



Unequal Ground

The Impact of Industrial and Occupational Segregation on Women's Economic Outcomes in New York City

L.K. Moe and Robert Noble
June 2024



Center for
New York City
Affairs

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Dear Colleagues,

In this volatile and uncertain political environment, it is crucial to understand the factors that fuel persistent economic, gender, and racial inequities and deepen divisions within our democracy. Therefore, Women Creating Change is pleased to present our latest report, **“Unequal Ground: The Impact of Industrial and Occupational Segregation on Women’s Economic Outcomes in New York City,”** in collaboration with the New School Center for New York City Affairs.

This report delves deeper into the nuances of occupational and industrial segregation, building upon the foundation of our previous analysis on the state of gender pay equity. It unveils how women—particularly women of color—have been systematically left behind, and delineates

intentional action steps for change. It offers a first-of-its-kind map detailing the demographics and economic conditions of NYC’s female workforce by borough, providing vital data to drive local and systemic advocacy efforts.

Our findings reveal a stark reality: Women are disproportionately represented in lower-paying industries and occupations and face an eight percent pay penalty in New York City.



By highlighting these issues and proposing actionable solutions, we aim to inform, educate and empower community residents and leaders across all sectors—private, corporate, nonprofit, and government—to advocate for and implement necessary policy reforms.

This report delves deeper into the nuances of occupational and industrial segregation, building upon the foundation of our previous analysis on the state of gender pay equity.

Our findings reveal a stark reality: Women are disproportionately represented in lower-paying industries and occupations and face an eight percent pay penalty in New York City. This segregation not only limits economic and professional opportunities but also restricts women's capacity for civic engagement, perpetuating cycles of economic, gender, and racial disparities. Such barriers hinder women's active participation in shaping policies and advancing societal changes, sustaining a cycle of exclusion and inequity.

Thank you for your continued support of WCC. Your involvement is essential as we work toward creating a fair and just society. Together, we are driving transformational change in New York City and beyond, striving for a future where women enjoy full economic participation and equitable opportunities.

Warm regards,

Sharon Sewell-Fairman

President & CEO, Women Creating Change

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EXECUTIVE SUMMARY

In Fall 2023, Women Creating Change and the Center for New York City Affairs initiated a series focusing on gender-related economic challenges with the release of *Closing the Gender Pay Gap*. This groundbreaking report highlighted a persistent gender pay gap in New York City, and revealed that women earn less than men in nearly every occupation and industry despite legislative advances since the Equal Pay Act of 1963. Notably, the discrepancy not only persists across all races and education levels, but it has worsened in New York City over the past 25 years.

Building on this work, our series continues with a second report focusing on occupational and industrial segregation. With a deep dive into how the uneven distribution of men and women across job types and economic sectors contributes to wage disparities, this report examines the structural labor-market factors that funnel women into lower-paying employment and perpetuate economic inequity. By exploring both occupational and industrial segregation, we aim to shed light on the complex interplay of elements that limit women's access to and success within higher-paying, male-dominated fields.

The repercussions of these systemic barriers are profound, influencing not only immediate income but also lifetime earnings, retirement security, and overall economic autonomy. This report underscores the urgent need for multifaceted strategies to dismantle these deeply rooted divisions and support women in advocating for themselves and others. Exposing gender-based economic barriers is a first step in fostering resilient communities, creating lasting generational wealth, and enhancing the quality of life, thereby strengthening our democracy and building a more just and equitable society.

THE FINDINGS IN THIS REPORT INCLUDE AN ANALYSIS OF 1) THE OVERALL GENDER PAY PENALTY; 2) THE GLASS PAY CEILING; AND 3) THE OCCUPATIONAL PAY PENALTY.

Overall Gender Pay Penalty and Women's Workforce Map:

- + The gender pay gap is produced by a complex range of factors, from social expectations to discrimination. However, here we offer a simple model that controls for education, experience, industry of employment, marital status, and having children, to show that being a woman has a statistically significant negative impact on earnings, as does being a worker of color. Holding demographic, educational, and employment experience constant, we find that being a woman is associated with an eight-percent pay penalty compared to men.
- + A map of New York City women workers reveals where women are over- or underrepresented in seven broad industry categories across each borough. Women working in carework, low-wage, and blue-collar jobs are concentrated primarily in Queens and the Bronx. Conversely, Manhattan and Brooklyn tend to disproportionately house women working in those industries we expect to be better compensated (high-wage professional, education, and public administrative). And yet, all boroughs have low-paid women workers, including Brooklyn, which is home to 50 percent of home-health careworkers and 45 percent of human-services workers.

- + For example, 40 percent of women working in high-wage industries reside in Manhattan (compared to 23 percent of women overall), while 27 percent of women careworkers live in the Bronx (compared to 14 percent of overall women workers). Lower-wage women workers are overrepresented in outer boroughs, an economic fact that shapes their neighborhoods and families.

The Glass Pay Ceiling:

- + Earnings inequality between men and women persists across all industries, but gender pay inequality is greater in some industries and also at some income levels. In the education and the high-wage business and management sectors, there is greater earnings inequality as workers climb the income ladder; male and female education workers in the 10th percentile have approximately equal earnings, but men in the 90th percentile earn nearly twice as much as their full-time women counterparts. Men at the top of the earnings ladder are pulling away from their female counterparts, which is likely due to discrimination, occupational segregation, and women spending time out of the paid labor force to raise children.

New York's Changing Occupational Structure and the Gender Occupational and Industrial Pay Penalties:

- + Occupational segregation, or the uneven distribution of men and women across different professions, is a critical driver of gender pay inequity, influencing women's earning potential, career trajectories, and the financial stability of their families.

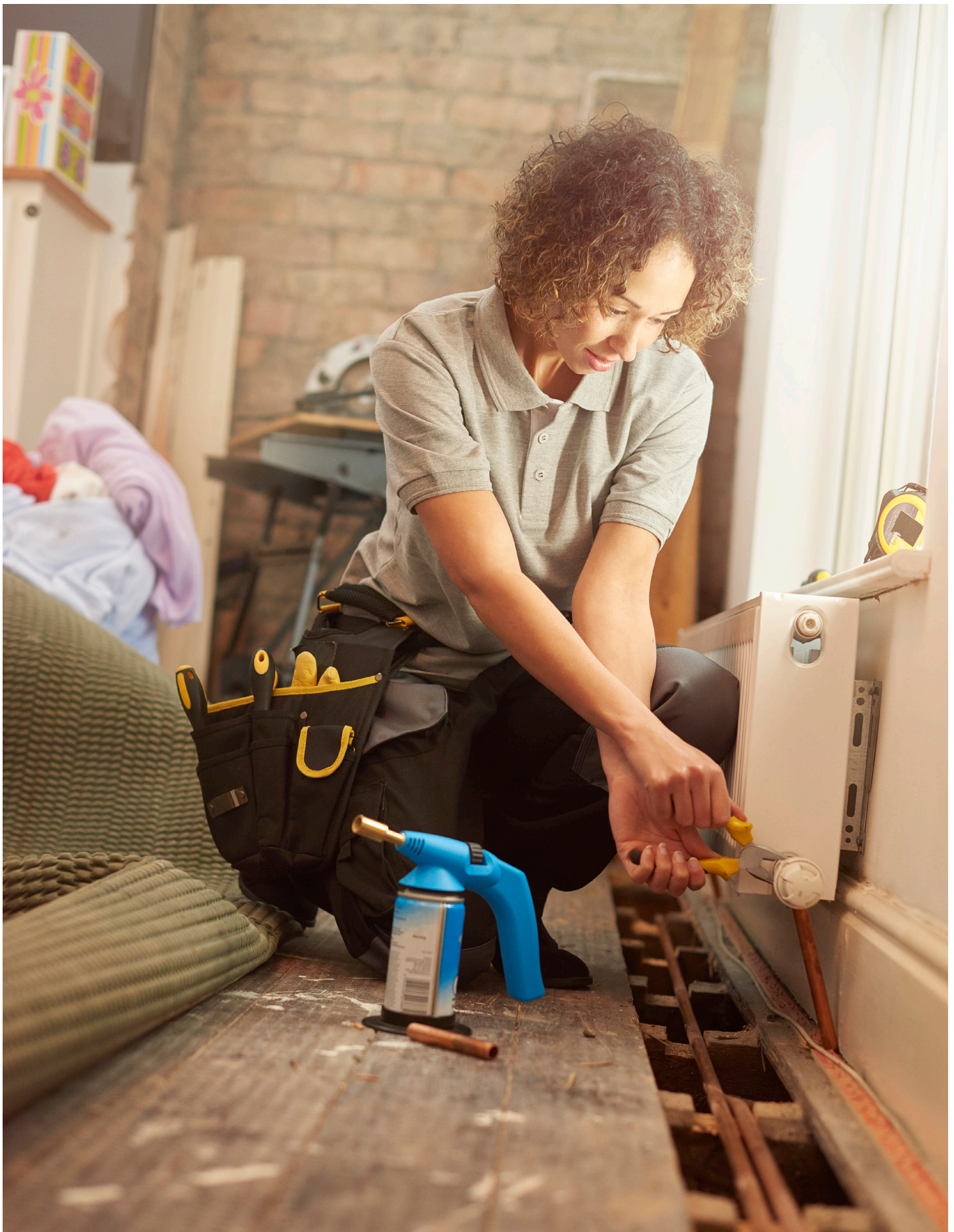
- + By dividing the New York City economy into five broad occupational categories, we show that its occupational structure has shifted over the past two decades, with a decreasing proportion of low-wage service jobs and an increasing proportion of middle-wage white-collar work, as well as high-wage business and management jobs. While this benefits all workers who shift into these high-earning fields, we show that men, who make up 59 percent of high-wage jobs in management and business, have benefited more from this shift than women.
- + Moreover, persistent within-occupation pay inequity means that men make more than women in all occupations, even those in which women make up the majority of workers.
- + The occupational differences between New York's male and female workforces are pronounced. For men 20 years ago, blue-collar work and low-wage service jobs dominated available employment. In 2022, high-wage management and business occupations and low-wage work were a majority of male employment.
- + Women workers have a different occupational story in New York City. Low-wage work still dominates at 30 percent of economically active women, despite a 15-point decrease since 2003. The slice of the women workforce employed in high-wage business and management jobs has increased to 20 percent in the past 20 years, but remains a full 10 percentage points below male representation in these occupations. At the same time, 20 percent of economically active females are employed as caregivers, compared to only five percent of economically active males.

This critical analysis of the persistent gender-based occupational and industrial segregation in New York City is essential to the broader work of understanding and dismantling the deep-rooted barriers that prevent equitable access to economic opportunities for women and gender-expansive individuals.

Available census data sources root this analysis in a gender binary that fails to capture the experiences of gender-expansive, transgender, and gender-nonconforming people for whom gender- and race-based discrimination is equally pertinent. In this sense, the sample is not fully representative of the wider population. The prevailing literature finds that LGBTQ+ and gender-nonconforming people face unique and interrelated economic barriers, that the gender pay gap is persistent across sexual orientation, and that regardless of sexual orientation, women tend to have lower earnings than men. Due to data constraints, this report relies on the reported sex of respondents, though the policy connections and implications we draw out are important for LGBTQ+ and gender-nonconforming people.

The findings of this report not only illuminate the enduring challenges within our labor markets; they reinforce the need for a concerted and comprehensive approach to fostering systemic change. It is clear that addressing occupational and industrial segregation starts with improving income levels and changing social customs. These changes are prerequisites to leveling the playing field for women, creating lasting generational wealth, and enhancing the quality of life for all. In turn, progress on these fronts will strengthen our democracy. As such, this endeavor aligns with Women Creating Change's mission to raise awareness about gender disparities, equip our community with necessary tools and resources, advance gender equity across all sectors of society, and fortify the Center for New York City Affairs' commitment to providing economic research that improves the livelihoods of New York's most vulnerable workers.

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INTRODUCTION

In Fall 2023, the Center for New York City Affairs and Women Creating Change released its first report in a series investigating gendered economic barriers in New York City. *Closing the Gender Pay Gap* showed that the gender pay gap is pervasive and persistent in New York City. From teachers to lawyers to health-care workers, women earn less than men in nearly all occupations for which there is sufficient earnings data. Even in sectors of the economy dominated by women workers, such as nursing and education, women earn less than their male counterparts. Women also earn less than men of the same race and ethnicity at nearly every level of educational attainment.

While significant progress toward gender pay equity in New York City has occurred since the Equal Pay Act was signed into law in 1963, over the past 25 years progress has stalled. From 1997 to 2022, the ratio of female-to-male earnings for active, full-time workers even declined. As of 2022, the average New York City woman earned 90 cents for every dollar her male counterpart earned, which was unchanged from 2007 and slightly less than the 92 cents she received in 1997. The pay gap is even wider for

women workers of color. In New York City in 2022, for every dollar earned by a white man, white women earned 86 cents, Asian women earned 72 cents, Black women earned 57 cents, and Hispanic/Latina women earned only 54 cents.

As *Closing the Gender Pay Gap* highlighted, unequal pay is a complex phenomenon, influenced by an interplay of factors. The hurdles women face in and outside the

This report takes a deep dive into this final gender pay-inequity driver: occupational and industrial segregation across the New York City workforce.

workplace are manifold, including entrenched gender stereotypes, discriminatory hiring and promotion practices, insufficient support and mentorship opportunities, and the disproportionate burden of caregiving responsibilities. All limit their access to and success within higher-paying, male-dominated fields.

Occupational and industrial segregation, or the uneven distribution of men and women across job types and sectors of the economy, is also a key factor. This report takes a deep dive into this final gender pay-inequity driver: occupational and industrial segregation across the New York City workforce.

First, we need to define what we mean. Occupational segregation—the tendency for certain jobs to be predominantly occupied by workers of one gender—has been shown by a wide range of research to contribute to the pay gap by funneling women into lower-paying sectors and positions.¹ Industrial segregation highlights the broader context of gender imbalances across different economic sectors. There is significant overlap between occupational and industrial segregation, and they have similar effects. We look at both in this report.

This new analysis sheds light on the nuanced ways in which gender inequity is embedded within and perpetuated by the very structure of our labor markets, making it clear that tackling occupational and industrial segregation is paramount in striving for genuine pay equity. Moreover, when factors of race and ethnicity intersect with gender, the picture grows even more complex; women of color encounter compounded barriers leading to their overrepresentation in low-wage occupations and sectors.

The repercussions of occupational segregation extend far beyond immediate income disparities, echoing throughout women's lives with implications for lifetime earnings,

retirement security, and overall economic autonomy. This underscores the urgent need for multifaceted strategies to dismantle these deeply rooted divisions.

This report is divided into three parts. We begin in Part I with a broad analysis of the women's workforce in New York City, we use seven broad industry categories to investigate how women are concentrated in certain sectors of the economy. We examine women at the 25th, 50th, and 75th earnings percentiles based on ranking pay levels from low to high, showing that in most sectors the pay gap does not close as women learn and earn more. Instead, in some cases, it widens as they climb the income ladder, causing them to fall further behind their male peers. Here, we also offer a regression analysis showing that even when controlling for education and experience, women face persistent and significant pay gaps.

Part II of this report offers a borough-level map of the female workforce, revealing where women workers live across New York City's five boroughs and offering a frame for analysis of how industrial and economic pay inequality impact different neighborhoods and populations across the city.

In Part III, we shift from industrial sectors of the economy to examine occupational segregation, or how women are concentrated in certain kinds of often lower-paying jobs and professions. We show the pervasive pay gap across all occupations, as well as measure the amount of segregation in the economy by quantifying how many women would need to be coached, educated, and supported to enter into different professions to level the workforce playing field. Supporting women into higher-paying fields is only one strategy, while addressing gender pay disparities within occupations is even more important. We show that unequal pay structures within even female-dominated occupations put women workers at a disadvantage.



PART I

WOMEN WORKERS IN NEW YORK CITY:

AN INDUSTRIAL LANDSCAPE

Women make up 49 percent of New York City's workers and are found in every industry, occupation, and neighborhood. And yet New York City's vast urban landscape is uneven, with boroughs and even neighborhoods characterized by different economic activity, workforce characteristics, and average earnings. It is, in short, a city of diversity and stratification, integration and separation. The female workforce is no different.

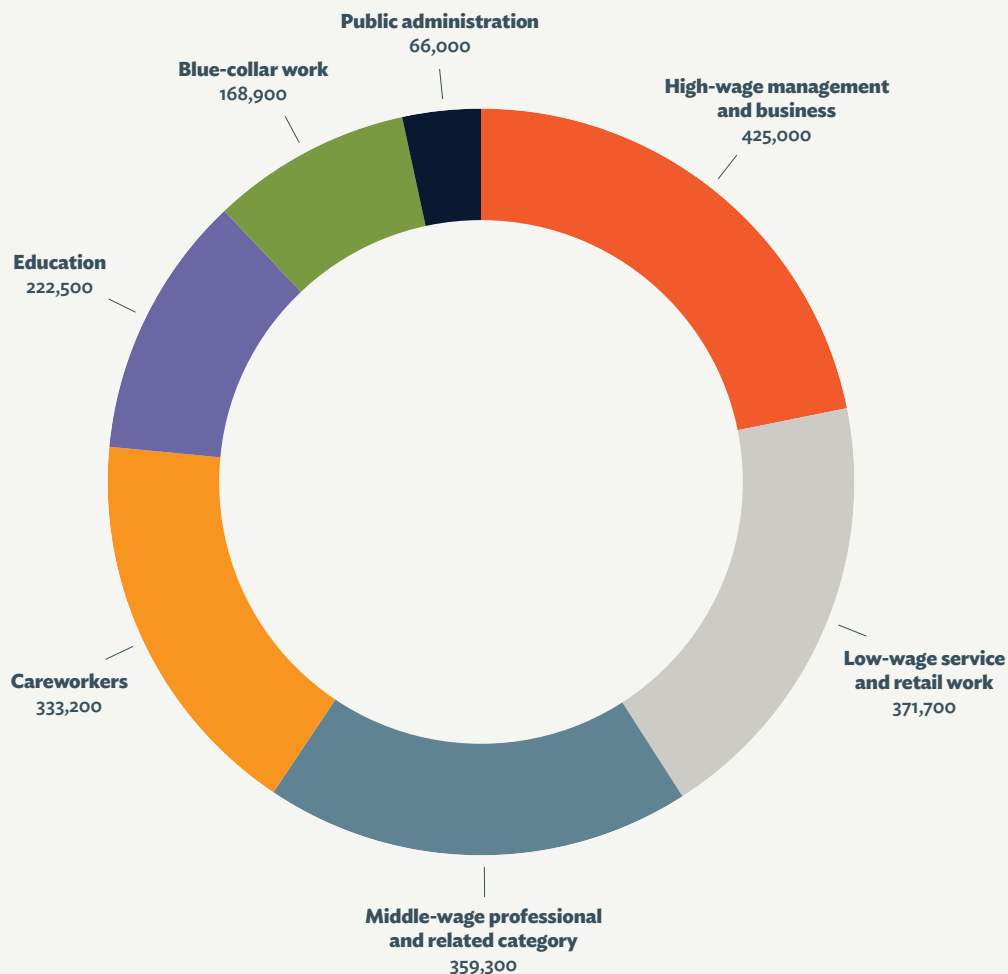
In our previous report, we used seven broad industry categories in examining how women workers are spread across different sectors of the economy. This report provides a first-of-its-kind map of the female workforce in New York City, tracking where women workers live, what jobs they have, and how much money they earn.

As our previous report showed, gender-based earnings inequity exists across every industry in the New York City economy. Each industry contains a broad range of jobs with differing earnings levels. For example, the education sector includes classroom assistants, principals, and superintendents, among others. Earnings inequality between men and women changes across different earnings levels. In the chart below, which

shows the ratio of male-to-female earnings at the 25th, 50th, and 75th earning percentiles, men earn more than women at every level and in every industry. However, gender inequality is both greater in some industries and at some income levels. (See Appendix I for hourly earnings for each industry.)

Below, we show the male/female earnings ratio (male earnings divided by female earnings) in order to highlight the male wage premium across the income spectrum. (While the conventional analysis is the female/male earnings gap ratio, here we reverse that measurement in order to show greater male/female inequality reflected in higher bars.) For example, the middle-wage professional-workers industry shows a fairly steady level of inequality up the income ladder. At the 25th

FIGURE 1
New York City Women's
Workforce (2022)



Note: CNYCA Analysis of EPI CPS extract; sample are economically active and are ages 16 and over.
Source: Economic Policy Institute; created with Datawrapper

percentile, full-time male workers earn on average \$20 per hour while full-time women workers earn more than one dollar less at \$18.70 per hour. This ratio is similar for middle-class professionals at the 50th percentile (\$28.57 for men compared to \$26.53 for women) and at the 75th percentile (\$48.05 for men compared to \$39.53 for women). This trend of fairly steady inequality is also seen among male and female blue-collar and low-wage service and retail workers.

However, there is greater variability among workers at different earnings levels in education, high-wage and management professionals, public administrative, and carework. In fact, the education sector as well as high-wage management show a striking increase in earnings inequality as

workers climb the income ladder and gain experience. In Figure 3 below, we add greater detail by examining the top and bottom of the earnings spectrum. While male and female education workers at the 10th percentile have approximately equal earnings, men in the 90th percentile earn nearly twice as much as their full-time women counterparts. Men at the top of the earnings ladder are pulling away from their female counterparts.

Similarly, in the high-wage management and professional sector, women at the 10th percentile have earnings nearly equal to those of their male counterparts. Yet at the 75th percentile, men earn nearly 1.4 times as much as their full-time female coworkers. By contrast, the male premium falls

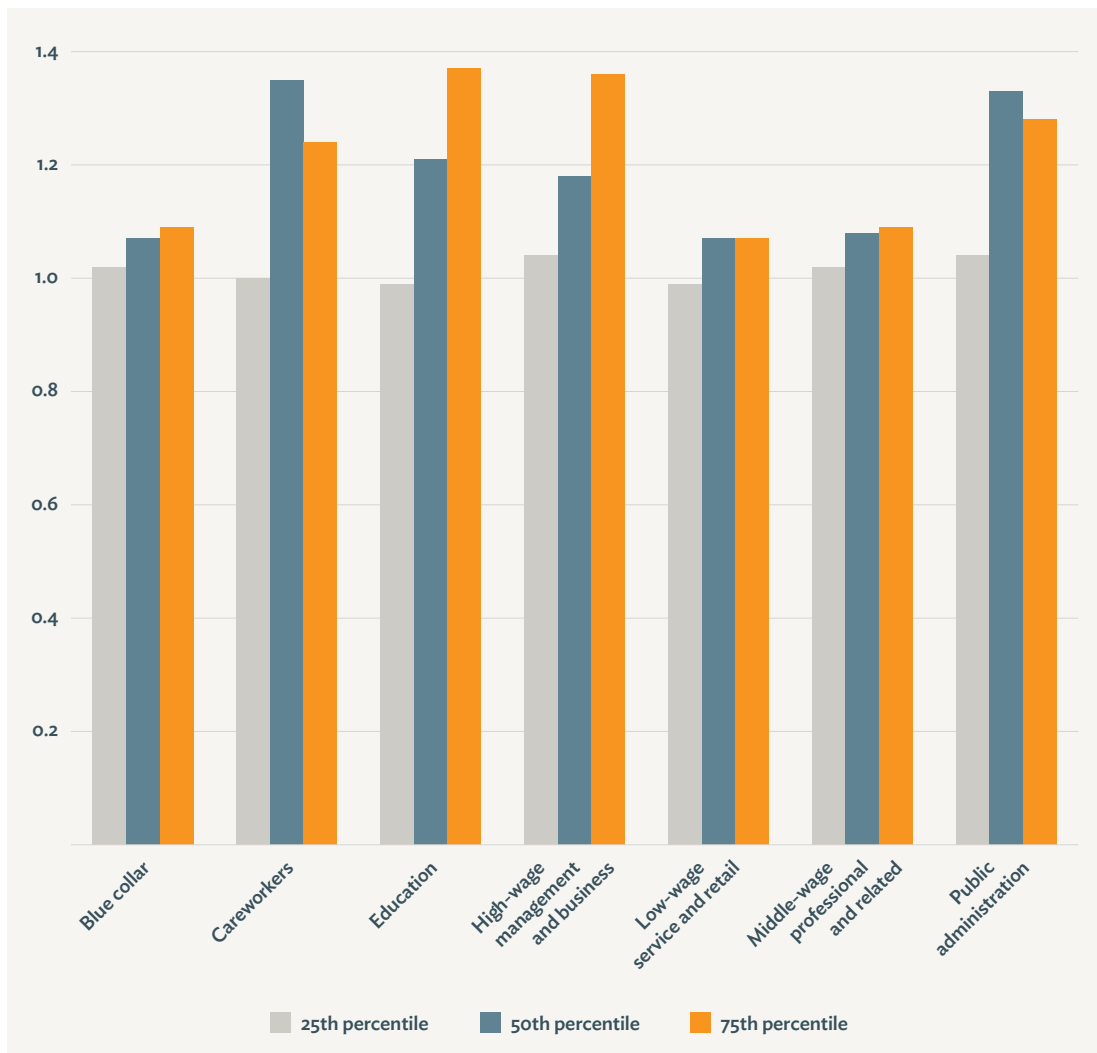


FIGURE 2
Male/Female Hourly Earnings Ratios at 25th, 50th and 75th percentiles (2018-2022)

Note: CNYCA Analysis of EPI CPS extract; sample work full-time and are ages 16 and over.
Source: Economic Policy Institute; created with Datawrapper

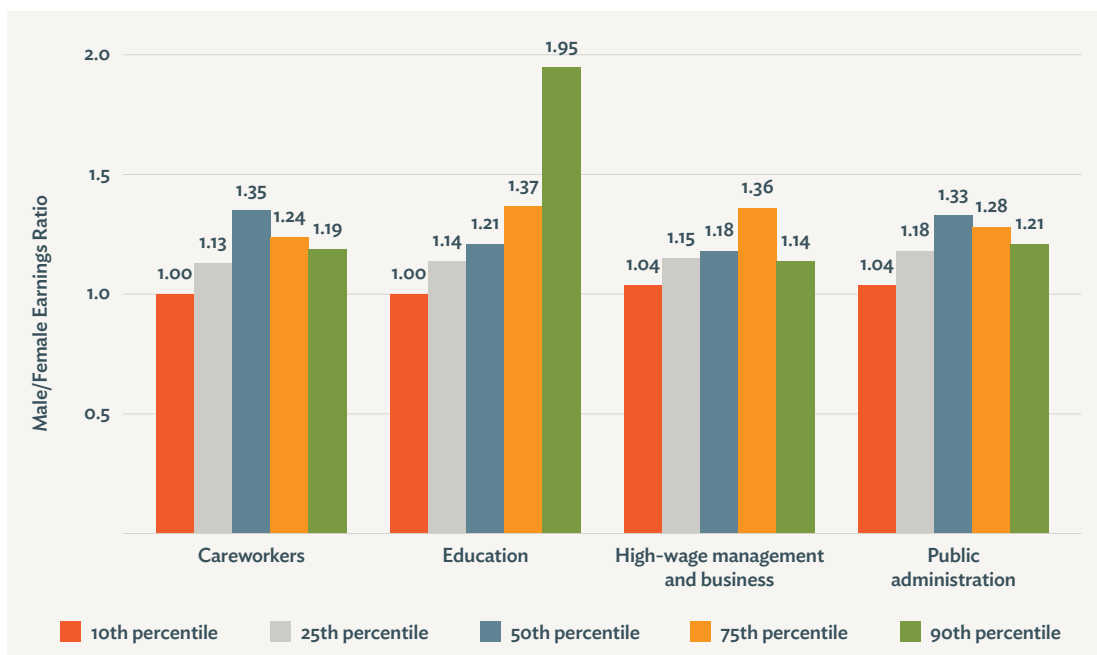


FIGURE 3
Gender Pay Inequity by Earnings Level (2018-2022)

Note: CNYCA Analysis of EPI CPS extract; sample work full-time and are ages 16 and over.
Source: Economic Policy Institute; created with Datawrapper

at the highest earning level in the management sector, suggesting that women that make it to C-suite positions have greater pay equity than women who sit just below this highest-earning level. Unequal earnings at the top of the income spectrum clearly exacerbate overall gender-earnings inequality, a finding that aligns with social narratives that show families often make the economically strategic decision of choosing the lower-earning partner, generally a woman, to leave the workforce either temporarily or permanently to care for children.

MODELING GENDER PAY INEQUITY

It is challenging to disentangle the many factors that contribute to the gender pay gap. Women tend to work in occupations that have more routine or flexible hours and require less overtime or travel, in part because they are tasked with doing more home and care work. Occupations dominated by women also tend to be socially labeled as “women’s work” and are associated not only with social, emotional, and caregiving roles, but also with lower pay.







Demographic Group	Impact on Average Wages
Race and Gender	Percentage Change in Average Wage Relative to White Men
White Women	-13%
Men of Color	-16%
Women of Color	-23%
Education Level	Percentage Change in Average Wage Relative to Less Than High School
High School	18%
Some College	25%
College	60%
Advanced Degree	86%
Industry of Employment	Percentage Change in Average Wage Relative to Low-wage Service Industry
 High-wage industry	34%
 Middle-wage industry	16%
 Education industry	18%
 Blue-collar industry	8%
 Carework industry	-7%
 Public Administration	21%
Marital Status	Percentage Change in Average Wage Relative to Unmarried Men
Married Men	10%
Unmarried Women	-13%
Married Women	-12%

FIGURE 4
Effects of Demographic and Productivity Characteristics on Average Wages in New York City

Note: CNYCA Regression Analysis of EPI CPS extract; all economically active respondents. Alternating years (2018, 2020, and 2022 specifically) are included in the regression analysis to eliminate the possibility of multiple data points from individual respondents entering the analysis.
Source: Economic Policy Institute

We offer a simple regression model that shows how a variety of factors, such as education, race or ethnicity, industry of employment, working in a union job, being married, or having children, influence earnings of workers in New York City. Figure 4 shows how each productivity or demographic factor affects earnings compared to a baseline category: all demographics are compared to a baseline of white men, all higher levels of education are compared to having less than a high school degree, and all industry categories are compared to a worker in the low-wage service industry, since this is a low-earning industry and is roughly half-and-half male and female workers.

This method allows us to isolate the effects of certain worker characteristics, such as gender, while holding factors, such as experience and education, constant. The model shows that wages increase with higher levels of education and more years of experience, as well as having a union job and—for men—being married (see Appendix 3 for a full description of the regression model). Compared to the low-wage retail and service sector, workers see a pay advantage in working in any other industry, except for care work (a sector that is overwhelmingly female).

The model reveals striking pay implications for women. Being a woman has a statistically significant negative impact on earnings, as does being a worker of color—and being a woman worker of color carries a larger pay penalty than either category individually. Figure 4 shows pay penalties relative to white men for white women, women of color, and men

of color. Holding all else constant, white women have a 13 percent pay penalty compared to white men. Men of color have a 16 percent pay penalty compared to white men, again holding all else constant. Women workers of color have the highest pay penalty of 23 percent.

Though this model holds industry, education, and years of experience constant, it does not control for detailed occupations. Therefore, this staggering penalty is likely a combination of women of color holding lower-wage jobs, but also facing discrimination and lacking the same networks and connections to climb the career ladder within an industry.

These findings support what economist Michelle Holder has called the “double earnings gap” that Black women bear as a result of complex, overlapping, and cumulative penalties women of color pay in the US economy. Using a national lens, Holder examines the bigger impact of this pay penalty to the Black community, where the lost earnings affect family’s ability to make large purchases (such as a home or car), save for retirement, and invest in their families and communities. For an individual Black woman worker nationwide, Holder estimates the double gap ranges from \$5,000 in low-wage occupations (such as food preparation and serving) to \$50,000–\$70,000 for high-wage occupations (such as lawyers and managers), and on average is \$25,000 for the average full-time working Black woman nationwide. Over a forty-year career, this means a Black woman who works full-time could lose up to \$1 million in pre-tax earnings. This is a significant lifetime loss for this individual worker, as well as her family and community.²



PART II

BOROUGH-LEVEL MAPS

This report presents a first-of-its-kind map of the female workforce in New York City, tracking where women workers live across the five boroughs, and in what industry they work.

According to our calculations, most women workers reside in Brooklyn (32 percent), followed by Queens (25 percent), Manhattan (24 percent), the Bronx (14 percent), and Staten Island (6 percent).

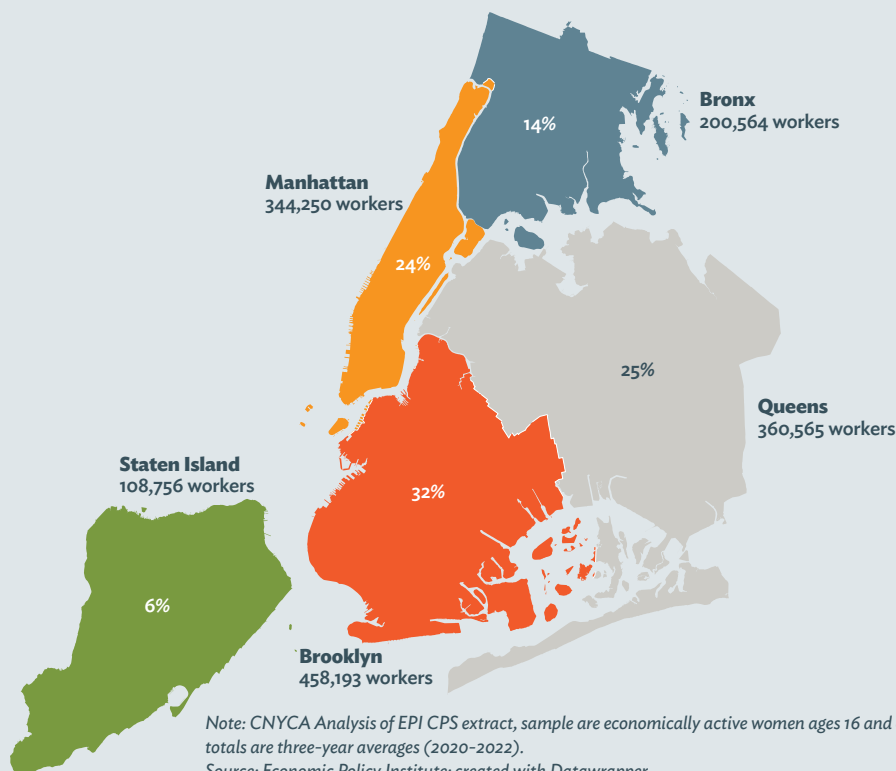


FIGURE 5
**Women's Workforce
in NYC**

The distribution of the overall women's workforce across New York City closely follows the distribution of the overall population, but also allows us to understand where women are over- or underrepresented in certain industries across each borough. For example, as seen in Figures 6–12 below:

- + 27 percent of women careworkers live in the Bronx (compared to 14 percent of overall women), while only 13 percent of careworkers live in Manhattan (compared to 23 percent overall).
- + Female education workers are reasonably distributed throughout the city based on the overall population's distribution (with a slight underrepresentation in Queens).
- + 40 percent of women working in high-wage industries reside in Manhattan (compared to 23 percent overall). Women living in the Bronx and Queens are underrepresented in management and professional sectors to similar degrees.
- + Low-wage female workers are well represented throughout the city, though are somewhat

underrepresented in Manhattan and Brooklyn and overrepresented in Queens.

- + Women working in middle-wage sectors appear to be overrepresented in Queens and Staten Island, but underrepresented in Brooklyn and the Bronx.
- + Female blue-collar workers are noticeably underrepresented in Manhattan (9 percent), while significantly overrepresented in Queens (41 percent).
- + 44 percent of the women working in public administrative roles live in Brooklyn, compared to only 32 percent overall. There is an accompanying underrepresentation of women in public administrative roles in Manhattan, Queens, and the Bronx.

A clear pattern emerges: Women working in carework, low-wage, and blue-collar jobs are concentrated primarily in Queens and the Bronx. Conversely, Manhattan and Brooklyn tend to disproportionately house women working in those industries we expect to be more well compensated (high-wage professional, education, and public administrative).

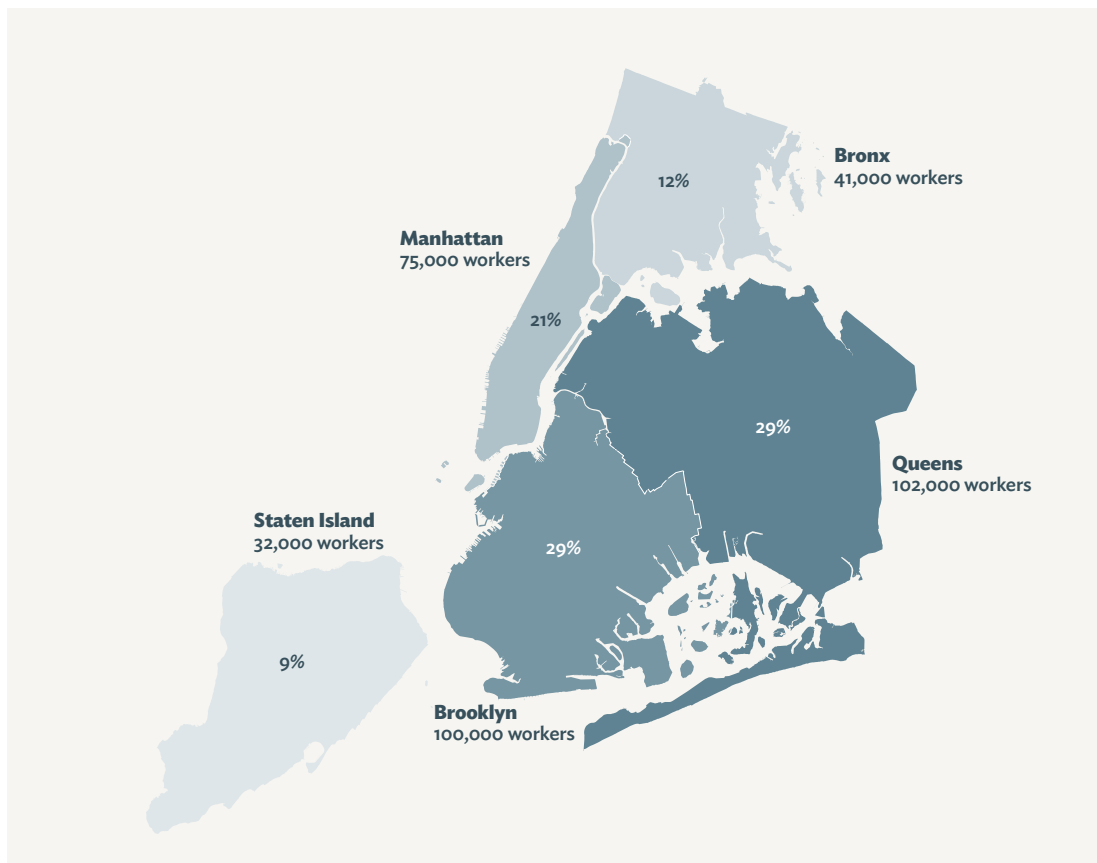


FIGURE 6
**Women's Workforce
in NYC: Middle-wage
Professional and Related**

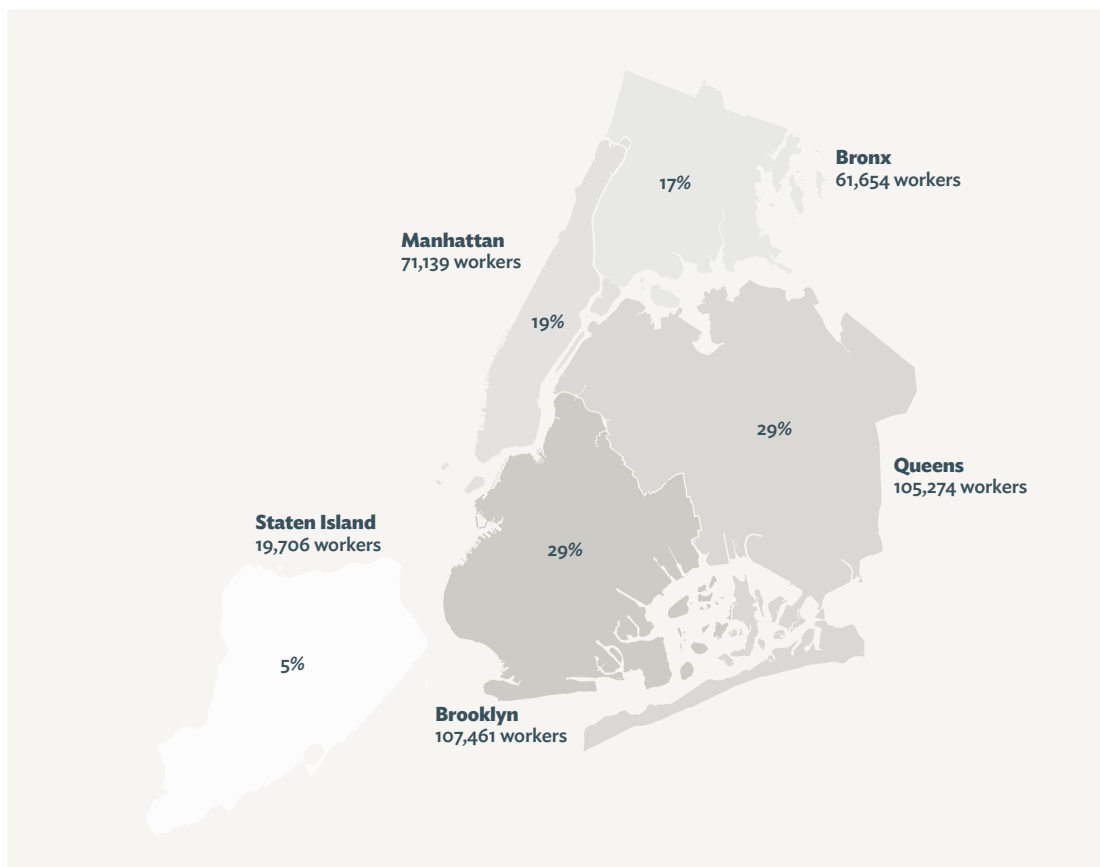
Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
Source: Economic Policy Institute; created with Datawrapper

FIGURE 7
**Women's Workforce
 in NYC: Public
 Administration**



Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper

FIGURE 8
**Women's Workforce
 in NYC: Low-wage
 Service and Retail Work**



Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper

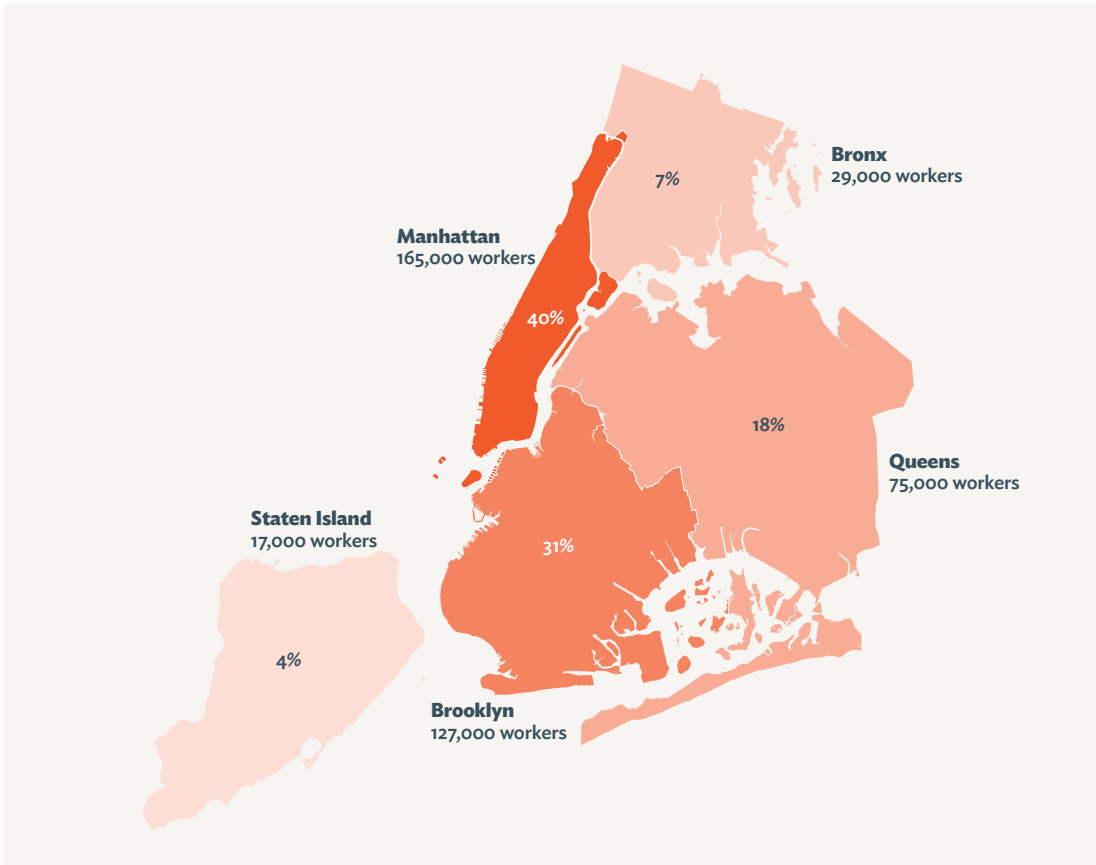


FIGURE 9
**Women’s Workforce
 in NYC: High-wage
 Management and
 Professional Workers**

Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper

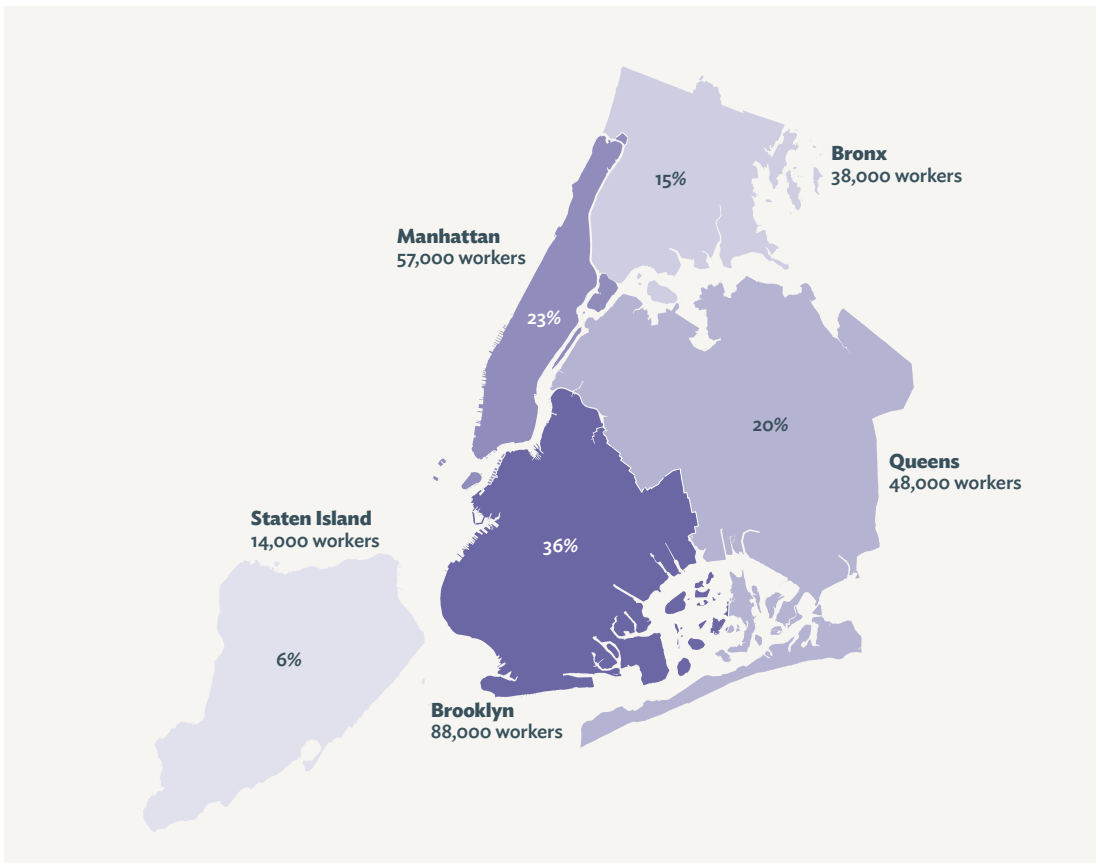
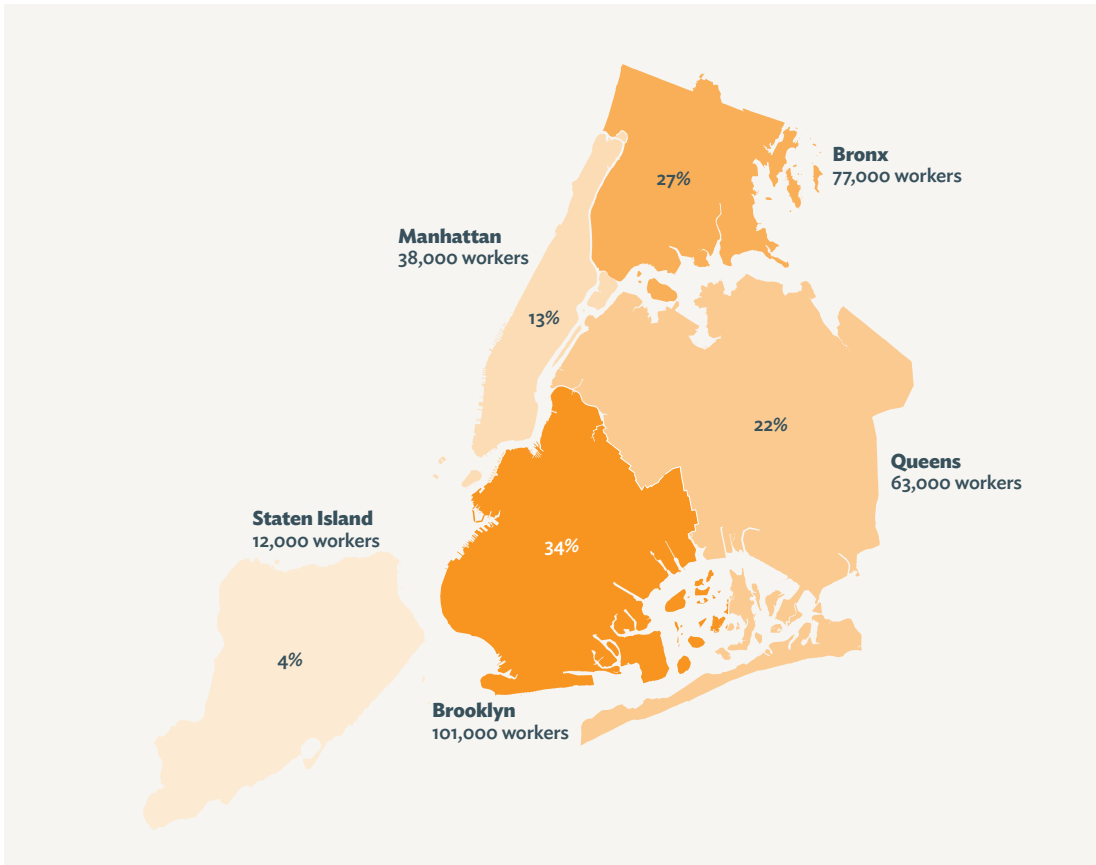


FIGURE 10
**Women’s Workforce
 in NYC: Education**

Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper

FIGURE 11
**Women's Workforce
 in NYC: Careworkers**



Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper

FIGURE 12
**Women's Workforce
 in NYC: Blue-collar
 Industry**



Note: CNYCA Analysis of EPI CPS extract; sample are economically active women ages 16 and over; totals are three-year averages (2020–2022).
 Source: Economic Policy Institute; created with Datawrapper





PART III

OCCUPATIONAL SEGREGATION

Gender pay inequity is driven by a range of factors, including the jobs and professions women chose for their careers. Occupational segregation refers to the uneven distribution of women and men across various professions. This unequal division plays a pivotal role in perpetuating the gender pay gap, significantly influencing women's earning potential, career trajectories, and the financial stability of their families.

While industry analysis provides valuable insights into broader employment trends, it is the specific examination of occupations that often sheds more light on earnings differentials. This is because occupational segregation reflects a broader societal tendency to undervalue work typically performed by women, even when such positions demand comparable levels of education, expertise, and skill to those dominated by men. Occupational segregation also reflects social norms and expectations that steer women into jobs typically associated with “women’s work,” that are part-time, or that have greater flexibility because of greater care demands at home.

Occupational segregation by race and ethnicity means that women of color face intersectional disadvantages, experiencing both gender and racial segregation in the labor

market, resulting in disproportionate concentrations of women of color in low-paying industries.

Industry as a frame of analysis indicates the broad sectors of the economy in which women in New York are active. However, industries also encompass a broad spectrum of jobs, with workers who have different responsibilities, skill levels, work histories, and earnings. In health care, for example, an industry approach groups together all workers in this sector, from nurses and doctors to phlebotomists and medical assistants. By contrast, an occupational analysis of the health care industry distinguishes between those employed as practitioners in technical occupations (e.g., dentists, surgeons, and radiologists) and those employed as health care support workers (e.g., nursing assistants, personal care aides, and massage therapists). Occupation can therefore add a more

fine-grained approach to scrutinizing gendered labor market segregation and gender pay inequity.

In this analysis, we group jobs into five broad occupational categories: high-wage professional workers (management, business, financial, and engineering occupations); middle-wage white-collar workers (legal support, health care practitioner, educational instruction, and science occupations); low-wage service workers (food preparation, health care support, office and administrative occupations); blue-collar workers (building, maintenance, production and transportation occupations); and careworkers (community, social services, personal care, and health care support occupations).³

What Occupational Clusters Tell Us About the Female Workforce in the New York City Economy

The “occupational structure” of an economy refers to the arrangement and distribution of jobs and professions. This economic picture is shaped by historical and social forces, reflecting an economy’s strengths, technological advancements, and even labor laws and social values. Over time, a shift toward white-collar or high-wage jobs may indicate the emergence of a knowledge-based or service-oriented economy, while the strength of manufacturing or agricultural jobs might indicate an economy’s relative level of development or technological innovation. Occupational structure also

Broad Occupational Group	Occupational Subgroups
 High-wage professional	Management Occupations
	Business and Financial Operations Occupations
	Computer and Mathematical Occupations
	Architecture and Engineering Occupations
 Middle-wage white collar	Life, Physical, and Social Science Occupations
	Educational Instruction and Library Occupations
	Legal Occupations
	Arts, Design, Entertainment, Sports, and Media Occupations
	Healthcare Practitioners and Technical Occupations
 Low-wage service and administrative	Protective Service Occupations
	Food Preparation and Serving-Related Occupations
	Personal Care and Service Occupations
	Sales and Related Occupations
	Office and Administrative Support Occupations
 Blue collar	Building and Grounds Cleaning and Maintenance Occupations
	Farming, Fishing, and Forestry Occupations
	Construction and Extraction Occupations
	Installation, Maintenance, and Repair Occupations
	Production Occupations
	Transportation and Material Moving Occupations
 Carework	Community and Social Service Occupations
	Personal Care and Service Occupations
	Healthcare Support Occupations

FIGURE 13
Broad Occupational Groupings

Source: United States Census Bureau, Industry and Occupation Classification, 2021
Source: US Bureau of Labor Statistics; created with Datawrapper

offers a lens for examining economic disparities among demographic groups, such as women or minorities, when they are concentrated in occupations with lower pay and status.

The breadth and dynamism of New York City’s economy is perhaps unique in the United States. It also has undergone significant change over the past two decades (see Figure 14, below). In 2003, low-wage occupations dominated the type of work available to New Yorkers: two out of every five economically active residents (employed workers and those looking for a job) worked in low-wage service jobs. Blue-collar and middle-wage white-collar work also each represented one-fifth of the workforce.

The picture had changed by 2022, when low-wage work had fallen to 29 percent of total employment, from 41 percent in 2003. During the same period, high-wage management and business jobs increased by 10 percentage points, to 24 percent in 2022. Middle-wage occupations saw a modest increase and blue-collar work a modest decrease. The proportion of workers employed in carework remained relatively steady over time up until 2022, when there was a sharp increase from 9 to 12 percent of total jobs.

This current occupational structure reveals an economy with an increasingly large share of jobs represented by high-wage and carework occupations and a shrinking portion represented by low-wage and blue-collar occupations. Though middle- and high-wage jobs have increased in share, men have benefited more from that shift.

The occupational differences between New York’s male and female workforces are pronounced. For men 20 years ago, blue-collar work and low-wage service occupations dominated available employment. In 2022, high-wage management and business occupations accounted for nearly 30 percent of male employment. Middle-wage work remained relatively constant at 15 percent of the male occupational landscape, as did carework, at low rates of below five percent.

Women workers have a different occupational story in New York City. Despite a 15-point decrease among women since 2003, low-wage work still dominates at 31 percent of economically active women. The proportion of female high-wage workers has increased to 19 percent in the past 20 years, but remains a full 10 percentage points below male representation in such occupations. At the same time, 19 percent of economically active

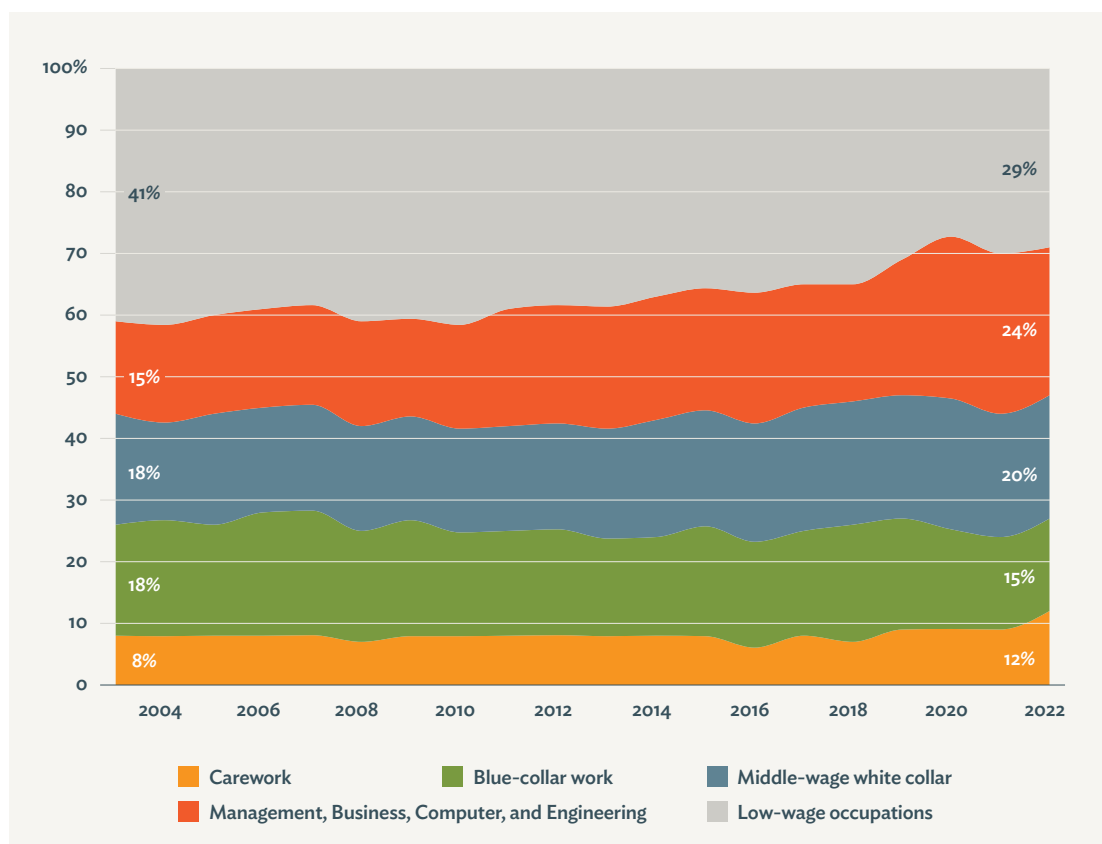
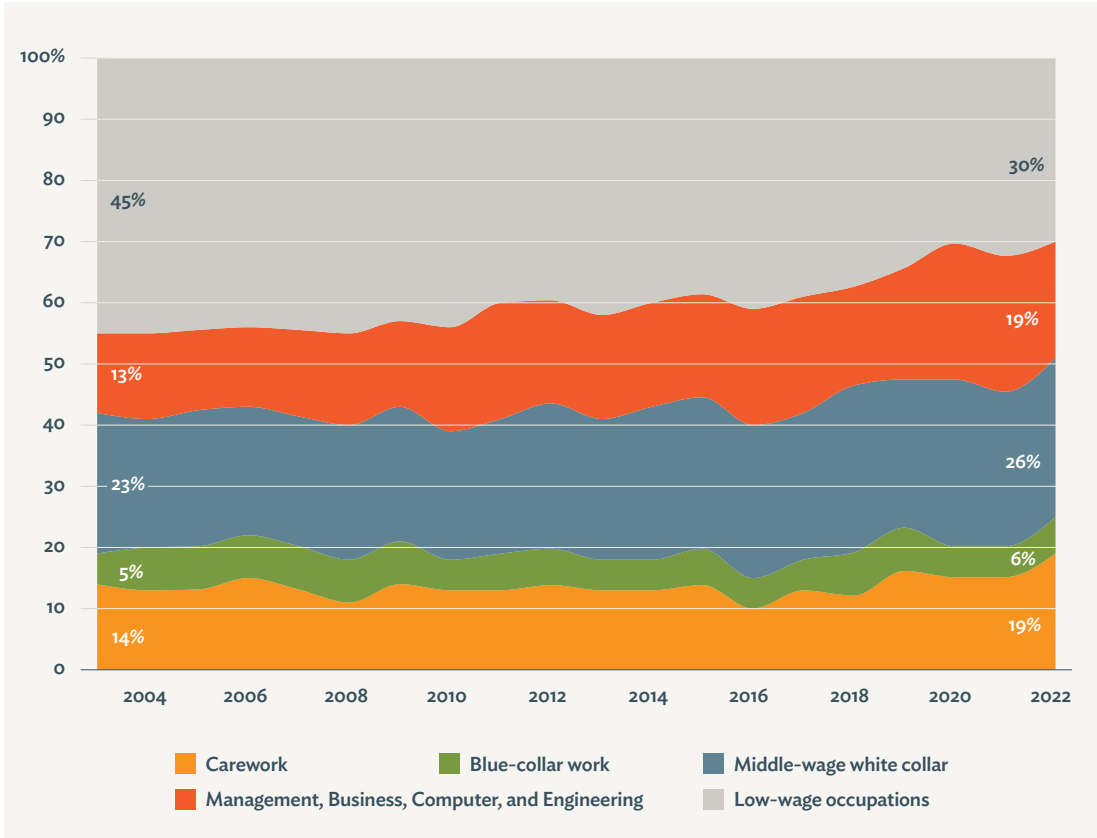


FIGURE 14
NYC Occupational Structure: All Workers (2003-2022)

Note: CNYCA Analysis of EPI CPS extract; sample is economically active, ages 16 and over; data callouts represent compositions at the start and end of the observed time period.

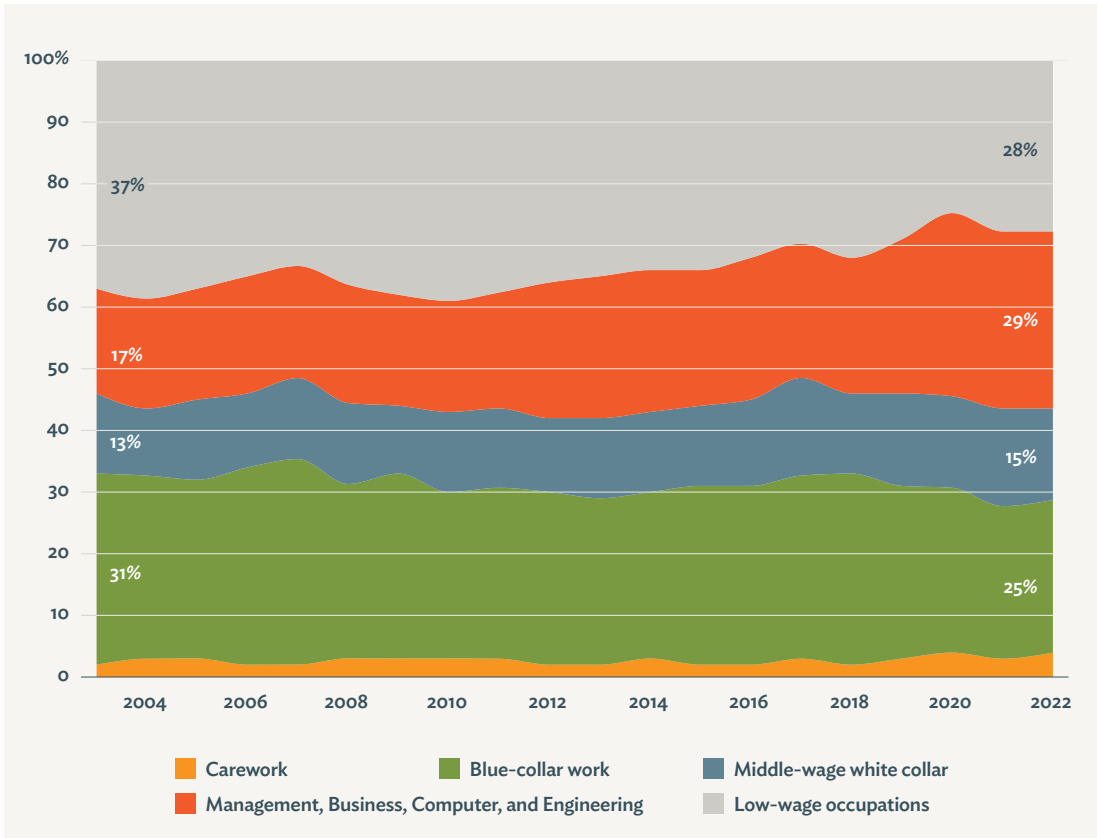
Source: Economic Policy Institute; created with Datawrapper

FIGURE 15
**NYC Occupational
 Structure: Female
 Workers**



Note: CNYCA Analysis of EPI CPS extract; sample includes economically active women ages 16 and over; data callouts represent compositions at the start and end of the observed time period.
 Created with Datawrapper

FIGURE 16
**NYC Occupational
 Structure Over Time:
 Male Workers**



Note: CNYCA Analysis of EPI CPS extract; sample includes economically active men ages 16 and over; data callouts represent compositions at the start and end of the observed time period.
 Source: Economic Policy Institute; created with Datawrapper






Occupational group	% female		% male		% of female workforce		% of male workforce		female	male	overall	Female/Male ratio
	Workforce		Occupational structure (2022)						Median wages (2022\$)			
 Carework	83%	17%	17%	4%	\$18	\$22	\$18	0.82				
 Middle-wage white collar	63%	37%	26%	15%	\$35	\$42	\$37	0.83				
 Low-wage occupations	53%	47%	31%	27%	\$20	\$22	\$21	0.94				
 High-wage management and business	41%	59%	21%	29%	\$38	\$43	\$41	0.87				
 Blue-collar work	18%	82%	5%	25%	\$18	\$22	\$22	0.79				

FIGURE 17
Gender-Based Pay
Based on Occupation

Note: CNYCA Analysis of EPI CPS extract; occupational structure refers to 2022, median wages refer to 2020–2022 pooled average.

females are employed as caregivers, compared to only three percent of economically active males.

Figures 15 and 16 clarify these gendered occupational differences: Despite similar rates of employment in low-wage occupations, men are overrepresented in high-wage occupations and women are overrepresented in carework occupations. Figure 17 shows that even in high-wage and middle-wage occupations, women are facing persistent pay gaps, earning 87 cents on the dollar in high-wage jobs and 83 cents on the dollar in middle-wage jobs compared to male peers.

Moreover, women workers of color remain overrepresented in low-paying occupations. A third of Black women workers are employed in low-wage occupations, with an additional 27 percent in the carework sector, in which the median hourly wage for women was only \$18 per hour in 2022. Similarly, 60 percent of Hispanic women are employed in either low-wage jobs or carework jobs. By contrast, nearly four times as many white women workers are employed in the high-wage management and business sector than work in carework. (See Figure 18.)

Economists use the Duncan Index of Dissimilarity to measure the degree to which men and women are separated in the

economy (see Appendix 2 for a fuller explanation). The measurement yields the percent of all women workers who would have to switch jobs in order to equalize the employment distributions between men and women. Over the past 20 years, despite some volatility, we see a persistent level of occupational segregation (see trend line in Figure 19).

Based on our occupational groupings, we estimate 28 percent of women workers in New York would have to move jobs in order to equalize the employment distributions between genders. While this percentage is higher at the national level (34 percent), the U.S. overall has experienced a steadier decline in occupational segregation by gender over time. Measurements of occupational segregation in New York City appear both more erratic and to have less of a clear decline. The higher rate of occupational segregation in the city could be linked to the larger portion of middle-wage and high-wage economic activity; the blue-collar sector, which is highly gender segregated, is smaller in New York City than elsewhere in the country. This corresponds with our earlier findings, which revealed that the earnings ratio between genders over the past two decades has improved slowly for the U.S. overall, while it has stalled in New York City.





Occupational group	White	Black	Hispanic	Asian and Other
 Middle-wage white collar	37%	20%	15%	22%
 High-wage management and business	27%	14%	12%	25%
 Low-wage occupations	26%	33%	39%	36%
 Carework	7%	27%	21%	13%
 Blue-collar work	3%	7%	13%	3%
Total	100%	100%	100%	100%

FIGURE 18
Demographic Composition of Female Workforce, by Occupation

Note: CNYCA analysis of EPI CPS Extract (pooled 2020–2022 samples).

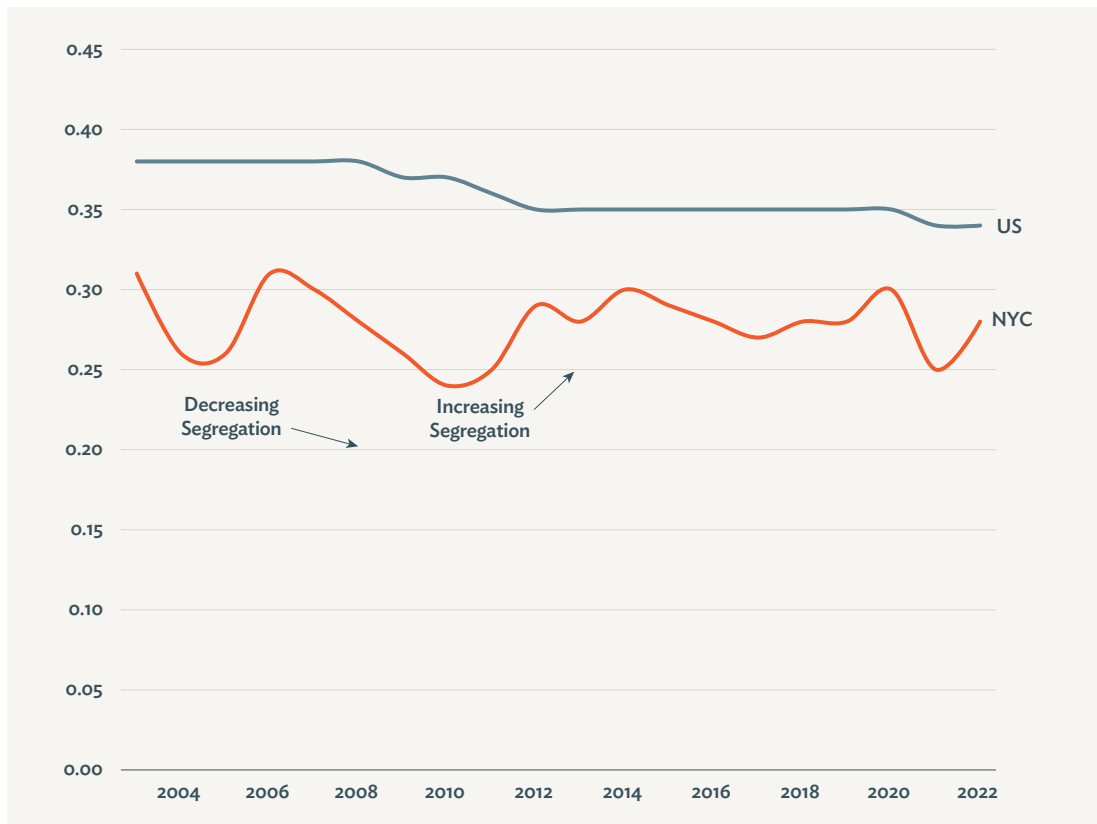


FIGURE 19
Duncan Index of Dissimilarity: Share of Women Needing to Change Jobs to Eliminate Occupational Segregation

Note: CNYCA Analysis of EPI CPS extract; sample is economically active, ages 16 and over.
Source: Economic Policy Institute; created with Datawrapper

Unequal Pay Structures Within Occupations: Another Facet of Gender Pay Inequity

The role that occupational segregation plays in perpetuating the gender pay gap comes in two forms. First, women can be clustered in occupations that are lower paying relative to male-dominated ones (economists call these “across-occupation effects”). Second, pay structures within occupations can be inequitable (economists call these “within-occupation effects”).

So far, we have been considering gender pay gaps between occupations. It is also critical to look at gender pay gaps within occupations. That is, how great is the pay difference between men and women in the same jobs?

Our analysis of pay inequity between and within occupations suggests that while both are important, within-occupation pay inequity may be more important. (See Appendix 2 for a fuller explanation). In fact, in the years we analyzed (2003–2022), we found that within-occupation pay inequity accounted for all of the measurable earnings gap. Over the period studied, the overall across-occupation effects remained steady or improved slightly. Women were moving toward high-paying

occupations, even though there was a simultaneous growth in female-dominated, low-paid carework. Simultaneously, within-occupation gaps widened, meaning that even as women got into higher-paid occupations, they were typically making less than their male colleagues.

The broad industrial landscape suggested that some industries—high-wage management and education, in particular—showed greater gender gaps at the high and low ends of the pay spectrum. Through this occupational lens, we can see that gaps within some occupations also increased between 2003 and 2022. Gaps between men and women in high- and low-wage job types have remained high, compared to the more muted within-occupational inequity in middle-wage occupations (which even turned negative in 2018–2022, suggesting pay structures that began to favor women over men).

The high within-occupation inequality in the high-wage sector (suggesting larger gender-based gaps) remained roughly steady from 2003 to 2017, but saw a downtick between 2018 and 2022. This may have been driven by Covid-era changes in work routines and expectations. Perhaps allowing more flexible work schedules or a hybrid of in-person and remote

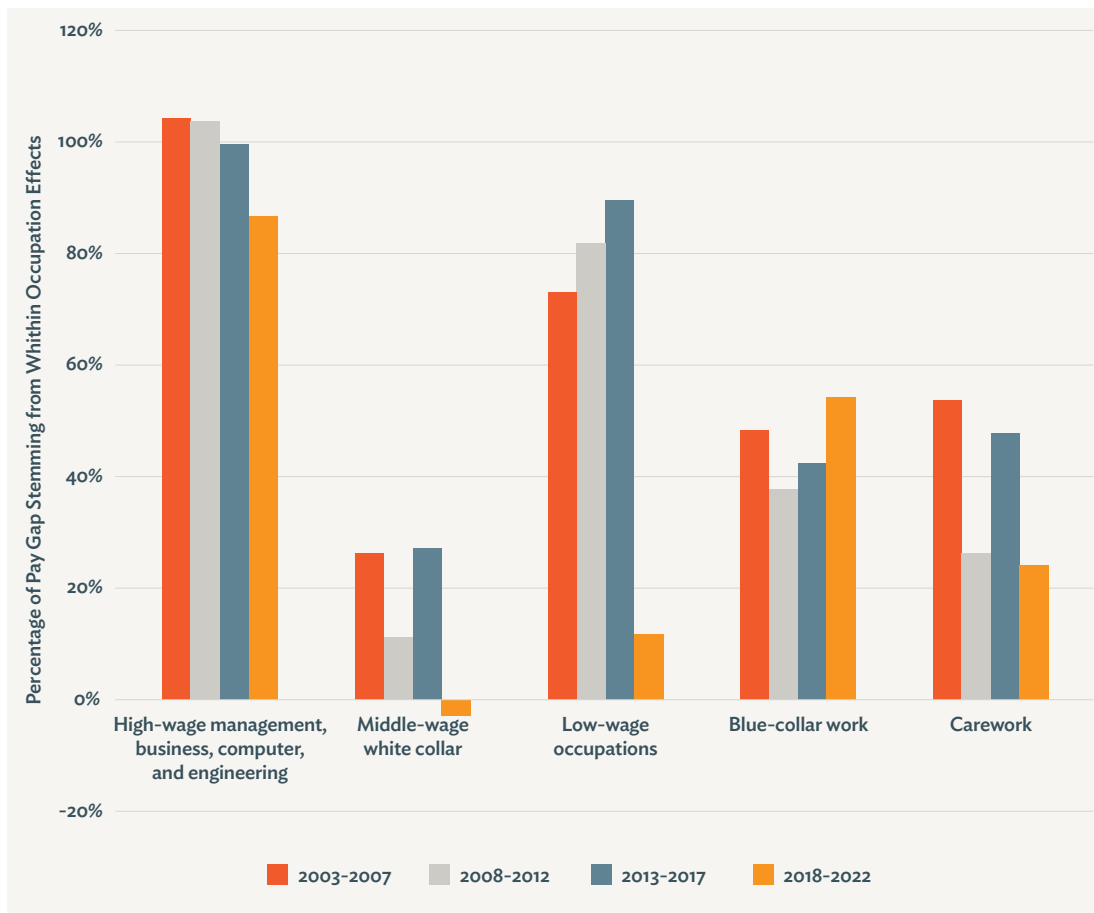


FIGURE 20
Proportion of the Gender Pay Gap Associated with Inequitable Pay Structures within Occupations, by Broad Occupation Group (2003–2022)

Note: CNYCA Analysis of Economic Policy Institute. 2023. Current Population Survey Extracts, Version 1.0.40.

work facilitated women’s participation in a high-earning sector that has traditionally been associated with rigid in-person work schedules, overtime, and travel requirements. The low-wage occupational sector showed an even sharper downtick in gender-based earnings inequality, a trend that could be related to the overall rise in hourly pay among low-wage occupations, again especially in the tight labor market during the Covid-era recovery. (See Figure 20 and Appendix 2 for a full list.)

The Duncan Index suggests that 28 percent of New York’s women workers would need to change jobs to eliminate occupational segregation. Another measurement suggests

that within-occupation pay gaps account for an increasing share of gender inequity. Both underscore the scale of the challenge in closing the equity gap. Women are still overrepresented in lower-paid sectors of the economy, while also increasingly choosing to enter higher-paid occupations. And yet, the pay gaps within occupations have widened.

Moreover, there are compelling reasons women choose certain occupations. With greater unpaid care expectations, generally greater hours of domestic work outside the workday, and strong social norms reinforcing “women’s work,” women workers would face social, policy, and economic challenges in changing occupational trajectories.

POLICY RECOMMENDATIONS

The issues in this report point to systemic gender-equity problems that saturate the New York City economy, putting women employed in all types of jobs, of different races, ethnicities, and income levels at a disadvantage in the workforce. Both systemic change and incremental changes, in many policy spheres, will be necessary to combat such pervasive disparity.

Our city is fortunate to have many elected leaders, including many women, serving on the City Council and in the State Legislature in a position to advocate for policy changes to address these inequities. Given the pervasiveness of the economic structures and practices that stand in the way of the equitable treatment of women in the economy, they need to seize on all available labor, budget, tax, and other policy levers. Action is needed to address these problems at their roots where possible, while simultaneously advancing incremental policies that point toward a more equitable future.

Economic justice for women begins in the workplace. Women leaders must champion policy changes that raise pay (both through a higher minimum wage and through pay equity for careworkers backed by funding better pay in City and State budgets), improve our tattered worker safety net, and advocate for policies that promote retirement savings by low- and moderate-income workers, and for tax policies that aid working families. The systemic nature of gender pay inequity means that all available policy levers—budget, labor standards, and tax policy—should be seized to raise pay and improve working conditions.

Here we articulate a broader perspective that our policy leaders, elected officials, and advocates should bear in mind to understand this systemic problem. There should, in particular, be a strong focus on policy changes that would primarily benefit low-income women workers of color. But the gender earning-inequality problem is vast and demands broad-based change in how we value women’s work, support women workers, and create a fair environment for all workers, especially the lowest-earning, to thrive in New York City.

Pay and Salary

1. Pay Transparency Requirements

New York State’s pay transparency law requires employers with four or more employees to disclose compensation ranges in job postings, promotions, and transfers. Though the law went into effect in 2023, there are several routes to further strengthen the rules, including:

❑ **Require Covered Companies to Provide Clear Information on How Salaries Are Determined:**

This is a way to further ensure equitable compensation, including tighter posted-salary bands, to increase the impact of the legislation.

❑ **Strengthen and Enforce Penalties and Public Accountability:** The New York State Department of Labor imposes civil penalties for noncompliance, but these could be strengthened through increased enforcement, public reporting, and higher fines for repeat offenders.

❑ **Require Record Retention by Employers:** Maintaining records of compensation ranges and job descriptions would ensure transparency and provide a paper trail for auditing and compliance checks.

❑ **Cover Independent Contractors and Interns:** These are protected in New York City but not statewide.

2. Protect Workers From Salary History Questions

The use of salary history in employee selection and hiring can reinforce gendered wage gaps and result in hiring women at suppressed salaries. Since 2017, New York employers have been prohibited from asking about a prospective employee's salary history. The City and State can strengthen such protections by encouraging businesses, especially large firms, to conduct **regular gender pay audits** to identify and address gender-based wage discrepancies. Larger companies should be required to report audit results to a public database, fostering accountability and enabling data-driven policymaking. Such accounting will have a systematic impact on the labor market; by raising wages for women especially at the largest businesses, wages will be pulled up for other women workers in similar jobs.

3. Public Sector Pay Equity

The recently released 2024 Pay Disparity Report by the New York City Council highlighted ongoing wage disparities in the municipal workforce, particularly affecting women of color. To address these issues, several policy recommendations were proposed:

❑ **Introduction 515:** A proposed local law mandating that agencies submit annual reports analyzing compensation data, also requiring the Equal Employment Practices Commission to conduct an annual comparable-worth analysis.

❑ **Introduction 527:** A proposed local law intended to evaluate and expand diverse recruitment and retention within City agencies, mandating annual reporting on civil-service examinations and agency training programs, along with providing information on these exams to high school juniors and seniors.

Safety Net and Tax Credit Reforms

❑ **Albany legislative deliberations in the spring 2024 post-budget session may result in a long-overdue modernization of New York's State's temporary disability insurance (TDI) program.** TDI provides partial wage replacement for workers who suffer from non-work-related injuries or illnesses, including cancer, and are unable to work. Maximum TDI benefits have been capped at a paltry \$170 weekly since 1989. TDI benefits should provide wage replacement of at least 67 percent, with the maximum set at two-thirds of the state's average weekly wage.

❑ **Long-overdue unemployment insurance reforms are also needed.** Because many low-wage jobs (which are more likely to be held by workers of color) are disproportionately subject to economic fluctuations, such as those experienced during the Covid-19 pandemic, New York needs to finance unemployment benefits on a sound basis so that the benefit structure can be modernized to keep pace with that of neighboring states. New York's current benefits provide a shrinking wage-replacement rate that has fallen below national averages.

❑ **The Working Families Tax Credit** would streamline the Empire State Child Credit, the Earned Income Tax Credit, and the dependent exemption all into one credit that is easier for families to access. Additionally, this proposed legislation would expand eligibility for these credits to immigrant tax filers.

Education, Mentorship, and Career Development

- **The city currently offers a number of programs for addressing gender disparities in the sciences and business**, including Women.NYC, powered by the New York City Economic Development Corporation. It offers programs such as “Pivot to Growth,” which helps women navigate career shifts into high-growth industries such as technology, life sciences, renewable energy, and the green economy. Women.NYC’s initiatives targeting Black women in technology, such as the LevelUP tech cycle in collaboration with the Brooklyn Public Library, also provide instruction, mentoring, and financial coaching to help participants advance professionally and build wealth.
- **Especially given the shift in New York City’s economy over the past 20 years toward more high-wage business and tech jobs, further supports are needed to help women enter and remain in current and emerging high-paying fields:** Critical to leveling the gender playing field in high-paying, often demanding, jobs is offering support services, including business education and training, legal advice, and connections to childcare and health care resources. These help remove systemic barriers that women often face in the workforce.
- **Establish career development and mentoring programs and flexible work arrangements:** Moreover, once women enter this field, they need ladders to advance, including mentoring, sponsorship, and leadership training, as well as incentives to employers to provide more opportunities for women to gain experience in leadership roles. One way for employers to support women into high-level or leadership positions is to expand policies that allow flexible work schedules, remote work, and parental leave.
- **Intervening Early:** New York City has many programs aimed at offering students experience in the sciences and business, including the Department of Youth and Community Development’s after-school programs (COMPASS NYC) that serve young people

and STEM Matters NYC, which offers summer enrichment programs designed to engage students in technology and engineering. Girls Inc. of NYC offers programs such as Project Accelerate to encourage young women to consider tech careers. There are many publicly and privately funded programs, including the Science Research and Mentoring Program (SRMP) at the American Museum of Natural History and Double Discovery Center’s Summer Academy at Columbia University, which invites 9th and 10th graders from first-generation and low-income backgrounds to a five-week summer academy.

- **Encourage Systemization:** If systematized through state, city, and private support, these programs have the potential to encourage women from diverse backgrounds to engage with high-paying business, tech, and scientific fields that are traditionally seen by them as inaccessible.

Support Working Women in the Carework Sector

- **Public Sector:** Advocates should make clear that while cost-of-living adjustments to keep up with municipal labor-contract increases are a good start, more is needed to close the 20–40% pay gap with counterparts in the public sector. The city needs to create room for that investment in its budget.
- **Childcare Workers:** The Empire State Campaign for Child Care advocates the broad goal of universal childcare in New York State, as well as better pay for workers in the field. Their current priorities include a state Childcare Workforce Fund to assist low-income families in accessing childcare.

CONCLUSION

By investigating how women workers are unevenly represented in different industries and occupations across the New York City economy, this report begins to unveil a complex landscape of diversity and stratification. Despite women constituting 49 percent of the city's workers and being present in all industries and neighborhoods, earnings disparities persist across every sector. While earnings inequity is evident across every industry and major occupational grouping for which there is sufficient data, certain sectors exhibit even greater levels of gender inequality.

Education and high-wage management and professionals contain pronounced earnings disparities as workers ascend the income ladder. Earning differentials are present from entry-level salaries and are especially stark at higher-income percentiles. This finding challenges commonsensical expectations that industries in which women make up the majority of the workforce—such as education—offer women workers greater opportunity for gender equity. Such disparities contribute to the persistence of gender earnings inequality, underscoring the need for targeted interventions to address systemic biases and promote fair compensation practices across all levels of employment.

Our analysis of occupational segregation reveals another dimension of gender pay inequity. Using occupation as a lens allows for a tighter analysis of the many different job types within industries, each with their own skills requirements and compensation levels. Male and female workers in New York

City inhabit very different occupational structures: While low-wage work dominates in both groups, men are concentrated in high-wage and blue-collar occupations, and women in middle-wage and carework occupations. This apparent segregation is formalized in the Duncan Index, which shows that almost 3 in 10 women would have to switch their current employment in order to balance the distribution of men and women between jobs. This level of segregation has, on average, proved persistent over the past two decades.

The gender pay gap has shown little improvement in New York City over the past 20 years. This stagnation can be attributed in part to the rapid growth of low-paid, female-dominated industries and occupations like the carework sector, home health aides, and individual and family services workers. The low pay and limited opportunities for advancement offered mean that a growing number of women workers are performing essential services, but living precarious economic lives. They are unable to earn family-sustaining wages, save for retirement, or invest in themselves through time off, additional training, or education. This puts severe constraints on the ability of these women workers to enjoy leisure time, engage and volunteer with their communities, and engage politically. Carework is critical for the well-being of New Yorkers and deserves respect and acknowledgment—and yet this challenging work is poorly paid. The economic penalties of these female-dominated, low-paid, and fast-growing job sectors threaten to reverberate for generations into the future.





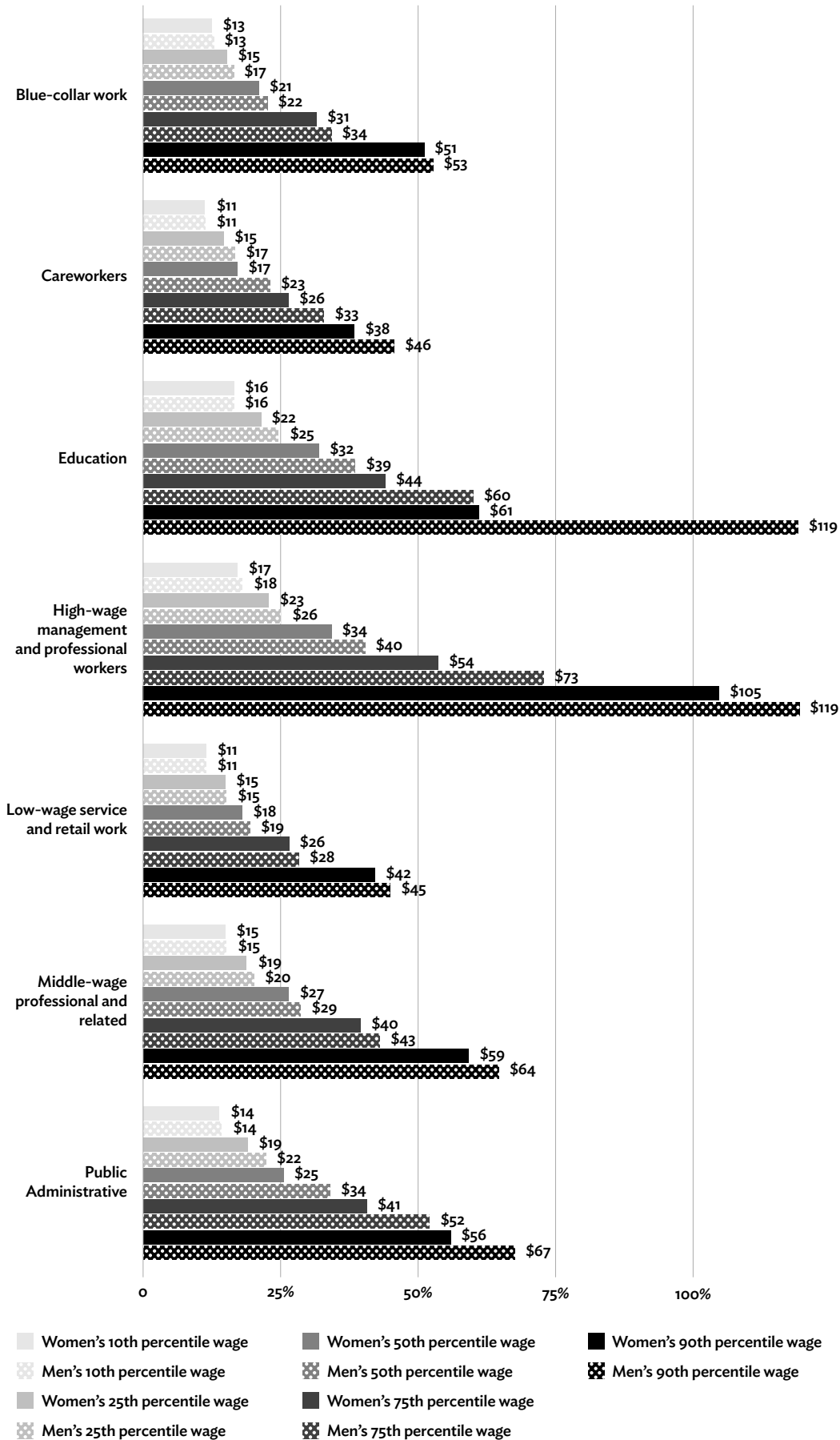
APPENDIX 1








Data Source and Methodology

Throughout we use two primary data sources. The Current Population Survey (CPS), a monthly survey of households conducted by the Bureau of Census for the Bureau of Labor Statistics, provides current estimates of employment, earnings, and other characteristics of the labor force. We use the Economic Policy Institute microdata extracts (microdata.epi.org/basicuse). We used geographic variables based on place of residence (such as ‘countyfips’) and work status (“ftptstat” distinguishes between full-time

and part-time workers) to identify economically active (i.e. either employed in paid work or actively seeking it) workers living in New York City. The Quarterly Census of Employment and Wages (QCEW) publishes a quarterly count of employment and wages reported by employers. Because the QCEW does not include worker characteristics, the QCEW is only used for estimates of total working populations by industry and occupation when gender analysis was not required.







Hourly Earnings for Female Workers by Industry and Income percentile (10th, 25th, 50th, 75th, 90th)



	Percent women	Percent women	Percent women	Percent women	Percent women	Total female workers
	Brooklyn	Bronx	Manhattan	Queens	Staten Island	All NYC
 Blue-collar work	21%	24%	24%	26%	21%	168,865
 Careworkers	84%	85%	80%	86%	76%	333,168
 Education	69%	72%	63%	71%	76%	222,538
 High-wage management and professional workers	43%	48%	40%	42%	47%	424,964
 Low-wage service and retail work	44%	41%	51%	43%	51%	371,704
 Middle-wage professional and related	60%	60%	55%	64%	81%	359,250
 Public administrative	60%	55%	57%	32%	26%	65,809
						1,946,298

1.2

Detailed Borough-Level Industrial Workforce Composition

Variables	Coefficients
Female	-0.08** (0.02)
Part-time	-0.09*** (0.01)
Log Hours Worked	0.17*** (0.02)
Experience	0.01*** (0.00)
Black	-0.14*** (0.01)
Hispanic	-0.09*** (0.01)
Asian	-0.07*** (0.01)
Married	0.12*** (0.02)
Number of Children	0.01* (0.01)
Married x Female	-0.11*** (0.02)
Number of Children x Female	-0.01 (0.01)
 High-wage industry	0.35*** (0.02)
 Middle-wage industry	0.19*** (0.01)
 Education industry	0.13*** (0.02)
 Blue-collar industry	0.14*** (0.01)
 Carework industry	0.01 (0.02)
 Public Administrative industry	0.16*** (0.02)
Constant	1.90*** (0.07)
Observations	15,903

1.3

Ordinary Least Squares (OLS) Regression Model of Gender Pay Inequity in Earnings

Note: CNYCA Analysis of EPI CPS extract; regression run on all full-time workers, standard errors reported in parenthesis; significance codes:

0 **** 0.001 *** 0.01 ** 0.05 * 0.1 . 1

Source: Economic Policy Institute; created with Datawrapper



APPENDIX 2

Measurements of Occupational Segregation

The Duncan Index of Dissimilarity offers a formal measurement of the degree of segregation by gender in the labor market by showing the percent of all female workers who would have to switch jobs in order to equalize the employment distributions between men and women.

This Duncan Index is defined as:

$$DI = \frac{1}{2} \sum_i |a_{mi} - a_{fi}|,$$






where a_{mi} is the share of males in the sample employed in occupation i , a_{fi} is the share of females in the sample employed in occupation i , and \sum_i sums across all occupations.

The Duncan Index yields the percent of all female workers who would have to switch jobs to equalize the employment distributions between men and women, with values ranging from zero (complete integration) to one (complete segregation).

Occupational segregation refers to the uneven distribution of men and women across job types. Such segregation is said

to be rooted in the transfer of gender-based domestic-role allocation into the labor market. This can contribute to the pay gap in two different ways: First, if women are clustered into occupations that are lower paying relative to male dominated ones, this will contribute to an overall pay gap; we call these across-occupation effects. Alternatively, if women's distribution across job-types is relatively equitable, but the pay structures within are relatively inequitable, then this too will contribute to an overall pay gap; we call these within-occupation effects.

We follow Zveglic and Rodgers (2004) in extending Oaxaca's (1973) decomposition to examine "the link between the shifts in relative occupational distributions and the changes in relative wages between two groups of workers" to decompose the overall gender pay gap into two component parts: one explained by distributional and pay differences across occupations, and another explained by distributional and pay differences within occupations.

Occupation	2003-2007	2008-2012	2013-2017	2018-2022
All Occupations				
Total Earnings Gap	14.0	12.2	11.5	13.7
Across-occupations Gap	-3.8	-5.4	-5.7	-5.6
Within-occupations Gap	17.8	17.6	17.3	19.3
% from Within-occupations Gap	127.1	144.0	149.5	140.9
 High-Wage Occupations: Management, Business, Computer, and Engineering				
Total Earnings Gap	17.0	17.2	18.6	22.0
Across-occupations Gap	-0.7	-0.7	0.1	3.0
Within-occupations Gap	17.7	17.8	18.5	19.0
% from Within-occupations Gap	104.4	103.8	99.7	86.5
 Middle-Wage White-Collar				
Total Earnings Gap	14.8	17.8	17.7	21.3
Across-occupations Gap	10.9	15.8	12.9	22.0
Within-occupations Gap	3.9	2.0	4.8	-0.6
% from Within-occupations Gap	26.2	11.1	27.2	-3.0
 Low-Wage Occupations				
Total Earnings Gap	15.2	12.7	12.3	13.8
Across-occupations Gap	4.1	2.3	1.3	12.2
Within-occupations Gap	11.1	10.4	11.1	1.6
% from Within-occupations Gap	73.0	81.9	89.7	11.7
 Blue-Collar Work				
Total Earnings Gap	33.7	31.3	24.3	24.6
Across-occupations Gap	17.4	19.4	14.0	11.3
Within-occupations Gap	16.2	11.8	10.3	13.3
% from Within-occupations Gap	48.3	37.8	42.4	54.1
 Carework				
Total Earnings Gap	28.1	30.8	28.9	22.1
Across-occupations Gap	13.0	22.7	15.1	16.7
Within-occupations Gap	15.1	8.1	13.8	5.3
% from Within-occupations Gap	53.7	26.2	47.7	24.1

2.1

Occupational Decomposition of the Gender Earnings Gap in New York City, 2003-2022, Results Reported in Log Points x 100

Note: CNYCA analysis of Economic Policy Institute. 2023. Current Population Survey Extracts, Version 1.0.40; full-time workers ages 16 and over.



APPENDIX 3

Full Ordinary Least Squares Wage Regression, New York City (2018-2022)







Figure 3.1 below summarizes the regression model, showing how variables affect earnings, measured in percentages relative to the baseline category. The dependent variable (wage earnings) was transformed into a logarithmic form, making the model a log-level model. Demographic and productivity characteristics are listed in the left-hand column, with measures of effect and precision shown in the right-hand column. For categorical variables (gender, race, education, industry), each variable is compared to a baseline category: all demographics are compared to a baseline of white men, all higher levels of education are compared to having less than a high school degree, and all industry categories are compared to a worker in the low-wage service industry.

$$\begin{aligned} \text{Log(wage)} = & \beta_0 + \beta_2 \text{ part time} + \beta_3 \log(\text{hours worked}) + \\ & \beta_4 \text{ high school} + \beta_5 \text{ some college} + \beta_6 \text{ college} \\ & + \beta_7 \text{ advanced degree} + \beta_8 \text{ experience} + \beta_9 \\ & (\text{experience})^2 + \beta_{10} \text{ POC} + \beta_{11} (\text{POC} \times \text{female}) \\ & + \beta_{12} \text{ married} + \beta_{13} (\text{married} \times \text{female}) + \beta_{14} \\ & \text{number of children} + \beta_{15} (\text{number of children} \times \\ & \text{female}) + \beta_{16} \text{ union} + \beta_{17} \text{ high wage industry} + \beta_{18} \\ & \text{middle wage industry} + \beta_{19} \text{ blue collar industry} \\ & + \beta_{20} \text{ education industry} + \beta_{21} \text{ care industry} + \\ & \beta_{22} \text{ public administration industry} + \sum \end{aligned}$$

Significant variables are marked with asterisks. An additional year's worth of experience, defined as age minus years in education minus five (typically the age children begin school), is associated with a 1 percent increase in earnings, holding all other variables constant. Married women saw a 12 percent penalty in earnings, holding other variables constant, while men saw a 10 percent bump in earnings, holding all other variables constant. Union membership was not significant.

There are increasing wage returns to having higher levels of education. In order to determine the effect of being a woman of color on wages, one must sum the effects of being a woman and being a woman of color. Holding all else constant therefore, a woman of color earns 23 percent less than white male workers, holding all else constant (the sum of the coefficients for the gender variable, the person of color variable, and the interactional variable, POC x Female).

The adjusted R² for the model is 0.37. A Breusch-Pagan Test to look for heteroskedasticity (or non-constant variance in the error term) was found to have a p-value less than 0.05 and a test-statistic of 195.68, suggesting the presence of heteroskedasticity, so we therefore present robust standard errors.

Variables	Wage Regression / Human Capital Function	Variables	Wage Regression / Human Capital Function
Constant	2.37*** (0.19)	Married	0.10 (0.04)
Female	-0.13* (0.06)	Number of Children	0.00 (0.01)
Part-time	-0.09*** (0.03)	Married x Female	-0.09. (0.05)
Log Hours Worked	0.09. (0.05)	Number of Children x Female	0.00 (0.02)
High School	0.18*** (0.03)	Union Member	0.01 (0.02)
Some College	0.25*** (0.03)	 High-wage industry	0.34*** (0.03)
College	0.60*** (0.04)	 Middle-wage industry	0.16*** (0.03)
Advanced Degree (BA+)	0.86*** (0.04)	 Education industry	0.18*** (0.04)
Experience	0.01*** (0.00)	 Blue-collar industry	0.08* (0.03)
Experience Squared	0.00*** (0.00)	 Carework industry	-0.07* (0.03)
Person of Color	-0.16* (0.03)	 Public Administrative industry	0.21*** (0.05)
POC x Female	0.06 (0.04)	Observations R ² / Adj R ²	3,439 0.37 / 0.36

3.1

Regression Model of Earnings for Full-time New York City Workers

Note: CNYCA Analysis of EPI CPS extract; OLS regression including full-time workers aged 16+; robust standard errors reported in parentheses; significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Endnotes

- 1 Sachdeva, Leena, Kumkum Bharti, and Mridul Maheshwari. 2021. *A Five-Decade Review of Gender-Based Occupational Segregation: A Bibliometric Study of Influential Authors, Institutions, and Research Clusters*. *Australian Journal of Career Development*.
- 2 Michelle Holder, “The ‘Double Gap’ and the Bottom Line,” Roosevelt Institute, March 2020. rooseveltinstitute.org/publications/the-double-gap-and-the-bottom-line-african-american-womens-wage-gap-and-corporate-profits/
- 3 These occupational categories have significant overlap with the industry categories used for the analysis in Part I. For a detailed list of all occupations included in these occupational groupings, see the U.S. Bureau of Labor Statistics, Major Occupational Groups: bls.gov/oes/current/oes_stru.htm



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