

PAY DISPARITIES IN THE NYC MUNICIPAL WORKFORCE



An Analysis of Employee Pay
& Demographic Data



New York City Council
Data Team

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

In 2019, the New York City Council (Council) passed Local Law 18,¹ also known as the “Pay Equity Law,” to identify pay disparities among municipal employees of the City of New York (City) observed between race, ethnicity, gender, and other protected classes. The Pay Equity Law requires the Mayor’s Office of Data Analytics (MODA) to report City municipal employee pay data publicly and to provide the Council with direct access to the data to facilitate the Council’s own statistical analysis.

Since 2021, the Council’s Legislative Division and Data Team have issued reports² analyzing the data provided pursuant to Local Law 18 and have concluded that large pay gaps between male and female workers and white and non-white workers were the result of occupational segregation.ⁱ While there is essentially equal pay for all individuals regardless of gender and/or race within the same civil service title, occupational segregation and pay differences between occupations lead to large gender and racial pay gaps within the municipal workforce. Building upon those findings, this report examines how segregation both across and within City agencies contributes to the pay gaps, how data on large agencies skew the data and mask pay gaps, and how the low pay of non-white female employees accounts for large portions of pay disparities within the municipal workforce. Although there have been small gains in narrowing pay gaps over time, stagnant job segregation has prevented greater progress. To address these challenges, this report recommends diversifying well-paying career tracks that are currently predominantly held by male and white workers. Through simulations, the Data Team demonstrates that diversifying such titles would produce substantial reductions in the municipal workforce’s gender and racial pay gaps. Motivated by these findings, the report suggests legislative and policy approaches to reduce municipal pay gaps.

This report seeks to:

1. Compare the demographics of the municipal workforce to those of NYC’s working population as a whole and discuss how municipal employee demographics have changed over time, both citywide and at the agency level.
2. Illustrate how occupational segregation and pay disparities across and within agencies contribute significantly to pay gaps.
3. Demonstrate how pay disparities are most attributable to the low salaries paid to non-white female employees in the municipal workforce.
4. Identify and recommend possible avenues to close pay gaps in the municipal workforce.

Summary of Findings (Data as of 2021)

Racial/ethnic diversification has outpaced that of gender in the municipal workforce. Of agencies with over 100 employees, 13 agencies saw a significant increase in the percentage of non-white employees from fiscal year 2012 (FY 2012) to fiscal year 2021 (FY 2021). Only three agencies saw a significant increase in the percentage of female employees. Of those three agencies with female employee increases, only one agency had an under-representation of female employees.ⁱⁱ

ⁱ Occupational segregation is the uneven distribution of workers by race and gender across occupations.

ⁱⁱ Information on employee demographics and pay change from FY 2012-2021 is drawn from the Department of Citywide Administrative Services’ (DCAS) Workforce Profile Report. See Id., at p. 10.

Several agencies’ racial/ethnic or gender compositions differ greatly from the demographics of NYC. The Department of Homeless Services (DHS), Department of Probation (DOP), Administration for Children’s Services (ACS), Department of Correction (DOC), and the Fire Department (FDNY) are the least racially diverse agencies. The Department of Sanitation (DSNY) and FDNY lack racial diversity and gender diversity, with DSNY being 9% female and 51% white, and FDNY being 12% female and 62% white.ⁱⁱⁱ

Pay disparities are largely attributable to the low pay of non-white female employees in the municipal workforce. Non-white female employees are concentrated in particularly low-paying roles, even relative to white female employees and non-white male employees, and this explains large portions of the municipal pay gaps. For every dollar earned by white male employees, all other workers earn on average \$0.82. Of this pay gap, white female employees account for 13.1%, non-white male employees 31.5%, and **non-white female employees 55.4%**. Non-white workers earn \$0.84 for every dollar earned by white workers, with non-white male employees accounting for 32.4% and **non-white female employees accounting for 67.6%** of this gap. Female employees earn \$0.84 for every dollar earned by male employees, with white female employees accounting for 15% and **non-white female employees 85%** of this pay gap.

Across the municipal workforce, non-white female employees saw the smallest improvement in their pay gap between 2018 and 2021. **Across agencies**, those that are predominantly non-white and female tend to have below-median salaries, while those with few non-white female employees tend to surpass the municipal workforce’s median pay. **Across titles**, as the share of non-white female employees increases in a job title, median salary decreases and salaries fall below the title’s salary band midpoint (the midpoint of each job title’s fixed minimum and maximum salary).

High concentrations of certain employees in particular municipal positions mask pay disparities across and within agencies. Exclusion of data on the uniformed workforce (employees who wear uniforms to identify themselves and whose roles involve public safety, law enforcement, emergency response, and similar functions) or the inclusion of data on the Department of Education’s (DOE) pedagogical employees^{iv} significantly reduces the overall municipal gender and race/ethnicity pay gaps, even as significant disparities remain. The gender pay gap shrinks by 16% when uniformed workers are removed from the analysis. Given the number of well-paid female employees in DOE, including data on DOE pedagogical employees would reduce the gender pay gap by around 90%. While difficult to estimate, including DOE data would also reduce the racial pay gap by, at most, 40-50%. However, despite these pay gap reductions, the fact would remain that non-white female employees in DOE continue to earn significantly less than their counterparts and that female employees across the remaining municipal workforce earn significantly less than male employees on average.

Uniformed agencies and those agencies related to science and technology (such as the Office of Technology and Innovation (OTI), Department of Environmental Protection (DEP), and Department of Transportation (DOT)) have large within-agency gender pay gaps. While there are titles exhibiting gender parity within these agencies, most employees are concentrated in either higher-paying, predominantly male positions, or lower-paying, predominantly

ⁱⁱⁱ Diversity indices, or similarity/dissimilarity scores, were calculated using FY 2012-2021 data from the DCAS Workforce Profile Report (see Id., at p.10) and Census Bureau Estimates from the 5-Year American Community Survey (see Id., at p.11). More information on the methodology is available in the Appendix.

^{iv} Local Law X/2023 amended the original Pay Equity Law to require DOE pedagogues to be included in the data provided to the Council beginning the year following its enactment. For this analysis, DOE’s impact on the City’s observed pay gaps is estimated using the DCAS Workforce Profile Report, which includes the entire DOE employee population.

female titles. Agencies with the highest percentage of female employees consistently have median salaries below the City workforce’s median, while those with the lowest percentage of female employees have salaries above the median. The same pattern holds for agencies with the highest and lowest percentages of non-white employees.

Overall headcount reductions during COVID-19 disproportionately affected agencies that were predominantly female or non-white. Agencies that are predominantly female and/or non-white, such as DHS, HRA/DSS DOP, and DOE, experienced substantial reductions in headcount after COVID-19. This is especially the case for DHS, which experienced an almost 19% headcount decrease. In contrast, agencies with predominantly male and/or white employees, such as the NYPD, DSNY, DOT, FDNY, and OTI, maintained relatively stable headcounts, with decreases below 5% or increases no greater than 4%.

The City can achieve substantial reductions in both the gender and racial pay gaps by diversifying well-paying career tracks that are currently predominantly male and white. The Data Team’s simulation to align the gender composition of 18 well-paying, populous^v, predominantly male titles with the gender composition of the labor force of NYC overall resulted in a 37% reduction in the gender pay gap. Similarly, the Team’s simulation to align the racial composition of 18 well-paying, populous, predominantly white titles with the racial composition of the labor force of NYC overall resulted in a 24% reduction in the racial pay gap. Without interventions to diversify high-paying, promotional roles, or increase pay for undervalued titles, it will take decades to significantly reduce the gender and racial pay gaps in the municipal workforce.

Recommendations

1. Continue oversight and implementation over existing Pay Equity Laws. The Council will continue to conduct oversight on the implementation of laws intended to bring about pay equity, with a particular focus on Local Law 27 of 2023, which required the City to conduct a comparable worth analysis to examine whether titles are being valued appropriately.
2. Pursue legislation to establish a municipal career counselor within the Department of Citywide Administrative Services (DCAS) to advise municipal employees of professional growth and promotional opportunities, and to provide guidance regarding the process of taking promotional exams and agency training courses.
3. Pursue legislation to require the distribution of workplace culture surveys to municipal employees. Surveys would offer employees the opportunity to provide feedback on perceived barriers to promotion, adverse working conditions that may motivate employees to leave the civil service, and ideas for workplace improvement.
4. Pursue a resolution to call for the State to reexamine requirements regarding the ranking of eligible candidates for promotions to better recognize highly skilled and motivated employees.

^v As used in section entitled “Targeting Titles for Intervention”, the term “populous” means titles that have more than 450 employees.



BACKGROUND

BACKGROUND

The Pay Equity Law and Related Legislation

Local Law 18 of 2019, also known as The Pay Equity Law, expanded access to the City's data to uncover pay disparities among the municipal workforce, and enabled the City to develop and implement solutions to achieve pay equity. Under the law, MODA must publicly report aggregated City pay data annually and assess it for disparities based on gender, race, and ethnicity. The Pay Equity Law also entitles the Council to directly access NYC employee pay data via an Application Programming Interface, or API, to facilitate independent verification of MODA's findings. The Pay Equity Law is the first ever local law that grants the Council direct access to individualized data in this way, making this analysis possible. In the years since Local Law 18 was passed, the Council has passed additional legislation and introduced new initiatives to improve upon existing data collection and diversify recruitment efforts across the City's workforce.

- **Local Law 27 of 2023** requires the City to contract with an outside expert to conduct a comparable worth analysis. This local law also requires agency heads to adopt and implement annual plans to provide equal employment opportunities. As of February 2024, DCAS has not yet selected a contractor to conduct this comparable worth analysis.
- **Local Law 28 of 2023** requires DCAS to report data on applicants for civil service examinations and agency training programs. Additionally, the Office of Diversity and Inclusion is required to conduct training sessions for City agencies to evaluate job postings and recruitment practices for unconscious biases, which may alienate diverse applicants.
- **Local Law 29 of 2023** amended the Pay Equity Law by requiring DCAS to collect and provide additional employment data, such as DOE pedagogical data, a job title's status as a uniform or non-uniform position, amounts of leave or overtime pay accrued by employees, and other information. Furthermore, starting in 2024, the data that the City provides to the Council will be required to have an assigned unique identifier number for each employee whose employment data is analyzed; this will allow the Data Team to track employees through time, and garner a better understanding of career trajectories.
- **Local Laws 116, 117, 118, 119, and 120 of 2022** address equity in the FDNY, and require FDNY to take measures to implement recruitment and retention of populations that are under-represented in the firefighter rank. FDNY is required to submit reports on their recruitment and retention efforts, their diversity improvement strategies, and the complaints filed with the FDNY's Equal Employment Opportunity Office.
- **Local Law 67 of 2017** prohibits employers from inquiring about job applicants' past salary history and prohibits the use of an applicant's prior salaries to determine their future wages.
- **Local Law 2 of 2023** created the Civil Service Ambassador Program and requires DCAS to conduct a citywide educational outreach program to provide information about the various pathways into the civil service.
- **Local Law 130 of 2023** requires DCAS to design comprehensive exit surveys, which agency heads are required to distribute to departing employees (employees who are resigning or retiring), to complete voluntarily.
- **The Civil Service Pathways Fellowship (CSP)** is a collaborative effort between DCAS and City University of New York (CUNY) schools. This fellowship program connects recent graduates with careers in the municipal workforce and has been a meaningful initiative to recruit diverse applicants. Over two-thirds of CUNY Fellows are employees of color, and over half of the individuals who participated in the CSP program are still working for the City.



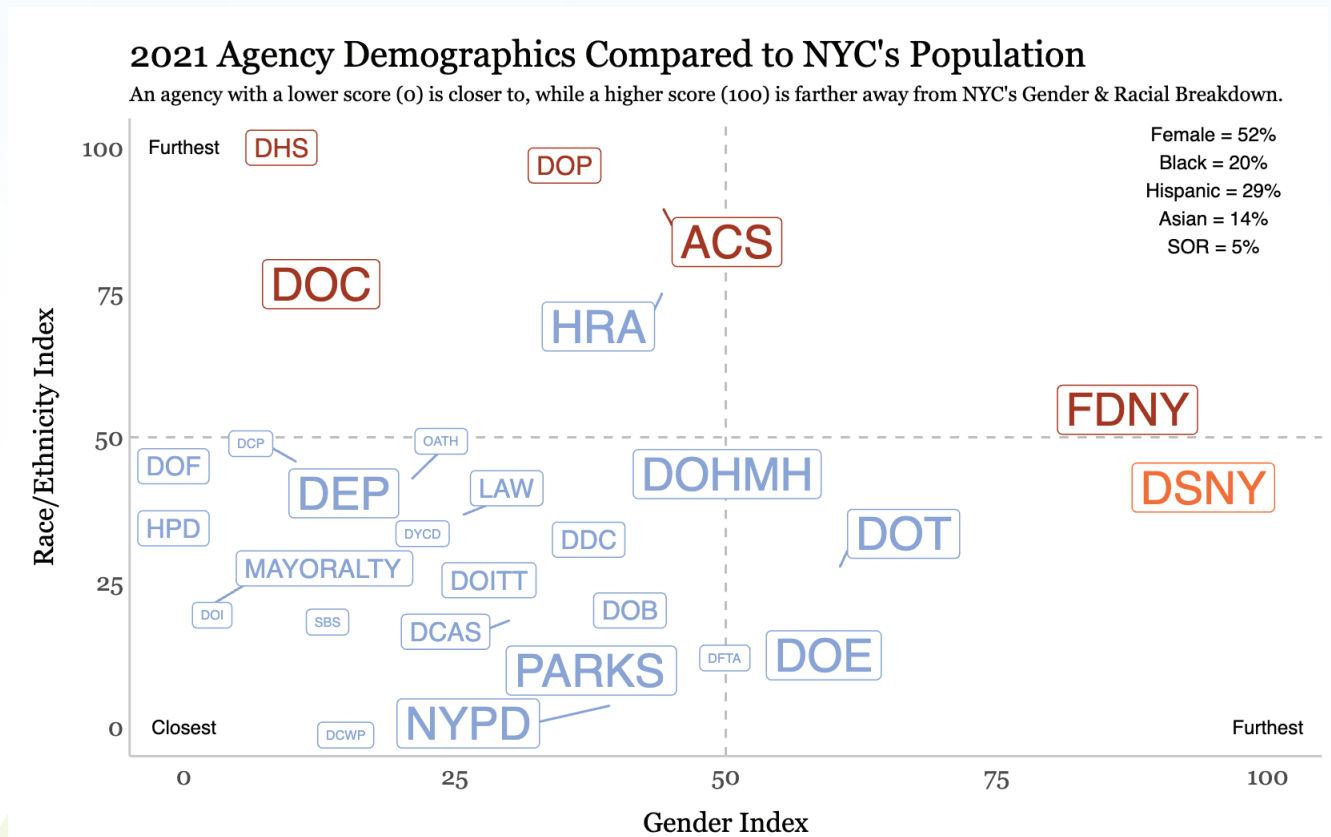
**RACIAL
DIVERSIFICATION
OUTPACED
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DIVERSIFICATION**

RACIAL DIVERSIFICATION OUTPACED GENDER DIVERSIFICATION

Marginal Progress Since 2012

Utilizing data from the *DCAS Workforce Profile Report*, the Data Team monitored diversification from FY 2012 onward. The Team created an index to measure the similarity or dissimilarity of agency demographic compositions compared to the broader NYC working population.^{vi} In Figure 1 below, the racial/ethnic and gender diversity indices are assessed along the two axes. Agencies aligning most closely with the racial/ethnic and gender compositions of NYC's entire labor force appear in the bottom left quadrant. Label size reflects how many workers the agency employs. **Blue indicates better** while **red indicates worse diversity performance**, meaning an agency scored over 80 on either racial/ethnic or gender axis. **The brighter, orange-red indicates that the agency moved from blue to red from FY 2012 to FY 2021.**

Figure 1. Agency Similarity or Dissimilarity Scores: 2021 Agency Demographics Compared to NYC's Working Population



An agency with a lower score (0) is closer to, while a higher score (100) is farther away from NYC's Gender & Racial breakdown.

^{vi} There are different ways to measure diversity and decisions on the appropriate cutoffs when evaluating diversity. The Team decided to use NYC's gender and racial/ethnic demographic breakdowns as the cutoffs and a proximity or distance measure to evaluate diversity. More information on the methodology is available in the Appendix.

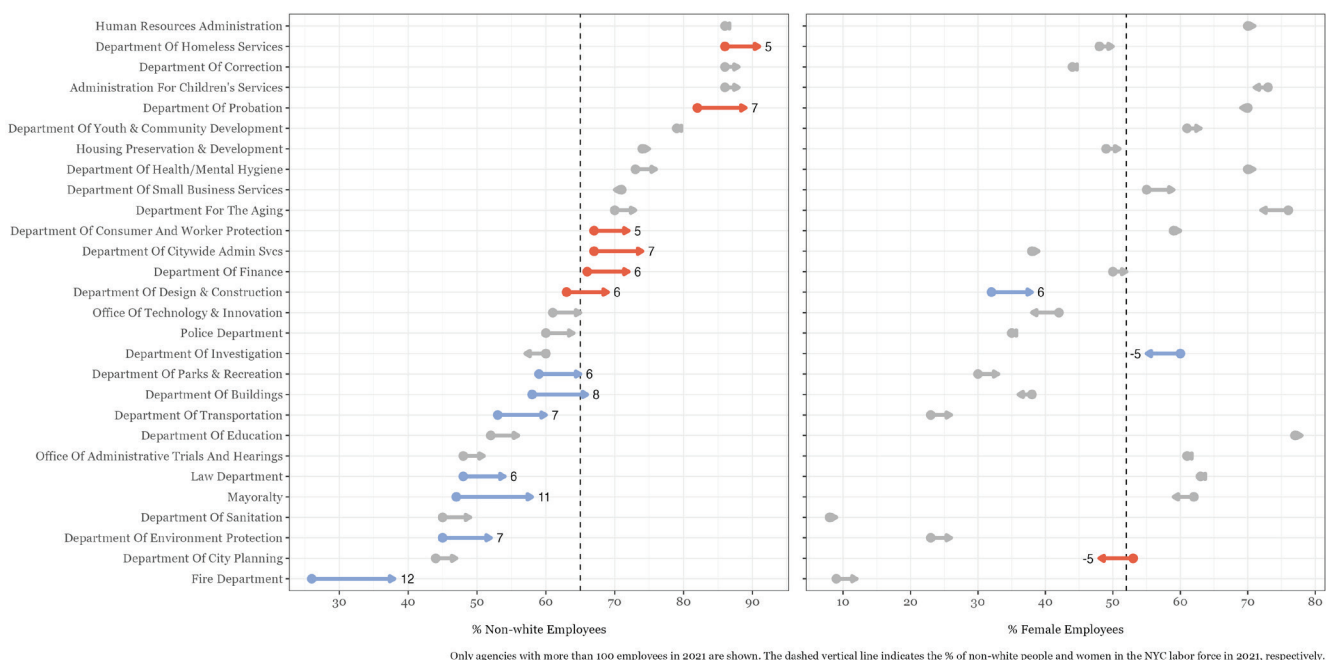
Most agencies (78%) are doing well in terms of diversity. These agencies include the Department of Investigation (DOI), Department of Small Business Services (SBS), and Department of Consumer and Worker Protection (DCWP), among others. Conversely, FDNY, in the top right quadrant, stands out as the poorest performing, with both high gender dissimilarity (12% female) and race/ethnicity dissimilarity (62% white). As agency demographics skew farther from the racial composition of the overall NYC labor force, they are indicated higher on this graph. As agency demographics skew farther from the gender composition of the overall NYC labor force, they are indicated farther to the right. Agencies in the top left and bottom right are low-performing in terms of race/ethnicity diversity and gender diversity, respectively. DHS, DOP, ACS, and DOC lack racial diversity, whereas DSNY and FDNY (in addition to lacking racial diversity) lack gender diversity. For example, the percentage of female workers at DSNY only increased by one percentage point, from 8% to 9%, from FY 2012 to FY 2021, despite the composition of female employees in NYC's labor force increasing by three percentage points, from 49% to 52%.

Looking at racial and gender diversification separately, Figure 2 below illustrates how diversity has changed for each agency from FY 2012 to FY 2021. Out of 28 agencies with over 100 employees in 2021, 13 agencies saw significant increases (more than five percentage points) in their share of non-white employees between FY 2012 and FY 2021.

Within those 13 agencies, eight saw increases in their non-white workforce that moved the agency towards the racial/ethnic composition of NYC's labor force. The other five agencies saw increases towards the over-representation of non-white workers, with DOC and DHS as two notable standouts that already were over 80% non-white in FY 2012. Notably, no agency experienced a significant decrease in their non-white share of employees from FY 2012 to FY 2021.

In contrast, agencies experienced relatively little change in their gender composition over time. Out of the same 28 agencies, only three agencies saw a change in their gender composition that was greater than five percentage points, with the Department of Design and Construction (DDC) being the only one of those agencies where female employees were under-represented in FY 2012.

Figure 2. Agency Demographic Composition Changes Over Time (Percentage Points)



Similar results can be seen within career ladders. Using the top 10 most populous titles from the *DCAS Workforce Profile Report*, Figure 3 below shows the career ladder within the police service. The higher the position on the career ladder, the higher the percentage of male and white employees. Nevertheless, there was improvement from FY 2012 to FY 2021. In 2012, police captains were 82% white, but this decreased to 66% by 2021, a decline of 16 percentage points. In contrast, the improvement in gender diversity is much smaller, with only a three percentage point decrease in the male share of police captains over time.

Figure 3. Career Ladder Example: Police Service

TITLE	Count		Median Salary		% Male		% White	
	2021	2012	2021	2012	2021	2012	2021	2012
Police Officer	29,665	27,401	\$85k	\$78k	80%	82%	43%	49%
Sergeant	4,684	4,651	\$109k	\$99k	84%	83%	51%	59%
Lieutenant	1,825	1,756	\$136k	\$114k	88%	90%	57%	72%
Captain	790	762	\$180k	\$147k	90%	93%	66%	82%

Workplace culture is a factor that affects the retention and likelihood of promotion of female and non-white employees. However, changes in culture are difficult to quantify. Future analyses should seek to better understand whether the workplace culture in certain agencies is improving based on feedback from employees of those agencies.

Benchmark Considerations

While not explored in this report, the Data Team acknowledges that NYC’s overall workforce population may not be the most appropriate benchmark for certain jobs, particularly those with eligibility criteria extending beyond typical qualifications. For instance, jobs such as police officers³ and firefighters,⁴ have specific age limitations and citizenship requirements, and also entail physical, medical, and psychological examinations. A study focusing on diversifying the U.S. Air Force highlights that eligibility and fitness requirements like these will result in the disqualification of various groups at different rates.⁵ Additionally, the study identifies unquantifiable differences in preference for military service among demographic groups. When compared to the general population, the study found that only eight million people (10.8%) meet the age, citizenship, and health requirements out of the 71.8 million who meet the age requirement alone. Consequently, the general population, including the labor force, may not be a suitable benchmark for titles with heightened eligibility and fitness requirements. Instead, a benchmark based on the racial/ethnic and gender distributions of a population meeting eligibility requirements would be more appropriate.

Although a more suitable benchmark should be considered, the reevaluation of eligibility requirements must also be explored, considering that these criteria may be outdated and may unnecessarily disqualify a significant portion of the population. Key questions to pose to the NYPD and FDNY include how frequently, if at all, eligibility requirements are reevaluated, and whether other factors, such as technological advancements, are taken into consideration.



**OCCUPATIONAL
SEGREGATION
EXPLAINS THE
CITYWIDE PAY
GAPS**

OCCUPATIONAL SEGREGATION EXPLAINS THE CITYWIDE PAY GAPS

Across and within agencies

Large agencies within City government serve as a comprehensive lens for examining job segregation at various levels—Citywide, across agencies, and within them. The analysis demonstrates how demographic disparities and pay disparities across agencies contribute to the gender and racial municipal pay gaps. Additionally, the data indicate that occupational segregation is not only an issue across agencies, but also within them. Occupational segregation within agencies, combined with pay disparities across roles within agencies, contributes significantly to the City’s pay gaps.

Citywide pay gaps

Figure 4. Unadjusted Gender Pay Gaps Alone

GENDER	COUNT	MEDIAN SALARY	CENTS ON THE DOLLAR
Male	91,068	\$85,292	\$1.00
Female	60,125	\$62,166	\$0.73
<i>Unknown</i>	<i>296</i>	<i>\$85,218</i>	<i>\$1.00</i>
<i>Non-Binary</i>	<i>75</i>	<i>\$68,048</i>	<i>\$0.80</i>
<i>Other</i>	<i>29</i>	<i>\$92,073</i>	<i>\$1.08</i>

**Grayed values are to be interpreted with caution due to low counts*

Figure 5. Unadjusted Race/Ethnicity Pay Gaps Alone

RACE/ETHNICITY	COUNT	MEDIAN SALARY	CENTS ON THE DOLLAR	% CHANGE '18-'21
White	45,090	\$85,292	\$1.00	0%
Black or African American	41,785	\$62,055	\$0.73	9%
Hispanic or Latino	29,598	\$67,196	\$0.79	7%
Asian	13,659	\$75,971	\$0.89	7%
<i>Ethnicity Unkown</i>	<i>18,767</i>	<i>\$70,467</i>	<i>\$0.83</i>	<i>12%</i>
<i>Other Race</i>	<i>2,694</i>	<i>\$64,406</i>	<i>\$0.76</i>	<i>36%</i>

**Grayed values are to be interpreted with caution due to ambiguous category classification*

Figures 4 and 5 present the gender and race/ethnicity pay gaps. With no improvement from 2018 to 2021, female employees continue to earn only \$0.73 for every dollar earned by male employees. In contrast, there have been improvements in the race/ethnicity pay gap over time, with Black or African American employees seeing the largest gains despite continuing to have the widest pay gap, earning \$0.73 for every dollar earned by white employees in 2021.

While these municipal pay gap numbers are important, they represent a general picture, and their high level of aggregation hides more specific detail. To dig deeper, the Data Team examined large agencies. Given the size of their workforces, such agencies can significantly influence the Citywide pay gap data. These pay gaps partly stem from occupational segregation across agencies—many agencies have over- or under-representation of specific racial/ethnic and/or gender groups. In conjunction with pay disparities across agencies, this segregation contributes to the observed pay gaps.

Uniformed Workforce

In the municipal workforce, the largest employee group is not an individual agency but the uniformed workforce. Excluding civilian employees, uniformed employees within the NYPD, FDNY, DOC, and DSNY total 66,500 employees, or 44% of the municipal workforce. This workforce is 82% male and close to 40% white, with a median salary of \$85,292. In contrast, the remaining 56% of the workforce has a higher proportion of female employees and non-white individuals and has a median salary of \$62,899.

When excluding uniformed employees, the gender pay gap shrinks by 16%. However, the race/ethnicity pay gap between Hispanic or Latino and white employees widens slightly, while the pay gap between the other race/ethnicities and white workers stays the same. This demonstrates that, while the uniformed workforce contributes to the municipal workforce pay gaps, it is not solely responsible for these gaps.

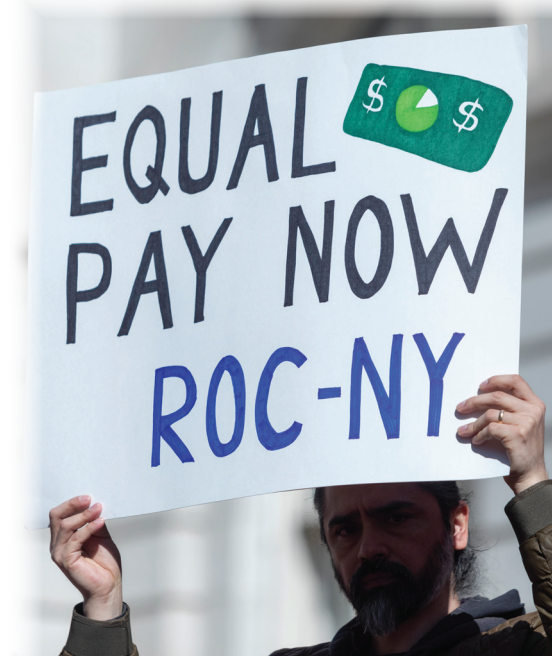
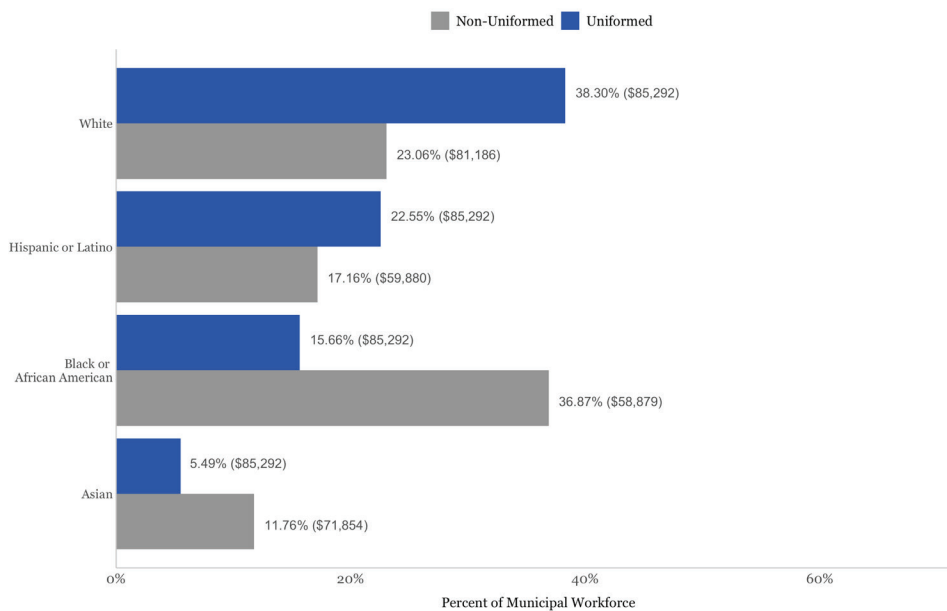
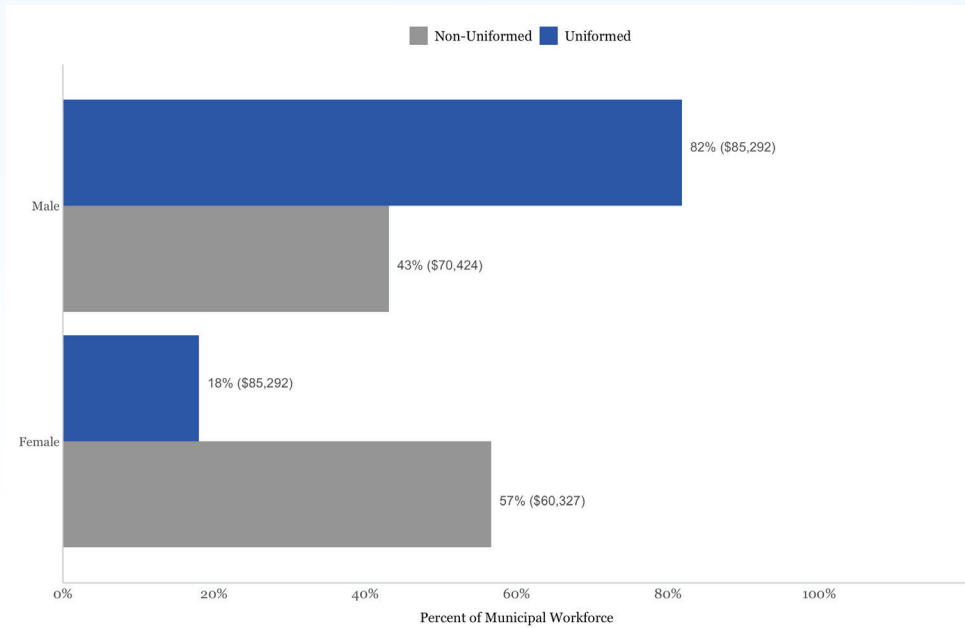


Figure 6. Municipal Workforce by Uniformed or Not

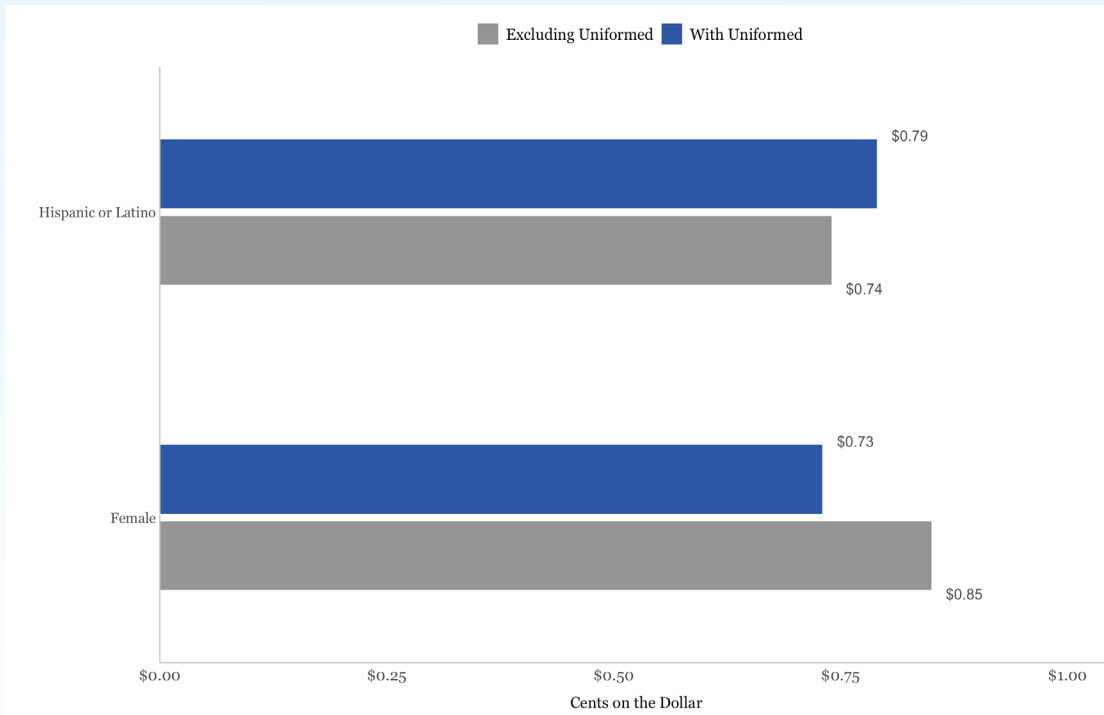
TITLE	COUNT	PERCENT	MEDIAN SALARY
Uniformed	66,512	43.8%	\$85,292
Non-Uniformed	85,081	56.1%	\$62,899

Figure 7. Uniformed Workforce by Gender & Race/Ethnicity



vii Percentages do not sum to 100% in the race/ethnicity figure above because it excludes groups with small sample sizes.

Figure 8. Effects to the Pay Gap When Removing the Uniformed Workforce

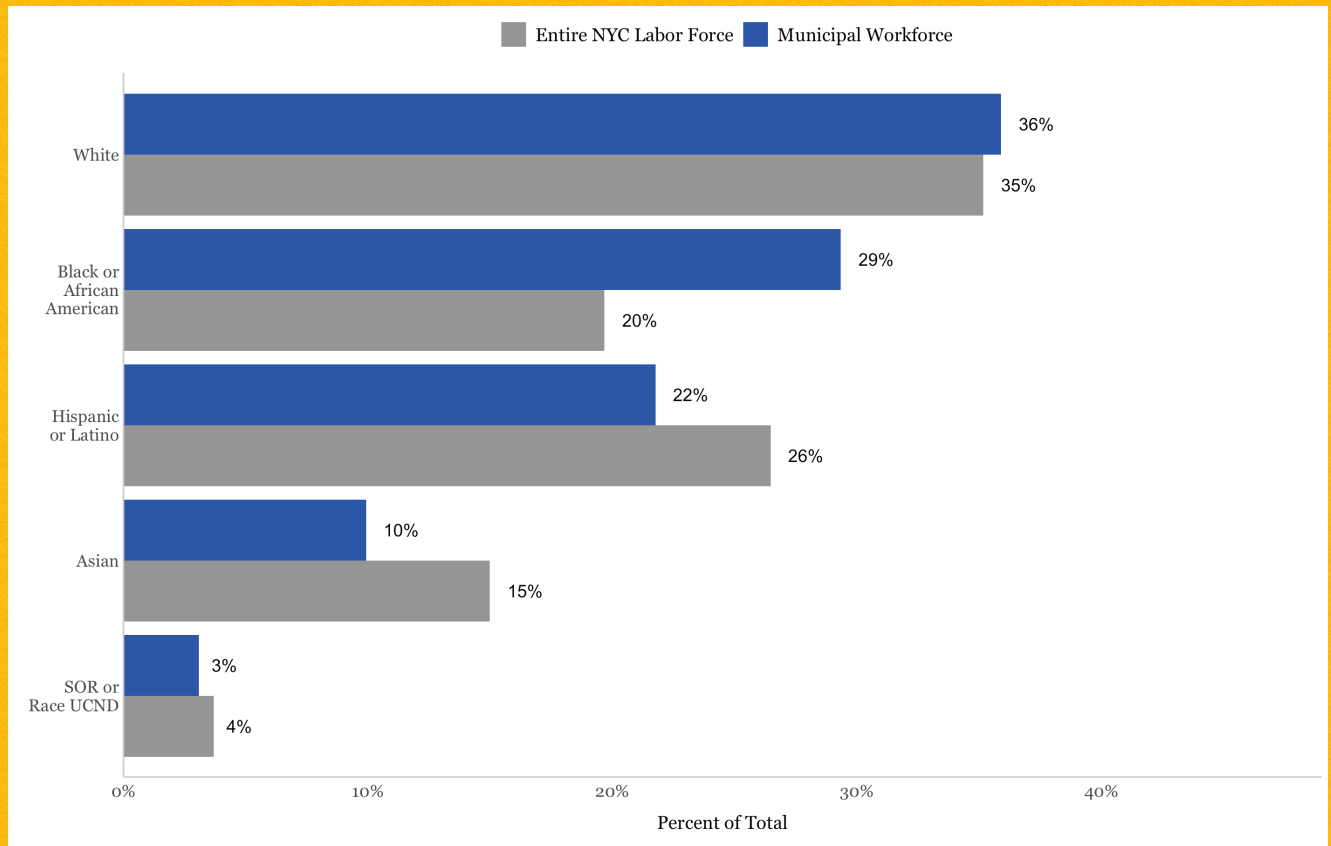


DEMOGRAPHIC COMPOSITION CHANGES IN THE MUNICIPAL WORKFORCE

Over-representation of Female employees and Black or African American employees in the municipal workforce

To assess occupational segregation, the Data Team compared the demographic makeup of the municipal workforce to that of NYC’s entire working population, which includes both the public and private sectors. When comparing the two, the Team found that the share of white workers in the municipal workforce closely mirrors that of the city’s entire labor force. Furthermore, there is a minor under-representation of Hispanic or Latino, Asian, and individuals identifying as other, with municipal employees trailing the overall NYC labor force by four, five, and one percentage points, respectively. The Black or African American share of the municipal workforce deviates the most from the city’s overall labor force. Black or African Americans are over-represented by nine percentage points, constituting 29% of the municipal workforce compared to only 20% of the city’s labor force. Similarly, female municipal employees are over-represented by six percentage points, constituting 58% of the municipal workforce compared to 52% of the city’s labor force. The over-representation of Black female employees within the municipal workforce leaves them at disproportionately higher risk of losing their jobs during government layoffs, hiring freezes, or fiscal crises.⁶

Figure 9. Municipal Employees Compared to Entire NYC Labor Force

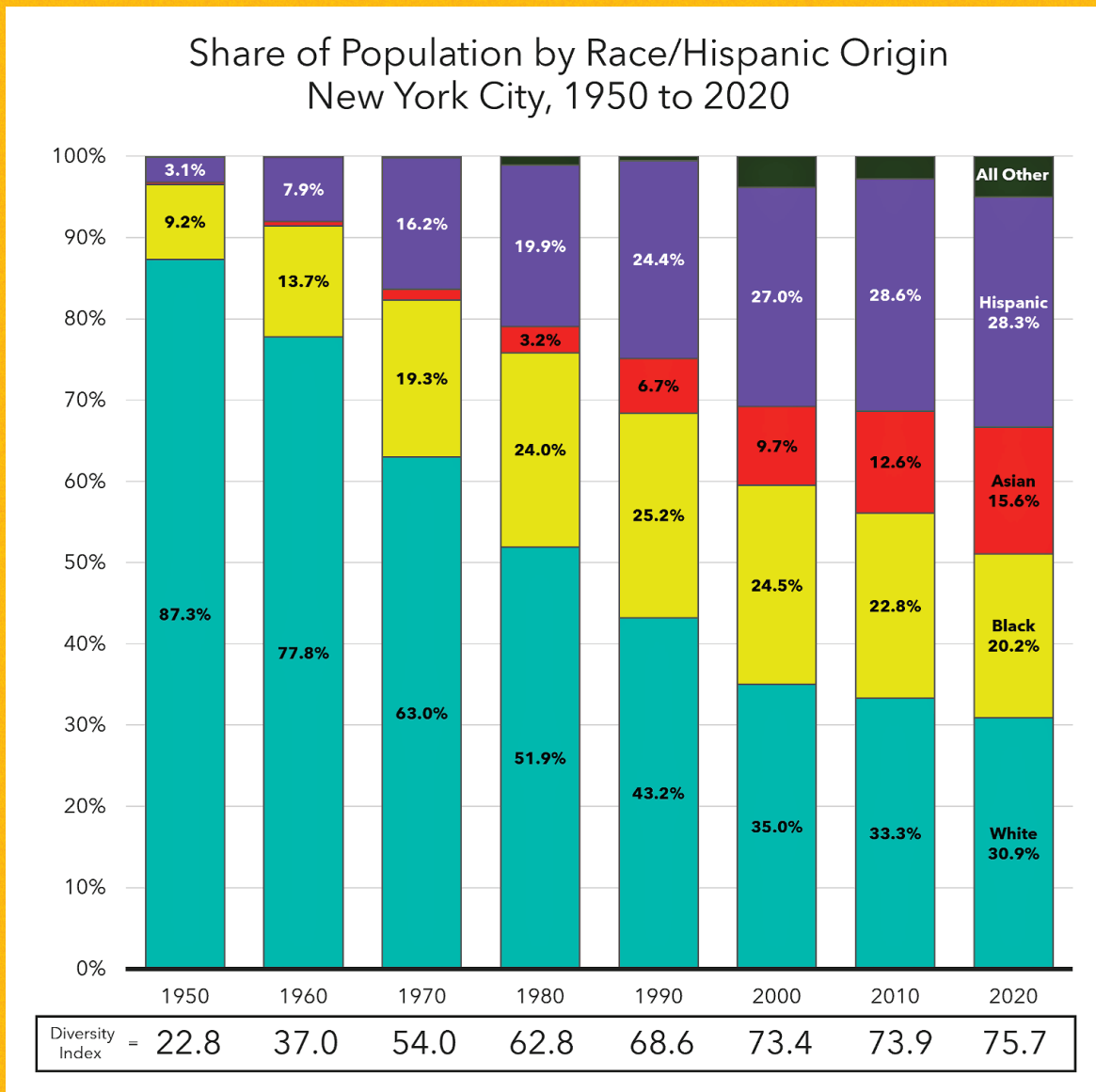


Analyses conducted by think tanks and academic institutions have yielded similar findings. Nationally, Black or African American employees and female employees are over-represented in the public sector relative to their share of the private sector. According to an Economic Policy Institute report, policy & legislative actions taken during the Civil Rights era increased female and Black employment in government.⁷

Growing Hispanic or Latino and Asian Representation

It is important to note broader demographic trends, as they influence and alter diversity benchmarks. As indicated by Census data and the DCP in their report *Stability & Change in NYC Neighborhoods, 2010 to 2020*,⁸ NYC's overall population composition is experiencing a shift, with a decreasing proportion of white and Black or African American individuals, and an increasing proportion of Hispanic or Latino, Asian, and individuals of other racial backgrounds. These demographic trends are seen within both the overall NYC working population and the municipal workforce. The share of Black or African American employees and white employees within the municipal workforce have decreased by two and four percentage points, respectively, from 2012 to 2021, while shares of Hispanic or Latino employees, Asian employees, and employees identifying as some other race have increased by three, two, and one percentage points, respectively, as indicated in the *DCAS Workforce Profile Report*.

Figure 10. Race/Ethnicity Composition Over Time (Stability & Change in NYC Neighborhoods, 2010 to 2020 Report)



From the latest census in 2020, NYC's population is increasingly diverse. With no racial demographic group surpassing one-third of the entire population, there is an approximately 76% chance that two individuals chosen at random in NYC would be of different racial/ethnic groups.

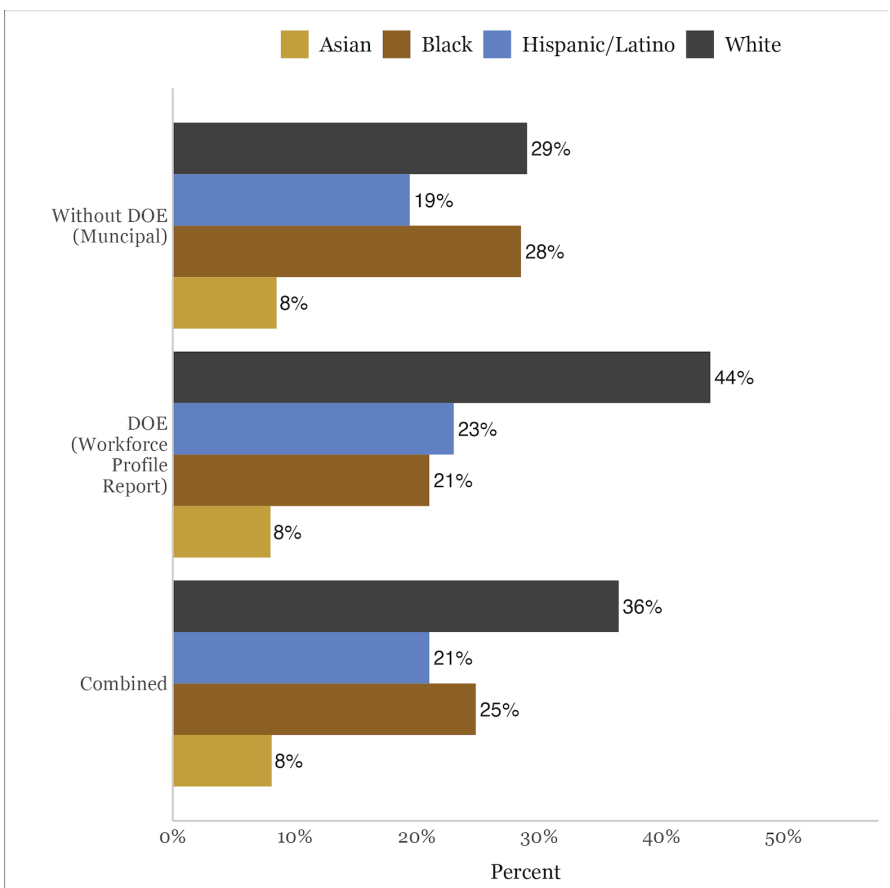
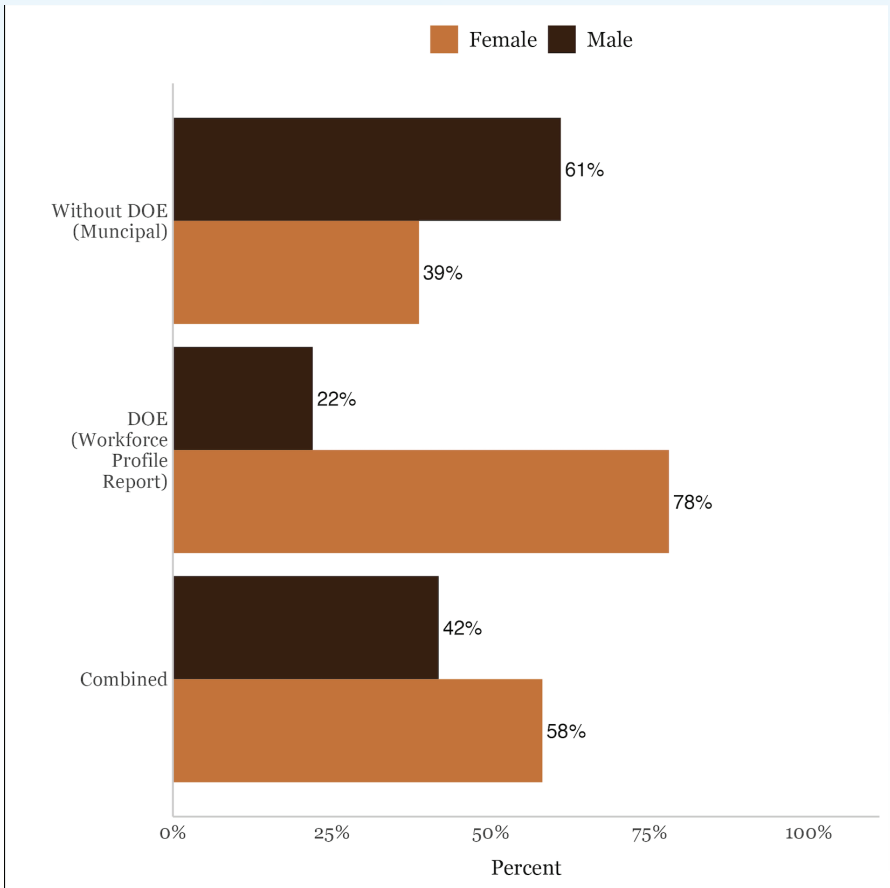
Department of Education

DOE is the City's largest agency, comprising nearly 150,000 employees. It is predominantly female (78%), with an almost even split between white (44%) and non-white (56%) employees, and a median salary of \$89,890. Notably, DOE pedagogical staff are currently absent from the Pay Equity Law data but are required to be included in the data in upcoming years. The incorporation of these employees would nearly double the amount of data to be analyzed, due to the agency's size.

As the largest agency, DOE has a large influence on the municipal gender and race/ethnicity pay gaps. To estimate its impact, the Data Team incorporated DOE employee data from the *Workforce Profile Report*.⁹ The inclusion of this data flips the gender composition of the City workforce to roughly 60% female and 40% male from where it currently stands at 40% female and 60% male. Due to the fact that many female employees at DOE are paid more than the average female salary in the remaining municipal workforce, including DOE data would reduce the gender pay gap by around 90%. While difficult to estimate, including DOE would also reduce the racial pay gap by, at most, 40-50%. Therefore, including DOE numbers would make the municipal pay gaps appear significantly smaller. However, as noted, these Citywide numbers do not fully reveal disparities within DOE itself as well as the large gender and race disparities within and across other agencies. It is important to use the Citywide numbers as only one measure of how the City is doing, and to recognize the outsized impact of large agencies and the large disparities that continue to exist within and across other agencies.

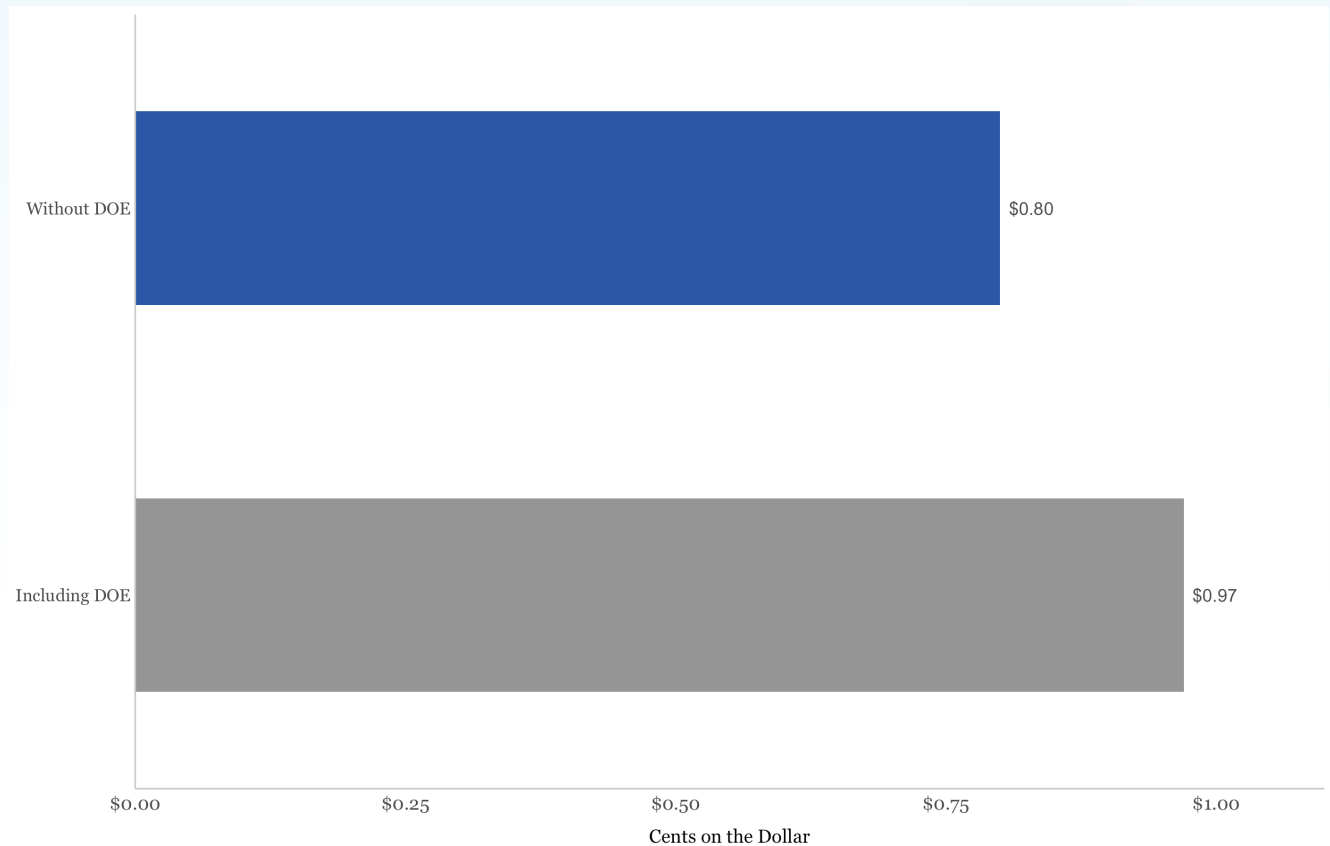


Figure 11. Gender and Race/Ethnicity Compositions for DOE, without and with DOE



As mentioned above, the inclusion of DOE data reduces the municipal gender pay gap significantly. Using the mean salary, female employees earn \$0.80 on average for every dollar earned by their male counterparts when DOE is not included; however, this figure changes to \$0.97 when DOE is included. Thus, the gender pay gap is reduced from 20% to around 3%. The 97-cents-on-the-dollar aligns more closely with the 90-cents-on-the-dollar that female employees earn in the entire NYC workforce.¹⁰ As noted, this DOE-inclusive Citywide pay gap figure may create misconceptions regarding the state of occupational segregation and pay disparities, particularly along racial lines, within agencies.

Figure 12. Effects to the Gender Pay Gap When Including DOE



Pay Gaps Between Agencies

Focusing on the Citywide numbers masks how segregation and pay disparities across agencies contribute to the overall pay gaps. By examining the data at the agency level, the relationship between the differences in median salaries and the over/under-representation of specific genders and/or racial/ethnic groups is observed.

When examining the relationship between agency gender composition and median salary, the five agencies with the highest percentage of female employees all exhibit median salaries that fall below the City municipal workforce's median of \$75,933. Conversely, the five agencies with the lowest percentage of female employees all have median salaries above the Citywide median. A similar pattern emerges when considering agencies with the highest and lowest percentage of non-white employees. The agencies with the highest shares of non-white employees all have median salaries below the City median, while those with the lowest shares of non-white employees tend to have median salaries above the City median.

DOE stands out as an exception to this, diverging from the trends observed in other agencies with higher concentrations of female employees. DOE has the highest percentage of female employees, at 78% female. Despite this over-representation of female employees, DOE's median salary of \$89,890 is well above the City median, and similar to agencies that have a higher concentration of male and white employees.

When the Data Team examined agencies with the highest and lowest percentage of female or non-white employees, HRA/DSS and FDNY stood out as the worst paying and best paying, respectively. HRA/DSS has the lowest median salary at \$54,100 and is 71% female and 79% non-white. Conversely, FDNY has the highest median salary at \$92,073 and is only 12% female and 33% non-white.

Historically, titles in ACS, DOHMH, DOE, DHS, and HRA/DSS have been primarily occupied by female and non-white employees, and receive lower salaries. Alternatively, titles in DSNY, FDNY, NYPD, DOT, DEP, and DCP have traditionally been occupied by a higher concentration of male and white employees and receive higher salaries. These demographic trends continue to feed into career valuation perceptions informed by gender roles, where jobs in healthcare, early education, and domestic roles are undervalued when compared to careers involving science, technology, engineering, math (STEM), safety, or infrastructure¹¹.

Figure 13. Tables Showing the Agencies with the Highest and Lowest Percentages of Female Employees, Respectively

AGENCY	AGENCY COUNT	% FEMALE	MEDIAN AGENCY SALARY
Administration for Children's Services	6,977	71.84%	\$60,327
Department of Health and Mental Hygiene	6,113	70.77%	\$65,565
Office of Labor Relations	150	70.67%	\$65,000
Department of Education (Non-Pedagogical)	10,869	70.66%	\$73,448
Human Resources Administration/Department of Social Services	11,488	70.61%	\$54,100

AGENCY	AGENCY COUNT	% FEMALE	MEDIAN AGENCY SALARY
Department Of Sanitation	9,829	8.42%	\$83,465
Fire Department	17,204	11.51%	\$92,073
Department Of Environment Protection	5,554	25.06%	\$85,847
Department Of Transportation	4,653	27.38%	\$77,502
Police Department	49,981	32.36%	\$85,292



Figure 14. Tables Showing the Agencies with the Highest and Lowest Percentages of Non-White Employees, Respectively

AGENCY	AGENCY COUNT	% NON-WHITE	MEDIAN AGENCY SALARY
Department of Probation	1,011	80.9%	\$57,903
Department of Homeless Services	1,983	79.83%	\$58,741
Administration for Children’s Services	6,977	79.53%	\$60,327
Human Resources Administration/Department of Social Services	11,488	78.66%	\$54,100
Department Of Health/Mental Hygiene	6,113	71.71%	\$65,565

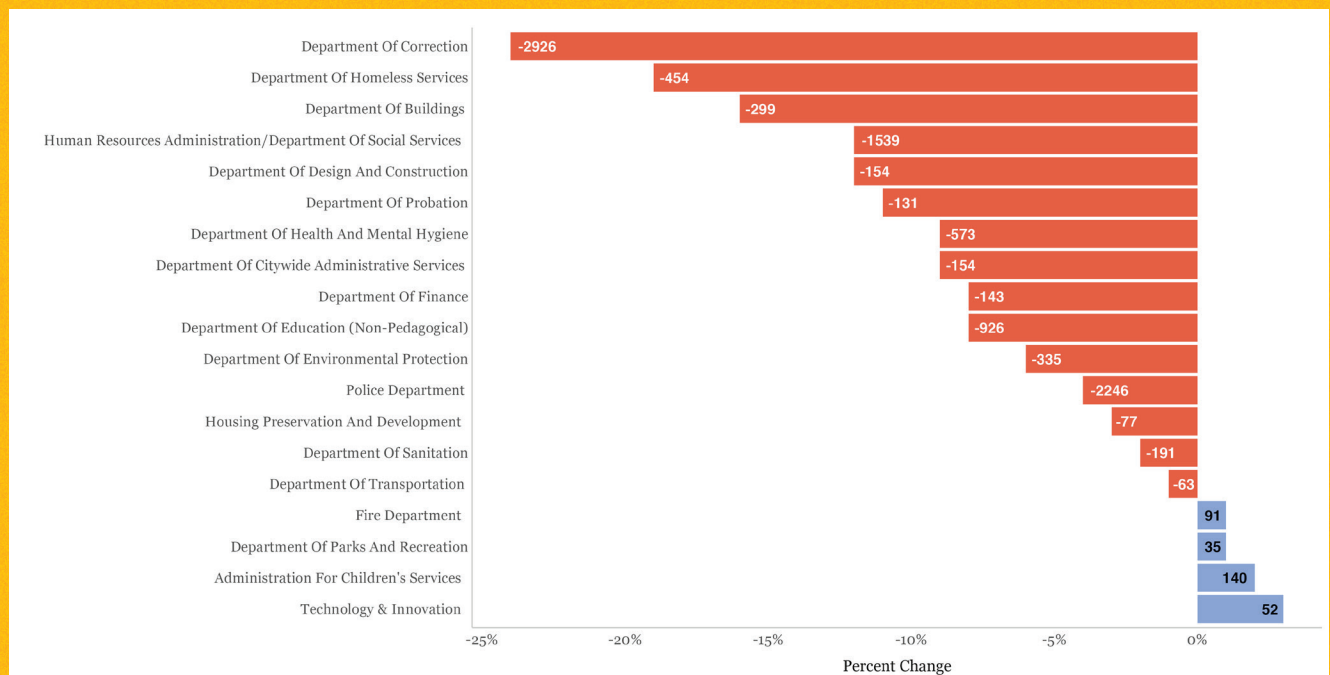
AGENCY	AGENCY COUNT	% NON-WHITE	MEDIAN AGENCY SALARY
Fire Department	17,204	33%	\$92,073
Department of City Planning	266	43.98%	\$80,000
Department of Sanitation	9,829	45.89%	\$83,465
Department of Environmental Protection	5,554	47.95%	\$85,847
Department of Investigation	209	54.54%	\$70,000

Also of note, during and since the COVID-19 pandemic, overall headcount reductions disproportionately affected agencies with higher concentrations of female and non-white employees. When looking at headcount changes before and after COVID-19, agencies that are predominantly female and/or non-white, such as DHS, HRA/DSS, DOP, and DOE, experienced substantial reductions in headcount. DHS in particular experienced an almost 19% decrease from 2019 to 2021. In contrast, agencies with predominantly male and/or white employees, such as the NYPD, DSNY, DOT, FDNY, and OTI maintained relatively stable headcounts, with decreases below 5% or increases no greater than 4%.

THE EFFECTS OF COVID-19 ON THE MUNICIPAL WORKFORCE

The data analyzed in this report reflects the City’s recovery from the COVID-19 pandemic, the effects of which are still being felt today. COVID-19 led to a fiscal crisis which disproportionately affects female employees of color. The municipal workforce has seen a nearly 7% decline in headcount from 2019 (162,372) to 2021 (151,593). However, this decrease is not uniform across agencies and job titles. Agencies with predominantly female and/or non-white employees, such as DHS, HRA/DSS, DOP, and DOE, experienced substantial reductions in headcount. In particular, DHS experienced an almost 19% decrease. ACS, an exception, witnessed a modest 2% increase. In contrast, agencies with predominantly male and/or white employees, like NYPD, DSNY, DOT, FDNY, and OTI, maintained relatively stable headcounts, with decreases below 5% or increases no greater than 4%, except for DOC, which had a notable 24% decrease, losing around 2,900 employees.

Figure 15. Workforce Headcount Change Since COVID by Agency (2019 vs 2021)



When analyzing headcount reductions within specific job titles, six positions related to schools experienced significant declines. Education paraprofessionals had the largest decrease at -25% (6,700 employees). The NYPD had four job titles among the top decreases, and HRA/DSS and ACS each had two titles experience significant decreases. Parks & Recreation, DEP, FDNY, and DSNY each had one.

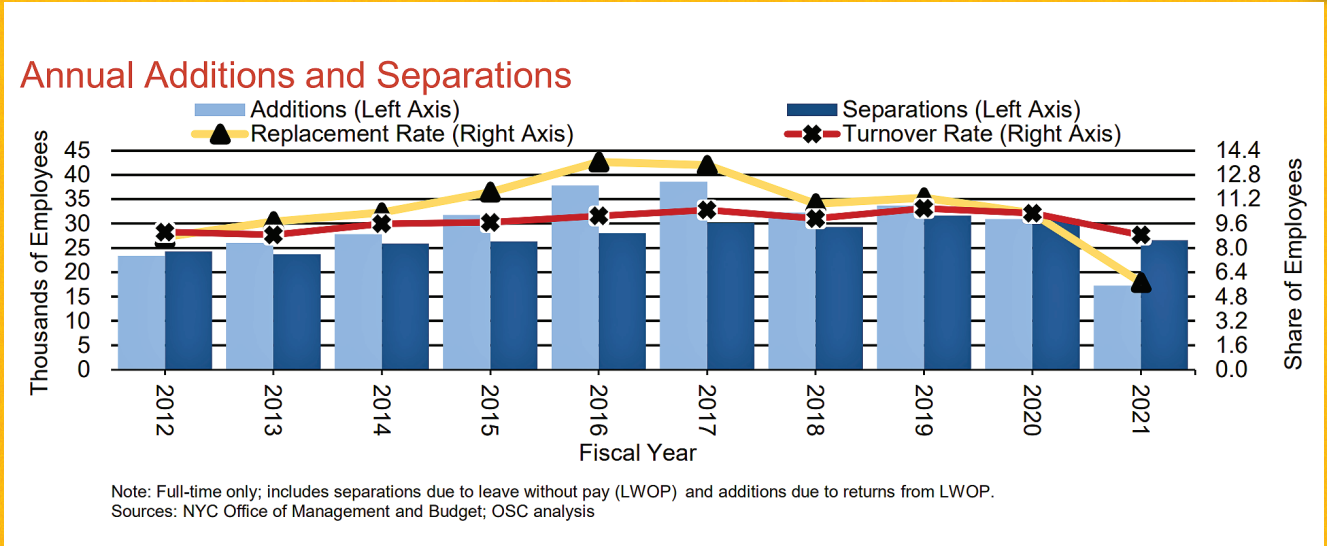
Figure 16. Top Workforce Headcount Decreases Since COVID by Job Title

TITLE DESCRIPTION	FY 2021 COUNT	FY19-FY21 PERCENT CHANGE (%)	MEDIAN SALARY
Education Paraprofessional	25,261	-25.12	\$42,433
Correction Officer	7,761	-17.18	\$92,073
Captain (Correction)	735	-16.00	\$114,617
Senior Police Administrative Aide	730	-15.61	\$54,538
School Lunch Helper	3,286	-15.20	\$30,182
Senior School Lunch Helper	2,455	-14.34	\$31,114
School Aide	6,526	-13.89	\$30,182
Teacher	80,056	-13.53	\$97,469
Probation Officer	570	-12.71	\$54,541
Lifeguard	1,562	-12.15	\$40,068
Associate Job Opportunity Specialist	725	-11.26	\$59,799
Caseworker	1,226	-10.77	\$47,705
School Safety Agent	4,769	-10.54	\$50,207
Sanitation Worker	5,977	-9.32	\$83,465
Clerical Associate	749	-8.21	\$41,848
School Crossing Guard	2,439	-6.91	\$28,227
Sewage Treatment Worker	606	-6.19	\$93,918
Traffic Enforcement Agent	2,719	-5.43	\$42,947
Firefighter	8,168	-5.17	\$85,292
Child Protective Specialist Supervisor	569	-4.37	\$86,096

Note: The data points reflected in this table are limited to the top 10 most populous civil service titles.¹²

The State Comptroller’s report echoed these findings, highlighting sharp declines for teaching assistants and school safety agents. The report also illustrated that the decrease in the NYC municipal workforce since COVID primarily resulted from significant declines in new hires, rather than an increase in separations.¹³

Figure 17. Hiring & Separation Counts Overtime (State Comptroller Report)



Policies such as hiring freezes or layoffs, which jeopardize government employment, have a significant impact on the municipal workforce. Given that female and Black employees are over-represented in government jobs, any reduction in employment could disproportionately affect these groups. Additionally, such policies can impede efforts to diversify the workforce, by slowing down the hiring of new personnel and, thereby, prolonging the time required to reach diversity goals.

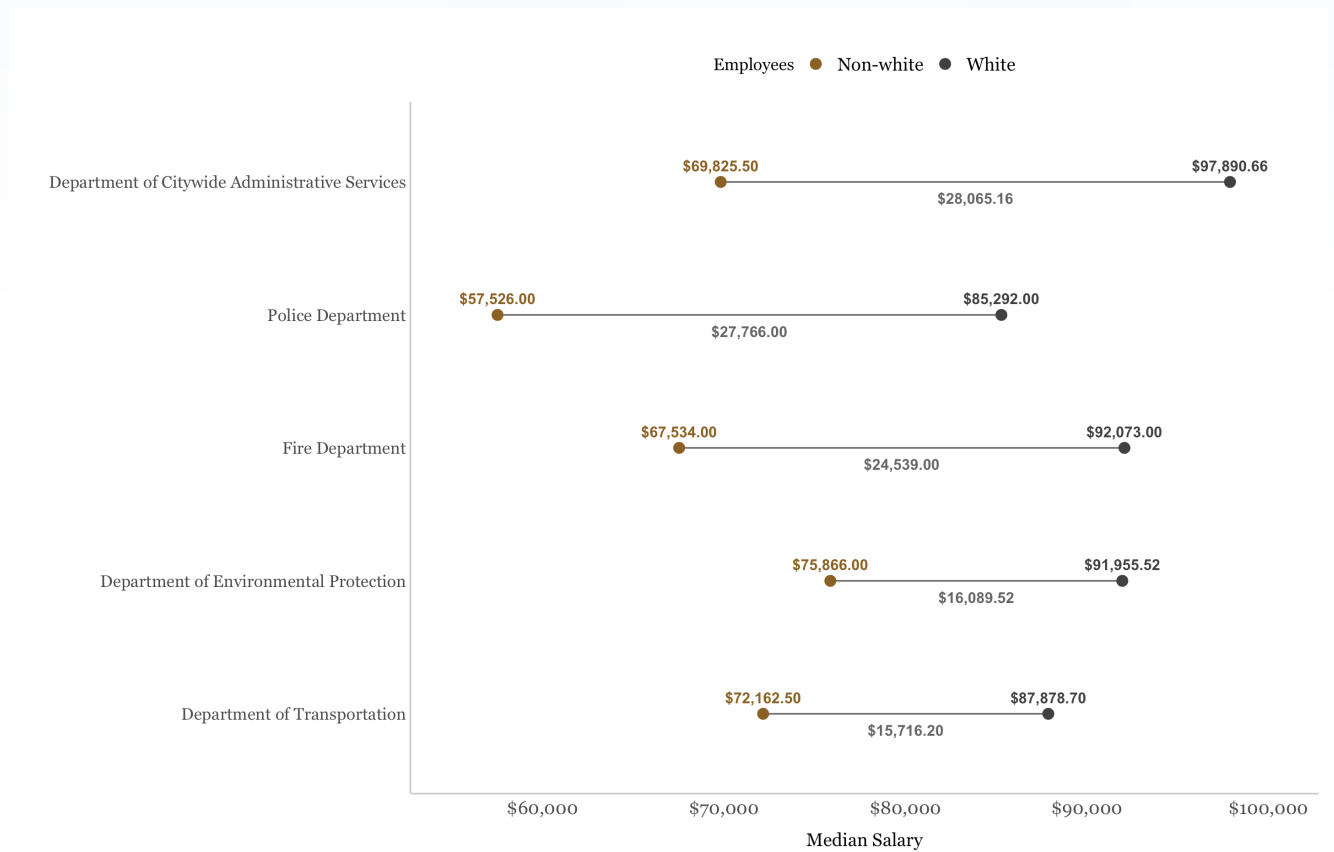
Pay Gaps Within Agencies

As observed across agencies, occupational segregation and significant pay disparities across titles lead to pay gaps within agencies. Higher-paying roles within an agency tend to be predominantly held by male and white employees, while lower-paying roles within that agency tend to be predominantly held by female and non-white employees. DOE is an exception with regard to gender, but less so with race.

Agencies with the largest racial/ethnic pay gap

DCAS, NYPD, and FDNY are the agencies with the largest racial/ethnic pay gaps. DCAS has the largest pay gap between non-white and white employees, with a difference of \$28,065.16. The NYPD and FDNY follow close behind with pay differences of \$27,766 and \$24,539, respectively. There are also large racial pay gaps in DEP (\$16,089.52) and DOT (\$15,716.20). FDNY and DEP also appear in the top agencies with the lowest share of non-white employees.

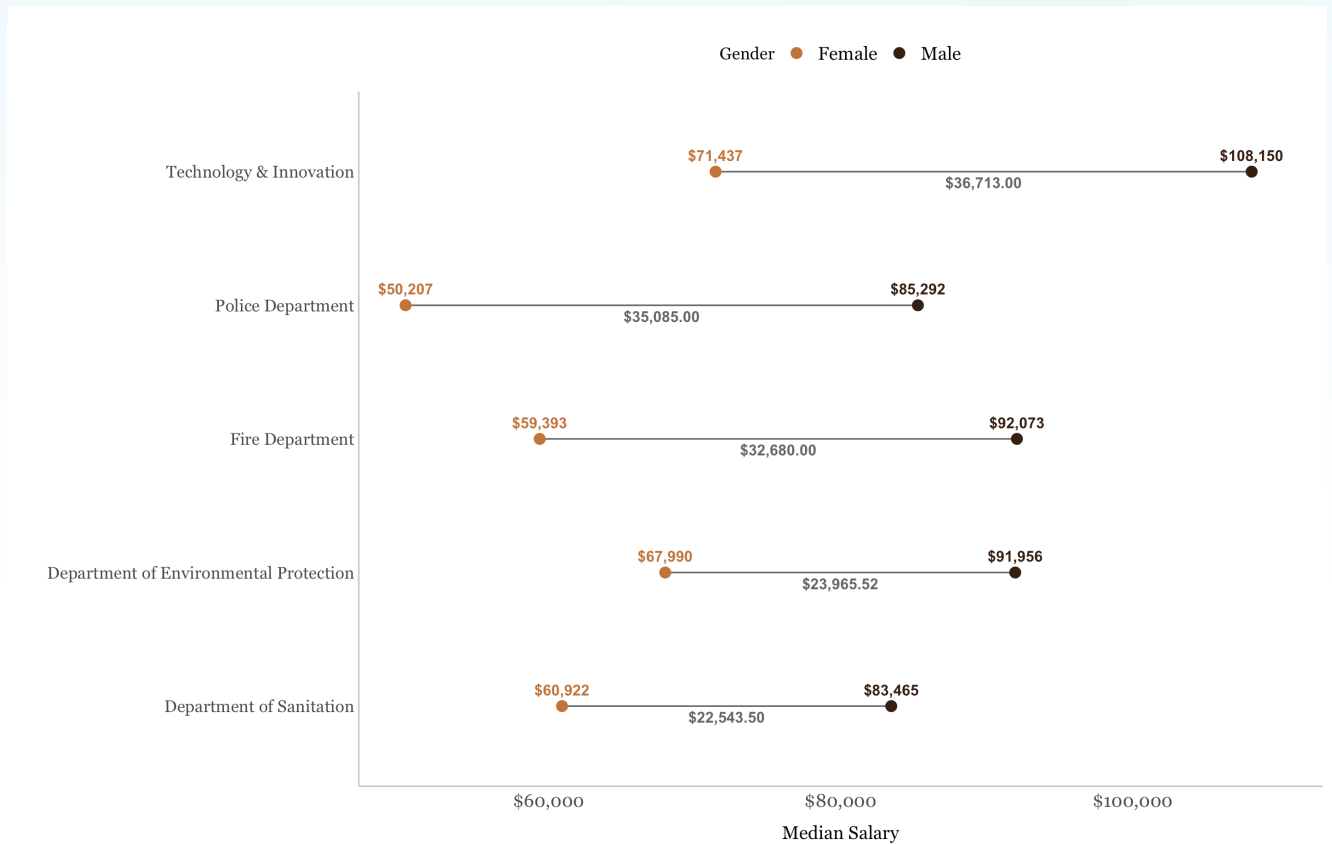
Figure 18. Top Five Agencies with the Largest Non-White/White Pay Differentials



Agencies with the largest gender pay gap

FDNY, NYPD, and OTI continue to be the agencies with the largest gender pay gaps since 2018. OTI has the largest pay gap between male and female employees, with a difference of \$36,713. NYPD and FDNY follow close behind with pay differences of \$35,085 and \$32,680, respectively. The data also show large gender pay gaps in DEP (\$23,965.52) and DSNY (\$22,543.50). All these agencies, except for OTI, appear in the top agencies with the lowest share of female employees.

Figure 19. Top Five Agencies with the Largest Gender Pay Differentials



Case Studies: Examples of Uneven Gender Distribution and Pay

In agencies with large gender pay gaps, some job titles exhibit gender parity. However, few workers occupy these roles. Instead, at agencies with demographic compositions that are least consistent with that of the NYC workforce, most employees are clustered within high-paying roles predominantly held by male employees or lower-paying roles predominantly held by female employees. This uneven distribution of employees across gender and salary creates large pay disparities. As seen in Figure 20 below, certain job titles with high male representation have median salaries above the City's median. Examples of high-paying titles predominantly held by male employees within FDNY, NYPD, OTI, and DSNY include Fire and Police Lieutenant (70360 and 70260), Computer Systems Manager (10050), and Sanitation General Superintendent (70196).

Conversely, low-paying, titles predominantly held by female employees within these agencies encompass roles such as Clerical Associate (10251) within both FDNY and DSNY, Police Administrative Aide (10144), and Call Center Representative (10260).

Titles like City Research Scientist (21744), Assistant Traffic Enforcement Agent (71652), Administrative Staff Analyst - OTI (10026), and Associate Staff Analyst (12627) exhibit gender parity, but these roles are held by few workers.

While there are some titles that diverge from the general trend and are high-paying and predominantly held by female employees, or low-paying and predominantly held by male employees, these titles employ relatively few workers at these agencies. Only one exception is observed; at FDNY, the EMS-EMT title is populous, predominantly held by male employees, and low-paying, with a median salary of \$49,000 and 75% male representation.



Figure 20. Example Job Titles & Median Salary for Gender Categories

Category ¹	Agency ²			
	FDNY	NYPD	OTI	DSNY
Most Populated	FIREFIGHTER: \$92,073 8,101 workers 1% Female	POLICE OFFICER: \$85,292 25,536 workers 21% Female	CALL CENTER REPRESENTATIVE: \$40,345 251 workers 76% Female	SANITATION WORKER: \$83,465 6,602 workers 3% Female
High Paying & Male Dominated	11,349 workers Example Title: LIEUTENANT (FD): \$118,056 1,452 workers <1% female	12,732 workers Example Title: LIEUTENANT (PD): \$135,511 1,352 workers 12% Female	786 workers Example Title: COMPUTER SYSTEMS MANAGER: \$156,913 131 workers 20% Female	2,354 workers Example Title: GENERAL SUPERINTENDENT (LVL1): \$136,278 172 workers 4% Female
Low Paying & Female Dominated	348 workers Example Title: CLERICAL ASSOCIATE MOST MAYORAL AG: \$46,079 100 workers 89% Female	8,761 workers Example Title: POLICE ADMINISTRATIVE AIDE: \$41,907 1,159 workers 92% Female	375 workers Example Title: CALL CENTER REPRESENTATIVE: \$40,345 251 workers 76% Female	391 workers Example Title: CLERICAL ASSOCIATE MOST MAYORAL AG: \$41,848 220 workers 76% Female
Gender Parity	85 workers Example Title: CITY RESEARCH SCIENTIST: \$100,808.50 18 workers 50% Female	799 workers Example Title: ASSOCIATE TRAFFIC ENFORCEMENT AGENT: \$51,405 377 workers 48% Female	95 workers Example Title: ADMINISTRATIVE STAFF ANALYST: \$162,592.50 16 workers 50% Female	112 workers Example Title: ASSOCIATE STAFF ANALYST: \$81,401 28 workers 50% Female
Low Paying & Male Dominated	3,311 workers Example Title: EMERGENCY MEDICAL SPECIALIST (EMT): \$49,047 3,039 workers 25% Female	3,031 workers Example Title: TRAFFIC ENFORCEMENT AGENT: \$42,950 2,500 workers 39% Female	54 worker Example Title: RADIO AND TELEVISION OPERATOR: \$55,469 17 workers 12% Female	237 workers Example Title: SANITATION ENFORCEMENT AGENT: \$41,200 118 workers 36% Female
High Paying & Female Dominated	79 workers Example Title: ASSISTANT COMMISSIONER (FD): \$162,740 9 workers 67% Female	223 workers Example Title: ADMINISTRATIVE STAFF ANALYST: \$96,019.50 44 workers 86% Female	55 workers Example Title: EXECUTIVE AGENCY COUNSEL: \$146,260 15 workers 80% Female	57 workers Example Title: ADMINISTRATIVE STAFF ANALYST (NON-MANAGERIAL): \$119,105 20 workers 65% Female

¹ "High/Low Paying" is defined as 10k above/below the median salary of \$75,933. "Dominated" is defined as having category makeup of more than than 55%. E.g. "High Paying & Female Dominated" are job titles where the median salary is greater than \$85,933 and comprised of more than 55% female employees.

² Example Titles with less than 5 employees are not shown.



Case Studies: Examples of Uneven Racial/Ethnic Distribution and Pay

When focused on agencies with higher racial pay gaps, most of these agencies' workers are non-white and are clustered together in low-paying roles; DSNY is an outlier where the most populous title (Sanitation Worker) is near racial parity. The most populous titles at ACS, DHS, and DOP all have 80% or higher shares of non-white employees, and all have median salaries below the City median. Titles such as Youth Development Specialist (52287), Special Officer (70810), Community Associate (56057), and Sanitation Enforcement Agent (71681) are characterized by high non-white shares and low salaries.

Furthermore, high-paying titles predominantly held by white employees comprise a larger share in these agencies than the titles with racial parity (again, DSNY is an exception). These titles include Executive Agency Counsel (95005), Oiler (91628), City Research Scientist (21744), and General Superintendent (70196). In contrast, low-paying titles that are predominantly held by white employees have the smallest share of workers at these agencies with large racial pay gaps. For example, DOP only has one employee that would fit this category.

Figure 21. Example Job Titles & Median Salary for Race/Ethnicity Categories

Category ¹	Agency ²			
	ACS	DHS	DOP	DSNY
Most Populated	CHILD PROTECTIVE SPECIALIST: \$60,327 2,295 workers 81% Nonwhite	SPECIAL OFFICER: \$40,590 430 workers 80% Nonwhite	PROBATION OFFICER: \$52,931 570 workers 86% Nonwhite	SANITATION WORKER: \$83,465 6,602 workers 45% Nonwhite
High Paying & White Dominated	326 workers Example Title: EXECUTIVE AGENCY COUNSEL: \$139,472 57 workers 33% Nonwhite	63 workers Example Title: OILER: \$124,758 11 workers 27% Nonwhite	18 workers Example Title: CITY RESEARCH SCIENTIST: \$109,153 6 workers 33% Nonwhite	2,182 workers Example Title: GENERAL SUPERINTENDENT: \$169,558 76 workers 20% Nonwhite
Low Paying & Nonwhite Dominated	4,400 workers Example Title: YOUTH DEVELOPMENT SPECIALIST: \$49,318 609 workers 86% Nonwhite	1,419 workers Example Title: SPECIAL OFFICER: \$40,590 430 workers 80% Nonwhite	736 workers Example Title: COMMUNITY ASSOCIATE: \$44,083 46 workers 91% Nonwhite	642 workers Example Title: SANITATION ENFORCEMENT AGENT: \$41,200 118 workers 78% Nonwhite
White/Nonwhite Parity	159 workers Example Title: PROTECTION AGENT (ACS): \$66,809 127 workers 49% Nonwhite	29 workers Example Title: ADMIN JOB OPPORTUNITY SPEC NM: \$98,490 6 workers 50% Nonwhite	16 workers Example Title: AGENCY ATTORNEY: \$101,092 6 workers 50% Nonwhite	6,680 workers Example Title: AUTO MECHANIC: \$90,619.20 379 workers 45% Nonwhite
Low Paying & White Dominated	8 workers Example Title: ADMINISTRATIVE PROCUREMENT ANALYST: \$65,232 5 workers 40% Nonwhite	2 workers Example Title: -	1 worker Example Title: -	6 workers Example Title: -
High Paying & Nonwhite Dominated	1,259 workers Example Title: DIRECTOR OF FIELD OPERATIONS (CPS): \$102,904 269 workers 83% Nonwhite	151 workers Example Title: ADMINISTRATIVE DIRECTOR OF SOCIAL SERVICES: \$125,000 109 workers 83% Nonwhite	55 workers Example Title: ADMINISTRATIVE PROBATION OFFICER: \$99,476 46 workers 70% Nonwhite	203 workers Example Title: ADMINISTRATIVE ENGINEER: \$174,046 7 workers 57% Nonwhite

¹ "High/Low Paying" is defined as 10k above/below the median salary of \$75,933. "Dominated" is defined as having category makeup of more than 55%. E.g. "High Paying & White Dominated" are job titles where the median salary is greater than \$85,933 and comprised of more than 55% white employees.

² Example Titles with less than 5 employees are not shown.

Case Study: The Non-White Female Pay Gap in DOE


As noted earlier, incorporating DOE data into the Pay Equity Law^{viii} dataset significantly narrows the gender pay gap, reducing it from 20% to about 3%. However, this aggregate improvement conceals existing pay disparities across titles in DOE. For instance, when examining the gender distribution among teachers and education paraprofessionals, the two most populous titles in DOE, the breakdown aligns with DOE’s overall gender composition (about 80% female and 20% male). Yet, while the gender composition for those titles is consistent with that of DOE as a whole, an examination of the race/ethnicity breakdown in those titles reveals that compared with DOE as a whole, lower-paid education paraprofessional jobs are more predominantly held by non-white employees while higher-paid teacher positions are more predominantly held by white employees. In job titles that are more than 68% non-white (i.e., the fraction of non-white workers across the entire city), the median salary ranges from about \$30,000 to \$46,000, while in job titles that are less than 68% non-white the median salary ranges from about \$65,000 to \$136,000.

Figure 22. Salaries for 10 Most Populous DOE Titles (DCAS Workforce Profile Report)

TITLE	COUNT	MEAN SALARY	MEDIAN SALARY
Teacher	80,056	\$97,580	\$97,469
Education Paraprofessional	25,261	\$40,832	\$42,433
School Aide	6,526	\$29,856	\$30,182
Assistant Principal	3,551	\$136,926	\$136,438
School Lunch Helper	3,286	\$29,954	\$30,182
School Secretary	3,029	\$66,274	\$65,364
Guidance Counselor	2,996	\$107,804	\$109,385
Senior School Lunch Helper	2,455	\$30,904	\$31,114
Occupational Therapist	2,081	\$79,731	\$80,730
Community Associate	1,983	\$48,407	\$46,255

Examining municipal worker gender and race pay gaps alone makes it difficult to discern the impact of occupational segregation. However, as the analyses zoom into the agency level, clearer pictures emerge. Agencies primarily defined by specific job functions (such as providing social services as part of ACS or HRA/DSS, or providing safety and protection as part of the uniformed workforce) are often predominately occupied by one gender and/or race, and large pay gaps exist between these agencies. This combination of occupational segregation and pay disparities becomes particularly evident when examining individual job titles within agencies. These analyses also reveal overlap in the over-representation of both female and non-white employees in lower-paying roles, which is explored further in the next section of this report.

viii See footnote 4. More information on the methodology is available in the Appendix.



**COMPOUND
EFFECT: THE
NON-WHITE
FEMALE
EMPLOYEE PAY
GAP**

COMPOUND EFFECT: THE NON-WHITE FEMALE EMPLOYEE PAY GAP

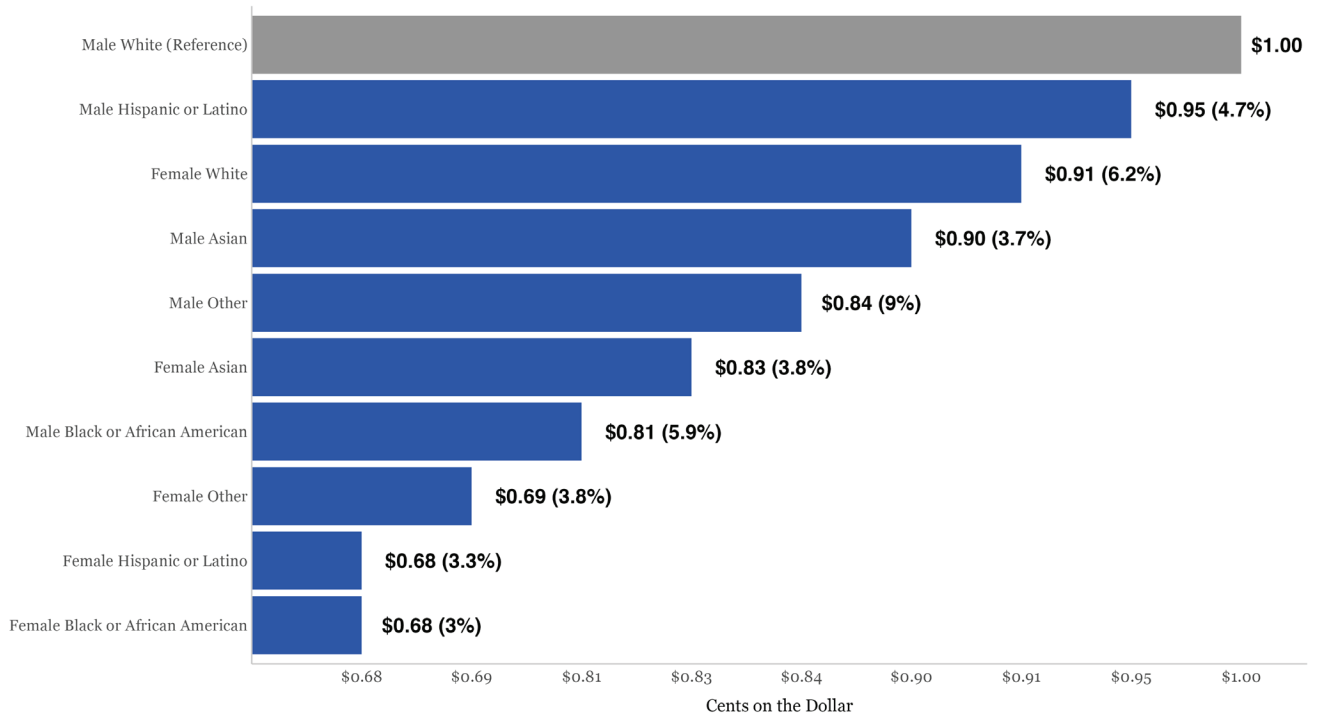
Both the gender and race/ethnicity pay gaps are, in large part, driven by the low earnings of non-white female employees. For example, by excluding non-white female employees from the municipal workforce data, the gender pay gap decreases by nearly 50% and the racial/ethnic pay gap decreases by nearly 40%. This is due to non-white female employees being highly concentrated in particularly low-paying roles, even relative to white female employees and non-white male employees.

Citywide

Non-white female employees saw the smallest improvements in the pay gap over time

The municipal worker gender and race/ethnicity pay gaps persisted or improved slightly between 2018 and 2021. Non-white female employees saw the smallest improvements (less than 3.8%), compared to almost all other demographic groups. In contrast, white female employees, Black or African American male employees, and male employees who identify as Other race/ethnicity saw the largest reduction of their pay gap over this period. Hispanic or Latino male employees came the closest to eliminating the pay gap with white male employees in 2021 (\$0.95 on the dollar), followed by white female employees (\$0.91 on the dollar) and Asian male employees (\$0.90 on the dollar).

Figure 23. Gender and Race/Ethnicity Combined Pay Gap
Cents on the dollar (Percent Change Between 2018 and 2021)

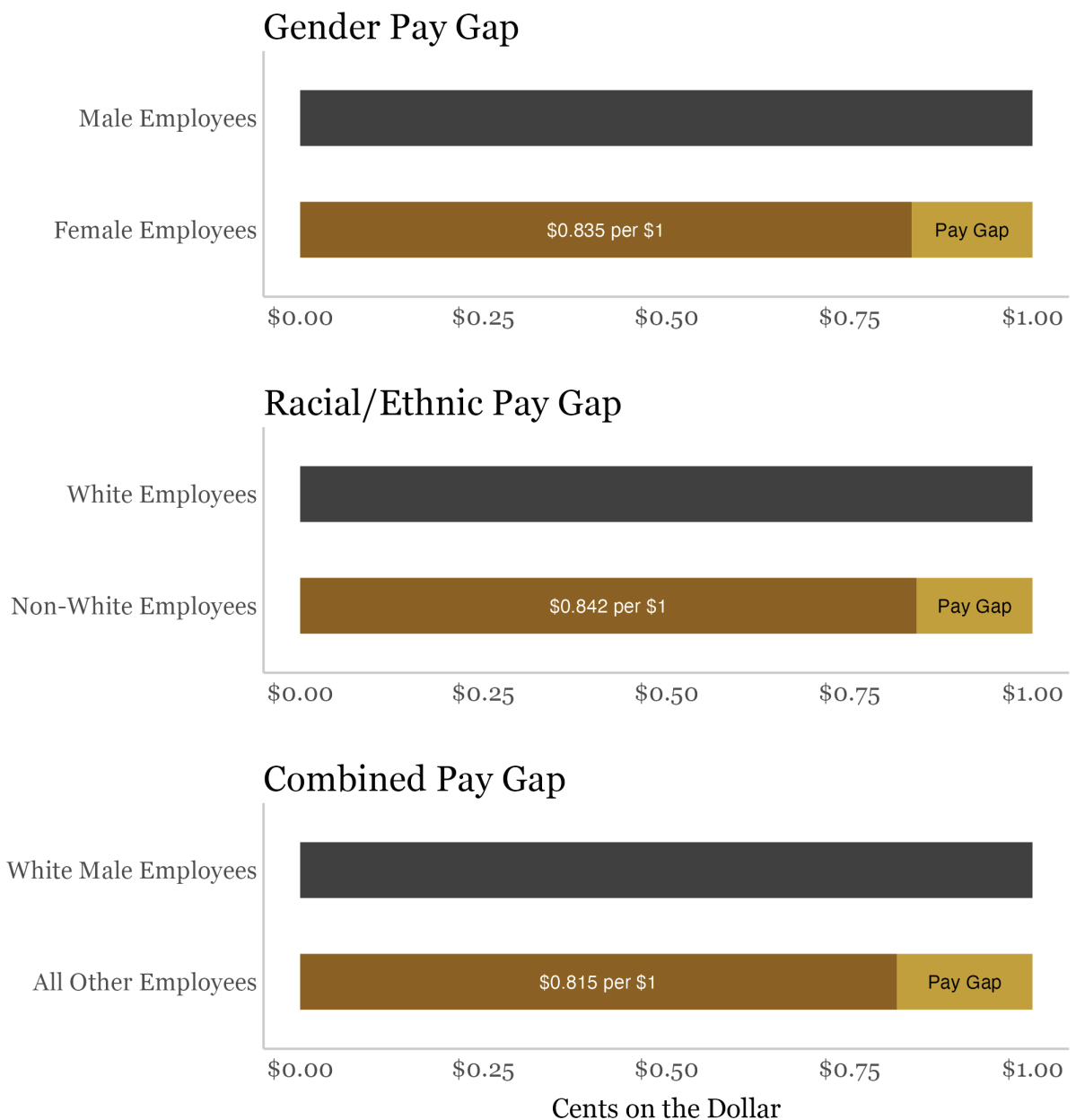


Pay Gaps Are Largely Driven by Non-White Female Employees

To better understand the pay gaps for female and non-white employees, a decomposition analysis was performed to assess how white female employees, non-white female employees, and non-white male employees individually contribute to the gender and racial pay gaps.

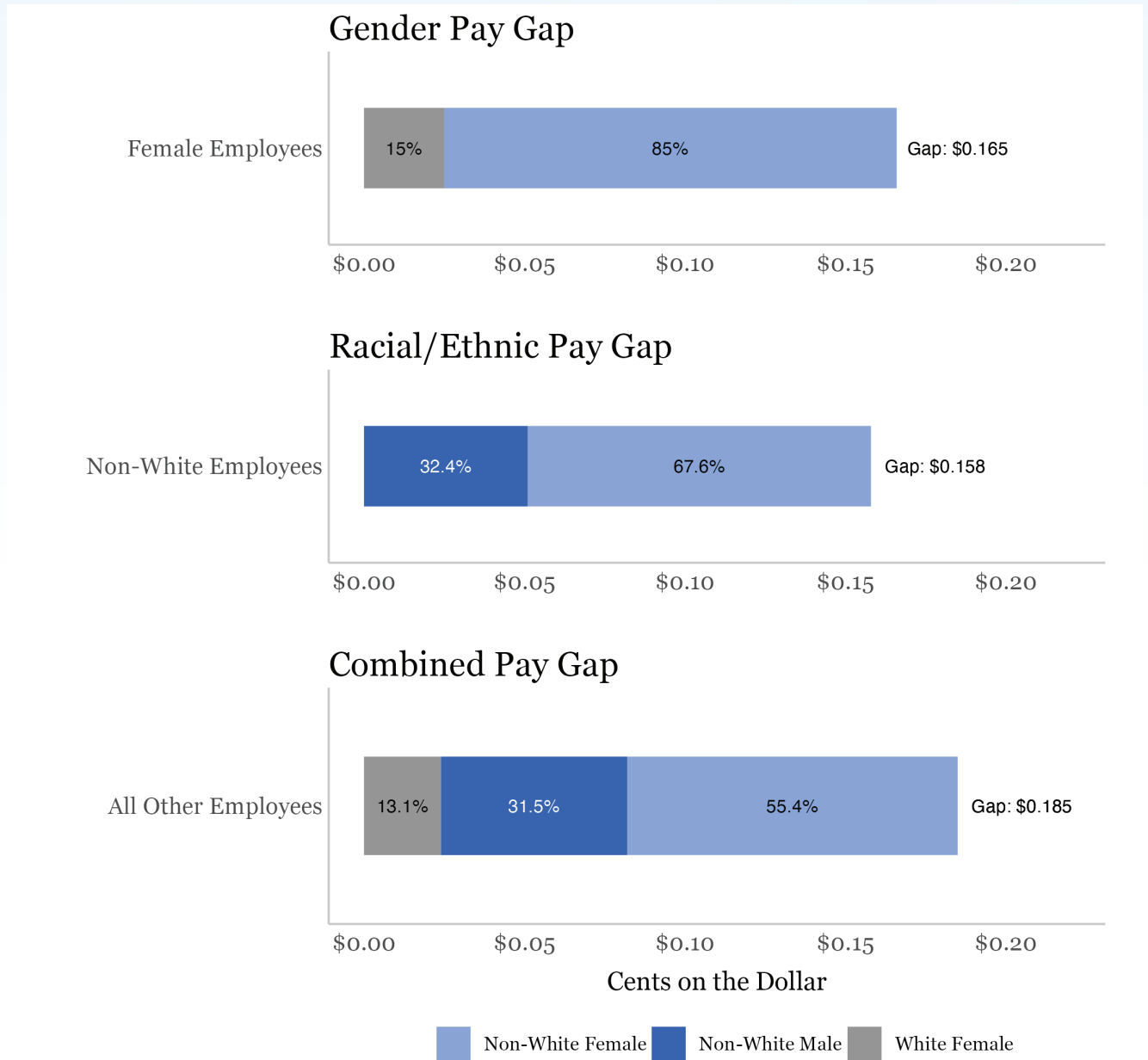
Using the mean salary difference, the data show that female employees earn approximately \$0.84 for every dollar earned by male employees, resulting in a gender pay gap of around \$0.16 per dollar. Similarly, non-white employees earn roughly \$0.84 for every dollar earned by a white employee, indicating a racial pay gap of about \$0.16 per dollar. Last, when using white male employees as the reference group, all other workers earn approximately \$0.82 for every dollar a white male makes, indicating a pay gap of about \$0.18 per dollar, which is called the “combined” pay gap in this report.

Figure 24. Pay Gaps Based on Mean Salary Differences



Taking these observed pay gaps and the total number of employees found in each demographic subgroup, the Data Team determined how much each subgroup contributed to the overall pay gaps. The Team found that non-white female employees account for the largest share of each pay gap. Specifically, non-white female employees account for 85% of the gender pay gap, 68% of the racial pay gap, and 55% of the combined pay gap.

Figure 25. Pay Gap Contributions by Subgroup (Decomposition)



This analysis reveals that the relatively lower wages of non-white female employees are a significant driver of pay disparity in the municipal workforce. On average, if non-white female workers received the same pay as male employees, white employees, and white male employees, the gender, racial, and combined pay gaps would shrink by approximately 85%, 68%, and 55%, respectively. The City could achieve substantial reductions in both the gender and racial pay gaps by prioritizing resources for non-white female employees, such as training and career counseling.

Agency-Level

Agencies with many non-white female employees have salaries below the City's median; those with few non-white female employees surpass the City's median

The five agencies with the highest percentage of non-white female employees have median salaries below the municipal workforce's median of \$75,933. Among these, the Law Department (LAW) stands out with the lowest median salary of \$49,701. Conversely, the reverse pattern emerges when considering the top five agencies with the lowest percentages of non-white female employees. These agencies, all of which have a workforce with less than 25% non-white female employees, have median salaries above the City's median.

Figure 26. Tables Showing the Agencies with the Highest and Lowest Percentages of Non-White Female Employees, Respectively

AGENCY	AGENCY COUNT	% NON-WHITE FEMALE	AGENCY MEDIAN SALARY
ADMINISTRATION FOR CHILDREN'S SERVICES	6,977	58.16%	\$60,327
HUMAN RESOURCES ADMINISTRATION/DEPARTMENT OF SOCIAL SERVICES	11,488	57.29%	\$54,100
DEPARTMENT OF PROBATION	1,011	57.07%	\$57,903
DEPARTMENT OF HEALTH AND MENTAL HYGIENE	6,113	51.46%	\$65,565
LAW DEPARTMENT	699	49.5%	\$49,701

AGENCY	AGENCY COUNT	% NON-WHITE FEMALE	AGENCY MEDIAN SALARY
DEPARTMENT OF ENVIRONMENTAL PROTECTION	5,554	15.57%	\$85,847
DEPARTMENT OF TRANSPORTATION	4,653	19.21%	\$77,502
TECHNOLOGY & INNOVATION	1,601	22.11%	\$95,000
DEPARTMENT OF SANITATION	9,829	5.63%	\$83,465
FIRE DEPARTMENT	17,204	6.7%	\$92,073

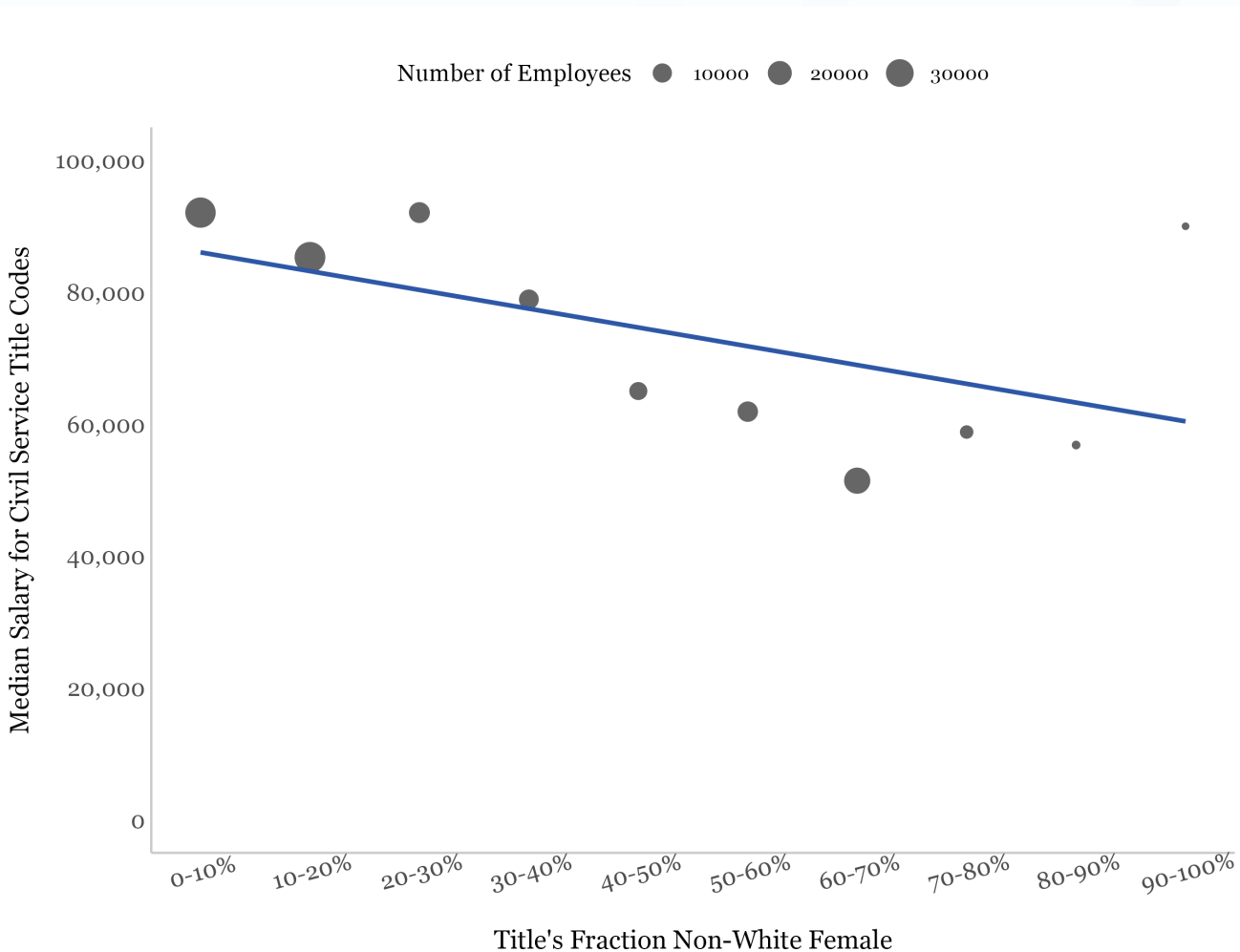
Title-Level

As the Share of Non-White Female Employees Increases, Median Salary Decreases

The relationship between the share of non-white female employees and median salary is not only observed across agencies, but also within agencies at the title level, where non-white female employees occupy particularly low-paying roles compared to others.

In general, titles with lower shares of non-white female employees tend to be higher paid, with some exceptions among select high-ranking positions, which employ few people. This inverse relationship between the share of non-white female employees and salaries is consistent with the trends that have been reported across the municipal workforce. When evaluating the distribution of employees, the Data Team observed that most employees work in titles with low non-white female representation (0-30% share of non-white female employees) and have a median salary of \$85,292 or higher. In contrast, the second-largest group of employees represent civil service titles with a 60-70% share of non-white female employees and have a much lower median salary of \$51,427.

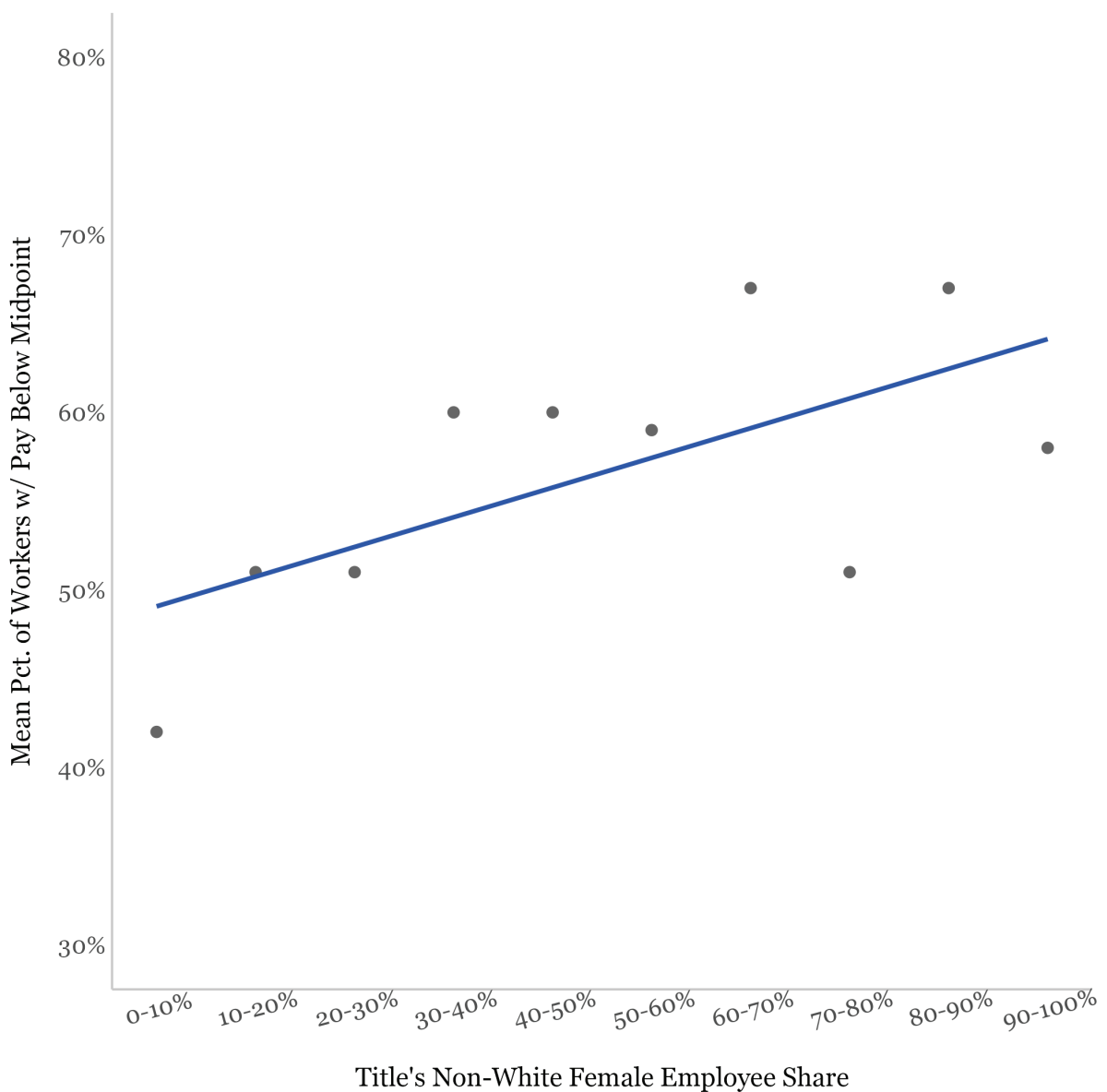
Figure 27. Median Salary for Civil Service Title Codes by Share of Non-White Female Employees per Title



Female and non-white employees often fall below their salary band's midpoint, raising questions about salary assignments

Each job title has a defined salary band that fixes the minimum and maximum salary for that title. A broad salary band offers less clarity to applicants about eventual earnings and provides employers with greater flexibility to determine compensation, leaving greater room for potential discrimination. Analysis reveals a notable trend: across the municipal workforce, female employees are significantly more likely to receive salaries below the midpoint of their salary band (56% of female employees compared to 41% of male employees). Similarly, salaries for non-white employees are more likely to fall below the midpoint of their salary band (ranging from 49-54% for non-white employees compared to 36% for white employees). As shown in Figure 28 below, this trend extends to non-white female employees—a title's share of non-white female workers is positively associated with the likelihood that the employees' salaries are below their pay band's midpoint. Even after accounting for years of experience, there is no discernible reduction in the likelihood that a worker's salary will fall below their salary band's midpoint.

Figure 28. Average Percentage of Employees with Salaries Below Pay Band's Midpoint by Share of Non-White Female Employees per Title





TARGETING TITLES FOR INTERVENTION

TARGETING TITLES FOR INTERVENTION

The City's gender and racial pay gaps are not due to a few problematic agencies or titles, rather they are the result of occupational segregation across the City's workforce. Non-white female employees are concentrated in the lowest paid roles. Targeting these titles for interventions such as career counseling and pay increases to match their role's worth could considerably reduce the City's pay disparities. In 2023, the Council passed Local Law 27, which requires the City to conduct a comparable worth analysis to evaluate pay inequities between titles as well as the cost to provide pay adjustments. The results of this analysis will offer insight into how the administration values and compensates roles within and across various agencies.

The Data Team also found that one way to significantly narrow pay gaps would be to promote greater diversity in well-paying roles currently predominantly held by either male or white employees. By simulating the impact of aligning the demographic composition of such job titles with that of NYC's overall workforce, the Data Team found a significant reduction in the gender and racial pay gaps.

However, budget cuts and policies that limit the hiring of new employees hinder the reduction in pay gaps by slowing diversification efforts and preventing salary increases, delaying trainings, and restricting career improvement efforts in low-paying titles with high concentrations of female and non-white employees.

Increasing Diversity

Gender Diversification Push for Medium Income Titles

Below, the Data Team located examples of titles that have "high return" to intervention with respect to reducing pay gaps. The analysis demonstrates that focusing interventions on a few significant titles can significantly narrow the City's gender and racial pay gaps. Of course, intervention in similar titles, beyond those listed below, would lead to even larger reductions in pay gaps.

Each of the nine titles in Figure 29 are held by more than 450 workers, are over 50% male, and hold median salaries largely between \$60,000 and \$100,000. In total, the nine titles employ 48,933 workers, 19% of whom are female. However, the gender distribution of NYC's overall workforce is 52% female. The Data Team created a simulation aligning the gender composition in these titles with the gender composition in NYC's overall workforce. This scenario leads to a modest reduction in the gender pay gap of 4.3%.



Figure 29. “Entry-level” (medium-income), populous titles predominantly held by male employees

TITLE	AGENCY	% FEMALE	MEDIAN SALARY	COUNT
Auto Mechanic	NYPD	0.3%	\$90,619	791
Computer Specialist	DOHMH	33.4%	\$106,023	1,095
Correction Officer	DOC	43.1%	\$92,073	6,885
EMS-Paramedic	FDNY	30.7%	\$72,872	916
Firefighter	FDNY	1.5%	\$92,073	8,101
Highway Repairer	DOT	6.4%	\$99,347	452
Police Officer	NYPD	21.5%	\$85,292	23,536
Sanitation Worker	DSNY	3.1%	\$83,465	6,602
Sewage Treatment Worker	DEP	0.2%	\$93,918	555

Gender Diversification Push for High-Income Titles

The Data Team also conducted an analysis on the impact of gender diversification on high-income titles. Figure 30 lists nine populous titles predominantly held by male employees and that largely have median salaries higher than \$100,000. In total, these titles employ 13,659 people, of whom 86.5% are male, and are higher ranking on the career ladder than those titles listed in Figure 29.

If employees of all genders remained in their roles at equal rates and fair promotional practices were used, greater gender diversification of the titles in Figure 29 would be expected to percolate over time to the higher-level, better-paying positions in Figure 30. The Data Team simulated the impact on the gender pay gap if all 18 of these titles aligned with NYC’s gender composition. The Team found that this would reduce the gender pay gap by 37%. The outcome presented in this scenario would take time and rely on societal change to remedy workplace culture issues and unfair work practices.

Figure 30. “High-level” (high-income), populous titles predominantly held by male employees

TITLE	AGENCY	% FEMALE	MEDIAN SALARY	COUNT
Fire Captain	FDNY	0.2%	\$135,511	557
Fire Lieutenant	FDNY	0.6%	\$118,056	1,452
Police Lieutenant	NYPD	12.4%	\$135,511	1,352
P.O. DA Det GR3	NYPD	15.0%	\$105,062	3,351
P.O. Det Spec	NYPD	19.6%	\$105,062	949
P.O. D/A Det 2nd GR	NYPD	17.1%	\$118,056	690
Police Sergeant	NYPD	16.6%	\$118,056	3,720
Supervising EMS	FDNY	26.1%	\$79,548	491
Sanitation Supervisor	DSNY	5.8%	\$112,111	1,097

Race/Ethnicity Diversification Push for Medium-Income Titles

Applying the same approach to race and ethnicity, the nine titles listed in Figure 31 are populous titles predominantly held by white employees and have median salaries between \$60,000 and \$100,000. In total, they employ approximately 43,800 employees, of whom 55% are white. In contrast, the racial/ethnic distribution in NYC’s workforce is approximately 68% non-white and 32% white. The Data Team found that if the racial composition of these titles aligned with NYC’s demographics, it would lead to about a 1% *increase* in the racial pay gap. However, as with gender, this diversification push could reduce the pay gap in the long run. Over time, with the use of fair promotional practices, increased racial diversity in lower-level positions could lead to greater diversification in higher-level positions.

Figure 31. “Entry-level” (medium-income), populous titles predominantly held by white employees

TITLE	AGENCY	% NON-WHITE	MEDIAN SALARY	COUNT
Agency Attorney	DCAS	38.0%	\$91,563	779
Auto Mechanic	NYPD	46.8%	\$90,619	791
Criminalist	DOHMH	45.7%	\$82,196	451
EMS-Paramedic	FDNY	52.5%	\$72,872	916
Firefighter	FDNY	25.4%	\$92,073	8,101
Occupational Therapist	DOE	39.6%	\$80,730	2,091
Police Officer	NYPD	52.6%	\$85,292	23,536
Sanitation Worker	DSNY	45.3%	\$83,465	6,602
Sewage Treatment Worker	DEP	35.9%	\$93,918	555

Race/Ethnicity Diversification Push for High-Income Titles

Figure 32 displays the same nine high-level titles seen in Figure 30. In addition to being predominantly male, they are also over 60% white. The Data Team found that if all 18 of these titles that are predominantly held by white employees aligned with NYC’s racial composition, it would reduce the racial pay gap by 24%.

Although biases in workplaces present barriers to diversifying well-paying career tracks, the Council hopes to draw upon the findings above to motivate a collection of policies that will help overcome these biases. Such policies could include offering career and promotional guidance to employees, identifying issues in workplace culture, and requiring City agencies to effectuate meaningful reform in hiring and promotion practices.

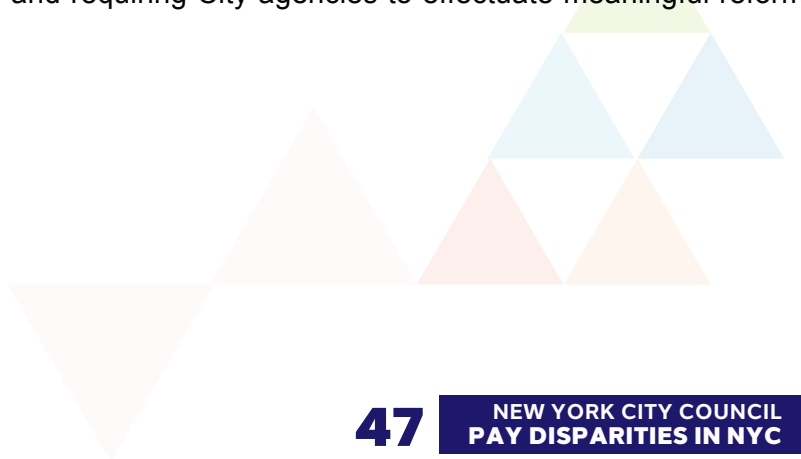


Figure 32. “High-level” (high-income), populous titles predominantly held by white employees

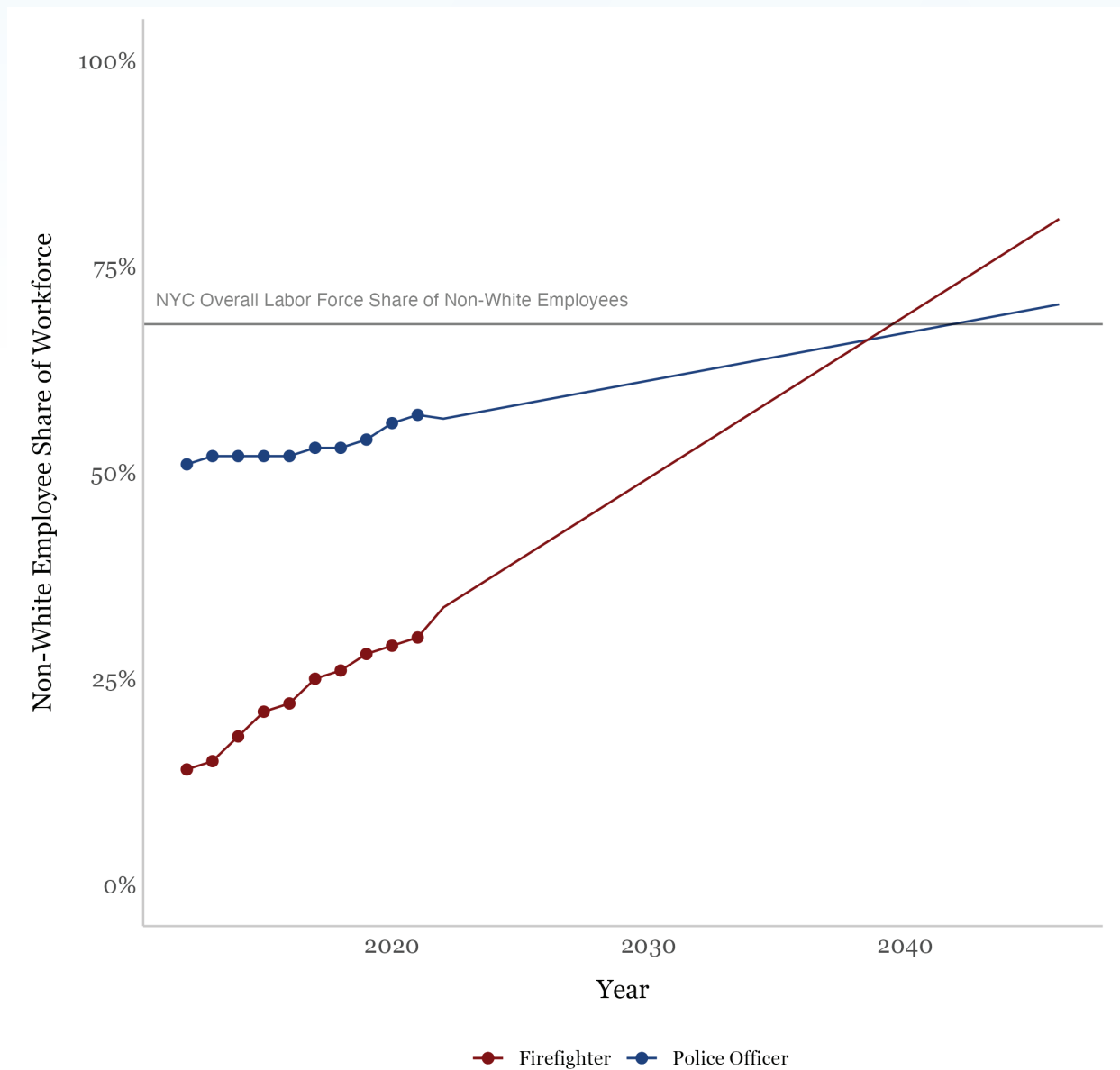
TITLE	AGENCY	% NON-WHITE	MEDIAN SALARY	COUNT
Fire Captain	FDNY	7.2%	\$135,511	557
Fire Lieutenant	FDNY	12.7%	\$118,056	1,452
Police Lieutenant	NYPD	44.0%	\$135,511	1,352
P.O. DA Det GR3	NYPD	42.9%	\$105,062	3,351
P.O. Det Spec	NYPD	45.8%	\$105,062	949
P.O. D/A Det 2nd GR	NYPD	47.1%	\$118,056	690
Police Sergeant	NYPD	44.7%	\$118,056	3,720
Supervising EMS	FDNY	46.8%	\$79,548	491
Sanitation Supervisor	DSNY	38.8%	\$112,111	1,097



Diversification Progress Will Take Decades with No Intervention

The Data Team's analysis shows that diversifying well-paid career tracks that historically have high concentrations of male and white employees could significantly reduce the City's gender and racial/ethnic pay gaps. However, without intentional intervention, diversification of these careers could take decades. Consider the racial composition of police officers and firefighters, outlined in the *DCAS Workforce Profile Report*, which shows increases in non-white workers from 2012-2021. If these trends continue in a linear fashion, police and firefighters would not match NYC's racial composition until around 2040. The diversification of these professions at senior levels would take an additional 15-20 years, given that high-ranking firefighters and police officers typically have served the City for 15-20 years. Interventions to provide additional pathways into high-paying, promotional titles are necessary to achieve gender and racial pay parity.

Figure 33. Racial Diversification Forecast with No Intervention^{ix}



ix The horizontal line at 68% is the fraction of non-white workers across the city as a whole.

Assuming no interventions, the timeline for gender diversification of the municipal workforce is worse than that for racial diversification. In 2012, only 18% of police officers and less than 1% of firefighters were female. Over the next decade, there was minimal progress. By 2021, female employees still only accounted for 20% of police officers and 1% of firefighters. Given these trends, achieving gender parity in these professions seems highly unlikely without deliberate action to recruit and retain female employees.

Diversifying titles predominantly held by white and male employees is challenging given the cultural and workplace norms that prevent female and non-white workers from entering and advancing within these titles. Career counseling and workplace culture reform could help to close pay gaps that negatively affect low-paid municipal female and non-white workers.





RECOMMENDATIONS

RECOMMENDATIONS

Implement and Conduct Oversight on Existing Local Laws

Since the Pay Equity Law was passed in 2019, the Council has adopted more legislation and the City has created new programs, both aimed at improving pay equity. The Council will continue to conduct oversight on the implementation of these initiatives.

In particular, as highlighted in this report, implementation of Local Law 27 of 2023, requiring the City to conduct a comparable worth analysis, will evaluate whether municipal titles may be undervalued and could be targeted for interventions, such as increased pay.

The Council is committed to improving pay equity for all City employees. Acquiring more insightful data points, increasing agency accountability measures, and reducing obstacles that have historically prevented female and non-white employees from attaining high-paying, promotional titles are all measures that are necessary to reach gender- and race- based pay parity.

Strategies to Diversify High-Income Titles

To address the under-representation of female and non-white employees in agencies with higher concentrations of male and white employees, as well as in promotional, higher-paid titles, the Council reaffirms its commitment to exploring opportunities to:

1. Assess and expand the civil service pipeline, and
2. Improve diverse recruitment and hiring practices.

Further, to erode occupational segregation and eliminate pay disparities, the Council will pursue multiple legislative approaches designed to channel eligible applicants into promotional titles and uncover the root cause of workplace barriers that contribute to segregated agencies and titles.

First, the Council will introduce legislation to establish a municipal career counselor within DCAS to advise municipal employees of professional growth and promotional opportunities, and to provide guidance regarding the process of taking promotional exams and agency-provided trainings. Current employees are a valuable resource and well-positioned to advance to senior-level and managerial roles within their agencies. Career counseling should be offered to tap more broadly into the pool of these eligible potential applicants who otherwise may not receive consideration for promotional titles due to their lack of engagement with the complex and daunting promotional examination process.

Second, the Council will introduce legislation to require distribution of workplace culture surveys to municipal employees. Surveys would offer employees the opportunity to provide feedback on perceived barriers to promotion; working conditions that may motivate employees to leave City civil service before they obtain promotion eligibility; and management or hiring practices that may contribute to occupational segregation. In response to survey distribution, the agencies will be required to report the steps that they are going to take to remedy occupational segregation and pay disparities. This legislation will build upon the Council's efforts, through Local Law 130 of 2023, to gather qualitative feedback from resigning and retiring municipal employees in exit surveys and interviews. This legislation would also

build upon Local Law 27 of 2023 by enhancing existing requirements that mandate agency heads to submit annual equal employment opportunity plans.

Third, the Council will explore opportunities to optimize the civil service promotional examination system for applicants who acquire skills and training. The current civil service promotional system must do more to ensure the recruitment and retention of a highly motivated and skilled workforce. Under New York State law, the City must rank candidates for competitive class title positions, including promotions, based on their exam results. Agencies must fill vacancies by selecting from the top three ranking candidates. This system recognizes employees for their test-taking ability, which may or may not best represent the applicant's ability to perform the duties of the promotional position. To prioritize an employee's skills and motivation to excel, the City should reward participants who complete DCAS's managerial and supervisory trainings with additional points on their civil service promotional exam. DCAS offers many professional development training courses that teach core managerial competencies and tools to enhance creative thinking decision-making. Employees who complete these trainings deserve recognition for taking the initiative to learn new professional skills to foster their leadership abilities and advance their careers.

ACKNOWLEDGEMENTS

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APPENDIX

APPENDIX

Terminology

Pay Gaps & Occupational Segregation

The Data Team’s earlier findings brought attention to significant pay gaps resulting from occupational segregation. After adjusting for job segregation, pay gaps are quite small and nearly imperceptible. This report delves into the unadjusted pay gaps and occupational segregation. Notably, occupational segregation and pay gaps are distinct concepts and one does not necessarily imply the other. Pay gaps may exist among different job categories, even when they have equal demographic representation.

Occupational segregation is where demographic groups are unevenly distributed across job categories or titles. This report mainly focuses on “horizontal” occupational segregation, the uneven demographic distribution of individuals across different job categories or fields as compared to “vertical” segregation that relates to disparities across hierarchical levels within an organization or occupation.

This report measures occupational segregation by comparing the demographic composition of municipal workers, an agency, or an occupation to that of NYC’s workforce as a whole. This involves a **diversity index** that measures the similarity or dissimilarity of the two demographic compositions.

The **unadjusted pay gap** is the difference between the median pay for two demographic groups when not accounting for other variables that may affect salary. For example, the unadjusted gender pay gap compares the median salary for male employees to the median salary for female employees, regardless of their race, age, civil service title, or other known characteristics of the individuals in those groups.

Throughout this report, the terms “unadjusted pay gap” or “pay gap” refer to the difference in median pay. In some instances, which will be stated, the report uses the difference in mean/average pay.

Data Sources

This report draws from three sources of employee data to produce a more comprehensive analysis of pay disparities in the municipal workforce. The first source comprises municipal employees covered under the Pay Equity Law. The second encompasses a broader range of municipal employees, as detailed in the *Workforce Profile Report* and dashboard compiled by DCAS¹⁴. The third represents information about the entire labor force in NYC, from the Census Bureau. Throughout this report, unless stated otherwise, the terms “municipal” or “City” workforce specifically refer to employees covered under the Pay Equity Law.

Pay Equity Law Data

Employee demographic and pay data was provided to the Council under the Pay Equity Law. It includes employees from 36 City agencies and offices. The data are a point-in-time snapshot of employees as of December 31, 2021. Data points from the 2018, 2019, and 2020 snapshots as summarized in the previous reports are referenced. The Pay Equity Law was amended in 2023 to include additional data points. Analysis on the new data will be available in future reports, including DOE's pedagogical employees.

Workforce Profile Report

DCAS produces a *Fiscal Annual NYC Government Workforce Profile Report* with comprehensive data on municipal employee demographics and pay. It includes employees from 72 City agencies, including elective bodies, boards, commissions, and authorities. The most recent available data is a point-in-time snapshot of employees as of June 30, 2021. Employee data spanning back ten years is also available.

NYC Labor Force

Throughout this report, the municipal workforce is sometimes compared to the entire labor force in NYC. Information on NYC's labor force is drawn from the Census's 2021 5-Year Estimates Public Use Microdata Sample¹⁵.

Employee, Pay & Demographic Variables

Gender

Most employees identified as “**Male**” or “**Female**,” with 104 identifying as “**Non-Binary**” or “**Other Gender**,” and around 300 are categorized as “**Unknown**.” This report primarily focuses on the “Male” or “Female” categories. Due to the smaller samples in the other groups, making conclusive statements about their unadjusted pay gaps may lack statistical robustness. In the report's findings, where applicable, values are either left or grayed out to acknowledge this limitation.

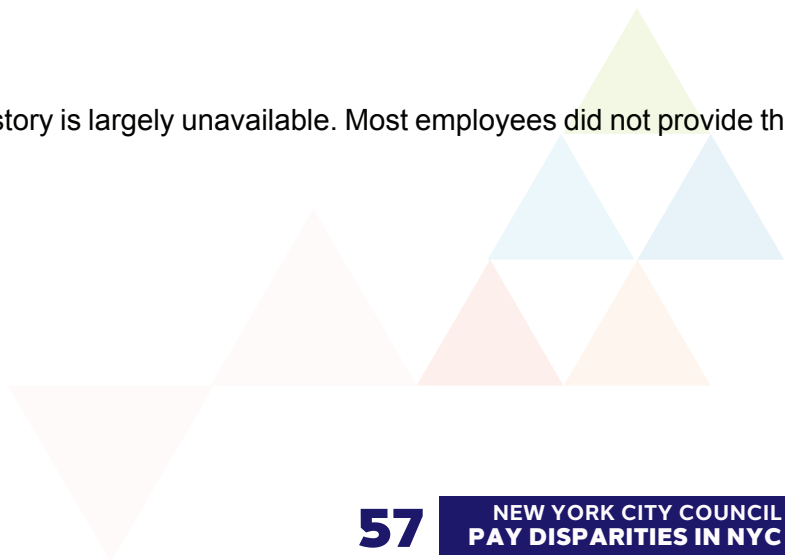
Race/Ethnicity

About 2% of employees self-identified as “some other race,” had an unknown race, or chose not to disclose their race. About 12% of employees had an unknown ethnicity or chose not to disclose their ethnicity. This report primarily focuses on the remaining 86% of employees who identified as either Hispanic or Latino (20%), Asian (9%), Black or African American (28%), or white (30%). As above, where applicable, values are either left or grayed out to acknowledge this.

When the terms “**Asian**”, “**Black or African American**”, “**Some Other Race**”, and “**White**” are used, they refer to non-Hispanic employees, whereas “**Hispanic or Latino**” employees may or may not have self-identified a race.

Education

Information on employees' education history is largely unavailable. Most employees did not provide this information to the City.



Job Title

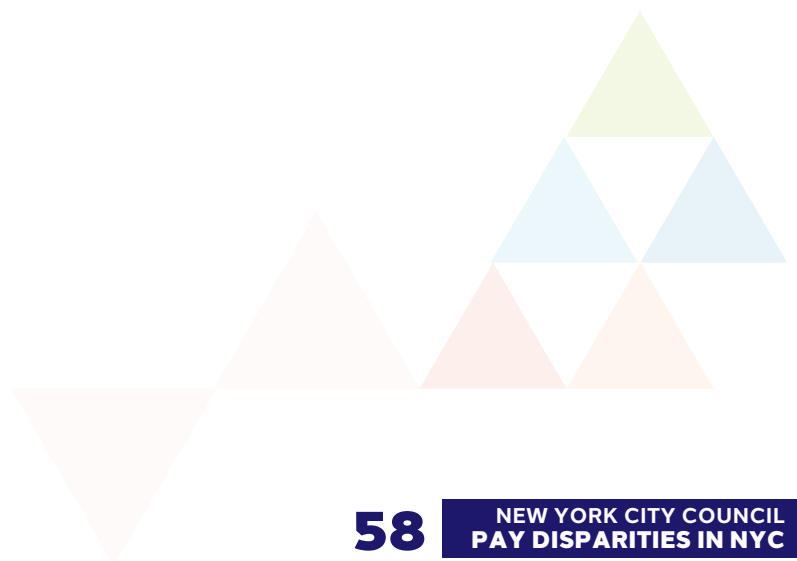
Throughout the report, when the terms “**job**,” “**position**,” “**job title**,” or “**title code**” are used, they specifically refer to the civil service title code. The civil service title code serves as a distinctive alphanumeric identifier for each civil service title. Because identifying a job solely by the code could be challenging, the report includes both the civil service job title names and their corresponding codes. Use of codes is necessary as job title names alone are not unique identifiers. For visual clarity, some tables and charts only have the civil service title name. Their corresponding codes are available in the Appendix.

Uniformed Titles

About 44% of employees are uniformed. These uniformed titles are housed in the NYPD and FDNY, DOC, and DSNY, and exist alongside civilian positions, which are non-uniformed titles such as administrative aides. Distinctive uniforms are generally worn to identify and distinguish employees in roles that involve public safety, law enforcement, emergency response, and similar functions. Uniformed titles were not indicated in the dataset. At the Council’s request, DCAS provided a list of uniformed titles.

Agencies

The Pay Equity Law dataset includes 36 agencies and does not include every employee in those agencies. In particular, the dataset does not include pedagogical employees in DOE. However, the *Workforce Profile Report* from DCAS includes DOE in its entirety and is utilized in this report.



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Agency Abbreviations

List of City Agencies Under the Purview of Local Law 18 of 2019

ACS - ADMINISTRATION FOR CHILDREN'S SERVICES
BIC - BUSINESS INTEGRITY COMMISSION
DFTA -DEPARTMENT FOR THE AGING
DOB - DEPARTMENT OF BUILDINGS
DCP - DEPARTMENT OF CITY PLANNING
DCAS - DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES
DCWP* – DEPARTMENT OF CONSUMER AND WORKER PROTECTION^x
DOC -DEPARTMENT OF CORRECTION
DCLA - DEPARTMENT OF CULTURAL AFFAIRS
DDC -DEPARTMENT OF DESIGN AND CONSTRUCTION
DOE* - DEPARTMENT OF EDUCATION (NON-PEDAGOGICAL)
DEP - DEPARTMENT OF ENVIRONMENTAL PROTECTION
DOF - DEPARTMENT OF FINANCE
DOHMH - DEPARTMENT OF HEALTH AND MENTAL HYGIENE
DHS - DEPARTMENT OF HOMELESS SERVICES
DOITT - DEPARTMENT OF INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS
DOI - DEPARTMENT OF INVESTIGATION
PARKS - DEPARTMENT OF PARKS AND RECREATION
DOP - DEPARTMENT OF PROBATION
DORIS - DEPARTMENT OF RECORDS AND INFORMATION SERVICES
DSNY - DEPARTMENT OF SANITATION
SBS - DEPARTMENT OF SMALL BUSINESS SERVICES
DOT - DEPARTMENT OF TRANSPORTATION
DVS - DEPARTMENT OF VETERANS' SERVICES
DYCD - DEPARTMENT OF YOUTH AND COMMUNITY DEVELOPMENT
FDNY - FIRE DEPARTMENT
HPD - HOUSING PRESERVATION AND DEVELOPMENT
HRA/DSS - HUMAN RESOURCES ADMINISTRATION/DEPARTMENT OF SOCIAL SERVICES
LAW - LAW DEPARTMENT
MOCS - MAYORS OFFICE OF CONTRACT SERVICES
OATH - OFFICE OF ADMINISTRATIVE TRIALS AND HEARINGS
NYCEM - OFFICE OF EMERGENCY MANAGEMENT
OLR - OFFICE OF LABOR RELATIONS
OMB - OFFICE OF MANAGEMENT AND BUDGET
MAYORALTY - OFFICE OF THE MAYOR
NYPD - POLICE DEPARTMENT

^x The name of the department changed in 2019 to the Department of Consumer Affairs (DCA). The data provided to the Council as required by the Pay Equity Law continues to use the prior name.

Civil Service Title and Associated Title Codes

Admin Job Opportunity Spec NM - 10248
Administrative Director of Social Services - 10056
Administrative Engineer – 10015
Administrative Probation Officer - 10029
Administrative Procurement Analyst - 8297A
Administrative Staff Analyst - 10026
Administrative Staff Analyst (Non-Managerial) - 1002D
Agency Attorney - 30087
Assistant Commissioner (FD) - 95039
Assistant Principal – SUAPQ
Associate Staff Analyst - 12627
Associate Traffic Enforcement Agent - 71652
Auto Mechanic - 92510
Call Center Representative - 10260
Child Protective Specialist – 52366
City Research Scientist - 21744
Clerical Associate Most Mayoral AG - 10251
Community Associate - 56057 Computer Specialist - 13632
Computer Systems Manager - 10050 Correction Officer – 70410 Criminalist - 21849
Director of Field Operations (CPS) - 95600
Education Paraprofessional – AREPP
Emergency Medical Specialist (EMT) - 53053 Emergency Medical Specialist (Paramedic) - 53054
Executive Agency Counsel - 95005
Fire Captain - 70365
Firefighter - 70310 Fire Lieutenant - 70360
General Superintendent - 7019B
General Superintendent (LVL 1) - 70196
Guidance Counselor – GCGCQ Highway Repairer - 92406
Lieutenant (FD) - 70360
Lieutenant (PD) - 70260
Occupational Therapist - 51221
Oiler - 91628
Police Administrative Aide - 10144 Police Lieutenant - 70260

Police Officer - 70210 P.O. DA Det GR3 - 7021A P.O. Det Spec – 7021D P.O. D/A Det 2nd GR - 7021B Police Sergeant - 70235
Probation Officer - 51810
Protection Agent (ACS) - 52368
Radio and Television Operator - 90411
Sanitation Enforcement Agent - 71681 Sanitation Supervisor - 70150
Sanitation Worker - 70112
School Aide - RAIDN
School Lunch Helper – RSLHN
School Secretary – SYSYQ
Senior School Lunch Helper – RSSLN Sewage Treatment Worker - 90739
Special Officer – 70810 Supervising EMS - 53055
Teacher - TRTRQ
Traffic Enforcement Agent - 71651
Youth Development Specialist - 52287

Methodology

Data Details:

The data provided to the Council by MODA is a point-in-time dataset of City of New York employees who were either active or on temporary leave as of December 31, 2021. The raw version of this data includes 166,968 employees.

For most of the analysis, the Data Team used a subset of the raw data. Specifically, the Team analyzed a subset of full-time workers, who have base salaries greater than or equal to \$15,000, are 16 years of age or older, and have job titles that are classified as “Competitive” or “Non-Competitive.” This subset consists of 151,593 workers.

Inclusion of DOE Data from DCAS:

For DOE, the data only includes non-pedagogical employees, who make up only a small fraction of DOE’s nearly 150,000 workers. To gauge how inclusion of DOE data would affect the results, the Data Team used aggregated DOE data from DCAS. Unfortunately, DCAS does not allow multi-level subsetting of the data, so the analysis is unable to match the DCAS sample to the sample used in the main analysis. To facilitate a more apples-to-apples comparison, all (non-pedagogical) DOE workers were dropped from the raw data, leaving a sample of 153,775.

DCAS only provides job-level information on each agency’s 10 most populous jobs, so the Data Team was unable to determine average salaries for each DOE role. Additionally, DCAS does not allow viewers to see average salaries by gender and race. Instead, DOE’s average salary was applied to all workers. For gender, this approximation is less problematic, because DOE overall is 80/20 female-to-male, which also reflects the demographic of the DOE’s most populous jobs. However, this approximation is less accurate for race, because the available data currently shows that higher paying jobs in DOE tend to have a higher concentration of white employees while lower paying jobs tend to have a higher concentration of non-white employees.

To assess how DOE inclusion would affect citywide pay gaps, the analysis combined gender and race sample sizes and gender and race average salaries for the data from MODA and the DOE data from DCAS. For example, the average female salary and the number of female employees can be viewed in the data from MODA. From the DCAS dataset, the Data Team applied DOE’s average salary to the female employee numbers. Using the available information, the Team computed a sample-size weighted average to estimate what the citywide female average salary would be if DOE data was included. This analysis was conducted for each gender and race, computed “with DOE” pay gaps, and compared to “without DOE” pay gaps.

Pay Gap Decompositions:

To decompose pay gaps into constituent parts, the Data Team recomputed a pay gap under the assumption that all but one of the subgroups made the same average salary as the base group, and the remaining subgroup still made their actual average salary. This new, reduced pay gap was then compared to the original pay gap to determine how much the remaining subgroup’s lower wages were contributing to the original pay gap. This process was repeated for different subgroups and for different base groups.

Diversification Forecasts:

To assess how long it will take for police officers and firefighters to have gender and racial compositions that match that of NYC’s workforce, the Data Team assessed the data on the two agencies’ gender and racial makeups from 2012-2021 and applied a linear forecast to estimate future compositions. Specifically, the Team used R’s “ets” forecasting function with the model parameter set to “ZAN.” Please note that the Data Team makes no claims about the accuracy of these forecasts; rather, they are intended to make a qualitative point.

2021 Agency Demographics Compared to NYC's Population

Diversity indices, or similarity/dissimilarity scores, were calculated using FY 2012-2021 data from the DCAS Workforce Profile Report and 5-Year Estimates from the American Community Survey (ACS). To create the chart, an agency's demographic breakdown is compared to that of NYC's working population. Euclidean distance is used, a smaller score (close to 0) means an agency's demographic breakdown is 'closer in distance' or matches that of NYC's, while a larger score (close to 100) means 'farther in distance', doesn't match. Racial/ethnic and gender diversity indices are then plotted along the chart axes (0 to 100), with agencies closely matching the labor force demographic compositions of NYC appearing closer to the origin (0,0). Larger label size indicates a larger agency head count, and red indicates worse diversity performance.



ENDNOTES

- 1 Local Law 18/2019, available at <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3371662&GUID=5FCAFC03-035E-45D9-BE1A-4EBE7D6DF43C&Options=ID|Text|&Search=pay+equity>.
- 2 2021 Pay Equity Report, available at http://council.nyc.gov/data/wp-content/uploads/sites/73/2021/08/080221.OC03.PAY-EQUITY-INNYC_v8.pdf and 2022 Pay Equity Report, available at <https://council.nyc.gov/data/wp-content/uploads/sites/73/2022/09/Speaker-Pay-Equity-Report-092122DIGITAL-VERSION-v2.pdf>.
- 3 NYPD's Hiring Process, available at <https://www.nyc.gov/site/nypd/careers/police-officers/po-hiring.page>.
- 4 FDNY's Firefighter Eligibility Requirements, available at <https://www.joinfdny.com/firefighter-eligibility-requirements>.
- 5 Lim, Nelson, Louis T. Mariano, Amy G. Cox, David Schulker, and Lawrence M. Hanser, Improving Demographic Diversity in the U.S. Air Force Officer Corps, RAND Corporation, May 2014, available at https://www.rand.org/pubs/research_reports/RR495.html.
- 6 David Cooper and Julia Wolfe, Cuts to the State and Local Public Sector Will Disproportionately Harm Women and Black Workers, EPI Working Economics Blog, (July 2020), available at <https://www.epi.org/blog/cuts-to-the-state-and-local-public-sector-will-disproportionately-harm-women-and-black-workers/>.
- 7 Id. at p. 1.
- 8 Population Division, Stability & Change in NYC Neighborhoods, 2010 to 2020, NYC Department of City Planning, (March 2023), available at <https://storymaps.arcgis.com/stories/c7bf9175168f4a2aa25980cf31992342>.
- 9 Fiscal Annual NYC Government Workforce Profile Report, available at <https://dcas.shinyapps.io/WFPR/>.
- 10 Women Creating Change, Closing the Gender Pay Gap: Why Pay Equity Has Stalled in New York City and the Urgent Need for Action, (November 2023), available at https://wccny.org/wp-content/uploads/2023/11/WCC-Gender-Pay-Equity-Report-FINALv2_newdata_11_20_23.pdf.
- 11 Block, K., Croft, A., & Schmader, T. (2018). Worth Less?: Why Men (and Women) Devalue Care-Oriented Careers. *Frontiers in psychology*, 9, 1353. <https://doi.org/10.3389/fpsyg.2018.01353>, accessed at <https://pubmed.ncbi.nlm.nih.gov/30147665/>
- 12 Fiscal Annual NYC Government Workforce Profile Report, available at <https://dcas.shinyapps.io/WFPR/>.
- 13 Impact of the Pandemic on New York City's Municipal Workforce Report, Office of the State Deputy Comptroller for the City of New York, (February 2022), available at <https://www.osc.ny.gov/reports/impact-pandemic-new-york-citys-municipal-workforce-february-2022>.
- 14 Fiscal Annual NYC Government Workforce Profile Report, available at <https://dcas.shinyapps.io/WFPR/>.
- 15 2021 5-Year Census Bureau Estimate: Micro Data Access Tool, (2021), available at <https://data.census.gov/mdat/#/search?ds=ACSPUMS5Y2021>