

An Equity Profile of **Long Island**

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Equity Profiles are products of a partnership between PolicyLink and PERE, the Program for Environmental and Regional Equity at the University of Southern California.

The views expressed in this document are those of PolicyLink and PERE.

Summary

Long Island – defined as Nassau and Suffolk counties – is rapidly diversifying. Today, one in three Long Island residents is a person of color – up from roughly one in 10 residents in 1980. By 2050, nearly two in three residents will be people of color. Increasing diversity is a tremendous asset for the region, but not all people are able to access the resources and opportunities they need to thrive.

Black Long Islanders, who were largely excluded from the massive federally subsidized suburban development that characterizes Long Island, continue to face barriers to full social, economic, and political inclusion. Racial residential segregation, which is a fundamental cause of racial health disparities, remains high between Black and White residents, creating uneven access to opportunities. If new development does not address persistent racial inequities, the region's long-term economic future is at risk.

Long Island's economy could have been nearly \$24 billion stronger in 2014 alone if racial gaps in income were eliminated. Long Island's new growth model must be driven by equity – just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Leaders in the private, public, nonprofit, and philanthropic sectors must commit to putting all residents on the path to financial security through equity-focused strategies and policies that build community power and voice, cultivate homegrown talent, increase access to high-quality, affordable housing, and create sustainable neighborhoods for all.

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This equity profile and the accompanying policy brief are part of a series of reports produced in partnership with local community coalitions in Long Island, Fresno, Buffalo, Cincinnati, and Sacramento. These communities are also a part of the All-In Cities initiative at PolicyLink, which supports community leaders advancing racial economic inclusion and equitable growth. This initiative is generously supported by Prudential and the Surdna Foundation.

With the leadership and coordination of the Urban League of Long Island, we thank the members of the Long Island Advisory Council

for their invaluable partnership to review, drive community dialog, and outline recommendations using the data from this profile. It is our priority that the profile enables new community-driven solutions and policies that deliver impact for Nassau and Suffolk counties and the broader New York City region.

The analyses and recommendations were also informed by interviews conducted with a number of public, private, and nonprofit stakeholders including leaders from the Long Island Association, ERASE Racism, the Long Island Builders Institute, Suffolk County Community College, New York Communities for Change, Long Island Jobs with Justice, and Long Island Progressive Coalition.

This profile was written and maps prepared by Ángel Ross at PolicyLink; the data and charts were prepared by Sheila Xiao, Pamela Stephens, and Justin Scoggins at PERE; and Rosamaria Carrillo of PolicyLink assisted with editing and design. Rebecca Flournoy assisted with development of the framework.

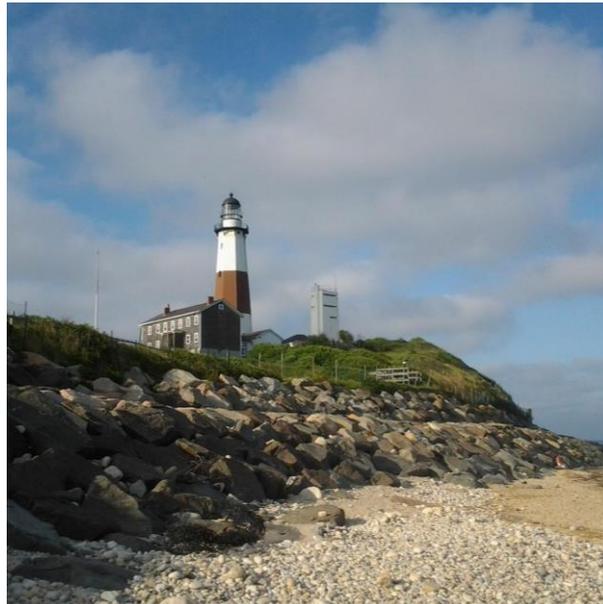
Thought-leadership Partners

Sol Marie Alfonso-Jones, Long Island Community Foundation
Pat Edwards, New York Tri-State, Citi Community Development
Jasmine Thomas, National Initiatives, Citi Community Development

Council of Advisors

Theresa Sanders, Urban League of Long Island
William Bailey, New York Communities for Change
Lynette Batts, Littig House Community Center
Bonnie Cannon, Bridgehampton Childcare & Recreation Center
Lois Cooper, Urban League of Long Island
Shirley Coverdale, Family Life Center of Riverhead
Rev. Charles Coverdale, First Baptist Church of Riverhead
Jacob Dixon, Choice for All
Evelyn Digsby, Interfaith & Interspiritual Minister, Community Health Advocate
Erica Edwards-O'Neal, ESQ., Community Advocate
Dr. Georgette Grier-Key, Cultural Historian
V. Elaine Gross, ERASE Racism
Martine Hackett, PHD Hofstra University
A.Brian Leander, Adelphi University
Sandra Mahoney, United Way of Long Island
Daphne Marsh, Community Advocate
Cheryl Mchunguzi, Psychotherapist
Rev. Saba Mchunguzi, Pastor, Unity Church of Healing Light
Risco Mention-Lewis, Deputy Police Commissioner Suffolk County Police Department
Billy Moss, President, NAACP Islip Town Branch
Facia Moss, Black Long Island Development, Inc.
Diane Myers, IBM / Urban League of Long Island BOD
Mimi Pierre Johnson, NY Communities for Change
Donna Raphael, Family and Children's Association
Brandon V. Ray, AT&T
Lisa Starling-McQueen, Education & Health Care Advocate
Rahsmia Zatar, Strong Youth, Inc

Introduction



Introduction

Overview

America's cities and metropolitan regions are the nation's engines of economic growth and innovation, and where a new economy that is equitable, resilient, and prosperous must be built.

Policy changes that advance *health equity* can guide leaders toward a new path of shared prosperity. Health equity means that everyone has a just and fair opportunity to be healthy. This requires removing obstacles to attaining and maintaining good health, such as poverty and discrimination, and addressing the social determinants of health: education, employment, income, family and social support, community safety, air and water quality, and housing and transit. Health equity promotes inclusive growth, because healthy people are better able to secure jobs, fully participate in society, and contribute to a vibrant local and regional economy.

This profile analyzes the state of health equity and inclusive growth on Long Island, and the accompanying policy brief, *Empowering Black Long Island: How Equity is Key to the Future of*

Nassau and Suffolk Counties, summarizes the data and presents recommendations to advance health equity and inclusive growth. They were created by PolicyLink and the Program for Environmental and Regional Equity (PERE) in partnership with Citi Community Development, the Long Island Community Foundation, and the Urban League of Long Island.

The data used in this profile were drawn from a regional equity indicators database that includes the largest 100 cities, the largest 150 metro areas, all 50 states, and the United States as a whole. The database incorporates hundreds of data points from public and private data sources including the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the Behavioral Risk Factor Surveillance System (BRFSS), and the Integrated Public Use Microdata Series (IPUMS). Note that while we disaggregate most indicators by major racial/ethnic groups, too little data on certain populations is available to report results confidently. See the "Data and methods" section for a more detailed list of

data sources.

We hope this information is used broadly by residents and community groups, elected officials, planners, business leaders, funders, and others working to build a stronger and more equitable Long Island.

Introduction

What is an equitable region?

Regions are equitable when all residents – regardless of race/ethnicity, nativity, income, neighborhood of residence, or other characteristics – can fully participate in the region’s economic vitality, contribute to its readiness for the future, and connect to its assets and resources.

Strong, equitable regions:

- Possess **economic vitality**, providing high-quality jobs to their residents and producing new ideas, products, businesses, and economic activity so the region remains sustainable and competitive.
- Are **ready for the future**, with a skilled, ready workforce, and a healthy population.
- Are **places of connection**, where residents can access the essential ingredients to live healthy and productive lives in their own neighborhoods, reach opportunities located throughout the region via transportation or technology, participate in political processes, and interact with other diverse residents.

Introduction

Why equity matters now

The face of America is changing.

Our country's population is rapidly diversifying. Already, more than half of all babies born in the United States are people of color. By 2030, the majority of young workers will be people of color. And by 2044, the United States will be a majority people-of-color nation.

Yet racial and income inequality is high and persistent.

Over the past several decades, long-standing inequities in income, wealth, health, and opportunity have reached unprecedented levels. Wages have stagnated for the majority of workers, inequality has skyrocketed, and many people of color face racial and geographic barriers to accessing economic opportunities.

Racial and economic equity is necessary for economic growth and prosperity.

Equity is an economic imperative as well as a moral one. Research shows that inclusion and diversity are win-win propositions for nations, regions, communities, and firms.

For example:

- More equitable regions experience stronger, more sustained growth.¹
- Regions with less segregation (by race and income) and lower income inequality have more upward mobility.²
- The elimination of health disparities would lead to significant economic benefits from reductions in health-care spending and increased productivity.³
- Companies with a diverse workforce achieve a better bottom line.⁴
- A diverse population more easily connects to global markets.⁵
- Less economic inequality results in better health outcomes for everyone.⁶

The way forward is with an equity-driven growth model.

To secure America's health and prosperity, the nation must implement a new economic model based on equity, fairness, and opportunity. Leaders across all sectors must remove barriers to full participation, connect more people to opportunity, and invest in human potential.

Regions play a critical role in shifting to inclusive growth.

Local communities are where strategies are being incubated to foster equitable growth: growing good jobs and new businesses while ensuring that all – including low-income people and people of color – can fully participate as workers, consumers, entrepreneurs, innovators, and leaders.

¹ Manuel Pastor, "Cohesion and Competitiveness: Business Leadership for Regional Growth and Social Equity," OECD Territorial Reviews, Competitive Cities in the Global Economy, Organisation For Economic Co-Operation And Development (OECD), 2006; Manuel Pastor and Chris Benner, "Been Down So Long: Weak-Market Cities and Regional Equity" in *Retooling for Growth: Building a 21st Century Economy in America's Older Industrial Areas* (New York: American Assembly and Columbia University, 2008); Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future" (Cleveland, OH: Federal Reserve Bank of Cleveland, 2006), <https://www.clevelandfed.org/newsroom-and-events/publications/working-papers/working-papers-archives/2006-working-papers/wp-0605-dashboard-indicators-for-the-northeast-ohio-economy.aspx>.

² Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Economic Opportunity? The Geography of Intergenerational Mobility in the U.S.," *Quarterly Journal of Economics* 129 (2014): 1553-1623, http://www.equality-of-opportunity.org/assets/documents/mobility_geo.pdf.

³ Darrell Gaskin, Thomas LaVeist, and Patrick Richard, *The State of Urban Health: Eliminating Health Disparities to Save Lives and Cut Costs* (New York, NY: National Urban League Policy Institute, 2012).

⁴ Cedric Herring, "Does Diversity Pay?: Race, Gender, and the Business Case for Diversity," *American Sociological Review* 74 (2009): 208-22; Slater, Weigand and Zvirlein, "The Business Case for Commitment to Diversity," *Business Horizons* 51 (2008): 201-209.

⁵ U.S. Census Bureau, "Ownership Characteristics of Classifiable U.S. Exporting Firms: 2007," Survey of Business Owners Special Report, June 2012, https://www2.census.gov/econ/sbo/07/sbo_export_report.pdf.

⁶ Kate Pickett and Richard Wilkinson, "Income Inequality and Health: A Causal Review," *Social Science @ Medicine* 128 (2015): 316-326.

Introduction

Equity indicators framework

The indicators in this profile are presented in five sections. The first section describes the region's demographics. The next three sections present indicators of the region's economic vitality, readiness, and connectedness. The final section explores the economic benefits of equity. Below are the questions answered within each of the five sections.

Demographics:

Who lives in the region, and how is this changing?

- Is the population growing?
- Which groups are driving growth?
- How diverse is the population?
- How does the racial composition vary by age?

Economic vitality:

How is the region doing on measures of economic growth and well-being?

- Is the region producing good jobs?
- Can all residents access good jobs?
- Is growth widely shared?
- Do all residents have enough income to sustain their families?
- Are race/ethnicity and nativity barriers to economic success?
- What are the strongest industries and occupations?

Readiness:

How prepared are the region's residents for the 21st century economy?

- Does the workforce have the skills for the jobs of the future?
- Are all youth ready to enter the workforce?
- Are residents healthy? Do they live in health-promoting environments?
- Are health disparities decreasing?
- Are racial gaps in education decreasing?

Connectedness:

Are the region's residents and neighborhoods connected to one another and to the region's assets and opportunities?

- Do residents have transportation choices?
- Can residents access jobs and opportunities located throughout the region?
- Can all residents access affordable, quality, convenient housing?
- Do neighborhoods reflect the region's diversity? Is segregation decreasing?

Economic benefits:

What are the benefits of racial economic inclusion to the broader economy?

- What are the projected economic gains of racial equity?
- Do these gains come from closing racial wage or employment gaps?

Introduction

Policy change is the path to health equity and inclusive growth

Equity is just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Health equity, as defined by the Robert Wood Johnson Foundation, means that everyone has a just and fair opportunity to be healthy. This requires removing obstacles to health such as poverty, discrimination, and their consequences, which include powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

Many of the conditions and policies that advance health equity also promote inclusive growth. Healthy people are better able to secure jobs and participate in their full capacity, creating a vibrant local economy. In a highly complementary way, equitable economic growth – where all residents have access to good jobs and entrepreneurial opportunities – supports the health of residents throughout the region. This happens through tackling structural barriers and ensuring greater economic security, which reduces stress and increases people's access to health care and preventive services.¹

Ensuring that policies and systems serve to increase inclusion and remove barriers is particularly important given the history of urban and metropolitan development in the United States. Regions and cities are highly segregated by race and income. Today's cities are patchworks of concentrated advantage and disadvantage, with some neighborhoods home to good schools, bustling commercial districts, services, parks, and other crucial ingredients for economic success, while other neighborhoods provide few of those elements.

These patterns of exclusion were created and continue to be maintained by public policies at the federal, state, regional, and local levels. From redlining to voter ID laws to exclusionary zoning practices and more, government policies have fostered racial inequities in health, wealth, and opportunity. Reversing the trends and shifting to equitable growth requires dismantling barriers and enacting proactive policies that expand opportunity.

Health equity can be achieved through policy and systems changes that remove barriers, and build opportunity, and address the social determinants of health, or the factors outside of the health-care system that play a fundamental role in health outcomes. Social determinants of health include both structural drivers, like the inequitable distribution of power and opportunity, and the environments of everyday life – where people are born, live, learn, work, play, worship, and age.² There are seven key social determinants of health: education, employment, income, family and social support, community safety, air and water quality, and housing and transit.³

¹ Steven H. Woolf, Laudan Aron, Lisa Dubay, Sarah M. Simon, Emily Zimmerman, and Kim X. Luk, *How Are Income and Wealth Linked to Economic Longevity* (Washington, DC: The Urban Institute and the Center on Society and Health, April 2015), <http://www.urban.org/sites/default/files/publication/49116/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>.

² Rachel Davis, Diana Rivera, and Lisa Fujie Parks, *Moving from Understanding to Action on Health Equity: Social Determinants of Health Frameworks and THRIVE* (Oakland, CA: The Prevention Institute, August 2015), <https://www.preventioninstitute.org/sites/default/files/publications/Moving%20from%20Understanding%20to%20Action%20on%20Health%20Equity%20%E2%80%93%20Social%20Determinants%20of%20Health%20Frameworks%20and%20THRIVE.pdf>.

³ County Health Rankings and Roadmaps, “Our Approach” (University of Wisconsin Population Health Institute, 2016), <http://www.countyhealthrankings.org/our-approach>.

Introduction

Health equity and inclusive growth are intertwined

The interconnection between health equity and inclusive growth can be seen across the four dimensions of our framework.

Economic vitality

In a region that cultivates inclusive growth and health equity, good jobs are accessible to all, including less-educated workers, and residents have enough income to sustain their families and save for the future. The region has growing industries, and race/ethnicity and nativity are not barriers to economic success. Economic growth is widely shared, and incomes among lower-paid workers are increasing. The population becomes healthier and more productive, since income is a documented determinant of good health, and reduced economic inequality has been linked to better health outcomes for everyone.

Readiness

In a region that cultivates inclusive growth and health equity, all residents have the skills needed for jobs of the future, and youth are ready to enter the workforce. High levels of good health are found throughout the

population, and racial gaps in health are decreasing. Residents have health insurance and can readily access health-care services.

Connectedness

In a region that cultivates inclusive growth and health equity, residents have good transportation choices linking them to a wide range of services that support good health and economic and educational opportunities. Many residents choose to walk, bike, and take public transit – increasing exercise for these residents and reducing air pollution, which positively influence health. Local neighborhood and school environments support health and economic opportunity for all residents, allowing everyone to participate fully in the local economy. Neighborhoods are less segregated by race and income, and all residents wield political power to make their voices heard.

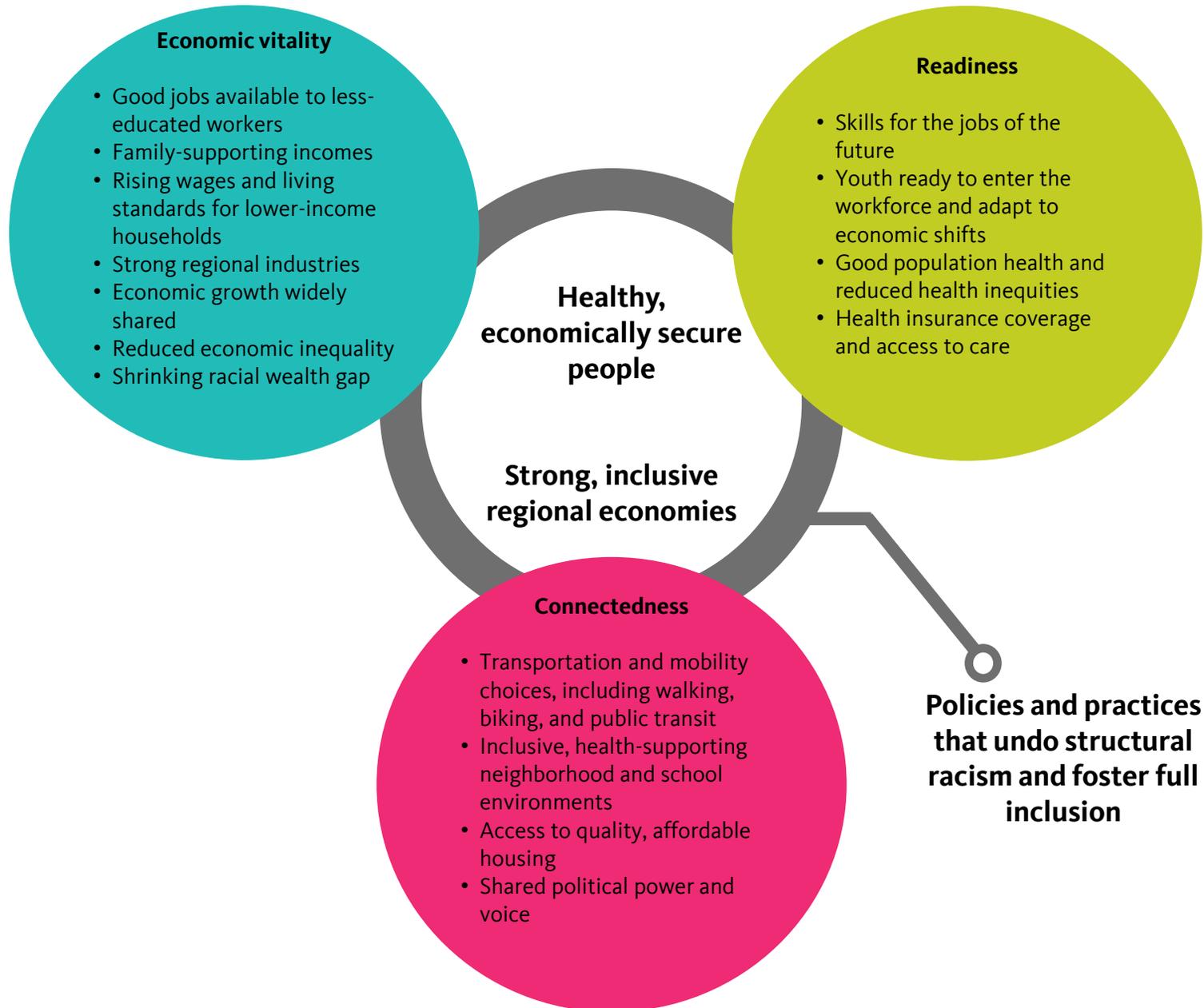
Economic benefits

The elimination of racial health disparities and improving health for all generates significant economic benefits from reductions in health-

care spending and increased productivity. Research shows that economic growth is stronger and more sustainable in regions that are more equitable.

Introduction

Key drivers of health equity and inclusive growth

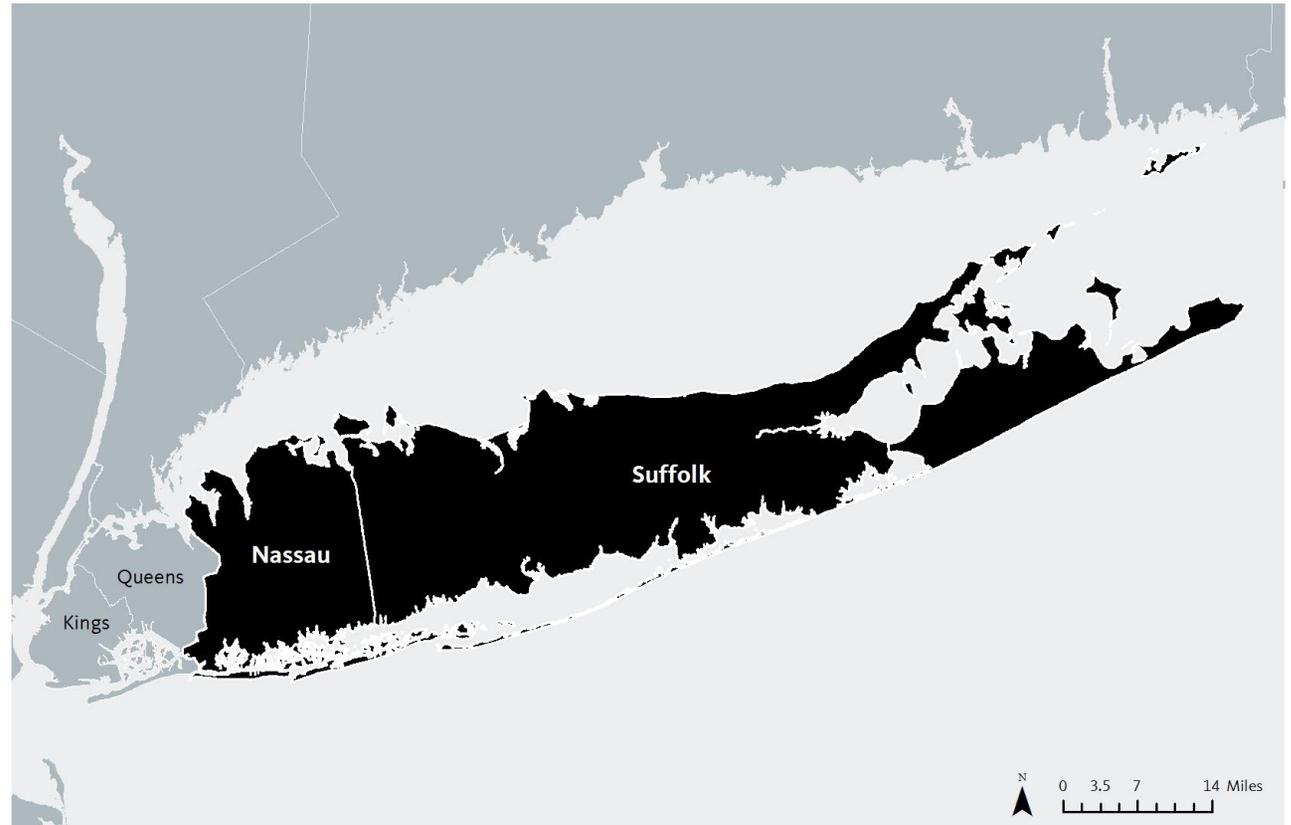


Introduction

Geography

This profile describes demographic, economic, and health conditions on Long Island, defined as Nassau and Suffolk counties and portrayed in black on the map to the right. Long Island is situated within the broader 23-county New York-Northern New Jersey-Long Island, NY-NJ-PA metropolitan statistical area.

Unless otherwise noted, all data presented in the profile follow this two-county geography, which is simply referred to as “Long Island.” Some exceptions due to lack of data availability are noted beneath the relevant figures. Information on data sources and methodology can be found in the “Data and methods” section beginning on page 104.



Demographics



Demographics

Highlights

Who lives in the region, and how is this changing?

- By 2014, one in three Long Island residents were people of color – up from roughly one in 10 residents in 1980.
- Of the more than 930,000 people of color on Long Island, 27 percent are Black.
- The people-of-color population share is growing in both counties, although the pace of growth is faster in Suffolk County than Nassau County.
- Diverse groups, especially Latinos, Asians or Pacific Islanders, and those of mixed/other races are driving growth and change in the region and will continue to do so for the foreseeable future.

Black population growth since 2000:

13%

Net change in the White population since 2000:

-190,768

Share of net Black population growth attributable to immigrants:

60%

Demographics

A moderately diverse region

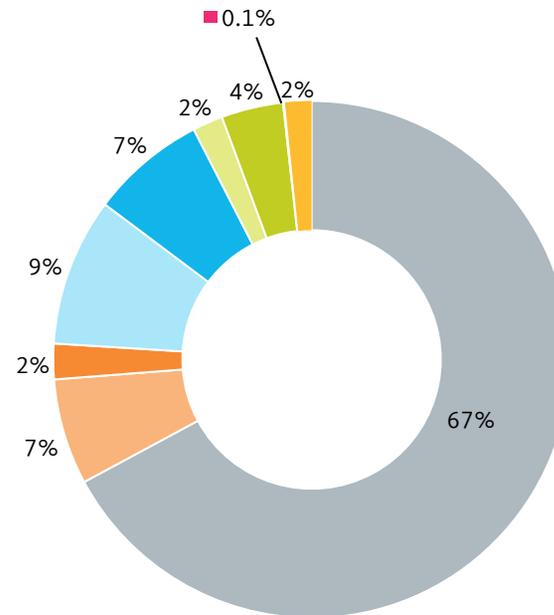
In the region, 33 percent of residents are people of color, including a diverse mix of racial and ethnic groups. **African Americans make up 7 percent of Long Island and Black immigrants account for another 2 percent.** A majority of Black Long Islanders list their ancestry as “African American” although **Haitians and Jamaicans make up nearly a quarter of the region’s Black population.**

Latinos make up 16 percent of the region’s population, with Salvadorans and Puerto Ricans accounting for the largest Latino ancestry groups. Asians or Pacific Islanders account for 6 percent of the total population, and people of Indian and Chinese ancestry make up the largest Asian or Pacific Islander subgroups.

One in three Long Islanders were people of color in 2014

Race/Ethnicity and Nativity, 2014

- White
- Black, U.S.-born
- Black, Immigrant
- Latino, U.S.-born
- Latino, Immigrant
- Asian or Pacific Islander, U.S.-born
- Asian or Pacific Islander, Immigrant
- Native American and Alaska Native
- Mixed/other



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

People of Haitian and Jamaican ancestry make up nearly a quarter of the Black population on Long Island

Black and Latino Populations by Ancestry, 2014

Black Ancestry	Population
Haitian	31,721
Jamaican	28,505
Trinidadian/Tobagonian	3,609
Guyanese	2,629
Nigerian	2,113
Barbadian	1,271
All other Blacks	182,449
Total	252,297

Latino Ancestry	Population
Salvadoran	98,289
Puerto Rican	65,470
Dominican	46,108
Ecuadorian	24,698
Mexican	23,825
Colombian	23,231
All other Latinos	188,063
Total	469,685

Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

Demographics

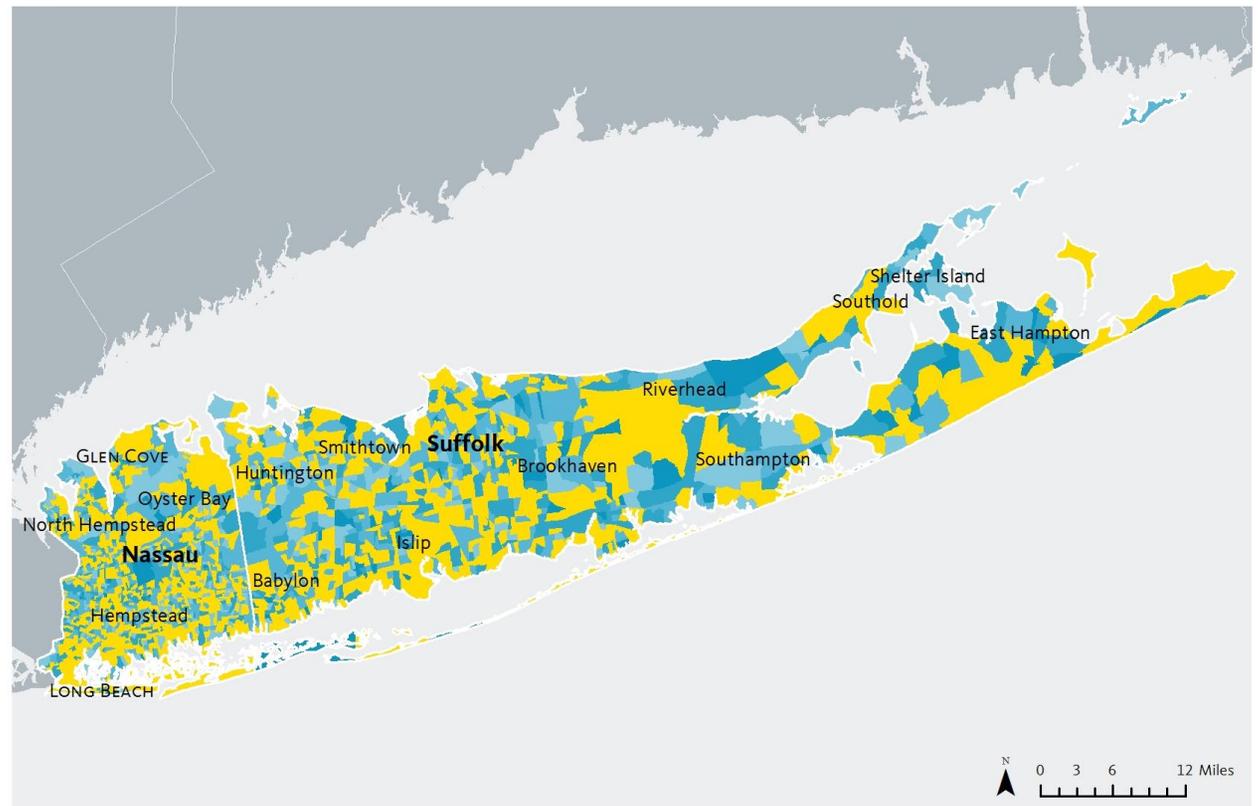
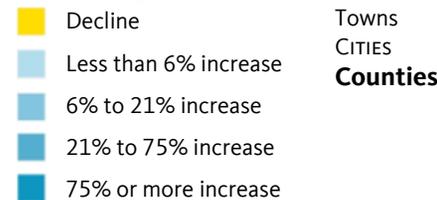
A growing region with overall population growth, but many areas experiencing decline

Since 2000, the region’s overall population increased from 2.75 million to 2.85 million residents. Yet pockets of population loss can be found across both counties – symbolized in yellow on the map to the right. One block group in Long Beach lost more than 2,000 residents from 2000 to 2014, as did a block group near Hofstra University. Another block group near Brookhaven Airport lost 1,500 residents.

On the other hand, over half of block groups experienced population growth. The block group that includes Nassau Community College experienced an increase of nearly 5,000 residents and a block group in Manorville that includes the Rock Hill Country Club grew by over 4,000 residents.

Despite overall population growth, there are pockets of population decline throughout the region

Percent Change in Total Population by Census Block Group, 2000 to 2014



Sources: U.S. Census Bureau; Geolytics, Inc.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

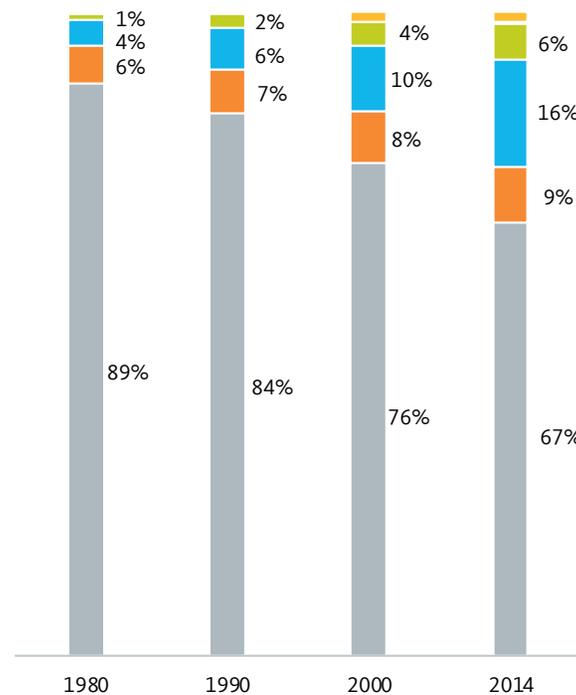
Steady demographic change over the past several decades

Growth of communities of color has fueled overall population growth in the region. In fact, the White population has declined in each decade since 1980. The region's diverse communities of color, on the other hand, have continued to grow at a steady pace. Over the last 30 years, the people-of-color population share nearly tripled, adding more than 642,000 people.

The Black population grew from 6 percent in 1980 to 9 percent in 2014. **In 1980, nearly 158,000 Black residents lived on Long Island. By 2014, that number had increased to over 252,000 people.** Over the same time period, the White population share decreased by 22 percentage points.

The population is steadily diversifying
Racial/Ethnic Composition, 1980 to 2014

- Mixed/other
- Native American
- Asian or Pacific Islander
- Latino
- Black
- White

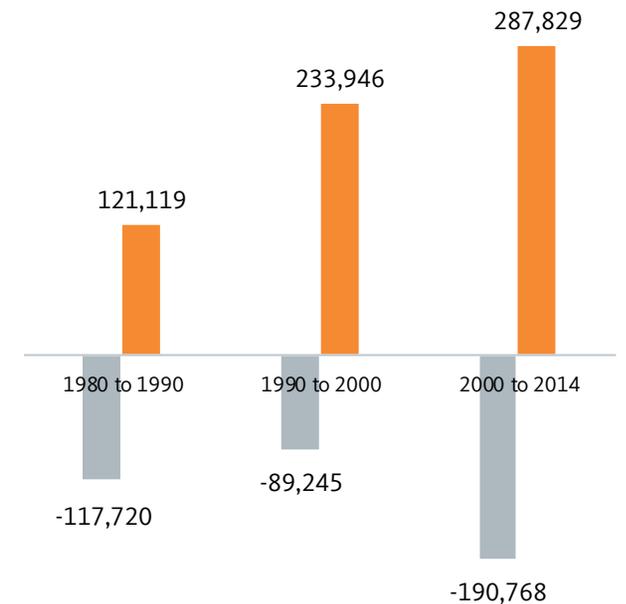


Source: U.S. Census Bureau.
Note: Data for 2014 represent a 2010 through 2014 average. Much of the increase in the Mixed/other population between 1990 and 2000 is due to a change in the survey question on race.

The people-of-color population has grown since 1980, but the White population has significantly declined

Composition of Net Population Growth by Decade, 1980 to 2014

- White
- People of Color



Source: U.S. Census Bureau.
Note: Data for 2014 represent a 2010 through 2014 average.

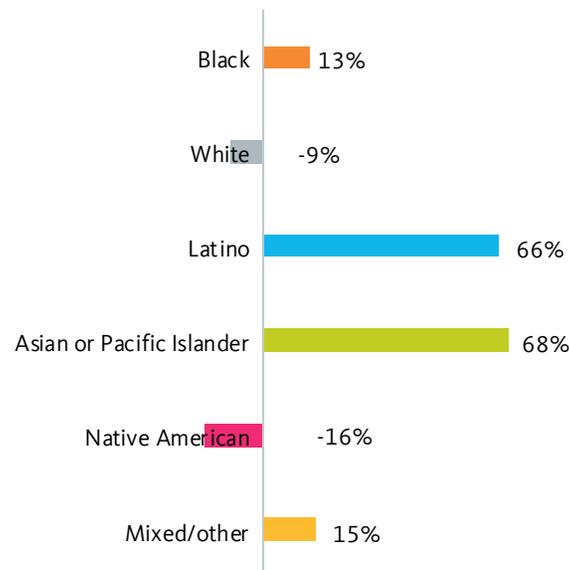
Demographics

Black population steadily increasing

The Asian or Pacific Islander and Latino populations grew the fastest in the last decade by far. Those of mixed/other races and the Black population also saw modest population growth while White and Native Americans experienced declines. Asians or Pacific Islanders were the fastest growing group adding over 66,000 residents, but Latinos had the largest absolute increase of over 185,000 people. Those of mixed/other races grew by over 6,000 residents and **the Black population grew by over 29,000 people from 2000 to 2014**. The White population saw the largest absolute decline, decreasing by 190,000. The Native American and Alaskan Native population declined by nearly 700 and accounted for 3,600 total residents in 2014.

Growth in the region's Black population is driven largely by increases in the immigrant population (60 percent), while growth in the Latino community is driven more by U.S.-born Latinos (60 percent).

The Asian or Pacific Islander and Latino populations grew the fastest from 2000 to 2014
Growth Rates of Major Racial/Ethnic Groups, 2000 to 2014

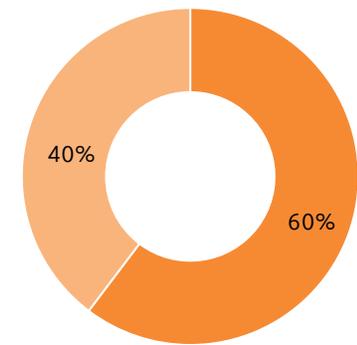


Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

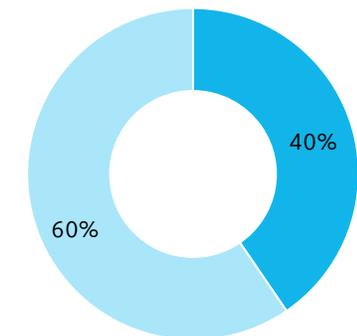
Black population growth was largely due to immigration, while Latino population growth was driven by increases in U.S.-born Latinos

Share of Net Growth in Black and Latino Populations by Nativity, 2000 to 2014

■ Foreign-born Black
 ■ U.S.-born Black



■ Foreign-born Latino
 ■ U.S.-born Latino



Source: Integrated Public Use Microdata Series.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

People of color are fueling population growth in both Nassau and Suffolk counties

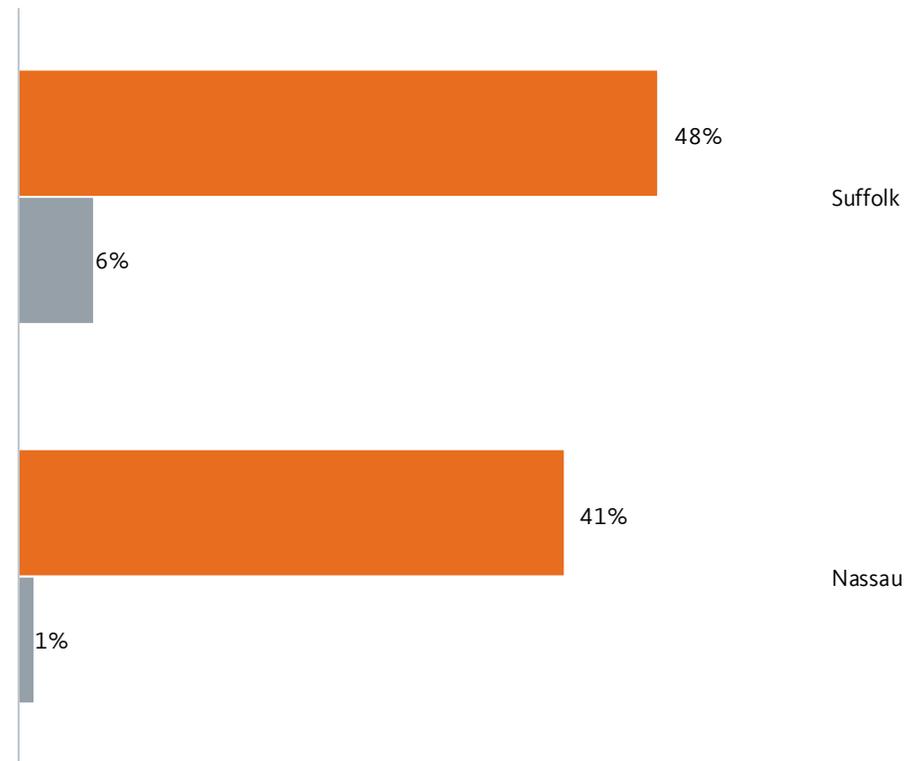
The region's population increased by 4 percent, or 97,000 people, and much of this change was driven by growth in Suffolk County, which grew by 81,000 residents (6 percent). Nassau County grew by just 16,000 residents (1 percent).

Communities of color are growing significantly faster than the total population in both counties. The total growth in people of color across both counties was 44 percent, but it was higher in Suffolk County, which is slightly less diverse than Nassau County.

The people-of-color population is growing in both counties

Percent Change in Population, 2000 to 2014 (in descending order by 2014 county population)

- People of Color Growth
- Total Population Growth



Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

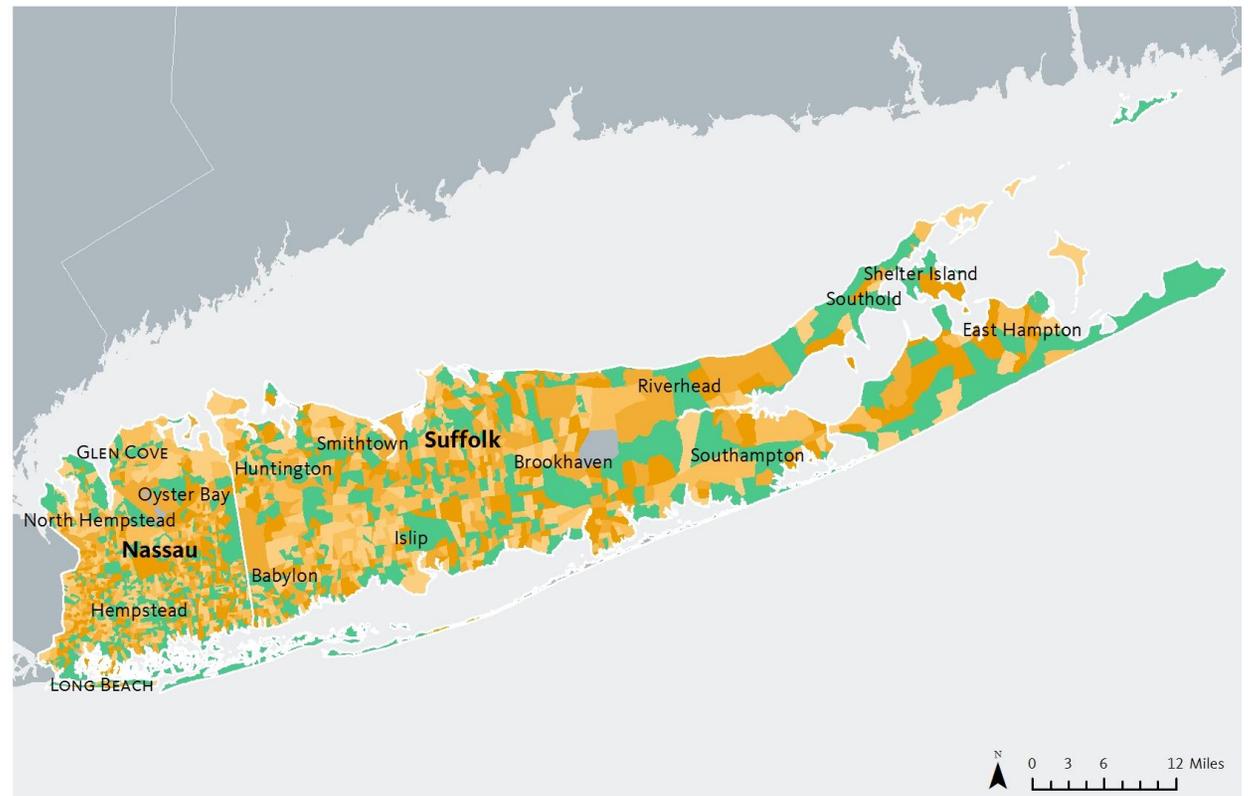
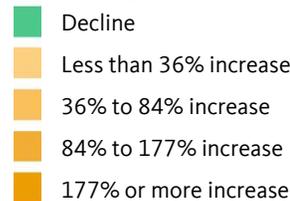
Communities of color are growing throughout the region

Even with pockets of population decline throughout the region, rapidly growing communities of color can be found across the region. More than 70 percent of block groups in the region experienced growth in the people-of-color population from 2000 to 2014. One block group in the unincorporated hamlet of Shirley went from less than 2 percent people of color in 2000 to majority people of color in 2014.

Importantly, communities of color are growing throughout the region in both counties and in all towns.

Substantial growth in communities of color throughout the region

Percent Change in People of Color by Census Block Group, 2000 to 2014



Sources: U.S. Census Bureau; Geolytics, Inc.

Note: To more accurately visualize change, block groups with a small populations (50 or fewer people in either 2000 or 2014) were excluded from the analysis. Excluded block groups are shaded in grey. Data for 2014 represent a 2010 through 2014 average.

Demographics

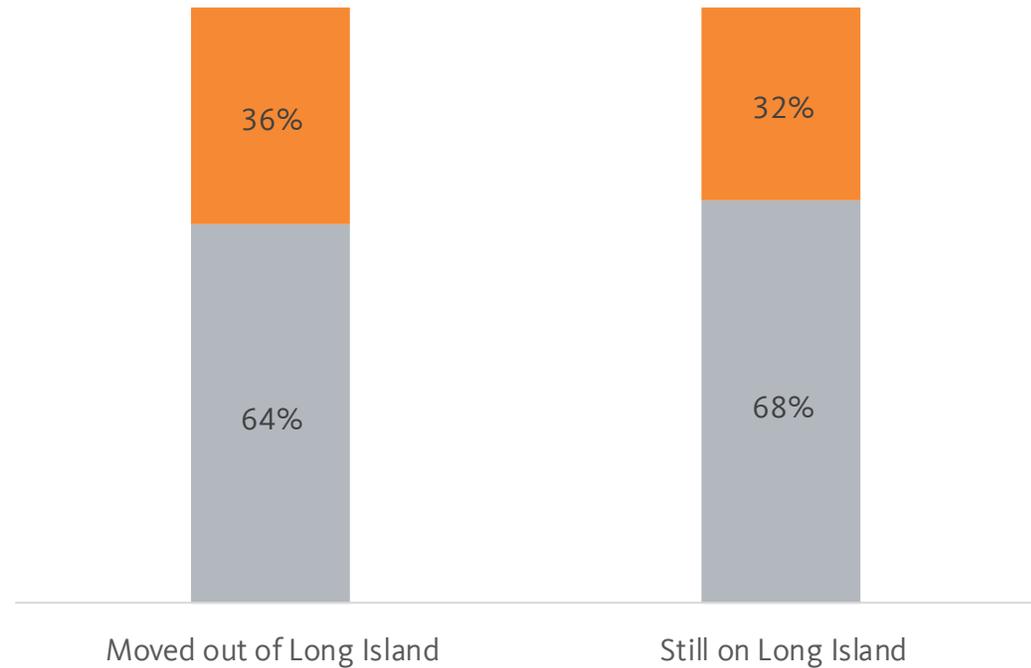
People of color are more likely to leave Long Island

Of the population who moved out of Long Island in the last year, 64 percent were White. Importantly, people of color were more likely to move out of Long Island in the past year than to stay on Long Island despite a growing people-of-color population.

Though it's not possible to determine the most common reasons for moving or whether moving was a choice, housing affordability likely plays a role in outmigration.

People of color make up a greater share of out-movers than those who stayed on Long Island
Racial/Ethnic Composition of Those Who Moved Out of Long Island in the Past Year and Those Who Stayed, 2014

- White
- People of Color



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

Demographics

The region will continue to diversify

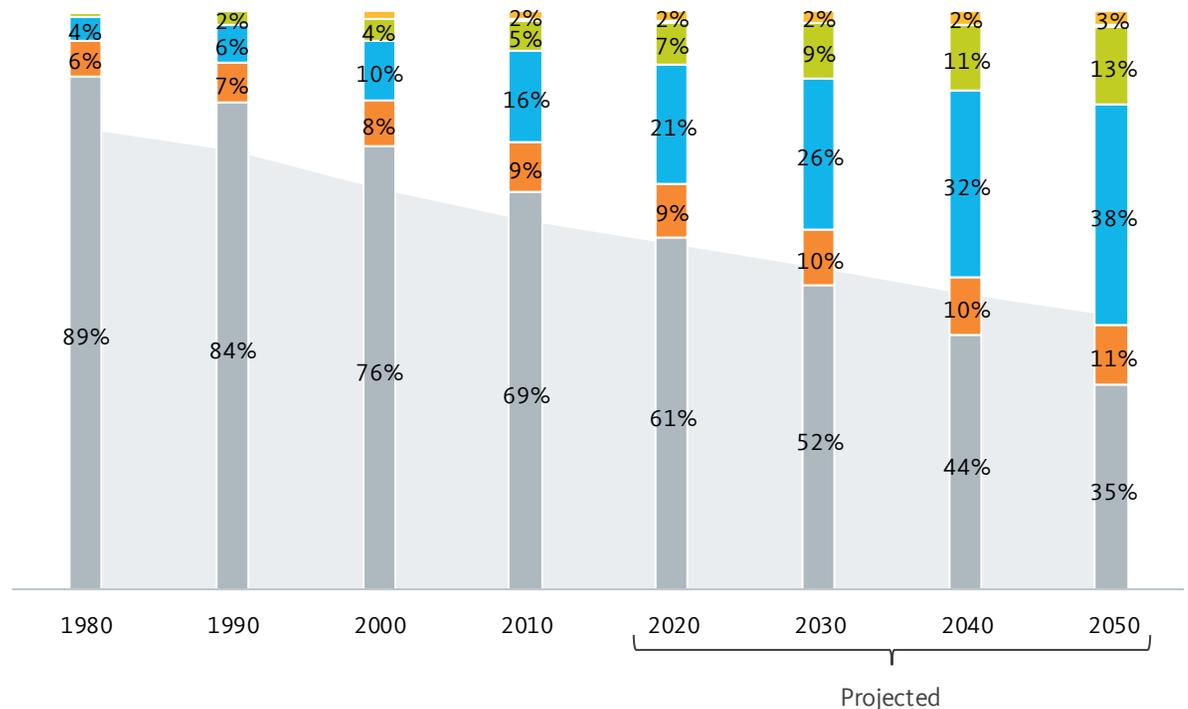
Demographic change is happening much faster on Long Island than in the nation as a whole and the region is projected to continue diversifying into the future. In 1980, Long Island was 89 percent White – a larger share than the United States overall. But the region is projected to become majority people of color in the early-2030s, a decade before the nation becomes majority people of color in the year 2044.

Nationally, the Black population accounted for 12 percent of the total population from 1980 to 2010 and is projected to remain at 12 percent until 2040 when it will increase to 13 percent. **On Long Island, however, the share of the Black population increased from 6 percent in 1980 to 9 percent in 2010. It is projected to reach 11 percent by 2050.**

The share of people of color is projected to steadily increase through 2050

Racial/Ethnic Composition, 1980 to 2050

- U.S. % White
- Mixed/other
- Native American
- Asian or Pacific Islander
- Latino
- Black
- White



Sources: U.S. Census Bureau; Woods & Poole Economics, Inc.

Note: Much of the increase in the Mixed/other population between 1990 and 2000 is due to a change in the survey question on race.

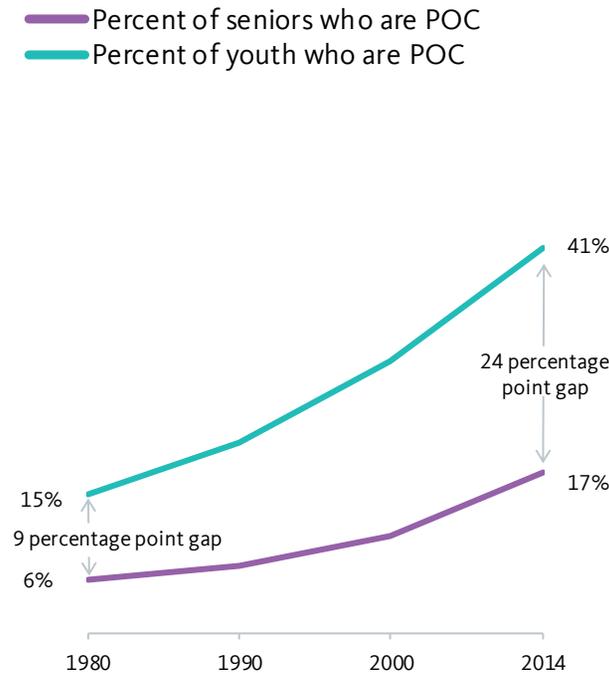
Demographics

A growing racial generation gap

Young people are leading the demographic shift in the region. Today, 41 percent of Long Island’s youth (under age 18) are people of color, compared with 17 percent of the region’s seniors (65 and older). This 24 percentage point difference between the share of youth of color and the share of seniors of color can be measured as the racial generation gap. The racial generation gap may negatively affect the region if seniors do not invest in the educational systems and community infrastructure needed to support a more racially diverse youth population.

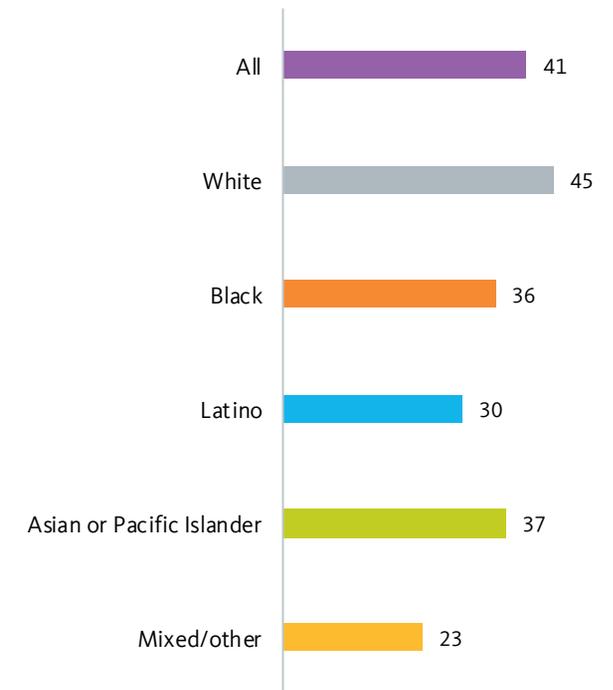
The region’s communities of color are also more youthful than its White population. People of mixed/other races, for example, have a median age of 23, while the median age of Whites is 45, a 22-year difference. **Black Long Islanders have a median age of 36 years old – 9 years younger than that of Whites.**

The racial generation gap between youth and seniors continues to expand
Percent People of Color (POC) by Age Group, 1980 to 2014



Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

The region’s communities of color are comparatively younger than the White population
Median Age by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

Demographics

Those leaving Long Island are younger, on average, than those who stay

Those who have moved out of Long Island in the last year are also younger, on average, than those who stayed – across all racial/ethnic groups. **The median age of Black residents who moved out is 26 years old while the median age of Black residents who stayed on Long Island is 36 years old.**

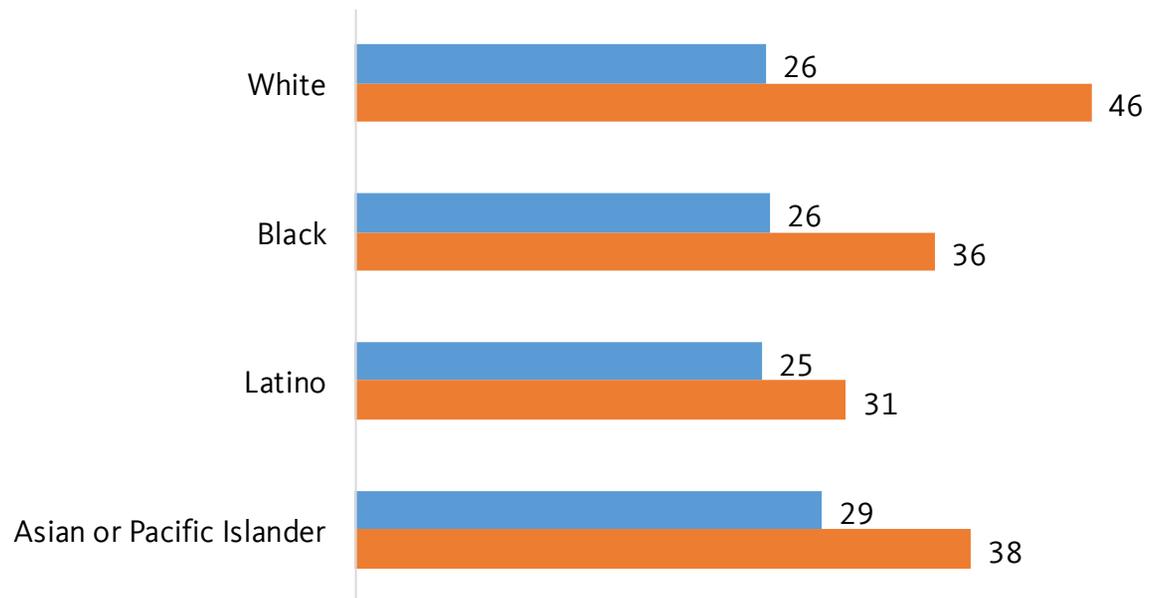
The largest age gap is between White residents: those who moved out have a median age that is 20 years younger than those who are still on Long Island.

Part of this is due to the fact that younger college-aged adults are more mobile than other age groups. In fact, adults ages 18 to 24 years are the most likely to leave Long Island.

Those who moved out of Long Island in the past year are younger, on average, than those who stayed

Median Age of Those Who Moved Out of Long Island in the Past Year and Those Who Stayed, 2014

- Still residents of Long Island
- Moved out of Long Island



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

Economic vitality



Economic vitality

Highlights

How is the region doing on measures of economic growth and well-being?

- Long Island's economic growth has lagged behind the nation since the 1990s, but continues to increase.
- Income inequality is also increasing in the region, and workers at the 10th percentile have seen their wages fall since 1979.
- The regional poverty rate is below the national average, but racial disparities in poverty persist.
- Although education is a leveler, racial and gender gaps persist in the labor market. Black Long Islanders face higher rates of joblessness and lower wages at all education levels compared with Whites.

Wage growth for the 10th percentile of workers since 1979:

-7%

Share of Black Long Islanders living below 200% of poverty:

26%

Wage gap between college-educated Blacks and Whites:

\$8/hour

Economic vitality

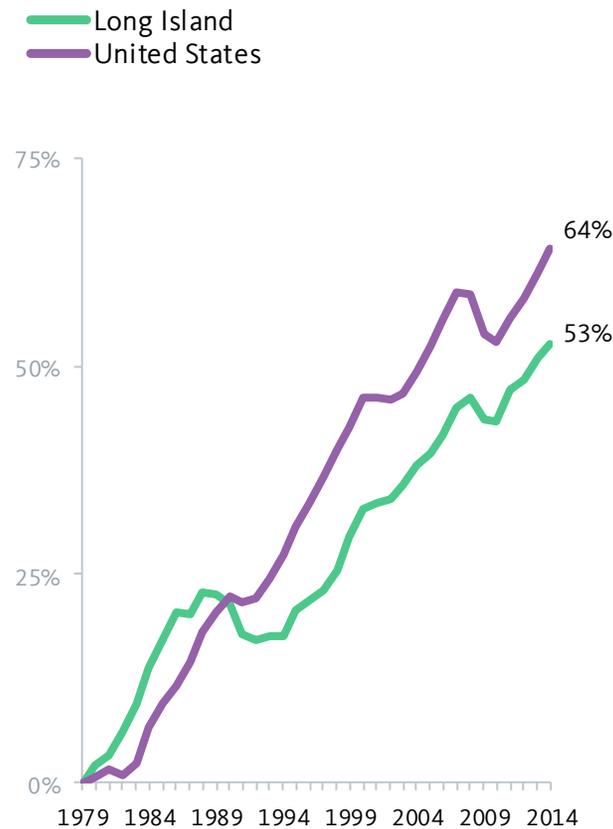
Sluggish long-term economic growth

Economic growth, as measured by increases in jobs and gross regional product (GRP) – the value of all goods and services produced within the region – has increased over the past several decades. Job growth in the region outpaced that of the nation until 1990. For the past couple of decades job growth on Long Island has followed a similar pattern as the nation overall, though it tends to be roughly 10 percentage points lower.

Similarly, growth in GRP outpaced the national average until 1995. Both the recession and recovery impacted Long Island just before the nation as whole. There was a spike in the GRP in 2009 when it matched that of the United States overall before leveling off while the national average continued to increase in the 2010s.

Job growth in the region has lagged behind the national average since 1990

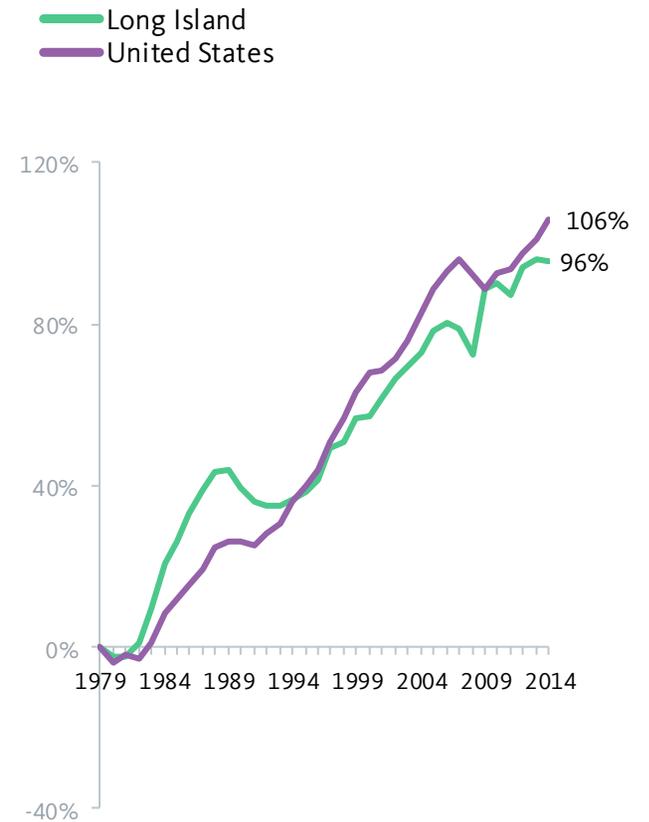
Cumulative Job Growth, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

Growth in the gross regional product (GRP) matched the national average in 2009 before dropping in 2011

Cumulative Growth in Real GRP, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

Economic vitality

Economic resilience after the downturn

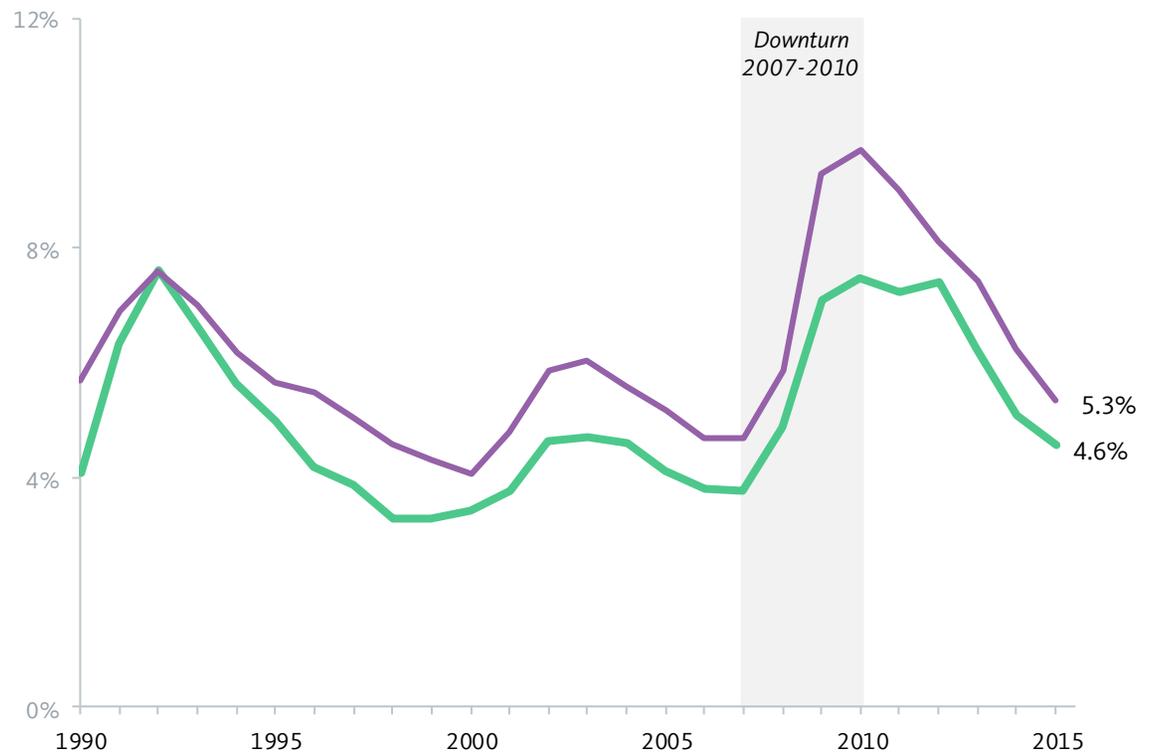
The regional economy struggled during the economic downturn and took longer than the national economy to recover. Unemployment spiked between 2007 and 2010, approaching the national average, though never surpassing it. By 2015, the overall unemployment rate was 4.6 percent, lower than both the broader New York City regional and national averages.

According to the most recent data from the Bureau of Labor Statistics, the region continues to rebound. As of July 2016, unemployment was just 4 percent in Nassau County and 4.4 percent in Suffolk County (not seasonally adjusted).

Unemployment did not fall consistently until 2013, but it remains below the national average

Unemployment Rate, 1990 to 2015

- Long Island
- United States



Source: U.S. Bureau of Labor Statistics. Universe includes the civilian non-institutional population ages 16 and older.

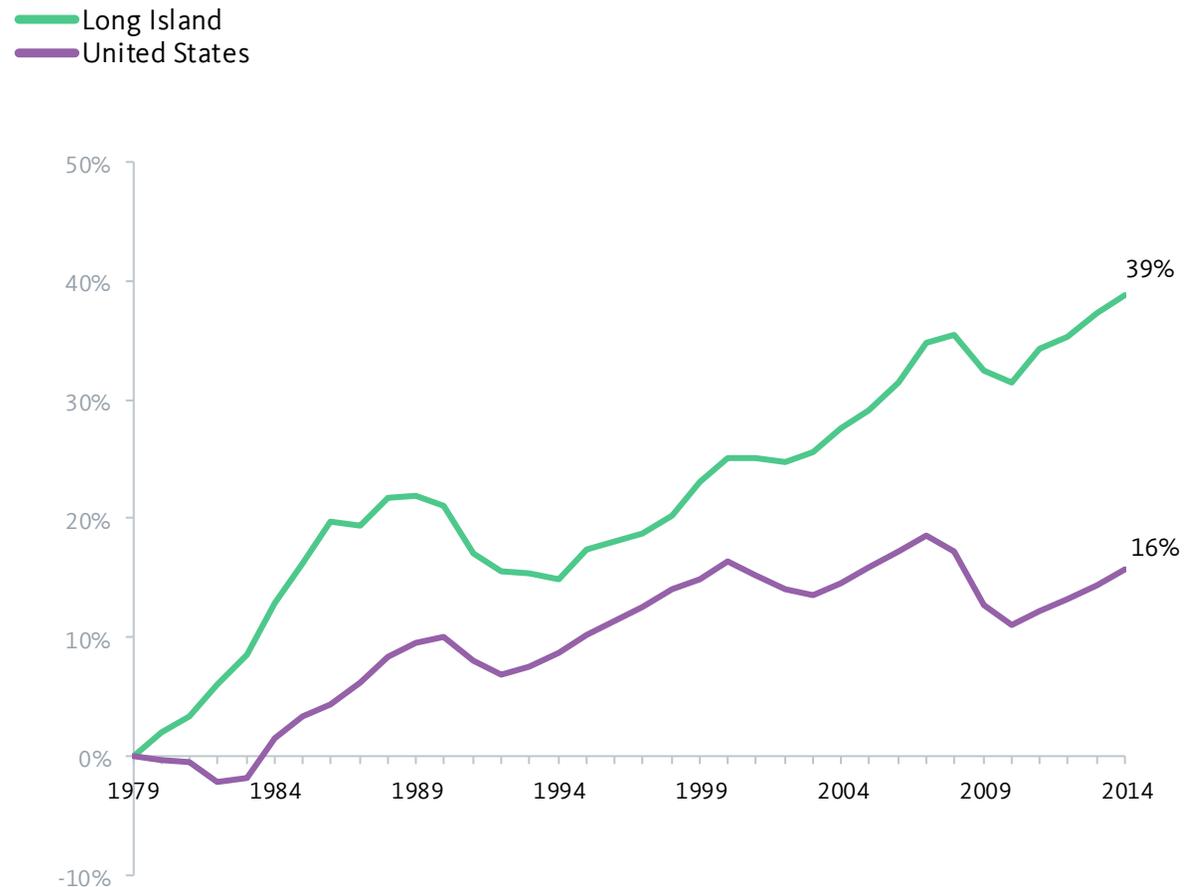
Economic vitality

Job growth is keeping up with population growth

While overall job growth is essential, it's important to consider whether jobs are growing at a fast enough pace to keep up with population growth. **Long Island's job growth per person has been more than 10 percentage points higher than the national average since 2002.** The number of jobs per person has increased by 69 percent since 1979, while it's only increased by 30 percent for the nation overall.

While an increase in the jobs to population ratio is good, it does not speak to the quality of those jobs or whether they are equitably distributed across the working-age population.

Job growth relative to population growth has been significantly higher than the national average since 1979
Cumulative Growth in Jobs-to-Population Ratio, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

Economic vitality

Similar labor force participation rates among White, Black, and Latino Long Islanders

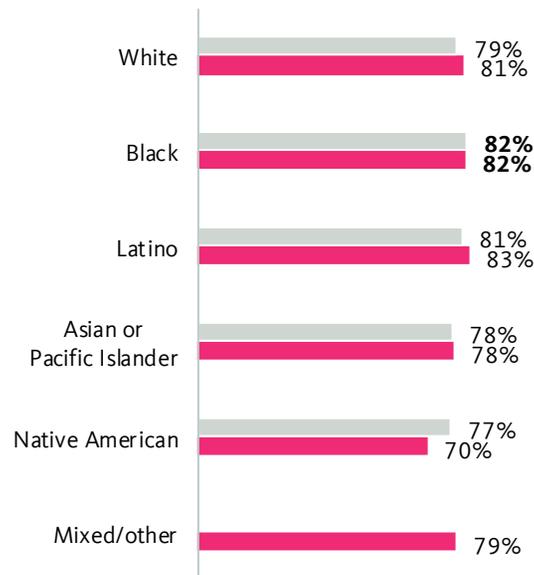
Despite some progress over the past two decades, racial employment gaps persist. African American and Native American workers face the most challenging employment situation. **Black Long Islanders have consistently high rates of labor force participation** (defined as either working or actively seeking employment) **but still face the highest unemployment rates.**

Latinos had the highest level of labor force participation in 2014, and Latino unemployment was just slightly higher than White unemployment. Asian or Pacific Islanders had the lowest unemployment rate in 2014.

White, Black, and Latino Long Islanders have similar labor market participation rates

Labor Force Participation Rate by Race/Ethnicity, 1990 and 2014

■ 1990
■ 2014

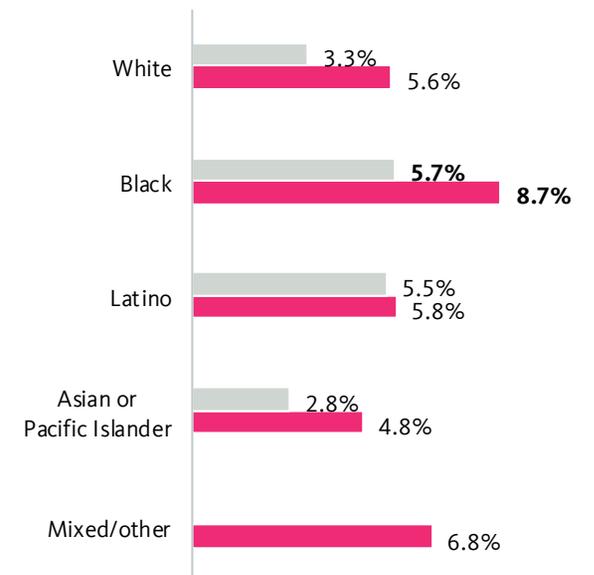


Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional population ages 25 through 64.
Note: Data for 2014 represent a 2010 through 2014 average.

Black Long Islanders have a higher unemployment rate than their White and Latino counterparts

Unemployment Rate by Race/Ethnicity, 1990 and 2014

■ 1990
■ 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional labor force ages 25 through 64.
Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

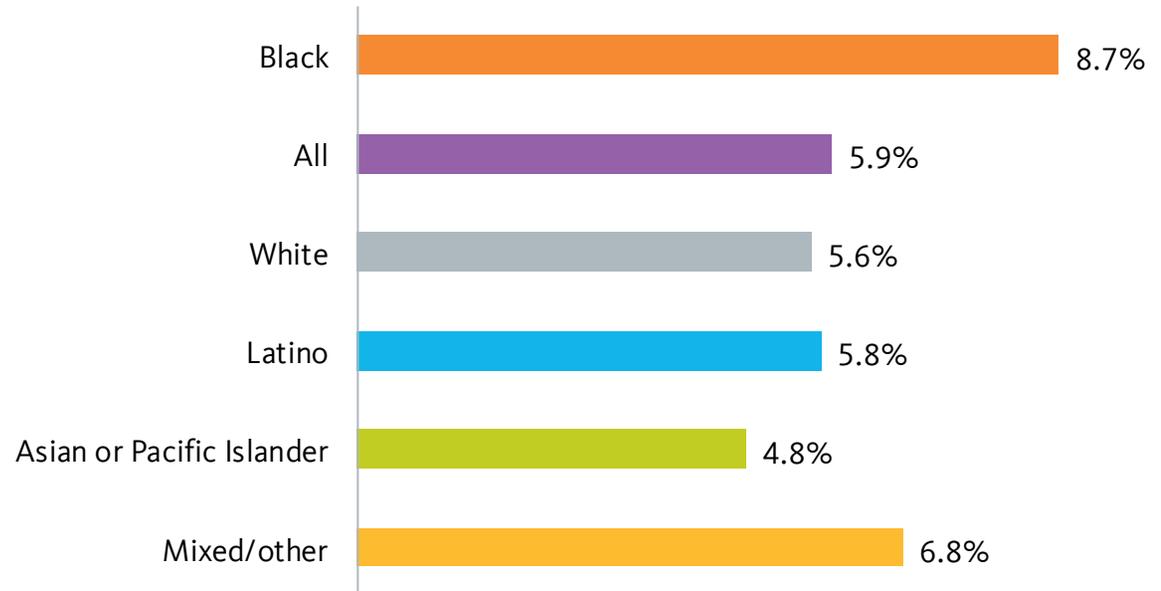
Unemployment highest for Black adults

Black Long Islanders are more likely than all other populations to be actively searching for work. **Nearly 9 percent of Black adults ages 25 to 64 are unemployed.** The Asian or Pacific Islander population has the lowest unemployment at just under 5 percent while White and Latino unemployment rates were just under 6 percent. People of mixed/other races have the second highest unemployment rate at nearly 7 percent.

It is important to note that actual unemployment is likely even higher because only those who are *actively searching* for work are counted as unemployed, not those who have given up the search.

Black Long Islanders have the highest unemployment rate in the region

Unemployment Rate by Race/Ethnicity, 2014



Economic vitality

Unemployment concentrated in communities of color

Knowing where high-unemployment communities are located can help the region’s leaders develop targeted solutions.

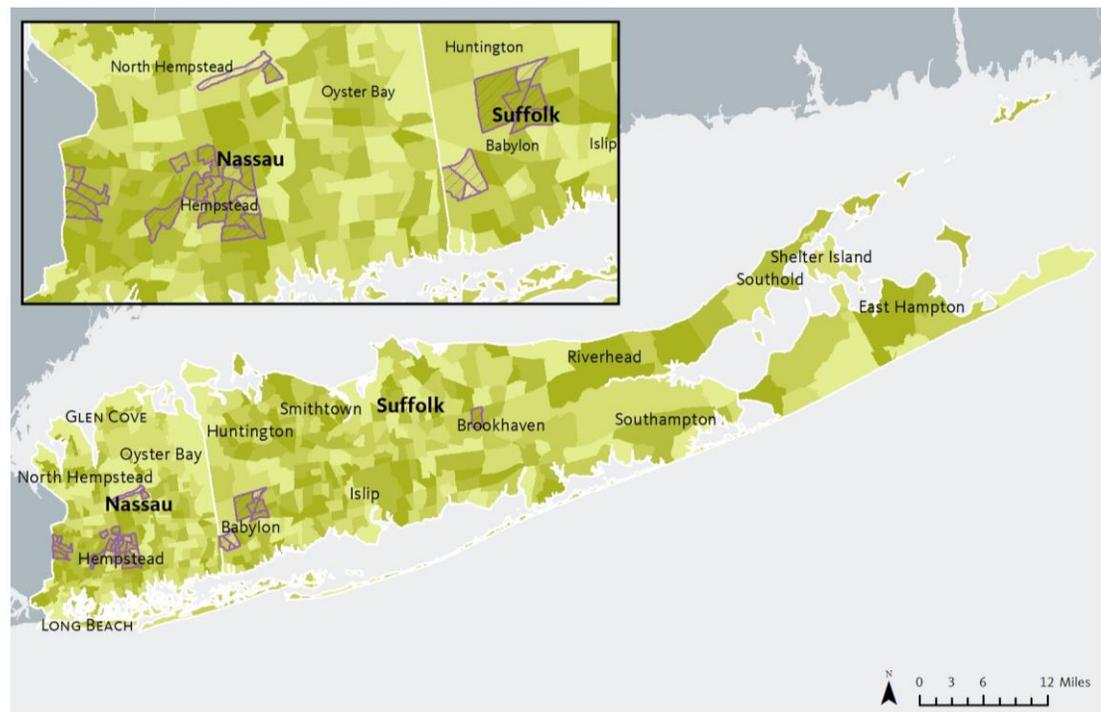
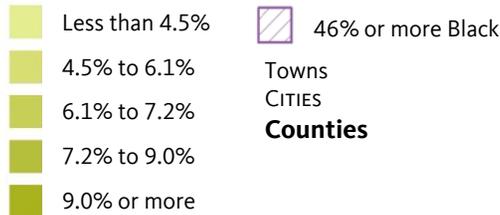
High unemployment tends to be concentrated in the region’s communities of color, particularly in communities where the Black population is at least 46 percent.

The tract with the highest unemployment rate, where nearly one in five people ages 16 and up is unemployed, is 54 percent Black, 39 percent Latino, and less than 2 percent White. The tract is located in Hempstead, opposite the Southern State Parkway from Mercy Hospital.

While most of the high unemployment tracts are located in communities of color, there is also one in Ridge, where the population is 98 percent White.

Clusters of high unemployment exist across both counties with the largest ones in mostly Black areas like Hempstead

Unemployment Rate by Census Tract, 2014



Source: U.S. Census Bureau. Universe includes the civilian non-institutional labor force age 16 and older.
 Note: We identified the 46 percent Black or higher census tracts by taking the share of the Black population for each census tract on Long Island and dividing the tracts into five classes via natural breaks (Jenks) and using the fifth class to identify Black neighborhoods. Data represent a 2010 through 2014 average.

Economic vitality

Increasing income inequality

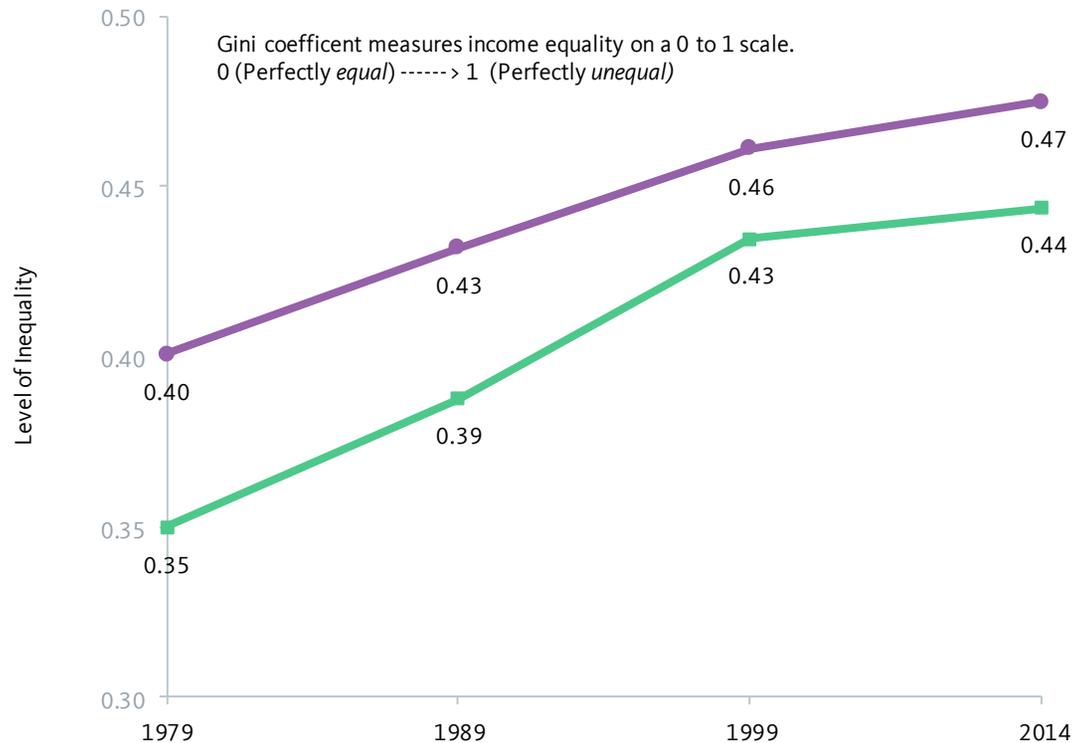
Income inequality has steadily grown on Long Island over the past 30 years, and at a slightly faster rate than the nation as a whole from 1979 to 1999. In 1979, Long Island’s Gini coefficient was 0.35, but by 2014, it had increased to 0.44, narrowing the gap between the United States and Long Island. Research suggests that greater income inequality leads to worse health outcomes across the population.

Inequality here is measured by the Gini coefficient, which is the most commonly used measure of inequality. The Gini coefficient measures the extent to which the income distribution deviates from perfect equality, meaning that every household has the same income. The value of the Gini coefficient ranges from zero (perfect equality) to one (complete inequality, one household has all of the income).

Household income inequality has steadily increased since 1979

Gini Coefficient, 1979 to 2014

- Long Island
- United States



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

Declining or stagnant wages for most workers

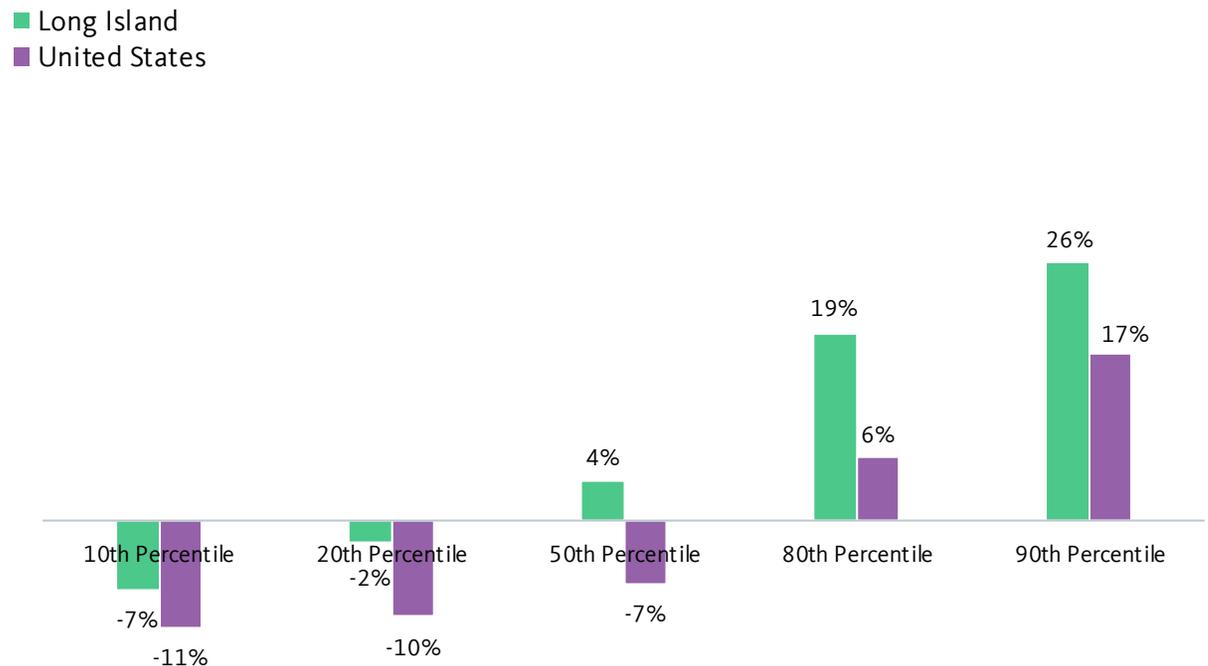
Declining wages play an important role in the region's increasing inequality. **After adjusting for inflation, wages have declined among workers at the 20th percentile and below over the past three decades.**

Wage decline has been less severe in the region than it has been nationwide, but it has been steepest for the lowest-paid workers. One way to see this is to look at changes in wages at various percentiles of the wage distribution. Put simply, a worker at the 20th percentile earns more than about 20 percent of all workers and less than 80 percent of all workers.

On Long Island, wages fell by 7 percent and 2 percent for workers at the 10th and 20th percentiles, while it increased by 4 percent for the median worker (at the 50th percentile).

Only workers near the top experienced substantial wage growth, with wages increasing by 26 percent for workers at the 90th percentile.

Wages have increased the most for full-time workers in the 80th percentile of earnings and above
Real Earned Income Growth for Full-Time Wage and Salary Workers Ages 25-64, 1979 to 2014



Economic vitality

Black workers have seen their wages decline

No racial/ethnic group has a median wage high enough to be called a “living wage” for a family of one adult and two children on Long Island (based on the [MIT Living Wage Calculator](#)). The living wage for a family of three with one adult is almost \$37/hour in the region.

Median wages also differ considerably by race/ethnicity. **Median hourly wages have declined for Black workers over the past decade** while wages have increased slightly for Whites and those of mixed/other races. Asian or Pacific Islander workers saw the largest median wage increase of nearly \$3/hour from 2000 to 2014. Latino workers consistently earn the lowest wages.

Median hourly wages for Black workers have declined since 2000

Median Hourly Wage by Race/Ethnicity, 2000 and 2014

■ 2000
■ 2014



Source: Integrated Public Use Microdata Series. Universe includes civilian non-institutional full-time wage and salary workers ages 25 through 64. Note: Data for 2014 represent a 2010 through 2014 average. Values are in 2014 dollars.

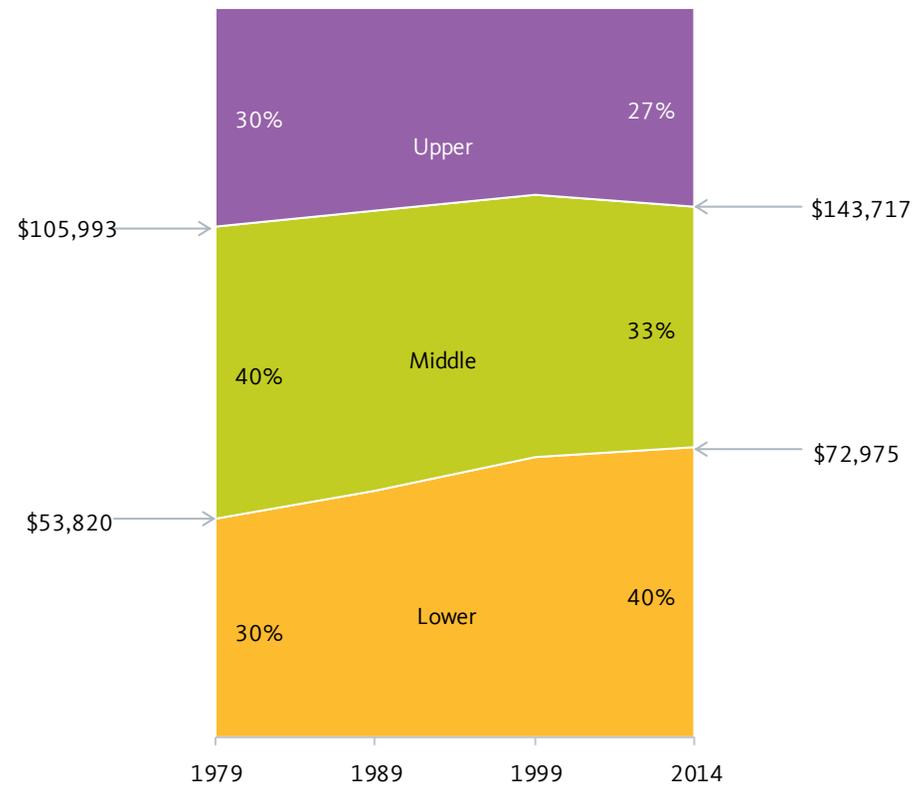
Economic vitality

A shrinking middle class

The region's middle class is shrinking: since 1979, the share of households with middle-class incomes decreased from 40 to 33 percent. The share of upper-income households also declined, from 30 to 27 percent, while the share of lower-income households grew from 30 to 40 percent.

In this analysis, middle-income households are defined as having incomes in the middle 40 percent of household income distribution. In 1979, those household incomes ranged from \$53,820 to \$105,993. To assess change in the middle class and the other income ranges, we calculated what the income range would be today if incomes had increased at the same rate as average household income growth. Today's middle-class incomes would be \$72,975 to \$143,717, and 33 percent of households fall within that range.

The share of middle-class households declined since 1979
Household by Income Level, 1979 and 2014



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
Note: Data for 2014 represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

Economic vitality

Though the middle class is shrinking, Black Long Islanders are proportionately represented

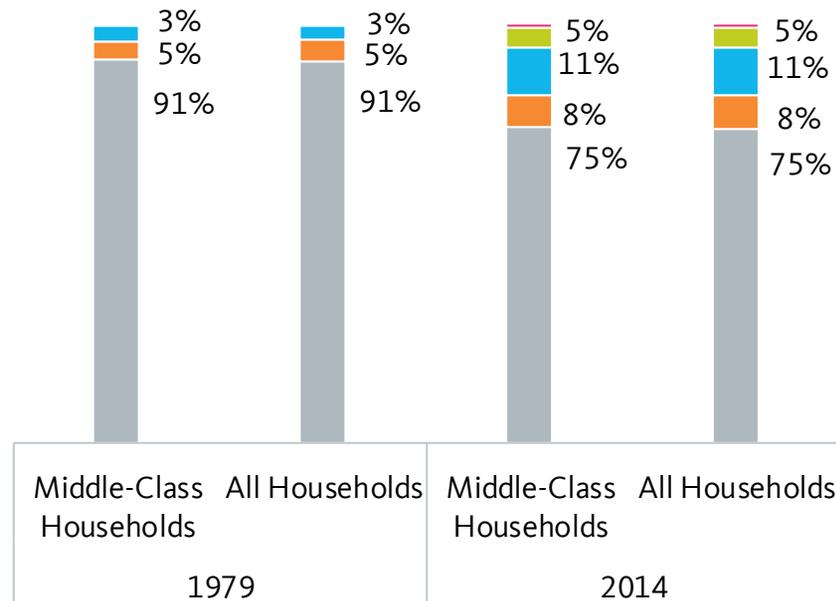
The demographics of the middle class reflect the region’s changing demographics. While the share of households with middle-class incomes has declined since 1979, middle-class households have become more racially and ethnically diverse.

Black households make up 8 percent of all households and 8 percent of middle-class households. Although the middle class is reflective of the region’s diversity, not everyone has similar employment and educational opportunities because these opportunities vary by neighborhood. While proportionately represented in middle-class households, **Black and Latino households are overly represented among lower-income households**, making up 10 percent and 14 percent, respectively, **and underrepresented among upper-income households**, making up 5 percent and 7 percent, respectively.

The middle class reflects the region’s racial/ethnic composition

Racial Composition of Middle-Class Households and All Households, 1979 and 2014

- Native American or Other
- Asian or Pacific Islander
- Latino
- Black
- White



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

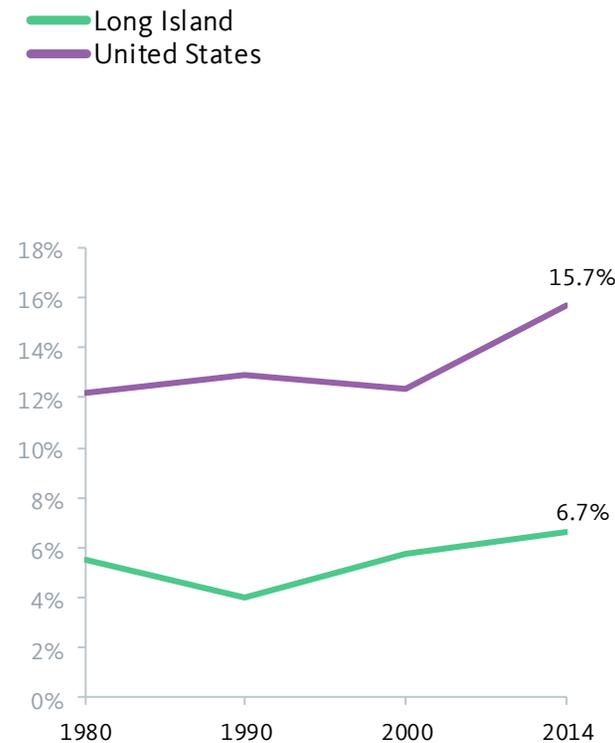
Comparatively low, but rising rates of poverty and working poor

While the poverty and working poverty rates have stayed well below national averages, both have been increasing since the 1990 and both rates surpassed their 1980 levels.

Importantly, the cost of living on Long Island is much higher than in the nation overall. According to the Bureau of Economic Analysis, the New York City region has the third highest [regional price parity](#) (RPP) in the country at 122.3 percent of the overall national price level. RPPs measure the differences in the price levels of goods and services across metro areas for a given year.

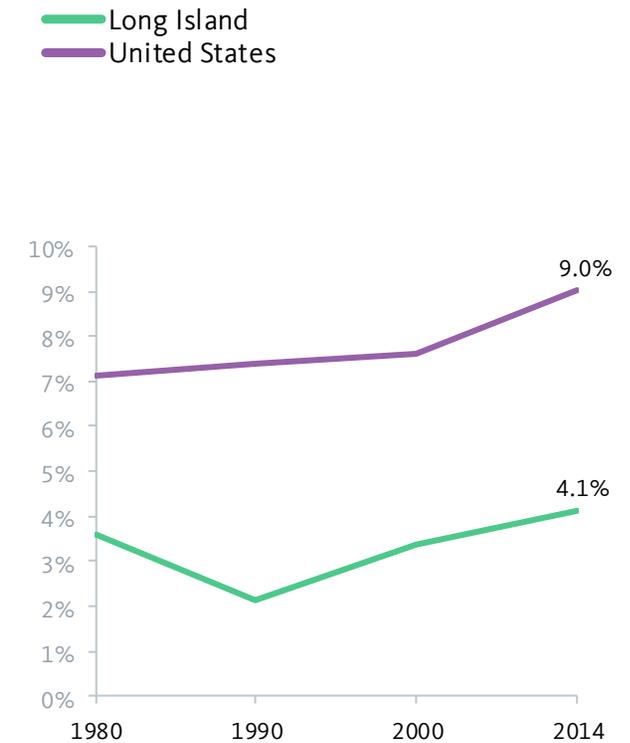
Still, nearly 7 percent of Long Islanders live below the federal poverty line, which is just \$24,000 a year for a family of four. Working poverty, defined as working full-time with a family income below 200 percent of the poverty level (roughly \$48,000 for a family of four), has also risen. By 2014, 4 percent of the region's 25 to 64-year-olds were working poor.

Poverty is on the rise and has surpassed 1980 levels
Poverty Rate, 1980 to 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons not in group quarters.
Note: Data for 2014 represent a 2010 through 2014 average.

Working poverty is also increasing
Working Poverty Rate, 1980 to 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional population ages 25 through 64 not in group quarters.
Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

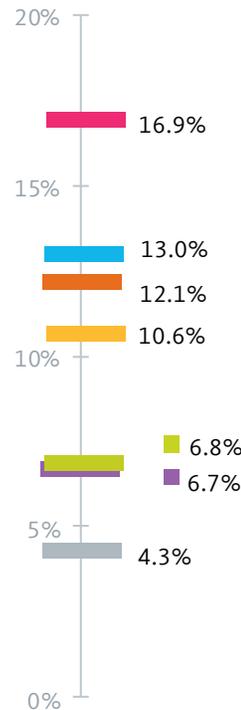
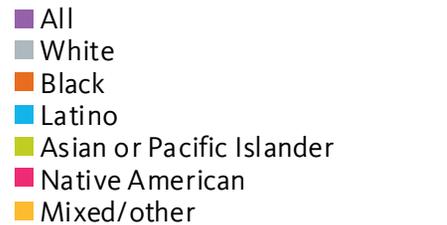
High rates of poverty and working poor among Black Long Islanders

People of color have higher poverty and working poverty rates than Whites in the region. **Black Long Islanders are three times as likely as White Long Islanders to live below poverty**, though Native Americans have the highest poverty rate at 17 percent followed by Latinos at 13 percent.

Latinos have the highest rate of working poverty, at 12 percent. People of mixed/other races, Black residents, and Asian or Pacific Islanders also have working poverty rates that are well above average. Whites have the lowest rate of working poverty at about 2 percent.

Poverty is highest for Native Americans and Latinos

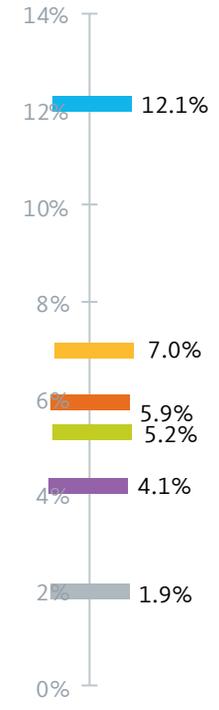
Poverty Rate by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons not in group quarters.
 Note: Data represent a 2010 through 2014 average.

Working poverty is highest for Latinos

Working Poverty Rate by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional population ages 25 through 64 not in group quarters.
 Note: Data represent a 2010 through 2014 average. Data for some racial/ethnic groups in some years are excluded due to small sample size.

Economic vitality

Economic insecurity is growing among the region's communities of color

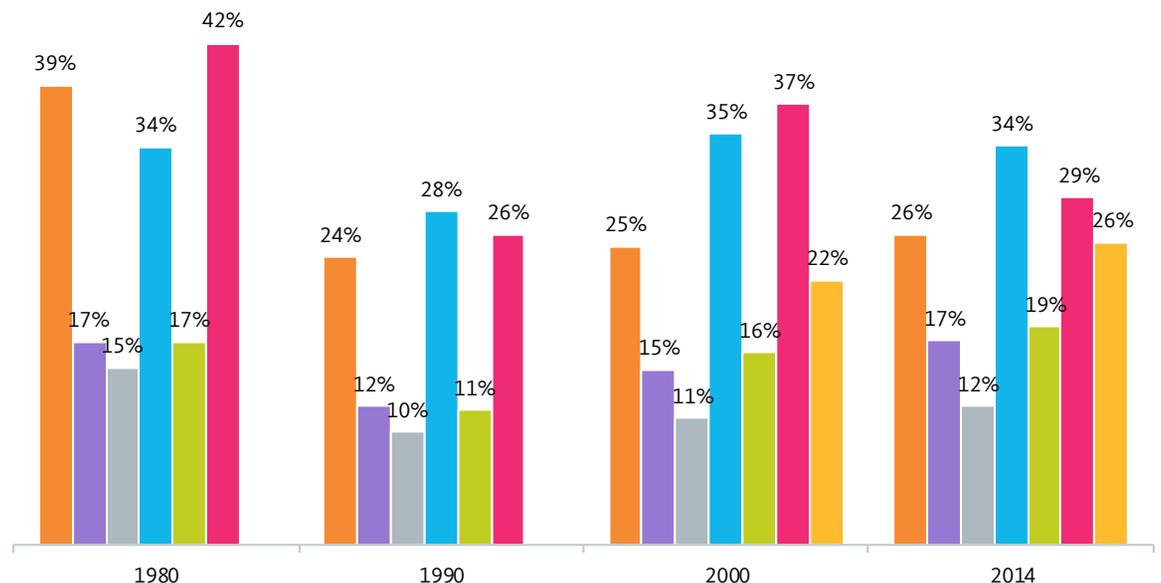
Because the federal poverty level is so low, particularly in high-cost areas like Long Island, it is helpful to look at the share of the population living below 200 percent of poverty. In 2014, double the federal poverty level was \$48,000 a year for a family of four, which is still well below a living wage. According to the [MIT Living Wage Calculator](#), a living wage for a family of four with two adults and two children would be more than \$82,000 a year.

The share of the population living below 200 percent of poverty dropped significantly from 1980 to 1990 before increasing for all racial/ethnic groups by 2014. In 2014, 17 percent of Long Islanders live below 200 percent of poverty, but this number ranged from 12 percent among Whites to 34 percent among Latinos. **One in four Black Long Islanders live below 200 percent of the federal poverty level.**

Despite a sizable drop in poverty in the 1980s, poverty has increased since for all racial/ethnic groups

Percent of the Population Below 200 Percent of Poverty, 1980 to 2014

- Black
- All
- White
- Latino
- Asian or Pacific Islander
- Native American
- Mixed/other



Source: Integrated Public Use Microdata Series. Universe includes all persons not in group quarters.

Note: Data for 2014 represent a 2010 through 2014 average. Data for some racial/ethnic groups in some years are excluded due to small sample size.

Economic vitality

Black Long Islanders have the highest unemployment rates regardless of education level

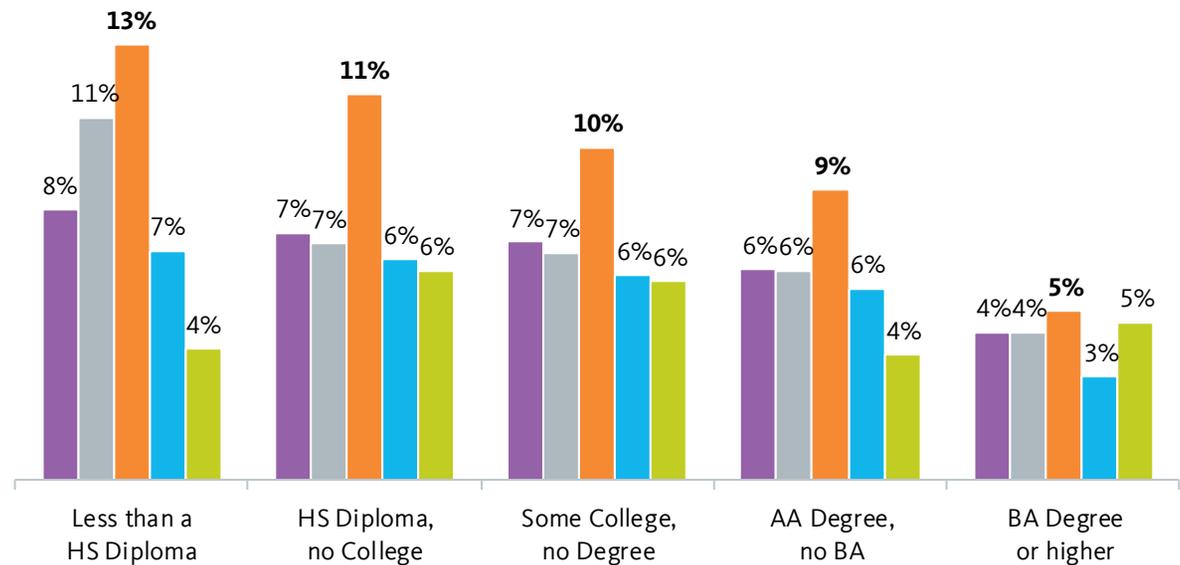
In general, unemployment decreases as educational attainment increases. **But Black Long Islanders face higher rates of joblessness at all education levels.**

The largest gap is among those with a high school diploma but no college education: Black unemployment is 11 percent and White unemployment is 7 percent. But even among those with a college degree, Black Long Islanders are more likely to be unemployed than Whites.

Black Long Islanders have higher unemployment rates than Whites at every education level

Unemployment Rate by Educational Attainment and Race/Ethnicity, 2014

- All
- White
- Black
- Latino
- Asian or Pacific Islander



Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional labor force ages 25 through 64. Note: Data represent a 2010 through 2014 average.

Economic vitality

Black Long Islanders also earn less than Whites at all levels of education

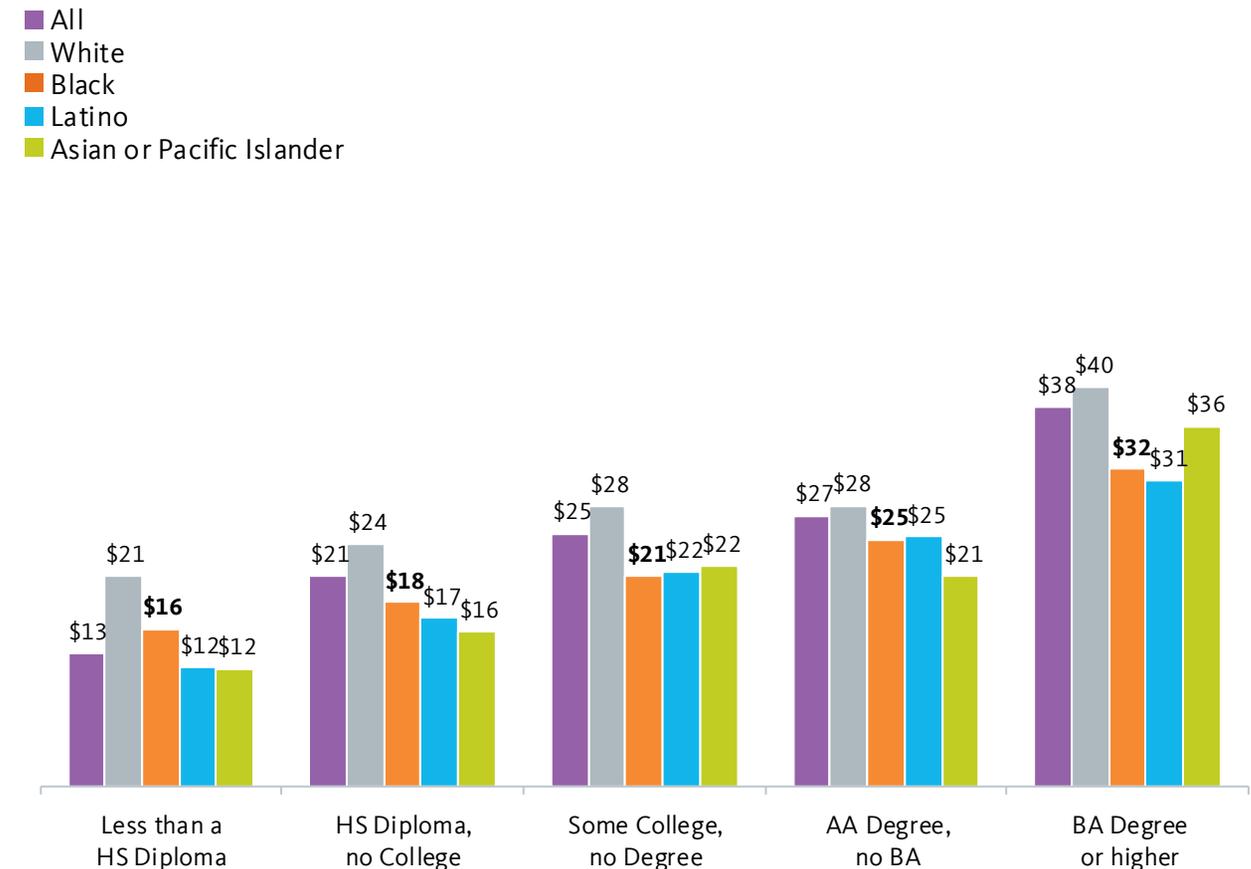
Wages also tend to increase with higher educational attainment, but people of color have lower median hourly wages than Whites at every educational level. **White workers without a high school diploma have the same median wage as Black workers with some college education.**

Moreover, community college degree completion appears to matter more for Black workers than White workers. The median wage of White workers with some college and those with an associate’s degree is the same (\$28/hour) but the median wage of Black workers is \$4/hour higher among those who have an associate’s degree compared with those without a degree.

The racial wage gap persists even at the highest education levels. **The median wage of Black Long Islanders with a bachelor’s degree is \$32/hour compared with \$40/hour for Whites with the same education.**

Black Long Islanders also have lower wages than Whites at every education level

Median Hourly Wage by Educational Attainment and Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes civilian non-institutional full-time wage and salary workers ages 25 through 64. Note: Data represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

Economic vitality

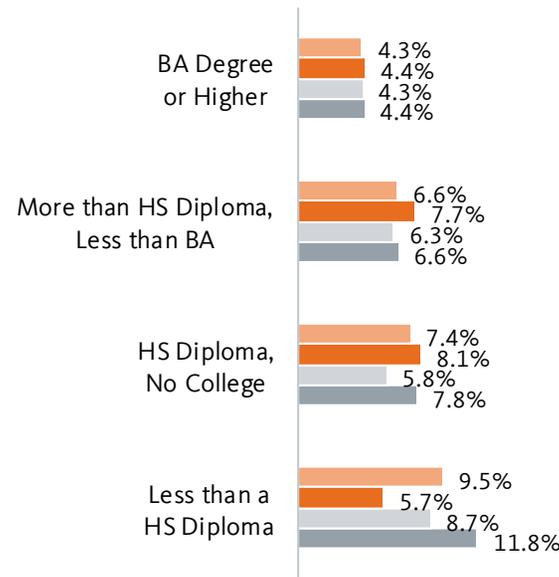
Women of color face serious labor market challenges

Except for those with less than a high school diploma, men and women of color have higher unemployment rates than Whites. **Women of color consistently earn the lowest wages, and men of color, at nearly every level of education, earn less than White women.**

White men have the highest unemployment rate among the population with less than a high school diploma – but those who are employed make \$10/hour more on average than men of color and \$12/hour more than women of color. The wage gaps persist even among those with high levels of education. Women of color with a BA or higher earn \$13/hour less than White men and \$4/hour less than White women.

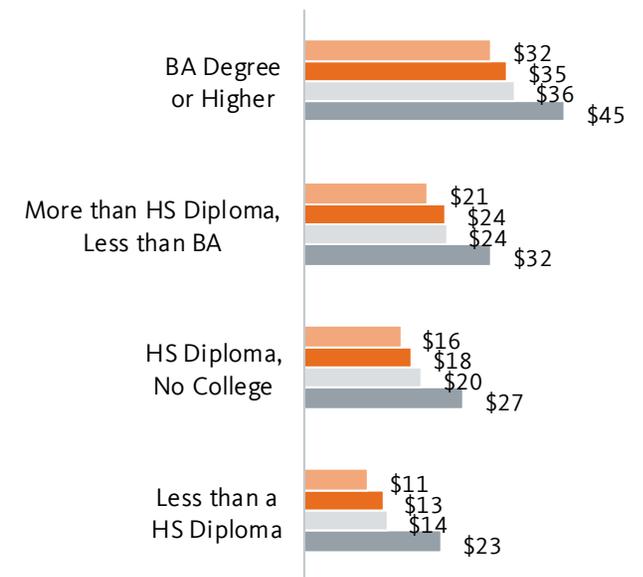
Women of color without a BA degree have higher unemployment rates than White women
Unemployment Rate by Educational Attainment, Race/Ethnicity, and Gender, 2014

- Women of color
- Men of color
- White women
- White men



Women of color at all education levels earn less than men of color and White women and men
Median Hourly Wage by Educational Attainment, Race/Ethnicity, and Gender, 2014

- Women of color
- Men of color
- White women
- White men



Source: Integrated Public Use Microdata Series. Universe includes the civilian non-institutional labor force ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Source: Integrated Public Use Microdata Series. Universe includes civilian non-institutional full-time wage and salary workers ages 25 through 64.
 Note: Data represent a 2010 through 2014 average. Values are in 2014 dollars.

Economic vitality

Growing middle-wage jobs

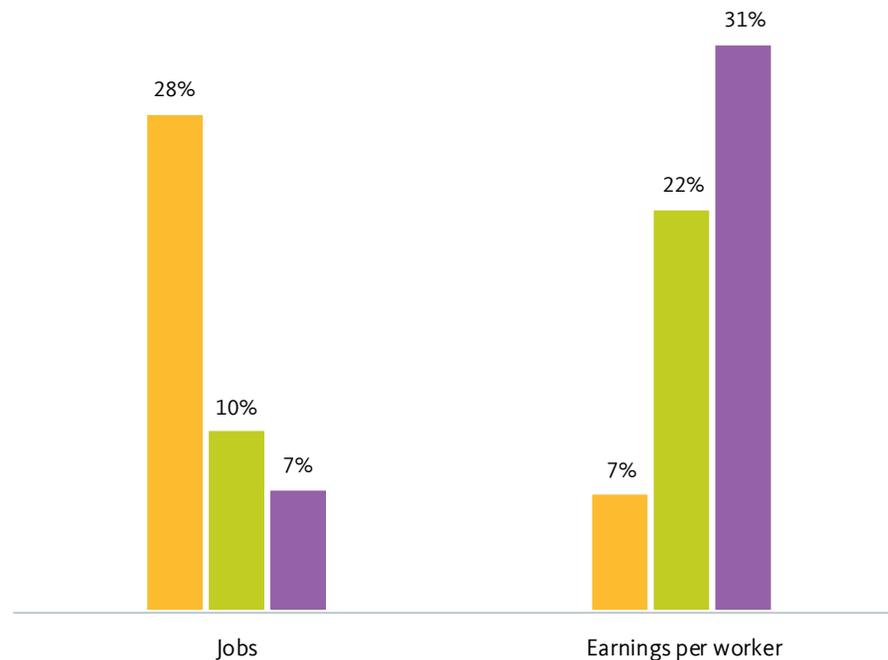
Job growth on Long Island, like the U.S. economy as a whole, has been concentrated in low- and high-wage jobs. Importantly, growth in low-wage jobs has been much higher than growth in high-wage jobs. In many places, middle-wage jobs are decreasing, but on Long Island, the growth has been positive.

Wages have increased across the board for all workers, but low-wage workers had the smallest increase in earnings (7 percent).

Low-wage jobs grew the most while high-wage jobs had the largest earnings growth

Growth in Jobs and Earnings by Industry Wage Level, 1990 to 2015

- Low-wage
- Middle-wage
- High-wage



Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all private sector jobs covered by the federal Unemployment Insurance (UI) program.

Economic vitality

Uneven wage growth across industry sectors

Wage growth in the region has been uneven across industry sectors. High- and middle-wage industries, like information and finance and insurance, had substantial increases in earnings while transportation and warehousing; agriculture, forestry, fishing, and hunting; and health care and social assistance saw earnings increase by 12 percent or less.

Among low-wage industries, only workers in education services and administrative and support and waste management and remediation services saw wage growth above 10 percent. The region’s more than 96,000 accommodation and food service workers also saw a modest 10 percent increase in earnings although the average worker still only makes \$21,600 a year. The salaries of the region’s 160,000 retail workers, on the other hand, saw very little growth rising from about \$33,000 to only \$33,700.

Slow to moderate wage growth for workers in many of the region’s largest industries

Industries by Wage Level Category in 1990 and 2015

Wage Category	Industry	Average Annual Earnings	Average Annual Earnings	Percent Change in Earnings	Share of Jobs
		1990	2015	1990-2015	2015
High	Mining	\$115,551	\$97,835	-15%	17%
	Utilities	\$86,496	\$110,633	28%	
	Management of Companies and Enterprises	\$72,569	\$106,573	47%	
	Wholesale Trade	\$62,417	\$79,891	28%	
	Information	\$60,758	\$93,765	54%	
Middle	Professional, Scientific, and Technical Services	\$60,331	\$75,748	26%	43%
	Construction	\$57,862	\$67,273	16%	
	Manufacturing	\$57,193	\$67,094	17%	
	Finance and Insurance	\$54,968	\$113,384	106%	
	Health Care and Social Assistance	\$49,626	\$55,514	12%	
	Real Estate and Rental and Leasing	\$45,301	\$61,350	35%	
	Transportation and Warehousing	\$45,177	\$48,253	7%	
Agriculture, Forestry, Fishing and Hunting	\$34,529	\$38,001	10%		
Low	Education Services	\$34,095	\$40,360	18%	40%
	Administrative and Support and Waste Management and Remediation Services	\$33,841	\$42,196	25%	
	Retail Trade	\$33,077	\$33,655	2%	
	Arts, Entertainment, and Recreation	\$32,414	\$33,526	3%	
	Other Services (except Public Administration)	\$30,293	\$31,571	4%	
	Accommodation and Food Services	\$19,569	\$21,579	10%	

Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all private sector jobs covered by the federal Unemployment Insurance (UI) program. Dollar values are in 2015 dollars.

Economic vitality

Identifying the region’s strong industries

Understanding which industries are strong and competitive in the region is critical for developing effective strategies to attract and grow businesses. To identify strong industries in the region, 19 industry sectors were categorized according to an “**industry strength index**” that measures four characteristics: size, concentration, job quality, and growth. Each characteristic was given an equal weight (25 percent each) in determining the index value. “Growth” was an average of three indicators of growth (change in the number of jobs, percent change in the number of jobs, and real wage growth). These characteristics were examined over the last decade to provide a current picture of how the region’s economy is changing.

Given that the regional economy has experienced uneven growth across industries, it is important to note that this index is only meant to provide general guidance on the strength of various industries. Its interpretation should be informed by examining all four metrics of size, concentration, job quality, and growth.

Industry strength index =



Note: This industry strength index is only meant to provide general guidance on the strength of various industries in the region, and its interpretation should be informed by an examination of individual metrics used in its calculation, which are presented in the table on the next page. Each indicator was normalized as a cross-industry z-score before taking a weighted average to derive the index.

Economic vitality

Health care, finance and insurance, and wholesale trade dominate

According to the industry strength index, the region’s strongest industries are **health care and social assistance, finance and insurance, and construction**. Health care ranks first due to its relatively large employment base, strong concentration of jobs in the region, and growth in wages and employment over the decade. Finance

and insurance ranks high on the industry strength index because of its substantial wage growth and high wages. Construction ranks third because it does fairly well on all measures examined – it has a solid employment base, a location quotient above one, decent wages, and has seen growth in wages and employment.

The health care industry is strong and expanding in the region

Industry Strength Index

Industry	Size	Concentration	Job Quality	Growth			Industry Strength Index
	Total employment (2015)	Location quotient (2015)	Average annual wage (2015)	Change in employment (2005 to 2015)	% Change in employment (2005 to 2015)	Real wage growth (2005 to 2015)	
Health Care and Social Assistance	207,674	1.3	\$55,514	44,969	28%	9%	124.0
Finance and Insurance	52,923	1.0	\$113,384	-9,172	-15%	26%	55.1
Construction	71,014	1.2	\$67,273	6,732	10%	10%	41.5
Wholesale Trade	64,435	1.2	\$79,891	-583	-1%	8%	38.5
Professional, Scientific, and Technical Services	77,683	1.0	\$75,748	7,853	11%	12%	38.4
Retail Trade	160,016	1.1	\$33,655	-422	0%	-3%	22.9
Utilities	4,495	0.9	\$110,633	1	0%	9%	17.2
Management of Companies and Enterprises	15,298	0.8	\$106,573	-1,367	-8%	10%	5.6
Other Services (except Public Administration)	52,950	1.4	\$31,571	5,304	11%	-3%	-0.5
Education Services	30,552	1.3	\$40,360	1,756	6%	8%	-4.6
Information	19,547	0.8	\$93,765	-8,414	-30%	18%	-7.0
Accommodation and Food Services	96,420	0.8	\$21,579	22,588	31%	1%	-9.3
Administrative and Support and Waste Management and Remediation Services	70,251	0.9	\$42,196	4,425	7%	5%	-14.4
Manufacturing	70,730	0.6	\$67,094	-15,332	-18%	9%	-28.8
Real Estate and Rental and Leasing	17,203	0.9	\$61,350	-508	-3%	-2%	-31.6
Transportation and Warehousing	34,070	0.8	\$48,253	2,476	8%	0%	-34.9
Arts, Entertainment, and Recreation	22,758	1.2	\$33,526	2,668	13%	-13%	-37.2
Mining	188	0.0	\$97,835	-238	-56%	21%	-69.6
Agriculture, Forestry, Fishing and Hunting	2,628	0.2	\$38,001	-6,703	-72%	4%	-132.3

Source: U.S. Bureau of Labor Statistics; Woods & Poole Economic, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Economic vitality

Identifying high-opportunity occupations

Understanding which occupations are strong and competitive in the region can help leaders develop strategies to connect and prepare workers for good jobs. To identify “high-opportunity” occupations in the region, we developed an “**occupation opportunity index**” based on measures of job quality and growth, including median annual wage, real wage growth, job growth (in number and share), and median age of workers. A high median age of workers indicates that there will be replacement job openings as older workers retire.

Job quality, measured by the median annual wage, accounted for two-thirds of the occupation opportunity index, and growth accounted for the other one third. Within the growth category, half was determined by wage growth and the other half was divided equally between the change in number of jobs, percent change in jobs, and median age of workers.

Occupation opportunity index =



Note: Each indicator was normalized as a cross-occupation z-score before taking a weighted average to derive the index.

Economic vitality

Top executives and advertising, marketing, promotions, public relations, and sales managers rank highest

Many of the high opportunity occupations listed below require some postsecondary education or certification. Health diagnosing and treating practitioners account for over 300,000 jobs in the region while preschool, primary, secondary, and special education school teachers; financial specialists; computer occupations; and business operations

specialists each make up over 200,000 jobs. School teachers saw the largest increase in real wages followed by other construction and related workers.

Preschool, primary, secondary, and special education school teachers saw the largest growth in real wages

Occupation Opportunity Index

Occupation	Employment	Job Quality	Growth				Occupation Opportunity Index
	(2011)	Median annual wage (2011)	Real wage growth (2011)	Change in employment (2005-11)	% Change in employment (2005-11)	Median age (2010)	
Top Executives	120,190	\$145,083	1%	13,430	13%	47	2.22
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	49,250	\$144,468	3%	4,410	10%	39	2.10
Lawyers, Judges, and Related Workers	72,150	\$139,921	6%	3,380	5%	43	2.07
Operations Specialties Managers	125,440	\$133,088	4%	-330	0%	43	1.87
Other Management Occupations	130,110	\$104,886	8%	25,360	24%	45	1.37
Health Diagnosing and Treating Practitioners	306,170	\$100,248	7%	27,150	10%	45	1.24
Sales Representatives, Services	155,360	\$87,739	15%	27,500	22%	39	0.96
Engineers	47,050	\$88,712	0%	1,840	4%	45	0.81
Preschool, Primary, Secondary, and Special Education School Teachers	289,170	\$67,365	41%	36,040	14%	41	0.80
Financial Specialists	211,760	\$84,187	10%	16,220	8%	40	0.79
Postsecondary Teachers	83,470	\$80,794	6%	4,050	5%	46	0.70
Air Transportation Workers	16,040	\$78,323	-35%	14,260	801%	41	0.67
Computer Occupations	234,070	\$82,847	-2%	19,910	9%	37	0.61
Social Scientists and Related Workers	11,970	\$82,240	10%	-24,370	-67%	42	0.60
Business Operations Specialists	261,800	\$71,677	4%	59,550	29%	40	0.58
Supervisors of Construction and Extraction Workers	21,840	\$80,960	-2%	-5,000	-19%	45	0.57
Physical Scientists	13,350	\$78,806	3%	-30	0%	41	0.55
Supervisors of Installation, Maintenance, and Repair Workers	23,780	\$75,010	3%	610	3%	48	0.54
Architects, Surveyors, and Cartographers	9,950	\$76,692	4%	-2,610	-21%	41	0.49
Life Scientists	8,750	\$76,489	-2%	-2,460	-22%	39	0.39
Entertainers and Performers, Sports and Related Workers	43,880	\$70,538	3%	12,770	41%	36	0.36
Sales Representatives, Wholesale and Manufacturing	116,920	\$68,759	1%	-19,090	-14%	44	0.26
Supervisors of Production Workers	22,110	\$62,030	4%	-3,720	-14%	47	0.21
Other Construction and Related Workers	22,590	\$56,756	14%	3,360	17%	44	0.19
Law Enforcement Workers	29,450	\$70,539	7%	-46,660	-61%	38	0.17

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs.

Note: Analysis reflects the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Economic vitality

Identifying high-opportunity occupations

(continued)

Once the occupation opportunity index score was calculated for each occupation, occupations were sorted into three categories (high-, middle-, and low-opportunity jobs). The average index score is zero, so an occupation with a positive value has an above average score while a negative value represents a below average score.

Because education level plays such a large role in determining access to jobs, we present the occupational analysis for each of three educational attainment levels: workers with a high school degree or less, workers with more than a high school diploma but less than a bachelor's degree, and workers with a bachelor's degree or higher.

Given that the regional economy has experienced employment growth across many occupation groups, it is important to note that this index is only meant to provide general guidance on the strength of various occupations. Its interpretation should be informed by examining all metrics of job quality and growth.

All jobs (2011)



Note: The occupation opportunity index and the three broad categories drawn from it are only meant to provide general guidance on the level of opportunity associated with various occupations in the region, and its interpretation should be informed by an examination of individual metrics used in its calculation, which are presented in the tables on the following pages.

Economic vitality

High-opportunity occupations for workers with a high school diploma or less

Supervisors of construction and extraction workers, supervisors of production workers, and other construction and related workers are high-opportunity jobs for workers without postsecondary education

Occupation Opportunity Index: Occupations by Opportunity Level for Workers with a High School Diploma or Less

Occupation	Employment	Job Quality	Growth				Occupation Opportunity Index	
	(2011)	Median annual wage (2011)	Real wage growth (2011)	Change in employment (2005-11)	% Change in employment (2005-11)	Median age (2010)		
High-Opportunity	Supervisors of Construction and Extraction Workers	21,840	\$80,960	-1.6%	-5,000	-18.6%	45	0.57
	Supervisors of Production Workers	22,110	\$62,030	3.8%	-3,720	-14.4%	47	0.21
	Other Construction and Related Workers	22,590	\$56,756	13.6%	3,360	17.5%	44	0.19
	Supervisors of Transportation and Material Moving Workers	22,640	\$60,459	-0.3%	-2,500	-9.9%	46	0.13
Middle-Opportunity	Construction Trades Workers	197,050	\$59,977	0.8%	-15,170	-7.1%	39	0.00
	Supervisors of Building and Grounds Cleaning and Maintenance Workers	17,820	\$49,950	1.6%	-10	-0.1%	46	-0.09
	Other Installation, Maintenance, and Repair Occupations	152,660	\$46,543	5.2%	10,770	7.6%	44	-0.12
	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	60,740	\$44,151	2.5%	3,550	6.2%	42	-0.25
	Supervisors of Food Preparation and Serving Workers	42,740	\$40,954	9.3%	790	1.9%	39	-0.31
	Metal Workers and Plastic Workers	37,040	\$35,547	2.6%	-9,890	-21.1%	47	-0.45
	Motor Vehicle Operators	190,270	\$37,566	-3.6%	-7,980	-4.0%	45	-0.48
	Printing Workers	13,870	\$37,649	-2.3%	-8,180	-37.1%	44	-0.50
	Other Personal Care and Service Workers	211,800	\$25,948	-2.5%	60,790	40.3%	42	-0.54
	Building Cleaning and Pest Control Workers	223,850	\$29,215	4.0%	8,330	3.9%	45	-0.54
Low-Opportunity	Material Recording, Scheduling, Dispatching, and Distributing Workers	257,880	\$31,467	-5.9%	4,110	1.6%	40	-0.67
	Other Protective Service Workers	121,040	\$27,059	4.9%	-5,020	-4.0%	41	-0.68
	Food Processing Workers	24,680	\$28,856	-0.9%	-1,220	-4.7%	41	-0.69
	Nursing, Psychiatric, and Home Health Aides	218,340	\$25,842	-7.1%	19,230	9.7%	46	-0.69
	Other Production Occupations	92,230	\$29,813	-0.5%	-20,900	-18.5%	43	-0.70
	Textile, Apparel, and Furnishings Workers	40,460	\$24,217	4.0%	-13,320	-24.8%	48	-0.71
	Personal Appearance Workers	47,020	\$24,343	1.8%	9,670	25.9%	40	-0.72
	Material Moving Workers	198,710	\$26,234	4.7%	-14,610	-6.8%	39	-0.76
	Other Transportation Workers	28,810	\$22,544	-6.5%	16,840	140.7%	40	-0.76
	Grounds Maintenance Workers	45,910	\$27,887	0.2%	230	0.5%	35	-0.76
	Assemblers and Fabricators	42,130	\$26,368	-2.6%	-10,690	-20.2%	44	-0.77
	Animal Care and Service Workers	8,690	\$23,950	-0.6%	3,950	83.3%	36	-0.79
	Cooks and Food Preparation Workers	139,020	\$24,673	0.6%	4,810	3.6%	36	-0.81
	Helpers, Construction Trades	14,150	\$30,399	-6.5%	-4,920	-25.8%	29	-0.88
	Food and Beverage Serving Workers	322,660	\$20,134	-2.6%	54,490	20.3%	28	-0.88
	Other Food Preparation and Serving Related Workers	61,780	\$19,540	3.6%	13,180	27.1%	28	-0.95
Retail Sales Workers	475,720	\$21,335	-0.7%	-5,980	-1.2%	31	-1.00	

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs.

Note: Analysis reflects the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Economic vitality

High-opportunity occupations for workers with more than a high school degree but less than a bachelor's degree

Supervisors of installation, maintenance, and repair workers and law enforcement workers are high-opportunity jobs for workers with more than a high school degree but less than a BA

Occupation Opportunity Index: Occupations by Opportunity Level for Workers with More Than a High School Diploma but Less Than a Bachelor's Degree

Occupation	Employment	Job Quality	Growth				Occupation Opportunity Index	
	(2011)	Median annual wage (2011)	Real wage growth (2011)	Change in employment (2005-11)	% Change in employment (2005-11)	Median age (2010)		
High-Opportunity	Supervisors of Installation, Maintenance, and Repair Workers	23,780	\$75,010	2.6%	610	2.6%	48	0.54
	Law Enforcement Workers	29,450	\$70,539	6.5%	-46,660	-61.3%	38	0.17
Middle-Opportunity	Supervisors of Office and Administrative Support Workers	103,680	\$58,260	0.8%	-860	-0.8%	45	0.08
	Plant and System Operators	9,140	\$59,746	-7.8%	980	12.0%	48	0.08
	Drafters, Engineering Technicians, and Mapping Technicians	23,950	\$55,508	-2.1%	-1,440	-5.7%	43	-0.04
	Legal Support Workers	27,150	\$54,222	4.7%	-5,470	-16.8%	38	-0.08
	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	35,090	\$55,814	-2.6%	-4,290	-10.9%	40	-0.09
	Health Technologists and Technicians	132,470	\$51,329	1.4%	1,950	1.5%	42	-0.10
	Supervisors of Sales Workers	74,170	\$58,031	-11.3%	-7,650	-9.3%	42	-0.11
	Supervisors of Personal Care and Service Workers	12,190	\$43,150	2.3%	900	8.0%	43	-0.27
	Secretaries and Administrative Assistants	278,860	\$45,662	6.9%	-64,350	-18.7%	46	-0.35
	Life, Physical, and Social Science Technicians	18,750	\$44,540	-2.1%	3,550	23.4%	36	-0.35
	Occupational Therapy and Physical Therapist Assistants and Aides	8,390	\$38,957	1.2%	510	6.5%	40	-0.42
	Financial Clerks	211,110	\$38,309	1.2%	-11,980	-5.4%	43	-0.45
	Other Education, Training, and Library Occupations	115,690	\$30,112	5.0%	-14,960	-11.5%	45	-0.59
	Communications Equipment Operators	9,350	\$31,628	-5.3%	-4,480	-32.4%	44	-0.66
	Other Healthcare Support Occupations	58,130	\$33,828	-2.8%	-8,880	-13.3%	37	-0.67
Low-Opportunity	Information and Record Clerks	344,860	\$33,935	-5.1%	-4,580	-1.3%	37	-0.67
	Other Office and Administrative Support Workers	287,950	\$30,529	-3.6%	-37,100	-11.4%	41	-0.79
	Entertainment Attendants and Related Workers	22,700	\$21,976	N/A	N/A	N/A	27	-1.31

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs.

Note: Analysis reflects the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Economic vitality

High-opportunity occupations for workers with a bachelor's degree or higher

Top executives; advertising, marketing, promotions, public relations, and sales managers; and lawyers, judges, and related workers are high-opportunity occupations for workers with a bachelor's degree or higher

Occupation Opportunity Index: All Levels of Opportunity for Workers with a Bachelor's Degree or Higher

Occupation	Employment	Job Quality	Growth			Occupation Opportunity Index	
	(2011)	Median annual wage (2011)	Real wage growth (2011)	Change in employment (2005-11)	% Change in employment (2005-11)		Median age (2010)
High-Opportunity							
Top Executives	120,190	\$145,083	0.5%	13,430	12.6%	47	2.22
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	49,250	\$144,468	2.5%	4,410	9.8%	39	2.10
Lawyers, Judges, and Related Workers	72,150	\$139,921	5.9%	3,380	4.9%	43	2.07
Operations Specialties Managers	125,440	\$133,088	3.9%	-330	-0.3%	43	1.87
Other Management Occupations	130,110	\$104,886	8.1%	25,360	24.2%	45	1.37
Health Diagnosing and Treating Practitioners	306,170	\$100,248	6.9%	27,150	9.7%	45	1.24
Sales Representatives, Services	155,360	\$87,739	15.1%	27,500	21.5%	39	0.96
Engineers	47,050	\$88,712	-0.1%	1,840	4.1%	45	0.81
Preschool, Primary, Secondary, and Special Education School Teachers	289,170	\$67,365	41.0%	36,040	14.2%	41	0.80
Financial Specialists	211,760	\$84,187	9.8%	16,220	8.3%	40	0.79
Postsecondary Teachers	83,470	\$80,794	5.6%	4,050	5.1%	46	0.70
Air Transportation Workers	16,040	\$78,323	-35.4%	14,260	801.1%	41	0.67
Computer Occupations	234,070	\$82,847	-2.2%	19,910	9.3%	37	0.61
Social Scientists and Related Workers	11,970	\$82,240	9.9%	-24,370	-67.1%	42	0.60
Business Operations Specialists	261,800	\$71,677	4.0%	59,550	29.4%	40	0.58
Physical Scientists	13,350	\$78,806	3.4%	-30	-0.2%	41	0.55
Architects, Surveyors, and Cartographers	9,950	\$76,692	4.1%	-2,610	-20.8%	41	0.49
Life Scientists	8,750	\$76,489	-2.4%	-2,460	-21.9%	39	0.39
Entertainers and Performers, Sports and Related Workers	43,880	\$70,538	3.1%	12,770	41.0%	36	0.36
Sales Representatives, Wholesale and Manufacturing	116,920	\$68,759	1.1%	-19,090	-14.0%	44	0.26
Media and Communication Workers	58,200	\$62,477	2.4%	5,270	10.0%	39	0.15
Other Sales and Related Workers	48,240	\$53,498	16.8%	-8,460	-14.9%	45	0.11
Art and Design Workers	43,660	\$63,023	2.6%	-7,890	-15.3%	37	0.09
Middle-Opportunity							
Media and Communication Equipment Workers	24,700	\$53,279	7.7%	6,450	35.3%	37	-0.02
Specialists	135,900	\$47,981	5.1%	19,540	16.8%	41	-0.09
Librarians, Curators, and Archivists	20,930	\$49,803	-0.1%	1,290	6.6%	46	-0.10
Other Teachers and Instructors	81,800	\$37,546	-22.2%	23,810	41.1%	38	-0.63

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs.

Note: Analysis reflects the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Economic vitality

Black workers among those most likely to have low-opportunity jobs

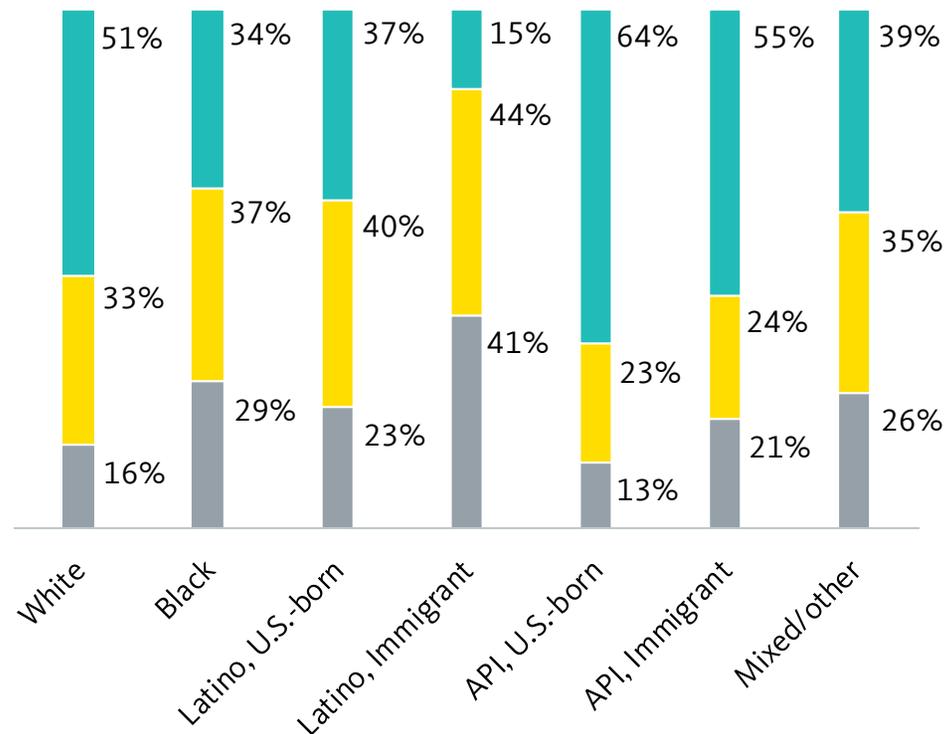
Examining access to high-opportunity jobs by race/ethnicity and nativity, we find that Asian or Pacific Islander (API) workers, both U.S.-born and immigrant, and White workers are most likely to be employed in high-opportunity occupations. Latino immigrants are the least likely to be in these occupations. **Black workers and Latino immigrants are more likely than other groups to be in low-opportunity occupations.**

Differences in education levels play a large role in determining access to high-opportunity jobs (and this is examined next), but racial discrimination; work experience; social networks; and, for immigrants, legal status and English language ability are also contributing factors.

Latinos immigrants and African Americans are least likely to access high-opportunity jobs

Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, All Workers

- High Opportunity
- Middle Opportunity
- Low Opportunity



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non-institutional population ages 25 through 64. Note: While data on workers are from Nassau and Suffolk counties, the opportunity ranking for each worker's occupation is based on analysis of the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget. Data for some racial/ethnic groups in some years are excluded due to small sample size.

Economic vitality

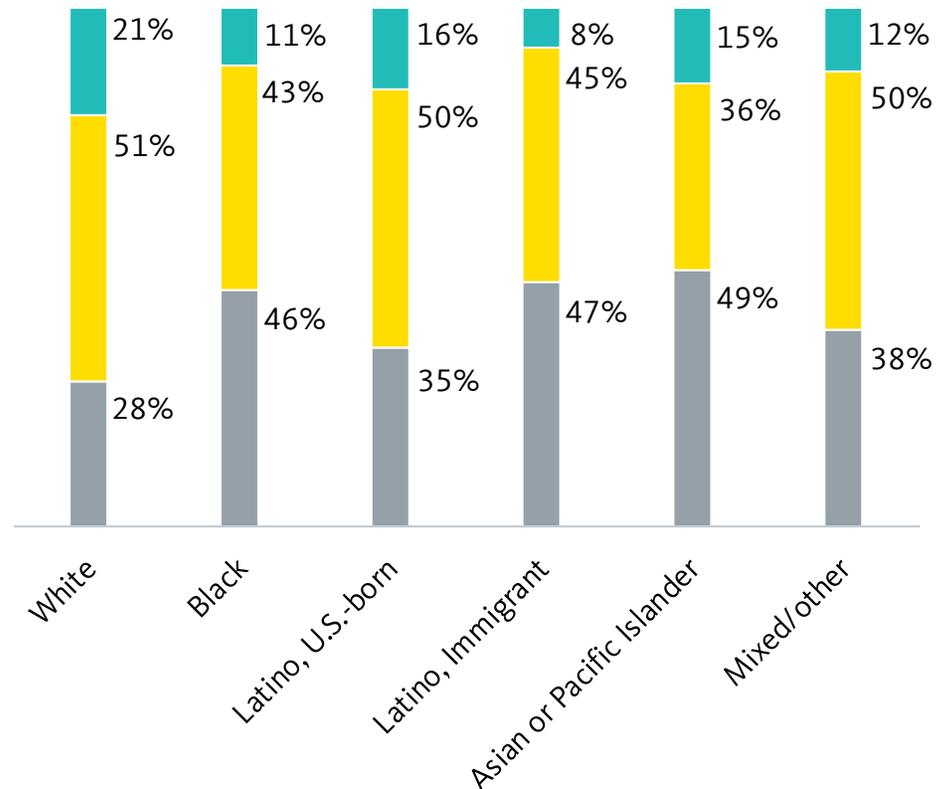
Black workers with a high school diploma or less among those most likely to have low-opportunity jobs

Among workers with a high school diploma or less, White and U.S.-born Latino workers are most likely to be in the high-opportunity occupations, while Latino immigrants are the least likely to be in these jobs.

White workers with low levels of education are most often in middle-opportunity jobs, and Black, Asian or Pacific Islander, and Latino immigrant workers with low levels of education are likely to be in low-opportunity jobs.

Of those with low education levels, Latino immigrants Blacks are least likely to hold high-opportunity jobs
Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Low Educational Attainment

- High Opportunity
- Middle Opportunity
- Low Opportunity



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non-institutional population ages 25 through 64 with a high school diploma or less. Note: While data on workers are from Nassau and Suffolk counties, the opportunity ranking for each worker's occupation is based on analysis of the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget. Data for some racial/ethnic groups are excluded due to small sample size.

Economic vitality

Black workers with some higher education among those most likely to have low-opportunity jobs

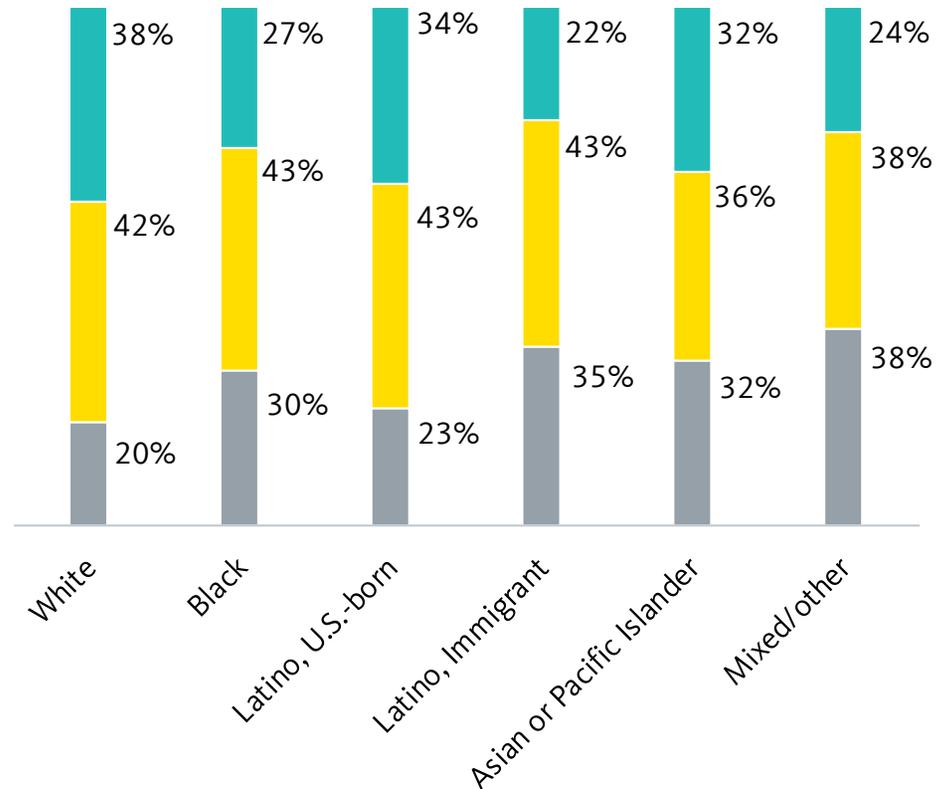
Differences in job opportunity are generally smaller for workers with middle education levels (more than a high school diploma but less than a bachelor’s degree). White and U.S.-born Latino workers are most likely to be found in high- and middle-opportunity jobs.

Blacks, Asians or Pacific Islanders, Latino immigrants, and workers of mixed/other races are most likely to be in low-opportunity jobs. Just one in five White workers with more than a high school diploma but less than a bachelor’s degree are in low-opportunity jobs.

Of those with middle education levels, African Americans, Latino immigrants, and those of mixed/other races are least likely to access high-opportunity jobs

Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Middle Educational Attainment

- High Opportunity
- Middle Opportunity
- Low Opportunity



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non-institutional population ages 25 through 64 with more than a high school diploma but less than a BA degree. Note: While data on workers are from Nassau and Suffolk counties, the opportunity ranking for each worker’s occupation is based on analysis of the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget. Data for some racial/ethnic groups are excluded due to small sample size.

Economic vitality

Black workers with a bachelor's degree or higher among those least likely to have high-opportunity jobs

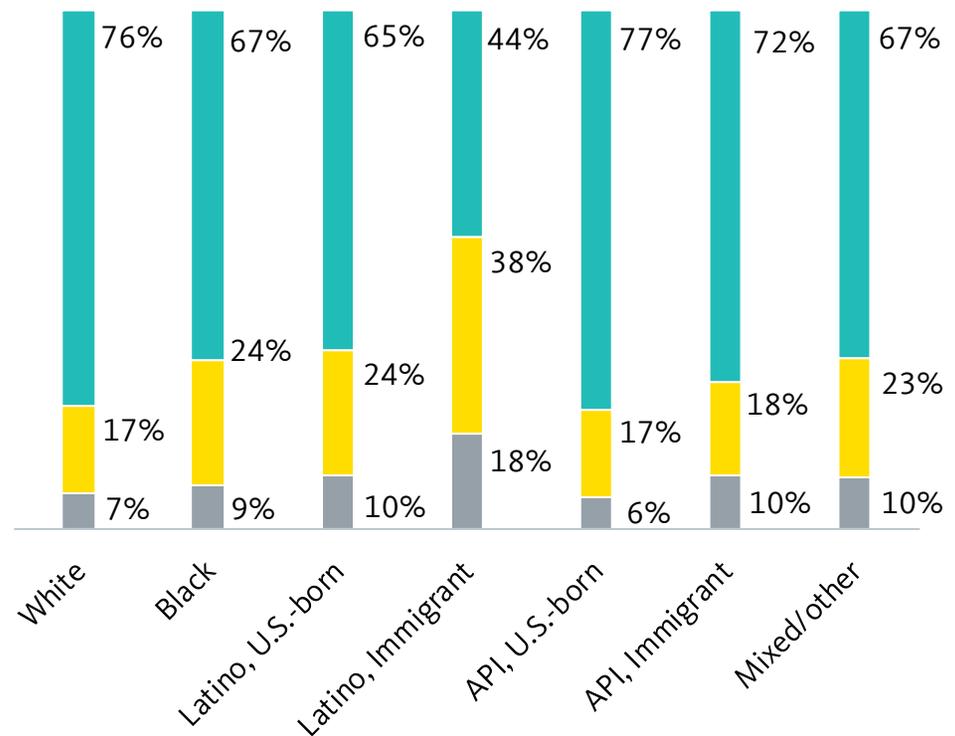
Differences in access to high-opportunity occupations tend to decrease even more for workers with college degrees, though gaps across groups remain.

Among the most educated workers, U.S.-born Asian or Pacific Islander workers are the most likely to be in high-opportunity occupations, followed by White workers. **Black and Latino workers with college degrees have the least access to high-opportunity jobs and the highest representation in middle-opportunity occupations.**

Smaller differences in occupational opportunity by race/ethnicity and nativity for college-educated workers

Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with High Educational Attainment

- High Opportunity
- Middle Opportunity
- Low Opportunity



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non-institutional population ages 25 through 64 with a BA degree or higher. Note: While data on workers are from Nassau and Suffolk counties, the opportunity ranking for each worker's occupation is based on analysis of the New York-Northern New Jersey-Long Island Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Readiness



Readiness

Highlights

How prepared are the region's residents for the 21st century economy?

- A skills and education gap is looming particularly among Black and Latino residents, whose rates of postsecondary education (having at least an associate's degree) in the region are lower than the share of future jobs that will require that level of education statewide.
- Educational attainment for youth of color has increased over the past two decades, but Latino immigrants are the least prepared for the jobs of the future.
- The number of disconnected youth who are not working or in school is on the rise, and a majority (51 percent) of disconnected youth are youth of color.
- Black Long Islanders face multiple health challenges, with high rates of obesity, diabetes, and asthma.

Percent of Black Long Islanders with an associate's degree or higher:

38%

Number of youth who are disconnected:

34,546

Percent of adults who are overweight or obese:

60%

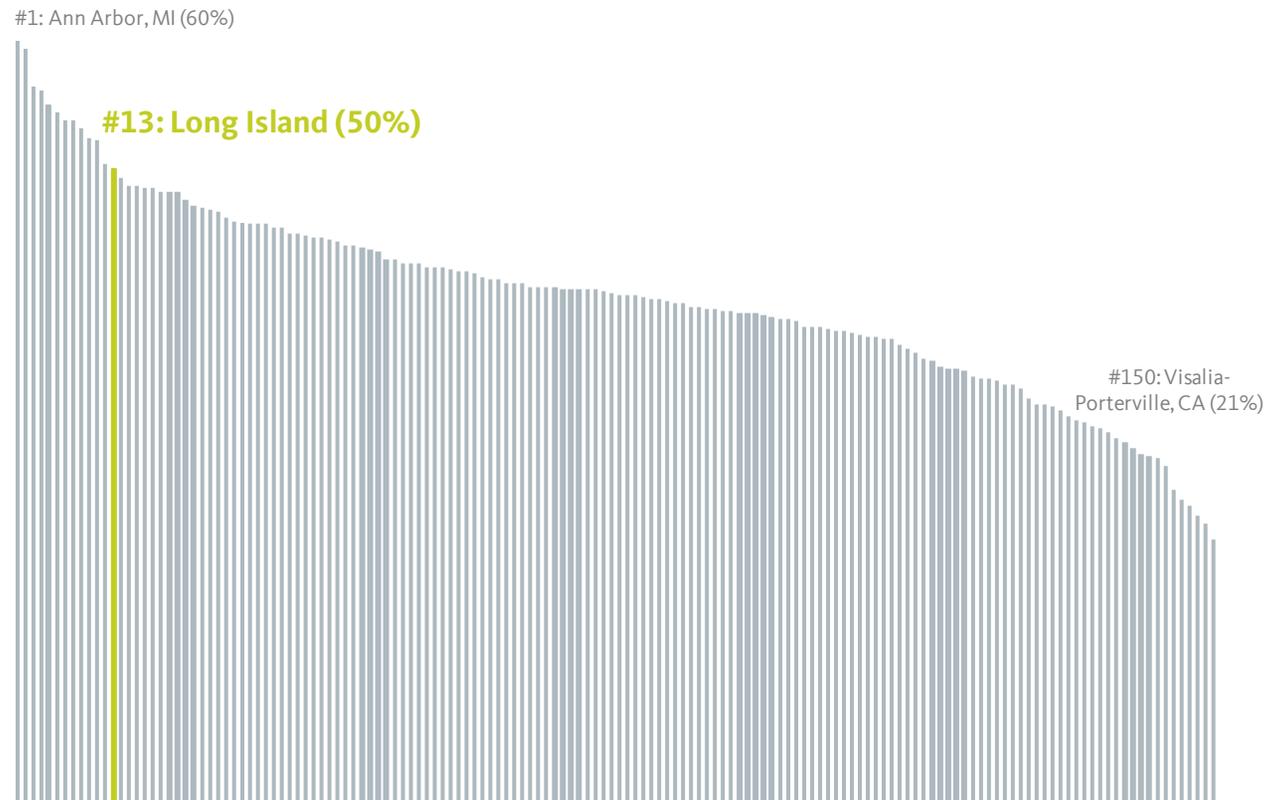
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Relatively high education levels

In comparing Long Island to the nation's largest 150 metro areas, it ranks 13th in the share of residents with an associate's degree or higher. Half of adults ages 25 to 64 have at least an associate's degree.

Compared to other metros in the Northeast, educational attainment is lower in Long Island than in Bridgeport (54 percent), but it is higher than in Trenton-Ewing (48 percent) and the New York City metro area as a whole (47 percent).

The region is among the top half of the largest 150 regions for residents with an associate's degree or higher
Percent of the Population with an Associate's Degree or Higher in 2014: Largest 150 Metros, Ranked



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Readiness

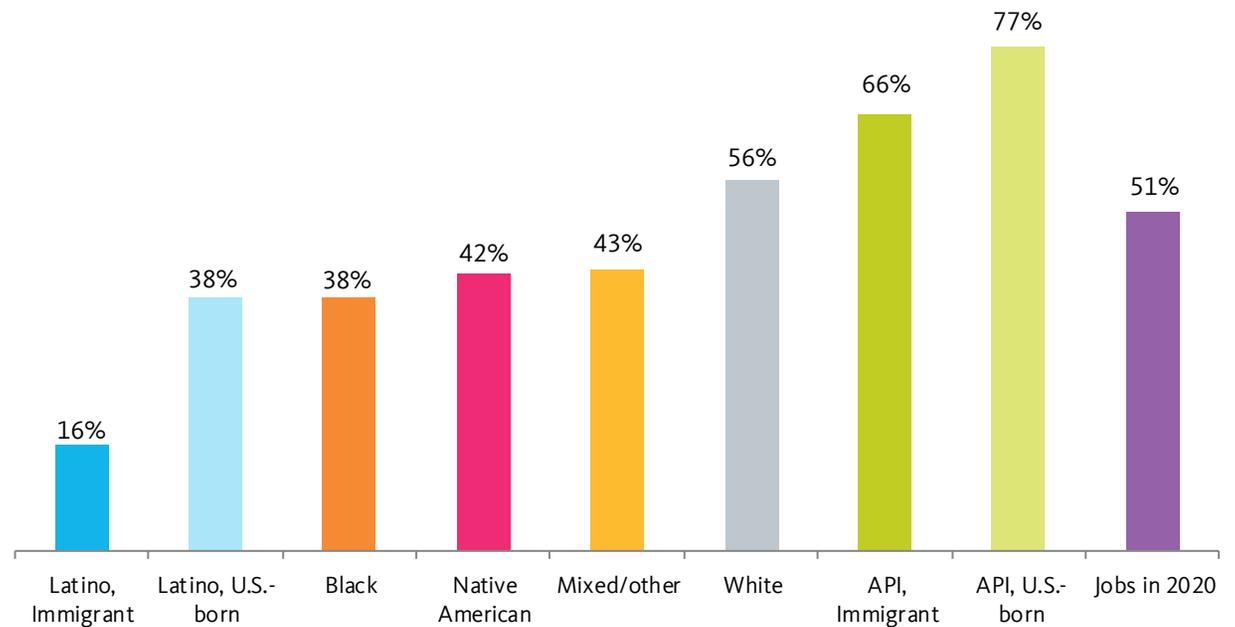
Black workers among least prepared for future economy

Despite relatively high levels of educational attainment overall, wide gaps exist across racial/ethnic groups.

According to the [Georgetown Center on Education and the Workforce](#), in three years, 51 percent of New York state’s jobs will require an associate’s degree or higher. While half of the region’s workers currently have that level of education, there are large differences in educational attainment by race/ethnicity and nativity. Only 16 percent of Latino immigrants, 38 percent of U.S.-born Latinos, and **38 percent of Black Long Islanders have an associate’s degree or higher.**

Long Island will face a skills gap unless education levels increase

Share of Working-Age Population with an Associate’s Degree or Higher by Race/Ethnicity and Nativity, 2014, and Projected Share of Jobs that Require an Associate’s Degree or Higher, 2020



Sources: Georgetown Center for Education and the Workforce; Integrated Public Use Microdata Series. Universe for education levels of working-age population includes all persons ages 25 through 64.
 Note: Data for 2014 by race/ethnicity and nativity represent a 2010 through 2014 average for Nassau and Suffolk counties; data on jobs in 2020 represent a state-level projection for New York.

Readiness

Black workers among least prepared for future economy

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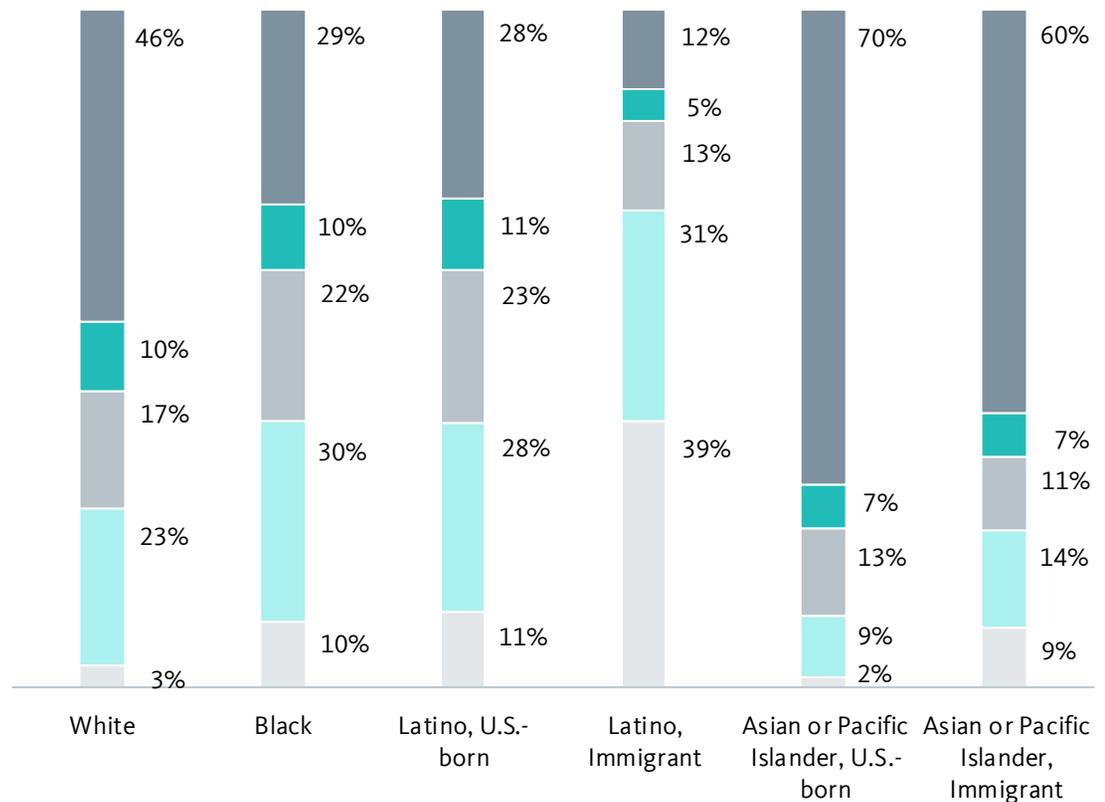
The education distribution of Black and U.S.-born Latino Long Islanders is nearly identical. Twenty-nine percent of Black residents ages 25 to 64 have a bachelor’s degree or higher as do 28 percent of U.S.-born Latinos. Latino immigrants have the lowest levels of educational attainment though 30 percent have at least some college education. Asian or Pacific Islander immigrants are more likely than their White counterparts to have a bachelor’s degree, but they are also more likely to have less than a high school diploma.

While not shown in the graph, educational attainment has improved for people of every race/ethnicity since 1990. Despite this progress, Latinos and Blacks, who will account for a growing share of the region’s workforce, are still less prepared for the future economy than other groups.

There are wide gaps in educational attainment

Educational Attainment by Race/Ethnicity and Nativity, 2014

- Bachelor's degree or higher
- Associate's degree
- Some college
- High school diploma
- Less than high school diploma



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Notes: Data represent a 2010 through 2014 average.

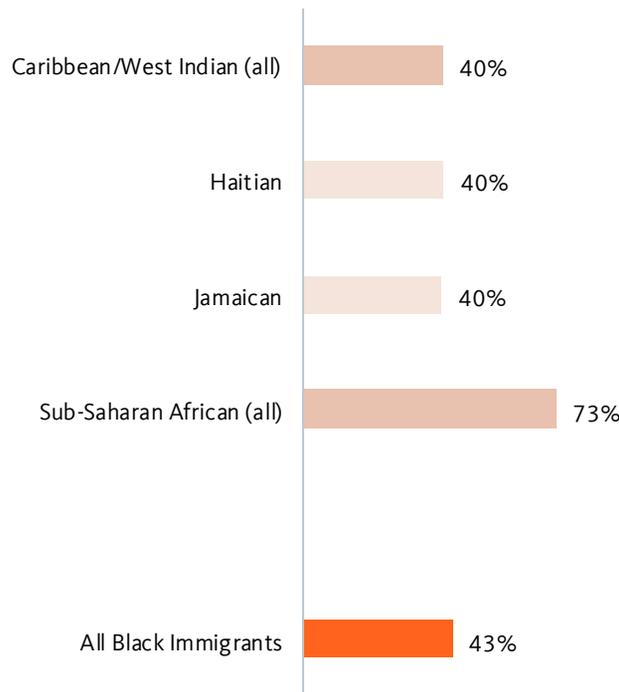
Readiness

Education levels vary among Black and Latino immigrant groups

Education levels are higher among Black immigrants overall than Latino immigrants but this varies by region of origin. Among Black immigrants, those from Sub-Saharan Africa have higher rates of postsecondary education than Haitian and Jamaican immigrants. Importantly, Black immigrants as a whole are more likely than U.S.-born Blacks to have an associate’s degree or higher.

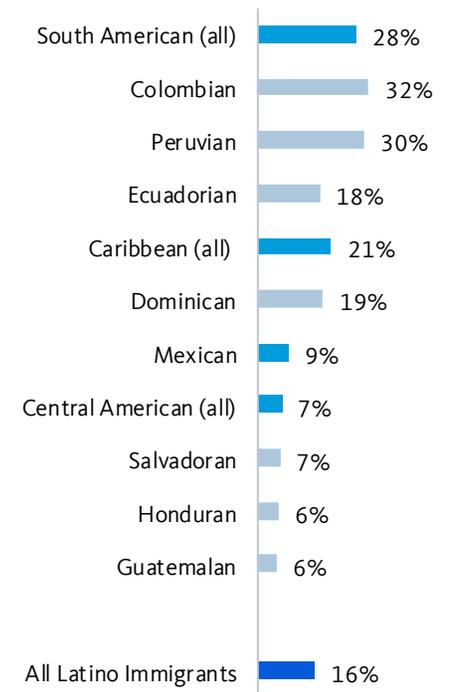
Among the region’s Latino immigrant communities, immigrants from Central America have lower education levels, on average, than South American immigrants. Just 6 percent of Honduran and Guatemalan immigrants have an associate’s degree or higher compared with 32 percent of Columbian immigrants.

Sub-Saharan African immigrants are more likely than Caribbean immigrants to have postsecondary education
Black Immigrants, Percent with an Associate’s Degree or Higher by Origin, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

South American immigrants are more likely than Central American immigrants to have postsecondary education
Latino Immigrants, Percent with an Associate’s Degree or Higher by Origin, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Readiness

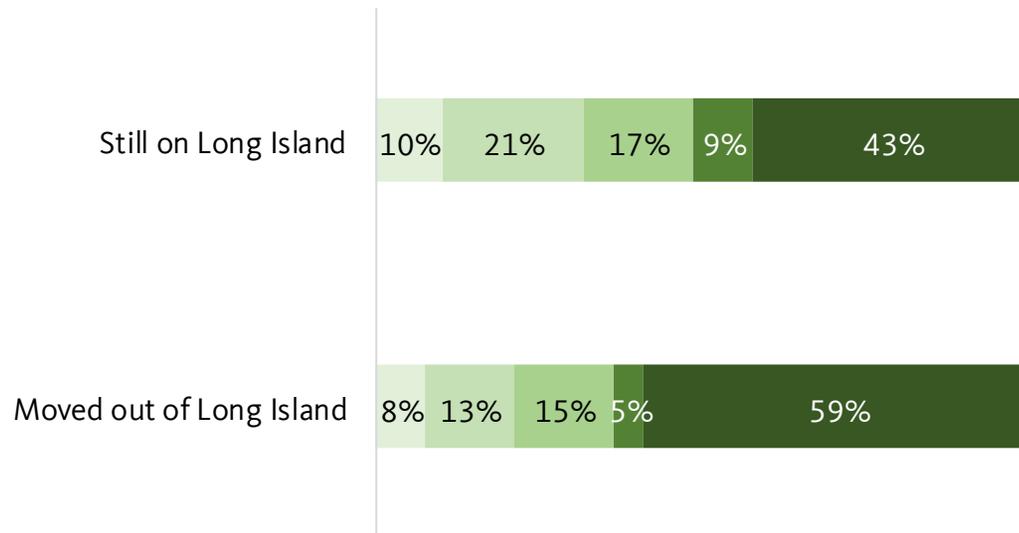
Young people who leave Long Island are more educated than those who stay

We also looked at the severity of Long Island’s “brain drain” by comparing the educational attainment of young people ages 25 to 34 who left the island in the past year to those who stayed. **Nearly three in five young people who left Long Island have a bachelor’s degree or higher compared with 43 percent of those who stayed.**

Importantly, young people who stayed on Long Island are more likely to have an associate’s degree than those who left. These findings underscore the importance of investing in young people who stay on Long Island.

Young people who moved out of Long Island are more likely to have a bachelor’s degree than those who stay
Educational Attainment of People Ages 25 to 34 who Moved Out of Long Island in the Past Year and Those who Stayed, 2014

- Less than High School
- High School Diploma
- Some College
- Associate's Degree
- Bachelor's Degree or Higher



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 34.
 Note: Data represent a 2010 through 2014 average.

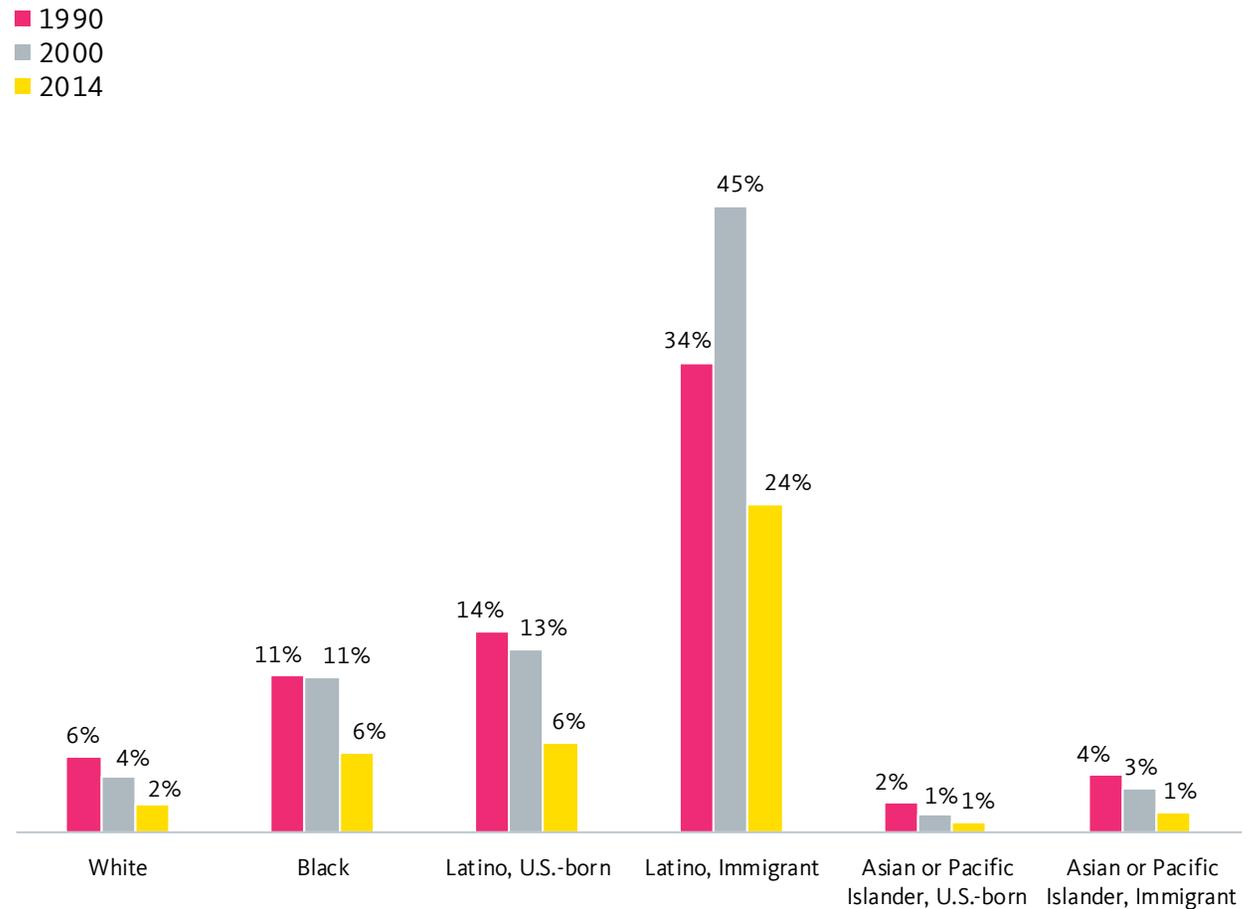
Readiness

More youth are getting high school diplomas, but Latino immigrants are less likely to graduate than their peers

The share of youth who do not have a high school education and are not pursuing one has declined considerably since 1990 for all racial/ethnic groups (though there was an increase in 2000 among Latino immigrants).

Despite the overall improvement, Black and Latino young people are still less likely to finish high school than Whites. Immigrant Latinos have a particularly high rate of dropout or non-enrollment, with almost one in four not in school and not pursuing a high school degree.

Educational attainment and enrollment among youth has improved for all groups since 2000
 Percent of 16- to 24-Year-Olds Not Enrolled in School and Without a High School Diploma, 1990 to 2014



Source: Integrated Public Use Microdata Series.
 Note: Data for 2014 represent a 2010 through 2014 average.

Readiness

Black youth are increasingly disconnected from work and school

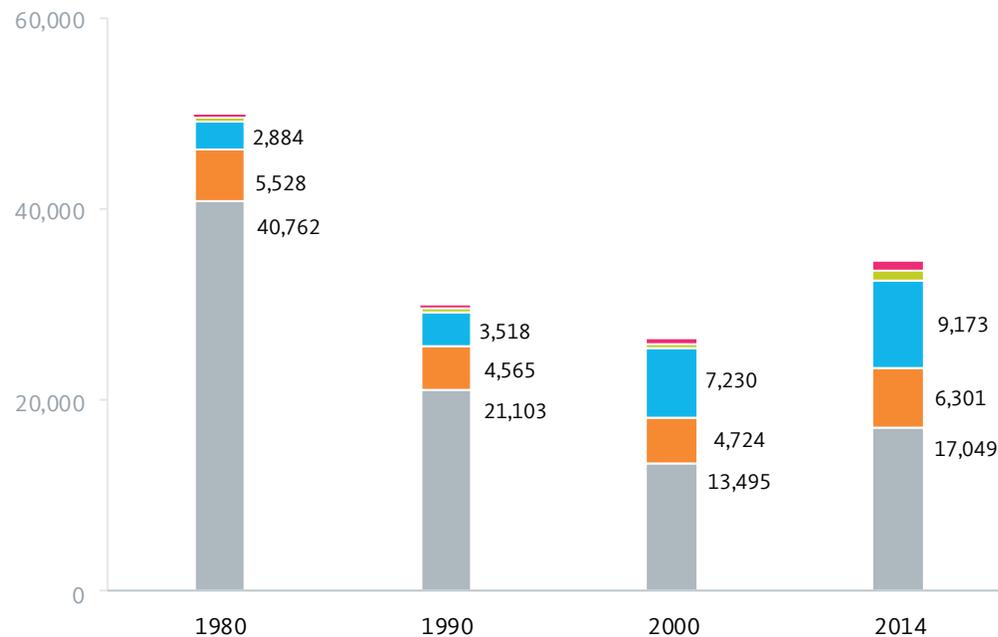
While trends in the pursuit of education have been positive for youth of color, the number of “disconnected youth” who are neither in school nor working remains high. **Of the region’s 34,500 disconnected youth in 2014, a majority (51 percent) are youth of color.**

The number of disconnected youth has increased by over 8,000 since 2000. While the number of disconnected Black youth decreased from 1980 to 1990, the number has increased every decade since. **By 2014, more than 6,000 young Black people were not in school or working.** The number of disconnected Latino youth has also increased substantially from 3,500 in 1990 to more than 9,100 in 2014.

More than 34,500 youth in the region are disconnected

Disconnected Youth: 16- to 24-Year-Olds Not in School or Work, 1980 to 2014

- Native American or Other
- Asian or Pacific Islander
- Latino
- Black
- White



Source: Integrated Public Use Microdata Series.
 Note: Data for 2014 represent a 2010 through 2014 average.

Readiness

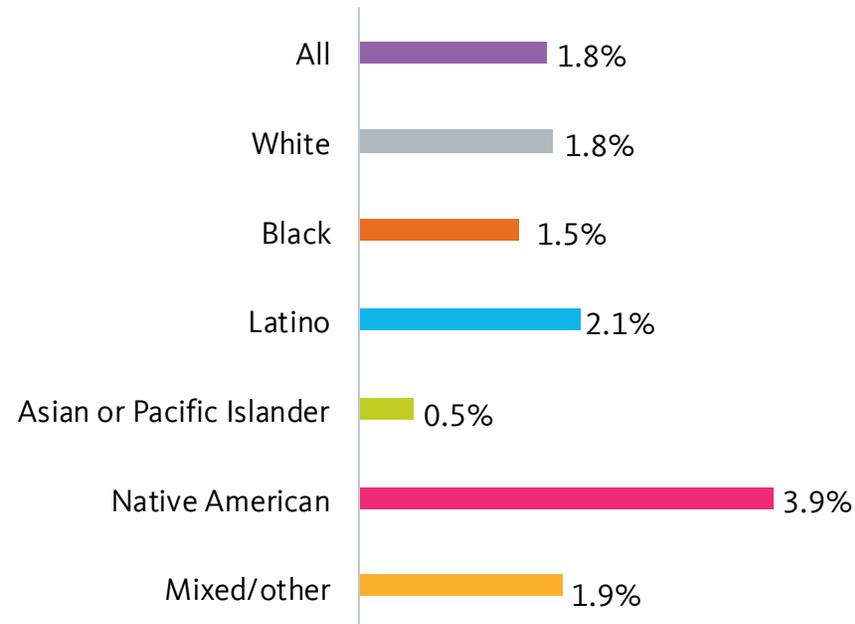
Healthy food access varies by income as well as race

Limited supermarket access areas (LSAs) are defined as areas where residents must travel significantly farther to reach a supermarket than the “comparatively acceptable” distance traveled by residents in well-served areas with similar population densities and car ownership rates. Native Americans are the most likely to live in LSAs using this measure.

Long Islanders of all racial/ethnic backgrounds have much better access to supermarkets than the nation as a whole and somewhat better access than the broader New York metro area, but similar access to New York City residents.

A [recent study](#) on Long Island found that the price of healthy food, rather than the presence of grocery stores, is a barrier to healthy food access; that the quality of food varies considerably across neighborhoods; and that shopping at multiple stores is often necessary – which is most difficult for households without access to a vehicle.

Native Americans are the most likely to live in neighborhoods with below average access to supermarkets
Percent Living in Limited Supermarket Access Areas by Race/Ethnicity, 2014



Readiness

Healthy food access varies by income as well as race

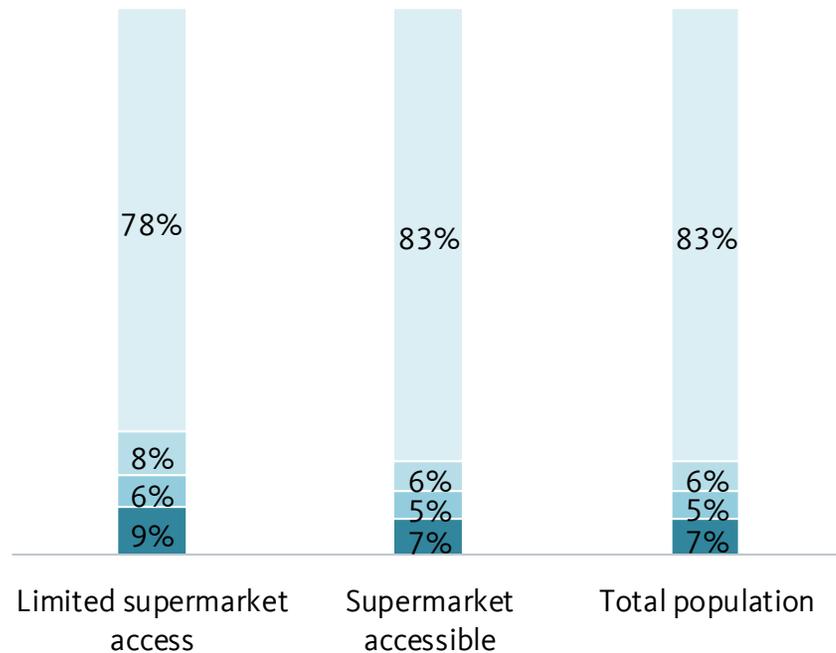
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Those living in limited supermarket access areas (LSAs) are more likely to fall below 200 percent of the federal poverty level than those living in areas with better access to healthy food. Still, 78 percent of residents in LSAs are at 200 percent of poverty or higher – signifying that factors other than income play a role in supermarket access.

Those with the lowest incomes are the most likely to live in neighborhoods with limited access to supermarkets

Percent Population by Poverty and Food Environments, 2014

- 200% poverty or above
- 150-199% poverty
- 100-149% poverty
- Below poverty



Sources: The Reinvestment Fund, 2014 LSA analysis; U.S. Census Bureau. Universe includes all persons not in groups quarters. Note: Data on population by poverty status reflects a 2010 through 2014 average.

Readiness

Black communities face significant health challenges: obesity and diabetes

The region’s adult obesity rate of 23 percent is lower than the U.S. rate overall (27 percent). But African Americans in the region have a higher prevalence of obesity and diabetes compared with other racial/ethnic groups. Sixty-six percent of Black Long Islanders are overweight or obese, as are 68 percent of Latinos.

While Latino adults are the least likely to have diabetes, **Black adults on Long Island are twice as likely as Whites to have diabetes.**

The social determinants of health, where people live, work, and age, are increasingly recognized as influencing growing rates of chronic diseases like diabetes.

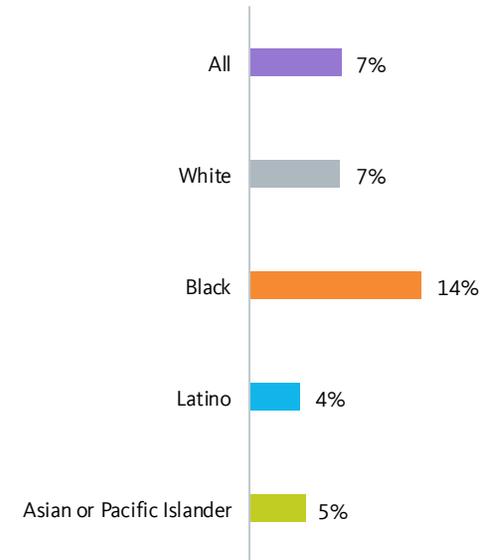
African Americans face above average rates of obesity
Adult Overweight and Obesity Rate by Race/Ethnicity, 2012

■ Overweight
 ■ Obese



Black adults are twice as likely as Whites to have diabetes

Adult Diabetes Rate by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.
 Note: Data represent a 2008 through 2012 average.

Readiness

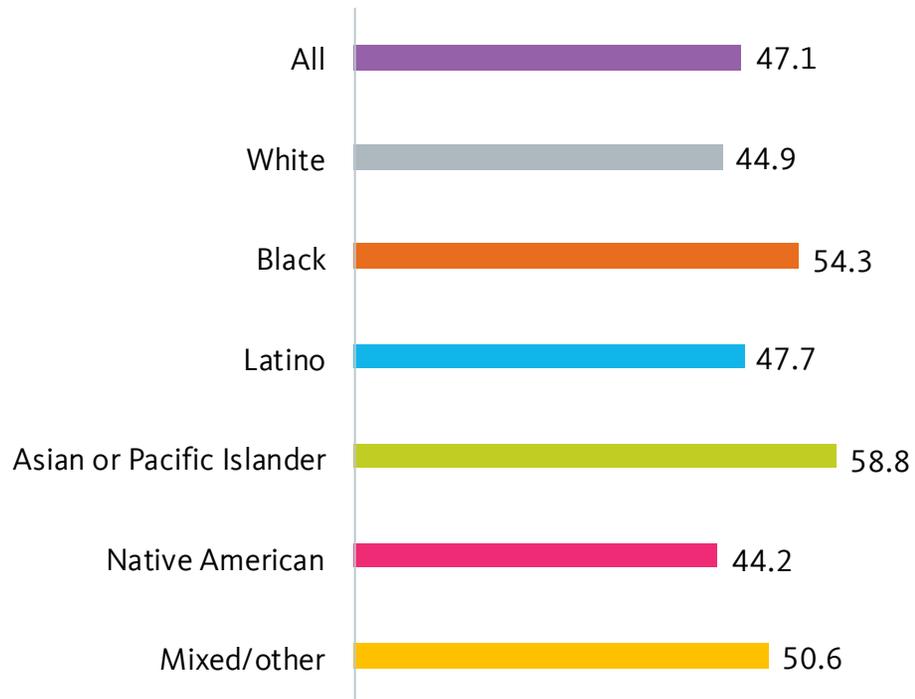
Black and Asian or Pacific Islander residents face highest exposure to air pollution

The average Black resident of Long Island has more exposure to air pollution than 54 percent of neighborhoods in the United States. By contrast, the average White resident of Long Island has more exposure than 45 percent of tracts in the country. The Asian or Pacific Islander population has the highest exposure on Long Island at almost 59.

The exposure index values range from 1 (lowest risk) to 100 (highest risk) on a national scale. The index value is based on percentile ranking each risk measure across all census tracts in the U.S. and taking the averaging ranking for each geography and demographic group.

Blacks and Asian or Pacific Islanders on Long Island have the highest average exposure to air pollution

Air Pollution: Exposure Index by Race/Ethnicity, 2014



Sources: U.S. EPA, 2011 National Air Toxics Assessment; U.S. Census Bureau.
 Note: Data on population by race/ethnicity represent a 2010 through 2014 average.

Readiness

Exposure to air pollution varies by income as well as race

Both race and socioeconomic status impact exposure to pollutants. **On Long Island, people of color with a family income at or above 100 percent of the federal poverty level have the highest exposure to pollution.** Whites living below the federal poverty level have lower rates of exposure than people of color regardless of their poverty status.

People of color have higher exposure to air pollution regardless of poverty status

Air Pollution: Exposure Index by Poverty Status, 2014

- White
- People of color



Sources: U.S. EPA, 2011 National Air Toxics Assessment; U.S. Census Bureau. Universe includes all persons not in group quarters. Note: Data on population by poverty status represent a 2010 through 2014 average.

Readiness

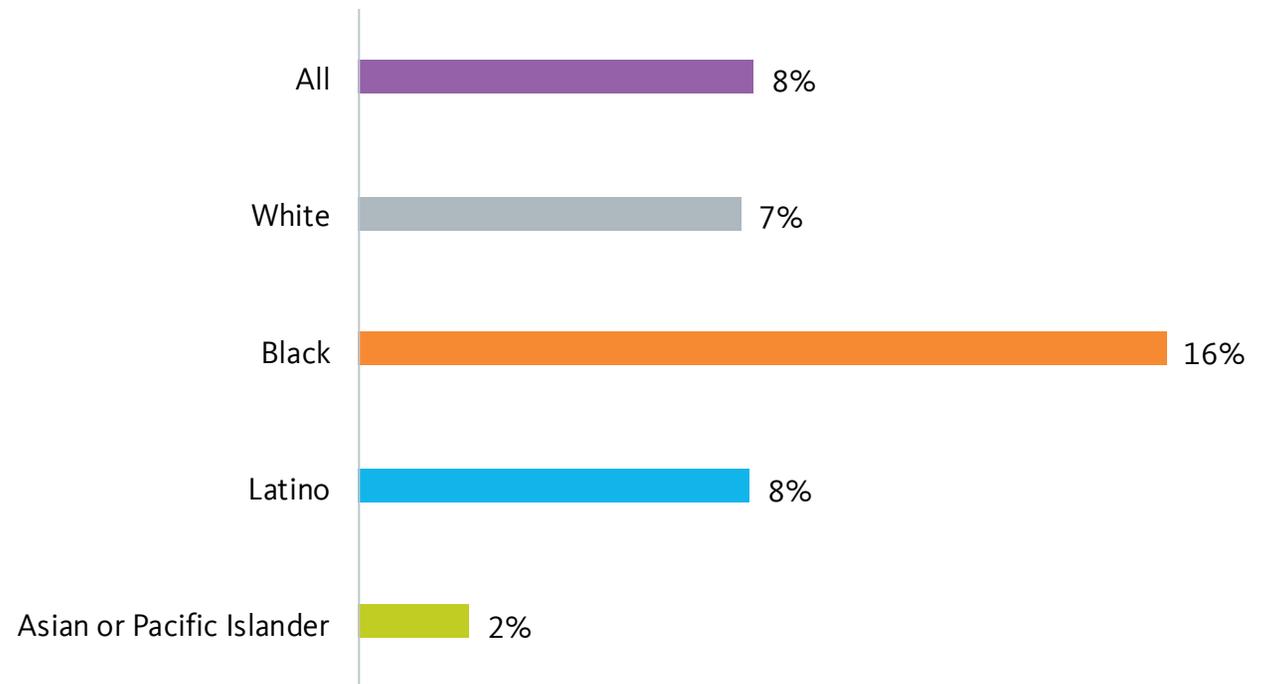
Black communities face significant health challenges: asthma

While the overall adult asthma rate is 8 percent on Long Island, Asians or Pacific Islanders are the least likely to live with asthma followed by Whites. **Black Long Islanders are twice as likely as Latino and White Long Islanders to have asthma.**

Previous studies have also found higher asthma rates in Black people relative to Whites. While socioeconomic status is a determinant of health, and poverty is associated with higher asthma rates, racial differences persist even when accounting for income and education. A growing body of research points to the role of environmental stressors, racism, and residential segregation.

Black Long Islanders are more than twice as likely as Whites to live with asthma

Adult Asthma Rate by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.
Note: Data represent a 2008 through 2012 average.

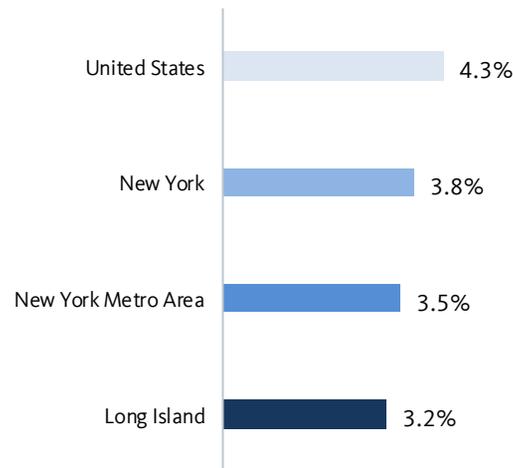
Readiness

Heart attack rates are lower on Long Island than the in the United States overall

The share of adults who have had a heart attack is slightly lower in Long Island compared to the broader region, the state as a whole, and the United States overall.

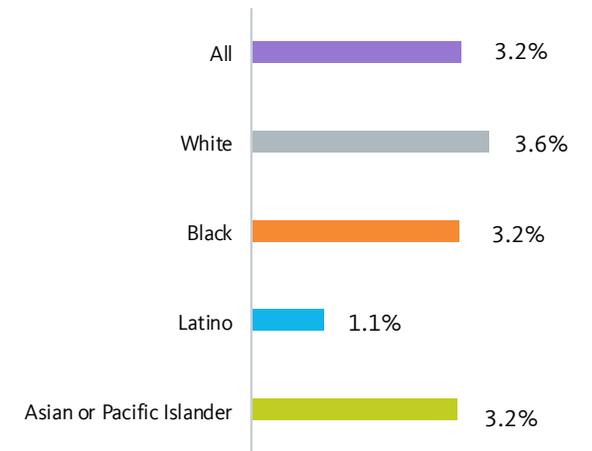
White Long Islanders, however, report higher heart attack rates than the regional average: 3.6 percent of White adults have had a heart attack. Latino adults are less likely than White, Black, and Asian or Pacific Islander adults to have had a heart attack.

Adult heart attack rates are lower in Long Island than in the region, state, and nation overall
Adult Heart Attack Rates by Geography, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older. Note: Data represent a 2008 through 2012 average.

Among Long Islanders, White adults are more likely than Black adults to have had a heart attack
Adult Heart Attack Rates by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older. Note: Data represent a 2008 through 2012 average.

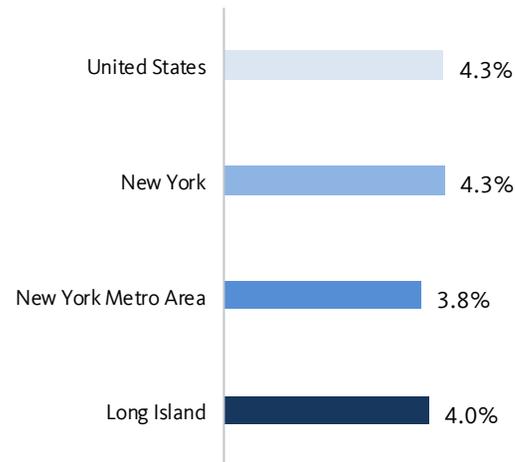
Readiness

Adult angina rates are lower on Long Island than the in the United States overall

Heart disease is the leading cause of death in the United States. The share of adults who have angina is slightly higher in Long Island compared to the broader region, although it is slightly lower than in New York state and the United States overall. White adults and Asian American and Pacific Islander adults in Long Island are more likely than Black or Latino adults to have been diagnosed with angina or coronary heart disease.

Adult Angina Rates are lowest in the broader New York City region

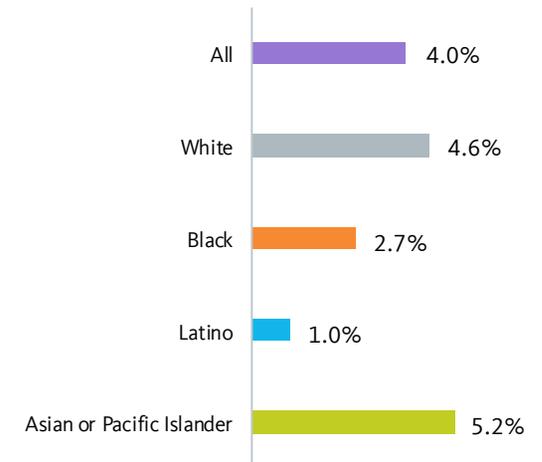
Adult Angina Rates by Geography, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older. Note: Data represent a 2008 through 2012 average.

White adults are more likely than Black adults on Long Island to have been diagnosed with angina

Adult Angina Rates by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older. Note: Data represent a 2008 through 2012 average.

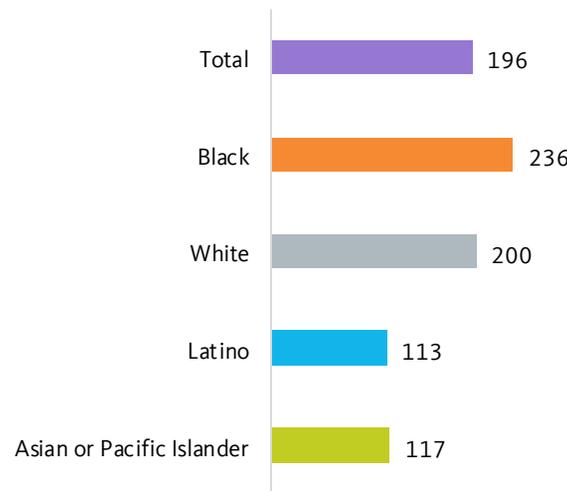
Readiness

Black Long Islanders are the most likely to die from heart disease

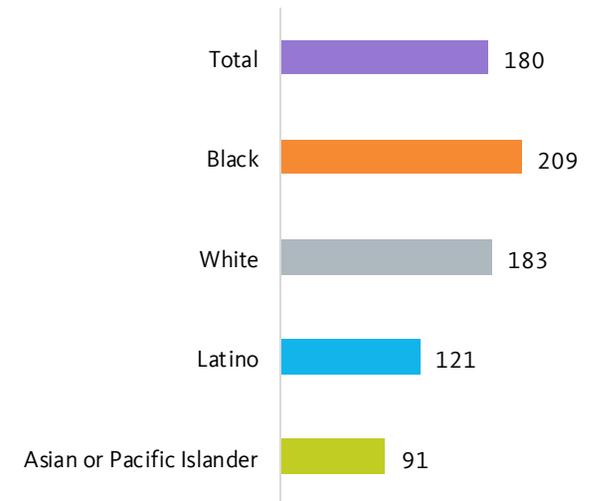
Even though White and Asian or Pacific Islander adults are more likely than Black Islander adults to have been diagnosed with angina or coronary heart disease, **Black Long Islanders are more likely than Whites to die of heart disease.** Part of the difference between diagnosis and mortality rates for heart disease is due to the fact that the mortality rates reported here are age-adjusted (that is, they take into account the fact that Black, Latino, and Asian or Pacific Islander Long Islanders are younger, on average, than White Long Islanders). However, another factor may be differences in access to health care (e.g., you have to see a doctor to be diagnosed with heart disease).

In Nassau County, heart disease mortality per 100,000 people ranged from 113 among Latinos to 236 among Black residents. In Suffolk County, Asians or Pacific Islanders are the least likely to die from heart disease (91 deaths per 100,000 people) and Black residents are the most likely (209 deaths per 100,000 people).

Heart disease mortality rates are highest among Black residents of Nassau County
Heart Disease Mortality per 100,000 Population, Age Adjusted, 2012-2014: Nassau County



Black residents in Suffolk County are also the most likely to die from heart disease
Heart Disease Mortality per 100,000 Population, Age Adjusted, 2012-2014: Suffolk County



Source: New York State Department of Health.
<https://www.health.ny.gov/statistics/community/minority/county/nassau.htm>

Source: New York State Department of Health.
<https://www.health.ny.gov/statistics/community/minority/county/suffolk.htm>

Readiness

People of color are less likely than Whites to have health insurance

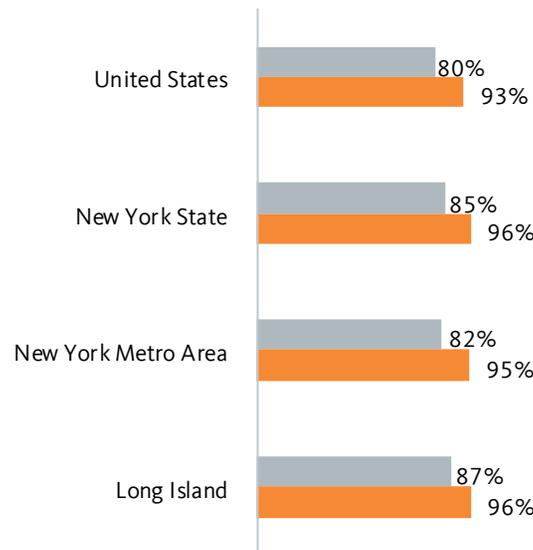
In the U.S. overall, 80 percent of adults and 93 percent of children have health insurance. On Long Island, the numbers are higher: 87 percent of adults and 96 percent of children are insured. But this share varies by race/ethnicity. Just 66 percent of Latino adults and 79 percent of Native American children have coverage (though Native American children may be covered through the Indian Health Service). **Within the Black population, 85 percent of adults have health insurance as do 95 percent of children.**

People without health insurance have worse access to care than those who have insurance. Without health insurance, many people go without needed medical treatment and the uninsured are less likely to access preventative care and services for those with chronic diseases.

Children and adults on Long Island are more likely to be insured than in the United States overall

Health Insurance Rates by Geography, 2014

■ 18-64 years
■ 0-17 years

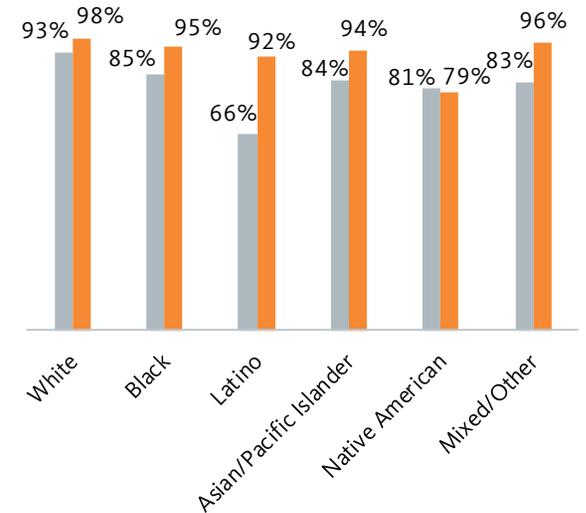


Source: Integrated Public Use Microdata Series.
Note: Data represent a 2010 through 2014 average.

Health insurance rates are lowest for Native American children and Latino adults

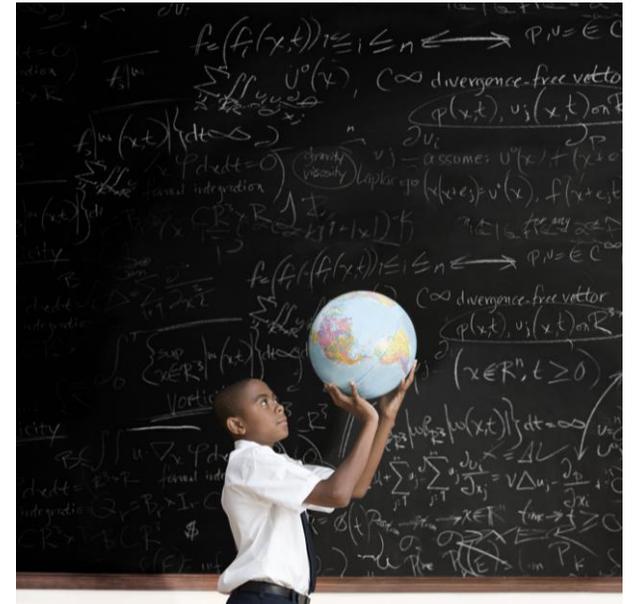
Health Insurance Rates by Race/Ethnicity, 2014

■ 18-64 years
■ 0-17 years



Source: Integrated Public Use Microdata Series.
Note: Data represent a 2010 through 2014 average.

Connectedness



Connectedness

Highlights

Are the region's residents and neighborhoods connected to one another and to the region's assets and opportunities?

- Although segregation has declined slightly in the last few decades, Black-White segregation remains high.
- Black households are the most likely to lack access to a vehicle.
- Long Island ranks 14th of the largest 150 metro areas when it comes to high renter housing burdens.
- Black and Latino renters are the most likely to be paying more than 30 percent of their incomes on rent.

Share of Whites who would need to move to achieve integration with Blacks:

73%

Share of Black households without a car:

14%

Share of Black renters who pay too much for housing:

64%

Connectedness

Black population remains largely segregated, which is a fundamental cause of disease

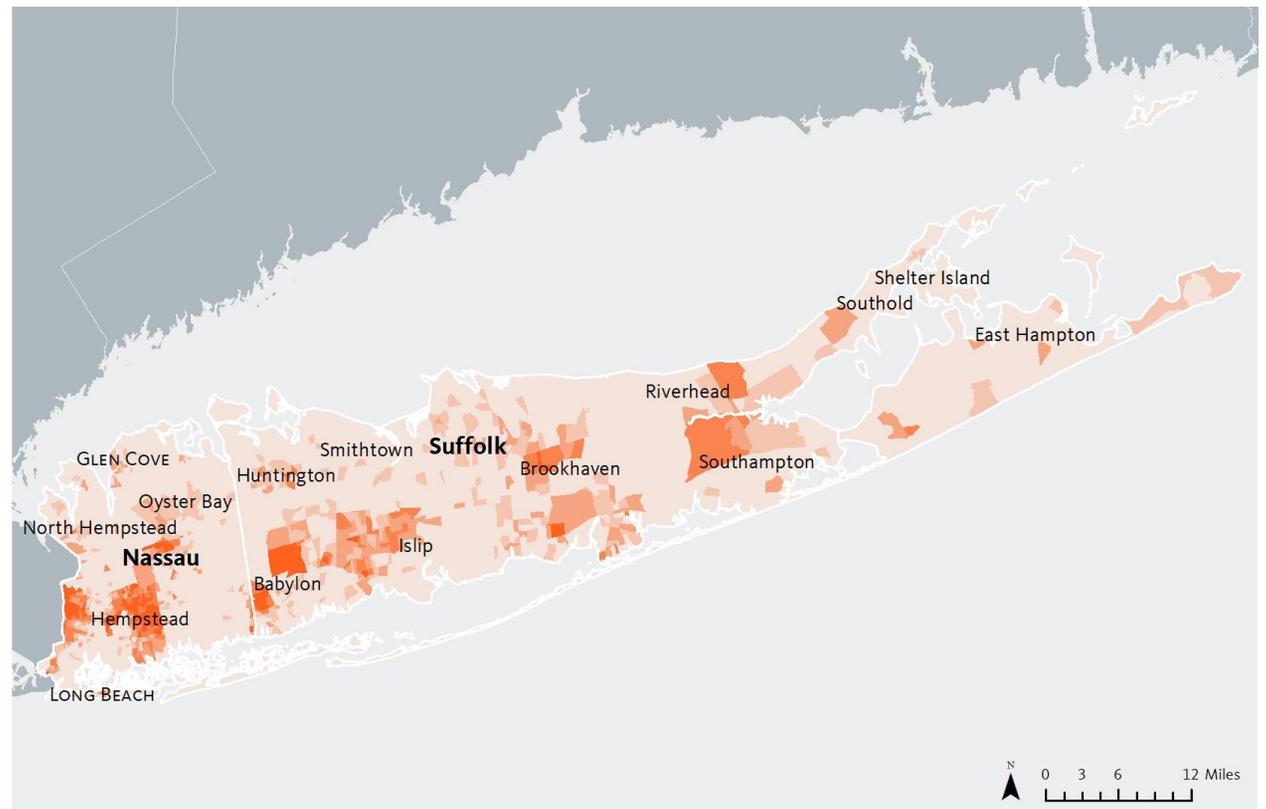
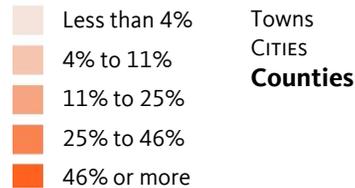
Despite growing diversity, Long Island continues to be one of the most racially segregated regions in the country. **There were over 900 block groups (or 42 percent of all block groups) on Long Island without a single Black resident in 2014, including several in the Town of Hempstead that neighbor majority-Black block groups.** Research has shown that racial residential segregation creates uneven access to opportunities and is a fundamental cause of racial health disparities.

African Americans are more likely than Whites to live in segregated communities regardless of their income, and a [recent study](#) on Long Island found that **real estate agents continue to steer Black Long Islanders away from predominately White areas.**

The block groups with the highest share of Black residents are located in Elmont, Roosevelt, Hempstead, Freeport, Uniondale, and Westbury in Nassau and North Amityville and Wyandanch in Suffolk.

Racial segregation persists on Long Island and the Black population is concentrated in certain towns

Percent Black Population by Census Block Group, 2014



Source: U.S. Census Bureau.
Notes: Data represent a 2010 through 2014 average.

Connectedness

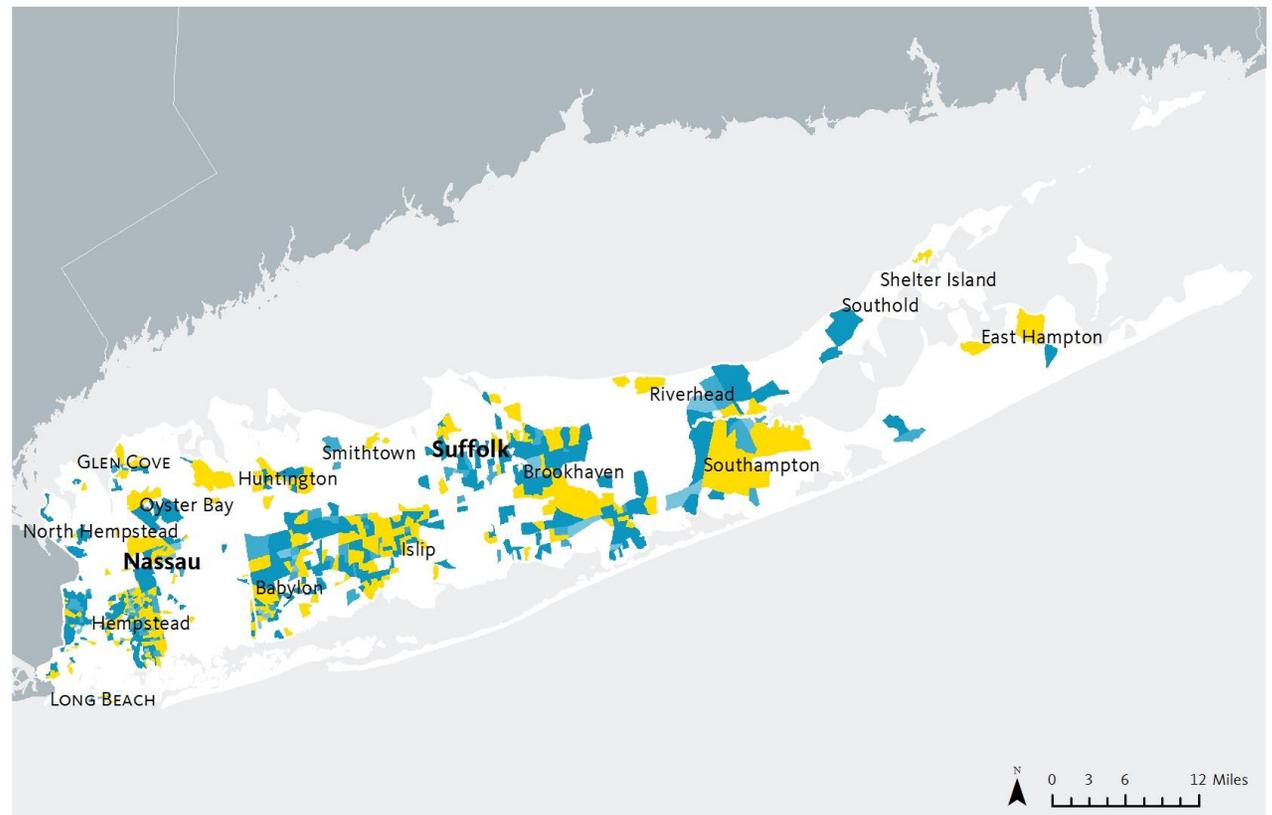
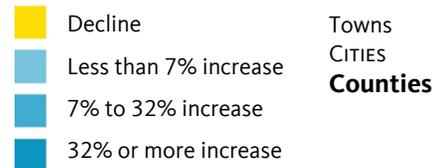
Black population growth and decline is also segregated

Of the 660 block groups on Long Island (accounting for 30 percent of all block groups) with at least 20 Black residents in both 2000 and 2014, there were pockets of decline and growth in the Black population.

The largest increases in the Black population were in Southampton, North Bay Shore, and North Valley Stream block groups, where the number of Black residents increased by over 1,000. **The largest decreases were in Nassau County near Hofstra University and Greenfield Cemetery** in block groups that each lost over 700 Black residents from 2000 to 2010.

Black population growth is also concentrated in existing Black neighborhoods

Percent Change in the Black Population by Census Block Group, 2000 to 2014



Sources: U.S. Census Bureau; Geolytics, Inc.

Note: To more accurately visualize change, block groups with small Black populations (fewer than 20 Black residents in either 2000 or 2014) were excluded from the analysis. Excluded block groups are shaded in white. Data for 2014 represent a 2010 through 2014 average.

Connectedness

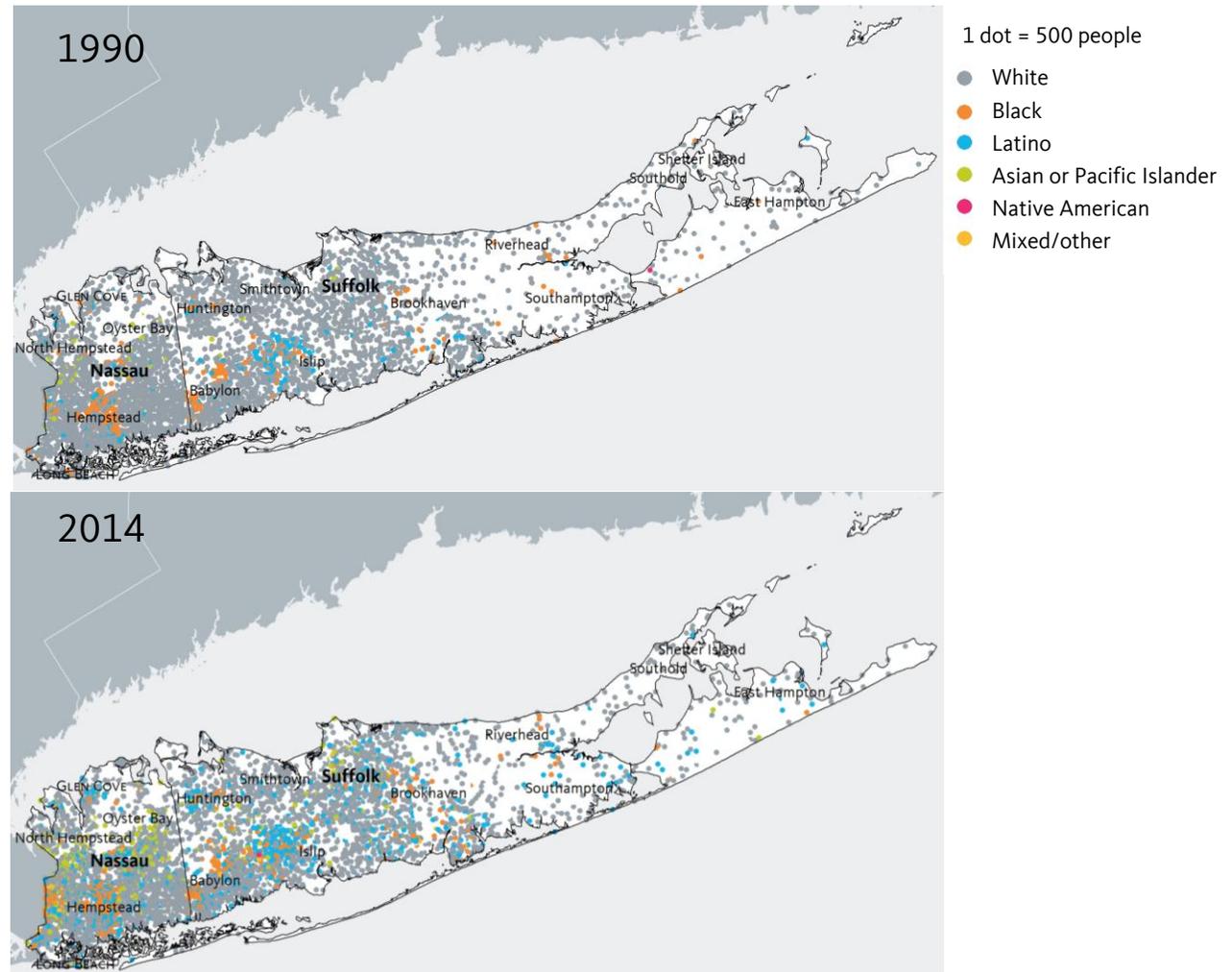
Despite growing diversity, the Black population remains segregated

In 1990, African Americans were heavily concentrated in Hempstead, North Amityville, and Wyandanch. Over the past two decades, **there's been some integration of Asian or Pacific Islander and Latino residents** in the predominately White villages in eastern Nassau County, but **Black residents**, by and large, **remain segregated** in a handful of towns in both counties.

The Black population resides predominantly in central Hempstead, villages near the Queens border, Babylon, and western Islip. Latinos and Asians or Pacific Islanders live throughout the region though Latinos are more likely to be located in predominately Black neighborhoods.

The Meadowbrook State Parkway in Nassau acts as a physical barrier separating the predominately Black areas of Freeport, Roosevelt, and Uniondale from the mostly White areas of eastern Hempstead and Oyster Bay. Some Latinos and Asians or Pacific Islanders are dispersed throughout these predominately White areas.

Latino and Asian or Pacific Islander residents were more dispersed across Long Island in 2014 than Black residents
Racial/Ethnic Composition by Census Block Group, 1990 and 2014



Sources: U.S. Census Bureau; Geolytics, Inc.

Notes: Data for 2014 represent a 2010 through 2014 average.

Connectedness

Segregation decreased in the 1990s but has not changed since 2000

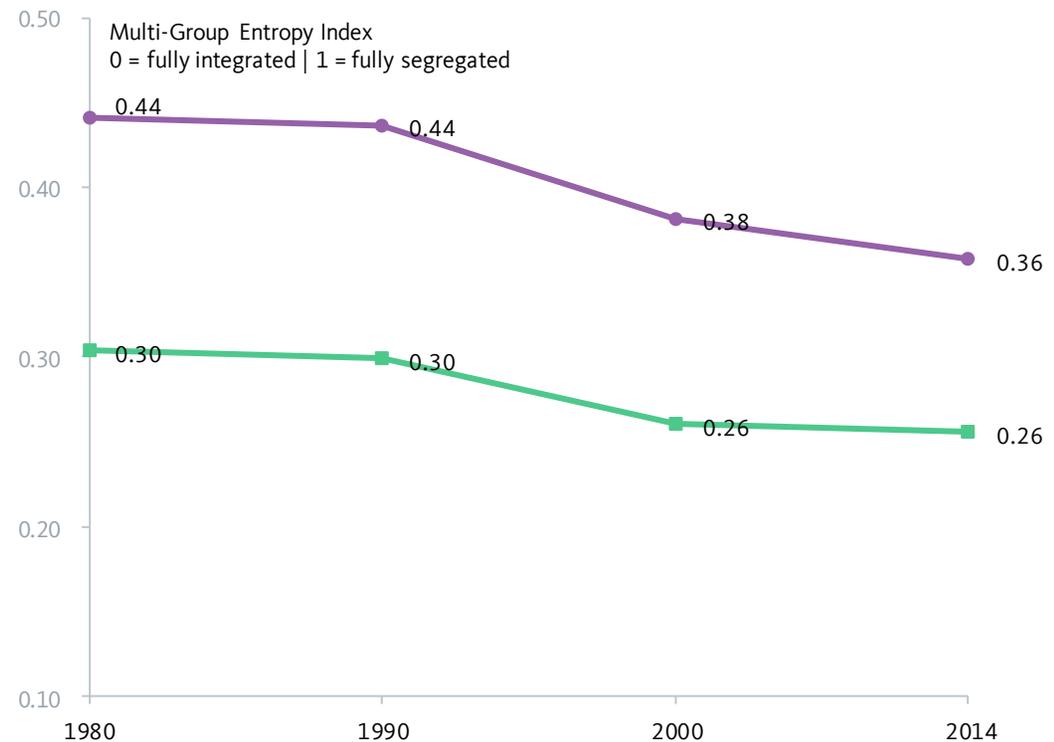
Based on the multi-group entropy index, Long Island is less segregated by race/ethnicity than the nation overall. **But despite increasing diversity on Long Island, segregation has persisted and the gap between Long Island and the United States is shrinking.** On this measure, Long Island ranks 37th of the largest 150 metro areas.

The entropy index ranges from a value of 0, meaning that all census tracts have the same racial/ethnic composition as the region (maximum integration), to a high of 1, meaning that all census tracts contain one group only (maximum segregation).

Residential segregation in the region is lower than the national average, but has decreased only slightly over time

Residential Segregation, 1980 to 2014

— Long Island
— United States



Sources: U.S. Census Bureau; Geolytics, Inc.
Note: Data for 2014 represent a 2010 through 2014 average.

Connectedness

Increased integration among people of color

Declining racial segregation in the region is due more to increased integration among communities of color than to integration between Whites and people of color.

The dissimilarity index estimates the share of a given racial/ethnic group that would need to move to a new neighborhood to achieve complete integration. Using this measure, segregation between Whites and Blacks has lessened since 1990, but **Black-White segregation is still one of the highest: 73 percent of White residents would have to move to achieve Black-White integration.** Black-White dissimilarity ranks seventh highest of the largest 150 metro areas.

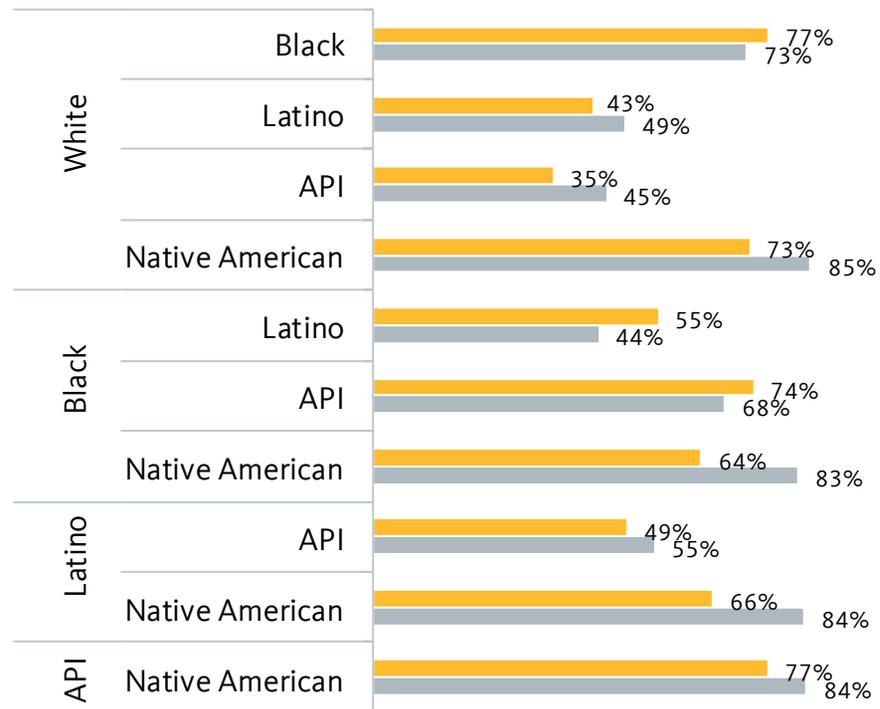
Segregation has declined substantially between Blacks and Latinos, in line with Black resident reports of growing Latino populations in their communities.

Segregation between all groups and Native Americans increased, but this may be more attributable to the small size of the Native American population.

Segregation among most groups of color has decreased, but White-Latino and White-Asian or Pacific Islander segregation increased

Residential Segregation, 1990 and 2014, Measured by the Dissimilarity Index

■ 1990
■ 2014



Sources: U.S. Census Bureau; Geolytics, Inc.
Note: Data for 2014 represent a 2010 through 2014 average.

Connectedness

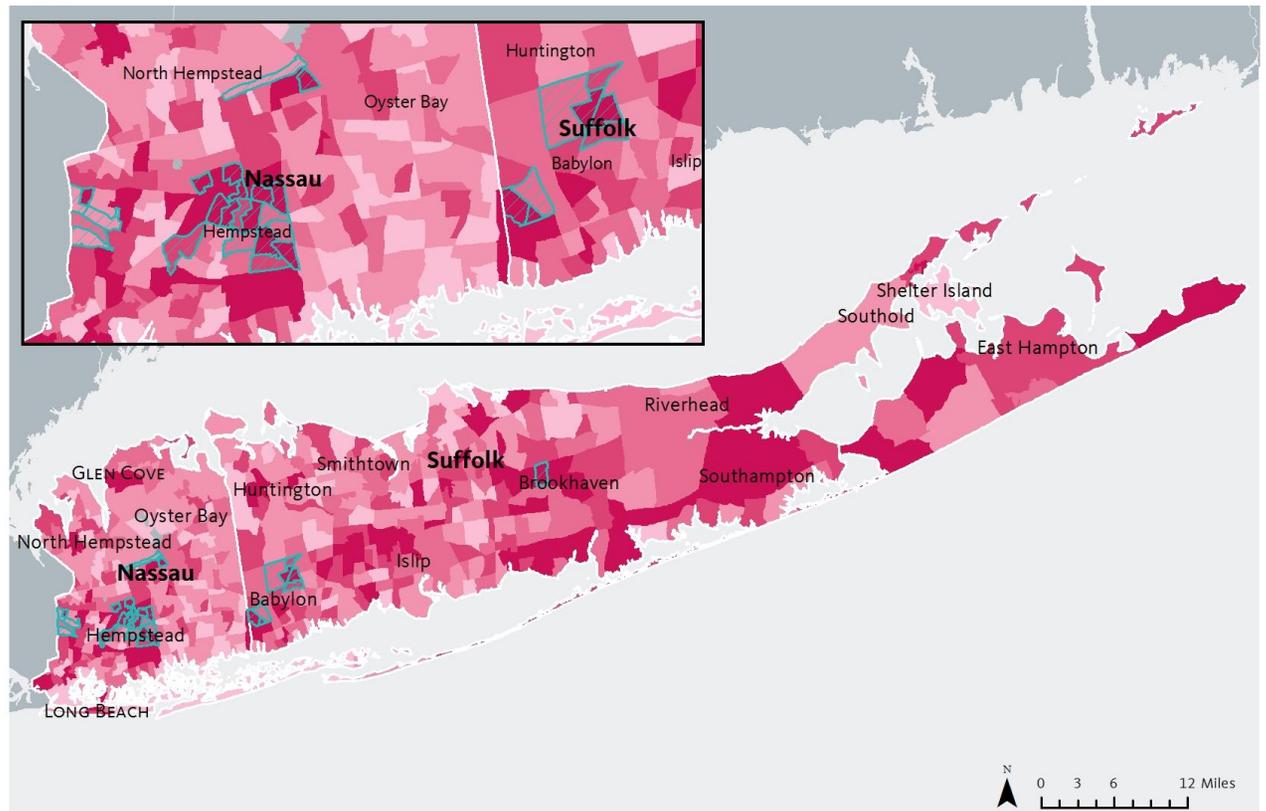
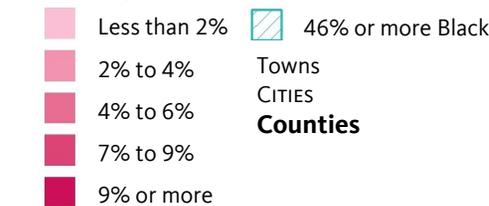
Concentrated poverty a challenge for communities of color

The region's overall poverty rate is 7 percent, but this ranges from less than 1 percent in some neighborhoods to more than 30 percent in other neighborhoods. The poverty wage for a family consisting of one adult and two children is \$10/hour, while the living wage on Long Island, according to the MIT Living Wage Calculator, is nearly \$37/hour.

The tract with the highest poverty rate on Long Island is in Suffolk County and spans across part of North Bellport and Brookhaven. The tract is 85 percent people of color, mostly Latino and Black, and **35 percent of people there live below the federal poverty level.** Most of the other tracts where more than 20 percent of the population lives below the poverty level are located in or near Black communities. There are a couple exceptions, including a neighborhood in Mastic Beach, which is over three-quarters White and has a poverty rate of 21 percent.

Areas of high poverty (9 percent or higher on Long Island) are found primarily in communities of color like Hempstead

Percent Population Below the Federal Poverty Level by Census Tract, 2014



Source: U.S. Census Bureau. Universe includes all persons not in group quarters.

Notes: Data represent a 2010 through 2014 average. We identified the 46 percent Black or higher tracts by taking the share of the Black population for each census tract on Long Island and dividing the tracts into five classes via natural breaks (Jenks) and using the fifth class to identify Black neighborhoods.

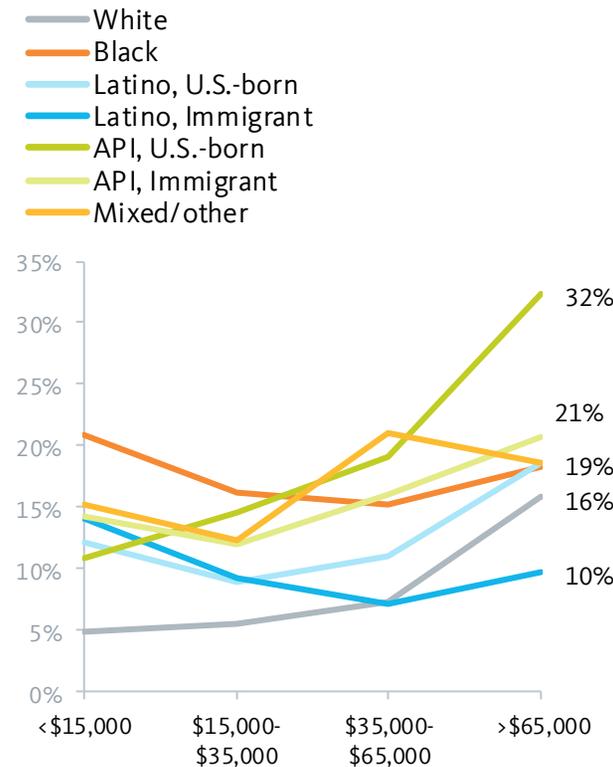
Connectedness

Black workers among those most likely to rely on the region's transit system

Income and race both play a role in determining who uses the region's public transit system to get to work. Households of color are the most likely to be dependent on public transit and traditionally, immigrants have relied more on public transit than U.S.-born people. **Among very low-income Black workers, 21 percent get to work using public transit.** Transit use dips then rises for all groups as incomes increase until spiking among workers earning more than \$65,000 a year. Among U.S.-born Asian or Pacific Islander workers who make more than \$65,000 a year, 32 percent use transit to get to work.

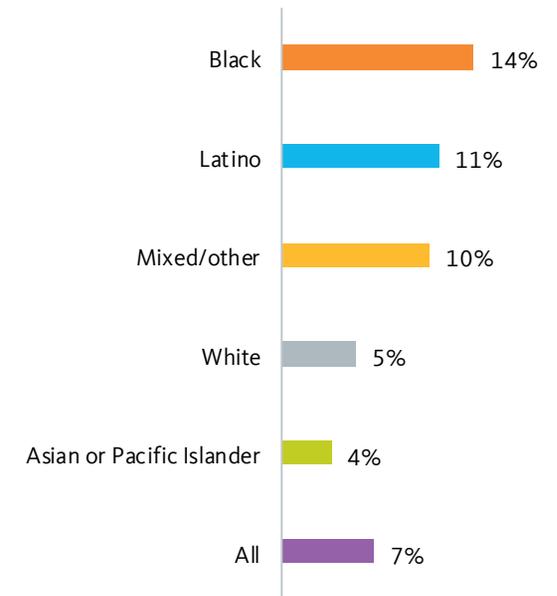
Households of color, except for Asian or Pacific Islander households, are also much less likely to own cars than Whites. **Black households are the most likely to be carless.** Whereas 5 percent of White households do not have a vehicle, 11 percent of Latino households and 14 percent of Black households lack access to a vehicle.

Transit use varies by income and race
Percent Using Public Transit by Annual Earnings and Race/Ethnicity and Nativity, 2014



Source: Integrated Public Use Microdata Series. Universe includes workers ages 16 and older with earnings.
 Notes: Data represent a 2010 through 2014 average.

Black households are the least likely to have a car
Percent of Households Without a Vehicle by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Notes: Data represent a 2010 through 2014 average.

Connectedness

How residents commute varies by income

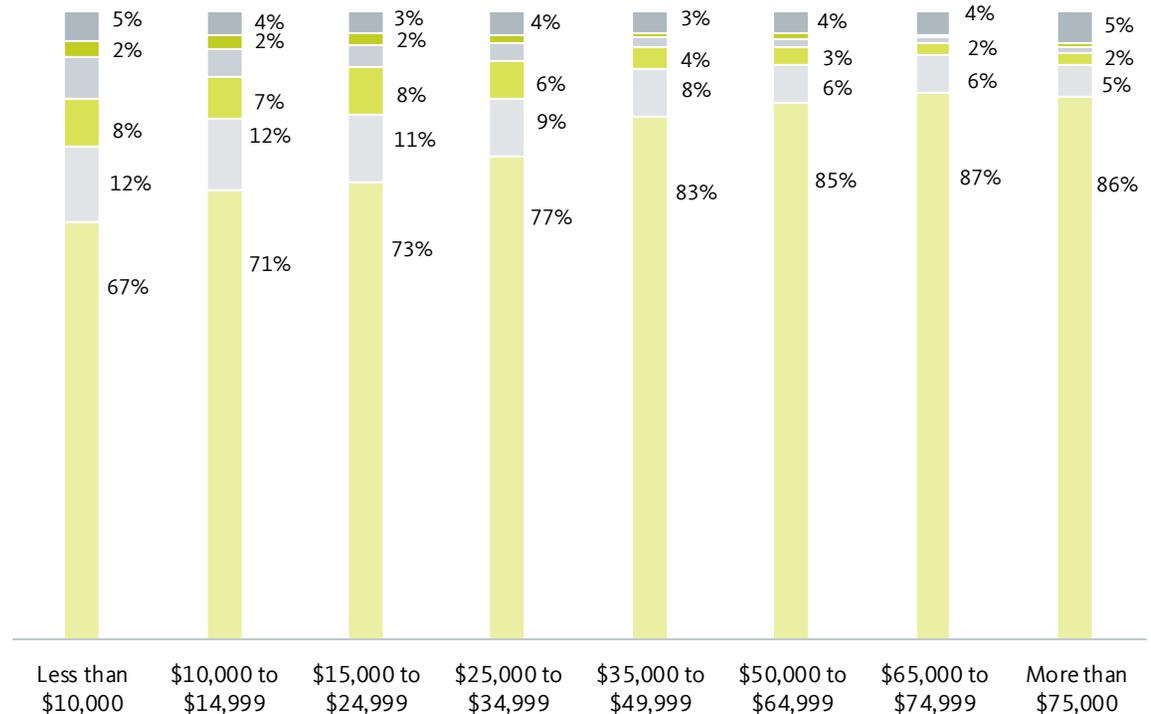
The vast majority – 79 percent – of Long Island residents drive alone to work. Another 8 percent of workers carpool and 5 percent rely on public transportation.

Single-driver commuting, however, increases with income. Just over two in three very low-income workers (earning under \$10,000 per year) drive alone to work, compared to 86 percent of workers who make over \$75,000 a year.

Lower-income residents are less likely to drive alone to work

Means of Transportation to Work by Annual Earnings, 2014

- Worked at home
- Other
- Walked
- Public transportation
- Auto-carpool
- Auto-alone



Source: Integrated Public Use Microdata Series. Universe includes workers ages 16 and older with earnings.
 Note: Data represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

Connectedness

Communities of color are more likely to be carless

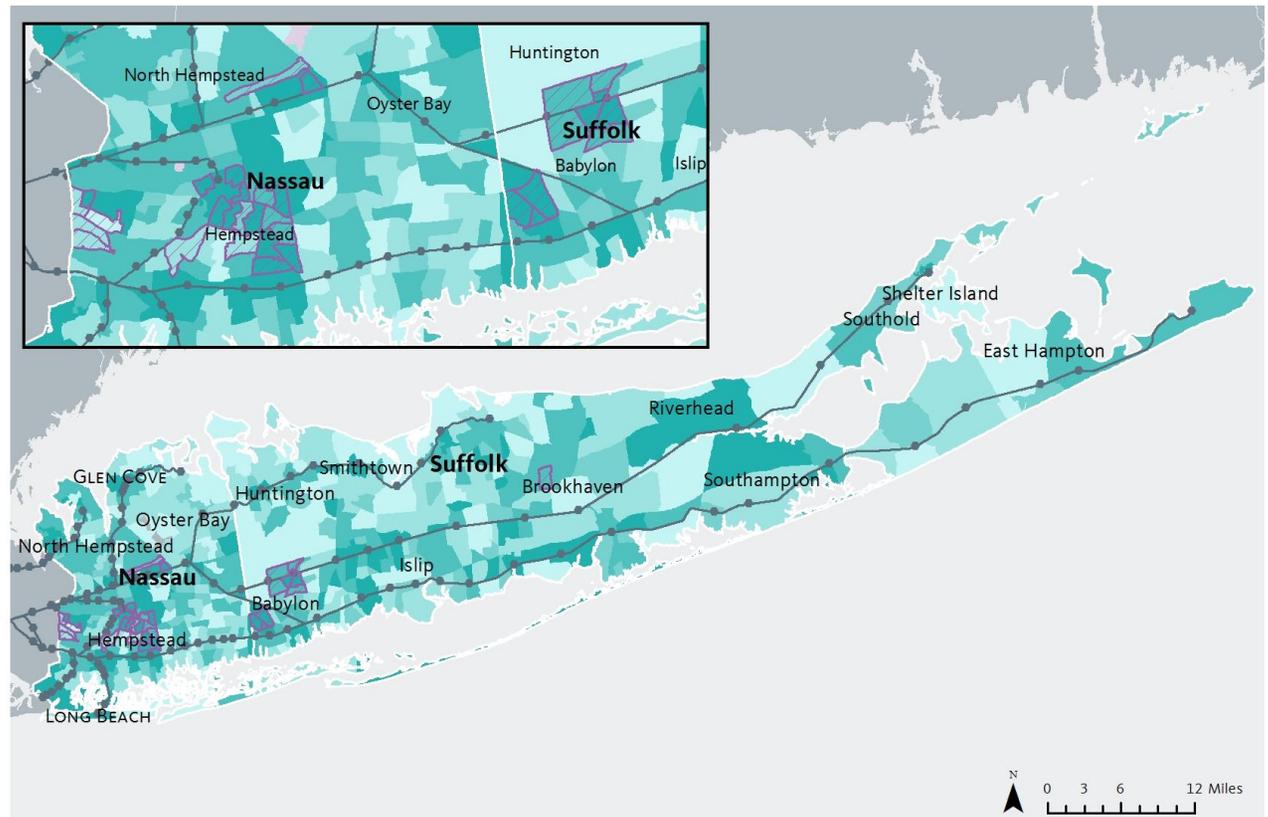
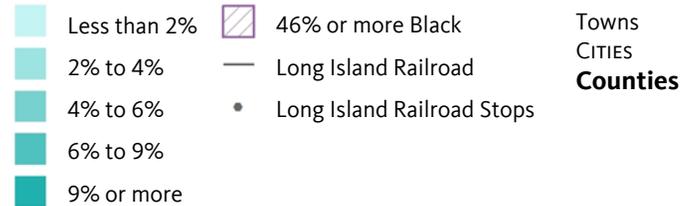
Most households have access to at least one vehicle, but car access varies across the region. **The percent of households without a vehicle is particularly high in predominately Black neighborhoods.** In one census tract near the Nassau District Court in Hempstead, half of the households do not have a vehicle.

Though there is a higher concentration of carless households in Nassau County, there are also several neighborhoods in Suffolk County with a large share of carless households. In one tract in Central Islip and one in Lake Ronkonkoma, for example, one in five households lack access to a car. Many carless households are located in close proximity to the Long Island Railroad, with a couple of exceptions. In one neighborhood in Commack and another in Ridge, 18 percent of households do not have a car.

Without adequate public transportation options, these households face real barriers to accessing jobs, health care, and other services.

Carless households are scattered throughout the region with higher concentrations in Nassau

Percent of Households Without a Vehicle by Census Tract, 2014



Sources: U.S. Census Bureau; Newman Library, Baruch CUNY. Universe includes all households (no group quarters).
 Note: Data represent a 2010 through 2014 average. Areas in gray are missing data.

Connectedness

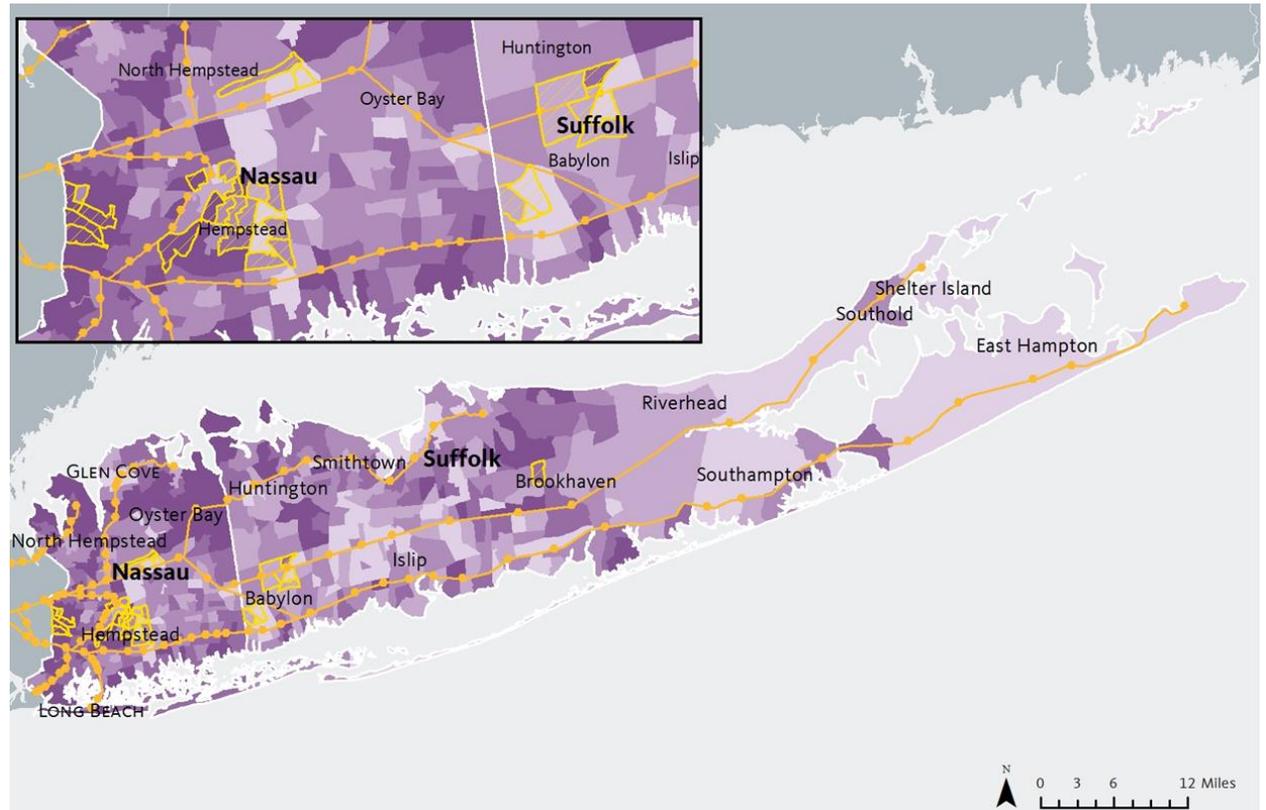
Longer commutes for outer lying areas

The neighborhoods with the shortest commutes (under 20 minutes) are dispersed across Long Island from Bridgehampton and Sagaponack to East Garden City and the sparsely populated Fire Island.

Of neighborhoods that are at least 46 percent Black, the average commute time is 33 minutes, the same average as neighborhoods that are at least 75 percent White. And while long commute times can indicate a lack of nearby job opportunities or slow transit options, they can also indicate a longer drive to secluded enclaves of concentrated wealth like Lloyd Harbor – which has an average commute time of 45 minutes.

Workers living in Munsey Park, Lloyd Harbor, and Hempstead have the longest commute times

Average Travel Time to Work by Census Tract, 2014



Sources: U.S. Census Bureau; Newman Library, Baruch CUNY. Universe includes all persons ages 16 or older who work outside of home.
 Note: Data represent a 2010 through 2014 average.

Connectedness

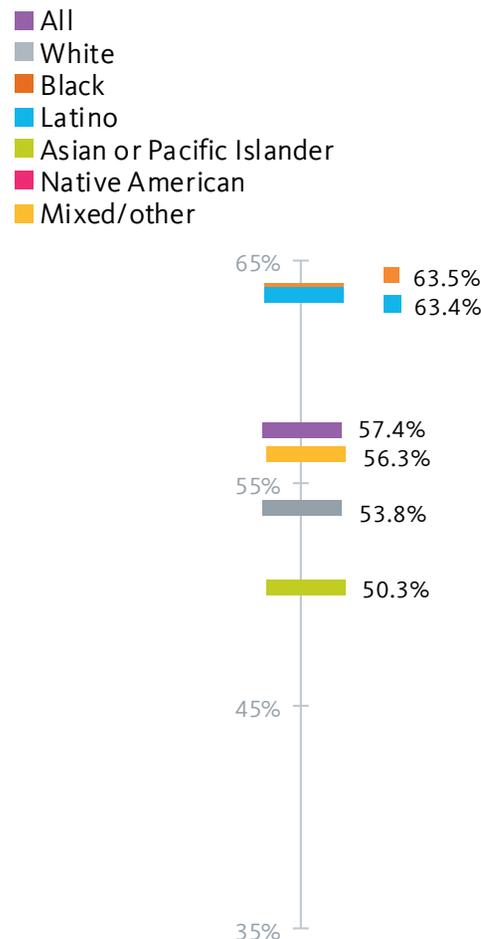
Black households face high housing burdens

On Long Island, 57 percent of renter-occupied households and nearly 42 percent of owner-occupied households are cost-burdened – defined as paying more than 30 percent of their incomes on housing costs. **Black and Latino Long Islanders are most likely to pay too much for housing, regardless of whether they rent or own.** More than three in five Black and Latino renter households pay more than 30 percent of their incomes in rent. Latinos also have the highest rate of homeowner housing burden. Asian or Pacific Islander renters have the lowest housing burden at 50 percent, but this could be due to the fact that Asian Americans are [more likely](#) to live in multigenerational households and share household expenses across generations.

White owner-occupied households have the lowest cost burden with 39 percent paying more than 30 percent of their incomes on their mortgage.

More than three in five African Americans and Latinos are rent burdened

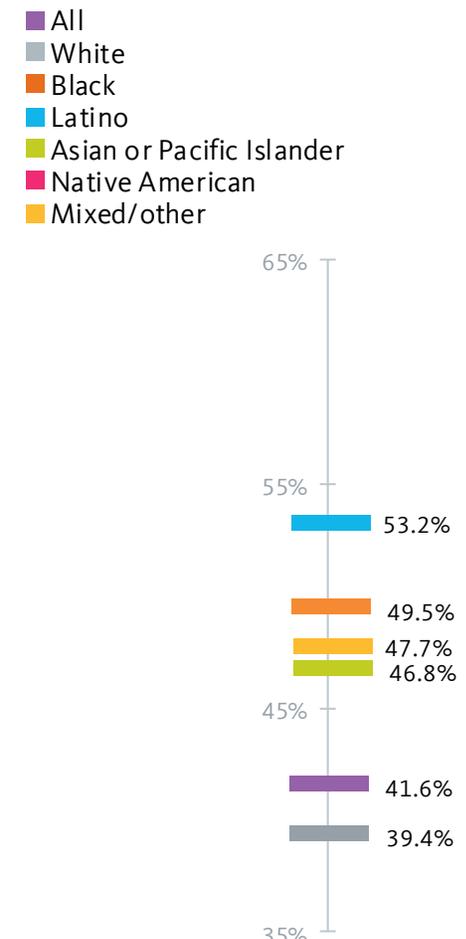
Renter Housing Burden by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes all renter-occupied households (no group quarters) with cash rent. Note: Data represent a 2010 through 2014 average.

Latinos have the highest homeowner housing burden followed by Black Long Islanders

Homeowner Housing Burden by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes owner-occupied households (no group quarters). Note: Data represent a 2010 through 2014 average.

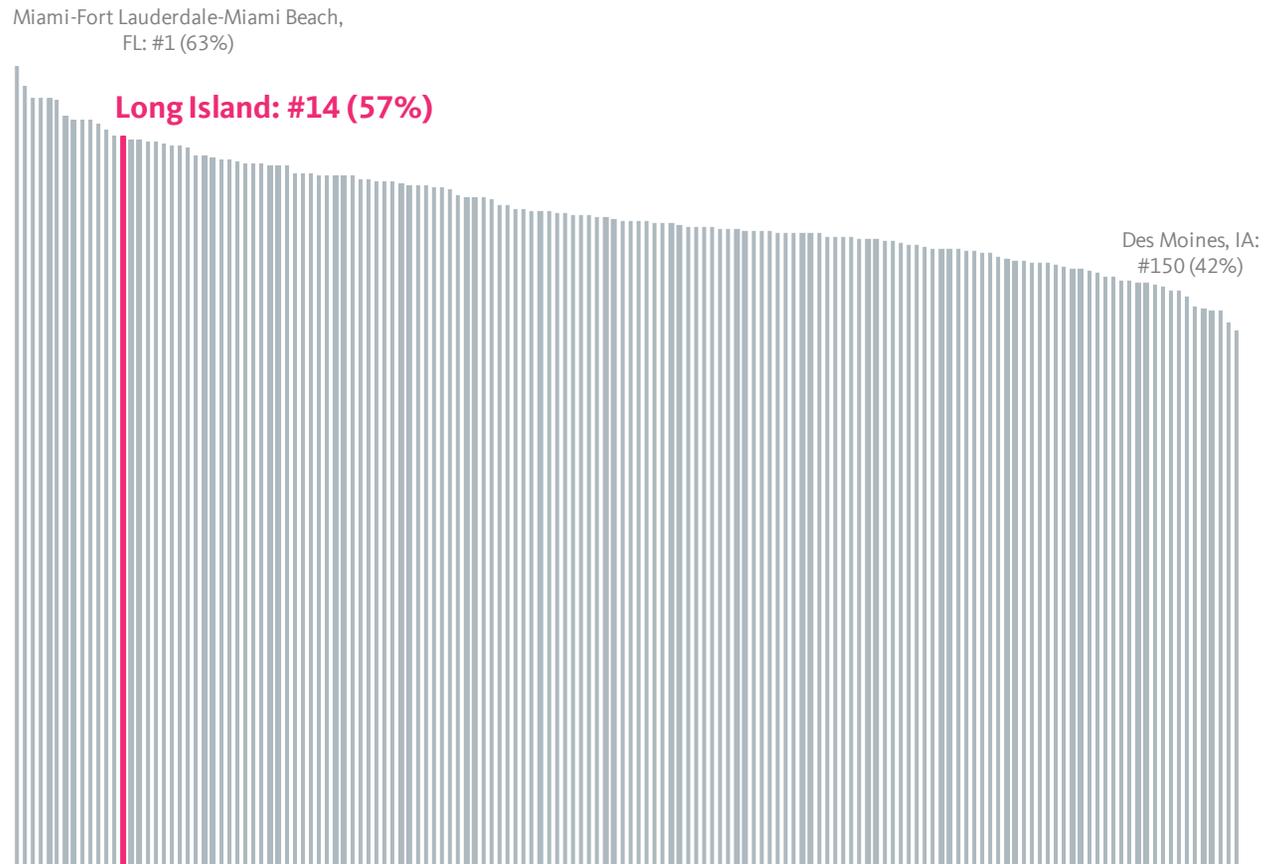
Connectedness

A high-cost housing market

The region ranks relatively high in the share of households (both owners and renters) that are burdened by housing costs, defined as spending more than 30 percent of income on housing. Long Island ranks 14th among the largest 150 regions in terms of renter burden (57 percent).

Compared to other metros in the Northeast, the region has higher renter burden than Trenton-Ewing (53 percent), Bridgeport (54 percent), and even the broader New York City region (53 percent).

Long Island has a relatively high ranking for rent-burdened households
Share of Households that are Rent Burdened, 2014: Largest 150 Metros, Ranked



Source: Integrated Public Use Microdata Series. Universe includes renter-occupied households with cash rent (excludes group quarters).
 Note: Data represent a 2010 through 2014 average.

Connectedness

Low levels of affordable housing throughout the region

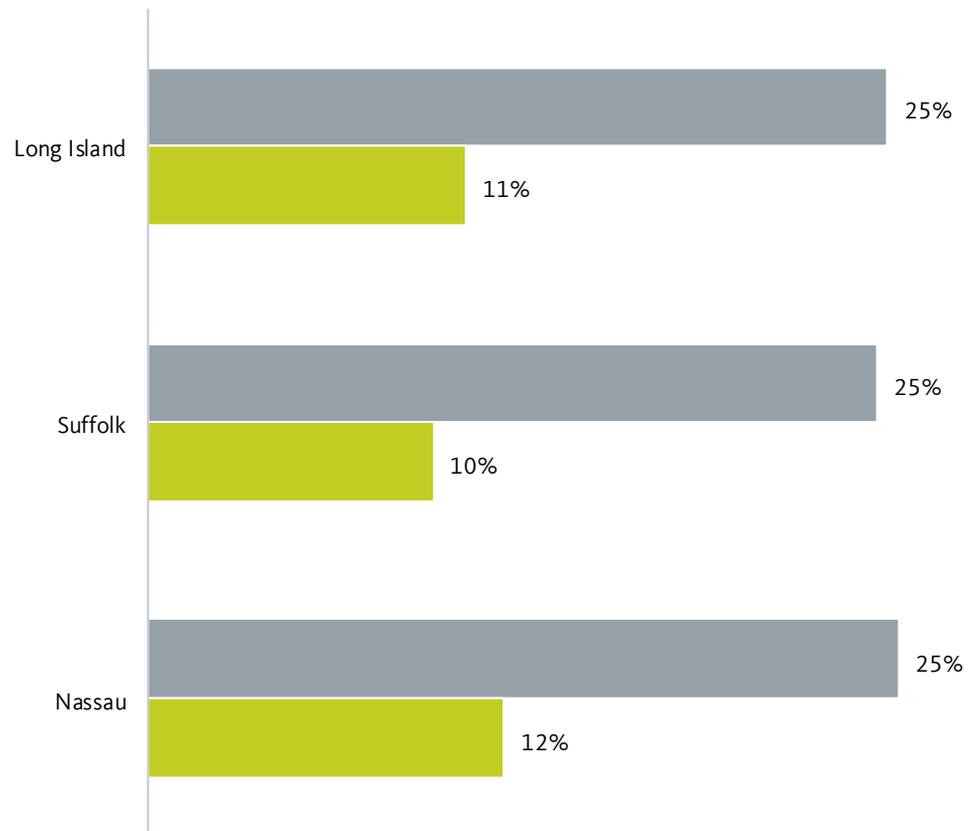
Low wage workers in the region are not likely to find affordable housing. Across the region, 25 percent of jobs are low wage (paying \$1,250 per month or less) and only 11 percent of rental units are affordable (defined as having rent of \$749 per month or less, which would be 30 percent or less of two low-wage workers' incomes).

Both counties have far more low-wage jobs than affordable rental housing units, though the share of rental housing units that are affordable is slightly higher in Nassau County.

Affordable rental housing for low-wage workers is extremely limited across Long Island

Share of Affordable Rental Housing Units by County, 2014

- Share of jobs that are low-wage
- Share of rental housing units that are affordable



Source: Housing data from the U.S. Census Bureau and jobs data from the 2012 Longitudinal-Employer Household Dynamics.
Note: Housing data represent a 2010 through 2014 average.

Connectedness

High level of jobs-housing mismatch for low-wage workers

A ratio of low-wage jobs to affordable rental housing in a county that is higher than the regional average indicates a lower availability of affordable rental housing for low-wage workers in that county relative to the region overall.

Though the entire region has a very high affordability mismatch, the situation is even worst in Suffolk County: there are 16 times more low-wage jobs than affordable rental housing units.

Both counties have large jobs-housing affordability mismatches

Low-Wage Jobs, Affordable Rental Housing, and Jobs-Housing Ratio by County

	Jobs (2012)		Housing (2014)			Jobs-Housing Ratios	
	All	Low-wage	All	Rental*	Affordable Rental*	All Jobs: All Housing	Low-wage Jobs: Affordable Rentals
Suffolk	623,673	152,925	496,780	97,718	9,388	1.3	16.3
Nassau	599,297	151,268	441,912	83,008	9,957	1.4	15.2
Long Island	1,222,970	304,193	938,692	180,726	19,345	1.3	15.7

*Includes only those units paid for in cash rent.

Source: Housing data from the U.S. Census Bureau and jobs data from the 2012 Longitudinal-Employer Household Dynamics.
 Note: Housing data represent a 2010 through 2014 average.

Economic benefits



Economic benefits

Highlights

What are the benefits of racial economic inclusion to the broader economy?

- The region's economy could have been nearly \$24 billion stronger in 2014 if its racial gaps in income had been closed.
- Black Long Islanders would see a 68 percent gain in average annual income with racial equity. Latinos would see an 87 percent gain.
- Aggregate Black income on Long Island would grow by \$4.5 billion a year.

Potential gain in GDP with racial equity:

\$23.5B

Increase in average annual income for Black Long Islanders:

\$23,000

Economic benefits

A potential \$24 billion per year GDP boost from racial equity

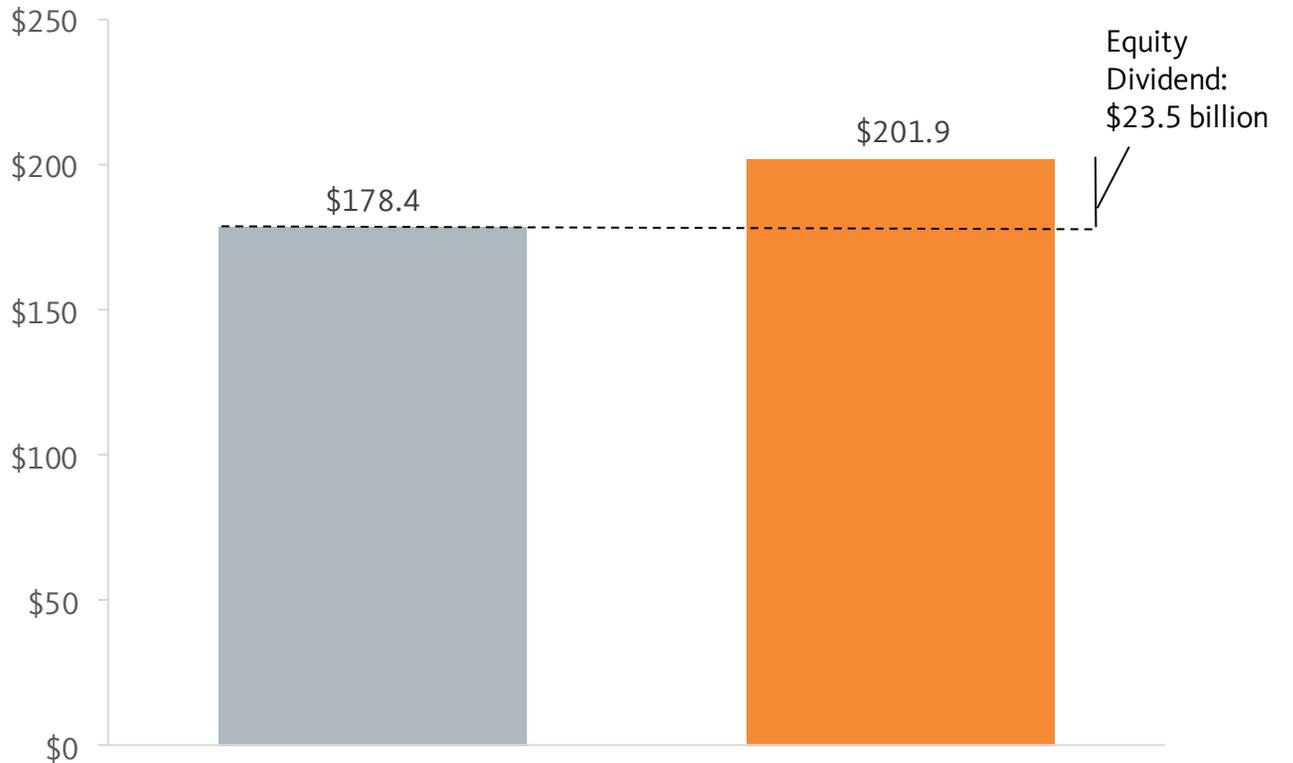
Long Island stands to gain a great deal from addressing racial inequities. The region's economy could have been nearly \$24 billion stronger in 2014 if its racial gaps in income had been closed: a 13 percent increase.

Using data on income by race, we calculated how much higher total economic output would have been in 2014 if all racial groups who currently earn less than Whites had earned similar average incomes as their White counterparts, controlling for age.

Long Island's GDP would have been \$24 billion higher if there were no racial gaps in income

Actual GDP and Estimated GDP without Racial Gaps in Income, 2014

- GDP in 2014 (billions)
- GDP if racial gaps in income were eliminated (billions)



Source: U.S. Bureau of Economic Analysis; Integrated Public Use Microdata Series.

Economic benefits

Average Black income would increase by 68 percent with racial equity

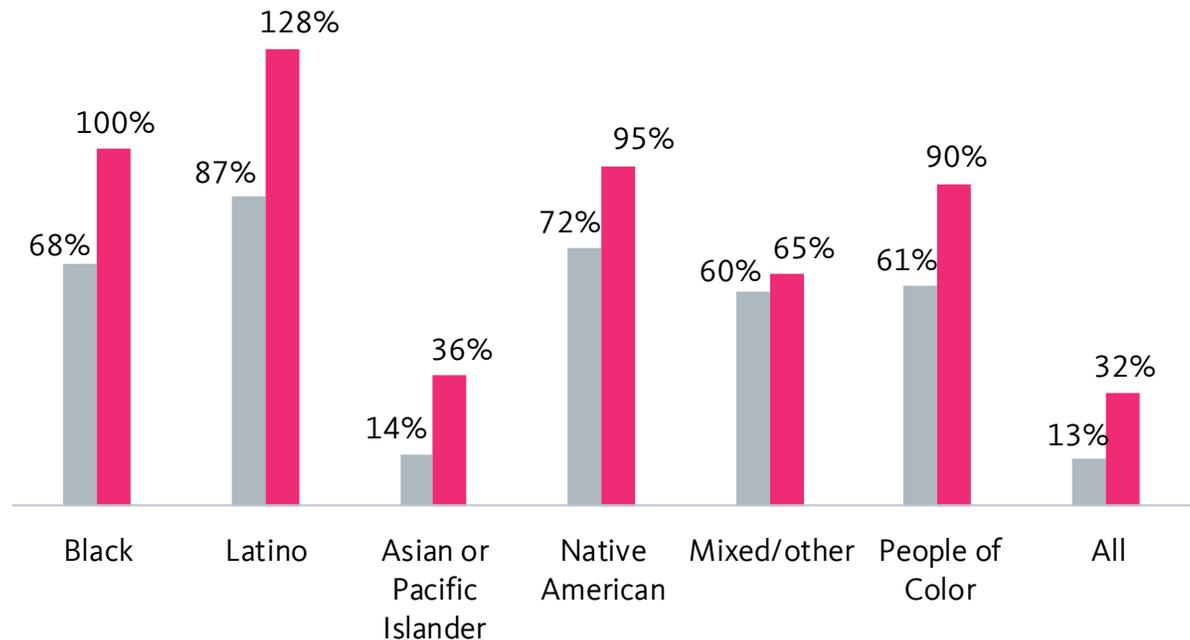
People of color as a whole are projected to see their incomes grow by roughly 61 percent with racial equity. **Black Long Islanders would see a 68 percent gain** in average annual income. Latinos would see an 87 percent gain.

Income gains were estimated by calculating the percentage increase in income for each racial/ethnic group if they had the same average annual income (and income distribution) and hours of work as non-Hispanic Whites, controlling for age.

Latino, Native American, and Black Long Islanders would experience the largest income increases with racial equity

Percentage Gain in Income with Racial Equity by Race/Ethnicity, 2014

■ Long Island
■ New York Metro Area



Sources: U.S. Bureau of Economic Analysis; Integrated Public Use Microdata Series.

Economic benefits

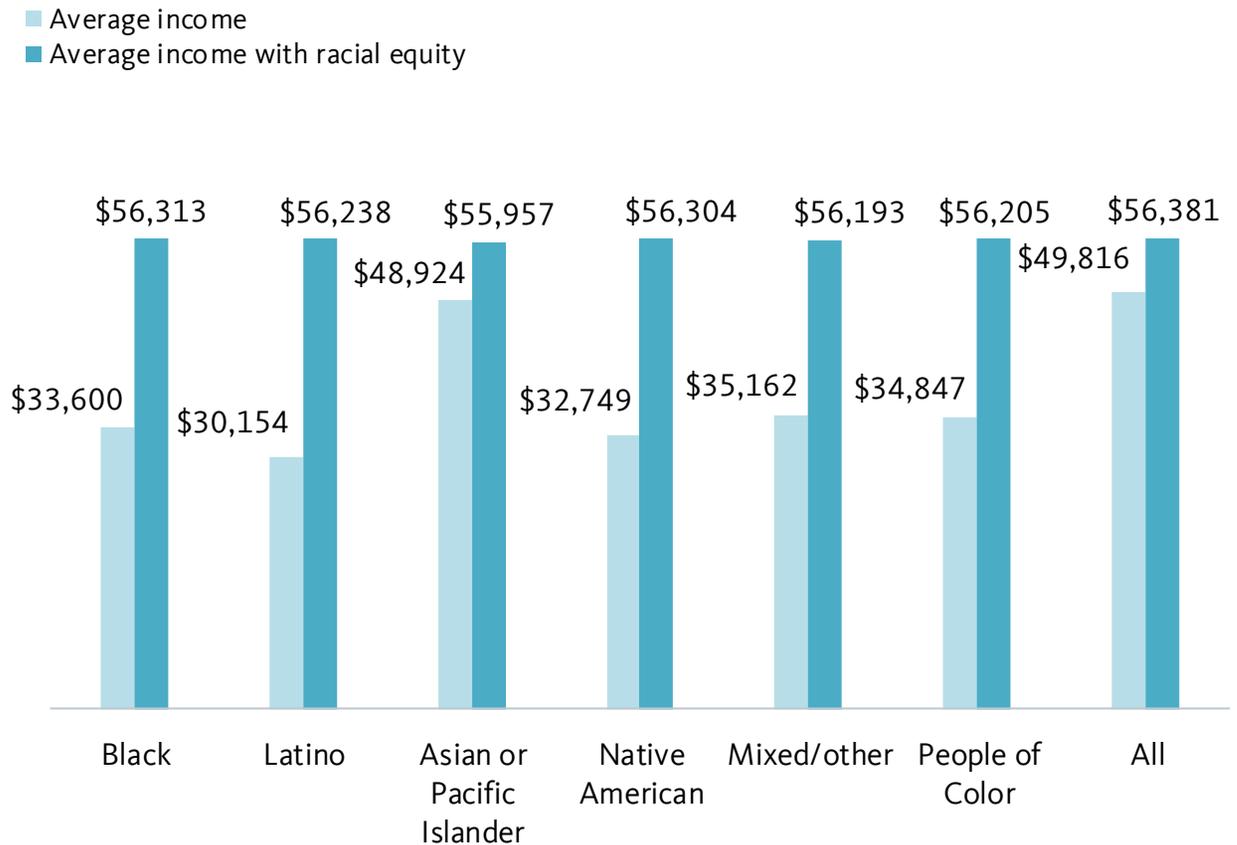
Average annual Black income would increase by over \$22,000

People of color as a whole are projected to see their incomes grow by roughly 61 percent with racial equity, which translates to more than a \$21,000 increase in average income. Latinos would see their average income increase by \$26,000 and **Black Long Islanders would see an increase in average income of over \$22,000** – growing from \$33,600 a year to over \$56,300 a year.

As a whole, **aggregate Black income on Long Island would grow by \$4.5 billion a year**, more than Nassau or Suffolk’s entire county budget.

Latino and Black Long Islanders would experience the largest income increases with racial equity.

Gain in Average Income with Racial Equity by Race/Ethnicity, 2014



Sources: U.S. Bureau of Economic Analysis; Integrated Public Use Microdata Series.

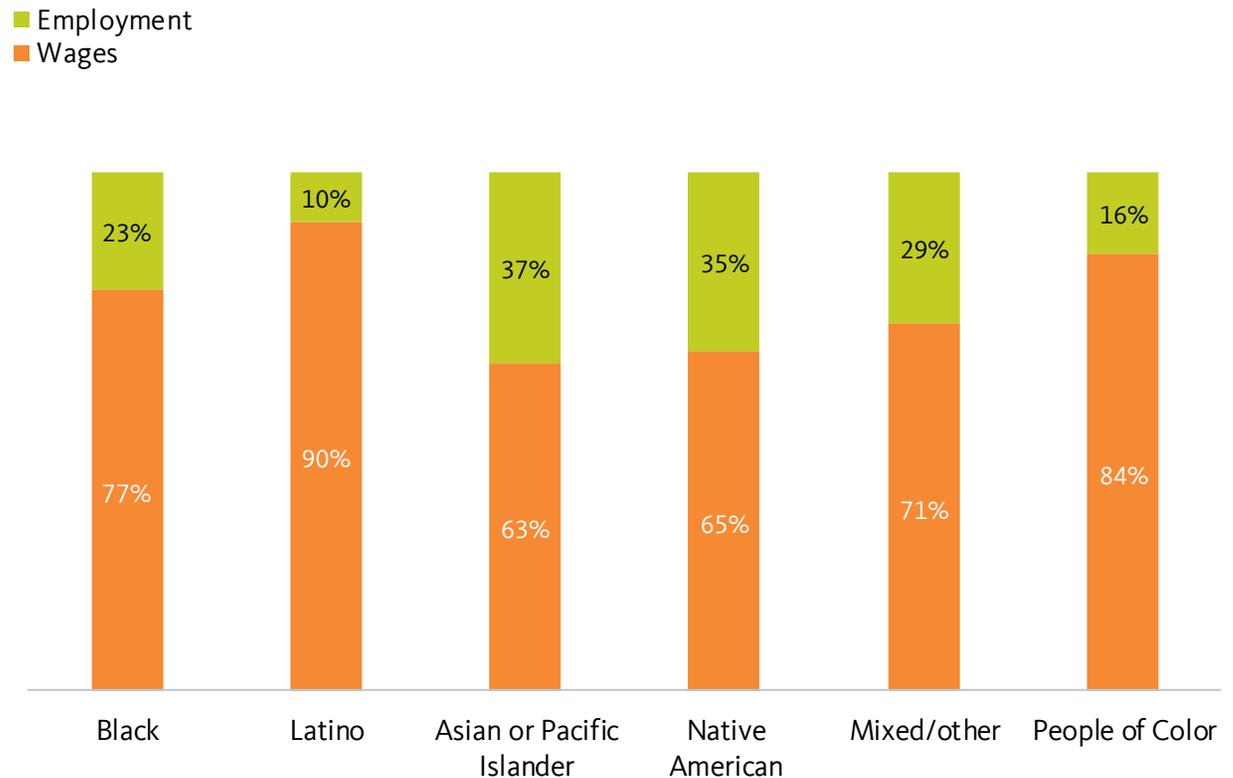
Economic benefits

Most of the potential income gains would come from closing the racial wage gap

We also examined how much of the region’s racial income gap was due to differences in wages and how much was due to differences in employment (measured by employment rates and hours worked). On Long Island, most of the racial income gap is due to differences in wages.

For Latinos, just 10 percent of the racial income gap is due to differences in employment and 90 percent of the gap is due to differences in wages. **For Black Long Islanders, 77 percent of the racial income gap is due to differences in wages.** The differences are more balanced among the Asian or Pacific Islander population, with 37 percent of the gap due to differences in employment.

Most of the racial income gap is due to differences in wages
 Source of Gains in Income with Racial Equity By Race/Ethnicity, 2014



Sources: U.S. Bureau of Economic Analysis; Integrated Public Use Microdata Series.

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Data and methods

Data source summary and geography

Unless otherwise noted, all of the data and analyses presented in this profile are the product of PolicyLink and USC Program for Environmental and Regional Equity (PERE), and reflect Nassau and Suffolk counties in New York, combined. The specific data sources are listed in the table shown here.

While much of the data and analysis presented in this profile are fairly intuitive, in the following pages we describe some of the estimation techniques and adjustments made in creating the underlying database, and provide more detail on terms and methodology used. Finally, the reader should bear in mind that while only a single city is profiled here, many of the analytical choices in generating the underlying data and analyses were made with an eye toward replicating the analyses in other cities and regions and the ability to update them over time. Thus, while more regionally specific data may be available for some indicators, the data in this profile draws from our regional equity indicators database that provides data that are comparable and replicable over time.

Source	Dataset
Integrated Public Use Microdata Series (IPUMS)	1980 5% State Sample 1990 5% Sample 2000 5% Sample 2010 American Community Survey, 5-year microdata sample 2010 American Community Survey 2014 American Community Survey, 5-year microdata sample
U.S. Census Bureau	1980 Summary Tape File 1 (STF1) 1980 Summary Tape File 2 (STF2) 1980 Summary Tape File 3 (STF3) 1990 Summary Tape File 2A (STF2A) 1990 Modified Age/Race, Sex and Hispanic Origin File (MARS) 1990 Summary Tape File 4 (STF4) 2000 Summary File 1 (SF1) 2010 Summary File 1 (SF1) 2014 ACS 5-year Summary File (2012 5-year ACS) 2012 Local Employment Dynamics, LODES 7 2010 TIGER/Line Shapefiles, 2010 Census Block Groups 2014 TIGER/Line Shapefiles, 2014 Census Tracts 2010 TIGER/Line Shapefiles, 2010 Counties
Geolytics	1980 Long Form in 2010 Boundaries 1990 Long Form in 2010 Boundaries 2000 Long Form in 2010 Boundaries
Woods & Poole Economics, Inc.	2016 Complete Economic and Demographic Data Source
U.S. Bureau of Economic Analysis	Gross Domestic Product by State Gross Domestic Product by Metropolitan Area Local Area Personal Income Accounts, CA30: Regional Economic Profile
U.S. Bureau of Labor Statistics	Quarterly Census of Employment and Wages Local Area Unemployment Statistics Occupational Employment Statistics
Centers for Disease Control and Prevention	Behavioral Risk Factor Surveillance System (BRFSS)
The Reinvestment Fund	2014 Analysis of Limited Supermarket Access (LSA)
U.S. Environmental Protection Agency	2011 National-Scale Air Toxics Assessment (NATA)
Georgetown University Center on Education and the Workforce	Updated projections of education requirements of jobs in 2020, originally appearing in: Recovery: Job Growth And Education Requirements Through 2020; State Report

Data and methods

Selected terms and general notes

Broad racial/ethnic origin

In all of the analyses presented, all categorization of people by race/ethnicity and nativity is based on individual responses to various census surveys. All people included in our analysis were first assigned to one of six mutually exclusive racial/ethnic categories, depending on their response to two separate questions on race and Hispanic origin as follows:

- “White” and “non-Hispanic White” are used to refer to all people who identify as White alone and do not identify as being of Hispanic origin.
- “Black” and “African American” are used to refer to all people who identify as Black or African American alone and do not identify as being of Hispanic origin.
- “Latino” refers to all people who identify as being of Hispanic origin, regardless of racial identification.
- “Asian American and Pacific Islander,” “Asian or Pacific Islander,” “Asian,” and “API” are used to refer to all people who identify as Asian American or Pacific Islander alone and do not identify as being of Hispanic origin.

- “Native American” and “Native American and Alaska Native” are used to refer to all people who identify as Native American or Alaskan Native alone and do not identify as being of Hispanic origin.
- “Mixed/other” and “other or mixed race” are used to refer to all people who identify with a single racial category not included above, or identify with multiple racial categories, and do not identify as being of Hispanic origin.
- “People of color” or “POC” is used to refer to all people who do not identify as non-Hispanic White.

Nativity

The term “U.S.-born” refers to all people who identify as being born in the United States (including U.S. territories and outlying areas), or born abroad to American parents. The term “immigrant” refers to all people who identify as being born abroad, outside of the United States, to non-American parents.

Detailed racial/ethnic ancestry

Given the diversity of ethnic origin and large

presence of immigrants among the Latino and Asian populations, we sometimes present data for more detailed racial/ethnic categories within these groups. In order to maintain consistency with the broad racial/ethnic categories, and to enable the examination of second-and-higher generation immigrants, these more detailed categories (referred to as “ancestry”) are drawn from the first response to the census question on ancestry, recorded in the Integrated Public Use Microdata Series (IPUMS) variable “ANCESTR1.” For example, while country-of-origin information could have been used to identify Filipinos among the Asian population or Salvadorans among the Latino population, it could do so only for immigrants, leaving only the broad “Asian” and “Latino” racial/ethnic categories for the U.S.-born population. While this methodological choice makes little difference in the numbers of immigrants by origin we report – i.e., the vast majority of immigrants from El Salvador mark “Salvadoran” for their ancestry – it is an important point of clarification.

Data and methods

Selected terms and general notes

(continued)

Other selected terms

Below we provide some definitions and clarification around some of the terms used in the profile:

- The term “region” is often used to describe Long Island and generally refers to metropolitan areas or other large urban areas (e.g. large cities and counties). The terms “metropolitan area,” “metro area,” and “metro” are used interchangeably to refer to the geographic areas defined as Metropolitan Statistical Areas under the December 2003 definitions of the Office of Management and Budget (OMB).
- The term “neighborhood” is used at various points throughout the profile. While in the introductory portion of the profile this term is meant to be interpreted in the colloquial sense, in relation to any data analysis it refers to census tracts.
- The term “communities of color” generally refers to distinct groups defined by race/ethnicity among people of color.
- The term “high school diploma” refers to both an actual high school diploma as well as high school equivalency or a General

Educational Development (GED) certificate. The term “full-time” workers refers to all persons in the IPUMS microdata who reported working at least 45 or 50 weeks (depending on the year of the data) and usually worked at least 35 hours per week during the year prior to the survey. A change in the “weeks worked” question in the 2008 ACS, as compared with prior years of the ACS and the long form of the decennial census, caused a dramatic rise in the share of respondents indicating that they worked at least 50 weeks during the year prior to the survey. To make our data on full-time workers more comparable over time, we applied a slightly different definition in 2008 and later than in earlier years: in 2008 and later, the “weeks worked” cutoff is at least 50 weeks while in 2007 and earlier it is 45 weeks. The 45-week cutoff was found to produce a national trend in the incidence of full-time work over the 2005-2010 period that was most consistent with that found using data from the March Supplement of the Current Population Survey, which did not experience a change to the relevant survey questions. For

more information, see:

https://www.census.gov/content/dam/Census/library/working-papers/2012/demo/Gottschalck_2012FCSM_VII-B.pdf.

General notes on analyses

Below, we provide some general notes about the analysis conducted:

- In regard to monetary measures (income, earnings, wages, etc.) the term “real” indicates the data has been adjusted for inflation. All inflation adjustments are based on the Consumer Price Index for all Urban Consumers (CPI-U) from the U.S. Bureau of Labor Statistics.

Data and methods

Summary measures from IPUMS microdata

Although a variety of data sources were used, much of our analysis is based on a unique dataset created using microdata samples (i.e., “individual-level” data) from the Integrated Public Use Microdata Series (IPUMS), for four points in time: 1980, 1990, 2000, and 2010 through 2014 pooled together. While the 1980 through 2000 files are based on the decennial census and each cover about 5 percent of the U.S. population, the 2010 through 2014 files are from the ACS and cover only about 1 percent of the U.S. population. Five years of ACS data were pooled together to improve the statistical reliability and to achieve a sample size that is comparable to that available in previous years. Survey weights were adjusted as necessary to produce estimates that represent an average over the 2010 through 2014 period.

Compared with the more commonly used census “summary files,” which include a limited set of summary tabulations of population and housing characteristics, use of the microdata samples allows for the

flexibility to create more illuminating metrics of equity and inclusion, and provides a more nuanced view of groups defined by age, race/ethnicity, and nativity for various geographies in the United States.

The IPUMS microdata allows for the tabulation of detailed population characteristics, but because such tabulations are based on samples, they are subject to a margin of error and should be regarded as estimates – particularly in smaller regions and for smaller demographic subgroups. In an effort to avoid reporting highly unreliable estimates, we do not report any estimates that are based on a universe of fewer than 100 individual survey respondents.

A key limitation of the IPUMS microdata is geographic detail. Each year of the data has a particular lowest level of geography associated with the individuals included, known as the Public Use Microdata Area (PUMA) for years 1990 and later, or the County Group in 1980. PUMAs are generally drawn to contain a population of about

100,000, and vary greatly in geographic size from being fairly small in densely populated urban areas, to very large in rural areas, often with one or more counties contained in a single PUMA.

While the geography of the IPUMS microdata generally poses a challenge for the creation of regional summary measures, this was not the case for the Long Island region, as the geography of Long Island could be assembled perfectly by combining entire 1980 County Groups and 1990, 2000, and 2010 PUMAs.

Data and methods

Adjustments made to census summary data on race/ethnicity by age

For the racial generation gap indicator, we generated consistent estimates of populations by race/ethnicity and age group (under 18, 18-64, and over 64 years of age) for the years 1980, 1990, 2000, and 2014 (which reflects a 2010 through 2014 average), at the county level, which was then aggregated to the regional level and higher. The racial/ethnic groups include non-Hispanic White, non-Hispanic Black, Hispanic/Latino, non-Hispanic Asian and Pacific Islander, non-Hispanic Native American/Alaska Native, and non-Hispanic Other (including other single race alone and those identifying as multiracial). While for 2000, this information is readily available in SF1, for 1980 and 1990, estimates had to be made to ensure consistency over time, drawing on two different summary files for each year.

For 1980, while information on total population by race/ethnicity for all ages combined was available at the county level for all the requisite groups in STF1, for race/ethnicity by age group we had to look to STF2, where it was only available for non-

Hispanic White, non-Hispanic Black, Hispanic, and the remainder of the population. To estimate the number of non-Hispanic Asian and Pacific Islanders, non-Hispanic Native Americans/Alaskan Natives, and non-Hispanic Others among the remainder for each age group, we applied the distribution of these three groups from the overall county population (of all ages) from STF1.

For 1990, population by race/ethnicity at the county level was taken from STF2A, while population by race/ethnicity was taken from the 1990 Modified Age Race Sex (MARS) file – special tabulation of people by age, race, sex, and Hispanic origin. However, to be consistent with the way race is categorized by the Office of Management and Budget’s (OMB) Directive 15, the MARS file allocates all persons identifying as “Other race” or multiracial to a specific race. After confirming that population totals by county were consistent between the MARS file and STF2A, we calculated the number of “Other race” or multiracial that had been added to each racial/ethnic group in each county (for all

ages combined) by subtracting the number that is reported in STF2A for the corresponding group. We then derived the share of each racial/ethnic group in the MARS file that was made up of other or mixed race people and applied this share to estimate the number of people by race/ethnicity and age group exclusive of the other or mixed race category, and finally the number of the other or mixed race people by age group.

For 2014 (which, again, reflects a 2010 through 2014 average), population by race/ethnicity and age was taken from the 2014 ACS 5-year summary file, which provides counts by race/ethnicity and age for the non-Hispanic White, Hispanic/Latino, and total population combined. County by race/ethnicity and age for all people of color combined was derived by subtracting non-Hispanic Whites from the total population.

Data and methods

Adjustments made to demographic projections

National projections

National projections of the non-Hispanic White share of the population are based on the U.S. Census Bureau's 2014 National Population Projections. However, because these projections follow the OMB 1997 guidelines on racial classification and essentially distribute the other single-race alone group across the other defined racial/ethnic categories, adjustments were made to be consistent with the six broad racial/ethnic groups used in our analysis.

Specifically, we compared the percentage of the total population composed of each racial/ethnic group from the Census Bureau's Population Estimates program for 2015 (which follows the OMB 1997 guidelines) to the percentage reported in the 2015 ACS 1-year Summary File (which follows the 2000 Census classification). We subtracted the percentage derived using the 2015 Population Estimates program from the percentage derived using the 2015 ACS to obtain an adjustment factor for each group

(all of which were negative, except for the mixed/other group) and carried this adjustment factor forward by adding it to the projected percentage for each group in each projection year. Finally, we applied the resulting adjusted projected population distribution by race/ethnicity to the total projected population from the 2014 National Population Projections to get the projected number of people by race/ethnicity in each projection year.

County and regional projections

Similar adjustments were made in generating county and regional projections of the population by race/ethnicity. Initial county-level projections were taken from Woods & Poole Economics, Inc. Like the 1990 MARS file described above, the Woods & Poole projections follow the OMB Directive 15-race categorization, assigning all persons identifying as other or multiracial to one of five mutually exclusive race categories: White, Black, Latino, Asian/Pacific Islander, or Native American. Thus, we first generated an adjusted version of the county-level Woods &

Poole projections that removed the other or multiracial group from each of these five categories. This was done by comparing the Woods & Poole projections for 2010 to the actual results from SF1 of the 2010 Census, figuring out the share of each racial/ethnic group in the Woods & Poole data that was composed of other or mixed race persons in 2010, and applying it forward to later projection years. From these projections, we calculated the county-level distribution by race/ethnicity in each projection year for five groups (White, Black, Latino, Asian/Pacific Islander, and Native American), exclusive of other and mixed-race people.

To estimate the county-level share of population for those classified as Other or mixed race in each projection year, we then generated a simple straight-line projection of this share using information from SF1 of the 2000 and 2010 Census. Keeping the projected other or mixed race share fixed, we allocated the remaining population share to each of the other five racial/ethnic groups by applying the racial/ethnic distribution implied

Data and methods

Adjustments made to demographic projections

(continued)

by our adjusted Woods & Poole projections for each county and projection year. The result was a set of adjusted projections at the county level for the six broad racial/ethnic groups included in the profile, which were then applied to projections of the total population by county from the Woods & Poole data to get projections of the number of people for each of the six racial/ethnic groups.

Finally, an Iterative Proportional Fitting (IPF) procedure was applied to bring the county-level results into alignment with our adjusted national projections by race/ethnicity described above. The final adjusted county results were then aggregated to produce a final set of projections at the regional, metro area, and state levels.

Data and methods

Estimates and adjustments made to BEA data on GDP

The data on national gross domestic product (GDP) and its analogous regional measure, gross regional product (GRP) – both referred to as GDP in the text – are based on data from the U.S. Bureau of Economic Analysis (BEA). However, due to changes in the estimation procedure used for the national (and state-level) data in 1997, and a lack of metropolitan area estimates prior to 2001, a variety of adjustments and estimates were made to produce a consistent series at the national, state, metropolitan-area, and county levels from 1969 to 2014.

Adjustments at the state and national levels

While data on gross state product (GSP) are not reported directly in the profile, they were used in making estimates of gross product at the county level for all years and at the regional level prior to 2001, so we applied the same adjustments to the data that were applied to the national GDP data. Given a change in BEA's estimation of gross product at the state and national levels from a standard industrial classification (SIC) basis to a North American Industry Classification

System (NAICS) basis in 1997, data prior to 1997 were adjusted to prevent any erratic shifts in gross product in that year. While the change to a NAICS basis occurred in 1997, BEA also provides estimates under a SIC basis in that year. Our adjustment involved figuring the 1997 ratio of NAICS-based gross product to SIC-based gross product for each state and the nation, and multiplying it by the SIC-based gross product in all years prior to 1997 to get our final estimate of gross product at the state and national levels.

County and metropolitan area estimates

To generate county-level estimates for all years, and metropolitan-area estimates prior to 2001, a more complicated estimation procedure was followed. First, an initial set of county estimates for each year was generated by taking our final state-level estimates and allocating gross product to the counties in each state in proportion to total earnings of employees working in each county – a BEA variable that is available for all counties and years. Next, the initial county estimates were aggregated to metropolitan-area level, and

were compared with BEA's official metropolitan-area estimates for 2001 and later. They were found to be very close, with a correlation coefficient very close to one (0.9997). Despite the near-perfect correlation, we still used the official BEA estimates in our final data series for 2001 and later. However, to avoid any erratic shifts in gross product during the years until 2001, we made the same sort of adjustment to our estimates of gross product at the metropolitan-area level that was made to the state and national data – we figured the 2001 ratio of the official BEA estimate to our initial estimate, and multiplied it by our initial estimates for 2000 and earlier to get our final estimate of gross product at the metropolitan-area level.

We then generated a second iteration of county-level estimates – just for counties included in metropolitan areas – by taking the final metropolitan-area-level estimates and allocating gross product to the counties in each metropolitan area in proportion to total earnings of employees working in each

Data and methods

Estimates and adjustments made to BEA data on GDP

(continued)

county. Next, we calculated the difference between our final estimate of gross product for each state and the sum of our second-iteration county-level gross product estimates for metropolitan counties contained in the state (that is, counties contained in metropolitan areas). This difference, total nonmetropolitan gross product by state, was then allocated to the nonmetropolitan counties in each state, once again using total earnings of employees working in each county as the basis for allocation. Finally, one last set of adjustments was made to the county-level estimates to ensure that the sum of gross product across the counties contained in each metropolitan area agreed with our final estimate of gross product by metropolitan area, and that the sum of gross product across the counties contained in state agreed with our final estimate of gross product by state. This was done using a simple IPF procedure. The resulting county-level estimates were then aggregated to the regional and metro area levels.

data for all counties in the United States, but rather groups some counties that have had boundary changes since 1969 into county groups to maintain consistency with historical data. Any such county groups were treated the same as other counties in the estimate techniques described above.

We should note that BEA does not provide

Data and methods

Middle-class analysis

To analyze middle-class decline over the past four decades, we began with the regional household income distribution in 1979 – the year for which income is reported in the 1980 Census (and the 1980 IPUMS microdata). The middle 40 percent of households were defined as “middle class,” and the upper and lower bounds in terms of household income (adjusted for inflation to be in 2010 dollars) that contained the middle 40 percent of households were identified. We then adjusted these bounds over time to increase (or decrease) at the same rate as real average household income growth, identifying the share of households falling above, below, and in between the adjusted bounds as the upper, lower, and middle class, respectively, for each year shown. Thus, the analysis of the size of the middle class examined the share of households enjoying the same relative standard of living in each year as the middle 40 percent of households did in 1979.

Data and methods

Assembling a complete dataset on employment and wages by industry

Analysis of jobs and wages by industry, reported on pages 49-55, is based on an industry-level dataset constructed using two-digit NAICS industries from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW). Due to some missing (or nondisclosed) data at the county and regional levels, we supplemented our dataset using information from Woods & Poole Economics, Inc., which contains complete jobs and wages data for broad, two-digit NAICS industries at multiple geographic levels. (Proprietary issues barred us from using Woods & Poole data directly, so we instead used it to complete the QCEW dataset.)

Given differences in the methodology underlying the two data sources (in addition to the proprietary issue), it would not be appropriate to simply "plug in" corresponding Woods & Poole data directly to fill in the QCEW data for nondisclosed industries. Therefore, our approach was to first calculate the number of jobs and total wages from nondisclosed industries in each county, and

then distribute those amounts across the nondisclosed industries in proportion to their reported numbers in the Woods & Poole data.

To make for a more accurate application of the Woods & Poole data, we made some adjustments to it to better align it with the QCEW. One of the challenges of using Woods & Poole data as a "filler dataset" is that it includes all workers, while QCEW includes only wage and salary workers. To normalize the Woods & Poole data universe, we applied both a national and regional wage and salary adjustment factor; given the strong regional variation in the share of workers who are wage and salary, both adjustments were necessary. Another adjustment made was to aggregate data for some Woods & Poole industry codes to match the NAICS codes used in the QCEW.

It is important to note that not all counties and regions were missing data at the two-digit NAICS level in the QCEW, and the majority of larger counties and regions with missing data were only missing data for a

small number of industries and only in certain years. Moreover, when data are missing it is often for smaller industries. Thus, the estimation procedure described is not likely to greatly affect our analysis of industries, particularly for larger counties and regions.

The same above procedure was applied at the county and state levels. To assemble data at for regions and metro areas, we aggregated the county-level results.

Data and methods

Growth in jobs and earnings by industry wage level, 1990 to 2015

The analysis on pages 49-50 uses our filled-in QCEW dataset (see the previous page) and seeks to track shifts in regional job composition and wage growth by industry wage level.

Using 1990 as the base year, we classified all broad private sector industries (at the two-digit NAICS level) into three wage categories: low, middle, and high wage. An industry's wage category was based on its average annual wage, and each of the three categories contained approximately one-third of all private industries in the region.

We applied the 1990 industry wage category classification across all the years in the dataset, so that the industries within each category remained the same over time. This way, we could track the broad trajectory of jobs and wages in low-, middle-, and high-wage industries.

This approach was adapted from a method used in a Brookings Institution report by Jennifer S. Vey, *Building From Strength: Creating Opportunity in Greater Baltimore's Next Economy* (Washington D.C.: Brookings Institution, 2012).

While we initially sought to conduct the analysis at a more detailed NAICS level, the large amount of missing data at the three- to six-digit NAICS levels (which could not be resolved with the method that was applied to generate our filled-in two-digit QCEW dataset) prevented us from doing so.

Data and methods

Analysis of occupations by opportunity level

The analysis of occupations on pages 53-62 is based on an analysis that seeks to classify occupations in the region by opportunity level. To identify “high-opportunity” occupations, we developed an “occupation opportunity index” based on measures of job quality and growth, including median annual wage, wage growth, job growth (in number and share), and median age of workers (which represents potential job openings due to retirements). Once the “occupation opportunity index” score was calculated for each occupation, they were sorted into three categories (high, middle, and low opportunity). Occupations were evenly distributed into the categories based on employment.

There are some aspects of this analysis that warrant further clarification. First, the “occupation opportunity index” that is constructed is based on a measure of job quality and set of growth measures, with the job-quality measure weighted twice as much as all of the growth measures combined. This weighting scheme was applied both because

we believe pay is a more direct measure of “opportunity” than the other available measures, and because it is more stable than most of the other growth measures, which are calculated over a relatively short period (2005-2011). For example, an increase from \$6 per hour to \$12 per hour is fantastic wage growth (100 percent), but most would not consider a \$12-per-hour job as a “high-opportunity” occupation.

Second, all measures used to calculate the “occupation opportunity index” are based on data for metropolitan statistical areas from the Occupational Employment Statistics (OES) program of the U.S. Bureau of Labor Statistics (BLS), with one exception: median age by occupation. This measure, included among the growth metrics because it indicates the potential for job openings due to replacements as older workers retire, is estimated for each occupation from the 2010 5-year IPUMS ACS microdata file (for the employed civilian noninstitutional population ages 16 and older). It is calculated at the metropolitan statistical area level (to be

consistent with the geography of the OES data), except in cases for which there were fewer than 30 individual survey respondents in an occupation; in these cases, the median age estimate is based on national data.

Third, the level of occupational detail at which the analysis was conducted, and at which the lists of occupations are reported, is the three-digit standard occupational classification (SOC) level. While considerably more detailed data is available in the OES, it was necessary to aggregate to the three-digit SOC level in order to align closely with the occupation codes reported for workers in the ACS microdata, making the analysis reported on pages 59-62 possible.

Fourth, while most of the data used in the analysis are regionally specific, information on the education level of “typical workers” in each occupation, which is used to divide occupations in the region into the three groups by education level (as presented on pages 56-58), was estimated using national 2010 IPUMS ACS microdata (for the

Data and methods

Analysis of occupations by opportunity level

(continued)

employed civilian noninstitutional population ages 16 and older). Although regionally specific data would seem to be the better choice, given the level of occupational detail at which the analysis is conducted, the sample sizes for many occupations would be too small for statistical reliability. And, while using pooled 2006-2010 data would increase the sample size, it would still not be sufficient for many regions, so national 2010 data were chosen given the balance of currency and sample size for each occupation. The implicit assumption in using national data is that the occupations examined are of sufficient detail that there is not great variation in the typical educational level of workers in any given occupation from region to region. While this may not hold true in reality, it is not a terrible assumption, and a similar approach was used in a Brookings Institution report by Jonathan Rothwell and Alan Berube, *Education, Demand, and Unemployment in Metropolitan America* (Washington D.C.: Brookings Institution, September 2011).

We should also note that the BLS does publish

national information on typical education needed for entry by occupation. However, in comparing these data with the typical education levels of actual workers by occupation that were estimated using ACS data, there were important differences, with the BLS levels notably lower (as expected). The levels estimated from the ACS were determined to be the appropriate choice for our analysis as they provide a more realistic measure of the level of educational attainment necessary to be a viable job candidate – even if the typical requirement for entry is lower.

Fifth, it is worthwhile to clarify an important distinction between the lists of occupations by typical education of workers and opportunity level, presented on pages 56-58, and the charts depicting the opportunity level associated with jobs held by workers with different education levels and backgrounds by race/ethnicity/nativity, presented on pages 60-62. While the former are based on the national estimates of typical education levels by occupation, with each occupation assigned

to one of the three broad education levels described, the latter are based on actual education levels of workers in the region (as estimated using 2010 5-year IPUMS ACS microdata), who may be employed in any occupation, regardless of its associated “typical” education level.

Lastly, it should be noted that for all of the occupational analysis, it was an intentional decision to keep the categorizations by education and opportunity broad, with three categories applied to each. For the categorization of occupations, this was done so that each occupation could be more justifiably assigned to a single typical education level; even with the three broad categories some occupations had a fairly even distribution of workers across them nationally, but, for the most part, a large majority fell in one of the three categories. In regard to the three broad categories of opportunity level and education levels of workers, this was done to ensure reasonably large sample sizes in the 2014 5-year IPUMS ACS microdata that was used for the analysis.

Data and methods

Health data and analysis

Health data presented are from the Behavioral Risk Factor Surveillance System (BRFSS) database, housed in the Centers for Disease Control and Prevention. The BRFSS database is created from randomized telephone surveys conducted by states, which then incorporate their results into the database on a monthly basis.

The results of this survey are self-reported and the population includes all related adults, unrelated adults, roomers, and domestic workers who live at the residence. The survey does not include adult family members who are currently living elsewhere, such as at college, a military base, a nursing home, or a correctional facility.

The most detailed level of geography associated with individuals in the BRFSS data is the county. Using the county-level data as building blocks, we created additional estimates for the region, state, and United States.

While the data allow for the tabulation of personal health characteristics, it is important to keep in mind that because such tabulations are based on samples, they are subject to a margin of error and should be regarded as estimates – particularly in smaller regions and for smaller demographic subgroups.

To increase statistical reliability, we combined five years of survey data, for 2008 through 2012. As an additional effort to avoid reporting potentially misleading estimates, we do not report any estimates that are based on a universe of fewer than 100 individual survey respondents. This is similar to, but more stringent than, a rule indicated in the documentation for the 2012 BRFSS data of not reporting (or interpreting) percentages based on a denominator of fewer than 50 respondents (see: https://www.cdc.gov/brfss/annual_data/2012/pdf/Compare_2012.pdf). Even with this sample size restriction, regional estimates for smaller demographic subgroups should be regarded with particular care.

For more information and access to the BRFSS database, see: <http://www.cdc.gov/brfss/index.html>.

Data and methods

Analysis of access to healthy food

Analysis of access to healthy food is based on the 2014 Analysis of Limited Supermarket Access (LSA) from the The Reinvestment Fund (TRF). LSA areas are defined as one or more contiguous census block groups (with a collective population of at least 5,000) where residents must travel significantly farther to reach a supermarket than the “comparatively acceptable” distance traveled by residents in well-served areas with similar population densities and car ownership rates.

The methodology’s key assumption is that block groups with a median household income greater than 120 percent of their respective metropolitan area’s median (or non-metro state median for non-metropolitan areas) are adequately served by supermarkets and thus travel an appropriate distance to access food. Thus, higher-income block groups establish the benchmark to which all block groups are compared, controlling for population density and car ownership rates.

An LSA score is calculated as the percentage by which the distance to the nearest supermarket would have to be reduced to make a block group’s access equal to the access observed for adequately served areas. Block groups with an LSA score greater than 45 were subjected to a spatial connectivity analysis, with 45 chosen as the minimum threshold because it was roughly equal to the average LSA score for all LSA block groups in the 2011 TRF analysis.

Block groups with contiguous spatial connectivity of high LSA scores are referred to as LSA areas. They represent areas with the strongest need for increased access to supermarkets. Our analysis of the percent of people living in LSA areas by race/ethnicity and poverty level was done by merging data from the 2014 5-year ACS summary file with LSA areas at the block group level and aggregating up to the city, county, and higher levels of geography.

For more information on the 2014 LSA analysis, see: https://www.reinvestment.com/wp-content/uploads/2015/12/2014_Limited_Supermarket_Access_Analysis-Brief_2015.pdf.

Data and methods

Air pollution data and analysis

The air pollution exposure index is derived from the 2011 National-Scale Air Toxics Assessment (NATA) developed by the U.S. Environmental Protection Agency. The NATA uses general information about emissions sources to develop risk estimates and *does not* incorporate more refined information about emissions sources, which suggests that the impacts of risks may be overestimated. Note, however, that because the analysis presented using this data is relative to the U.S. overall in the case of exposure index, the fact that the underlying risk estimates themselves may be overstated is far less problematic.

The NATA data include estimates of cancer risk and respiratory hazards (non-cancer risk) at the census tract level based on exposure to outdoor sources. It is important to note that while diesel particulate matter (PM) exposure is included in the NATA non-cancer risk estimates, it is not included in the cancer risk estimates (even though PM is a known carcinogen).

The index of exposure to air pollution presented is based on a combination of separate indices for cancer risk and respiratory hazard at the census tract level, using the 2011 NATA. We followed the approach used by the U.S. Department of Housing and Urban Development (HUD) in developing its Environmental Health Index. The cancer risk and respiratory hazard estimates were combined by calculating tract-level z-scores for each and adding them together as indicated in the formula below:

$$COMBINED_i = \left(\frac{c_i - \mu_c}{\sigma_c} \right) + \left(\frac{r_i - \mu_r}{\sigma_r} \right)$$

Where c indicates cancer risk, r indicates respiratory risk, i indexes census tracts, and μ and σ represent the means and standard deviations, respectively, of the risk estimates across all census tracts in the United States.

The combined tract level index, $COMBINED_i$, was then ranked in ascending order across all tracts in the United States, from 1 to 100.

Finally, the tract-level rankings were summarized to the city, county, and higher levels of geography for various demographic groups (i.e., by race/ethnicity and poverty status) by taking a population-weighted average using the group population as weight, with group population data drawn from the 2014 5-year ACS summary file.

For more information on the NATA data, see <http://www.epa.gov/national-air-toxics-assessment>.

Data and methods

Measures of diversity and segregation

In the profile, we refer to measures of residential segregation by race/ethnicity (the “multi-group entropy index” on page 87 and the “dissimilarity index” on page 88). While the common interpretation of these measures is included in the text of the profile, the data used to calculate them, and the sources of the specific formulas that were applied, are described below.

Both measures are based on census-tract-level data for 1980, 1990, and 2000 from Geolytics, and for 2014 (which reflects a 2010 through 2014 average) from the 2014 5-year ACS. While the data for 1980, 1990, and 2000 originate from the decennial censuses of each year, an advantage of the Geolytics data we use is that it has been “re-shaped” to be expressed in 2010 census tract boundaries, and so the underlying geography for our calculations is consistent over time; the census tract boundaries of the original decennial census data change with each release, which could potentially cause a change in the value of residential segregation indices even if no actual change in residential

segregation occurred. In addition, while most all the racial/ethnic categories for which indices are calculated are consistent with all other analyses presented in this profile, there is one exception. Given limitations of the tract-level data released in the 1980 Census, Native Americans are combined with Asians and Pacific Islanders in that year. For this reason, we set 1990 as the base year (rather than 1980) in the chart on page 88, but keep the 1980 data in the chart on page 87 as this minor inconsistency in the data is not likely to affect the analysis.

The formula for the multi-group entropy index was drawn from a 2004 report by John Iceland of the University of Maryland, *The Multigroup Entropy Index (Also Known as Theil’s H or the Information Theory Index)* available at: <https://www.census.gov/topics/housing/housing-patterns/about/multi-group-entropy-index.html>. In that report, the formula used to calculate the multigroup entropy index (referred to as the “entropy index” in the report) appears on page 8.

The formula for the dissimilarity index is well established, and is made available by the U.S. Census Bureau at: <https://www.census.gov/library/publications/2002/dec/censr-3.html>.

Data and methods

Estimates of GDP without racial gaps in income

Estimates of the gains in average annual income and GDP under a hypothetical scenario in which there is no income inequality by race/ethnicity are based on the 2014 5-Year IPUMS ACS microdata. We applied a methodology similar to that used by Robert Lynch and Patrick Oakford in chapter two of *All-In Nation: An America that Works for All*, with some modification to include income gains from increased employment (rather than only those from increased wages). As in the Lynch and Oakford analysis, once the percentage increase in overall average annual income was estimated, 2014 GDP was assumed to rise by the same percentage.

We first organized individuals aged 16 or older in the IPUMS ACS into six mutually exclusive racial/ethnic groups: non-Hispanic White, non-Hispanic Black, Latino, non-Hispanic Asian/Pacific Islander, non-Hispanic Native American, and non-Hispanic Other or multiracial. Following the approach of Lynch and Oakford in *All-In Nation*, we excluded from the non-Hispanic Asian/Pacific Islander category subgroups whose average incomes

were higher than the average for non-Hispanic Whites. Also, to avoid excluding subgroups based on unreliable average income estimates due to small sample sizes, we added the restriction that a subgroup had to have at least 100 individual survey respondents in order to be included.

We then assumed that all racial/ethnic groups had the same average annual income and hours of work, by income percentile and age group, as non-Hispanic Whites, and took those values as the new “projected” income and hours of work for each individual. For example, a 54-year-old non-Hispanic Black person falling between the 85th and 86th percentiles of the non-Hispanic Black income distribution was assigned the average annual income and hours of work values found for non-Hispanic White persons in the corresponding age bracket (51 to 55 years old) and “slice” of the non-Hispanic White income distribution (between the 85th and 86th percentiles), regardless of whether that individual was working or not. The projected individual annual incomes and work hours

were then averaged for each racial/ethnic group (other than non-Hispanic Whites) to get projected average incomes and work hours for each group as a whole, and for all groups combined.

One difference between our approach and that of Lynch and Oakford is that we include all individuals ages 16 years and older, rather than just those with positive income. Those with income values of zero are largely non-working, and were included so that income gains attributable to increased average annual hours of work would reflect both expanded work hours for those currently working and an increased share of workers – an important factor to consider given sizeable differences in employment rates by race/ethnicity. One result of this choice is that the average annual income values we estimate are analogous to measures of per capita income for the age 16-and-older population and are notably lower than those reported in Lynch and Oakford. Another is that our estimated income gains are relatively larger as they presume increased employment rates.

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PolicyLink is a national research and action institute advancing economic and social equity by Lifting Up What Works®.

The USC Program for Environmental and Regional Equity (PERE) conducts research and facilitates discussions on issues of environmental justice, regional inclusion, and social movement building.

Headquarters:

1438 Webster Street
Suite 303
Oakland, CA 94612
t 510 663-2333
f 510 663-9684

University of Southern California
950 W. Jefferson Boulevard
JEF 102
Los Angeles, CA 90089
t 213 821-1325
f 213 740-5680

Communications:

55 West 39th Street
11th Floor
New York, NY 10018
t 212 629-9570
f 212 763-2350

<http://dornsife.usc.edu/pere>

<http://www.policylink.org>

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