# Underutilization in the New York City Workforce in 2022

A 2023 Report in Fulfillment of New York City Local Law 13 of 2019

(Previously entitled Racial and Ethnic Classification Report)

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(Previously entitled Racial and Ethnic Classification Report)

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## **Executive Summary**

The Equal Employment Practices Commission (EEPC) is pleased to submit this report on underutilization in New York City's municipal workforce, in accordance with New York City Local Law 13 of 2019. This law requires the EEPC to analyze and report annually – for a period of ten years – on racial and ethnic underutilization in the City's municipal workforce and the non-faculty personnel at the City University of New York's (CUNY) community colleges and submit to the Mayor's Office and New York City Council a report containing its findings and recommendations. The EEPC has formally requested the City Council amend Local Law 13 to include gender as part of this series; in anticipation of that change, we also include analyses of gender demographics in this report.

The EEPC's first report – published in 2021 – included analyses of both the City's workforce and CUNY's. For Year 2 the EEPC published separate reports for the City and CUNY. The Year 2 report for New York City focused on seven competitive civil service job titles, including some with the greatest number of personnel and some with the widest variations in demographics.

We are approaching these reports differently in Year 3. Rather than publish one report, this year we will produce several reports that address different topics related to underutilization. In this report we present key data on underutilization in the City's workforce and offer recommendations. In the coming months, we will publish other reports examining aspects of underutilization in more depth. We will also publish a separate report for the CUNY community colleges.

### Findings

#### Underutilization in 2022 was largely unchanged from 2021, with slight improvements for Asians, Blacks, and Hispanics.

There were small decreases in the percentages of job groups with underutilization of Asians, Blacks, and Hispanics. There was no change in the number of job groups with underutilization of females. The shortfalls for each demographic group (the disparity between the expected number of employees from that demographic group – based on labor market availability (LMA) – and the actual number employed) improved for each, ranging from a two percent improvement for Blacks to a 20 percent improvement for Hispanics.

## In a large majority of job groups with underutilization, people of color and females were not hired at rates that match the City's labor market availability estimates.

Combating underutilization requires, in part, hiring individuals from underrepresented groups at a rate that is greater than or equal to their LMA. In the vast majority of job groups with underutilization in 2021, individuals from the underutilized groups were hired at a rate lower than their LMA.

## Separations had a minimal impact on underutilization of racial/ethnic groups, but a considerable impact on underutilization of females.

Combating underutilization requires, in part, retaining individuals from underrepresented groups at a rate that is higher than their existing presence. The majority of job groups with underutilization in 2021 saw individuals from the underutilized groups leave at rates higher than or equal to their presence in that job group. This was especially an issue for females.

### Recommendations

There are several things that can be done to address underutilization in the City's workforce.

## Explore why hiring perpetuates underutilization and do more to diversify candidate pools.

Hiring of underutilized groups in job groups underutilizing them was often considerably below their labor market availability. More should be done to diversify candidates in competitive titles. For discretionary vacancies, many entities review their recruitment efforts to better reach and develop diverse applicant pools, but in some instances, more can be done to focus particularly on underutilized demographics.

It is also crucial for City stakeholders and leaders to understand the City's workforce composition and personnel activity. The City – primarily through its entities but also in aggregate via DCAS – should expand upon existing hiring analyses by including detailed applicant and candidate data. Entity EEO professionals should continue to utilize the DCAS-provided quarterly dashboards of their workforce and personnel activity trends. Entity EEO and HR professionals should supplement these dashboards with applicant and candidate data for their entity. The practice of dispositioning applicant data – when standardized citywide by DCAS and maximized in use on an entity level – can allow for greater insight in the application and hiring process. Entity level engagement and accountability in EEO programming is a requisite for effective EEO programs citywide.

As part of this report series, the EEPC will undertake in-depth analyses of hiring and separation trends in the City, to the extent the data allow for such analysis. These efforts will highlight where the major problems lie and should allow entities and the City to develop more effective plans.

#### Improve retention of underutilized demographic groups.

In the EEO world, recruitment is often seen as the primary way to address underutilization, improve opportunities for groups that have faced discrimination, and promote greater equity. Recruitment is certainly important, but it is only part of the story. It is also important to assess opportunities for personnel and determine why some choose to leave. If women and people of color feel they do not have the same opportunities for growth and advancement provided to white men, they are probably more likely to leave. Toward that end, we offer several suggestions in the report to examine how people of color and women feel about their workplace and the opportunities it provides them.

## Introduction

In 2019, the New York City Council enacted Local Law 13. It requires the EEPC to report annually for ten years on underutilization of racial and ethnic groups in the City's municipal workforce and the non-faculty personnel at the City University of New York's (CUNY) community colleges.<sup>1</sup> The law also mandates the EEPC to offer recommendations on how to address underutilization. This is the first installment for the Year 3 reports. In our Year 2 report on the City's workforce (published in 2022), we analyzed seven job titles in six job groups in City government, including some with the most personnel and some with the greatest disparities in demographics, using employment data from 2021. In that report we also included analyses of the gender breakdown of those job groups. The EEPC has formally requested the City Council amend Local Law 13 to include gender as part of this series; in anticipation of that change, we also include analyses of gender demographics in this report.

In the following pages you will find an overview of the City's workforce and underutilization in job groups and at entities in Fiscal Year 2022. We illustrate underutilization for every job group and entity in the EEPC's jurisdiction for which we have data. We also illustrate data on hiring and separations.

We are approaching this year's report differently. Previously, the EEPC has only published one report on the City's workforce to fulfill the requirements of Local Law 13.<sup>2</sup> This year, we will produce several reports on various issues related to underutilization. This first installment is intended to serve as a "big picture" overview of underutilization in the City's workforce.

We at the EEPC thank the team at the New York City Department of Citywide Administrative Services (DCAS) for providing us with the data needed to produce this report. We look forward to continuing our work together. The authors also thank the EEPC Board of Commissioners: Chair Aldrin Rafael Bonilla, Vice-Chair Elaine S. Reiss, Minosca Alcantara, Ngozi Okaro, and Nicole Yearwood, for their guidance. Our Executive Director Jeanne M. Victor, Executive Agency Counsel Jennifer Shaw, and EEO Research Specialist Pratima Doodnauth also provided helpful feedback.

## How we analyze underutilization

In this report we compare the presence of Asians, Blacks, Hispanics, and females in various jobs and City entities to the availability of those groups in the labor market. The analyses in this report are primarily based on data from the fourth quarter of Fiscal Year 2022. The data illustrates the composition of New York City's workforce on June 30, 2022, the last day of that quarter. To assess how underutilization has changed, comparisons are made to the

<sup>&</sup>lt;sup>1</sup> Beginning with Year 2 (2022) we have published separate reports for the City and CUNY.

<sup>&</sup>lt;sup>2</sup> In Year 1 (2021) the EEPC published one report that addressed both the City's workforce and CUNY's community colleges. In Year 2 (2022) we published a report on the City's workforce and a separate report for CUNY.

workforce composition on June 30, 2021. The data primarily come from the Citywide Equal Employment Database System (CEEDS), operated by DCAS. A more detailed explanation of the data is provided in Appendices E and F. Definitions of some key terms are provided below, and additional definitions are provided in Appendix A.

### Underutilization of whom?

Personnel are protected from employment discrimination based on race, ethnicity, and gender (discrimination based on numerous other characteristics is also prohibited, but we focus on these because the mandate of Local Law 13 is to analyze underutilization of racial and ethnic groups, and because the EEPC has requested the City Council amend the law to include gender). We focus on some of the groups who have historically faced discrimination in employment and whose presence in New York City is large enough to conduct statistical analyses: those who identify as Asian, Black, Hispanic, and those who identify as female.

#### How do we measure underutilization?

Underutilization – for this report – is the employment of individuals from the groups identified above at rates lower than their labor market availability (LMA), and the disparity meets a defined threshold. We measure underutilization for job groups within individual agencies. For example, multiple entities have personnel in the Police and Detectives job group, such as the New York City Police Department (NYPD) and the Department of Correction (DOC). We measure underutilization in this job group individually for the NYPD, the DOC, and all entities that have personnel in that job group.

#### How is availability determined?

The City calculates the labor market availability (LMA) for racial and ethnic groups, and for gender, for each job group. The LMA is an estimate of the percentage of individuals in the relevant labor market from a demographic group who are qualified to fill positions in that job group. The City uses different formulas for different job groups; many are derived from a combination of the demographics of those on relevant Civil Service lists and Census data for New York City.

### What is a "job group"?

New York City classifies each of its job titles into a "job group." These classifications combine jobs titles with similar tasks, responsibilities, and requisite skills. The City has created 31 job groups, 29 of which are currently used. All job groups are described in Appendix C.

### Which City entities are included in this report?

This report includes analysis of mayoral and non-mayoral entities, departments, offices, and boards. As of June 30, 2021, New York City's workforce was approximately 373,000 employees, employed at over 130 entities (that includes full-time, part-time, competitive class (both provisional and permanent), non-competitive class, labor class, and exempt personnel).

In this report we analyze 75 entities, and only the active employees in those entities. Exclusions include entities that are outside the EEPC's jurisdiction (e.g., the Board of Elections), entities for which workforce data was unavailable (e.g., the City's 59 Community Boards), and partial exclusions, such as the Department of Education's pedagogical (i.e., teaching) employees, because the EEPC does not have jurisdiction over those personnel.

### What methods are used to determine underutilization?

The City assesses underutilization for those job groups with more than eight employees. For the most part, the City determines underutilization exists when there is a "statistically significant" disparity between the actual presence of a demographic group in a job group and the expected presence of that demographic group, given the labor market availability estimate. The classification of a disparity as "statistically significant" is based on calculations that take into account the magnitude of the disparity and the number of personnel in the job group. A disparity is more likely to be statistically significant the larger it is. Disparities are also more likely to be statistically significant the more personnel are in the job group overall.

We have conducted independent calculations of statistical significance for this report. We also classify some job groups as having underutilization when the City does not; the primary reason for the different classifications is the City does not flag underutilization as existing in a job group if the disparity between the expected number of individuals from the demographic group and their actual number is five percent or less of the total personnel in the job group (the City calls this the "N-05 rule"). Appendix E includes a deeper discussion of our methodology and some hypothetical examples to illustrate it. Appendix F contains a description of the other metrics the City uses to determine underutilization.

## The job groups and entities we analyze

Table 1 illustrates the job groups established by the City, how many of the entities included in this report have them, and the number of personnel. Because the City only determines whether underutilization exists for job groups with more than 8 employees, we also indicate the number of job groups that meet that criterion and the number of employees in those groups.

The three largest job groups (Police and Detectives, Paraprofessionals, and Social Workers) account for 63,761 employees, 35 percent of the workforce in our analyses. The three smallest job groups (Personal Services, Health Services, and Operators) have a combined total of 480 employees, 0.3 percent of the workforce analyzed in this report. The Police and Detectives job group has the greatest number of personnel (39,187). This job group includes Police Officers, Correction Officers, Detectives, and several other titles across numerous agencies (e.g., the New York City Police Department, the various District Attorney offices, and the Department of Correction). It has over three times more personnel than the Paraprofessionals job group (the second largest, with 12,600 employees), which includes Community Coordinators, Community Associates, and other titles. Operators is the smallest job group (129

Job Group (JG)	# JGs	# Empl. in JG	JG Frequency > 8 Empl. in JG	# Empl. in JG with > 8 Empl.
Administrators	66	393	10	205
Managers	70	11191	61	11153
Management Specialists	64	11699	48	11656
Science Professionals	56	7522	36	7464
Health Professionals	10	4767	9	4765
Social Scientists	28	923	12	869
Social Workers	20	11974	12	11953
Lawyers	54	2275	23	2192
Public Relations	34	263	10	194
Technicians	42	8508	28	8450
Clerical Supervisors	53	4375	32	4307
Clerical	65	8496	41	8424
Police Supervisors	9	7458	5	7442
Fire Supervisors	1	2464	1	2464
Firefighters	2	8441	1	8436
Police and Detectives	23	39187	18	39168
Guards	5	6848	5	6848
Food Preparation	4	1565	3	1563
Health Services	7	164	3	152
Building Services	17	4923	10	4898
Personal Services	8	187	3	174
Farming	5	2269	4	2263
Craft	20	9336	15	9330
Operators	9	129	6	115
Transportation	22	281	10	252
Laborers	20	5501	13	5481
Sanitation Workers	2	7340	1	7336
Teachers	5	808	4	803
Paraprofessionals	71	12600	59	12558
Total	792	181887	483	180915

### Table 1 – Number of Job Groups and Number of Employees

employees) and includes Printing Press Operators and Letterer and Sign Painters, among others.

Table 2 lists the five largest and five smallest entities, based on the number of personnel. Table 11 (in Appendix B) contains a complete list.

Entity Name	# Job Groups (JG)	# Empl. in JG	# JG with > 8 Empl. in JG	# Empl. in JG with > 8 Empl.
NYC Police Department	25	50545	23	50538
NYC Fire Department	18	16915	16	16906
Department of Social Services (HRA+DHS)	21	12604	19	12597
Equal Employment Practices Commission	5	12	0	0
Department of Education*	21	12745	18	12739
Office of the New York County Public Administrator	4	10	0	0
Office of the Bronx County Public Administrator	3	7	0	0
Office of the Queens County Public Administrator	3	7	0	0
Office of the Richmond County Public Administrator	3	5	0	0
NYC Housing Authority	22	11634	18	11612

### Table 2 – Largest and Smallest Entities Analyzed, # of Employees

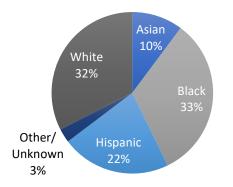
\*Data only includes non-pedagogical (i.e., non-teaching) personnel

Seventy-five entities are included in this report. Sixty-six had at least one job group large enough to measure underutilization.

The entities included in this report employed 181,887 individuals full-time. The five largest entities had a combined headcount of 104,443 employees, approximately 57 percent of the total headcount analyzed (and 28 percent of the City's entire workforce). The New York City Police Department (NYPD) had the largest number of personnel, almost three times as many as the New York City Fire Department (FDNY) and the non-pedagogical staff in the Department of Education (DOE). Four of the five Public Administrator Offices had the fewest personnel. The EEPC was also one of the City's smallest entities, with 12 personnel. The five smallest entities listed in Table 2 (and some others) do not have any job groups large enough to measure underutilization.

### Workforce Demographics

Figure 1 illustrates the racial and ethnic composition of the personnel analyzed in this report.

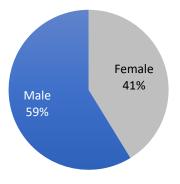


#### Figure 1 – Racial and Ethnic Composition of City Workforce

Blacks were the largest group (33%) followed by Whites (32%). Other/Unknown (3%) includes Native American and Alaska Natives, and those who did not indicate their race/ethnicity in the City's personnel system. The personnel analyzed in this report were similar to the City's total workforce composition as reported in the June 30, 2021, EEO-4 Report.<sup>3</sup>

Table 12 (in Appendix B) provides the racial and ethnic composition of each entity analyzed in this report.

Figure 2 illustrates the gender composition of the personnel analyzed in this report.



#### Figure 2 – Gender Composition of City Workforce

<sup>&</sup>lt;sup>3</sup> The 2021 EEO-4 Report identified Blacks as the largest group (34%) followed by Whites (34%), Hispanics (21%), and Asian and Native Hawaiian Other Pacific Islanders (NHOPI) (10%). Employees that identified as Native American and Alaska Natives, and Two or More Races comprised one percent of the City's workforce.

Men composed a majority of the personnel analyzed in this report (59%). A small percentage (0.3%) of the City's workforce identified as non-binary or did not provide information on their gender (data not illustrated) in the City's personnel system. The personnel analyzed in this report were proportional to the City's total workforce as of June 30, 2021, as reported in the City's EEO-4 Report.

Table 13 (in Appendix B) provides the gender composition of each entity analyzed in this report.

Across job groups and entities citywide, there was considerable variation in race/ethnicity and gender compositions. Black workers ranged from 3 percent of Fire Supervisors to 64 percent of Building Services. Asian workers ranged from 1 percent of Fire Supervisors to 31 percent of Science Professionals. Hispanic workers ranged from 7 percent of Fire Supervisors to 31 percent of Paraprofessionals. Female workers ranged from less than 1 percent of Fire Supervisors to 87 percent of Health Professionals.

Black workers ranged from 7 percent at the Office of the Actuary to 63 percent at the Administration of Children's Services. Asian workers ranged from 0 percent, including at the Office of the Staten Island Borough President and the Office of Collective Bargaining, to 37 percent at Office of Payroll Administration (FISA+OPA). Hispanic workers ranged from 8 percent at Landmarks Preservation Commission to 56 percent at the Office of the Bronx Borough President. Females ranged from 10 percent at the Department of Sanitation to 76 percent at the Department for the Aging.

## The extent of underutilization in New York City

Underutilization was relatively stable in 2022 compared to 2021. There were 219 instances of underutilization in 2022, nine fewer than in 2021 (a 0.4% reduction).<sup>4</sup> Asians were underutilized in 8 percent of job groups, Blacks in 17 percent, Hispanics in 5 percent, and females in 15 percent. The percentage of instances for Asians, Blacks, and Hispanics were fewer for each group than in 2021. For females, the number of job groups in which they were underutilized stayed the same, but because there were fewer job groups that met the criteria to be included in underutilization analyses, the percentage increased (trivially).

There was at least one instance of underutilization in 24 of 29 job groups (83%), compared to 25 of 29 in 2021. Forty-seven entities (71%) had underutilization of at least one demographic in one job group, compared to forty-eight in 2021.<sup>5</sup> Asians were underutilized in at least one job group at 17 entities (26%), Blacks at 38 entities (58%), Hispanics at 18 entities (27%), and females at 27 entities (41%).

<sup>&</sup>lt;sup>4</sup> An "instance" of underutilization is defined as a unique combination of demographic, entity, and job group. For example, if an entity indicates underutilization in its Paraprofessionals job group of Asian workers but none of the other demographic groups analyzed in this report, we count it as one instance. If an entity indicates underutilization of Asian and female workers in its Paraprofessionals job group, it counts as two instances.

<sup>&</sup>lt;sup>5</sup> Sixty-six entities had at least one job group large enough (more than eight employees) to assess underutilization.

The utilization shortfall for Asians, Blacks, and Hispanics (combined) was 10,956, compared to 11,571 in 2021 (a 5% decrease). For Asians, the shortfall was 1,601, compared to 1,744 in 2021 (an 8% decrease). For Blacks, it was 8,247 compared to 8,437 in 2021 (a 2% decrease). For Hispanics, it was 1,108 compared to 1,391 in 2021 (a 20% decrease). For women, the shortfall was 3,929, compared to 4,334 in 2021 (a 9% decrease).

### Underutilization in Job Groups

Blacks faced – by far – the greatest disparity between their expected and actual employment in underutilized job groups (8,247). Women were the second highest disparity in employment at 3,929, followed by Asians (1,601) and Hispanics (1,108).

Tables 3 and 4 illustrate the citywide prevalence of underutilization in a subset of job groups. Tables 5 and 6 illustrate the citywide aggregate employment shortfalls in a subset of job groups. The shortfall is the disparity between the actual workforce and the expected workforce, *only* for the statistically significant cases where fewer personnel were employed than would be expected given the demographic availabilities.

The complete data for the number of job groups with underutilization can be found in Tables 16 and 17, and the disparities in Tables 18 and 19 (in Appendix D).

#### Blacks are substantially more underutilized than other demographic groups

Blacks were underutilized in 17 percent of job groups, the highest of the demographic groups analyzed in this report. The disparity between their actual employment in those groups they were underutilized and their availability was 8,247, more than double the disparity for females (who face the second-highest extent of underutilization of the groups analyzed in this report).

Black workers were the most frequently underutilized demographic in the Managers and Management Specialists job groups (in 20 percent and 21 percent, respectively). They were also underutilized in 67 percent of the Craft job groups, with a combined shortfall of 957 workers. Black workers were underutilized by 4,076 workers across the Police and Detectives job groups.

Each of these job groups includes titles that tend to pay higher than average City salaries.

#### Women are underutilized in the Police and Detectives, Craft, and Technicians groups

Females also faced considerable underutilization: they were underutilized in 15 percent of the job groups analyzed in this report, with a shortfall of 3,929 workers.

The disparity in the Police and Detectives job group was 1,046. Females were underutilized in 73 percent of the Craft job groups, with a total disparity of 690 workers, and by 629 workers across the Technicians job groups.

lob Group	# Job Groups > 8 Empl.	Asian	Black	Hispanic	Headcount	Job Group	# Job Groups > 8 Empl.	Female	ŀ
Managers	61↑	3.3% ↓ (2)	19.7% ↓ (12)	9.8% ↓ (6)	11153	Managers	61↑	14.8% ↑ (9)	
Management Specialists	48	0% (0)	20.8% (10)	4.2% (2)	11656	Management Specialists	48	4.2% (2)	
Police Supervisors	5	0% (0)	0%↓ (0)	0% (0)	7442	Police Supervisors	5	0% (0)	
Fire Supervisors	1	0% (0)	0% (0)	0% (0)	2464	Fire Supervisors	1	0% (0)	
Firefighters	1	0% (0)	0% (0)	0% (0)	8436	Firefighters	1	0% (0)	
Police and Detectives	18	5.6% ↓ (1)	16.7% ↓ (3)	0% (0)	39168	Police and Detectives	18	27.8% ↑ (5)	
Craft	15	13.3% (2)	66.7%↓ (10)	6.7% (1)	9330	Craft	15	73.3% ↓ (11)	
Laborers	13	38.5% (5)	7.7% ↑ (1)	15.4% ↓ (2)	5481	Laborers	13	53.8% ↓ (7)	
Paraprofessionals	59 †	11.9% ↓ (7)	6.8% ↑ (4)	8.5% ↑ (5)	12558	Paraprofessionals	59 †	8.5% ↑ (5)	
Total (all job groups)	483	7.7% ↓ (37)	17.2% ↓ (83)	5.4% ↓ (26)	180915	Total (all job groups)	483	15.1% ↑ (73)	:

# Table 3 – Underutilization of Racial and EthnicGroups in Select Job Groups, Citywide6

Table 4 – Underutilization of Females in Select Job Groups, Citywide

<sup>&</sup>lt;sup>6</sup> The "# Job Groups > 8 Empl." column indicates the number of entities with that job group, citywide. In the Asian, Black, and Hispanic columns, the percentage indicated is the percentage of job groups with underutilization of that demographic, and the number in parentheses indicates the number of job groups for which underutilization of that demographic occurs. The arrows indicate changes from the previous year (FY 2021). If there is no arrow, the percentage was the same. For example, for all the entities analyzed in this report, there were 61 Managers job groups with more than eight employees. Three percent of those job groups had underutilization of Asians, twenty percent had underutilization of Blacks, and ten percent had underutilization. The percentage of Managers job groups with underutilization. The percentage of Managers job groups with underutilization of Asian, Black, and Hispanic workers decreased for the last year. The "Total" row includes all job groups, not only those listed in the rows above.

Table 5 – Disparities in # of Personnel by Race and
Ethnicity in Select Job Groups, Citywide <sup>7</sup>

Table 6 – Disparities in # of Females in Select Job Groups, Citywide

Job Group	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount	Job Group	# Job Groups > 8 Empl.	Female Shortfall	Headcount
Managers	61	26	263	108	11153	Managers	61	425	11153
Health Professionals	9	-	666	-	4765	Management Specialists	48	169	11656
Technicians	28	278	610	86	8450	Science Professionals	36	256	7464
Firefighters	1	-	-	-	8436	Social Workers	12	130	11953
Police and Detectives	18	38	4076	-	39168	Technicians	28	629	8450
Craft	15	89	957	35	9330	Firefighters	1	-	8436
Laborers	13	352	20	178	5481	Police and Detectives	18	1046	39168
Sanitation Workers	1	-	296	-	7336	Craft	15	690	9330
Paraprofessionals	59	251	148	44	12558	Laborers	13	188	5481
Total (all 29 job groups)	483	1601	8247	1108	180915	Total (all 29 job groups)	483	3929	180915

<sup>&</sup>lt;sup>7</sup> Table 5 provides the aggregate underutilization employment disparities by racial and ethnicity for a sample of job groups. The "Total" row provides the citywide totals, not just the totals of the job groups listed.

The number of job groups ("# Job Groups > 8 Empl.") indicates those for which an assessment of underutilization is made (i.e., those with more than 8 employees in the group). In the Asian, Black, and Hispanic columns, the numbers indicate the shortfall for each demographic only for the job groups with underutilization of that group. These values range from "-" meaning no underutilization, to 4,076, the citywide utilization shortfall for Black workers in the Police and Detectives job group. That is, given the current citywide Police and Detectives job group headcount, an additional 4,076 Black employees in the Police and Detectives job group were expected for equal employment.

### Underutilization at City Entities

Seventy-one percent of entities (47 of 66) had underutilization of at least one protected class in one job group. The entities with no underutilization tended to be smaller, with an average headcount of 137 and three job groups large enough to be assessed for underutilization.

Tables 7 and 8 illustrate the prevalence of underutilization at a subset of entities. Tables 9 and 10 illustrate the aggregate employment disparities by entity, for a subset of entities. The total row for each table provides the citywide totals for each column, not just of those entities listed. The number of job groups at each entity with underutilization can be found in Tables 20 and 21, and the disparities can be found in Tables 22 and 23 (in Appendix D).

## The Department of Parks and Recreation had considerable underutilization of people of color, but saw improvement compared to the previous year

Blacks were underutilized in seven job groups at the Department of Parks and Recreation (DPR) (41%). Asians were underutilized in five (29%), and Hispanics in one (6%). The disparity for these groups combined was 862 (10% of the DPR's workforce). Blacks were underutilized in numerous job groups, including Management Specialists and Science Professionals, but the total disparity was driven largely by their underutilization in the Guards group. Asians were especially underutilized in the Craft and Laborers job groups, and underutilization of Hispanics was entirely due to their underutilization in the Laborers job group. In 2022, the number of job groups with underutilization increased for Asians, remained the same for Blacks, and decreased for Hispanics; while the disparities increased for Asians but decreased for both Blacks and Hispanics.

## The New York City Police Department had considerable underutilization of Blacks and females

The underutilization disparity for Blacks at the NYPD was 4,167 (8% of the NYPD's workforce). For females the shortfall was 2 percent of the workforce (a small percentage but equivalent to 1,059 individuals due to the size of the Department). Ninety-six percent of the underutilization of these groups is in the Police and Detectives job group, which is, by far, the largest job group at NYPD. The hiring of women in 2022 in the Police and Detectives job group was considerably higher than expected (as illustrated in Figure 4 in the following section), but there is still a considerable shortfall. The percentage of Patrol Officers who are Black has been declining in recent years.<sup>8</sup>

#### The Fire Department had considerable underutilization of Asians, Blacks, and females

At the FDNY, the combined shortfall for Asians and Blacks was 977; for women it was 669. This underutilization was not in the Firefighters job group (which has very low LMA estimates

<sup>&</sup>lt;sup>8</sup> See "Number of Black Patrol Cops Falls as NYPD Upper Ranks Remain Majority White" by Greg B. Smith, published in *The City* on June 24, 2020. Available at <u>https://www.thecity.nyc/2020/6/24/21302335/number-of-black-cops-falls-as-nypd-upper-ranks-remain-white</u>.

for these groups<sup>9</sup>); it was driven largely by those job groups with higher LMAs for these demographic groups, including the Health Professionals, Technicians, Clerical, and Craft groups. Over three quarters of those underutilization disparities (78% for Asian and Black combined, and 79% for females) were in the Technicians job group. Interestingly, ninety-six percent of employees in the Technicians job group were employed in three job titles that were previously eligible for promotion into the Firefighters job group on a collateral basis. The announcement for the Promotion to Firefighter Exam from 2016 (number 7501) stated:

This examination is open to each employee of the Fire Department of New York who on the first date of the computer-based test: (1) holds a permanent (not provisional) competitive appointment or appears on a Preferred List (see Note, below) for the title of Emergency Medical Specialist - EMT or Emergency Medical Specialist- Paramedic, or Supervising Emergency Medical Service Specialist; and (2) is not otherwise ineligible.

## The Department of Environmental Protection had considerable underutilization of Blacks and females, with some improvement compared to the previous year

At the Department of Environmental Protection (DEP), employment disparities decreased across all demographics in 2022, but still remained large. Blacks and females were each underutilized in eight job groups at the DEP (53%), with disparities of 528 for Blacks (9% of DEP's workforce) and 414 for females (7% of DEP's workforce). The Craft, Laborers, Managers, Police and Detectives, and Science Professionals job groups experienced underutilization of Blacks and females.

<sup>&</sup>lt;sup>9</sup> The availability estimates in CEEDS indicate that Asian, Black, Hispanic, and women are all statistically significantly *over*utilized, or employed at rates greater than their presence in the LMA. See Figure 26 in the EEPC's 2022 LL13 (Volume 2) report for an overview of the availability percentages of the Firefighters job group at FDNY.

Entity	# Job Groups > 8 Empl.	Asian	Black	Hispanic	Headcount	Entity		# Job Groups > 8 Empl.	Female	Headcount
Office of the Mayor	4↓	0% (0)	25.0% ↑ (1)	25.0% ↑ (1)	487	NYC Pol	lice Department	23	21.7% ↓ (5)	50538
NYC Police Department	23	4.3% ↓ (1)	26.1% ↑ (6)	0% (0)	50538	NYC Fire	e Department	16 ↑	43.8% ↑ (7)	16906
NYC Fire Department	16 †	12.5% ↓ (2)	37.5% ↑ (6)	0%↓ (0)	16906	Departn	nent of Correction	19	26.3% (5)	8365
Department of Education	18	11.1% ↓ (2)	22.2% ↓ (4)	5.6%↓ (1)	12739	Departn	nent of Education	18	22.2% ↓ (4)	12739
Department of Environmental Protection	15	6.7%↓ (1)	53.3% ↑ (8)	20.0% (3)	5644	Departn Environ	nent of mental Protection	15	53.3% (8)	5644
Department of Sanitation	14	14.3% (2)	21.4% (3)	0%↓ (0)	9844	Departn	nent of Sanitation	14	28.6% (4)	9844
Department of Transportation	13↓	15.4% ↑ (2)	23.1% ↑ (3)	15.4% ↑ (2)	5492	Departn Transpo		13↓	38.5% ↑ (5)	5492
Department of Parks & Recreation	17 ↑	29.4% ↑ (5)	41.2% ↓ (7)	5.9% ↓ (1)	8272	Departn Recreat	nent of Parks & ion	17 ↑	23.5% ↑ (4)	8272
NYC Office of Technology and Innovation	10 ↑	10.0% ↑ (1)	10.0%↓ (1)	0%↓ (0)	1576	NYC Off and Inn	ice of Technology ovation	10 ↑	40.0% ↑ (4)	1576
Office of the Richmond County District Attorney	3↓	0%↓ (0)	66.7%↓ (2)	33.3% ↑ (1)	193		nent of Citywide strative Services	15	26.7% ↓ (4)	2040
NYC Housing Authority	18	33.3% (6)	5.6% ↓ (1)	16.7% (3)	11612	NYC Ho	using Authority	18	22.2% (4)	11612
Total (all entities)	483	7.7% ↓ (37)	17.2% ↓ (83)	5.4% ↓ (26)	180915	Total (a	ll entities)	483	15.1% ↑ (73)	180915

Table 8 – Underutilization of Females

at Select Entities

# Table 7 – Underutilization of Racial and EthnicGroups at Select Entities10

<sup>&</sup>lt;sup>10</sup> For example, the Office of the Mayor has four job groups with more than eight employees. None of those job groups have underutilization of Asians, one has underutilization of Blacks, and one underutilization of Hispanics. To determine which entities to include in Tables 7 and 8, the shortfall for each group (Asian, Black, and Hispanic) is added together and divided by the total number of personnel in the job groups large enough to be analyzed for underutilization (those with over 8 total employees). In other words, the entities listed here have the highest rates of underutilization, measured as a percentage of the personnel in eligible job groups.

nicity at Select Entities, Citywide									
Entity	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount				
Office of Management & Budget	4	-	57	-	398				
NYC Police Department	23	14	4167	-	50538				
NYC Fire Department	16	230	747	-	16906				
Office of the City Clerk	2	-	15	-	48				
Department of Education	18	215	775	148	12739				

Department of Environ-

NYC Housing Authority

mental Protection Department of Parks &

Total (all entities)

Recreation

Table 9 – Disparities in # of Personnel by Race and Eth-

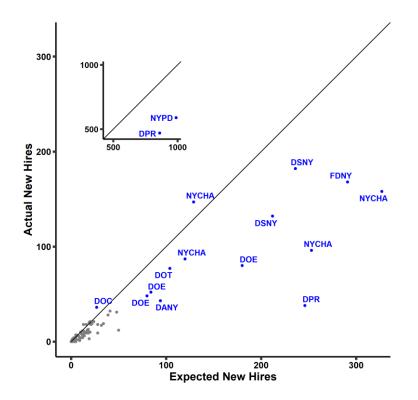
# Table 10 – Disparities in # of FemalesSelect Entities, Citywide

Entity	# Job Groups > 8 Empl.	Female Shortfall	Head- count
Office of Administrative Tax Appeals	2	4	30
NYC Police Department	23	1059	50538
NYC Fire Department	16	669	16906
Department of Correction	19	65	8365
Department of Buildings	8	171	1558
Department of Environ- mental Protection	15	414	5644
Department of Transpor- tation	13	280	5492
NYC Office of Technology and Innovation	10	137	1576
Total (all entities)	483	3929	180915

## Hiring often perpetuated underutilization

Hiring in 2022 perpetuated underutilization in many job groups. Figure 3 illustrates the actual and expected new hires in 2022 in job groups where there was underutilization of one or more racial/ethnic groups in 2021.<sup>11</sup> If a point is to the right of/underneath the diagonal line, it indicates hiring of the underutilized racial/ethnic group(s) was below their LMA.

Figure 3 – Actual vs Expected New Hires of Underutilized Racial/Ethnic Groups: Entities' Job Groups



Each point represents a job group at an entity. These job groups had underutilization in 2021 of one or more of the following groups: Asians, Blacks, and Hispanics. If more than one of these demographic groups were underutilized, the disparities and LMAs of those

<sup>&</sup>lt;sup>11</sup> In 2021, there were 228 instances of underutilization across 165 unique pairs of job groups and entities (some of these 165 unique pairs had underutilization of more than one demographic group; if so, we count each demographic group separately, hence the 228 instances). In FY2022, the 165 unique job group and entity pairs with underutilization had 19,781 new hires.

The plot includes an inset because some entities had far higher numbers, and including them on the same plot would have skewed the axes and made it more difficult to distinguish individual points.

demographics are combined and represented by one data point on the plot. Entities may appear more than once, if they have more than one job group with underutilization.

For example, note the "NYCHA" point furthest to the right on the main graph. This represents the Laborers job group at the New York City Housing Authority (NYCHA). In 2021, there was underutilization of Asians and Hispanics. Of all the new hires in this group in 2022, 327 would have been of Asians or Hispanics (combined) if the rate of their hiring matched their LMA. That number is represented by this point's placement on the horizontal (x) axis, which measures expected new hires of the underutilized groups based on their LMA and the total hires in that job group. In 2022, there were 158 individuals hired who identified as Asian or Hispanic. This number is represented by this point's placement on the vertical (y) axis, which measures the actual new hires from the underutilized group(s). In this example, hiring of the underutilized groups was lower than their LMA, perpetuating underutilization.

The diagonal line that bisects the plot marks all the points at which the number of new hires of underutilized groups exactly matches their LMA. Most points (83%) are to the right of/below that line (such as the NYCHA point discussed above), indicating their hiring in 2022 was lower than the LMA of the underutilized demographic groups. Points on that line or to the left of/above it represent job groups in which hiring in 2022 was greater than their LMA.

Figure 4 illustrates hiring data for females, in the same way as Figure 3.

## Figure 4 – Actual vs Expected New Hires of Females: Entities' Job Groups with Underutilization

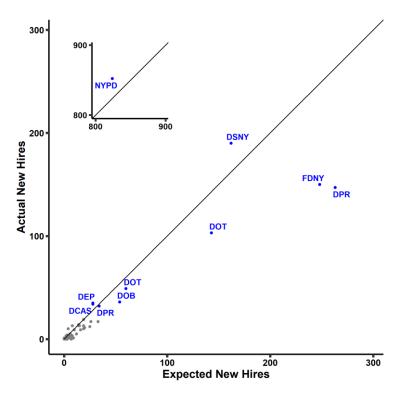
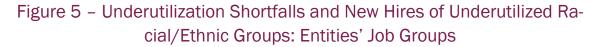
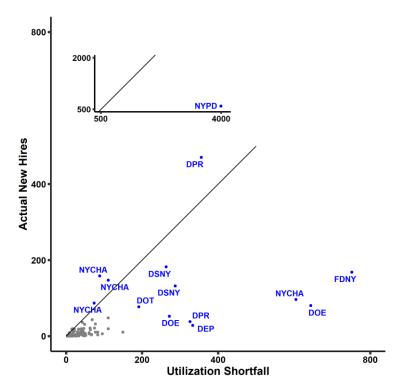


Figure 4 illustrates most points are to the right of/below the diagonal line (84%), indicating their hiring in 2022 was below the LMA of females. Hiring at some of the job groups at the FDNY and DPR had particularly high disparities. Hiring for at least one job group at the Department of Sanitation (DSNY) and the NYPD – two entities with relatively low numbers of female personnel – exceeded their availability, thus helping to remediate underutilization in those job groups.

Figure 5 illustrates new hires compared to the underutilization shortfall, for people of color. The key difference between Figure 5 and Figures 3 and 4 is the x (horizontal) axis: in this plot it represents the existing shortfall for the underutilized group(s) in 2021; in Figures 3 and 4 it represents the availability of the underrepresented group(s).





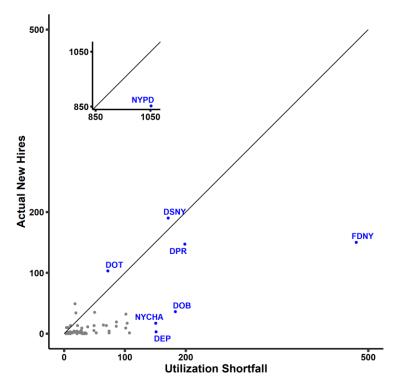
Each point represents a job group at an entity. These job groups had underutilization in 2021 of one or more of the following groups: Asians, Blacks, and Hispanics. If more than one of these demographic groups were underutilized in that job group, the disparities and LMAs of those demographics are combined into the one data point. The y axis (vertical) represents the number of new hires of individuals from the underutilized demographic group(s), and the x axis (horizontal) represents the shortfall of the underutilized group(s), based on their labor market availability. The diagonal line that bisects the plot represents the points at which the number of new hires of the underutilized group(s) exactly matches their shortfall. In other words, if a point is on that line (or to the left of/above it) the underutilization was fully

addressed (depending on other movement in that job group, such as separations). Points to the right of/below the line indicate new hires from the underutilized groups did not completely address the underutilization shortfall. The figure includes an inset to illustrate those job groups with far larger numbers than the others.

The New York City Housing Authority (NYCHA) had three job groups where, in 2022, the number of hires of individuals from underutilized groups was greater than the disparity. The Department of Parks and Recreation (DPR) also had one. This means hiring would have fully addressed underutilization in that job group, all else being equal.<sup>12</sup> The figure illustrates most entities did not fully address the underutilization in their job groups, but the closer the point to the diagonal line, the closer they came to doing so.

Figure 6 illustrates the same hiring data as Figure 5, for females.





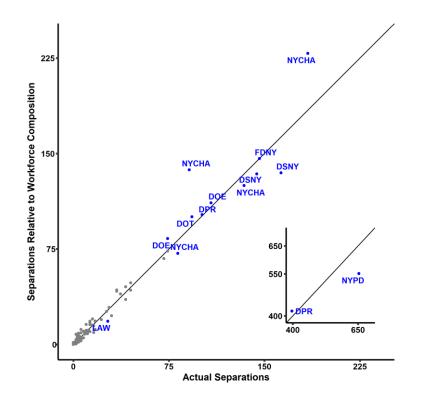
The Department of Transportation (DOT), the Department of Sanitation (DSNY), and a handful of other entities fully addressed underutilization of females in at least one job group, all else being equal (see footnote 12).

<sup>&</sup>lt;sup>12</sup> The job groups above the diagonal line could still have underutilization in 2022 even if hiring appears to have addressed it, if individuals who separated or were promoted out of the job group were disproportionately individuals from underutilized demographic groups.

## Separations had a modest impact

Separations also had an impact on underutilization. Figure 7 illustrates separations in 2022 contributed to remediating underutilization of people of color, although not substantially so. Points to the right of/underneath the diagonal line indicate job groups in which individuals from the underutilized group(s) separated in 2022 at a rate higher than their presence in that group at the beginning of the year.

Figure 7 – Actual Separations vs. Separations Relative to Workforce Composition for Underutilized Racial/Ethnic Groups: Entities' Job Groups



Each point represents a job group at an entity. These job groups had underutilization in 2021 of one or more of the following groups: Asians, Blacks, and Hispanics. If more than one of these demographic groups were underutilized, those demographics are combined and represented by one data point on the plot. Entities may appear more than once, if they have more than one job group with underutilization.

For example, note the "NYCHA" point furthest to the right on the main graph (above the diagonal line). This represents the Building Services job group at NYCHA. In 2021, there was underutilization of Asians and Hispanics. Of all employees in this group who separated in 2022, 229 would have been of Asians and Hispanics (combined) if the rate of their separating matched their composition in the job group. That number is represented by this point's placement on the vertical (y) axis, which measures expected separations of the underutilized groups based on the percentage of the job group they are. Instead of 229 Asian and Hispanic separations in the Building Services job group, there were 184. This is represented by this point's placement's placement on the horizontal (x) axis, which measures the actual separations of the underutilized group(s). In this example, individuals from underutilized groups were less likely than others to separate from their job, helping to remediate underutilization.

The diagonal line that bisects the plot marks all the points at which the number of separations of underutilized groups exactly matches their presence in the job group. Thirty-one percent of the points are to the right of/below the diagonal line, indicating separations in 2022 made underutilization worse. In 39 percent of job groups separations of individuals from underutilized groups was less than expected, helping remediate underutilization (these points are to the left of/above the diagonal line, such as in the NYCHA example discussed above). In 30 percent of instances separations of underutilized groups equaled what was expected, thus having no impact on underutilization.

Figure 8 illustrates the same data as Figure 7, for females.

#### Figure 8 – Actual Separations vs. Separations Relative to Workforce Composition for Females: Entities' Job Groups

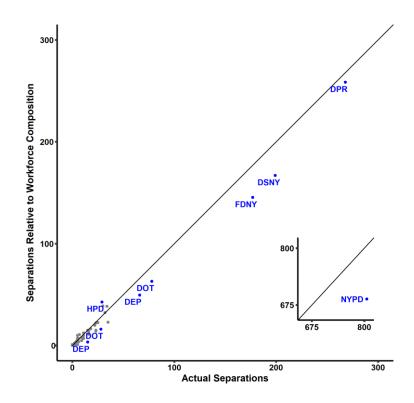
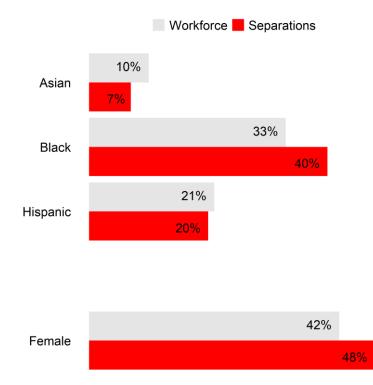


Figure 8 illustrates separations exacerbated underutilization of females. In 41 percent of instances of underutilization, separations of women were higher than their presence in the job group (illustrated by the points to the right of/below the diagonal line. In 14 percent of job groups separations of females were fewer than expected, which helped remediate underutilization (represented by the points to the left of/above the diagonal line) and for 45 percent of job groups with underutilization, there was no difference in expected versus actual separations.

Figure 9 illustrates the aggregated separation rates for every job group and entity analyzed in this report (compared to Figures 7 and 8, which only illustrate separations for (those job groups with underutilization in 2021).

### Figure 9 – Share of Workforce Representation and Separations, Citywide, all Entities and all Job Groups



The rate of separation of Asian and Hispanic personnel in 2022 was less than their presence in the workforce in 2021, indicating that – all else equal – their presence in the workforce increased. Blacks saw a substantial degree of separations: in 2021 they composed 33 percent of the workforce, but in 2022 were 40 percent of the separations. The pattern was similar for women: in 2021 they composed 42 percent of the workforce, and in 2022 were 48 percent of the separations.

## How the EEPC helps entities combat underutilization

One of the EEPC's primary responsibilities is to audit the employment practices and procedures of New York City entities, to determine if they are complying with applicable laws, policies, and procedures. The EEPC has established standards on employment practices founded upon federal, state, and local laws, to increase the equality of opportunity for municipal government employees and job applicants. Many of these standards are intended to help institutions address underutilization by improving opportunities for historically underrepresented groups who have faced discrimination and barriers to employment.

At the time this report was published, the EEPC was conducting its Employment Practices Audit (EPA). This audit includes a review of entities' workforce data, employment practices (e.g., recruitment, selection, and retention), policies, programs, and procedures. If there is underutilization, entities are required to review their selection procedures to determine whether job qualifications are job-related and required by business necessity, and to develop and implement recruitment and/or selection plans to increase employment opportunities in appropriate areas.

A determination of audit compliance indicates an entity has successfully established and implemented measures to ensure it is providing equal employment opportunities. The EEPC issues a "Corrective Action" for each standard the entity has not demonstrated compliance with. The EEPC requires the establishment and consistent implementation of various measures to ensure awareness of underutilization when/if it occurs, and to ensure that each entity is taking swift steps to mitigate and/or eliminate it. For example, the EEPC requires entities to:

- Review recruitment sources to ensure that they include those specific to the demographic that is underutilized and add recruitment sources as necessary; for example, adding recruitment sources like Society of Women Engineers when recruiting for positions in job groups with underutilization of females or El Diario when recruiting for positions in job groups with underutilization of Hispanics.
- Annually review workforce statistics (e.g., workforce, hires, promotions, and separations by race/ethnicity and gender), and EEO complaints, to identify trends as well as the agency's employment practices, policies and programs to ensure that they are up to date. Reviewing statistical data annually will enable entities to identify if there is an uptick in complaints of a certain type in a particular department or location or if there are foreseeable opportunities for succession planning and diversity efforts.
- Assess selection criteria to determine whether the selection criteria being utilized are
  job-related and required by business necessity.<sup>13</sup> For example, is a physical test truly
  necessary to measure one's ability to do the job? Are the civil service class and job

<sup>&</sup>lt;sup>13</sup> Selection criteria refers to the assessments of applicants' knowledge, skills and abilities used to fill a position. A vacancy provides a prime opportunity for an assessment of each criterion to determine their relevance.

title being used to fill a vacancy discretionary or civil service, and are they the most appropriate for the position?

- Use an applicant tracking system (e.g. NYCAPS) to capture pertinent applicant data such as demographics, recruitment source, personnel involved in interviewers, hiring manager(s), applicant stage, dispositions, and selection decisions – and ensure such data is reviewed by each entity's EEO Officer.
- Ensure that personnel involved in interviewing and hiring are trained to do so in a manner that considers EEO laws/policies and use uniform, job-related techniques to identify, interview and select the most capable candidates.
- Consistently promote employees' awareness of opportunities for advancement within, thereby retaining talent.

#### The impact of remedial measures and other considerations

In the best-case scenario, efforts to reduce or eliminate underutilization have an immediate impact. Typically, efforts often have a slower and inconsistent effect. Efforts to address underutilization must overcome many hurdles. Some are unavoidable: often a vacancy must occur before a new hire can be made; historically, it has been hard to recruit individuals from certain demographic groups into certain jobs (e.g., female Sewage Treatment Workers and Watershed Maintainers). Entities must abide by the One in Three Rule (with limited exceptions) when hiring from a Civil Service list and thus have limited flexibility in who they hire.

City Policies in recent years have restricted hiring. In 2019, the City of New York instituted a hiring freeze using a "3-for-1" rule that only allowed entities to hire one employee for every three vacancies it carried. It was later lowered to 2-for-1.<sup>14</sup> Simultaneously, annual separations have increased with some reports noting the City's workforce has declined by five and a half percent since 2020 and is at the lowest level in five years.<sup>15</sup> If entities are restricted in their hiring it will likely be more difficult for entities to address underutilization.

<sup>&</sup>lt;sup>14</sup> See "De Blasio's Budget Calls for Cost-Savings, Hiring Freeze at City Agencies" by Katie Honan, published in *The Wall Street Journal* on February 7, 2019, available at <u>https://www.wsj.com/articles/de-blasios-budget-calls-for-cost-savings-hiring-freeze-at-city-agencies-11549581947</u>.

<sup>&</sup>lt;sup>15</sup> See "Understaffed, Underserved: Impact of Staff Vacancies on Agency Performance" from the New York City Comptroller, published in March 2023, available at <a href="https://comptroller.nyc.gov/reports/understaffed-under-served/">https://comptroller.nyc.gov/reports/understaffed-under-served/</a>, and "Impact of the Pandemic on New York City's Municipal Workforce" from the Office of the New York State Comptroller, published in November 2022, available at <a href="https://www.osc.state.ny.us/files/re-ports/osdc/pdf/report-13-2023.pdf">https://www.osc.state.ny.us/files/re-ports/osdc/pdf/report-13-2023.pdf</a>.

## Conclusion

The data highlight several important outcomes in 2022.

#### Underutilization in 2022 was largely unchanged from 2021, with slight improvements for Asians, Blacks, and Hispanics.

There were small decreases in the percentage of job groups with underutilization of Asians, Blacks, and Hispanics. There was no change in the number of job groups with underutilization of females.<sup>16</sup>

Black workers and female workers remained the most underutilized workers citywide. In aggregate, the extent of underutilization of Blacks was five times greater than that of Asian workers or Hispanic workers, and over two times more than female workers.

## In a large majority of job groups with underutilization, people of color and females were not hired at rates that match the City's labor market availability estimates.

Combating underutilization requires, in part, hiring individuals at a rate that matches or exceeds their labor market availability. In 2022, individuals from underrepresented groups were hired at lower rates than their LMA estimates in many job groups with underutilization, a troubling trend the City must work to address.

## Separations had a minimal impact on underutilization of racial/ethnic groups, but a considerable impact on underutilization of females.

Combating underutilization requires, in part, retaining individuals from underrepresented groups at a rate that is equal to or higher than their existing presence. The majority of job groups with underutilization in 2021 saw individuals from the underutilized groups leave at rates higher than or equal to their presence in that job group, making underutilization worse. This was especially an issue for females. Several studies have highlighted the disparate impact of the pandemic on females: surveys indicate females have quit or taken time off because of caregiving responsibilities at rates higher than men.<sup>17</sup> Research suggests these issues are also impacting the rate at which females return to the workplace, further impacting the ability of entities to address underutilization.

There is no one thing entities can do to address underutilization. Sometimes the primary focus is on recruitment, but many experienced EEO professionals know recruitment alone usually is not sufficient to address underutilization. Entities should seek a multi-pronged

<sup>&</sup>lt;sup>16</sup> There was a trivial increase in the percentage of job groups with underutilization of females, only because the number of job groups that met the criteria for analysis decreased from 2021 to 2022.

<sup>&</sup>lt;sup>17</sup> For some examples of this research, see the Kaiser Family Foundation's report *Women, Work, and Family During COVID-19* (March 2021), available at <u>https://www.kff.org/womens-health-policy/issue-brief/women-work-and-</u> <u>family-during-covid-19-findings-from-the-kff-womens-health-survey/</u> and the Organisation for Economic Co-operation and Development's (OECD) report *Caregiving in Crisis* (December 2021), available at <u>https://www.oecd.org/coronavirus/policy-responses/caregiving-in-crisis-gender-inequality-in-paid-and-unpaid-</u> <u>work-during-covid-19-3555d164/</u>.

approach and will usually need to persist with efforts for years before seeing results. New York City should also institutionalize practices across entities, such as career counseling and exit interviews.

While there is much that can and should be done, we focus on several recommendations that can be achieved and have the potential to be particularly effective in addressing underutilization.

## Explore why hiring perpetuates underutilization and do more to diversify candidate pools.

Hiring of underutilized groups in those job groups underutilizing them was often considerably below their labor market availability. More should be done to diversify candidates in competitive titles. Many entities already engage in targeted recruitment efforts, although the extent to which they focus on underutilized demographic groups is usually unclear. The City should do more to develop internal applicants by better advertising exams to its incumbent workforce and better facilitating transfers between City entities. For discretionary vacancies, many entities review their recruitment efforts to better reach and develop diverse applicant pools, but in some instances, more can be done to focus particularly on underutilized demographics.

It is also crucial for stakeholders to know and understand the City's workforce, hiring practices, and personnel trends. There have been various policies - put in place because of the pandemic and related budgetary concerns - restricting the ability of entities to hire for vacant positions. As those restrictions ease and the City works to fill vacancies, there is an opportunity to have a greater impact on underutilization. EEO professionals have some knowledge of the issues at their own entities, but little work has been done to understand City-wide trends. Sharing findings from other entities and examining larger trends across the workforce would help the City develop effective strategies and allow entities to learn from each other. The City should engage in efforts to standardize applicant and candidate data. aggregate it across entities, and analyze trends over time. This report highlights some important trends at individual entities and City-wide but is only one step in that process. As part of this report series, the EEPC will undertake in-depth analyses of hiring and separation trends in the City, to the extent the data allow for such analysis. We will explore the breakdown of hires from competitive and non-competitive titles and analyze Civil Service lists for titles in job groups with underutilization. These efforts will highlight where the major problems lie and should allow entities and the City to develop more effective plans.

#### Improve retention of underutilized demographic groups.

The workplace must be welcoming to all employees and equitably provide opportunities for advancement. If females and people of color do not believe they have the same opportunities as white males, the entity will be unable to retain them. It is important for decision-makers at individual entities to know their personnel and for City leaders to understand trends in the attitudes and opinions of City workers. More can be done to better understand the stages of employee lifecycles, from initial application to separation, and workforce composition. The City should survey personnel across entities to determine if employees from different

demographic groups see their workplaces in the same way. Do employees feel there are opportunities for advancement? Do they feel their entity is a great place to work?

In addition, the Human Resources representatives at City entities should look at the comments contained in employee exit interviews and get an understanding as to why employees are leaving. The legislation proposed by Councilman Shaun Abreu to require entities to conduct exit interviews may be very helpful in this regard. It is also important the data from these interviews be available for analysis, so broader Citywide patterns and trends can be determined. Flexible work options may be a factor in the City's vacancy rates and explain the high rate of exit for females, as discussed above. The City's plan to pilot different options for flexible scheduling and remote work may be a first step in retaining personnel and helping address underutilization.

The Equal Employment Opportunity professionals should also look at employee EEO complaints to determine if there have been increases in complaints, or if there is a common thread throughout complaints, or if the complaints indicate the possibility of a larger problem in the workplace. The Human Resources professionals should also examine the workplace to see if "glass ceilings" exist; in other words, determine if there is a level in a career path where females and/or people of color exit because they cannot advance their careers any further. The Human Resources professionals should also ensure no other barriers exist, such as dead-end jobs with no career path, or that employees are not being routinely evaluated and as a result are unaware of those areas needed for improvement to advance in their careers. There must be a review to ensure employees are not being paid unequally based on a protected characteristic - such as race or ethnicity - for doing the same or substantially similar work, and any such disparities in pay must be redressed immediately. Moreover, entities should ensure all interview panel members have received training on the conduct of interviews, including structured interviewing practices and recognizing unconscious bias. Once the entity has fully examined the dynamics within entities and has rectified any barriers that exist, it should then seek to target its recruitment efforts towards those job groups where underutilization exists.

In all instances, entities should review the applicant dispositions for when and why the candidacy of applicants ended. For competitive vacancies, the City – through individual entities and citywide via DCAS – should consider raising or expanding internal awareness of upcoming civil service exams for competitive titles. and continue to utilize civil service list hiring pools. For discretionary vacancies, entities should review and possibly broaden its recruitment efforts to better reach and develop applicants of underutilized demographics.

Entities should designate Career Counselors to disseminate relevant exam information and job vacancy notices (for both competitive and discretionary titles) among entity staff. DCAS's Office of Citywide Recruitment's (OCR) current efforts to reach existing employees and the public (including monthly Civil Service 101 sessions, newsletters, and career fairs) could be expanded by City leadership by automatically emailing OCR's newsletters to all city employees. Entities should also work to better develop external candidates where applicable, including via Civil Service exams. To assist in this process, the City should consider reviewing the tenure of existing mid-level and senior employees (both by title and job group) to see how quickly employees have advanced in the organization.

These recommendations have been made with the goal of remedying underutilization which is often related to occupational segregation. Many of the recommendations made in this report are likely already being done in some fashion at many City entities. The goal, however, is for all entities to connect these recommendations and expand existing efforts in a unified manner – at each entity and citywide.

A comprehensive plan to address issues in the employee life cycle including underutilization, offers the promise of creating an inclusive work environment. An environment where employees are fairly treated, can do their best work, and are afforded equal opportunities to advance their careers.

# Appendix A Key Terms

Applicant - A person who applies for a job.

Asian – A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian Subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

**Availability Estimate** – (sometimes referred to as Labor Market Availability (LMA).) It is a percent estimate of persons in the relevant labor markets and internal workforce feeder pools that have the requisite qualifications to perform the work for those positions included in the job group. Availability estimates are calculated for each job title and then aggregated to yield job group level availability estimates. This report focuses on the availability estimates for minority group members (Asian, Black, and Hispanic) and women.

**Black** – An individual, not of Hispanic origin, with origins in any of the black racial groups of Africa.

**Candidate** – A person regarded as suitable for or likely to receive a position. A candidate is a person who has the minimum qualifications and progresses through the hiring process. To be a candidate for a competitive Civil Service List title, one must score 70 points or greater on the Computer-Based Exam for the title.

**CEEDS Availability Estimates** – Compound constructions that are comprised of three weighted constituent parts, namely, candidates on the applicable civil service lists for competitive titles, the internal workforce available for discretionary appointments, and the applicable external labor pool for discretionary titles. Census availability estimates are relevant to the external availability pool and that come from subsets of the working population at large.

**Census Availability Estimate** – The U.S. Census Bureau American Community Survey (ACS) calculates EEO tabulations primarily broken down by demographic (i.e., race/ethnicity and gender), occupation, and geography. The EEO tabulation measures external labor pools, by occupation and geographic area, that are used for the availability estimate and utilization analyses.

**Certified List** - The Civil Service List or portion of the Civil Service List officially sent to City agencies and from which they can hire.

**Competitive Title** – A class of civil service title that requires candidates to first qualify for, take, and pass a Civil Service Examination. Candidates who pass the exam are listed in rank order and must be considered in list order when entities seek to fill vacancies in the competitive title. Once the Civil Service list is created and published, it becomes the source of availability to fill vacancies for the respective title.

**Discretionary Title** – A class of civil service title that does not require taking the Civil Service Examination. Candidates to discretionary titles apply to job vacancies and are appointed after

an examination of qualifications (Non-Competitive Class), at the policy making level at the discretion of an agency (Exempt Class), or to perform unskilled labor (Labor Class).

**EEO Tabulation** – The EEO tabulation was created by the US Census to measure the population availability of workers by occupation and geography. The EEO tabulation measures the external availability for the weighted availability estimate that is essential to the utilization analysis.

**Hispanic** – A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

**Incumbent Worker/Workforce** – An individual (or group of individuals) currently employed. The current workforce.

**Job Group** – A group of job titles within a workplace having similar content, wage rates, and opportunities for advancement.

**Job Title** – A job title is a name that describes a job or position. The job title can imply the level of the job as well as the responsibilities included in the job.

**Minorities** – Persons who are Black, Hispanic, and/or Asian. The term may refer to these groups in the aggregate or to an individual group.

**One in Three Rule** – Under New York State Civil Service Law, this rule provides City agencies with the discretion when hiring to select one of the three eligible candidates scoring highest on the ranked eligible list of exam passers.

**Open Competitive Exam** – Exams open to anyone meeting the minimum qualifications as described in the official Notice of Examination.

**Promotional Exam** – Exams open to permanent Civil Service employees, i.e., those who have been appointed from a Civil Service exam and passed the mandated probationary period.

**Selection Process** – Any step, combination of steps, or procedure used as a basis for any employment decision, including but not limited to: informal or casual interviews, unscored application forms, paper and pencil tests, performance tests, training programs, probationary periods, and physical, education, and work experience requirements, as well as the decision-making process used in determining whether to hire or promote.

**Underutilization** - Underutilization occurs when the number of employees in a job group who belong to a specific racial/ethnic or gender group is less than the number reasonably expected when compared to the availability of qualified persons in the relevant labor pool.

**White** – An individual not of Hispanic origin (unless otherwise noted), with origins in any of the original peoples of Europe, North Africa, or the Middle East.

**Woman** – An individual who identifies as a woman (and may sometimes be referred to as a female) and can be of any race and/or ethnicity.

# Appendix B New York City Entities Analyzed

Table 11 illustrates each entity analyzed in this report. It indicates the number of job groups and employees, both in total and the numbers for those of job groups large enough to measure underutilization.

Entity Name (Entity Code)	# Job Groups	# Empl.	# Job Groups > 8 Empl.	# Empl. JG > 8
Office of the Mayor (002)	6	497	4	487
Campaign Finance Board (004)	5	117	3	109
NYC Office of the Actuary (008)	5	41	2	37
NYC Employees' Retirement System (009)	10	488	7	478
Office of the Manhattan Borough President (010)	8	47	2	37
Office of the Bronx Borough President (011)	5	54	2	46
Office of the Brooklyn Borough President (012)	9	47	2	35
Office of the Queens Borough President (013)	10	64	2	47
Office of the Staten Island Borough President (014)	6	36	1	25
Office of the NYC Comptroller (015)	13	710	8	686
Department of Emergency Management (017)	6	206	2	197
Office of Management & Budget (019)	6	400	4	398
Office of Administrative Tax Appeals (021)	8	60	2	30

# Table 11 – New York City Entities Analyzed

Entity Name (Entity Code)	# Job Groups	# Empl.	# Job Groups > 8 Empl.	# Empl. JG > 8
NYC Law Department (025)	14	1594	8	1572
Department of City Planning (030)	12	301	6	283
Department of Investigation (032)	8	282	6	273
Teacher's Retirement System (041)	10	370	7	364
Civilian Complaint Review Board (054)	10	231	5	219
NYC Police Department (056)	25	50545	23	50538
NYC Fire Department (057)	18	16915	16	16906
Board of Standards & Appeals (059)	9	23	0	0
Department of Veterans' Services (063)	7	32	2	26
Administration for Children's Services (067)	20	6344	15	6326
Department of Social Services (HRA+DHS) (069+071)	21	12604	19	12597
Department of Correction (072)	24	8394	19	8365
Board of Correction (073)	6	23	1	9
Mayor's Office of Contract Services (082)	5	169	3	166
Office of the Public Advocate (101)	5	64	2	58
NYC Council (102)	7	693	6	686
Office of the City Clerk (103)	7	65	2	48
Department for the Aging (125)	11	501	6	483

Entity Name (Entity Code)	# Job Groups	# Empl.	# Job Groups > 8 Empl.	# Empl. JG > 8
Department of Cultural Affairs (126)	8	63	3	53
Office of Payroll Administration (FISA+OPA) (127+131)	11	541	6	532
NYC Independent Budget Office (132)	3	29	2	28
Equal Employment Practices Commission (133)	5	12	0	0
Civil Service Commission (134)	4	12	0	0
Landmarks Preservation Commission (136)	8	78	3	69
NYC Taxi & Limousine Commission (156)	13	520	8	501
Office of Labor Relations (214)	8	147	6	136
NYC Commission on Human Rights (226)	10	103	5	96
NYC Police Pension Fund (256)	9	142	6	130
NYC Fire Pension Fund (257)	9	48	2	18
Department of Youth & Community Development (261)	11	488	6	474
Conflicts of Interest Board (312)	8	24	0	0
Office of Collective Bargaining (313)	4	18	1	12
Department of Education (740)	21	12745	18	12739
Department of Probation (781)	15	964	7	942
Department of Small Business Services (801)	11	254	4	226
NYC Housing Preservation & Development (806)	13	2220	9	2206

Entity Name (Entity Code)	# Job Groups	# Empl.	# Job Groups > 8 Empl.	# Empl. JG > 8
Department of Buildings (810)	11	1566	8	1558
Department of Health & Mental Hygiene (816)	22	6227	20	6213
Office of Administrative Trials & Hearings (820)	12	687	7	674
Department of Environmental Protection (826)	17	5649	15	5644
Department of Sanitation (827)	20	9873	14	9844
Business Integrity Commission (831)	8	73	3	61
Department of Finance (836)	14	1765	10	1747
Department of Transportation (841)	19	5523	13	5492
Department of Parks & Recreation (846)	20	8289	17	8272
Department of Design & Construction (850)	14	1129	8	1107
NYC Office of Technology and Innovation (858)	11	1577	10	1576
Department of Records & Information Services (860)	9	61	3	43
Department of Consumer & Worker Protection (866)	10	405	7	398
Department of Citywide Administrative Services (868)	18	2056	15	2040
Office of the New York County District Attorney (901)	13	1602	9	1583
Office of the Bronx County District Attorney (902)	11	1012	9	1006
Office of the Kings County District Attorney (903)	12	1148	9	1145
Office of the Queens County District Attorney (904)	11	834	8	824

Entity Name (Entity Code)	# Job Groups	# Empl.	# Job Groups > 8 Empl.	# Empl. JG > 8
Office of the Richmond County District Attorney (905)	8	206	3	193
Office of Special Narcotics Prosecutor (906)	7	204	4	190
Office of the New York County Public Administrator (941)	4	10	0	0
Office of the Bronx County Public Administrator (942)	3	7	0	0
Office of the Kings County Public Administrator (943)	3	13	0	0
Office of the Queens County Public Administrator (944)	3	7	0	0
Office of the Richmond County Public Administrator (945)	3	5	0	0
NYC Housing Authority (996)	22	11634	18	11612
Total	792	181887	483	180915

Table 12 illustrates the racial and ethnic composition of the entities analyzed in this report.

# Table 12 – Racial and Ethnic Composition of Entities

Entity Name	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
Office of the Mayor	14.9% (74)	23.3% (116)	17.3% (86)	4.2% (21)	40.2% (200)	497
Campaign Finance Board	18.8% (22)	16.2% (19)	17.1% (20)	8.5% (10)	39.3% (46)	117
NYC Office of the Actuary	31.7% (13)	7.3% (3)	9.8% (4)	7.3% (3)	43.9% (18)	41
NYC Employees' Retirement System	25.8% (126)	34.6% (169)	10.7% (52)	2.7% (13)	26.2% (128)	488
Office of the Manhattan Borough President	10.6% (5)	31.9% (15)	25.5% (12)	6.4% (3)	25.5% (12)	47

Entity Name	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
Office of the Bronx Borough	1.9%	24.1%	55.6%	0%	18.5%	54
President	(1)	(13)	(30)	(0)	(10)	
Office of the Brooklyn	6.4%	25.5%	27.7%	14.9%	25.5%	47
Borough President	(3)	(12)	(13)	(7)	(12)	
Office of the Queens	10.9%	28.1%	18.8%	9.4%	32.8%	64
Borough President	(7)	(18)	(12)	(6)	(21)	
Office of the Staten Island	0%	11.1%	8.3%	5.6%	75.0%	36
Borough President	(0)	(4)	(3)	(2)	(27)	
Office of the NYC	23.7%	24.2%	14.1%	4.8%	33.2%	710
Comptroller	(168)	(172)	(100)	(34)	(236)	
Department of Emergency	9.2%	17.0%	13.6%	8.7%	51.5%	206
Management	(19)	(35)	(28)	(18)	(106)	
Office of Management & Budget	23.5% (94)	11.8% (47)	15.2% (61)	4.8% (19)	44.8% (179)	400
Office of Administrative Tax	25.0%	20.0%	11.7%	1.7%	41.7%	60
Appeals	(15)	(12)	(7)	(1)	(25)	
NYC Law Department	10.7% (171)	26.2% (418)	12.9% (206)	5.1% (82)	45.0% (717)	1594
Department of City Planning	18.3% (55)	12.6% (38)	15.6% (47)	6.6% (20)	46.8% (141)	301
Department of Investigation	10.6% (30)	27.7% (78)	16.7% (47)	5.3% (15)	39.7% (112)	282
Teacher's Retirement	25.4%	26.8%	13.2%	4.3%	30.3%	370
System	(94)	(99)	(49)	(16)	(112)	
Civilian Complaint Review	10.4%	21.2%	20.8%	11.7%	35.9%	231
Board	(24)	(49)	(48)	(27)	(83)	
NYC Police Department	11.6% (5868)	24.5% (12370)	27.7% (14010)	1.8% (890)	34.4% (17407)	50545
NYC Fire Department	4.4% (741)	13.6% (2299)	19.5% (3293)	1.4% (240)	61.1% (10342)	16915
Board of Standards & Appeals	4.3% (1)	39.1% (9)	17.4% (4)	4.3% (1)	34.8% (8)	23
Department of Veterans'	15.6%	37.5%	25.0%	3.1%	18.8%	32
Services	(5)	(12)	(8)	(1)	(6)	
Administration for Children's	5.0%	62.7%	17.8%	2.9%	11.6%	6344
Services	(317)	(3976)	(1128)	(187)	(736)	

Entity Name	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
Department of Social Services (HRA+DHS)	9.7% (1226)	56.5% (7116)	18.2% (2288)	2.4% (298)	13.3% (1676)	12604
Department of Correction	5.3% (444)	60.1% (5047)	20.7% (1736)	2.0% (165)	11.9% (1002)	8394
Board of Correction	8.7% (2)	47.8% (11)	21.7% (5)	4.3% (1)	17.4% (4)	23
Mayor's Office of Contract Services	20.7% (35)	19.5% (33)	18.9% (32)	5.9% (10)	34.9% (59)	169
Office of the Public Advocate	4.7% (3)	29.7% (19)	15.6% (10)	31.2% (20)	18.8% (12)	64
NYC Council	12.1% (84)	20.5% (142)	23.8% (165)	6.2% (43)	37.4% (259)	693
Office of the City Clerk	23.1% (15)	10.8% (7)	44.6% (29)	1.5% (1)	20.0% (13)	65
Department for the Aging	20.2% (101)	35.9% (180)	24.8% (124)	3.4% (17)	15.8% (79)	501
Department of Cultural Affairs	14.3% (9)	20.6% (13)	19.0% (12)	6.3% (4)	39.7% (25)	63
Office of Payroll Administration (FISA+OPA)	37.2% (201)	19.0% (103)	10.7% (58)	2.6% (14)	30.5% (165)	541
NYC Independent Budget Office	13.8% (4)	10.3% (3)	10.3% (3)	6.9% (2)	58.6% (17)	29
Equal Employment Practices Commission	8.3% (1)	41.7% (5)	8.3% (1)	25.0% (3)	16.7% (2)	12
Civil Service Commission	0% (0)	41.7% (5)	8.3% (1)	0% (0)	50.0% (6)	12
Landmarks Preservation Commission	10.3% (8)	7.7% (6)	7.7% (6)	9.0% (7)	65.4% (51)	78
NYC Taxi & Limousine Commission	16.7% (87)	34.4% (179)	25.6% (133)	3.5% (18)	19.8% (103)	520
Office of Labor Relations	16.3% (24)	36.7% (54)	11.6% (17)	4.1% (6)	31.3% (46)	147
NYC Commission on Human Rights	16.5% (17)	27.2% (28)	28.2% (29)	5.8% (6)	22.3% (23)	103
NYC Police Pension Fund	20.4% (29)	26.1% (37)	16.9% (24)	2.8% (4)	33.8% (48)	142

Entity Name	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
NYC Fire Pension Fund	31.2% (15)	27.1% (13)	6.2% (3)	2.1% (1)	33.3% (16)	48
Department of Youth &	12.9%	39.5%	23.0%	5.5%	19.1%	488
Community Development	(63)	(193)	(112)	(27)	(93)	
Conflicts of Interest Board	16.7% (4)	12.5% (3)	12.5% (3)	8.3% (2)	50.0% (12)	24
Office of Collective	0%	11.1%	11.1%	5.6%	72.2%	18
Bargaining	(0)	(2)	(2)	(1)	(13)	
Department of Education	13.5% (1721)	29.2% (3717)	22.6% (2884)	2.8% (356)	31.9% (4067)	12745
Department of Probation	3.6% (35)	60.7% (585)	22.1% (213)	2.7% (26)	10.9% (105)	964
Department of Small	20.5%	32.7%	15.7%	2.8%	28.3%	254
Business Services	(52)	(83)	(40)	(7)	(72)	
NYC Housing Preservation &	13.6%	38.4%	20.8%	3.5%	23.6%	2220
Development	(303)	(852)	(462)	(78)	(525)	
Department of Buildings	18.0% (282)	28.5% (446)	15.5% (243)	4.0% (62)	34.0% (533)	1566
Department of Health &	16.5%	39.1%	17.4%	4.0%	23.1%	6227
Mental Hygiene	(1025)	(2433)	(1083)	(249)	(1437)	
Office of Administrative	8.4%	26.2%	12.7%	3.9%	48.8%	687
Trials & Hearings	(58)	(180)	(87)	(27)	(335)	
Department of	16.4%	20.8%	13.9%	2.5%	46.3%	5649
Environmental Protection	(926)	(1176)	(785)	(144)	(2618)	
Department of Sanitation	4.9% (486)	20.6% (2038)	23.3% (2303)	1.8% (179)	49.3% (4867)	9873
Business Integrity	16.4%	16.4%	24.7%	2.7%	39.7%	73
Commission	(12)	(12)	(18)	(2)	(29)	
Department of Finance	20.5% (362)	36.7% (647)	12.8% (226)	2.2% (38)	27.9% (492)	1765
Department of	11.6%	30.1%	16.6%	2.8%	38.9%	5523
Transportation	(642)	(1661)	(919)	(154)	(2147)	
Department of Parks & Recreation	4.5% (377)	46.0% (3815)	21.3% (1762)	5.1% (422)	23.1% (1913)	8289
Department of Design &	31.0%	22.4%	15.4%	2.7%	28.5%	1129
Construction	(350)	(253)	(174)	(30)	(322)	

Entity Name	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
NYC Office of Technology	20.7%	25.4%	15.4%	4.0%	34.5%	1577
and Innovation	(327)	(400)	(243)	(63)	(544)	
Department of Records &	21.3%	24.6%	13.1%	3.3%	37.7%	61
Information Services	(13)	(15)	(8)	(2)	(23)	
Department of Consumer &	21.2%	20.2%	25.2%	3.2%	30.1%	405
Worker Protection	(86)	(82)	(102)	(13)	(122)	
Department of Citywide	11.9%	34.5%	24.2%	3.7%	25.7%	2056
Administrative Services	(245)	(709)	(497)	(77)	(528)	
Office of the New York	10.1%	14.0%	17.9%	4.1%	53.9%	1602
County District Attorney	(162)	(225)	(286)	(66)	(863)	
Office of the Bronx County	5.4%	26.4%	31.7%	3.0%	33.5%	1012
District Attorney	(55)	(267)	(321)	(30)	(339)	
Office of the Kings County	9.2%	29.6%	19.3%	4.9%	37.0%	1148
District Attorney	(106)	(340)	(221)	(56)	(425)	
Office of the Queens County	9.8%	15.2%	18.0%	6.6%	50.4%	834
District Attorney	(82)	(127)	(150)	(55)	(420)	
Office of the Richmond	4.4%	9.7%	17.0%	4.9%	64.1%	206
County District Attorney	(9)	(20)	(35)	(10)	(132)	
Office of Special Narcotics	10.3%	18.6%	16.7%	4.4%	50.0%	204
Prosecutor	(21)	(38)	(34)	(9)	(102)	
Office of the New York	40.0%	30.0%	0%	10.0%	20.0%	10
County Public Administrator	(4)	(3)	(0)	(1)	(2)	
Office of the Bronx County	0%	0%	85.7%	14.3%	0%	7
Public Administrator	(0)	(0)	(6)	(1)	(0)	
Office of the Kings County	0%	46.2%	23.1%	15.4%	15.4%	13
Public Administrator	(0)	(6)	(3)	(2)	(2)	
Office of the Queens County	0%	14.3%	0%	0%	85.7%	7
Public Administrator	(0)	(1)	(0)	(0)	(6)	
Office of the Richmond	0%	20.0%	20.0%	0%	60.0%	5
County Public Administrator	(0)	(1)	(1)	(0)	(3)	
NYC Housing Authority	5.5% (643)	51.2% (5956)	23.5% (2732)	5.0% (586)	14.8% (1717)	11634
Total	10.2% (18609)	32.6% (59270)	21.9% (39899)	2.8% (5011)	32.5% (59098)	181887

### Table 13 illustrates the gender composition of each entity.<sup>18</sup>

Entity Name	Female	Male	Headcount
Office of the Mayor	63.2% (314)	36.2% (180)	497
Campaign Finance Board	53% (62)	46.2% (54)	117
NYC Office of the Actuary	46.3% (19)	51.2% (21)	41
NYC Employees' Retirement	62.1%	37.9%	488
System	(303)	(185)	
Office of the Manhattan	57.4%	42.6%	47
Borough President	(27)	(20)	
Office of the Bronx Borough	57.4%	42.6%	54
President	(31)	(23)	
Office of the Brooklyn	59.6%	40.4%	47
Borough President	(28)	(19)	
Office of the Queens	51.6%	48.4%	64
Borough President	(33)	(31)	
Office of the Staten Island	55.6%	44.4%	36
Borough President	(20)	(16)	
Office of the NYC	57.5%	42.4%	710
Comptroller	(408)	(301)	
Department of Emergency	48.1%	51.5%	206
Management	(99)	(106)	
Office of Management & Budget	46.5% (186)	52.8% (211)	400
Office of Administrative Tax	41.7%	58.3%	60
Appeals	(25)	(35)	
NYC Law Department	61.9% (987)	37.8% (602)	1594
Department of City Planning	43.9% (132)	55.5% (167)	301
Department of Investigation	56.7% (160)	42.9% (121)	282

# Table 13 – Gender Composition of Entities

<sup>&</sup>lt;sup>18</sup> A small percentage (0.3%) of the City's workforce did not provide information on their gender in the City's personnel system or identified as non-binary. We do not illustrate those distinct values in Table 13, but those individuals are included in the "Headcount" totals.

Entity Name	Female	Male	Headcount
Teacher's Retirement System	55.7% (206)	44.3% (164)	370
Civilian Complaint Review Board	51.9% (120)	46.3% (107)	231
NYC Police Department	34.5% (17419)	65.5% (33125)	50545
NYC Fire Department	10.9% (1837)	89.1% (15078)	16915
Board of Standards & Appeals	52.2% (12)	47.8% (11)	23
Department of Veterans' Services	50.0% (16)	50.0% (16)	32
Administration for Children's Services	71.4% (4532)	28.5% (1810)	6344
Department of Social Services (HRA+DHS)	67.5% (8502)	32.5% (4099)	12604
Department of Correction	44.7% (3749)	55.3% (4644)	8394
Board of Correction	60.9% (14)	39.1% (9)	23
Mayor's Office of Contract Services	52.1% (88)	46.7% (79)	169
Office of the Public Advocate	51.6% (33)	40.6% (26)	64
NYC Council	51.1% (354)	48.1% (333)	693
Office of the City Clerk	69.2% (45)	30.8% (20)	65
Department for the Aging	75.6% (379)	24.2% (121)	501
Department of Cultural Affairs	58.7% (37)	41.3% (26)	63
Office of Payroll Administration (FISA+OPA)	40.7% (220)	59.3% (321)	541
NYC Independent Budget Office	55.2% (16)	41.4% (12)	29
Equal Employment Practices Commission	58.3% (7)	41.7% (5)	12

Entity Name	Female	Male	Headcount
Civil Service Commission	50.0% (6)	50.0% (6)	12
Landmarks Preservation Commission	69.2% (54)	29.5% (23)	78
NYC Taxi & Limousine Commission	38.8% (202)	61.2% (318)	520
Office of Labor Relations	70.7% (104)	28.6% (42)	147
NYC Commission on Human Rights	55.3% (57)	43.7% (45)	103
NYC Police Pension Fund	52.1% (74)	47.9% (68)	142
NYC Fire Pension Fund	64.6% (31)	35.4% (17)	48
Department of Youth & Community Development	62.5% (305)	37.3% (182)	488
Conflicts of Interest Board	50.0% (12)	50.0% (12)	24
Office of Collective Bargaining	72.2% (13)	27.8% (5)	18
Department of Education	70.2% (8950)	29.8% (3794)	12745
Department of Probation	67.2% (648)	32.7% (315)	964
Department of Small Business Services	57.1% (145)	42.9% (109)	254
NYC Housing Preservation & Development	51.9% (1153)	48.0% (1065)	2220
Department of Buildings	35.6% (558)	64.1% (1004)	1566
Department of Health & Mental Hygiene	70.4% (4386)	29.4% (1829)	6227
Office of Administrative Trials & Hearings	59.7% (410)	40.0% (275)	687
Department of Environmental Protection	25.1% (1419)	74.8% (4223)	5649
Department of Sanitation	9.9% (981)	90.1% (8892)	9873

Entity Name	Female	Male	Headcount
Business Integrity	50.7%	49.3%	73
Commission	(37)	(36)	
Department of Finance	50.8% (896)	49.2% (869)	1765
Department of	24.9%	75.1%	5523
Transportation	(1373)	(4150)	
Department of Parks & Recreation	40.9% (3388)	59.0% (4890)	8289
Department of Design &	37.6%	62.3%	1129
Construction	(425)	(703)	
NYC Office of Technology and Innovation	38.1% (601)	61.9% (976)	1577
Department of Records & Information Services	54.1% (33)	45.9% (28)	61
Department of Consumer & Worker Protection	55.3% (224)	44.4% (180)	405
Department of Citywide	37.7%	62.3%	2056
Administrative Services	(775)	(1281)	
Office of the New York	57.9%	41.7%	1602
County District Attorney	(927)	(668)	
Office of the Bronx County	61.8%	38.0%	1012
District Attorney	(625)	(385)	
Office of the Kings County	56.5%	43.4%	1148
District Attorney	(649)	(498)	
Office of the Queens County	58.4%	41.2%	834
District Attorney	(487)	(344)	
Office of the Richmond	60.2%	39.8%	206
County District Attorney	(124)	(82)	
Office of Special Narcotics	49.5%	50.5%	204
Prosecutor	(101)	(103)	
Office of the New York	50.0%	50.0%	10
County Public Administrator	(5)	(5)	
Office of the Bronx County	71.4%	28.6%	7
Public Administrator	(5)	(2)	
Office of the Kings County	46.2%	53.8%	13
Public Administrator	(6)	(7)	
Office of the Queens County	85.7%	14.3%	7
Public Administrator	(6)	(1)	

Entity Name	Female	Male	Headcount
Office of the Richmond County Public Administrator	60.0% (3)	40.0% (2)	5
NYC Housing Authority	37.7% (4381)	62.3% (7246)	11634
Total	41.2% (74999)	58.7% (106778)	181887

# Appendix C Job Group Descriptions of CEEDS System

### Administrators (001)

Occupations in which employees set broad policies and exercise overall responsibility for the execution of these policies. This category includes elected officials, commissioners, executive directors, deputy commissioners, chairpersons, general counsels, controllers, chiefs of department, inspector generals and kindred workers.

### Managers (002)

Occupations in which employees direct individual departments or special phases of the agency's operations, or provide specialized consultation on a regional, district or area basis. This category includes assistant commissioners, deputy directors, assistant directors, project managers, special assistants, superintendents, deputy counsels and kindred workers.

### Management Specialists (003)

Occupations which require specialized and theoretical knowledge of management, finance or personnel, which is usually acquired through college training or through work experience and other training which provides comparable knowledge. This category includes accountants, underwriters, financial analysts, personnel analysts, staff analysts, program analysts, buyers, purchasing specialists, inspectors, research analysts, program officers, project coordinators and kindred workers.

### Science Professionals (004)

Occupations which require specialized and theoretical knowledge of various scientific or mathematical fields, which is usually acquired through college training or through work experience and other training which provides comparable knowledge. This category includes architects, engineers (chemical, nuclear, civil, electrical, industrial, mechanical, marine), computer specialists, telecommunications specialists, actuaries, statisticians, physicists, chemists, geologists, biologists, foresters and kindred workers.

### Health Professionals (005)

Occupations which require specialized and theoretical knowledge of the medical or health fields, which is usually acquired through college training or through work experience and other training which provides comparable knowledge. This category includes physicians, dentists, veterinarians, optometrists, podiatrists, registered nurses, pharmacists, dieticians, occupational therapists, physical therapists, speech therapists, physician's assistants and kindred workers.

### Social Scientists (006)

Occupations which require specialized and theoretical knowledge of the social sciences, which is usually acquired through college training or through work experience and other training which provides comparable knowledge. This category includes librarians, archivists, economists, psychologists, sociologists, urban planners and kindred workers.

### Social Workers (007)

Occupations which require specialized and theoretical knowledge of social work, youth and family counseling, addiction treatment and casework, which is usually acquired through college or training or through work experience and other training which provides comparable knowledge. This category includes caseworkers, probation officers, correctional counselors, juvenile counselors, addiction treatment counselors, eligibility specialists, human rights specialists, community liaison workers, clergy and kindred workers.

### Lawyers (008)

Occupations which require specialized and theoretical knowledge of the law and the judicial process, which is usually acquired through college training. This category includes attorneys, assistant district attorneys, counsels, assistant counsels, deputy counsels, law judges, and kindred workers.

### Public Relations (009)

Occupations which require special knowledge or skills in public relations, journalism, modern language or the fine arts, which are usually acquired through college training, specialized post-secondary school education, or work experience or training which provides comparable knowledge. This category includes technical writers, graphic designers, musicians, actors, directors, announcers, painters, illustrators, photographers, artists, editors, press officers, public relations specialists, public relations advisors, interpreters, customer service specialists and kindred workers.

## Technicians (010)

Occupations which require a combination of basic scientific or technical knowledge and manual skill which can be obtained through specialized post-secondary school education or through equivalent on-the-job training. This category includes health technicians (clinical laboratory, dental hygienists, health records, radiologic and licensed practical nurses), electrical and electronic technicians, engineering technicians (electrical, electronic, industrial, and mechanical), drafting occupations, surveying and mapping technicians, science technicians, airline pilots and navigators, air traffic controllers, broadcast equipment operators, computer programmers, legal assistants, investigators, and kindred workers.

## Sales (011)

There are not currently any employees in this job group.

## Clerical Supervisors (012)

Occupations in which employees are responsible for overseeing and supervising the duties of clerical staff. This category includes chief clerks, supervising clerks, principal administrative associates, supervising cashiers, telegraph superintendents, supervising stenographers and kindred workers.

## Clerical (013)

Occupations in which employees are responsible for internal and external communication, recording and retrieval of data and/or information and other paperwork required in an office.

This category includes cashiers, computer operators, word processors, secretaries, stenographers, typists, ticket agents, receptionists, clerks (information, personnel, file, library, records), bookkeepers, office machine operators, telephone operators, messengers, dispatchers, stock clerks, meter readers, office aides, general office clerks, bank tellers and kindred workers.

#### Household Services (014)

There are not currently any employees in this job group.

#### Police Supervisors (015)

Occupations in which uniformed employees with peace officers status set broad policies in the area of public safety and security, exercise overall responsibility for execution of policies, direct individual units or special phases of the agency's operations, or supervise on a regional, district or area basis. This category includes sergeants, captains, lieutenants, inspectors, captains (correction), wardens and kindred workers.

#### Fire Supervisors (016)

Occupations in which uniformed employees set broad policies in the area of public safety and protection; exercise overall responsibility for execution of policies; direct individual units or special phases of the agency's operations; or supervise on a regional, district or area basis. This category includes lieutenants, captains, battalion chiefs, deputy chiefs, supervising fire marshals, supervising fire prevention inspectors and kindred workers.

#### Firefighters (017)

Occupations in which uniformed employees are entrusted with public safety, security and protection from destructive forces. This category includes firefighters, marine engineers (uniformed), fire prevention inspectors, fire protection inspectors and kindred workers.

#### Police and Detectives (018)

Occupations in which uniformed employees with peace officer status are entrusted with public safety, security, and protection. This category includes police officer, detectives, correction officers, bridge and tunnel officers, sheriffs, special officers, enforcement agents (traffic, sanitation) and kindred workers.

#### Guards (019)

Occupations in which employees are entrusted with public safety and security. This category includes school crossing guards, housing guards, watch persons, lifeguards, park rangers, school guards and kindred workers.

#### Food Preparation (020)

Occupations in which employees are responsible for the preparation and distribution of food, or management of food services, in City facilities (e.g. schools, correctional institutions, and concessions). This category includes cooks, school lunch helpers, school lunch managers, food service managers, commissary managers and kindred workers.

#### Health Services (021)

Occupations in which employees are responsible for assisting health professionals in maintaining and promoting the health, hygiene and safety of the general public. This category includes dental assistants, dietary aides, public health assistants, nurse's aides, institutional aides, health aides, orderlies, and kindred workers.

#### Building Services (022)

Occupations in which employees perform duties which result in or contribute to the upkeep and care of buildings and facilities. This category includes custodians, cleaners, caretakers, maintainers, elevator operators and starters, exterminators, pest control aides and kindred workers.

#### Personal Services (023)

Occupations in which employees perform duties which result in or contribute to the comfort or convenience of the general public. This category includes housekeepers, barbers, attendants, railroad porters, homemakers, matrons and kindred workers.

#### Farming (024)

Occupations in which employees perform duties which result in or contribute to the upkeep and care of agricultural/botanical/zoological facilities or grounds of public property. This category includes herbarium aides, aquarium technicians, botanical gardening aides, gardeners, groundskeepers, pruners, hostlers, menagerie keepers, horseshoers and kindred workers.

#### Craft (025)

Occupations in which employees perform duties which require special manual skill and a thorough and comprehensive knowledge of the processes involved in the work in which is acquired through on-the-job training and experience or through apprenticeship or other formal training programs. This category includes mechanics, equipment repairers, telephone line installers, small instrument repairers, brick masons, carpenters, electricians, plumbers, mining occupations, tool and die makers, sheet metal workers, tailors, butchers, bakers, machine operators, locksmiths, precision hand working occupations and kindred workers.

#### Operators (026)

Occupations in which employees perform duties which require specialized machine skills which are required through on-the-job training and experience or through apprenticeship or other formal training programs. This category includes printing press operators, high pressure boiler operators, laundry workers and kindred workers.

#### Transportation (027)

Occupations in which employees perform duties which require motor vehicle, bus, train, or other transportation operation skills which are acquired through on-the- job training and experience or through other formal training programs. This category includes bus drivers, chauffeurs, motor vehicle operators, trainmasters, ferry terminal supervisors and kindred workers.

### Laborers (028)

Occupations in which employees perform duties which result in or contribute to the comfort, convenience, hygiene or safety of the general public, or which contribute to the upkeep and care of buildings and facilities. There are no job qualification requirements for titles in this category. This category includes skilled craft helpers and apprentices, construction laborers, stock handlers, garage and service station related occupations, car cleaners, seasonal park helpers, track workers, assistant highway repairers and kindred workers.

#### Sanitation Workers (029)

Occupations in which employees perform duties which result in or contribute to the cleanliness, hygiene and safety of the public domain. Qualification requirements, which include civil service examinations, exist for titles in this category. This category includes sanitation workers, debris removers and kindred workers.

#### Teachers (030)

Occupations which require specialized and theoretical knowledge of education and instructional methods, which is usually acquired through college training or through work experience and other training which provides comparable knowledge. This category includes teachers, instructors, professors, lecturers, fitness instructors, graduate assistants, fellows, adjunct professors, substitute teachers, trade instructors, education/ vocational counselors, education analysts, education officers, institutional instructors and kindred workers.

#### Paraprofessionals (031)

Occupations in which employees perform some of the duties of a professional or technician in a supportive role, which usually requires less formal training and/or experience normally required for professional or technical status. Such positions may fall within an identified pattern of staff development and promotion. This category includes administrative assistants, project associates, coordinators, community associates and assistants, community service aides, research associates, welfare service workers, child care workers and kindred workers. Table 14 illustrates the racial and ethnic composition of the job groups analyzed in this report.

Job Group	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
Administrators	9.2% (36)	19.8% (78)	18.1% (71)	5.6% (22)	47.3% (186)	393
Managers	14.6% (1635)	22.7% (2545)	13.9% (1551)	3.0% (339)	45.8% (5121)	11191
Management Specialists	18.2% (2125)	34.2% (4003)	16.0% (1875)	2.6% (305)	29.0% (3391)	11699
Science Professionals	31.1% (2342)	16.0% (1205)	12.4% (931)	3.2% (244)	37.2% (2800)	7522
Health Professionals	18.8% (897)	22.9% (1094)	9.0% (428)	2.5% (118)	46.8% (2230)	4767
Social Scientists	12.0% (111)	23.2% (214)	17.3% (160)	4.2% (39)	43.2% (399)	923
Social Workers	6.4% (769)	62.6% (7496)	19.2% (2297)	2.6% (308)	9.2% (1104)	11974
Lawyers	9.7% (220)	14.0% (319)	8.5% (194)	6.8% (155)	61.0% (1387)	2275
Public Relations	15.6% (41)	14.1% (37)	18.3% (48)	5.7% (15)	46.4% (122)	263
Technicians	9.8% (837)	31.7% (2699)	24.7% (2100)	2.6% (225)	31.1% (2647)	8508
Clerical Supervisors	6.9% (301)	58.9% (2579)	19.4% (849)	2.2% (95)	12.6% (551)	4375
Clerical	8.7% (738)	53.8% (4572)	21.8% (1849)	3.0% (254)	12.7% (1083)	8496
Police Supervisors	8.7% (648)	20.6% (1536)	23.7% (1769)	1.1% (83)	45.9% (3422)	7458
Fire Supervisors	0.9% (21)	2.6% (64)	6.6% (162)	0.8% (19)	89.2% (2198)	2464
Firefighters	3.3% (277)	11.7% (985)	17.6% (1489)	1.0% (82)	66.4% (5608)	8441
Police and Detectives	11.4% (4453)	25.7% (10078)	28.7% (11258)	1.2% (466)	33.0% (12932)	39187

# Table 14 – Racial and Ethnic Composition of Job Groups

Job Group	Asian	Black	Hispanic	Other/ Unknown	White	Headcount
Guards	8.2% (564)	46.6% (3193)	26.4% (1808)	4.7% (319)	14.1% (964)	6848
Food Preparation	6.6% (104)	44.5% (696)	23.5% (367)	4.6% (72)	20.8% (326)	1565
Health Services	3.7% (6)	61.0% (100)	25.6% (42)	4.3% (7)	5.5% (9)	164
Building Services	1.6% (77)	64.3% (3166)	25.3% (1245)	5.9% (292)	2.9% (143)	4923
Personal Services	4.3% (8)	48.7% (91)	29.4% (55)	8.0% (15)	9.6% (18)	187
Farming	2.0% (45)	51.4% (1166)	26.2% (595)	3.1% (70)	17.3% (393)	2269
Craft	7.4% (692)	21.4% (2000)	18.9% (1769)	2.8% (260)	49.4% (4615)	9336
Operators	7.8% (10)	23.3% (30)	20.2% (26)	1.6% (2)	47.3% (61)	129
Transportation	5.3% (15)	52.0% (146)	21.7% (61)	0.7% (2)	20.3% (57)	281
Laborers	1.7% (93)	56.2% (3091)	19.5% (1074)	7.2% (398)	15.4% (845)	5501
Sanitation Workers	2.5% (181)	18.7% (1372)	24.8% (1819)	1.2% (87)	52.9% (3881)	7340
Teachers	14.0% (113)	32.2% (260)	20.8% (168)	3.1% (25)	30.0% (242)	808
Paraprofessionals	9.9% (1250)	35.4% (4455)	30.5% (3839)	5.5% (693)	18.8% (2363)	12600
Total	10.2% (18609)	32.6% (59270)	21.9% (39899)	2.8% (5011)	32.5% (59098)	181887

Table 15 illustrates the gender composition of the job groups analyzed in this report.

Job Group	Female	Male	Headcount
Administrators	52.2% (205)	47.8% (188)	393
Managers	47.5% (5314)	52.4% (5865)	11191
Management Specialists	51.8% (6064)	48.1% (5623)	11699
Science Professionals	35.8% (2693)	64.1% (4820)	7522
Health Professionals	86.6% (4127)	13.4% (639)	4767
Social Scientists	58.1% (536)	41.9% (387)	923
Social Workers	73.7% (8827)	26.2% (3143)	11974
Lawyers	59.1% (1344)	40.5% (921)	2275
Public Relations	52.1% (137)	47.5% (125)	263
Technicians	36.6% (3118)	63.3% (5383)	8508
Clerical Supervisors	84.7% (3707)	15.3% (668)	4375
Clerical	79.3% (6734)	20.7% (1759)	8496
Police Supervisors	20.4% (1522)	79.6% (5936)	7458
Fire Supervisors	0.4% (10)	99.6% (2454)	2464
Firefighters	1.9% (160)	98.1% (8281)	8441
Police and Detectives	25.9% (10150)	74.1% (29036)	39187

# Table 15 – Gender Composition of Job Groups

Job Group	Female	Male	Headcount
Guards	73.1% (5009)	26.9% (1839)	6848
Food Preparation	74.4% (1165)	25.5% (399)	1565
Health Services	62.2% (102)	37.8% (62)	164
Building Services	41.3% (2031)	58.7% (2890)	4923
Personal Services	38.0% (71)	62.0% (116)	187
Farming	27.1% (615)	72.8% (1651)	2269
Craft	2.4% (222)	97.6% (9113)	9336
Operators	1.6% (2)	98.4% (127)	129
Transportation	11.0% (31)	89.0% (250)	281
Laborers	36.6% (2013)	63.3% (3483)	5501
Sanitation Workers	3.5% (260)	96.5% (7080)	7340
Teachers	71.0% (574)	29.0% (234)	808
Paraprofessionals	65.5% (8256)	34.2% (4306)	12600
Total	41.2% (74999)	58.7% (106778)	181887

# Appendix D Underutilization

Table 16 illustrates underutilization based on race and ethnicity for the 75 entities analyzed.

# Table 16 – Underutilization of Racial and Ethnic Groups by Job Group, Citywide

Job Group	JG Frequency	Asian	Black	Hispanic	Headcount
Administrators	10	0% (0)	0% (0)	0% (0)	205
Managers	61↑	3.3% ↓ (2)	19.7% ↓ (12)	9.8% ↓ (6)	11153
Management Specialists	48	0% (0)	20.8% (10)	4.2% (2)	11656
Science Professionals	36 ↑	5.6% ↑ (2)	19.4% ↑ (7)	0% (0)	7464
Health Professionals	9	0%↓ (0)	33.3% (3)	0% ↓ (0)	4765
Social Scientists	12↓	0% (0)	25.0% ↓ (3)	0% (0)	869
Social Workers	12 ↑	16.7% ↓ (2)	50.0% ↑ (6)	0% (0)	11953
Lawyers	23↓	0% (0)	8.7% ↑ (2)	0% ↓ (0)	2192
Public Relations	10 ↑	0% (0)	0% (0)	0% (0)	194
Technicians	28↓	14.3% ↑ (4)	17.9% ↓ (5)	17.9% ↑ (5)	8450
Clerical Supervisors	32↓	0% (0)	12.5% ↑ (4)	0% (0)	4307
Clerical	41↓	9.8% ↑ (4)	24.4%↓ (10)	0% (0)	8424
Police Supervisors	5	0% (0)	0%↓ (0)	0% (0)	7442
Fire Supervisors	1	0% (0)	0% (0)	0% (0)	2464

Job Group	JG Frequency	Asian	Black	Hispanic	Headcount
Firefighters	1	0% (0)	0% (0)	0% (0)	8436
Police and Detectives	18	5.6%↓ (1)	16.7%↓ (3)	0% (0)	39168
Guards	5	0% (0)	20.0% (1)	20.0% (1)	6848
Food Preparation	3	66.7% (2)	0% (0)	66.7% (2)	1563
Health Services	3↓	33.3↑ (1)	0% (0)	0% (0)	152
Building Services	10 ↑	20.0% ↓ (2)	0% (0)	20.0% ↓ (2)	4898
Personal Services	3	33.3% (1)	0% (0)	0% ↓ (0)	174
Farming	4	50.0% (2)	0% (0)	0% (0)	2263
Craft	15	13.3% (2)	66.7%↓ (10)	6.7% (1)	9330
Operators	6	0% (0)	0% (0)	0% (0)	115
Transportation	10	0% (0)	0% (0)	0% (0)	252
Laborers	13	38.5% (5)	7.7% ↑ (1)	15.4% ↓ (2)	5481
Sanitation Workers	1	0% (0)	100% (1)	0% (0)	7336
Teachers	4	0% (0)	25.0% (1)	0% (0)	803
Paraprofessionals	59 †	11.9% ↓ (7)	6.8% ↑ (4)	8.5% ↑ (5)	12558
Total	483	7.7% ↓ (37)	17.2% ↓ (83)	5.4% ↓ (26)	180915

Table 17 illustrates jobs groups with underutilization of females.

Job Group	JG Frequency	Female	Headcount
Administrators	10	0% (0)	205
Managers	61↑	14.8% ↑ (9)	11153
Management Specialists	48	4.2% (2)	11656
Science Professionals	36 †	25.0% ↑ (9)	7464
Health Professionals	9	22.2% (2)	4765
Social Scientists	12↓	0%↓ (0)	869
Social Workers	12 ↑	41.7% ↑ (5)	11953
Lawyers	23↓	0% (0)	2192
Public Relations	10 ↑	0% (0)	194
Technicians	28↓	14.3% ↑ (4)	8450
Clerical Supervisors	32↓	3.1% ↑ (1)	4307
Clerical	41↓	2.4%↓ (1)	8424
Police Supervisors	5	0% (0)	7442
Fire Supervisors	1	0% (0)	2464
Firefighters	1	0% (0)	8436
Police and Detectives	18	27.8% ↑ (5)	39168
Guards	5	40.0% (2)	6848

# Table 17 – Underutilization of Females by Job Group, Citywide

Job Group	JG Frequency	Female	Headcount
Food Preparation	3	0% (0)	1563
Health Services	3↓	66.7% ↑ (2)	152
Building Services	10 ↑	40.0% ↑ (4)	4898
Personal Services	3	33.3% (1)	174
Farming	4	25.0% (1)	2263
Craft	15	73.3%↓ (11)	9330
Operators	6	16.7% (1)	115
Transportation	10	10.0%↓ (1)	252
Laborers	13	53.8% ↓ (7)	5481
Sanitation Workers	1	0% (0)	7336
Teachers	4	0%↓ (0)	803
Paraprofessionals	59 ↑	8.5% ↑ (5)	12558
Total	483	15.1% ↑ (73)	180915

Table 18 illustrates disparities for race and ethnicity in each job group.

# Table 18 – Disparities in # of Personnel by Race and Ethnicity in Job Groups, Citywide

Job Group	# JG > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount
Administrators	10	-	-	-	205
Managers	61	26	263	108	11153
Management Specialists	48	-	263	38	11656
Science Professionals	36	29	163	-	7464
Health Professionals	9	-	666	-	4765
Social Scientists	12	-	24	-	869
Social Workers	12	89	233	-	11953
Lawyers	23	-	30	-	2192
Public Relations	10	-	-	-	194
Technicians	28	278	610	86	8450
Clerical Supervisors	32	-	78	-	4307
Clerical	41	28	208	-	8424
Police Supervisors	5	-	-	-	7442
Fire Supervisors	1	-	-	-	2464
Firefighters	1	-	-	-	8436
Police and Detectives	18	38	4076	-	39168
Guards	5	-	209	4	6848
Food Preparation	3	112	-	180	1563
Health Services	3	5	-	-	152
Building Services	10	234	-	435	4898
Personal Services	3	4	-	-	174
Farming	4	65	-	-	2263
Craft	15	89	957	35	9330
Operators	6	-	-	-	115
Transportation	10	-	-	-	252
Laborers	13	352	20	178	5481
Sanitation Workers	1	-	296	-	7336
Teachers	4	-	3	-	803
Paraprofessionals	59	251	148	44	12558
Total	483	1601	8247	1108	180915

Table 19 illustrates disparities by gender for each job group.

Job Group	# JG > 8 Empl.	Female Shortfall	Headcount	
Administrators	10	-	205	
Managers	61	425	11153	
Management Specialists	48	169	11656	
Science Professionals	36	256	7464	
Health Professionals	9	35	4765	
Social Scientists	12	-	869	
Social Workers	12	130	11953	
Lawyers	23	-	2192	
Public Relations	10	-	194	
Technicians	28	629	8450	
Clerical Supervisors	32	7	4307	
Clerical	41	70	8424	
Police Supervisors	5	-	7442	
Fire Supervisors	1	-	2464	
Firefighters	1	-	8436	
Police and Detectives	18	1046	39168	
Guards	5	133	6848	
Food Preparation	3	-	1563	
Health Services	3	22	152	
Building Services	10	36	4898	
Personal Services	3	8	174	
Farming	4	13	2263	
Craft	15	690	9330	
Operators	6	4	115	
Transportation	10	4	252	
Laborers	13	188	5481	
Sanitation Workers	1	-	7336	
Teachers	4	-	803	
Paraprofessionals	59	64	12558	
Total	483	3929	180915	

# Table 19 – Disparities in # of Females in Job Groups, Citywide

Table 20 illustrates underutilization of Asians, Blacks, and Hispanics, at each entity analyzed in this report.

Entity	# Job Groups	Asian	Black	Hispanic	Headcount
Office of the Mayor	4↓	0% (0)	25.0% ↑ (1)	25.0% ↑ (1)	487
Campaign Finance Board	3	0% (0)	33.3% ↓ (1)	0% (0)	109
NYC Office of the Actuary	2	0% (0)	50.0% (1)	0% (0)	37
NYC Employees' Retirement System	7	0% (0)	14.3% (1)	14.3% (1)	478
Office of the Manhattan Borough President	2	0% (0)	0% (0)	0% (0)	37
Office of the Bronx Borough President	2	0% (0)	0% (0)	0% (0)	46
Office of the Brooklyn Borough President	2	0% (0)	0% (0)	0%↓ (0)	35
Office of the Queens Borough President	2	0% (0)	0% (0)	0% (0)	47
Office of the Staten Island Borough President	1	0% (0)	0% (0)	0% (0)	25
Office of the NYC Comptroller	8↓	0% (0)	12.5% ↓ (1)	0% (0)	686
Department of Emergency Management	2	0% (0)	50.0% (1)	0% (0)	197
Office of Management & Budget	4	0% (0)	50.0% ↓ (2)	0% (0)	398
Office of Administrative Tax Appeals	2↑	0% (0)	0% (0)	0% (0)	30
NYC Law Department	8↑	0% (0)	12.5% ↓ (1)	25.0% ↓ (2)	1572
Department of City Planning	6	0% (0)	33.3% (2)	16.7%↑ (1)	283
Department of Investigation	6	0% (0)	16.7% (1)	0% (0)	273
Teacher's Retirement System	7	0% (0)	0% (0)	14.3% (1)	364

# Table 20 – Underutilization of Racial and Ethnic Groups at Entities, Citywide

Entity	# Job Groups	Asian	Black	Hispanic	Headcount
Civilian Complaint Review Board	5	0% (0)	20.0% (1)	0% (0)	219
NYC Police Department	23	4.3%↓ (1)	26.1% ↑ (6)	0% (0)	50538
NYC Fire Department	16↑	12.5% ↓ (2)	37.5% ↑ (6)	0%↓ (0)	16906
Department of Veterans' Services	2	0% (0)	0% (0)	0% (0)	26
Administration for Children's Services	15↓	20.0% ↑ (3)	0% (0)	0% (0)	6326
Department of Social Services (HRA+DHS)	19	10.5% (2)	0% (0)	5.3% (1)	12597
Department of Correction	19	10.5% (2)	5.3% (1)	5.3% (1)	8365
Board of Correction	1	0% (0)	0% (0)	0% (0)	9
Mayor's Office of Contract Services	3	0% (0)	0% (0)	0% (0)	166
Office of the Public Advocate	2	0% (0)	0% (0)	0% (0)	58
NYC Council	6	0% (0)	16.7% (1)	0% (0)	686
Office of the City Clerk	2	0% (0)	50.0% (1)	0% (0)	48
Department for the Aging	6	0% (0)	0% (0)	0% (0)	483
Department of Cultural Affairs	3	0% (0)	0% (0)	0% (0)	53
Office of Payroll Administration (FISA+OPA)	6	0% (0)	16.7% (1)	16.7% (1)	532
NYC Independent Budget Office	2	0% (0)	0% (0)	0% (0)	28
Landmarks Preservation Commission	3↑	0% (0)	33.3%↓ (1)	0% (0)	69
NYC Taxi & Limousine Commission	8	0%	0%	0%	501

Entity	# Job Groups	Asian	Black	Hispanic	Headcount
		(0)	(0)	(0)	
Office of Labor Relations	6↓	0% (0)	0% (0)	16.7% ↑ (1)	136
NYC Commission on Human Rights	5	0% (0)	20.0% (1)	0% (0)	96
NYC Police Pension Fund	6	0% (0)	0% (0)	0% (0)	130
NYC Fire Pension Fund	2↑	0% (0)	0% (0)	0% (0)	18
Department of Youth & Community Development	6↓	0% (0)	0% (0)	0% (0)	474
Office of Collective Bargaining	1	0% (0)	0% (0)	0% (0)	12
Department of Education	18	11.1% ↓ (2)	22.2% ↓ (4)	5.6%↓ (1)	12739
Department of Probation	7	42.9% ↑ (3)	0% (0)	0% (0)	942
Department of Small Business Services	4↓	0% (0)	0% (0)	0% (0)	226
NYC Housing Preservation & Development	9 †	11.1% ↑ (1)	0% (0)	0% (0)	2206
Department of Buildings	8	0% (0)	25.0% ↑ (2)	0% (0)	1558
Department of Health & Mental Hygiene	20	5.0% ↑ (1)	5.0% (1)	5.0% (1)	6213
Office of Administrative Trials & Hearings	7 ↑	0% (0)	0% (0)	0%↓ (0)	674
Department of Environmental Protection	15	6.7%↓ (1)	53.3% ↑ (8)	20.0% (3)	5644
Department of Sanitation	14	14.3% (2)	21.4% (3)	0%↓ (0)	9844
Business Integrity Commission	3	0% (0)	0% (0)	0% (0)	61
Department of Finance	10	0% (0)	0% (0)	30.0% (3)	1747
Department of Transportation	13↓	15.4% ↑ (2)	23.1% ↑ (3)	15.4% ↑ (2)	5492

Entity	# Job Groups	Asian	Black	Hispanic	Headcount
Department of Parks & Recreation	17↑	29.4% ↑ (5)	41.2%↓ (7)	5.9%↓ (1)	8272
Department of Design & Construction	8	0% (0)	12.5% (1)	0% (0)	1107
NYC Office of Technology and Innovation	10 ↑	10.0% ↑ (1)	10.0%↓ (1)	0% ↓ (0)	1576
Department of Records & Information Services	3↑	0% (0)	33.3% ↓ (1)	0% (0)	43
Department of Consumer & Worker Protection	7	0% (0)	42.9% ↑ (3)	0% (0)	398
Department of Citywide Administrative Services	15	6.7% (1)	6.7%↓ (1)	0% (0)	2040
Office of the New York County District Attorney	9	0%↓ (0)	44.4% ↓ (4)	11.1% ↑ (1)	1583
Office of the Bronx County District Attorney	9↑	22.2% ↓ (2)	33.3% ↑ (3)	0% (0)	1006
Office of the Kings County District Attorney	9	0%↓ (0)	11.1%↓ (1)	0% (0)	1145
Office of the Queens County District Attorney	8	0% (0)	62.5% (5)	0%↓ (0)	824
Office of the Richmond County District Attorney	3↓	0%↓ (0)	66.7%↓ (2)	33.3% ↑ (1)	193
Office of Special Narcotics Prosecutor	4	0% (0)	25.0% (1)	0% (0)	190
NYC Housing Authority	18	33.3% (6)	5.6%↓ (1)	16.7% (3)	11612
Total	483	7.7% ↓ (37)	17.2% ↓ (83)	5.4% ↓ (26)	180915

Table 21 illustrates underutilization of Females at each entity analyzed in this report.

Entity Name	# Job Groups	Female	Headcount
Office of the Mayor	4↓	0% (0)	487
Campaign Finance Board	3	33.3% ↑ (1)	109
NYC Office of the Actuary	2	0% (0)	37
NYC Employees' Retirement System	7	0% (0)	478
Office of the Manhattan Borough President	2	0% (0)	37
Office of the Bronx Borough President	2	0% (0)	46
Office of the Brooklyn Borough President	2	0% (0)	35
Office of the Queens Borough President	2	0% (0)	47
Office of the Staten Island Borough President	1	0% (0)	25
Office of the NYC Comptroller	8↓	0% (0)	686
Department of Emergency Management	2	0% (0)	197
Office of Management & Budget	4	0% (0)	398
Office of Administrative Tax Appeals	2↑	50.0% ↑ (1)	30
NYC Law Department	8 †	12.5% ↑ (1)	1572
Department of City Planning	6	0%↓ (0)	283
Department of Investigation	6	0% (0)	273
Teacher's Retirement System	7	14.3% (1)	364

# Table 21 – Underutilization of Females at Entities, Citywide

Entity Name	# Job Groups	Female	Headcount
Civilian Complaint Review Board	5	0% (0)	219
NYC Police Department	23	21.7% ↓ (5)	50538
NYC Fire Department	16 ↑	43.8% ↑ (7)	16906
Department of Veterans' Services	2	0% (0)	26
Administration for Children's Services	15↓	6.7% ↑ (1)	6326
Department of Social Services (HRA+DHS)	19	10.5% (2)	12597
Department of Correction	19	26.3% (5)	8365
Board of Correction	1	0% (0)	9
Mayor's Office of Contract Services	3	0% (0)	166
Office of the Public Advocate	2	0% (0)	58
NYC Council	6	0% (0)	686
Office of the City Clerk	2	0% (0)	48
Department for the Aging	6	0% (0)	483
Department of Cultural Affairs	3	0% (0)	53
Office of Payroll Administration (FISA+OPA)	6	16.7% (1)	532
NYC Independent Budget Office	2	0% (0)	28
Landmarks Preservation Commission	3↑	0% (0)	69
NYC Taxi & Limousine Commission	8	12.5% (1)	501

Entity Name	# Job Groups	Female	Headcount
Office of Labor Relations	6↓	0% (0)	136
NYC Commission on Human Rights	5	20.0% (1)	96
NYC Police Pension Fund	6	0% (0)	130
NYC Fire Pension Fund	2↑	0% (0)	18
Department of Youth & Community Development	6↓	0% (0)	474
Office of Collective Bargaining	1	0% (0)	12
Department of Education	18	22.2% ↓ (4)	12739
Department of Probation	7	0% (0)	942
Department of Small Business Services	4↓	0% (0)	226
NYC Housing Preservation & Development	9↓	11.1%↓ (1)	2206
Department of Buildings	8	25.0% (2)	1558
Department of Health & Mental Hygiene	20	10.0% ↓ (2)	6213
Office of Administrative Trials & Hearings	7 ↑	0% (0)	674
Department of Environmental Protection	15	53.3% (8)	5644
Department of Sanitation	14	28.6% (4)	9844
Business Integrity Commission	3	0% (0)	61
Department of Finance	10	10.0% ↓ (1)	1747
Department of Transportation	13↓	38.5% ↑ (5)	5492

Entity Name	# Job Groups	Female	Headcount
Department of Parks & Recreation	17 ↑	23.5% ↑ (4)	8272
Department of Design & Construction	8	12.5% (1)	1107
NYC Office of Technology and Innovation	10 ↑	40.0% ↑ (4)	1576
Department of Records & Information Services	3↑	0%↓ (0)	43
Department of Consumer & Worker Protection	7	14.3% ↑ (1)	398
Department of Citywide Administrative Services	15	26.7% ↓ (4)	2040
Office of the New York County District Attorney	9↓	0% (0)	1583
Office of the Bronx County District Attorney	9↑	0% (0)	1006
Office of the Kings County District Attorney	9	0% (0)	1145
Office of the Queens County District Attorney	8	0% (0)	824
Office of the Richmond County District Attorney	3↓	33.3% ↑ (1)	193
Office of Special Narcotics Prosecutor	4	0% (0)	190
NYC Housing Authority	18	22.2% (4)	11612
Total	483	15.1% ↑ (73)	180915

Table 22 illustrates employment disparities from race and ethnicity underutilization at each entity.

Table 22 – Disparities in # of Personnel by Race and Ethnicity at Entities,
Citywide

		-			
Entity Name	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount
Office of the Mayor	4	-	11	8	487
Campaign Finance Board	3	-	8	-	109
NYC Office of the Actuary	2	-	4	-	37
NYC Employees' Retirement System	7	-	20	21	478
Office of the Manhattan Borough President	2	-	-	-	37
Office of the Bronx Borough President	2	-	-	-	46
Office of the Brooklyn Borough President	2	-	-	-	35
Office of the Queens Borough President	2	-	-	-	47
Office of the Staten Island Borough President	1	-	-	-	25
Office of the NYC Comptroller	8	-	12	-	686
Department of Emergency Management	2	-	16	-	197
Office of Management & Budget	4	-	57	-	398
Office of Administrative Tax Appeals	2	-	-	-	30
NYC Law Department	8	-	27	17	1572
Department of City Planning	6	_	13	10	283

Entity Name	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount
Department of Investigation	6	-	17	-	273
Teacher's Retirement System	7	-	-	12	364
Civilian Complaint Review Board	5	-	18	-	219
NYC Police Department	23	14	4167	-	50538
NYC Fire Department	16	230	747	-	16906
Department of Veterans' Services	2	-	-	-	26
Administration for Children's Services	15	123	-	-	6326
Department of Social Services (HRA+DHS)	19	58	-	17	12597
Department of Correction	19	50	25	32	8365
Board of Correction	1	-	-	-	9
Mayor's Office of Contract Services	3	-	-	-	166
Office of the Public Advocate	2	-	-	-	58
NYC Council	6	-	30	-	686
Office of the City Clerk	2	-	15	-	48
Department for the Aging	6	-	-	-	483
Department of Cultural Affairs	3	-	-	-	53
Office of Payroll Administration (FISA+OPA)	6	-	22	22	532
NYC Independent Budget Office	2	-	-	-	28

Entity Name	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount
Landmarks Preservation Commission	3	-	5	-	69
NYC Taxi & Limousine Commission	8	-	-	-	501
Office of Labor Relations	6	-	-	6	136
NYC Commission on Human Rights	5	-	13	-	96
NYC Police Pension Fund	6	-	-	-	130
NYC Fire Pension Fund	2	-	-	-	18
Department of Youth & Community Development	6	-	-	-	474
Office of Collective Bargaining	1	-	-	-	12
Department of Education	18	215	775	148	12739
Department of Probation	7	21	-	-	942
Department of Small Business Services	4	-	-	-	226
NYC Housing Preservation & Development	9	17	-	-	2206
Department of Buildings	8	-	50	-	1558
Department of Health & Mental Hygiene	20	5	9	27	6213
Office of Administrative Trials & Hearings	7	-	-	-	674
Department of Environmental Protection	15	19	528	77	5644
Department of Sanitation	14	22	471	-	9844

Entity Name	# Job Groups > 8 Empl.	Asian Shortfall	Black Shortfall	Hispanic Shortfall	Headcount
Business Integrity Commission	3	-	-	-	61
Department of Finance	10	-	-	55	1747
Department of Transportation	13	81	198	17	5492
Department of Parks & Recreation	17	302	414	146	8272
Department of Design & Construction	8	-	38	-	1107
NYC Office of Technology and Innovation	10	9	28	-	1576
Department of Records & Information Services	3	-	6	-	43
Department of Consumer & Worker Protection	7	-	22	-	398
Department of Citywide Administrative Services	15	19	56	-	2040
Office of the New York County District Attorney	9	-	164	34	1583
Office of the Bronx County District Attorney	9	33	40	-	1006
Office of the Kings County District Attorney	9	-	7	-	1145
Office of the Queens County District Attorney	8	-	80	-	824
Office of the Richmond County District Attorney	3	-	23	6	193
Office of Special Narcotics Prosecutor	4	-	10	-	190
NYC Housing Authority	18	380	102	454	11612
Total	483	1601	8247	1108	180915

Table 23 illustrates employment disparities from female underutilization at each entity.

Entity Name	# Job Groups > 8 Empl.	Female Shortfall	Headcount
Office of the Mayor	4	-	487
Campaign Finance Board	3	5	109
NYC Office of the Actuary	2	-	37
NYC Employees' Retirement System	7	-	478
Office of the Manhattan Borough President	2	-	37
Office of the Bronx Borough President	2	-	46
Office of the Brooklyn Borough President	2	-	35
Office of the Queens Borough President	2	-	47
Office of the Staten Island Borough President	1	-	25
Office of the NYC Comptroller	8	-	686
Department of Emergency Management	2	-	197
Office of Management & Budget	4	-	398
Office of Administrative Tax Appeals	2	4	30
NYC Law Department	8	3	1572
Department of City Planning	6	-	283
Department of Investigation	6	-	273

Table 23 – Disparities in # of Females at Entities, Citywide

Entity Name	# Job Groups > 8 Empl.	Female Shortfall	Headcount
Teacher's Retirement System	7	9	364
Civilian Complaint Review Board	5	-	219
NYC Police Department	23	1059	50538
NYC Fire Department	16	669	16906
Department of Veterans' Services	2	-	26
Administration for Children's Services	15	13	6326
Department of Social Services (HRA+DHS)	19	19	12597
Department of Correction	19	65	8365
Board of Correction	1	-	9
Mayor's Office of Contract Services	3	-	166
Office of the Public Advocate	2	-	58
NYC Council	6	-	686
Office of the City Clerk	2	-	48
Department for the Aging	6	-	483
Department of Cultural Affairs	3	-	53
Office of Payroll Administration (FISA+OPA)	6	15	532
NYC Independent Budget Office	2	-	28
Landmarks Preservation Commission	3	-	69

Entity Name	# Job Groups > 8 Empl.	Female Shortfall	Headcount
NYC Taxi & Limousine Commission	8	24	501
Office of Labor Relations	6	-	136
NYC Commission on Human Rights	5	9	96
NYC Police Pension Fund	6	-	130
NYC Fire Pension Fund	2	-	18
Department of Youth & Community Development	6	-	474
Office of Collective Bargaining	1	-	12
Department of Education	18	117	12739
Department of Probation	7	-	942
Department of Small Business Services	4	-	226
NYC Housing Preservation & Development	9	36	2206
Department of Buildings	8	171	1558
Department of Health & Mental Hygiene	20	32	6213
Office of Administrative Trials & Hearings	7	-	674
Department of Environmental Protection	15	414	5644
Department of Sanitation	14	202	9844
Business Integrity Commission	3	-	61
Department of Finance	10	14	1747

Entity Name	# Job Groups > 8 Empl.	Female Shortfall	Headcount
Department of Transportation	13	280	5492
Department of Parks & Recreation	17	254	8272
Department of Design & Construction	8	28	1107
NYC Office of Technology and Innovation	10	137	1576
Department of Records & Information Services	3	-	43
Department of Consumer & Worker Protection	7	11	398
Department of Citywide Administrative Services	15	62	2040
Office of the New York County District Attorney	9	-	1583
Office of the Bronx County District Attorney	9	-	1006
Office of the Kings County District Attorney	9	-	1145
Office of the Queens County District Attorney	8	-	824
Office of the Richmond County District Attorney	3	3	193
Office of Special Narcotics Prosecutor	4	-	190
NYC Housing Authority	18	273	11612
Total	483	3929	180915

## Appendix E Methodology

## **Determining Underutilization**

The City has established a database – the Citywide Equal Employment Database System (CEEDS) – to analyze its workforce and assess underutilization. This database contains the necessary data and calculations to measure underutilization and flags instances where it occurs, using definitions and standards established by the City. We provide a more detailed explanation of CEEDS in Appendix F.

Rather than solely rely on the calculations and assessments in CEEDS, for this report we conducted our own analyses of the data. This results in different counts of underutilization than those reported in CEEDS. Table 24 illustrates those differences.

How Job Groups and Underutilization are Classified	# Job Groups with Underutilization		
CEEDS and the EEPC determine UU exists	188		
The underutilization is less than 5% of the workforce: CEEDS does not count as UU but the EEPC does	31		
The EEPC combines data for entities that have merged operations, but that CEEDS still counts separately	8		
Total	219		

### Table 24 – EEPC and CEEDS Findings of Underutilization

The overlap between the determinations in CEEDS and ours is greater than the disparities, but we conducted these independent analyses to address two issues in CEEDS: 1) the (lack of) flagging underutilization if the size of the disparity – as measured by the number of personnel – is considered "low"; 2) not combining data for entities that in practice have collated their operations.

#### Not flagging underutilization if the disparity is considered "small"

New York City uses multiple metrics to assess underutilization (these are discussed in detail in Appendix F). The one utilized most frequently analyzes whether those situations where a demographic group is underutilized are likely to have occurred "by chance." In other words, is the underrepresentation of the demographic group in a job group likely to be random or is it likely to be the result of problems in the hiring and retention practices of the entity?

To assess whether the imbalance is likely or unlikely to be random, the City engages in calculations that are very common in the field of statistics. A "z-score" – a statistical metric that determines the size of a disparity – is calculated; using that calculation and the size of the job group, the City calculates the probability of that disparity existing. If the imbalance is unlikely to be random, it is sometimes referred to as "statistically significant." (We discuss statistical significance in more detail on pages 77-78). Usually, those job groups with statistically significant underutilization are flagged as having underutilization.

The City also uses some metrics that override a finding of statistically significant underutilization. If there is statistically significant underutilization of a demographic group but the disparity is less than five percent of the individuals in that job group, it is not considered to be an instance of underutilization. For example, imagine a job group with 100 personnel, a LMA for Asians of four percent, and no Asians employed in the job group. That disparity meets the requirements of statistical significance, but the size of the disparity is less than five percent of the total number of personnel in that job group. CEEDS does not classify this as underutilization. To determine if these instances met the City's statistical significance threshold, we independently calculated z-scores for all job groups, including those with this classification.

We do not mean to suggest the City should not have metrics that assess the extent of underutilization. It is useful and reasonable to put it in context: a situation where a job group's underutilization of people of color is four percent of personnel is likely very different from a job group in which underutilization of people of color is 20 percent of the job group's personnel. But we believe it best to indicate the magnitude of the disparity *in addition* to determining whether there is underutilization that reaches statistical significance, and thus report findings based on that standard.

#### CEEDS has not combined entities that have collated their operations

For this report, workforce data for the HRA/Department of Social Services (formerly Human Resources Administration) and Department of Homeless Services were merged to create the Department of Social Services (HRA+DHS), and the Office of Payroll Administration and Financial Information Services Agency were combined to create the Office of Payroll Administration istration (FISA+OPA).

These entities were merged because each pair share an entity head, have shared resources (e.g., email address domain, website, letterhead), shared EEO policies, and EEO programs that operate in close concert with one another.

For the Department of Social Services (HRA+DHS), the case for workforce merger is quite clear. The entity's website describes its organizational integration, stating "[t]he Department

of Social Services (DSS) is comprised of the administrative units of the NYC Human Resources Administration (HRA) and the Department of Homeless Services (DHS)."<sup>19</sup>

For the Office of Payroll Administration (FISA+OPA), during the EEPC's SHPRA audit it was found "FISA and OPA collocated in 2015 and operate as two separate agencies under a matrix management system to eliminate duplicative processes and departments and to share common agency organizational resources. Under this arrangement the agency's shared departments and functions include Information Technology, Human Resources and General Counsel. In their shared documents and resources (including letterhead, email addresses, SharePoint, and EEO policies) and by their shared agency head, FISA and OPA are referred to in conjunction as 'FISA-OPA'."<sup>20</sup>

The EEPC considered, but decided against, merging the workforces for the Office of the Mayor and the Mayor's Office for Contract Services (MOCS). At the time of analyses, when the EEPC asked MOCS about its relationship with the Office of the Mayor, MOCS reported "[w]e are still part of the Mayor's Office in some budget/structural ways, but we are independent for the purposes of EEO."

## Underutilization, Z-Scores, and Statistical Significance

New York City uses multiple metrics to assess underutilization (these are discussed in detail in Appendix F). The one utilized most frequently analyzes whether those situations where a demographic group is underutilized are likely to have occurred "by chance." In other words, is the underrepresentation of the demographic group in a job group likely to be random or is it likely to be the result of problems in the hiring and retention practices of the entity?

To assess whether the imbalance is likely or unlikely to be random, the City engages in calculations that are very common in the field of statistics. A "z-score" – a statistical metric that determines the size of a disparity – is calculated; using that calculation and the size of the job group, the City calculates the probability of that disparity existing.

To understand the implications of these calculations and how they can be interpreted, imagine an entity with ten positions in a job group, with three of those positions held by a Black individual, and a labor pool where 50 percent of the available individuals are Black. The availability of Black individuals is 50 percent but the percentage of individuals who are Black in that job group at the entity is only 30 percent. The percentage differences suggest a sizeable disparity, but because of the small number of positions, the disparity is equivalent to two personnel. If you have ever been involved in a hiring process, you know there are numerous factors to consider when deciding who to hire, and there could be lots of reasons why the demographics of the individuals selected are not the same as the demographics of the labor market. In part because of the small numbers, it might be a stretch to say there is evidence the underrepresentation of Black individuals is the result of discrimination or bias.

<sup>&</sup>lt;sup>19</sup> See the Department of Social Services' website: <u>https://www1.nyc.gov/site/dss/about/about.page.</u>

<sup>&</sup>lt;sup>20</sup> See the "EEPC Audit Rev, Eval, Monitoring & Compliance of Office of Payroll Adm.'s Sexual Harassment Prev. and Resp. Practices from 1.1.2016 to 12.31.2017" published on October 5, 2018 available on the Government Publications Portal at <a href="https://a860-gpp.nyc.gov/concern/nyc\_government\_publications/x920fz187?locale=en">https://a860-gpp.nyc.gov/concern/nyc\_government\_publications/x920fz187?locale=en</a>.

Now consider an entity with 1,000 positions in a job group, where 300 of those individuals are Black, and the available labor pool is 50 percent Black. The percentage differences suggest the same sizeable percentage disparity as in the previous example, but in this example the *number* of positions is much higher. The gap between the expected number of Black individuals in this job group and the actual number in the job group is 200; in other words, if the number of hires reflected the availability in the job pool, we would expect 200 more Black individuals to have been hired.

In the first example there was a disparity of two (if the job group were to perfectly match their labor market availability). A disparity of two does not appear to be strong evidence of a pattern of discrimination. In the second example there is a disparity of 200 That seems much less likely to be random and may indicate a pattern.

It is rarely the case hiring decisions perfectly match labor market availability, and they should not be expected to. The purpose of these analyses is to determine whether there is a disparity, the magnitude of that disparity, and the likelihood the disparity is the result of discrimination, not to put entities in a hiring straitjacket.

The City uses a statistical tool called a "z-score" that investigates the issues discussed in the above examples. The z-score is a standardized metric measuring the "size" of a disparity. Using the size of the disparity and the number of individuals at issue, the z-score is used to determine the probability the disparity would exist if there were no discrimination or bias. Using the above example, many researchers would phrase the issue in a way similar to this: "if there is no discrimination in the hiring process, what is the probability the agency would hire 200 fewer Black individuals than expected, given the availability of Black workers in the labor pool from which the entity recruits?"

As is typical in much statistical analysis of this kind, the City considers underutilization to exist if that probability is less than 5 percent (in statistical analysis this metric is referred to as a "p value"). Disparities like the one illustrated in the first example (where there were two hiring decisions) have a relatively high likelihood of occurring by chance – greater than 5 percent – and thus do not meet the City's criteria for underutilization. Disparities like the one illustrated in the second example (where there were 200 hiring decisions) are less likely to occur by chance, and the City would consider underutilization to exist in such an example.<sup>21</sup>

<sup>&</sup>lt;sup>21</sup> The small number of individuals in the first example should not be considered proof discrimination has not occurred. It is more accurate to say, "the numbers do not provide evidence of discrimination or bias" rather than, "there is proof discrimination or bias does not exist." Similarly, the better way to interpret the second example is to say, "the numbers suggest discrimination or bias may have occurred" rather than "there is proof discrimination or bias did occur."

# Appendix F CEEDS

The data analyzed in this report comes from CEEDS, except where otherwise noted. There are 75 entities in CEEDS that are in the EEPC's jurisdiction and included in the EEPC's analyses.<sup>22</sup> DCAS provided data to the EEPC on the number of personnel at entities and in job groups; number of new hires, promotions, and separations; and assessments of underutilization.

## Imbalance Codes

This is an excerpt from the CEEDS report that assesses underutilization. This is one job group at one entity.

EEO VAR	EEO VAL	FOCAL GROUP	OTHER THAN FOCAL GROUP	TOTAL	AVAIL %	EXPECTED #	DIFFERENCE	Z-SCORE	PROBABILITY	IMBAL
ETH ETH ETH ETH ETH ETH	WHITE BLACK HISPANIC ASIAN / PAC ISL NATIVE AMERICAN ETH UNKNOWN	21 10 7 1 0 0	18 29 32 38 39 39	3 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	.2630 .3027 .2268 .0821 .0029 .0534	10.26 11.81 8.85 3.20 0.11 2.08	10.74 -1.81 -1.85 -2.20 -0.11 -2.08	3.91 -0.63 -0.71 -1.28 -0.34 -1.48	<.01 0.265 0.240 0.100 0.368 0.069	O N-05%RUL U-80%RUL N-05%RUL U-80%RUL
GEN GEN GEN	MALE FEMALE GENDER UNKNOWN	36 3 0	3 36 39	39 39 39	.6625 .2356 .0332	25.84 9.19 1.29	10.16 -6.19 -1.29	3.44 -2.34 -1.16	<.01 <.01 0.124	O U N-05%RUL

CEEDS reports data for each job group at each entity, analyzing underutilization for the demographic groups listed in the excerpt above. CEEDS provides each demographic group's presence in that job group ("FOCAL GROUP") and the availability for each ("AVAIL %"). The "IMBAL" field in CEEDS flags underutilization (it is short for "imbalance"). The value in that field is based in part on the calculations to the left of that column ("Z-SCORE" and "PROBA-BILITY").

For example, the "female" category has three individuals in the job group at the entity in the example above. Based on their LMA ("AVAIL %") of 24 percent (indicated as .2356) there would be nine females ("EXPECTED #") which is a difference of 6.19 ("DIFFERENCE") if their presence in the job group matched their availability. This disparity results in a z-score of -2.34; the probability of a disparity of that size is less than .01 percent. Therefore, the job group is flagged as having underutilization of females (a value of "U" in the "IMBAL" column).

CEEDS uses multiple codes to categorize the differences between the actual availability of incumbent workers and the expected availability of workers, given the availability analysis estimates.

**U**: underutilization. This indicates underutilization exists, and the difference between the presence of the group and the expected presence is statistically significant (as illustrated in

<sup>&</sup>lt;sup>22</sup> These 75 entities also include two merged entities: Department of Social Services (HRA+DHS) and Office of Payroll Administration (FISA+OPA). The Department of Social Services (HRA+DHS) is the combined product of the workforces of Human Resources Administration (HRA) and Department of Homeless Services (DHS). The Office of Payroll Administration (FISA+OPA) is the combined product of the workforces of Office of Payroll Administration (OPA) and Financial Information Services Agency (FISA).

the example of females discussed above). This value is superseded if the requirements for "N-05% RUL" are met, as indicated below.

**N-05% RUL**: the Five Percent Rule. This indicates there are fewer individuals from the demographic group than expected given their availability, but the difference between the number of individuals from that demographic group and the expected number is less than five percent of the total individuals in that job group. The logic behind this rule is likely that while underutilization exists, it is small enough as a percentage of the overall workforce to not merit much concern.

In the excerpt above, the number of Hispanic individuals in the job group is 1.85 fewer than expected. That disparity is less than five percent of the number of individuals in this job group (39).

This value supersedes classifications of underutilization (U). In other words, there are examples of statistically significant underutilization that CEEDS does not categorize as such, if the disparity is less than five percent of the number of individuals in the job group. That is not an issue in this example, but it is in others, as discussed in Appendix E.

**U-80% RUL**: the 80 Percent Rule. This indicates the presence of the demographic group in the job group is less than their availability, the disparity is *not* statistically significant, but the number of individuals from that group is less than 80 percent of what it would be if their presence matched their availability. In the excerpt above, the Asian/Pacific Islander group meets the conditions of the 80 percent rule. One would expect 3.2 individuals in this job group if their presence matched their availability, but there is only one individual from this group. That disparity is not statistically significant (the probability of this is 10 percent, which does not meet the typical threshold) but it is less than 80 percent of the expected number.

**O**: Overutilization. This indicates there are more individuals from the demographic group in the job group than expected based on their availability, and the difference is statistically significant.

DCAS is the steward of CEEDS data and has advised entities to consider both the "U" and "U-80% RULE" underutilization codes more as rules of thumb, given most availability estimates in CEEDS are very old.<sup>23</sup>

### How CEEDS Counts Personnel

CEEDS uses the Active Pay status in NYCAPS to determine how to report on entity workforce composition and personnel activity reports. As a result, CEEDS and subsequent analyses relying on its data have limitations.

<sup>&</sup>lt;sup>23</sup> See EEPCs LL13 report for 2021 for discussions on the importance in using dynamic availability estimates, and in deriving availability estimates from relevant labor pools.

New Hires activity includes persons returning from unpaid leave. Separations activity includes persons going on unpaid leave. Depending on the timing and duration of unpaid leave, an employee can appear as separated in one quarter and newly hired the next quarter when practically they were neither.

CEEDS does not report entity or job title transfers activity. If an employee transferred between two city agencies, the activity does not appear as a separation or transfer out of the old entity, nor a new hire or transfer into the new entity. If an employee transferred to a new title but at the same salary rate, the activity goes undocumented.

Promotions activity in CEEDS includes both internal promotions and external promotions into the entity. A transfer to a new title and higher salary at a different entity will show as a promotion *within* the new entity, despite the promotion occurring *into* the new entity. Promotions activity requires both a higher salary than in the previous quarter and that the employee be in a different title or a higher managerial assignment level. Promotions activity ignores the entity and job group of the old title, which also makes it impossible to reconcile the impact of promotion activity on underutilization. If an employee promotes to a new title in the same job group at the same organization, then the activity will also appear in the promotions report.

