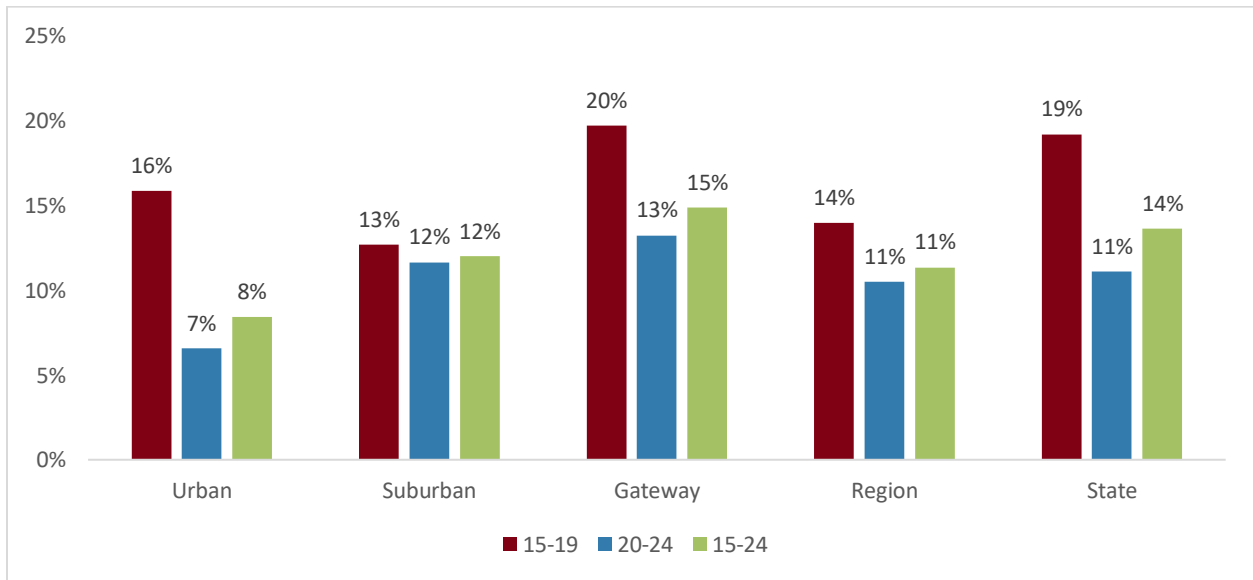
The other consistent pattern is the higher level of unemployment found in the younger cohort (16-19). Though their LFPR is lower, those that do participate have higher levels of unemployment than the older cohort across all community types though the size of the difference varies. In the suburban communities it is 13 percent, only one percent higher than the unemployment rate for the 20-24 cohort, while in the urban communities it is 16 percent which is double the rate of the older cohort. The unemployment rate is higher for residents of the Gateway Cities across all age groups but even here the younger group's unemployment rate of 20 percent is much higher than the 13 percent of the older cohort. It is likely that the higher unemployment rates for younger people are a symptom of the typically higher unemployment rates for those with less education. If youth in the 16-19 cohort are seeking employment then they are likely not enrolled in school implying either that they have dropped out of high school or at the very least are not enrolled full-time in higher education.

Figure 28. Labor Force Participation Rate in 2016 by Age Cohort and City/Town Type



Source: ACS

Figure 29. Unemployment Rate in 2016 by Age Cohort and City/Town Type



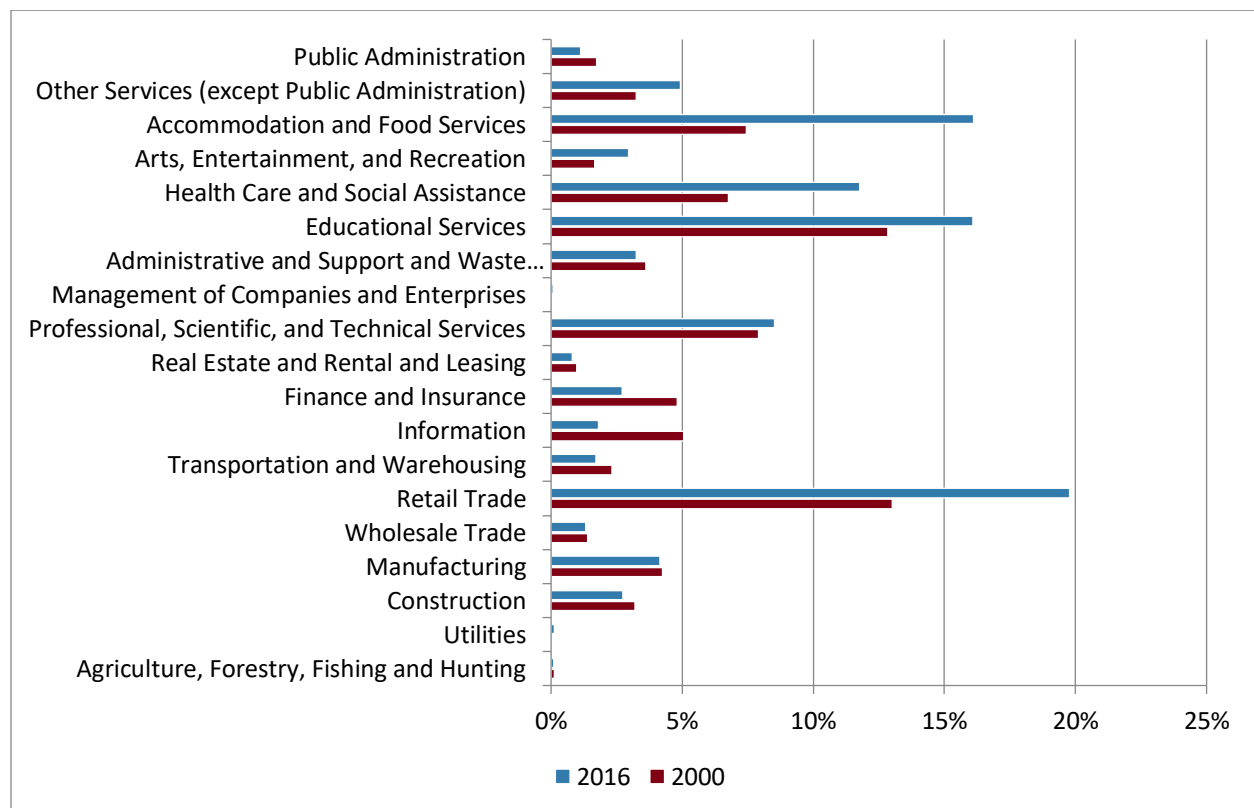
Source: ACS

Comparison of Youth Workers by Industry and Occupation

Employment by industry is employment by place of work rather than type of work, i.e. it only reflects the main business area of one’s employer and is independent of the nature of one’s work. For youth in metro north, employment in four industries comprise nearly two-thirds of all youth employment. In order of their share of the total they are retail trade, accommodations and food services, educational services, and health care and social assistance. All four have also grown as a share of total employment from 40 percent in 2000 to 64 percent 2016. For both cohorts, the largest increase in employment was in accommodations and food services which grew from seven to 16 percent of total employment for youth as a whole. The largest decrease for both cohorts was in the information industry which saw its share of total youth employment fall from five to under two percent.

When industry employment is evaluated by age cohort, the data shows that 55 percent of 16-19 year olds are employed in either retail or accommodations and food services versus 29 percent for the 20-24 year old cohort. Generally, the older group has a more diverse employment base and is especially overrepresented in professional, scientific, and technical services.

Figure 30. Share of Employment by Year and Industry (Ages 16-24)

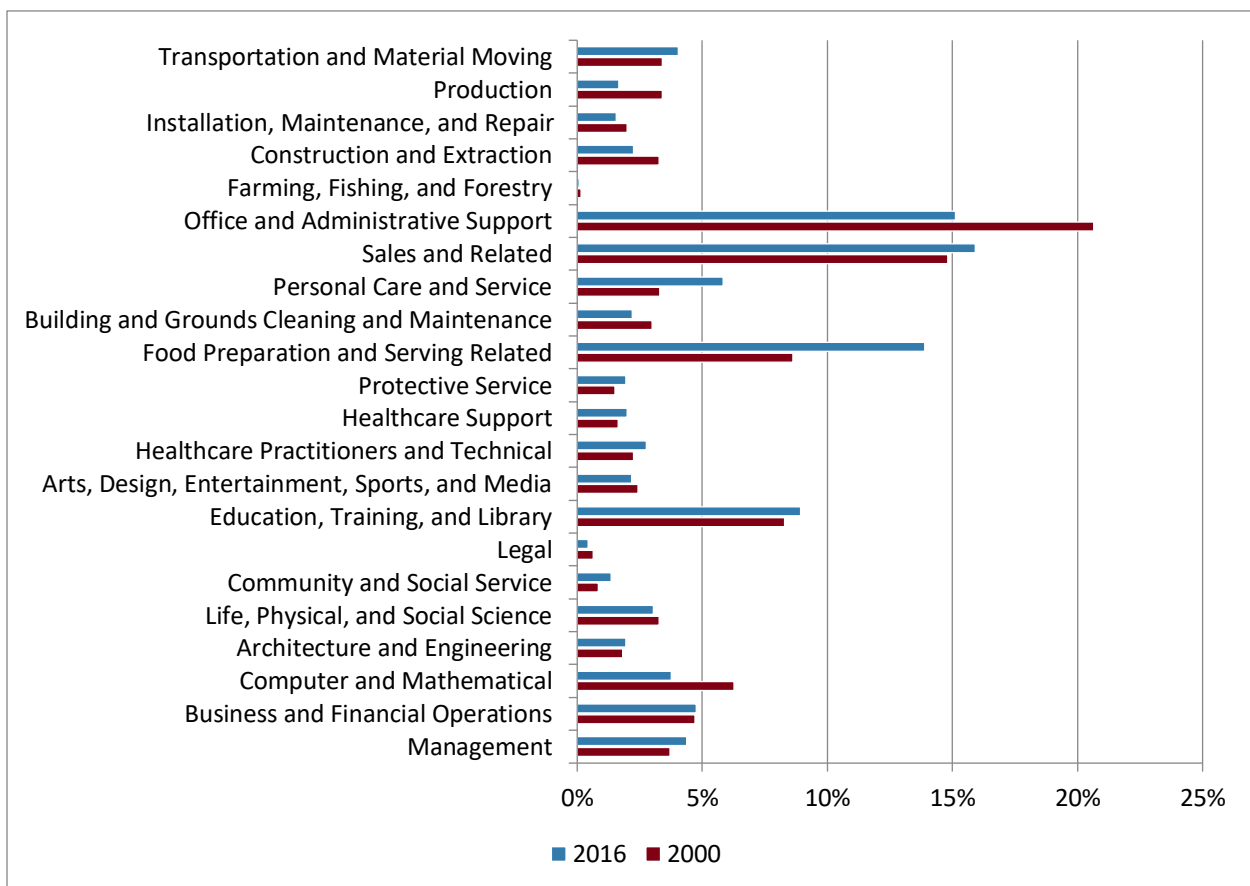


Source: ACS PUMS

Employment by occupation is employment by type of work rather than place of work, i.e. it only reflects the nature of one’s work and is independent of the main business area of one’s employer. The top four occupations comprise 54 percent of total employment: sales and related; office and administrative support; food preparation and serving; and education, training, and library occupations. Unlike with industry employment, occupational employment has not become substantially more concentrated in the top occupations, having only risen from 52 to 54 percent of the total. The largest shifts in occupation reflect the shifts observed in industry employment. The largest increase for both cohorts is food preparation and serving rising from nearly nine percent to 14 percent of total youth employment. The largest decrease is in computer and mathematical occupations decreasing from just over six to under four percent reflecting the reduced share of employment in the information industry sector.

Similarly to industry employment, the younger cohort is concentrated into fewer occupations than the older cohort: 46 percent of their jobs are in sales and food service and preparation compared to 24 percent for the older cohort.

Figure 31. Share of Employment by Year and Occupation (Ages 16-24)



Source: ACS PUMS

Review of Barriers to Youth Engagement and Resources Available

Young people in metro north may face a host of barriers as they try to gain education and training, or to enter the labor force. The first step to addressing barriers to employment is identifying barriers, both those general to the population – in this case, young people – as well as those specific to the person looking for a job. Often, people who have one barrier to employment face multiple barriers that may be interconnected.

Previous research of single mothers in Michigan found that 75 percent of the respondents who identified one barrier to employment were dealing with multiple barriers at the same time. Many barriers to employment are often interlinked, including substance abuse and a criminal record, low work skills and a learning disability, limited English proficiency and cultural/workplace misunderstandings, and more. Additionally, teenagers interviewed at the YouthBuild workforce training program in Cambridge identified substance abuse and mental health as additional interlinked barriers, sometimes brought on by a difficult home life.

One of the largest barriers that young people may face is the lack of entry-level jobs. As an increasing number of people in the metro north labor market have college degrees, young people with a lack of a high school diploma, or lack of post-secondary education or vocational training, are competing for entry-level jobs with people with more education and more skill.

Additionally, many jobs listed as “entry-level” are increasingly requiring some previous experience in the field, which creates an additional barrier for young people who are looking for their first job. In an interview, one Cambridge teenager expressed frustration with this trend, exclaiming, “Jobs want you to have like 5 years of retail experience. I’m only 18, how can I have that?” Education and job training programs are crucial to helping young people overcome the experience barrier and offer real-world experience and skills training that young people can put on their resumes to help entice employers to respond to their job application.

Although some areas in metro north like Cambridge, Chelsea, Somerville, Revere, and Malden have good public transportation options with the MBTA’s buses and subway lines, lack of access to reliable transportation remains one of the more challenging barriers to employment for young people. All of the teenagers at YouthBuild – hailing from Cambridge, Malden, Chelsea, and Boston – relied on public transportation. None of them had access to a car yet none said they considered access to transportation a barrier to employment or education. In more suburban areas of the region, where walkability is low and public transit is minimal or nonexistent, a lack of access to a car or no driver’s license is a serious barrier to employment. Placing continuing education and workforce development programs in areas near the target population and/or accessible to public transportation is key to diminishing this barrier, as is focusing on improving transportation access and options in the suburbs.

Yet access to such programs alone often isn't enough to remove the barriers that many young people may face in attaining further education or training; a lack of awareness of appropriate educational and vocational programs, rising costs of tuition, and little support or guidance from older adults may all be stopping young people from accessing programs necessary to increase their career options.

The Workforce Innovation and Opportunity Act Youth Program that the MassHire Metro North Workforce Board (MNWB) participates in is a series of development, training, and work experience programs that can help address these barriers. Some WIOA programs that may address these specific barriers are the GED Prep with Vocational Exploration programs in Chelsea and Malden for out-of-school youth, and the Just-A-Start Career Center and Bay Cove Academy Career Readiness programs for in-school youth.

MNWB may want to investigate investing in programs that offer exposure to more diverse industries. Interviewees in the Just-A-Start YouthBuild program expressed strong interest in job training programs in design, as well as allied health fields and public safety, yet were training in construction because that was the only industry YouthBuild offered exposure to. Both the creative economy fields (identified by the City of Boston broadly as "activities which have their origin in individual creativity, skill and talent which have a potential for wealth and job creation") and healthcare fields are growing industries, and MNWB could better serve youth if it seized upon opportunities for training in as many fields as possible.

The interviewees also said that where one lives has a large influence on their barriers and opportunities. They singled out the neighborhood more so than the municipality saying that the local environment has more influence on them and their choices. They said it would be helpful to have more outreach directly in their communities. Any changes or expansions to marketing, outreach, or even siting of programs could benefit from an evaluation of their proximity to the place of residence of the targeted youth, which could also help address some transportation and awareness gaps.

The "Amp It Up!" Initiative supports educating young people about the range of technology and innovation jobs that are available throughout Massachusetts, and is one program that addresses the lack of awareness barrier that many young people face.

Previous research has found that mentorship and agency guidance is crucial to helping young people apply to and enroll in postsecondary education or job training programs. Additionally, a regional employment board can help address barriers by providing education around existing assistance like financial aid and child care vouchers, to help inform individuals of their options.

Networking is crucial; many young people find out about educational and job training opportunities through their extended family or friends who have knowledge of specific programs. Others learn about these programs through school or hospital social workers. Many of the interviewees could point to one person who was the critical link in encouraging them to make use of available resources. Yet not all young people have access to someone with this knowledge. MNWB might do well to both expand the Amp It Up! initiative, as well as invest in expanded, targeted marketing campaigns of their programs, informing both those who work with young people, and the young people themselves of the benefits these programs offer.

Some barriers need to be addressed at the same time, while others do not need immediate attention. It is helpful to identify barriers that need to be addressed before the job search, as well as after hiring, to ensure that individuals retain employment. Previous studies of successful human service agencies have found that employment agencies that offer pre-employment training focused on work-related attitudes and habits that can help young people learn and develop the “soft skills” that are necessary to employment, beyond the technical skills needed to perform duties related to the job.

The statewide YouthWorks program, funded through the Commonwealth Corporation, is one program that works to address the barrier of lack of mentorship and soft skills. YouthWorks places young people into short-term, paid positions, mostly over the summer. But beyond job placement, the program offers participants training in soft skills and overall career guidance.

Place training is another strategy to addressing barriers that has been proven especially helpful to people with physical, mental, and learning disabilities. The ability to train on the job and learn the concrete tasks at hand can set people with these specific barriers up for success. Effective employment programs will bolster young people’s self-esteem by identifying and focusing on their strengths, while simultaneously addressing barriers.

Research has shown that the most impactful employment agencies will have different, specific tactics and policies in place to address different barriers, and will deploy these tactics in varying combinations. The teenagers interviewed in the Cambridge work development program emphasized that feeling safe with the teachers and administrators and having the freedom to make choices were key components to success in such programs. Listening to young people, working to identify barriers on an ongoing basis, and following up with services is key to helping them expand their education and employment opportunities.

Conclusions

Our analysis of the youth labor market of the metro north region of Massachusetts revealed that there is considerable variation in outcomes depending on both demographic and geographic factors. A summary of our key findings are listed below.

- The region's youth are becoming more diverse, though not as a result of immigration. This increasing diversity means more individuals from historically-disadvantaged groups.
- The data shows that white youth have better labor market and educational connections than black or Hispanic youth while falling below that of Asian youth, who have the lowest levels of unemployment and the highest levels of enrollment in metro north.
- Female youth have higher levels of educational enrollment than males in both the 15-19 and 20-24 cohorts. The difference has been growing in the older cohort and is now nearly ten percent (56 versus 47 percent) suggesting greater enrollment in higher education among women, which is consistent with national trends.
- Intraregional data suggests that urban youth face similar barriers to education as their peers in suburban or gateway cities. However, the data also suggests that they have lower barriers to employment.
- High school graduation and college enrollment rates suggest that the community of residence has a considerable impact on student outcomes independent of race/ethnicity. Current findings suggest this area is ripe for deeper evaluation.
- Two-thirds of youth work in only four industries: retail trade, accommodations and food services, educational services, and health care and social assistance.
- Occupational employment is more diverse. Only half of youth work in the top four occupations.
- For both industry and occupational employment, the younger cohort is concentrated into fewer areas than the older cohort, perhaps reflecting the greater opportunities that accompany experience and/or educational attainment.
- Urban youth do not identify transportation as barrier to work or education though it likely remains an issue for non-urban youth.
- The interviewed youth desired more choice in the type of programs offered for workforce training and better outreach in the communities in which they live.
- The interviewed youth also expressed a need to feel safe to discuss their problems with teachers and administrators while still retaining personal autonomy and a sense of agency.