POVERTY TRACKER

CENTER ON POVERTY & SOCIAL POLICY at Columbia University

Columbia Population Research Center

ROBIN HOOD

MONITORING POVERTY AND WELL-BEING IN NYC

SPOTLIGHT ON

OCCUPATIONS & MOBILITY:

Paths towards economic security through education and work

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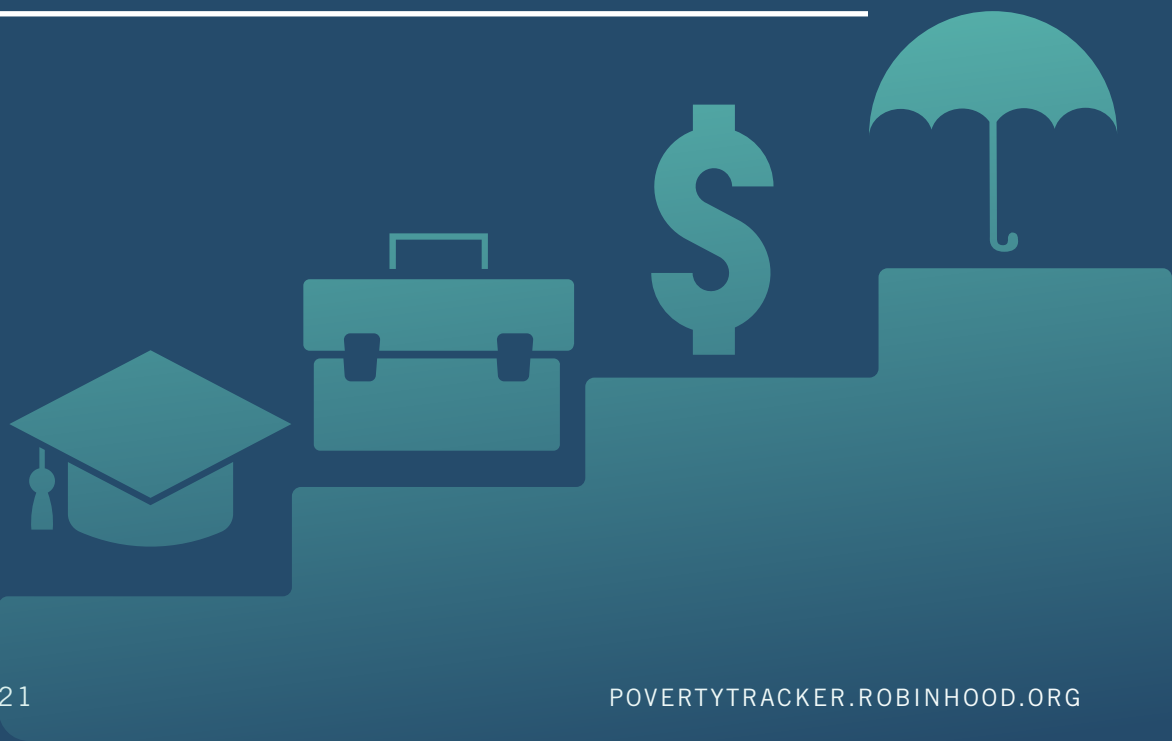

OCTOBER 2021

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Introduction

Over the past year, New York City has grappled with the health and economic impacts of COVID-19, both of which have disproportionately harmed low-income New Yorkers and communities of color. Rates of unemployment have reached heights not seen since the Great Recession,[1] businesses have been forced to close,[2] and, to make ends meet, millions of New Yorkers have become increasingly reliant on aid policies and programs, like food pantries[3] and expanded unemployment benefits.[4]

While the impact of COVID-19 has been felt across New York City's economy, those working in specific industries and occupations have been hit especially hard. A recent Poverty Tracker report showed that nearly half of workers in New York City lost employment income as a result of the pandemic, but workers in industries like food, hotel, entertainment, construction, and retail saw more sizable losses.[5] Poverty Tracker data has also highlighted that work and income loss was more prevalent among Black and Latino New Yorkers than white New Yorkers. Black and Latino New Yorkers were also more likely to work as essential and frontline workers, putting them at risk of contracting COVID-19.[6] Finally, those who lost work and income during the pandemic were more likely to be living in or near poverty prior to the pandemic compared to those who did not lose work.

The Poverty Tracker can also shed light on what helps families and individuals move out of poverty. Research has shown that stable employment, increases in income, and education gains can trigger movements out of poverty.[7] These findings highlight that obtaining higher levels of education, like associate's, bachelor's, and more advanced degrees, can provide pathways towards economic mobility. But despite the known relationship between education and economic mobility, less than half of working-age New Yorkers, and less than a third of working-age Black and Latino New Yorkers hold a college degree. The findings presented in this report make it clear that New York City must focus on expanding access to college for all, in addition to creating stronger employment opportunities for those who do not pursue a higher education.

[1] *Falk, G., Carter, J.A., Nicchitta, I.A., Nyhof, E.C., Romero, P.D. (January 2021).*
[2] *Haag, M. (August 2020).*
[3] *Collyer, S., Bannerman, C., Charles, R., Friedman, K., Wimer, C. (November 2020).*
[4] *Poverty Tracker Research Group at Columbia University (February 2021).*
[5] *Williams, M. (February 2021).*
[6] *Collyer, S., Huq, S., Washington, K., Wimer, C. (October 2020).*
[7] *McKernan, S., Ratfliffe, C. (November 2005).*

This report uses Poverty Tracker data to analyze the occupations in which workers without a college degree are most likely to move out of a low-income status from one year to the next. In addition to examining how mobility prospects differ by occupation, we also examine the specific job qualities and benefits provided by jobs with higher-mobility outcomes for workers (in comparison to jobs with lower-mobility outcomes). Finally, we focus on the racial composition of the most-and least-mobile occupations, highlighting inequalities in access to higher-mobility jobs among New Yorkers.

Findings from this report should inform the plans and policies that policymakers and business leaders implement to rebuild the city's economy and to protect against future economic crises like the one brought on by COVID-19. The Poverty Tracker shows that far too many New Yorkers struggle to make ends meet and that the goals of the city's economic recovery must move past a return to the status quo. Instead, the city must focus on expanding access to education and higher quality jobs for New Yorkers of all racial, ethnic, and socioeconomic groups, in addition to shoring up our country's safety net so that families are better prepared for current and future crises.

THE POVERTY TRACKER:

Launched in 2012, the Poverty Tracker surveys a representative sample of New Yorkers every three months, providing critical information on the dynamics of poverty and other forms of disadvantage in the city. Unlike other surveys, the Poverty Tracker explores how New Yorkers experience poverty and hardship over time, rather than in a single day, month, or year. The Poverty Tracker follows the same households every three months by contacting an adult in each household via online, phone, and paper surveys, allowing us to build a better understanding of New Yorkers' actual lives. In addition to measures on poverty and disadvantage, the Poverty Tracker collects a wealth of information on other topics such as employment, assets and debts, and health. We use these alternative measures to understand how certain disadvantages, or multiple, overlapping disadvantages, make it harder for New Yorkers to survive. The Poverty Tracker also collects data on other aspects related to New Yorkers' well-being, from asset and debt accumulation to social service program utilization to spending and consumption patterns, to form a better understanding of how New Yorkers make decisions about their own lives.

KEY FINDINGS

LOW-INCOME WORKING-AGE ADULTS

61% NO COLLEGE DEGREE

29% COLLEGE DEGREE

Building on prior research, which demonstrates that education provides a path towards economic mobility, we find that about 60% of working-age New Yorkers (25-64 years old) without a college degree have low incomes (defined as less than about $34,000 for individuals and $74,000 for families of four). By comparison, only about 30% of those with a college degree have low incomes.

WORKING-AGE ADULTS

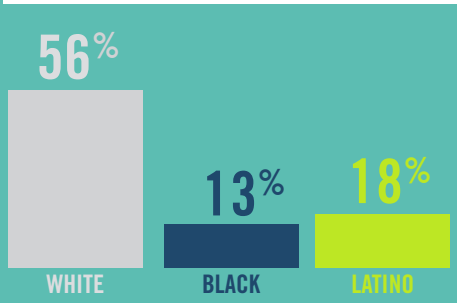
Despite the impact of education on earnings, we find that less than half of New York City's working-age adults (43%), and a smaller share of Black and Latino working-age adults (27% and 20% respectively) have a college degree.

New Yorkers without a college degree work a diverse set of jobs, most commonly in office and administrative support (16%) and sales and related occupations (12%).

Though roughly 60% of working-age adults without a college degree have low incomes, we find that income varies dramatically by occupation, with some occupations providing higher pay and greater financial stability than others.

Those working in management, business, science, and arts occupations are among those most likely to exit a low-income status from one year to the next.

MANAGEMENT, BUSINESS, SCIENCE, AND ART OCCUPATIONS



As with so many aspects of life in New York City, there are significant racial and ethnic disparities in who holds higher-mobility jobs. More than half (56%) of those working in management, business, science, and art occupations are white, while only 13% are Black and 18% are Latino. By comparison, more than 80% of those working in personal care and service and food preparation and serving are Latino or Black.

Job qualities like stable work hours and benefits such as paid time off and health insurance also contribute to economic stability and mobility prospects. Yet many jobs held by workers without a college degree lack the type of qualities and benefits that are associated with economic mobility.

THESE FINDINGS HIGHLIGHT THE NEED FOR POLICYMAKERS TO FOCUS ON MAKING COLLEGES MORE ACCESSIBLE AND AFFORDABLE; EXPANDING BENEFITS LIKE PAID TIME OFF, HEALTH INSURANCE, AND RETIREMENT PLANS; AND INCREASING ACCESS TO HIGHER-MOBILITY OCCUPATIONS FOR WORKERS OF COLOR.

About our Approach

In annual Poverty Tracker surveys, respondents are asked detailed information about their income and the income of those in their family. Using this information, we map changes in poverty, income, and economic well-being of New Yorkers from one year to the next.

The goal of this report is to understand what occupations and job qualities provide greater economic stability and mobility opportunities for non-college educated workers with low incomes. Specifically, we focus on occupations and job qualities that are most related to workers moving to, or above, 200% of the poverty line — about $34,000 for an individual and $74,000 for a family of four.[8] Families living below 200% of the poverty threshold are typically identified as having low incomes.

We use this low-income threshold for two reasons. First, as we have previously found, families who exit poverty and are living above 200% of the poverty threshold are less likely to subsequently fall back into poverty compared to those who exit poverty but do not pass this threshold.[9] Second, families living above 200% of the poverty threshold are less likely to face material hardship compared to those below this threshold. While those between 100% and 200% of the poverty threshold have similar rates of hardship compared to those in poverty, we see more substantial drops in hardship as respondents move up the income ladder.[10]

How do we define occupations?

In the Poverty Tracker's module on employment, respondents are asked to provide open-ended responses to the question, "what is your occupation for your main job? What kind of work do/did you do?"[11] See Appendix A for a detailed breakdown how these open-ended responses are coded into discrete categories.[12]

In addition to asking about job type, the employment module asks questions about the qualities and benefits associated with the respondent's job. In this report we use the following questions to better understand differences among occupations:

- Do you receive tips as part of your pay (for your main job)?[13]
- For your main job, do the number of hours you work from week to week change a lot, a fair amount, a little, or hardly at all?
- Do you get any of the following benefits on your job? Please select all that apply.
  - » Paid sick days
  - » Paid vacation
  - » A health plan or medical insurance
  - » A retirement program

[8] *Using 2019 Supplemental Poverty Measure Thresholds calculated using data from Fox, L. (September 2020).*
[9] *Wimer, C., Collyer, S., Maury, M., Garfinkel, I., Kennedy, L., Neckerman, K., Teitler, J., and Waldfogel, J. (December 2018).*
[10] *Ibid.*
[11] *For respondents who were not working at the time of being surveyed but were working at some point in the two years before, these questions are asked in reference to their last job.*
[12] *IPUMS (September 2019).*
[13] *Respondents not currently employed were asked about their most recent job if they worked in the last two years.*

How do we identify race and ethnicity?

Throughout this report, we discuss race and ethnicity in the context of education and occupational disparities among New Yorkers. We identify the race and ethnicity of adults in the Poverty Tracker sample using questions asked by the Census Bureau on various population-level surveys.[14] These questions allow us to better understand the needs of communities within New York City and to ensure that we are surveying a representative sample of New York City's racial and ethnic groups.

In this report we refer to New Yorkers who identified as Hispanic, Latino, or of Spanish origin as Latino New Yorkers, and to Black non-Latino and white non-Latino New Yorkers as Black and white New Yorkers, respectively. In addition, when we say, "New Yorkers," we are referring to adults in New York City.

See Appendix B for a more detailed discussion regarding the questions used to identify race and ethnicity, and the terminology used in this report.

Results for Asian New Yorkers and multiracial New Yorkers are not presented in this report because the data behind our estimates come from surveys conducted in English and Spanish and contain only a small group of Asian New Yorkers, which limits the representativeness of the Asian population and the capacity for comparative analysis with other racial/ethnic groups. In 2020, the Poverty Tracker began to oversample in neighborhoods with a high concentration of New Yorkers of Chinese origin and to interview respondents in Mandarin. These surveys will enable the Poverty Tracker to better capture information on the experiences of disadvantage in New York City's Asian community. This data will be available later in 2021. We recognize that the Asian community is diverse and many different Asian languages are spoken in New York City. However, Mandarin is the most common Asian language spoken in the city and Mandarin-speaking New Yorkers are the largest group missing in various data sources. The Poverty Tracker is the only source of longitudinal information on disadvantage and the data collected will be vital to understanding the experiences of Asian New Yorkers going forward and how these experiences have been impacted by the pandemic.

[14] Historically, the Census asks race and origin questions to gain an understanding of the makeup of the population and to help construct civil rights protections for all. These questions have helped to reveal gaps within various social policies and to address the economic, educational, and infrastructural needs of different communities. See Brumfield, C., Goldvale, C., and Brown C. (June 2019).

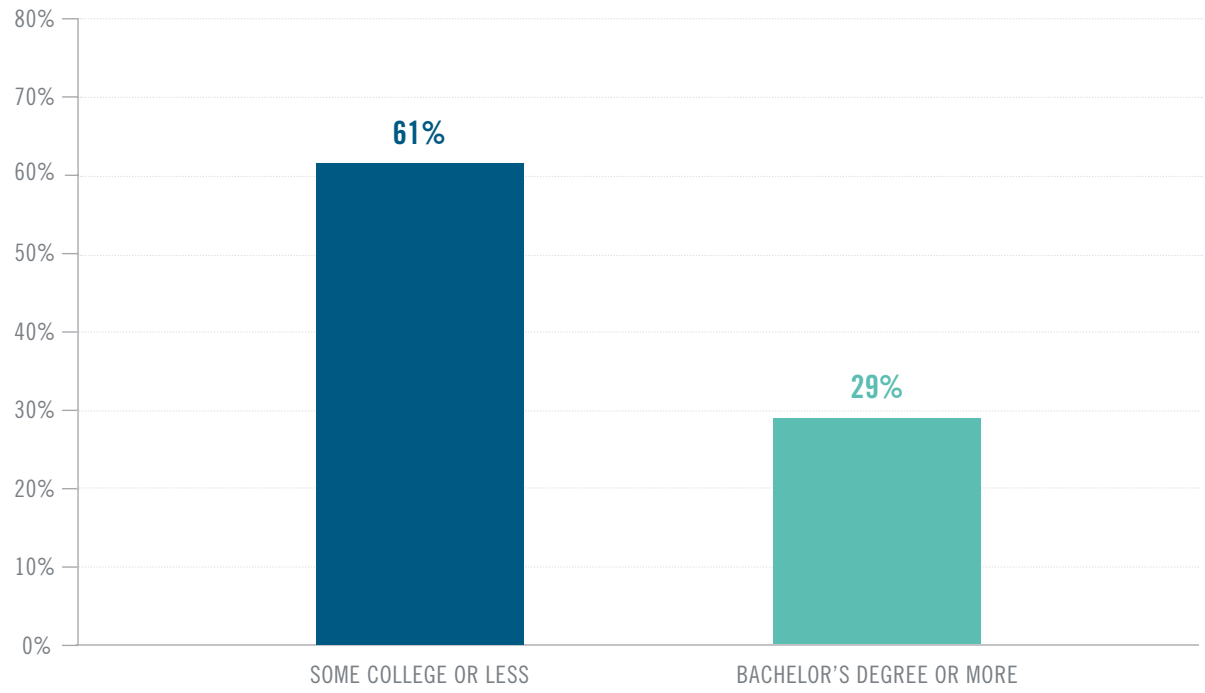
Findings

Building on prior research, which demonstrates that education can provide a path towards economic mobility, we find that about 60% of working-age New Yorkers (25-64 years old) without a college degree have low incomes. By comparison, only about 30% of those with a college degree have low incomes.

In Figure 1 we see that the share of working-age New Yorkers (25-64 years old) classified as having low incomes varies greatly by whether or not one has a bachelor's degree. While the majority of those without a bachelor's degree have low incomes (about 60%), only 30% of those with such a degree fall below this threshold. This builds on prior research, which identifies education as a path towards economic mobility,[15] a fact that is unsurprising in an economy and city where many of the highest paying jobs require advanced degrees.

Figure 1

Share of working-age adults (25-64 years old) with low incomes by education level



Source: *Annual Poverty Tracker survey data collected between 2019 and 2020, second and third panels.*

[15] *McKernan, S., Ratfliffe, C. (November 2005); Haskins, R. (July 2016).*

Despite the impact of education on earnings, we find that less than half of New York City's working-age adults (43%), and a smaller share of Black and Latino working-age adults (27% and 20%, respectively) have a college degree.[16]

Given the racial inequities present in our city and country, in Figure 2, we examine the share of working-age New Yorkers with a college degree broken down by race and ethnicity. We find that while 43% of working-age New Yorkers have a bachelor's degree or more, disparities by race are apparent. While more than 60% of white working-age New Yorkers hold such a degree, less than 30% of Black and Latino working-age New Yorkers hold such a degree.

Using data from the American Community Survey, we compare national education rates to the New York City rates identified using Poverty Tracker data. We find that New York City has a higher rate of working-age adults with a bachelor's degree or more compared to the rest of the country (43% vs. 35%).[17] In comparison to Figure 2 we see that, nationally, 40% of white working-age adults have a college degree, compared to 25% of Black working-age adults, and 19% of Latino working-age adults. These numbers highlight that while white working-age adults, in both the United States and New York City, are more likely to have college degrees than their Black and Latino counterparts, the racial disparities in educational attainment in New York City are more substantial.

Though education provides a path to economic mobility for some, many New Yorkers lack the resources to obtain a college education, are too far along in their careers to go back to school, or choose not to pursue this path. Additionally, many who enroll in college do not complete their degrees. Researchers at the Center for an Urban Future identified cost, inadequate preparation by high schools, and a lack of advisement support among the reasons many students in New York City do not make it to graduation.[18]

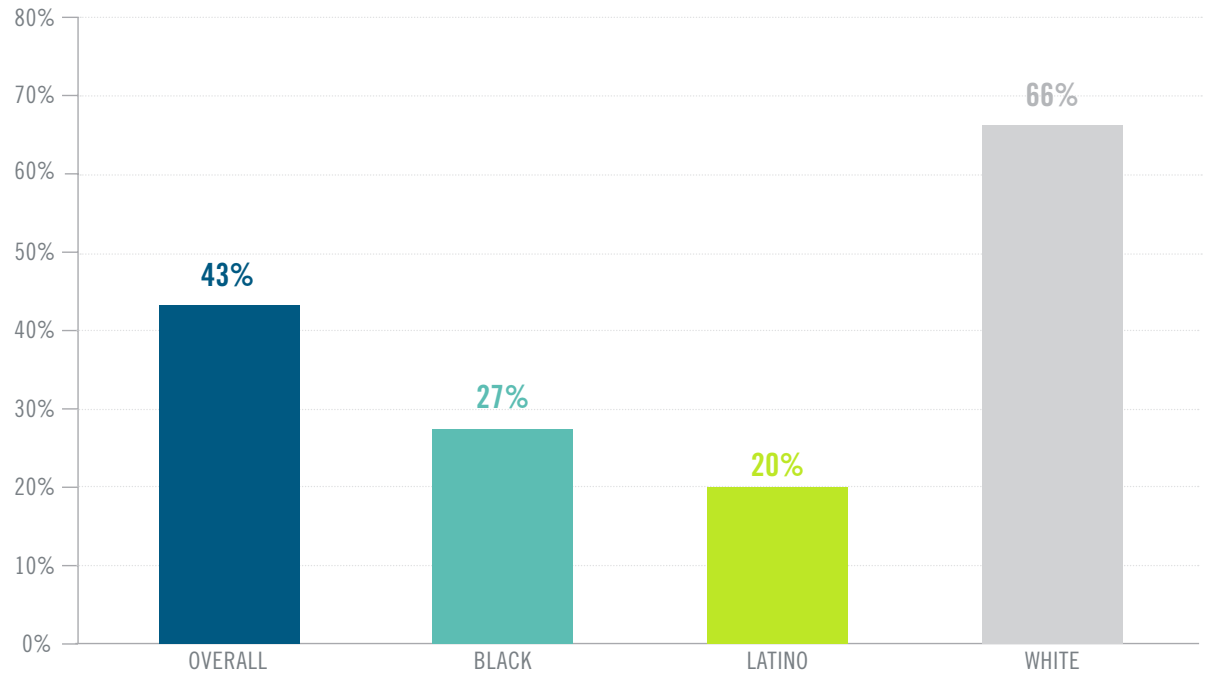
[16] Poverty Tracker data was benchmarked to data from the American Community Survey using data from 2017-2019.

[17] Author's calculation using data from 2019 American Community Survey.

[18] Hillard, T. (December 2019).

Figure 2

Share of working-age adults (25-64 years old) with a college degree or more by race/ethnicity



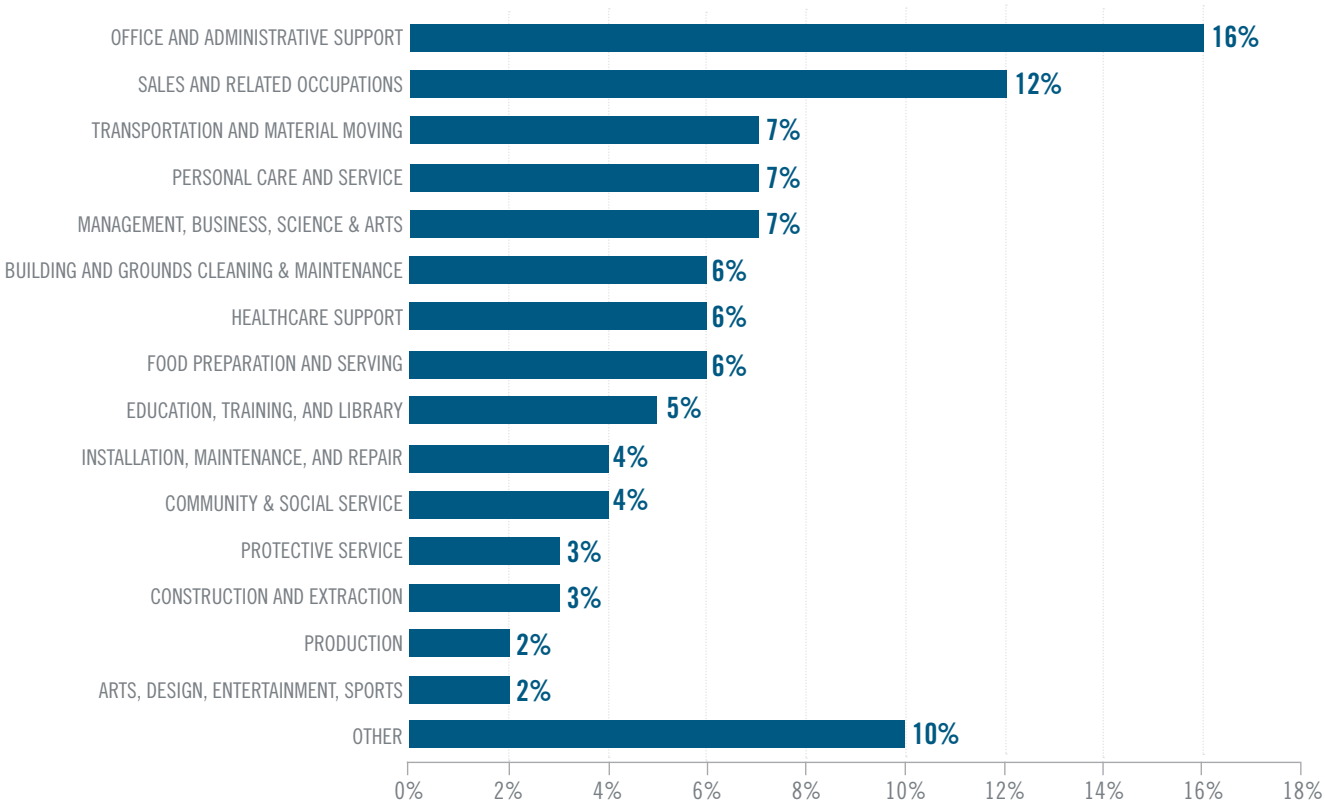
Source: *Annual Poverty Tracker survey data collected between 2019 and 2020, second and third panels. Respondents identified as Asian or other or multiracial are not included due to sample size constraints.*

Note: *Nationally, 35% of working-age adults have a college degree. This breaks down into 40% of white working-age adults with a college degree, 25% of Black working-age adults with a college degree, and 19% of Latino working-age adults with a college degree.*

In Figure 3 which provides an overview of the jobs most commonly held by New Yorkers without a college degree, we see that office and administrative support (16%) and sales and related occupations (12%) are most common. The "other" category combines ten of the least common occupations among this group. This category includes legal occupations, business operation specialists, healthcare practitioners, and computer and mathematical occupations, among others (see Table C1 in Appendix C for a complete list of the occupations included in this category).

Figure 3

Most common occupations among New Yorkers without a college degree



Source: *Poverty Tracker 18-month survey data collected between 2014 and 2017, first and second panel.*

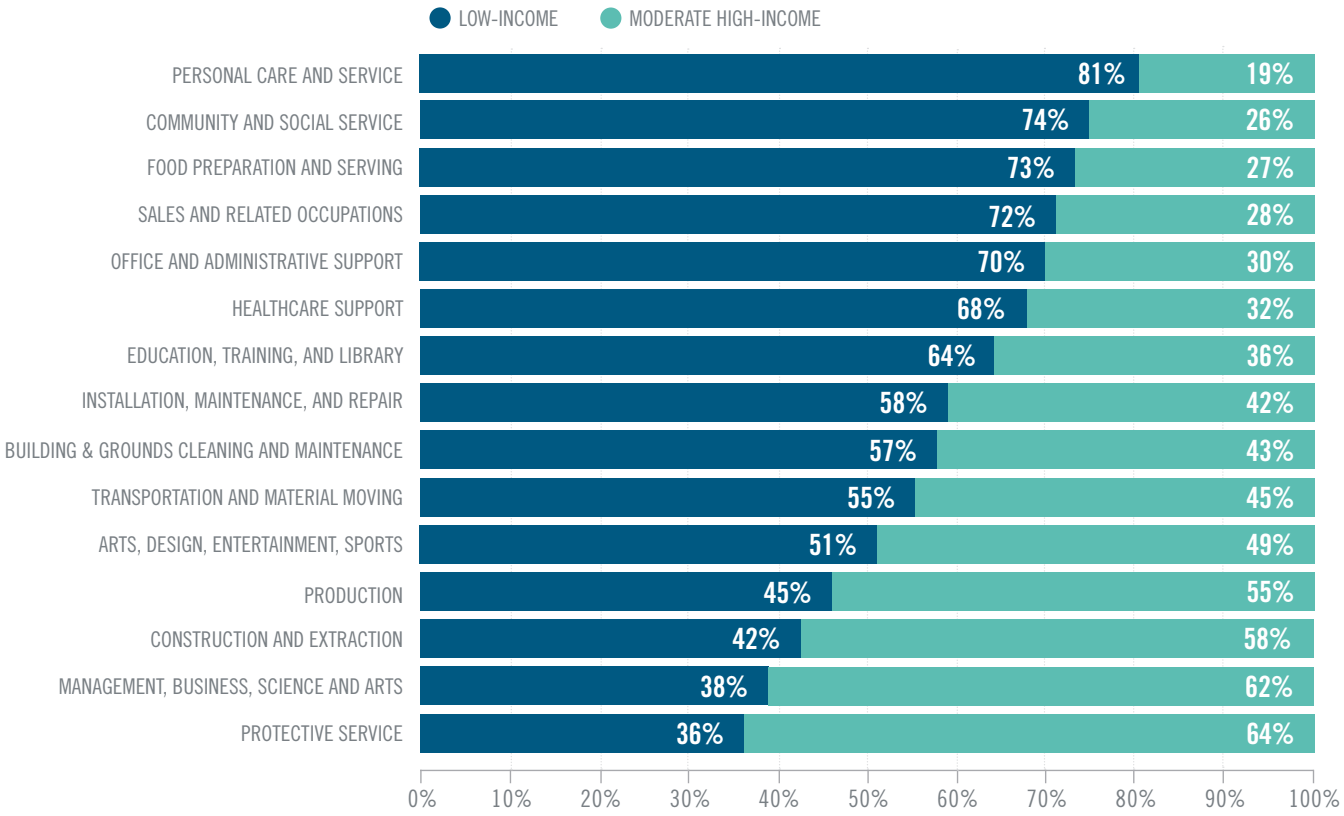
Though nearly 60% of working-age adults without a college degree have low incomes, we find that income varies dramatically by occupation, with some occupations providing higher pay and greater financial stability than others.

In Figure 4, we see that among those without a college degree, income varies widely by occupation. This is perhaps unsurprising given the diversity of jobs held by New York City workers without a college degree. At the higher end of the spectrum, we find that approximately two-thirds of workers without a college degree working in protective services, management, business, science, and arts are moderate- to high-income earners, as are 58% of those working in construction and extraction occupations. At the other end of the spectrum, we find that more than 70% of New Yorkers without a college degree work in personal care and service, community and social service, and food preparation and serving have low incomes.

It is also worth noting that it is difficult for New Yorkers without a college degree to access some occupations — including legal, engineering, and computer occupations. Because the number of workers with low incomes in these occupations is small, we do not feature results for these groups.

Figure 4

Share of workers with low incomes by occupation (among those without a college degree)



Source: *Poverty Tracker annual survey data and 18-month survey data collected between 2014 and 2017, first and second panels.*

New Yorkers without a college degree working in management, business, science, and arts occupations are those most likely to exit a low-income status from one year to the next.

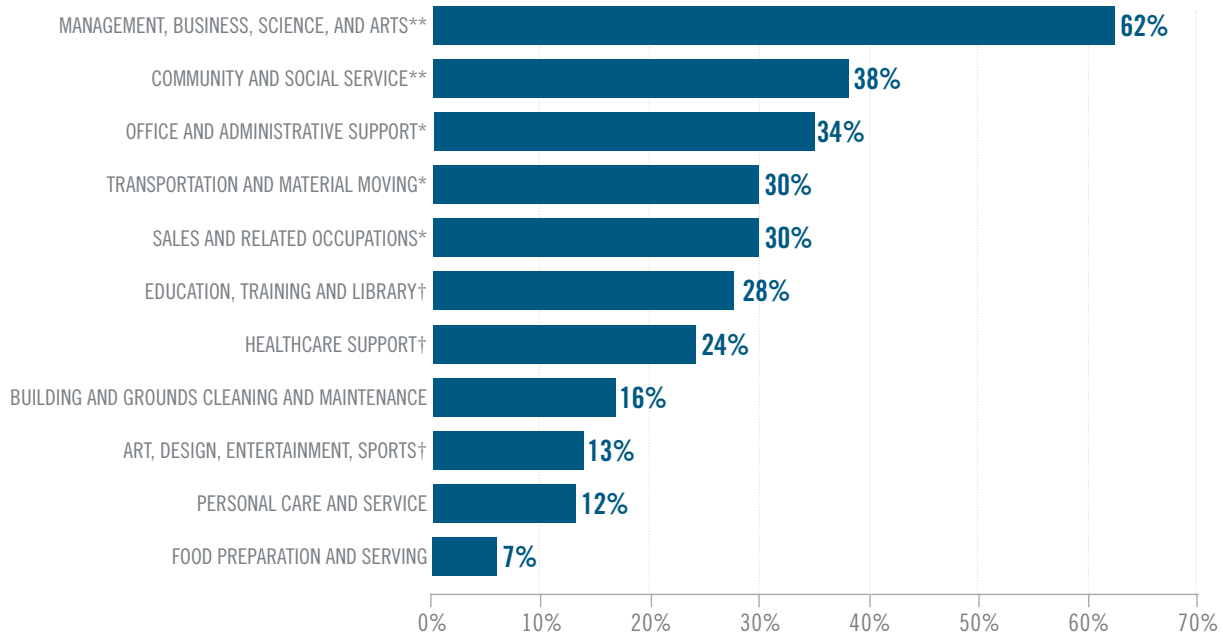
Figure 5 shows that 62% of those working in management, business, science, and arts occupations exit a low-income status from one year to the next.

However, looking back at Figure 3, we see that only 7% of workers without a college degree are employed in these occupations.

Though these results are from before the pandemic, they highlight that New Yorkers working in certain occupations are much more likely to move out of a low-income status than others. On one hand, this finding is promising, in that more than half of those in management, business, science, and arts occupations move out of a low-income status from one year to the next. What is less promising is that the majority of non-college educated workers with low incomes do not exit a low-income status. Without a college degree, or access to more generous compensation, it is unclear how these individuals will move out of precarious economic circumstances.

Figure 5

Share of workers who exit a low-income status from one year to the next (among those without a college degree)



Source: *Poverty Tracker annual survey data and 18-month survey data collected between 2014 and 2017, first and second panels.*

**Results were calculated using marginal predictions from a weighted logistic regression, controlling for race, gender, education, child in the household, and age where the comparison group were those working in food preparation and serving occupations: † p< .10; * p < .05; ** p < .01; *** p < .001. Only occupations with sufficient sample size were included.*

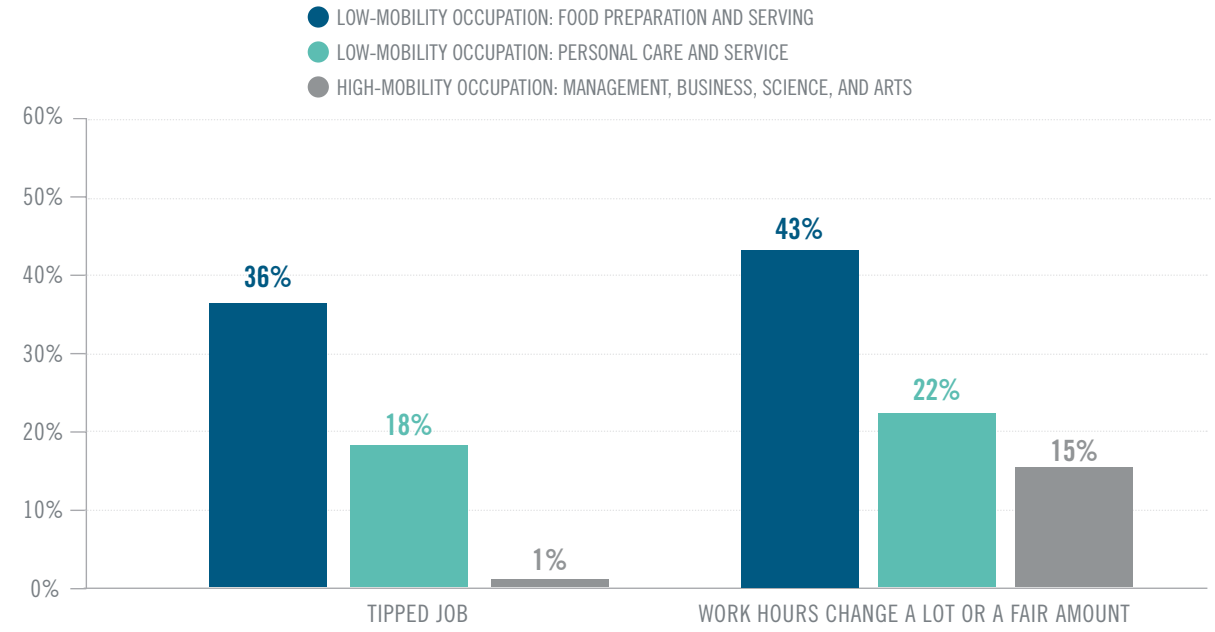
This brings up the question of what factors related to one's occupation, in addition to wages, are related to economic mobility. Job qualities like stable work hours and benefits such as paid time off and health insurance also contribute to economic stability and mobility prospects. Yet many jobs held by workers without a college degree lack the type of qualities and benefits that are associated with economic mobility.

In this section, we examine the qualities and benefits associated with some of the high- and low-mobility occupations we identified. In Figure 6, we see that when compared to those in low-mobility occupations (food preparation and serving, and personal care and service) those working in management occupations are much less likely to work for tips (1%) and to say that the number of hours they work from week to week change a lot or a fair amount (15%). On the other hand, those working in low-mobility occupations, like personal care and food preparation and serving occupations, are more likely rely on tips and say they work a variable number of hours. Among personal care occupations, 18% rely on tips and 22% have hours that change a lot or a fair amount. Those working in food preparation and serving are the least likely to have a stable schedule and the most likely to rely on tips to get by. Thirty-six percent of those working in food preparation and serving are tipped and 43% have work hours that change from week to week.

These findings are not surprising given what we know about how tipping and schedule changes impact income. Researchers have found that tipped workers are twice as likely to be in poverty compared to other workers and that waitstaff experience poverty at three times the rate of other workers.[19] Researchers have also found evidence that waitstaff and bartenders are less likely to be in poverty when they are paid the regular minimum wage compared to the federal tipped minimum wage of $2.13 an hour.[20] The tipped minimum wage in New York City is notably higher than the national rate ($12.50 for service employees and $10 for food service workers).[21] Such complications around pay create additional risks of wage theft, as complex rules allow employers to get away with underpaying their employees.[22] Those working variable hours face their own set of issues. Compared to those with steady worker hours, those working inconsistent hours are more likely to work part-time and are more likely to face acute work-family conflicts.[23]

Figure 6

Job qualities among high- and low-mobility occupations (among those without a college degree)



Source: *Poverty Tracker 18-month survey data collected between 2014 and 2017, first and second panels.*

In addition to questions that ask how respondents are paid and the schedules they work, the Poverty Tracker asks about the benefits associated with their job. The results in Figure 7 show that among those without a college degree, high-mobility occupations offer a more generous set of benefits compared to those in low-mobility jobs.

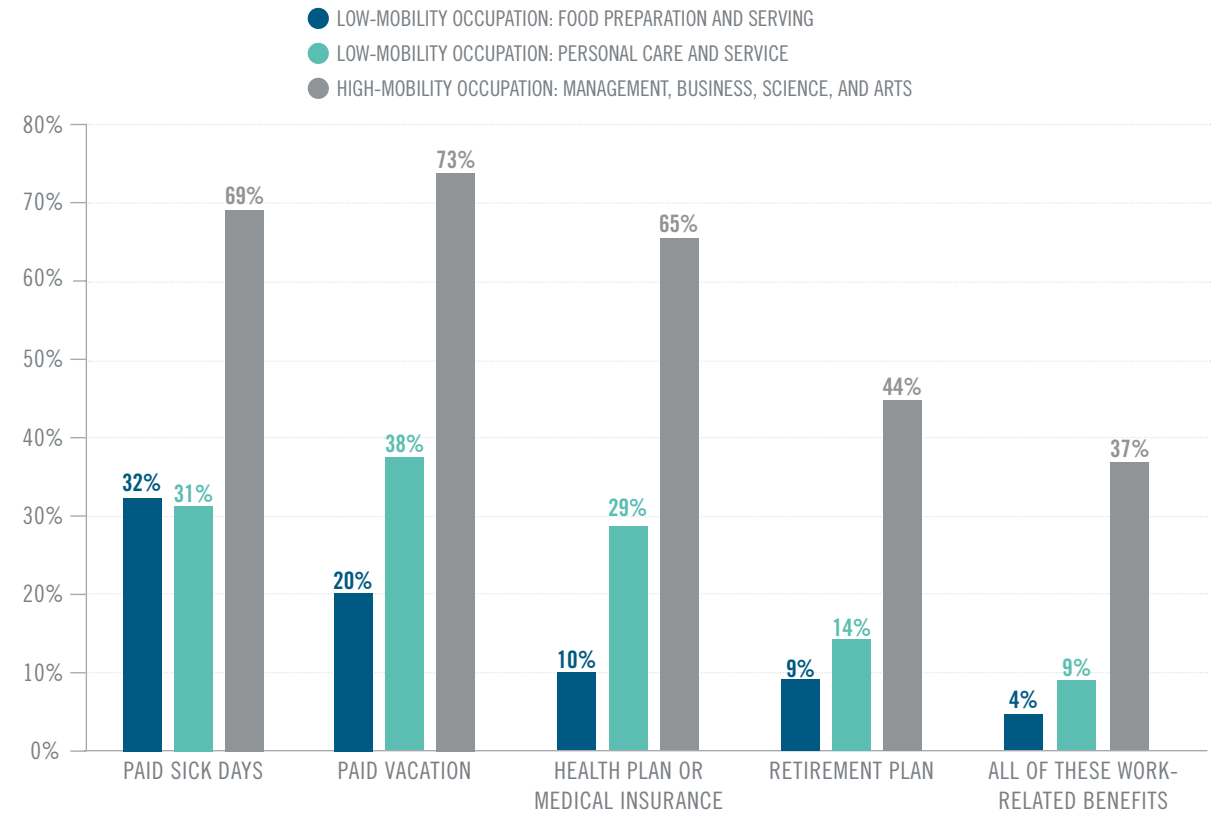
[19] *Allegretto, S.A., Filion, K. (February 2011).*
[20] *Cooper, D. (October 2015).*
[21] *New York State Department of Labor (June 2021).*
[22] *Campbell, C.F., Yerardi, J. (May 2021).*
[23] *Economic Policy Institute (April 2015).*

While only 4% of those in food preparation and 9% of those in personal-care occupations have access to all of the benefits asked about in the Poverty Tracker, 37% of those in management occupations (among those without a college degree) are provided these benefits.

The lack of benefits among lower-mobility occupations highlights that, in addition to low pay, these workers receive little in compensation through benefits. Benefits like paid sick leave are important to ensure that workers can stay home if they or their family members become sick. The United States has one of the highest costs of medical insurance in the industrialized world,[24] and medical problems remain a leading cause of bankruptcy.[25] And while many New Yorkers with low incomes are worrying about expenses over the next week and month, it is clear many do not have the financial stability or support from their employer to plan for the future through an employer-provided retirement plan.

Figure 7

Job benefits among low- and high-mobility occupations (among those without a college degree)



Source: *Poverty Tracker 18-month survey data collected between 2014 and 2017, first and second panels.*

[24] *OECD (June 2021).*

[25] *Economic Policy Institute (April 2015).*

As with so many aspects of life in New York City, there are significant racial and ethnic disparities in who holds higher-mobility jobs. More than half (56%) of those working in management, business, science, and art occupations are white, while only 13% are Black and 18% are Latino. By comparison, more than 80% of those working in personal care and service and food preparation and serving are Latino or Black.

White New Yorkers without a college degree are overrepresented in higher-mobility jobs compared to the city's total population of working-age adults.

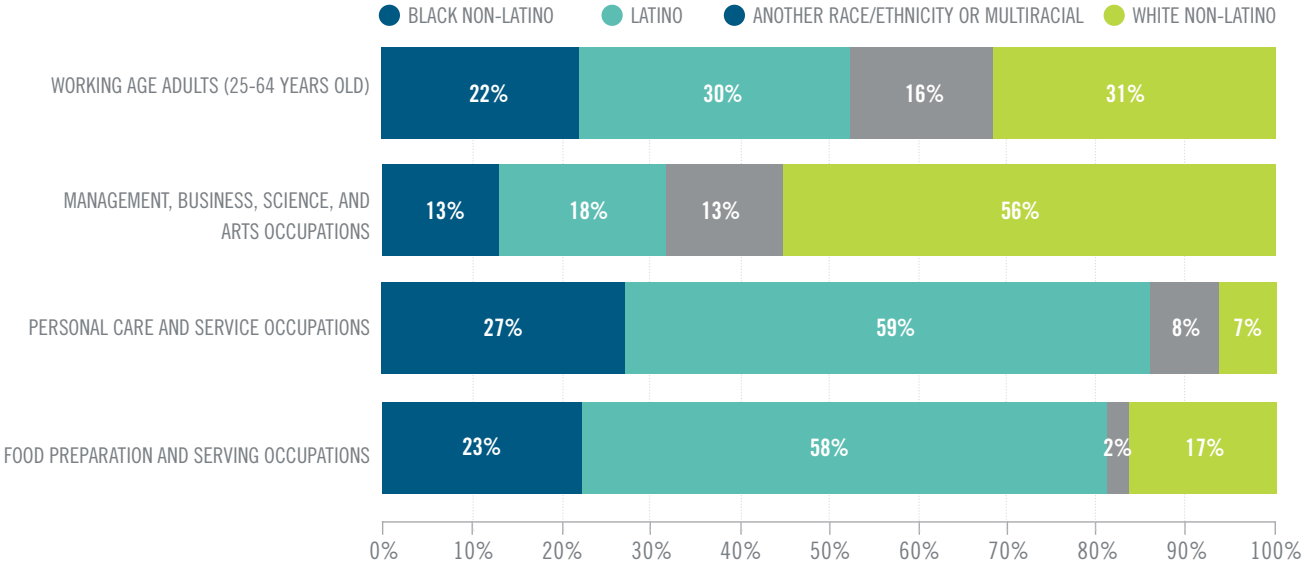
In Figure 8, we see that a majority (56%) of those without a college degree working in management, business, science, and arts occupations are white, while only 13% are Black, and 18% are Latino; and according to our analysis, 62% of workers in these occupations exited low-income status from one year to the next. These findings highlight that while those working in the above occupations are more likely to exit a low-income status, compared to other occupations, such occupations are disproportionately held by white New Yorkers.

In comparison, 59% of workers (without a college degree) in personal care and service occupations are Latino and 27% are Black. Similarly, 58% in food preparation and serving occupations are Latino and 23% are Black. Yet only 12% of workers in personal and care occupations and 7% of workers in food preparation and serving exited low-income status from one year to the next.

See Figure C1 in Appendix C for this breakdown among other occupations.

Figure 8

Race/ethnicity breakdown among low- and high-mobility occupations (among those without a college degree)



Source: *Poverty Tracker 18-month survey data collected between 2014 and 2017, first and second panels.*
Racial breakdown of working age adults calculated using Poverty Tracker survey data collected between 2019 and 2020; second and third panels.
Note: *Due to rounding, some totals may not correspond with the sum of the separate figures.*

Conclusion

Over the past year and a half, the world has been navigating a deadly pandemic that has claimed both lives and livelihoods. Local, state, and federal governments have dealt with this reality through various measures and to varying degrees of success. Even so, as New York City and the rest of the country continue to recover, it is important to keep in mind that realities like poverty, material hardship, and racial inequities both predate the pandemic and have been exacerbated by it.

As this report highlights, even prior to the pandemic, not all jobs were created equal. We see that only 43% of working-age New Yorkers have a college degree, limiting the types of jobs they are able to secure, with an even smaller share of college degree holders among Black and Latino New Yorkers. Certain occupations, however, provide mobility opportunities for workers without college degrees. More than half of New Yorkers working in management, business, science, and arts occupations exited a low-income status from one year to the next. On the other hand, those working in personal care and service and food preparation and serving occupations — disproportionately Black and Latino New Yorkers — were among those least likely to exit such a status. This is especially concerning given recent findings from the Poverty Tracker highlighting that those working in the food, hotel, and entertainment industry were among those most likely to lose employment income as a result of the pandemic.[26] Additionally, many of the lower-mobility occupations discussed in this report were essential to keeping the city running over the past year and a half.

In addition to inequalities in income, we see that those in higher mobility occupations fair better in terms of the benefits they receive from their employer and job qualities that promote stability. Without higher wages and more generous benefit packages like paid sick leave, health insurance, and retirement programs, workers with low incomes will continue to be at risk as they make tough decisions between taking care of health needs or going to work, are forced to purchase expensive health insurance plans, and struggle to pull together enough money to meet their needs today at the expense of their needs tomorrow.

Finally, we find significant racial disparities in terms of which New Yorkers have access to the limited number of higher-mobility jobs among workers without a college degree. While those working in personal care and service, and food preparation and serving occupations are more likely to be Latino and Black, the vast majority of those in management, business, science, and arts occupations are white.

[26] *Williams, M. (February 2021).*

As New York City and its residents work to recover from a pandemic that has resulted in a massive increase in unemployment, disruptions to childcare, and shuttered businesses, it is essential that we strengthen our economy to protect against future crises and stave off increases in poverty and hardship. Below, we outline several key policy priorities that will allow New York City to build towards a more equitable future by promoting economic mobility for more workers, communities, and families:

1. Expand the college and career readiness pipeline from elementary school through college, to increase college attainment and better connect and prepare New Yorkers for high-opportunity careers.
2. Strengthen and expand the city's workforce development system to increase access to higher-mobility occupations for workers displaced by the pandemic.
3. Establish a floor of worker protections that prevents exploitation of the most vulnerable workers and increase access to benefits such as paid time off, health insurance, and retirement plans.

Appendix A

How do we define occupations?

Respondents answer the question about occupation with open-ended responses, which were coded independently by two researchers using the Census Bureau's occupational classification system as reported by the Integrated Public Use Microdata Series (IPUMS).[27] After the first wave of coding, where the coders agreed on the occupation status, the classification was confirmed. Where there was disagreement, the coders worked to mutually agree on a final classification. In Table A1 we highlight where some common occupations fall in this coding scheme. The Census Bureau tracks occupation, which refers to the technical function they perform, and industry, which refers to the economic sector a worker is employed in. In this report, we focus on occupation. A complete list of occupations can be found on the IPUMS website.[28]

Table A1

US Census Bureau's occupation categories

Occupation Categories	Common Occupations Included
Arts, design, entertainment, and sports	Artists, designers, actors, producers, athletes, dancers, etc.
Building and grounds cleaning and maintenance	Janitors, building cleaners, maids, housekeeping cleaners, pest control workers, grounds maintenance workers, etc.
Business operations specialists	Agents and business managers of performers, buyers and purchasing agents, wholesale and retail buyers, compliance officers, etc.
Community and social service	Counselors, social workers, clergy, religious workers, probation officers, etc.
Construction and extraction	Carpenters, construction laborers, electricians, roofers, etc.
Education, training, and library	Postsecondary teachers, preschool and kindergarten teachers, special education teachers, archivists, librarians, etc.
Food preparation and serving	Food preparation workers, cooks, bartenders, food servers, dishwashers, etc.
Healthcare practitioners and technical	Chiropractors, dentists, dietitians, optometrists, pharmacists, etc.
Healthcare support	Nurses, home health aides, physical therapist assistants, massage therapists, medical assistants, etc.
Installation, maintenance, and repair	Computer repairers, electronic equipment installers and repairers, security and fire alarm systems installers, automotive body repairs, etc.
Legal	Lawyers, judges, law clerks, etc.

[27] IPUMS is the world's largest individual-level population database. See Ruggles, C. Flood, S., Goeken, R. Grover, J. Meyer, E., Pacas, J., Sobek, M. 2020.

[28] IPUMS Occupation Codes.

Management, business, science, and arts	Chief executives, legislators, general and operations managers, advertising and promotions managers, marketing and sales managers, etc.
Office and administrative support	Telephone operators, bill collectors, bookkeeping, tellers, customer service representatives, receptionists, etc.
Personal care and service	Barbers, hairdressers, travel guides, animal trainers, childcare workers, recreation workers, etc.
Protective service	Correctional officers, firefighters, police officers, detectives, animal control, etc.
Sales and Related	Cashiers, retail salespersons, sales representatives, travel agents, real estate brokers, telemarketers, etc.
Transportation and material moving	Flight attendants, bus drivers, taxi drivers, subway workers, parking lot attendants, cleaners of vehicles, etc.

Appendix B

How do we identify race and ethnicity?

The Poverty Tracker identifies race and ethnicity using questions asked by the Census Bureau on various population-level surveys.[29]

The questions read:

Are you of Hispanic, Latino, or Spanish origin?

1. Yes

2. No

What is your race? Are you…[30]

1. White

2. Black or African American

3. Asian

4. American Indian or Alaska Native

5. Native Hawaiian or Pacific Islander

6. Or something else

We combine responses to these questions into the following racial and ethnic groups:

1. Asian, non-Latino

2. Black, non-Latino

3. Hispanic, Latino, or of Spanish origin[31]

4. Multiracial or another race or ethnicity, non-Latino

5. White, non-Latino

There are, however, limitations to this methodology. This type of classification is one-dimensional while one's identity is often much more robust and intersectional. In addition, our results present averages for groups of people, but averages do not reflect the experiences of all individuals. One's personal experiences may diverge

[29] Historically, the Census asks race and origin questions to gain an understanding of the makeup of the population and to help construct civil rights protections for all. These questions have helped to reveal gaps within various social policies and to address the economic, educational, and infrastructural needs of different communities. See Brumfield, Goldvale, and Brown (June 2019).

[30] Respondents could check all that apply.

[31] With these groupings, New Yorkers who indicate that they are of "Hispanic, Latino, or of Spanish origin" are grouped together, regardless of their response to the question about their race. The majority of New Yorkers who identify as Hispanic, Latino, or of Spanish origin (62%) do not identify with a particular racial group (i.e., they respond "something else" when asked about their race). Roughly 25% identify as white and 13% identify as Black.

significantly from the results we present. And while our questions are relatively specific, each person might interpret them differently, resulting in subjective answers. Our examinations in this report in the context of race and ethnicity are intended to help explain how disparities across groups take shape with respect to education and work.

What terminology do we use when discussing race and ethnicity?

The Poverty Tracker uses the question from the Census Bureau listed above to identify if individuals are of "Hispanic, Latino, or Spanish origin." We must use this question in order to weight the sample to Census Bureau data and to make it representative of the city's population. When identifying New Yorkers who say yes to this question, we use the term Latino instead of Hispanic or Spanish origin. Hispanic is a term originally used in the U.S. by the Census Bureau to refer to a very diverse group of people who were linked by their history of colonization by Spain or by their Spanish origin.[32] The term is thus thought to exclude many people with origins in Latin America who do not speak Spanish — including people with origins in Brazil and/or within many indigenous groups. The term Latino, on the other hand, is more inclusive of all people with origins in Latin America.[33] Because the Poverty Tracker is weighted to Census Bureau data, and because the term Latino is more consistent with the Census Bureau's question wording, we have chosen to use the term Latino in this report.

With regards to capitalizing the names of different racial groups, there has been a general consensus among organizations, publications, and news outlets that Black should be capitalized, as a recognition of the racial and ethnic identity that so many claim. However, such a consensus has yet to be reached regarding whether or not the same should be done for white. Those in favor of capitalizing white argue that designating it as a proper noun assigns accountability to the white race, and invites white people to contemplate the role that their whiteness plays in society. The main argument against capitalizing white is that white people do not have a shared culture or history, and that capitalization has been used throughout history to signify superiority and white supremacy. In this report, we leave white uncapitalized, though we note that societal and editorial discussions on this topic are ongoing and unresolved.

[32] *Gershon, L. (September 2020).*

[33] *Latino is also gendered, and many people choose to identify as Latinx to remove the gender binary implied in the term. There is also a debate around the term Latinx, with some identifying with the term and others not, or doing so only use in specific settings. See Salinas Jr, C. (January 2020).*

Appendix C

Supplementary Analyses

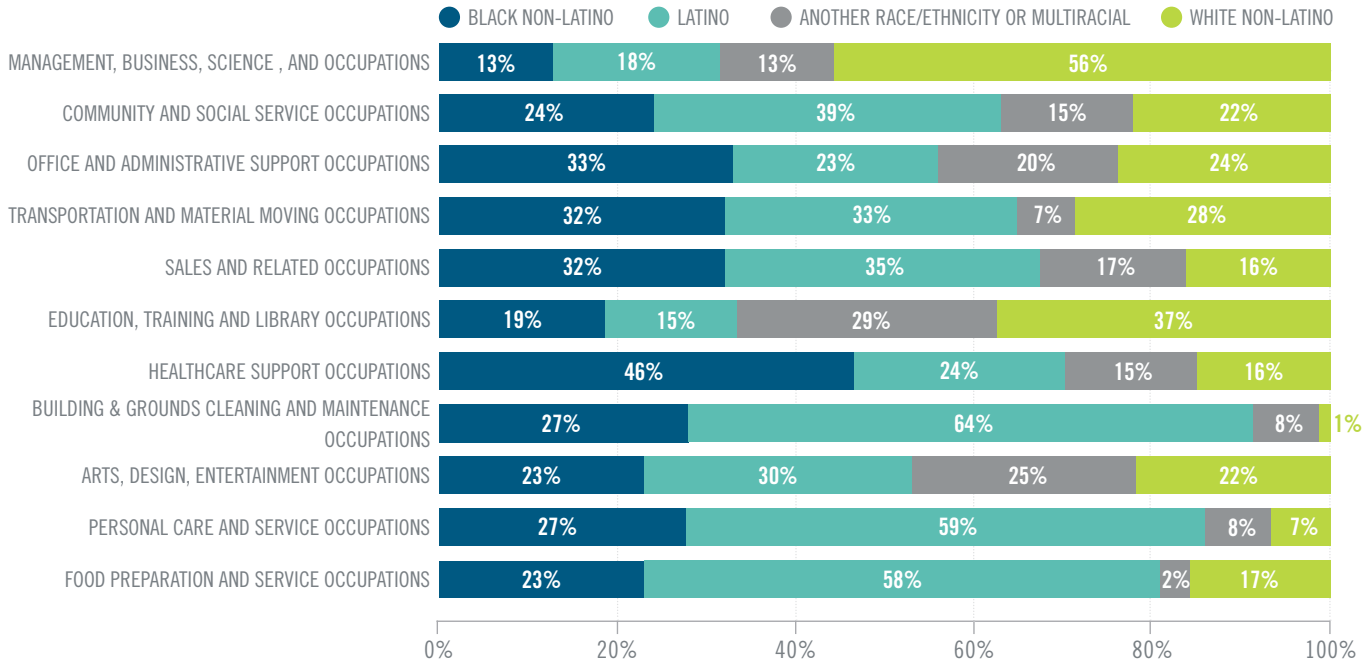
Table C1

Occupations among New Yorkers without a college degree included in Figure 3 "other" category

Architecture and engineering occupations
Business operations specialists
Computer and mathematical occupations
Extraction workers
Farming, fishing, and forestry occupations
Financial specialists
Healthcare practitioners and technical occupations
Legal occupations
Life, physical, and social science occupations
Military specific occupations

Figure C1

Race/ethnicity breakdown of workers by occupation (among those without a college degree)



Source: *Occupation race breakdown calculated using Poverty Tracker 18-month survey data collected between 2014 and 2017, first and second panels.*

Note: *Due to rounding, some totals may not correspond with the sum of the separate figures.*

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