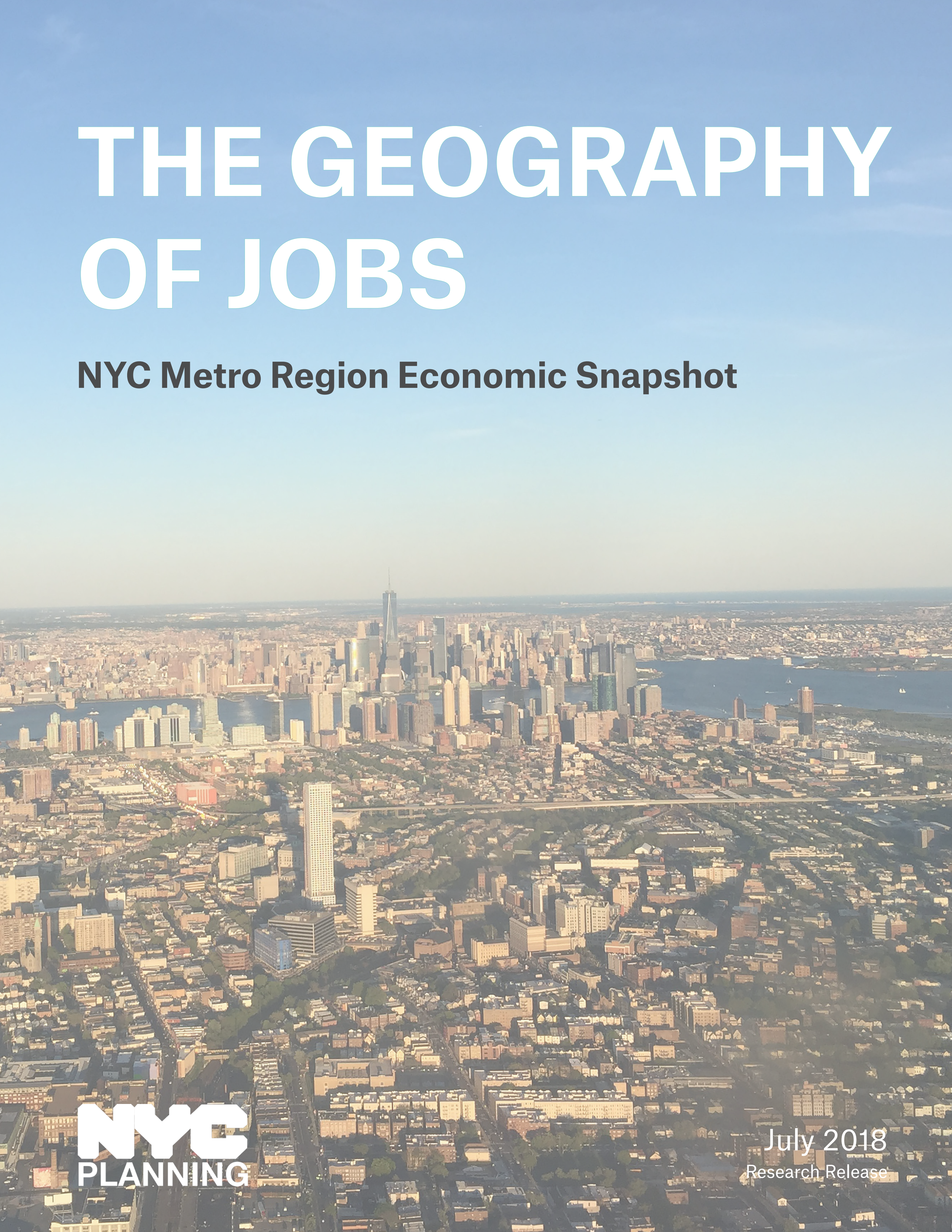


THE GEOGRAPHY OF JOBS

NYC Metro Region Economic Snapshot

NYC PLANNING

July 2018

Research Release

Though we are governed independently, many of the NYC Metro Region's planning challenges are interconnected, and NYC's future is intertwined with the future of the larger metropolitan region.

NYC is the hub of the largest metropolitan economy in the United States; our tri-state metropolitan region accounted for nearly 10% of U.S. Gross Domestic Product (GDP) and generated $1.7 trillion in 2016.[1] Half of that activity occurs within NYC's borders, and half occurs elsewhere throughout the NYC metropolitan region. NYC is the center of a complex ecosystem of resources, workers, land, and transit infrastructure that connects activity in the core to elsewhere in the region.

Recognizing that the health of NYC's economy is highly interconnected to the performance of our metropolitan region, the NYC Department of City Planning studied post-recession shifts to better understand the changing geography of our region's jobs and labor force. This research release examines recent economic changes at a "subregional" scale, looking at the relationships among NYC, northern New Jersey, Long Island, southwest Connecticut, and the Hudson Valley.[2]

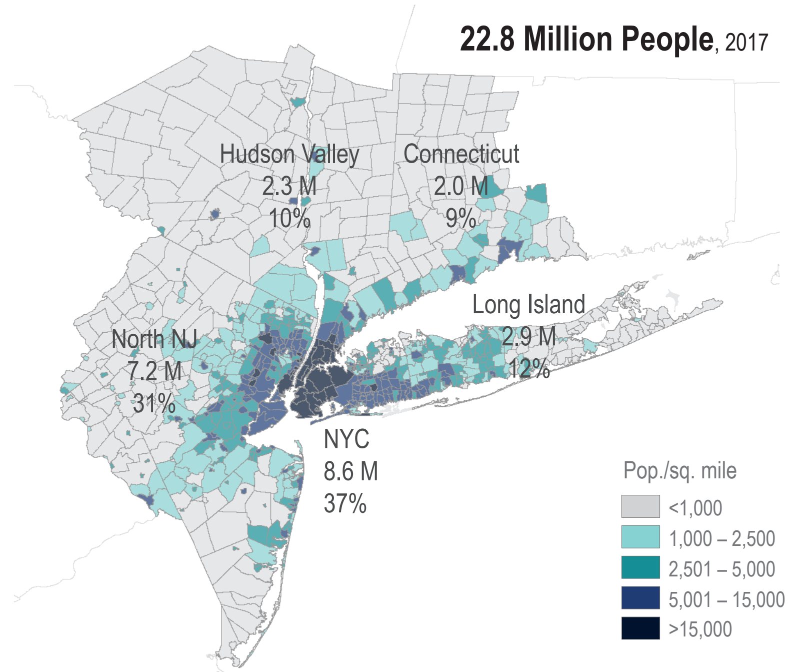
NYC Metro Region Today

Today, the NYC metropolitan region is home to 23 million people, 37% of whom live in NYC (8.6 million). Our region, which spans three states, 31 counties, and nearly 900 municipalities, is the largest metropolitan region in the United States. Our workforce of over 12 million is larger than the workforces of the Boston, San Francisco, and Seattle metro regions combined.[3]

The region has nearly nine million homes. Of the occupied stock, 46% is renter-occupied and 54% is owner-occupied. 55% of the region's rental housing is within NYC, with the balance concentrated in older downtowns along commuter rail lines. Among U.S. metropolitan areas, the NYC region's 3.8 million rental units – the most of any U.S. metro and second in share only to Los Angeles (48%) – represent an important feature of our region's success in accommodating a dynamic population and workforce.[4]

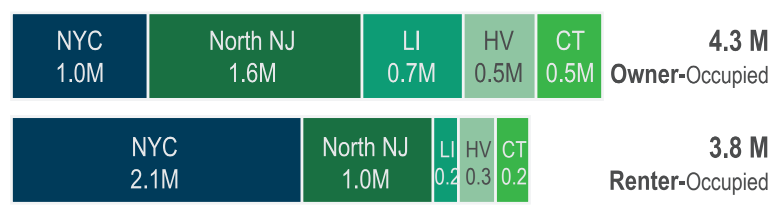
NYC is home to 41% (4.3 million) of the region's 10.4 million jobs, slightly higher than its share of regional population. The location of jobs within the region in many respects mirrors population distribution, with the densest concentrations of employment in NYC, particularly in Midtown and Lower Manhattan, as well as significant concentrations of employment throughout the tri-state area. Northern New Jersey is home to 30% (3.1 million) of the region's jobs, and the remaining third are spread among Long Island (1.3 million), the Hudson Valley (0.9 million), and Connecticut (0.8 million).

22.8 Million People, 2017



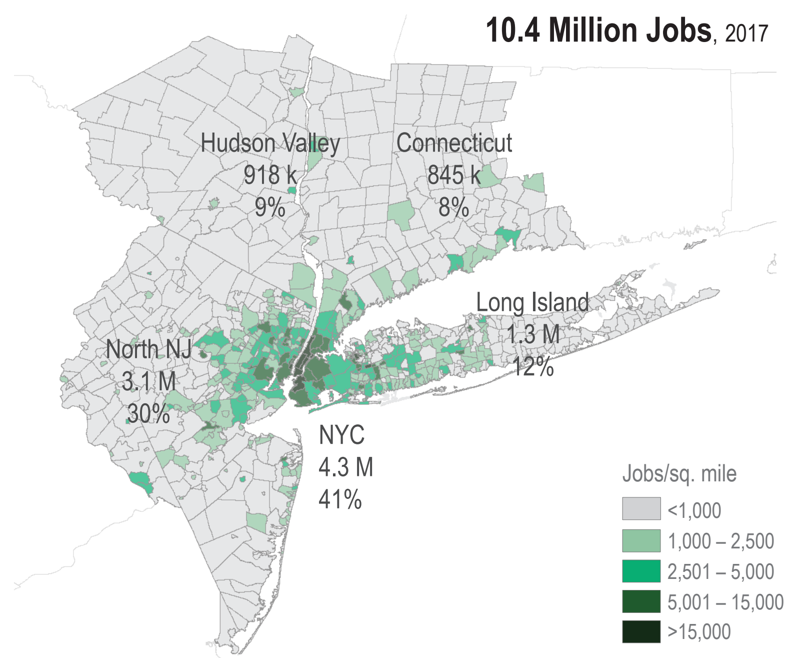
Sources: U.S. Census Bureau Population Estimates Program 2017; U.S. Census Bureau American Community Survey (ACS) 5-Year Estimates, 2012-2016; U.S. Census Bureau MAF/TIGER database

9.0 Million Homes, 2016



Note: does not include 0.9 million vacant housing units.
Source: U.S. Census Bureau ACS 5-Year Estimates 2012-2016

10.4 Million Jobs, 2017



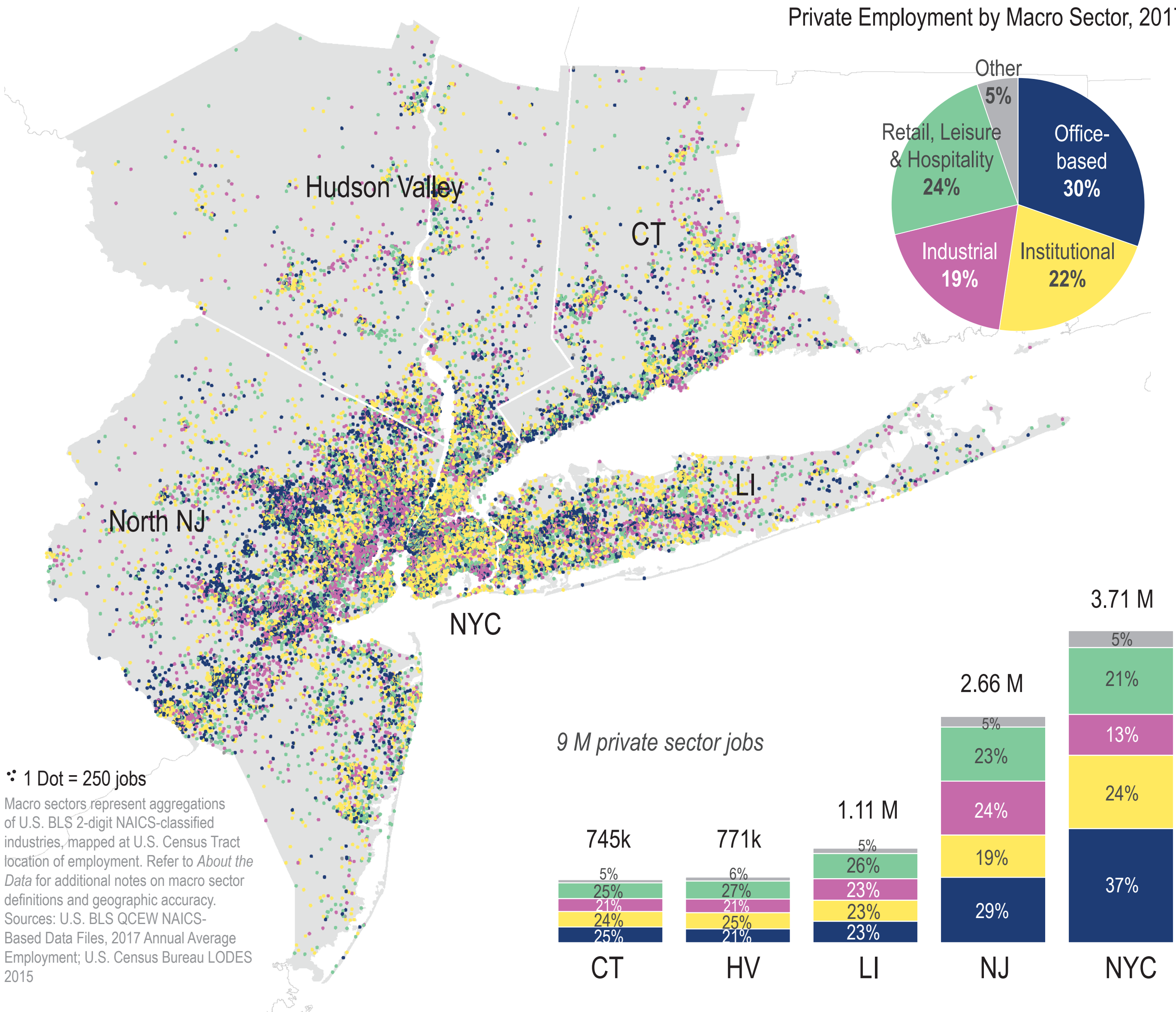
Sources: U.S. Bureau of Labor Services (BLS) Quarterly Census of Employment and Wages (QCEW) County High-Level NAICS-Based Data Files, 2017 Annual Average Employment; U.S. Census Bureau MAF/TIGER database; U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) 2015

Geography of the NYC Metro Economy

The region's 9 million private sector jobs represent a diverse mix of office-based, institutional, industrial, retail, leisure and hospitality, and other local services employment.

The region has 2.73 million office-based jobs, which includes finance and insurance, real estate, information, administration, professional, technical and other business services sectors. 41% are located in Manhattan, 8% are located in other NYC boroughs, and other significant clusters exist in regional downtowns such as Jersey City, Newark, and Stamford (between 30,000-50,000 office jobs each), or are found in more linear concentrations in the region's suburban areas, as in Melville (Long Island) and Parsippany-Troy Hills (NJ).[5] Office jobs represent 30% of jobs, but 52% of wages within the region.

The NYC metro region is home to more than two million private institutional jobs, 1.7 million in healthcare and 353,000 in private education sectors. There are also more than 745,000 public sector institutional jobs, predominantly in local and state education services.[6] Institutional employment is most concentrated at the region's large academic institutions and hospitals, though concentration is also correlated to population size, with this macro sector including local healthcare and education employment.



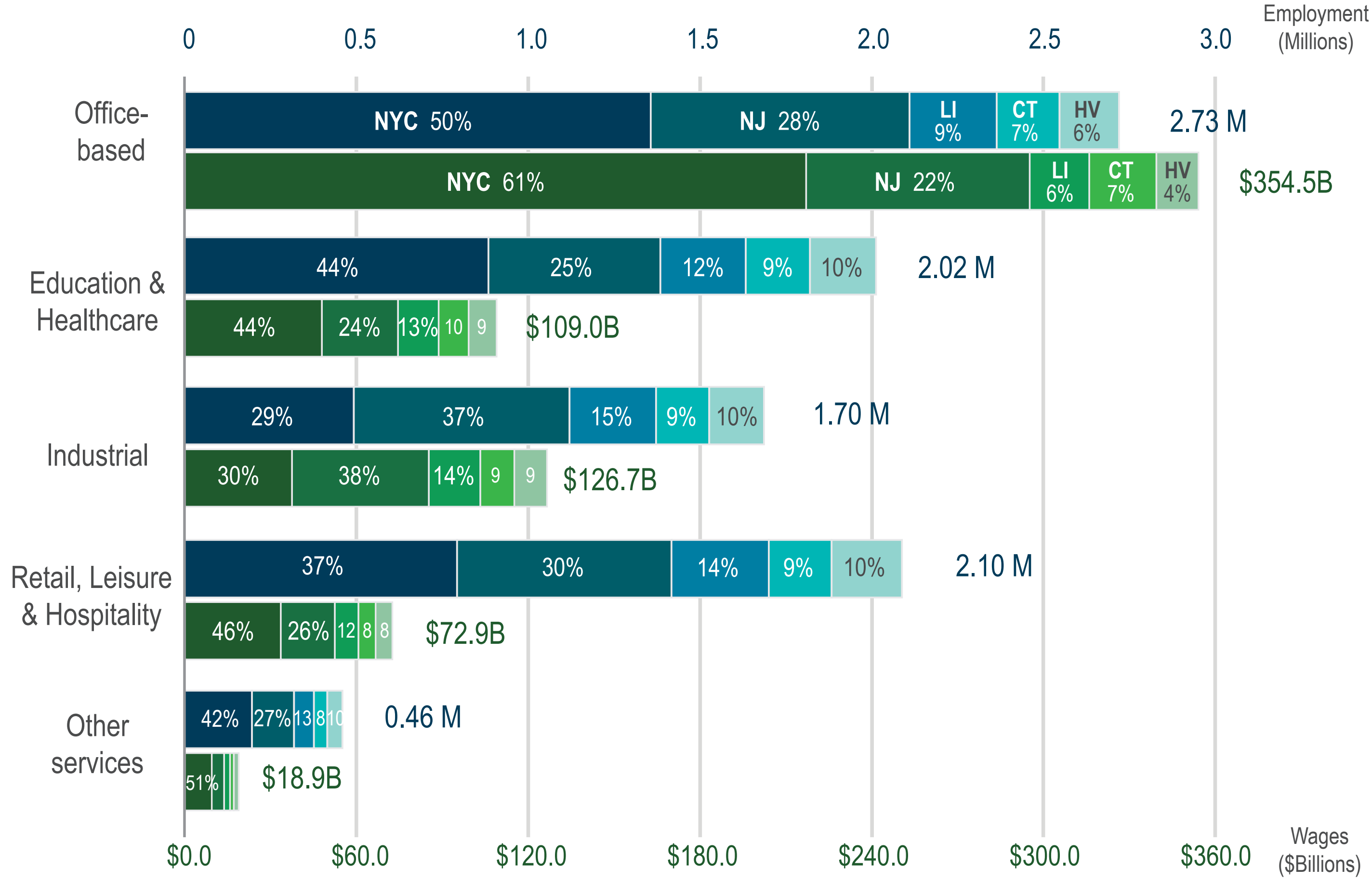
Macro sectors represent aggregations of U.S. BLS 2-digit NAICS-classified industries, mapped at U.S. Census Tract location of employment. Refer to *About the Data* for additional notes on macro sector definitions and geographic accuracy. Sources: U.S. BLS QCEW NAICS-Based Data Files, 2017 Annual Average Employment; U.S. Census Bureau LODES 2015

The NYC metropolitan region is home to 1.7 million private industrial jobs, which includes manufacturing, construction, utilities, transportation and warehousing, and wholesale trade employment. Industrial employment is most concentrated near ports, airports, and transportation facilities, and because of its land-intensiveness, exists in greater share outside of NYC than within (unlike all other sectors). 29% of the region's industrial employment (490,270) is based in NYC. However, this category of employment also includes some non-industrial facilities for industrial firms, such as office headquarters located in places like Manhattan.

Of the region's approximately 2.1 million private-sector retail, leisure and hospitality jobs, 38% were located in NYC. Retail and hospitality employment exists throughout the region, with the highest concentrations in densely populated areas or at regional malls.

Though NYC accounted for 41% of 2017 private sector employment, NYC's job base accounted for 51% of the region's total annual private sector wages ($346 billion of $682 billion in 2017). This primarily reflects the city's higher proportion of office-based employment, as well as higher than regional average wages in the retail, leisure and hospitality macro sector.

Private Sector Employment and Total Annual Wages 2017
by Macro Sector and NYC Metro Subregion

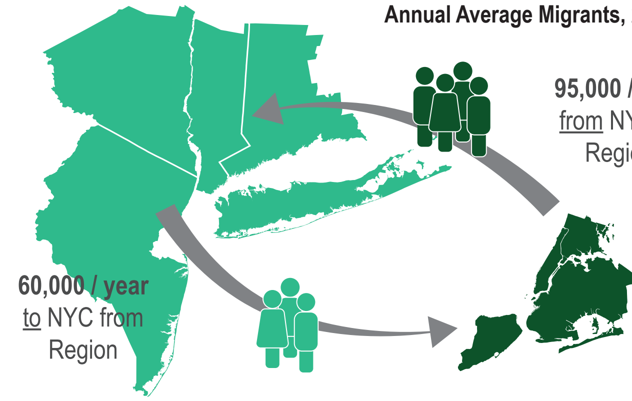


Macro sectors represent aggregations of U.S. BLS 2-digit NAICS-classified industries. Refer to *About the Data* for additional notes on macro sector definitions.
Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, 2017 Annual Average Employment and Total Annual Wages, rounded

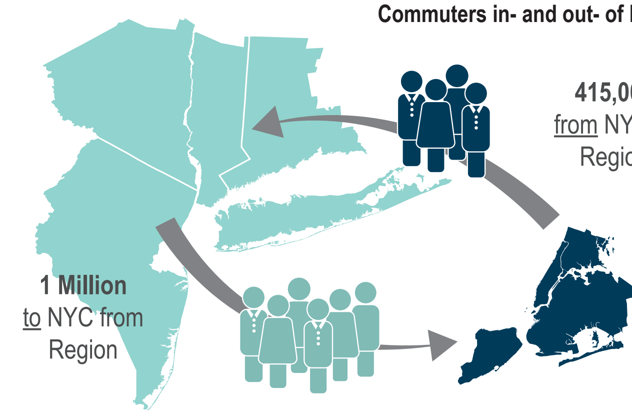
NYC and the Region - an Interconnected Ecosystem

Since the consolidation and growth of commuter rail systems in the early 20th century, followed by the growth of the regional highway network spurred growth in the suburbs, NYC's economic growth has been intertwined with the housing development and population growth of the larger metropolitan area. NYC relies on a housing market that extends well beyond its physical boundaries as a city, sharing a dynamic exchange of residents with the suburbs in which thousands of New Yorkers move to and from the region every year, and a transportation system that allows for over one million non-NYC resident workers to access the city daily while residing nearby. Nearly 30% of NYC's workforce lives outside the city, encompassing workers from a vast diversity of geographies, job sectors, and income levels. Similarly, 60,000 regional residents move to NYC per year and over 400,000 NYC residents rely on employers outside the city[7] – a trend especially strong in NYC neighborhoods far from Manhattan. As the city's population and economy grow, the importance of complementary housing and employment resources also increases.

Annual Average Migrants, 2012-2016



Commuters in- and out- of NYC, 2015



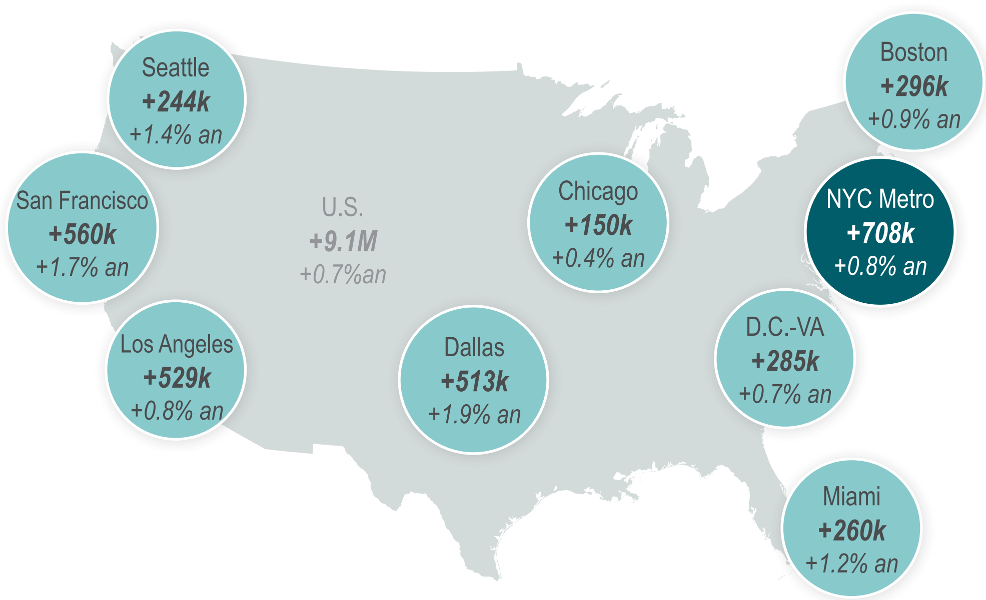
Sources: IPUMS-USA: 2016 ACS & PRCS 5-year samples; U.S. Census Bureau LODES 2015

NYC Metro Economy and the U.S.

Since the end of the last recession, NYC experienced record economic activity, adding 584,000 private sector jobs since 2008, growing by an average of 2.1% per year, and reaching 4.2% unemployment, the lowest in over 40 years. The city saw employment growth in all five boroughs, with Manhattan accounting for 35% of NYC private sector job gains, but the Bronx, Brooklyn, and Queens all outpacing Manhattan's annual rate of private employment growth post-recession.

Despite these dramatic gains, the NYC metropolitan economy as a whole grew at pace with the national average, and grew slower on average than Boston, Miami, San Francisco, Seattle, and Dallas metro economies. Though urban centers registered an overall gain in the share of total U.S. GDP, the NYC metro share of U.S. GDP slightly declined post-recession.[8]

Total Employment Gains and % Annual Employment Growth for Major U.S. Metros, 2008 – 2017



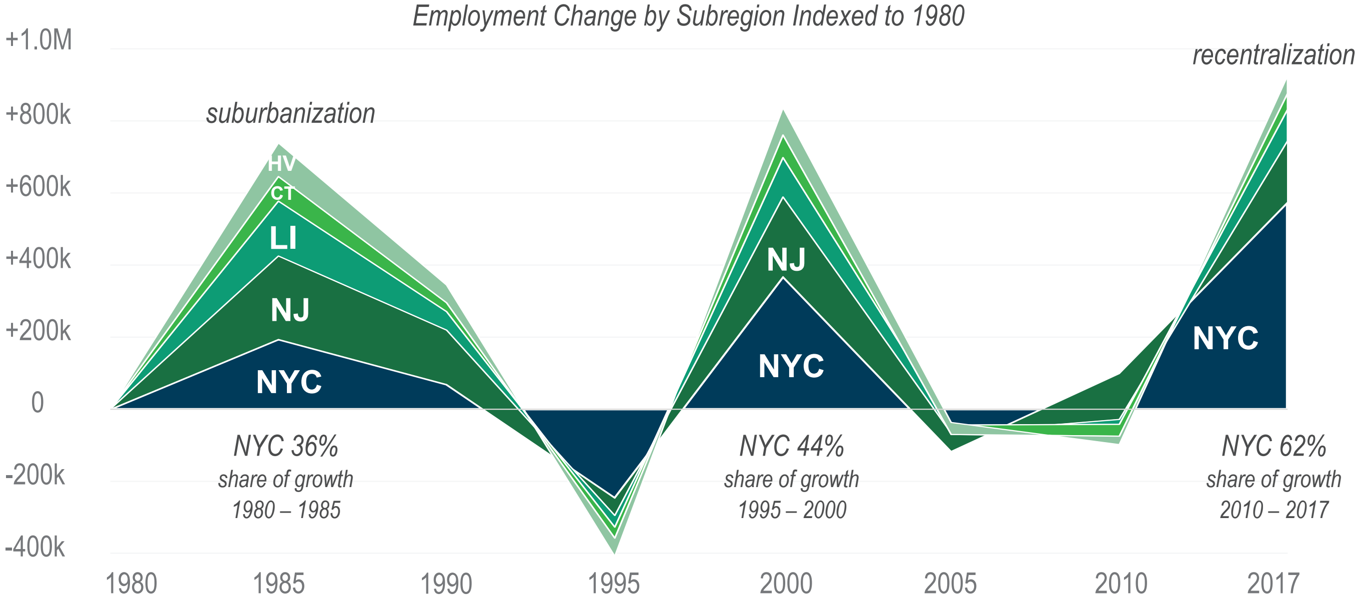
Non-NYC U.S. metro regions are defined as U.S. Bureau of Economic Analysis Combined Statistical Areas (CSAs), August 2017; NYC Metro represents region geography used in this report. Refer to About the Data for more information about the NYC metro.
Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, Annual Average Employment 2008 & 2017

Key Insights: The Geography of Change

The region's economic performance relies on a harmonious geographical relationship among the population, workforce, housing and employment, which are constantly shifting and recently have grown in a more centralized spatial pattern. The following insights identify key contributing trends affecting current and future performance of our regional economy.

What's Changed? Geography of NYC Metro Economic Growth

Employment Change by Subregion Indexed to 1980



Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, Annual Average Employment 1980, 1985, 1990, 1995, 2000, 2005, 2010, and 2017, rounded

This chart shows the employment change by subregion over five year intervals, and indexed to 1980, the first year for which county-level employment figures were reported for all 31 counties in the NYC metro region. In the most recent economic cycle (2010 – 2017), NYC's share of regional employment gain is the highest it's been, nearly doubling since the 1980s' suburban economic boom. This represents a geographic shift of economic growth toward the region's center.

1. **NYC captured the majority of post-recession regional economic growth through 2017, supported by strong performance in non-Manhattan boroughs – most notably Brooklyn and Queens. Other parts of the region, representing 59% of metro jobs, accounted for just 25% of net regional private employment gains.**
2. **Growth in office-based employment, the highest-wage macro sector, is concentrated in NYC and a few other places. Outside of NYC, employment growth was strongest in the healthcare and local services sectors, while the industrial sector sustained job losses as a result of continued manufacturing decline.**
3. **Outside of NYC, the labor force aged 25 to 54 is growing exclusively in areas west of the Hudson River and along regional rail corridors, which correlate with areas that have seen new housing development with transit accessibility to NYC jobs.**
4. **Geographic imbalances in jobs, population and housing growth have implications for regional commuting patterns, transit infrastructure, and overall metropolitan economic performance.**

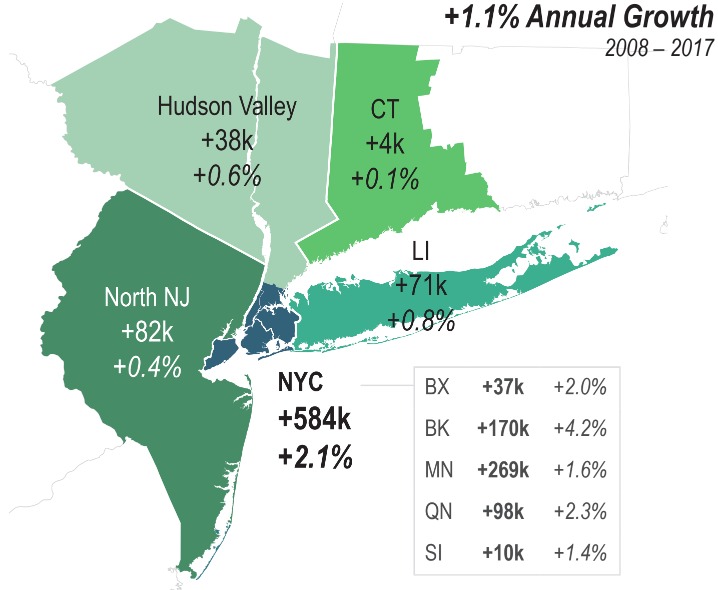
1. NYC captured the majority of post-recession regional economic growth through 2017, supported by strong performance in non-Manhattan boroughs – most notably Brooklyn and Queens. Other parts of the region, representing 59% of private employment, accounted for just 25% of net regional gains.

Driven by strong post-recession employment gains in NYC, the region added 778,500 private jobs between 2008 and 2017. NYC grew employment by an average of 2.1% per year, more than twice the U.S. average (+0.9%), and accounted for 75% (583,955 jobs) of the region's net private employment gain. Northern New Jersey, which is home to 30% of the metro region's employment, accounted for 10% of job gains in this period, averaging an annual increase of 0.4%.[9]

This trend is a reversal of recent growth patterns. Through the mid-1990s, northern New Jersey played a strong role in driving regional economic growth, accounting for 37% of private sector employment gains from 1990 to 2000 and capturing a greater share of job growth than NYC. Since 2008, however, strong growth in areas like Hudson County, NJ, which doubled its employment gains over previous cycles, was not enough to compensate for losses or slower job growth in other parts of northern New Jersey. At the same time, NYC's boroughs outside Manhattan have dramatically increased their shares of regional growth. From 1990 to 2000, those boroughs accounted for 19% of private employment gains in the region, but between 2008 and 2017 that share increased to 40%.

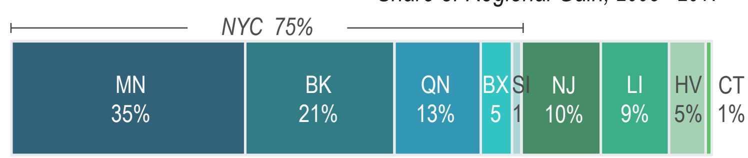
In 2017, NYC accounted for half of the region's private sector wages ($346 billion of $682 billion), but three-quarters of net regional wage growth.[10] Despite strong pre- and post-recession growth in NYC, slow wage growth in the rest of the region has dampened the overall value of metro economic performance. NYC accounted for 77% of net wage growth between 2008 and 2017 ($43 billion of $56 billion), and 80% of the region's net private sector wage growth since 2000 ($82 billion of $103 billion), growing at 1.8% per year on average. Northern New Jersey, however, grew private sector wages by 0.3% on average per year, from $168 billion in 2000 to $176 billion in 2017. The most substantial gains within northern New Jersey were experienced in Hudson, Mercer, and Morris counties. Though a smaller share of the economy, the rest of the region grew somewhat faster than northern New Jersey. Together, those areas averaged private sector wage growth of 0.5% per year, from $147 billion in 2000 to $160 billion in 2017.

+778,500 Private Sector Employment
+1.1% Annual Growth
2008 – 2017



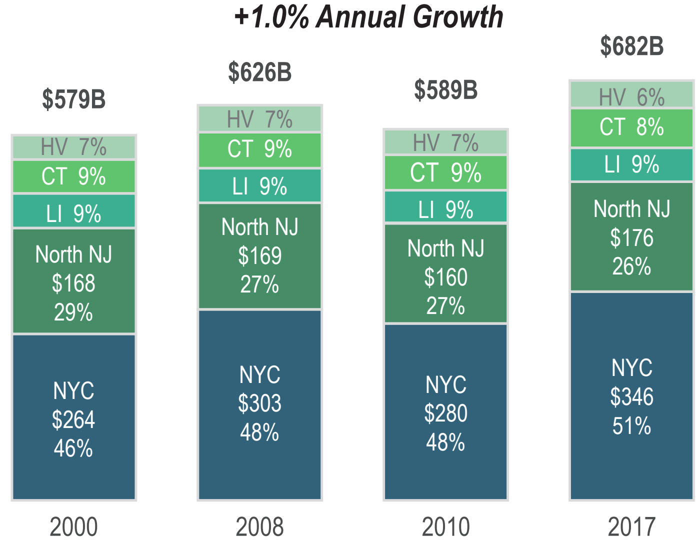
BX	**+37k**	*+2.0%*
BK	**+170k**	*+4.2%*
MN	**+269k**	*+1.6%*
QN	**+98k**	*+2.3%*
SI	**+10k**	*+1.4%*

Share of Regional Gain, 2008 - 2017



Represents private sector employment only. Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, 2008 & 2017 Annual Average Employment, rounded.

+$56 Billion Private Sector Wages, *2008-2017*
+1.0% Annual Growth



Wages represent aggregate annual private sector wages for the indicated years, adjusted for inflation and reported in $2017 dollars. Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, Annual Total Wages, 2000, 2008, 2010, and 2017, rounded.

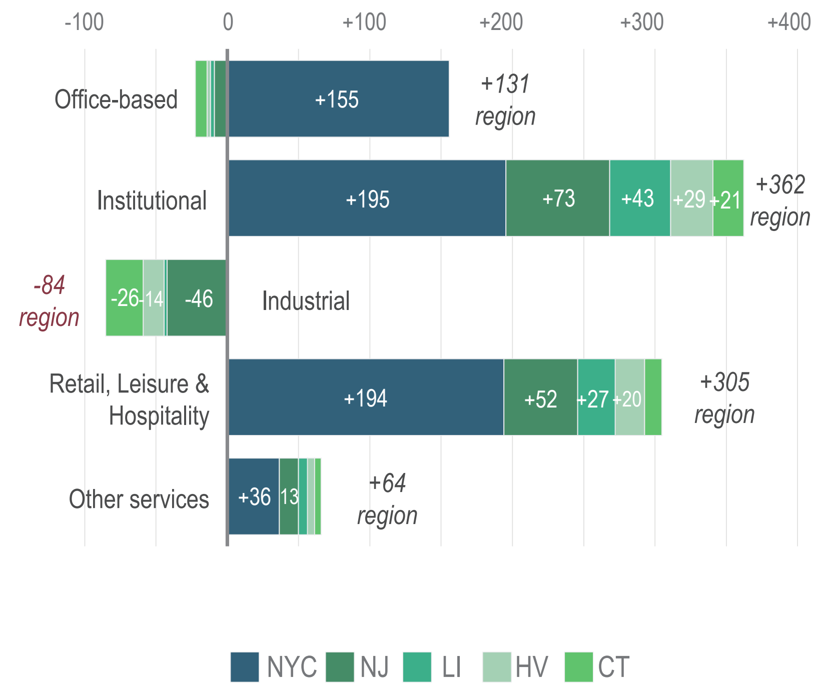
2. Growth in office-based employment, the highest-wage macro sector, is concentrated in NYC and a few other places. Outside of NYC, employment growth was strongest in the healthcare and local services sectors, while the industrial sector sustained job losses as a result of continued manufacturing decline.

Half of the region's 2.7 million private office-based employment is located in NYC, and in recent years it has become more concentrated within the city. The city's gain (+155,095) offset a loss of office jobs in the rest of the region (-23,605) from 2008 to 2017. Manhattan grew the most, adding 110,560 office jobs, while Brooklyn, which added 28,125 office jobs, grew the fastest (+39%) in the region, followed by Queens (+19%, +14,560 jobs), and Hudson County, NJ (+12%, +8,880 jobs). Several other NJ counties experienced modest increases, but together did not offset losses in Bergen, Essex, Monmouth, Passaic, Sussex, and Union counties. Despite private sector office employment losses in northern New Jersey, Long Island, and the Hudson Valley, total annual office sector wages increased in those subregions between 2008 and 2017, by 8%, 6%, and 2%, respectively.

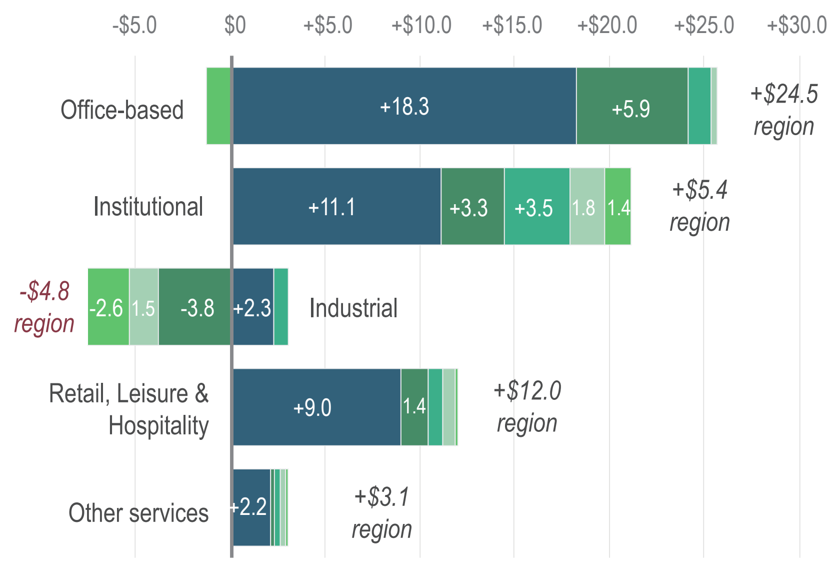
Private institutional jobs increased nearly everywhere in the region (+22% region-wide), accounting for 39% of total regional job gains from 2008 to 2017, and for 47% of non-NYC total private employment gains. Predominantly driven by growth in healthcare services, private institutional employment accounted for 38% of total private employment gains and 41% of total wage gains. The retail, leisure and hospitality macro sector accounted for the other major share of job growth, representing one-third of total regional private employment gains. These jobs, however, are lower wage on average, and accounted for only 13% of total private sector wage gains from 2008 to 2017.[11]

Industrial employment losses were seen throughout the region (net loss of 84,050 jobs) between 2008 and 2017. The most significant industrial job losses were experienced in northern New Jersey (-45,880 jobs) and Connecticut (-26,410), with Bergen and Morris counties, NJ and Fairfield and New Haven counties, CT each seeing losses of more than 10,000 industrial jobs. Gains in NYC boroughs outside Manhattan offset industrial job losses experienced by Manhattan (though these were likely headquarters or office-based employment in industrial-sector firms), with the city gaining 4,580 industrial jobs from 2008 to 2017.

ΔPrivate Sector Employment (thousands), *2008 – 2017*



ΔPrivate Sector Wages ($2017 billions), *2008 – 2017*



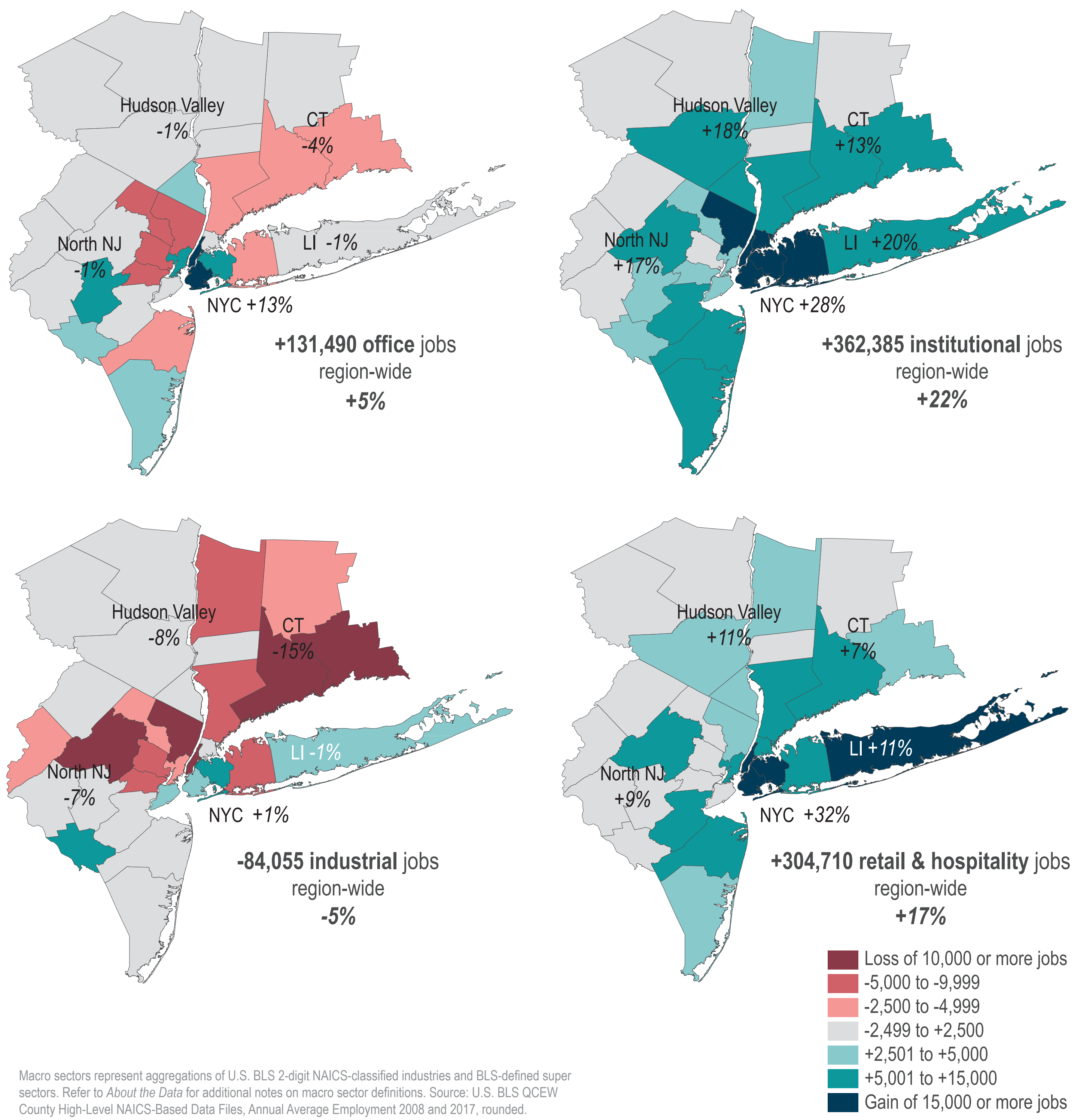
Employment and wages represent private sector jobs only. 2008 Wages have been adjusted for inflation, and change is reported in $2017 dollars using the 2017 Average Annual adjustment factor provided by the U.S. BLS CPI-U-RS. Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, Annual Average Employment and Annual Total Wages, 2008 & 2017, rounded.

KEY INSIGHTS: THE GEOGRAPHY OF CHANGE

2. Growth in office-based employment, the highest-wage macro sector, is concentrated in NYC and a few other places. Outside of NYC, employment growth was strongest in the healthcare and local services sectors, while the industrial sector sustained job losses as a result of continued manufacturing decline.

The geography of employment gains shows disparate patterns between NYC and non-NYC counties. Within NYC, employment growth outpaced the rest of the region in all macro sectors, with most counties in the region growing only in institutional and local services sectors between 2008 and 2017.

Change in Private Sector Employment by Macro Sector for NYC Metro Region Counties, 2008 – 2017



Macro sectors represent aggregations of U.S. BLS 2-digit NAICS-classified industries and BLS-defined super sectors. Refer to *About the Data* for additional notes on macro sector definitions. Source: U.S. BLS QCEW County High-Level NAICS-Based Data Files, Annual Average Employment 2008 and 2017, rounded.

KEY INSIGHTS: THE GEOGRAPHY OF CHANGE

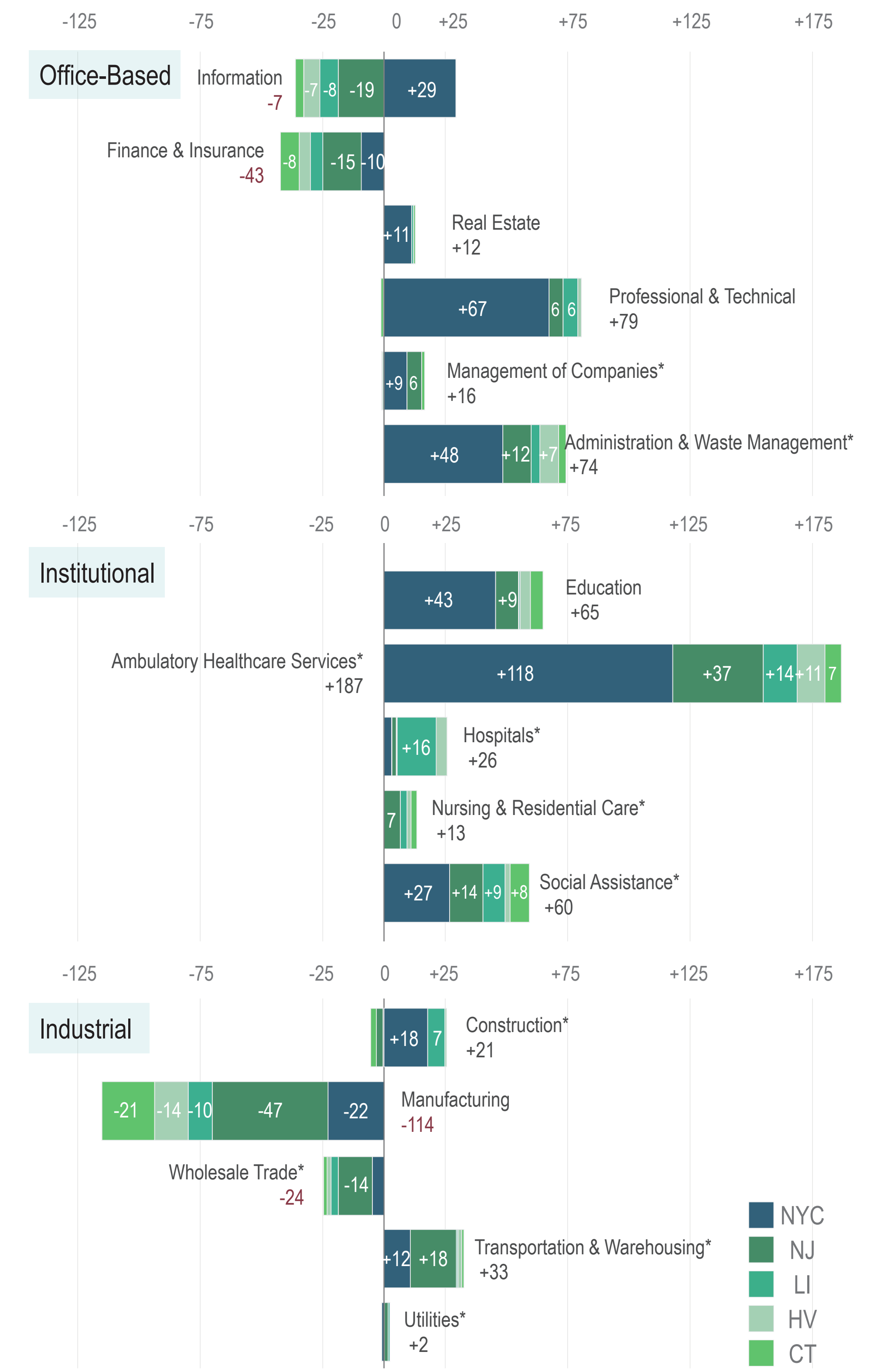
2. Growth in office-based employment, the highest-wage macro sector, is concentrated in NYC and a few other places. Outside of NYC, employment growth was strongest in the healthcare and local services sectors, while the industrial sector sustained job losses as a result of continued manufacturing decline.

Post-recession office employment change is characterized by a shift away from financial and insurance activities towards a diversity of professional and technical services. Nearly every NYC metro region county lost finance sector employment, but gained jobs in professional and technical services, as well as other business sectors. Manhattan, Brooklyn, and Fairfield County, CT were the only three counties in the metro region that gained information sector jobs post-recession from 2008 to 2017, of which Manhattan accounted for 83% (+29,390).

Private ambulatory services, which include local healthcare services such as physicians and dentists offices, grew the most of any sector. These gains were most pronounced in the parts of the region that are adding population, like NYC, which added 118,000 private ambulatory services jobs (+73%), and northern New Jersey, which added 37,000 of these jobs (+25%) from 2008 to 2017. Other notable gains were in social assistance sectors, and hospital employment on Long Island (mostly Nassau County). NYC accounted for 70% of private education employment increases in the region, most of which was located in Manhattan (+31,270).

The region's trend of manufacturing employment losses began pre-recession but has continued since 2008, pulling down the industrial sector overall. Modest gains in the transportation and warehousing logistics sectors in NYC and northern NJ, and construction on Long Island and in NYC, were not enough to offset manufacturing job declines across the region. The most notable losses were in northern New Jersey and Connecticut.

ΔOffice, Institutional and Industrial Private Employment (thousands), *2008 – 2017*

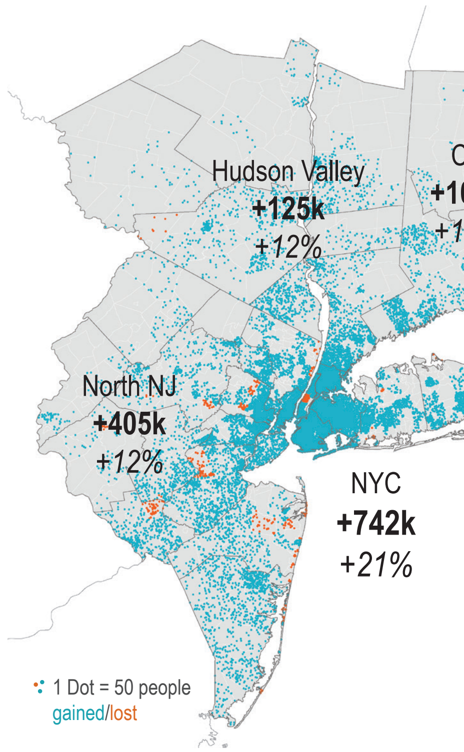


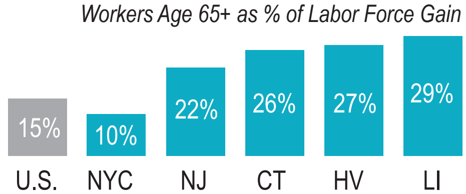
*Indicates an industry in which one or more counties did not disclose employment data in 2008 and/or 2017. For counties where data are not disclosed in 2008 and/or 2017, change over the period was assumed to be zero; therefore, reported change may not reflect actual change by subregion, or add to macro sector totals. This chart reports NAICS 2-digit sectors, excluding Healthcare (62), which uses NAICS 3-digit sectors. Refer to the About the Data section of this report for more information about data disclosure. Source: U.S. BLS QCEW NAICS-Based Data Files by Industry, Annual Average 2008 and 2017.

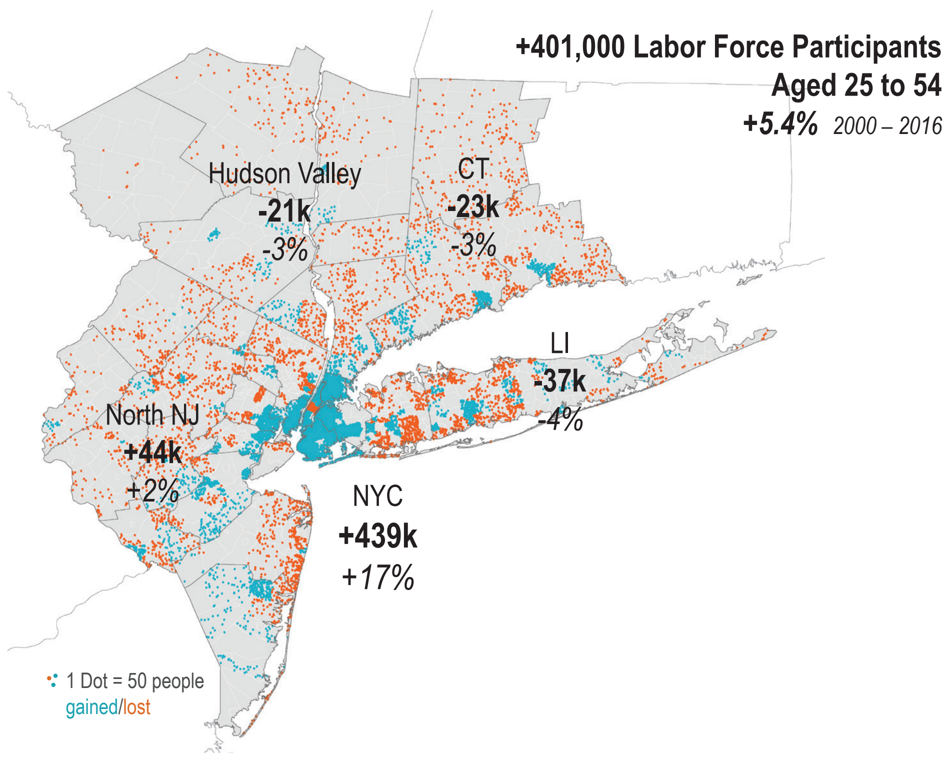
3. Outside of NYC, the labor force aged 25 to 54 is growing exclusively in areas west of the Hudson River and along regional rail corridors, which correlate with areas that have seen new housing development with transit accessibility to NYC jobs.

Since 2000, the NYC metropolitan region grew its labor force by 1.5 million workers, representing an increase of 15% —slightly below the national average gain of 16%. NYC accounted for half of the region's growth in resident labor force (+742,450), representing an increase of 21%, while other counties in the region had an average increase of 11%. Much of the regional labor force growth is attributable to workers remaining in the workforce longer — 17% of the region's growth is in workers over age 65. This share skews higher outside of NYC, particularly for areas north and east of the city.

The trend of labor force recentralization is more pronounced when looking exclusively at the change in workforce aged 25 to 54. From 2000 to 2016, NYC gained more than 439,000 labor force participants aged 25 to 54. Outside of NYC, only five New Jersey counties registered labor force gains for this age cohort (most notably Hudson, which gained over 63,000), while the remainder of metro counties registered losses. Labor force participants aged 25 to 54 increased by approximately 17% in NYC, nearly three times the national average (+6%), but overall the metro region grew by just 5%. Certain municipalities outperformed their counties, with notable labor force growth concentrations seen in areas proximate to NYC or well-connected by public transit, including Bridgeport, Hempstead, Hoboken, Jersey City, Newark, New Brunswick, New Haven, Stamford, and Yonkers.





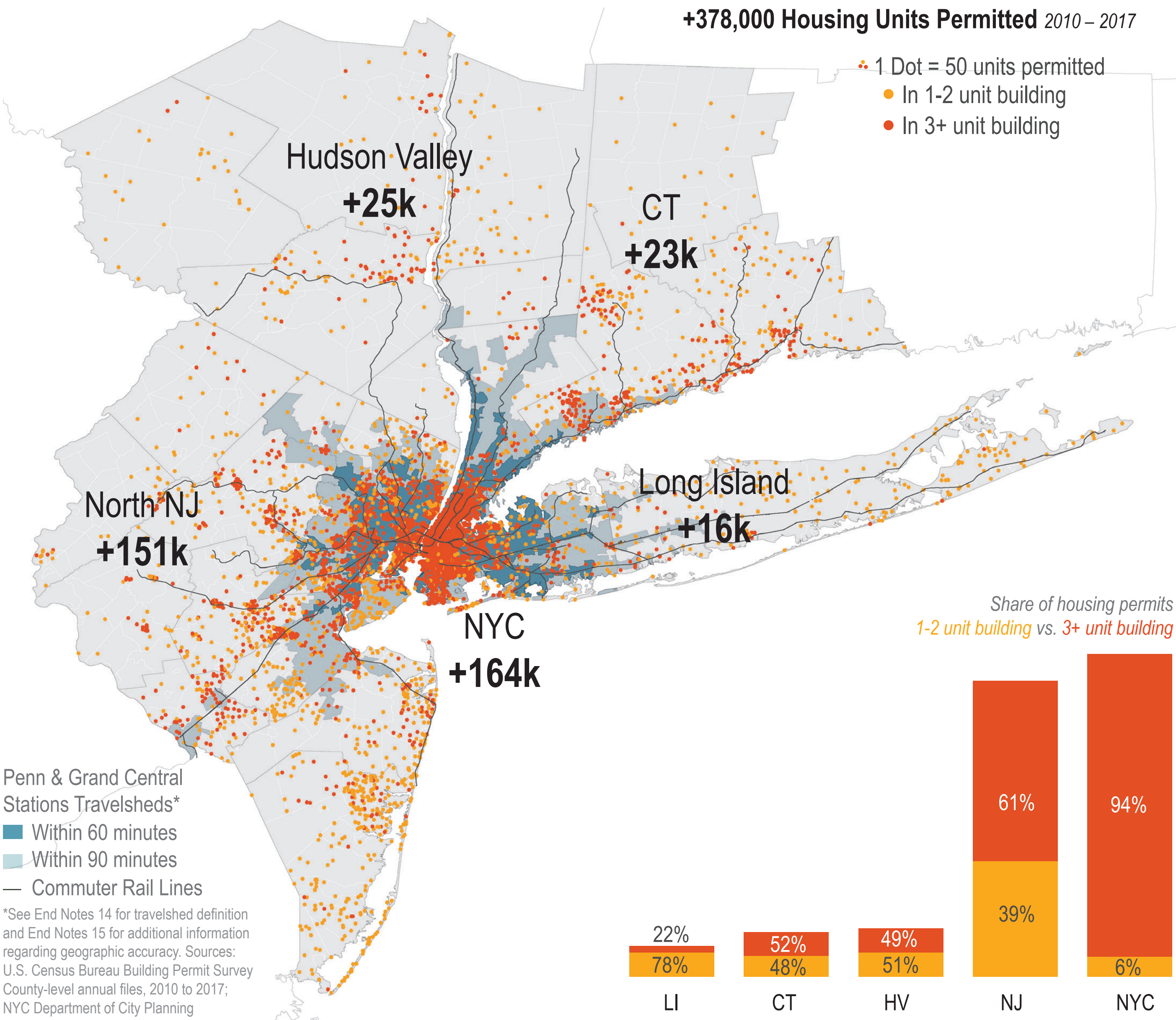


Labor force participant change is represented at geographic approximations of municipalities (refer to End Notes 12 for more detail). Change is mapped for municipalities with statistically significant change at the 90% confidence level. For municipalities with no change represented, calculated estimates were not statistically significant at the 90% confidence level. Please see About the Data section of this report for additional information about data reliability and geographic accuracy. Sources: U.S. Census Bureau Decennial Census 2000; U.S. Census Bureau ACS 5-Year Estimates 2012-2016

3. Outside of NYC, the labor force aged 25 to 54 is growing exclusively in areas west of the Hudson River and along regional rail corridors, which correlate with areas that have seen new housing development with transit accessibility to NYC jobs.

Housing production in the region coincides with geographies experiencing strong growth of workers aged 25 to 54, suggesting that housing growth may be both an attractor of population and workforce and a consequence of demand in those areas. More than 378,000 new housing units were issued permits in the region from 2010 to 2017 – the equivalent of the entire housing stock of the City of San Francisco.[13] While in absolute terms a large number, these housing permits represent only a 4% increase over the region's existing nine million units. Across the region, the production of new housing was concentrated in NYC, which accounted for 43% of new housing (164,000 units), and the northern New Jersey subregion, which accounted for 40% (151,000 units). Housing development in Long Island, Connecticut and the Hudson Valley subregions combined accounted for just 17% of new permitted units, despite accounting for 30% of existing housing and 32% of population.

Nearly three-quarters (72%) of total permits represent units in multifamily buildings with 3 or more units (272,720 units). NYC accounted for 56% of those multifamily units permitted, and northern NJ accounted for 34% (91,530 units).



*See End Notes 14 for travelshed definition and End Notes 15 for additional information regarding geographic accuracy. Sources: U.S. Census Bureau Building Permit Survey County-level annual files, 2010 to 2017; NYC Department of City Planning

4. Geographic imbalances in jobs, population and housing growth have implications for regional commuting patterns, transit infrastructure, and overall metropolitan economic performance.

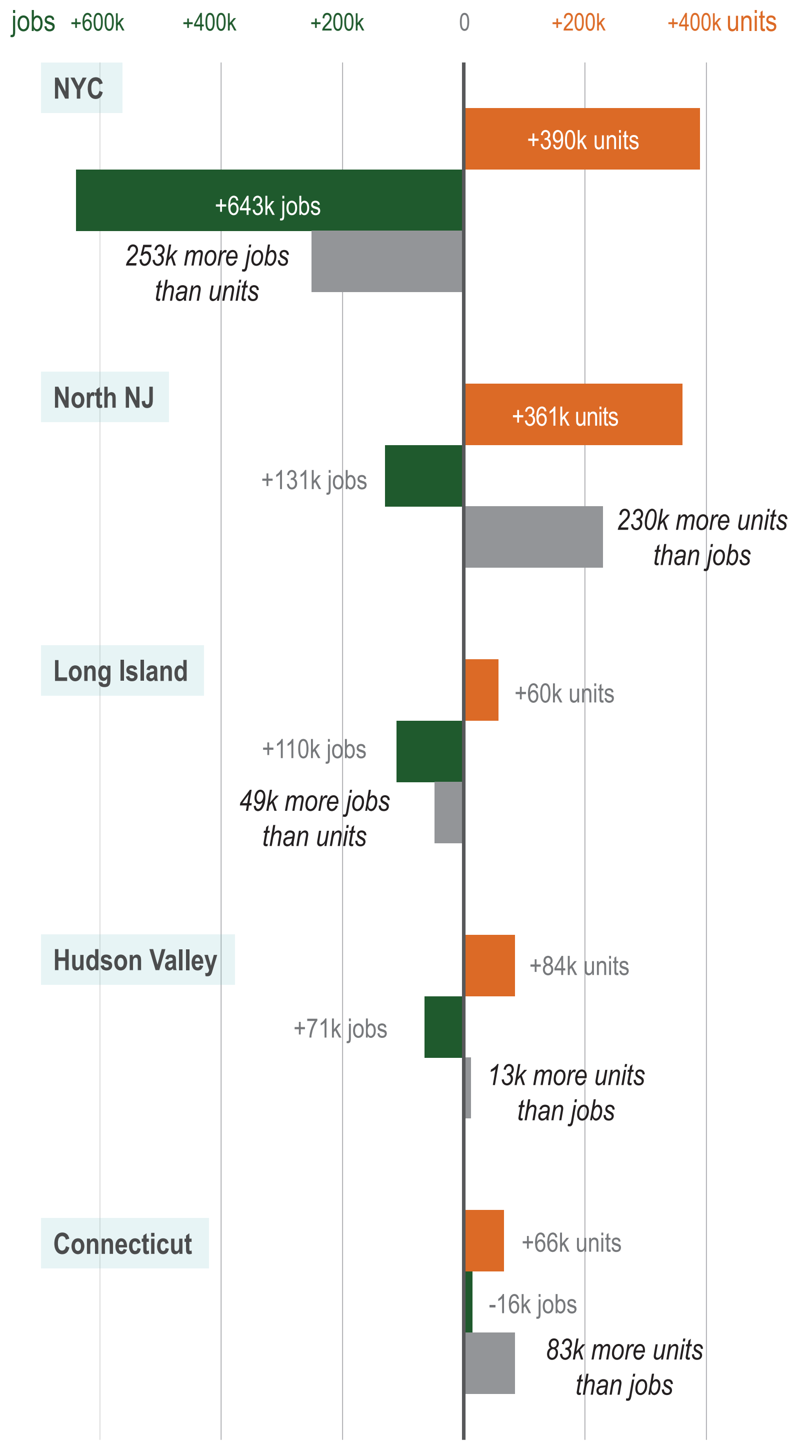
The combination of population and employment trends in recent years has led to a shift in the geographic balance of housing and jobs between NYC and the rest of the region. Between 2000 and 2017, NYC permitted more than 390,000 new housing units, and during this same period, added 643,000 net new jobs. The fact that job growth exceeded housing growth suggests that NYC's economy continues to draw on a regional workforce and housing supply.

At the same time, northern New Jersey has experienced strong housing growth, with limited employment growth. As a result, these northern New Jersey residents are commuting to jobs in NYC in increasing numbers.

While this symbiotic relationship has value in enabling the region to continue to meet both housing and employment needs, higher than anticipated levels of trans-Hudson commutation are taxing the region's transportation systems. The future balance of housing-jobs growth will have significant implications for prospective investments in regional transportation infrastructure. For instance, the size and type of improvements needed will depend in part on whether employment and housing growth return to broader distribution within the region, or whether job growth remains concentrated in NYC and housing growth strong in northern New Jersey. The addition of jobs as well as housing in highly accessible, transit-oriented locations outside the core of Manhattan offers the opportunity to relieve some pressure on Manhattan-bound commuter capacity, while improving access to job opportunities for residents of the region.

Balance of Regional Growth

ΔTotal Employment vs. Housing Units Permitted, *2000 – 2017*



Housing units permitted represents building permits and not completions for the given period.
Sources: U.S. BLS QCEW NAICS-Based Data Files High-Level by County, Annual Average, rounded; U.S. Census Bureau Building Permit Survey County-Level Annual files, 2000-2017; NYC Department of City Planning

End Notes

1. U.S. Bureau of Economic Analysis Gross Domestic Product by State and Metropolitan region, 2016
2. Subregions represent aggregations of U.S. Counties (refer to About the Data)
3. Metros are defined as U.S. Census Bureau Combined Statistical Areas, and represent size of labor force reported in U.S. Census Bureau ACS 5-Year Estimates 2012-2016.
4. Housing tenure represents owner-occupied and renter-occupied housing units reported for Combined Statistical Areas, from U.S. Census Bureau ACS 5-Year Estimates 2012-2016.
5. NYCDCP calculated using U.S. Census Bureau LEHD LODES 2015
6. Data are not disclosed for most county-level public sector education and healthcare sectors using U.S. BLS QCEW NAICS-based data files. For consistency in reporting regional shares and change over time, this report focuses on private sector only, for which data are comprehensive.
7. Commuting totals to- and from- NYC are calculated using U.S. Census Bureau Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics data for the most recent available year. This dataset represents administrative employment records for places of residence and employment of regional workers. Records differ from self-reported daily trip survey data.
8. U.S. Bureau of Economic Analysis Gross Domestic Product by Metropolitan region, 2016
9. Net gain is calculated at the county level, and is aggregated by subregion.
10. All historic wage data adjusted for inflation to $2017 (refer to About the Data)
11. Refers to total gain, which represents aggregations of county-level reported growth and does not include county-level reported losses, by macro sector.
12. Represents statistically significant change between the 2000 Decennial Census count and the 5-Year 2012-2016 ACS Estimate—representing 2016 —for U.S. Census Bureau defined Minor County Divisions (MCDs) in northern NJ, Hudson Valley, and Connecticut subregions; NYC PUMAs; and Long Island Census Designated Places (CDPs).
13. U.S. Census Bureau ACS 5-Year Estimate 2012-2016
14. Travelsheds are calculated by NYCDCP using OpenStreetMap and General Transit Feed Specification Data for the 31-county region, and represents walk-to-public-transit trips to Penn Station and Grand Central Station. It does not include vehicular travel. Travel time is shown at the U.S. Census Block level with centroids of the blocks used as the origins of the trips.
15. Building permits are mapped by U.S. Census Bureau MCDs in the northern NJ, Hudson Valley, and Connecticut subregions; NYC PUMAs; and for those Long Island incorporated CDPs (villages) reporting housing permits. For unincorporated CDPs on LI, the remaining housing permits have been allocated to MCD (town) geographies.

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About the Data

Geographies

This report covers the tri-state NYC metro region, representing New York City and 26 surrounding counties in portions of New York, northern New Jersey, and southwest Connecticut. This definition of the region is a generally accepted modification of the U.S. Census Bureau combined statistical area (CSA) for New York-Newark-Bridgeport and roughly represents the NYC commuter shed. This area does not represent a regulatory or other jurisdictional boundary. “Subregions” covered in this report are defined as:

- NYC: Five NYC boroughs/counties, including Bronx, Brooklyn (Kings), Manhattan, (New York), Queens, and Staten Island (Richmond)
- Northern New Jersey: Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren Counties
- Long Island: Nassau and Suffolk Counties
- Hudson Valley: Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties
- Connecticut: Fairfield, Litchfield, and New Haven Counties

Employment and Wages

Total employment and wage data are calculated and reported using U.S. Bureau of Labor Statistics (U.S. BLS) Quarterly Census of Employment and Wages (QCEW) North American Industry Classification System (NAICS)-based data files. This dataset is drawn from administrative records, and represents a “count of employment and wages reported by employers covering more than 95 percent of U.S. jobs.” It does not include self-reported employment or capture other off-record forms of employment. All wages represented for historic years have been adjusted for inflation to $2017 using the Consumer Price Index Research Series Using Current Methods (CPI-U-RS) U.S. City average annual adjustment factor and are reported in $2017. This factor is non-seasonally adjusted, and is indexed to December 1977.

Macro Sector Definitions

Industry macro sectors represent aggregations of U.S. BLS NAICS 2-digit industry sector employment data that generally reflect land use patterns associated with certain kinds of professions. Industries are grouped as follows:

- Office-based: Office-based jobs include NAICS 51 Information; 52 Finance and Insurance; 53 Real Estate and Rental and Leasing; 54 Professional, Scientific, and Technical Services; 55 Management of Companies, and 56 Administrative and Support and Waste Management and Remediation Services jobs. These jobs are generally located in commercial office buildings.
- Institutional: Institutional jobs include NAICS 61 Educational Services and 62 Health Care and Social Assistance. These jobs are typically located in campus-style facilities, or in smaller commercial office buildings – as is the case for local clinics and community-based services. Though there are a considerable number of public sector institutional jobs, this release reports solely on private sector employment due to data disclosure challenges.
- Industrial: Includes NAICS 11 Agriculture, Forestry, Fishing and Hunting; 21 Mining, Quarrying, and Oil and Gas Extraction; 22 Utilities; 23 Construction; 31-33 Manufacturing; 42 Wholesale Trade; and 48-49 Transportation and Warehousing. These jobs are generally land-intensive, found along freight corridors or in concentrated areas/specialized zones, such as ports. However, the categories are broad and might include some office-based employment, particularly for headquarters jobs within the sector.
- Retail, Leisure and Hospitality: Includes NAICS 44-45 Retail Trade; 71 Arts, Entertainment and Recreation; and 72 Accommodation and Food Services. These jobs tend to be locally serving, and are found throughout the region.
- Other Services: Includes NAICS 81 Other Services (except Public Administration), which includes local miscellaneous services such as dry cleaners and mechanics.

These groupings differ slightly from the NAICS-defined super sectors, most notably in the DCP grouping of Retail Trade with Leisure and Hospitality sectors, rather than Trade, Transportation and Utilities super sector. This report focuses only on change in private sector employment and wages in examining macro sector or industry-level changes, given issues with disclosure of public sector data. Where data disclosure issues were encountered within the 31-county region for the 2008 or 2017 year, change was presumed zero. Therefore, subregion totals might not accurately reflect industry-level shifts at the county level.

Data Reliability

In examining longitudinal change, DCP calculated margins of error for 2000 Decennial Census SF3 data consistent with U.S. Census Bureau guidelines, or used ACS-reported margins of error. Change is reported solely for geographies with statistically significant change at the 90% confidence level (a calculated significance value of less than 1.645). Dot density visualizations represent data mapped within specific boundaries (e.g., Census Tract) and do not represent the actual location of people, housing units, or jobs. Dots are illustrative only. In areas where no data are represented, values may fall below the selected threshold and do not necessarily indicate a value of zero.

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NYC Thinking Regionally

The New York City tri-state metropolitan region is complex, marked by layers of governance and divided management of our shared infrastructure. By dedicating resources to a regional planning office, NYC is reaching out across our borders, and investing in a more connected, strong and equitable metropolitan future.

For more information, please contact us at regional@planning.nyc.gov or visit our website http://www.nyc.gov/planning