603 - Final Project
Analysis on NYC Civil Service List Certification

By:-
Kalaiarasi Kaliappan

New York Civil Service exam

- A written test for specific positions.

- It is one of the most challenging examinations that require a lot of practice and preparation

- Civil Service eligible lists are valid for at least one year, and up to four years, in accordance with

  state law.

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2022 Progress Report

Acknowledgements   About   Contact

Home
Introduction
Strategic Plan Update
Updates to Data Quality and
Documentation Standards
Dataset Highlights
Open Data by the Numbers
Compliance Plan

NYC Open Data: 2022 Progress Report

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About this Dataset

Updated

May 5, 2023

Data Last Updated   **Metadata Last Updated**

May 5, 2023   March 22, 2023

Date Created

November 16, 2016

Views   **Downloads**

609K   ## 15.9K

Data Provided by   **Dataset**
Department of Citywide   **Owner**
Administrative Services (DCAS)   NYC
                                OpenData

Dataset Information

Agency	Department of Citywide Administrative Services (DCAS)

Update

Update Frequency	Daily
Automation	Yes
Date Made Public	12/1/2016

Attachments

⧉ Civil Service List Certification Data Dictionary_Nov2016.xlsx

Topics

Category	City Government
Tags	civil, service, list, title, dcas

What's in this Dataset?

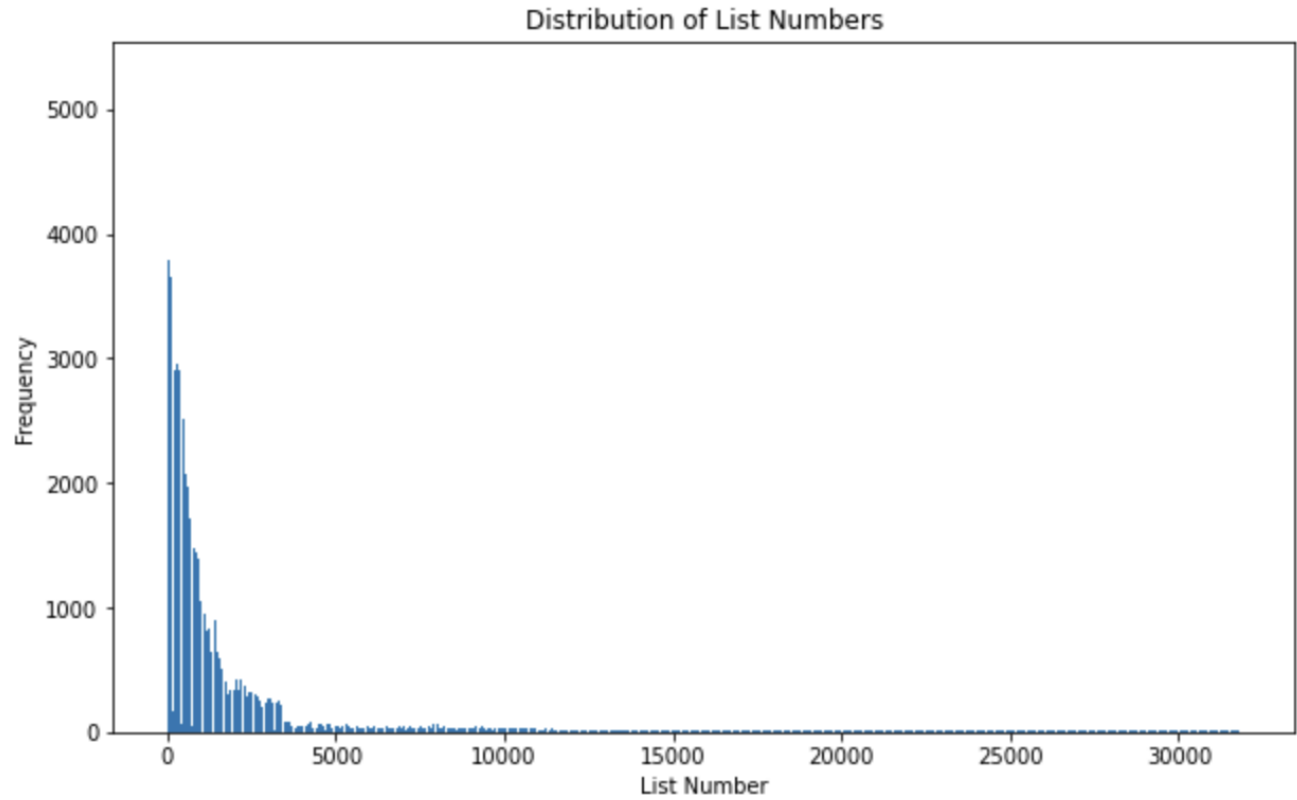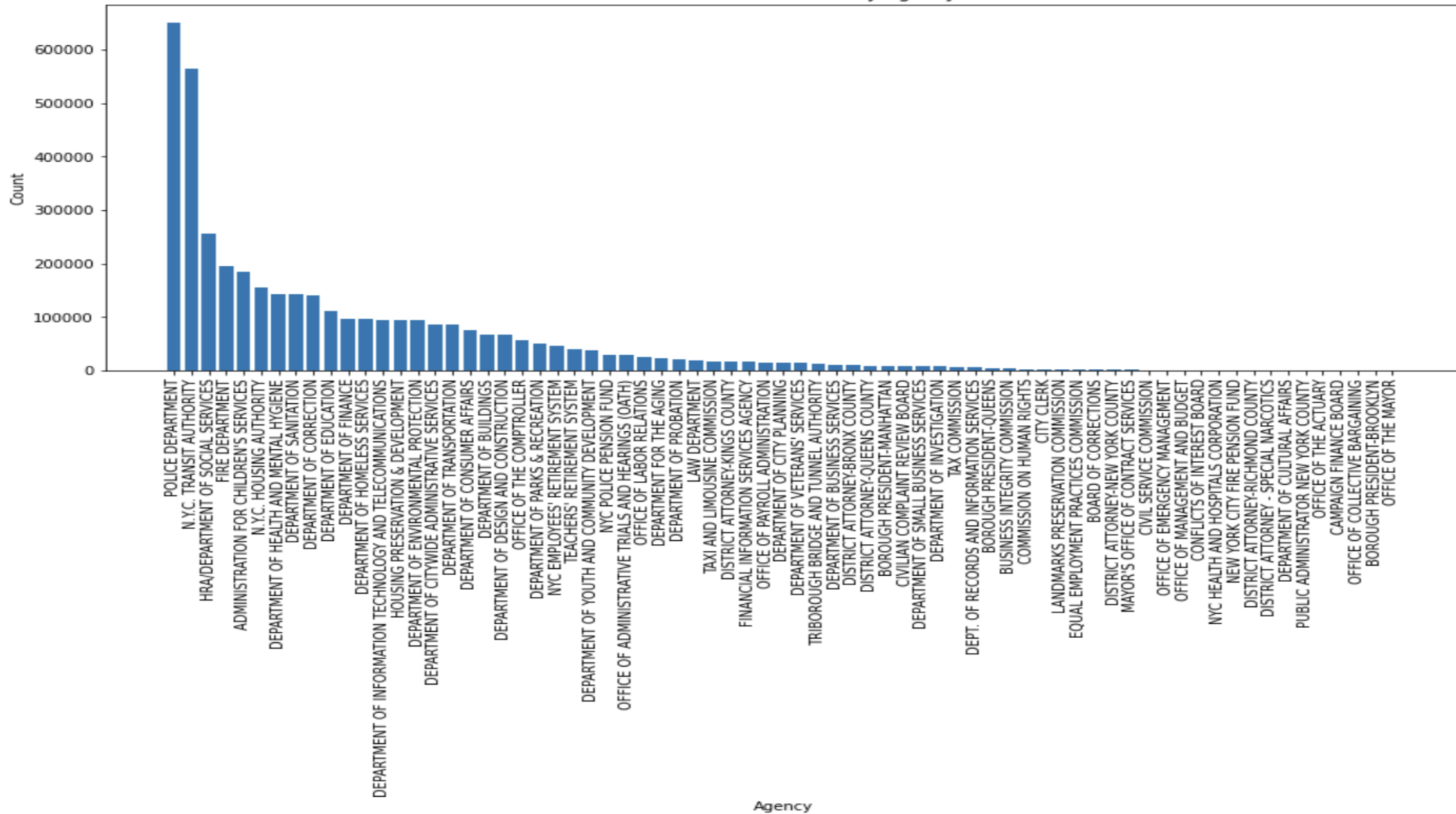| Rows	Columns	Each row is a
4.07M	**21**	**Candidate**

Key Attributes:

- List No (Candidates rank)

- List Agency Desc (Hiring Agency name)

- List Title Desc (Job title)

- Salary

- Cert Date

- Cert Expiration Date

- No Certified

- Provisional Replacement

- No Vacancies

Distribution of List Numbers:

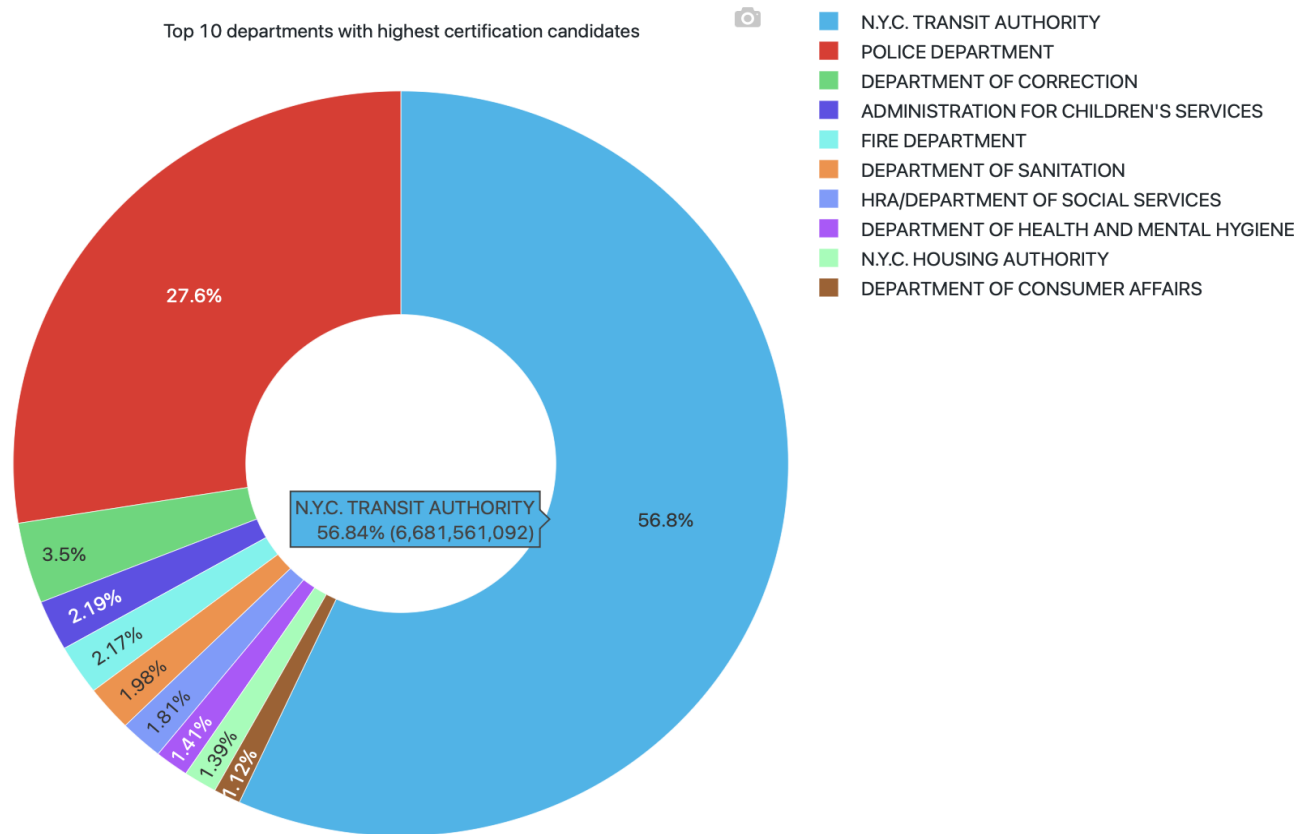
Distribution of List Numbers

It's observed that individuals with higher ranks have a larger spread in the dataset. This indicates that candidates with higher list numbers tend to have a wider range of positions and job titles available to them. It suggests that individuals with higher ranks have more opportunities and options for employment within the civil service.
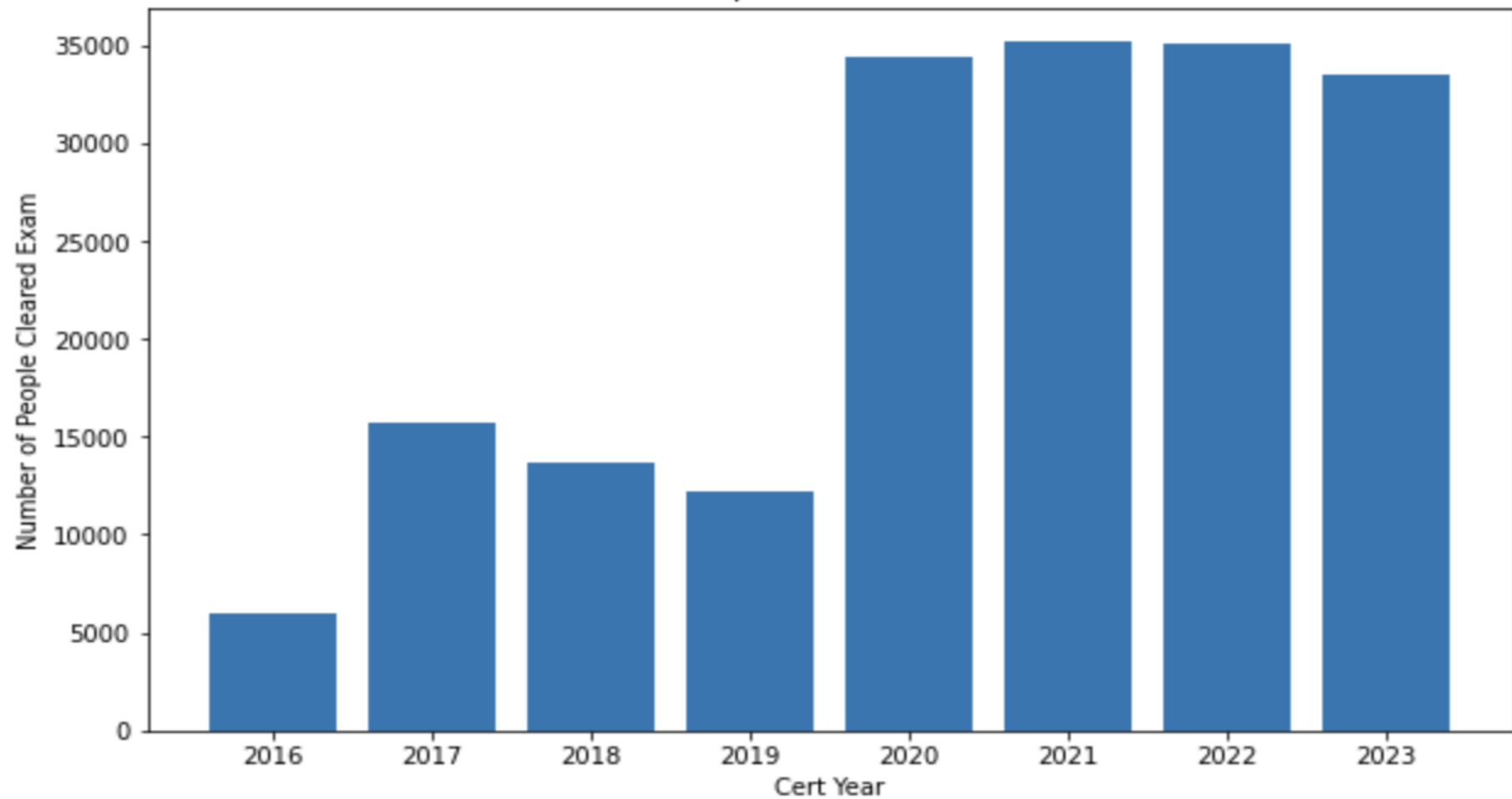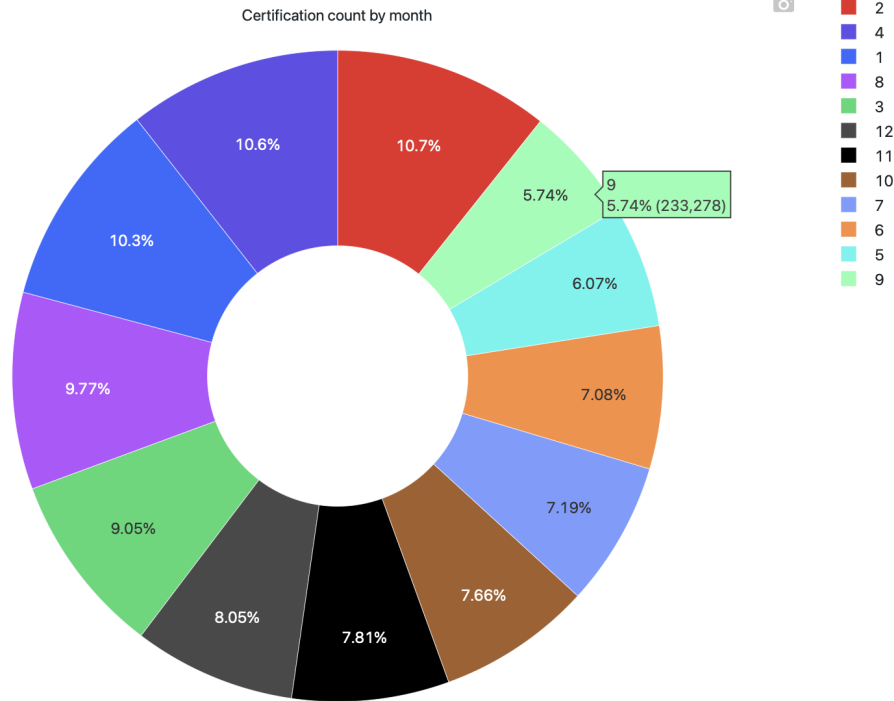
List Number Distribution by Agency

Top 10 agency which received most no.of certifications.

Top 10 departments with highest certification candidates

- N.Y.C. TRANSIT AUTHORITY
- POLICE DEPARTMENT
- DEPARTMENT OF CORRECTION
- ADMINISTRATION FOR CHILDREN'S SERVICES
- FIRE DEPARTMENT
- DEPARTMENT OF SANITATION
- HRA/DEPARTMENT OF SOCIAL SERVICES
- DEPARTMENT OF HEALTH AND MENTAL HYGIENE
- N.Y.C. HOUSING AUTHORITY
- DEPARTMENT OF CONSUMER AFFAIRS

56.8%

27.6%

3.5%

2.19%

2.17%

1.98%

1.81%

1.41%

1.39%

1.12%

N.Y.C. TRANSIT AUTHORITY
56.84% (6,681,561,092)

Number of People Cleared Exam Each Year

No. of people cleared exam based on month wise

Certification count by month

■	2
■	4
■	1
■	8
■	3
■	12
■	11
■	10
■	7
■	6
■	5
■	9

9
5.74% (233,278)

10.7%
10.6%
10.3%
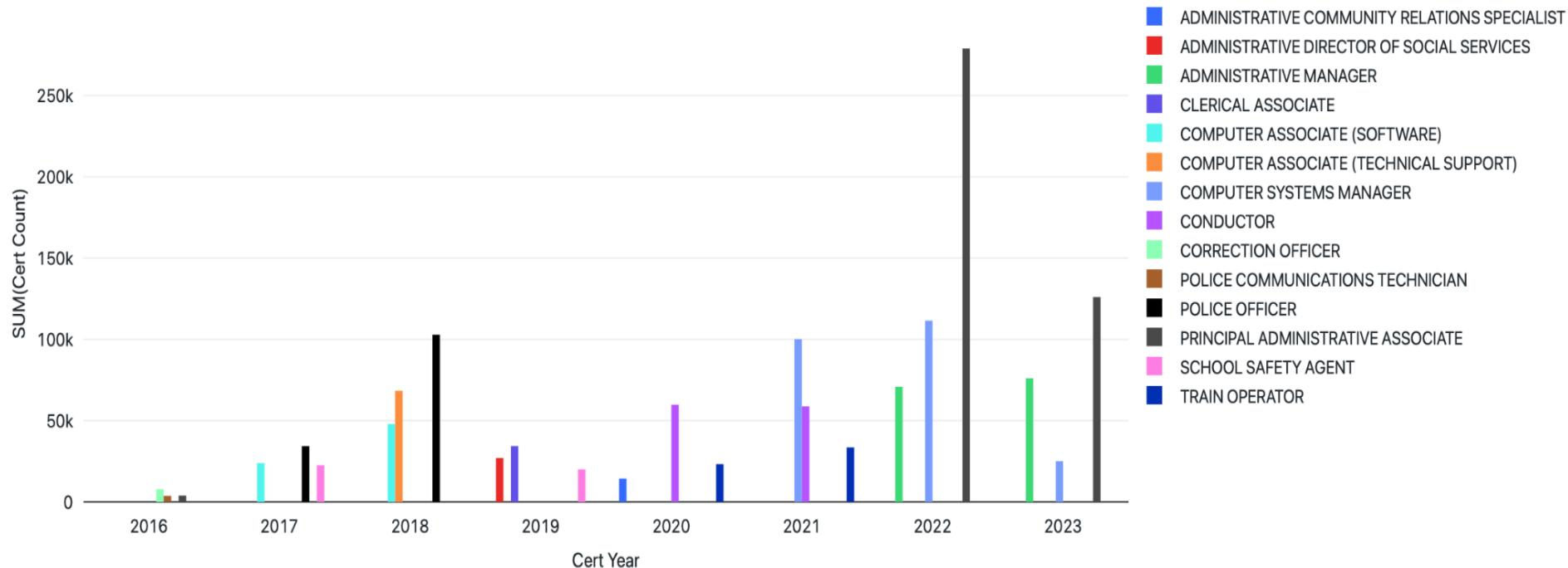9.77%
9.05%
8.05%
7.81%
7.66%
7.19%
7.08%
6.07%
5.74%

# Top 10 departments prefered by most no. of candidates
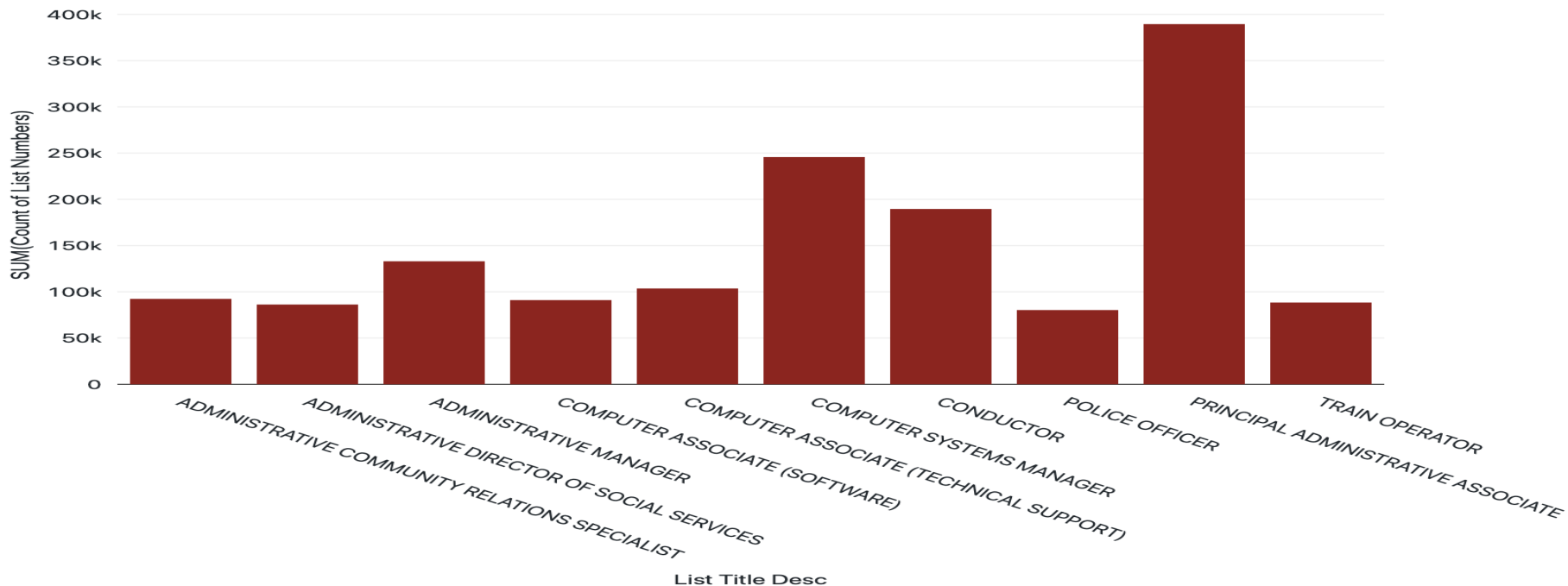
PRINCIPAL ADMINISTRATIVE ASSOCIATE is the most sought-after certification, with over 300,000 candidates obtaining it, highlighting its popularity and potential career prospects.

Top 3 certificates Preferred each year

Legend:
- ADMINISTRATIVE COMMUNITY RELATIONS SPECIALIST
- ADMINISTRATIVE DIRECTOR OF SOCIAL SERVICES
- ADMINISTRATIVE MANAGER
- CLERICAL ASSOCIATE
- COMPUTER ASSOCIATE (SOFTWARE)
- COMPUTER ASSOCIATE (TECHNICAL SUPPORT)
- COMPUTER SYSTEMS MANAGER
- CONDUCTOR
- CORRECTION OFFICER
- POLICE COMMUNICATIONS TECHNICIAN
- POLICE OFFICER
- PRINCIPAL ADMINISTRATIVE ASSOCIATE
- SCHOOL SAFETY AGENT
- TRAIN OPERATOR

Popular Certifications: PRINCIPAL ADMINISTRATIVE ASSOCIATE, ADMINISTRATIVE MANAGER, and COMPUTER SYSTEMS MANAGER are the top three preferred certifications by candidates in recent years, indicating their relevance and demand in the job market.

Top 10 positions which has more hiring rate
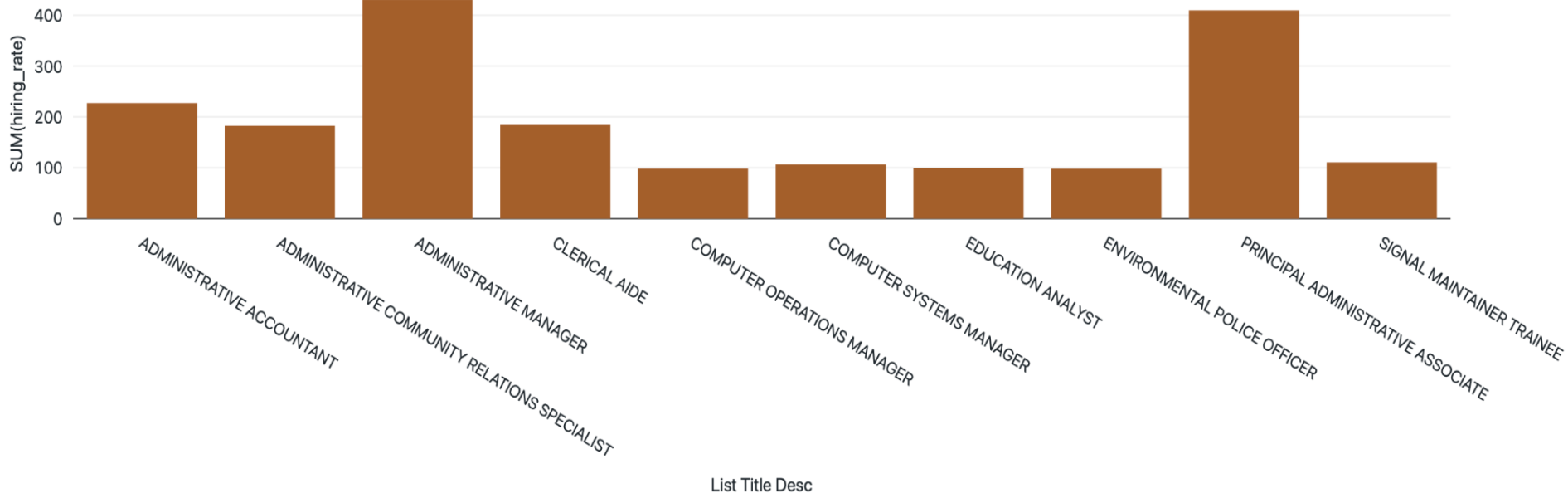
High Demand Titles: The positions of ADMINISTRATIVE MANAGER and PRINCIPAL ADMINISTRATIVE ASSOCIATE show high hiring rates, suggesting a consistent need for professionals in these roles.

# Maximum Salary received by top 10 job titles
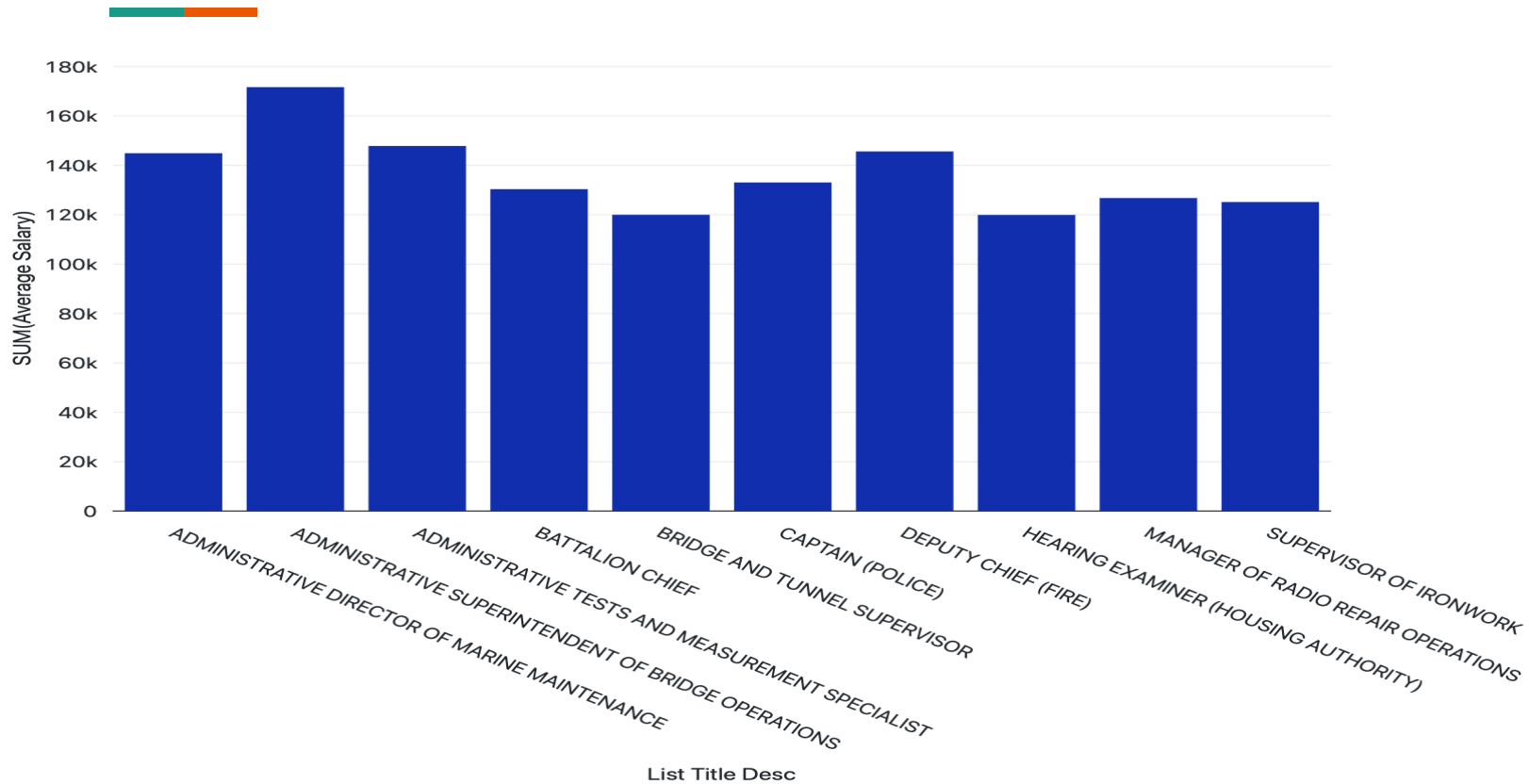
The two job titles which has max and min average salary

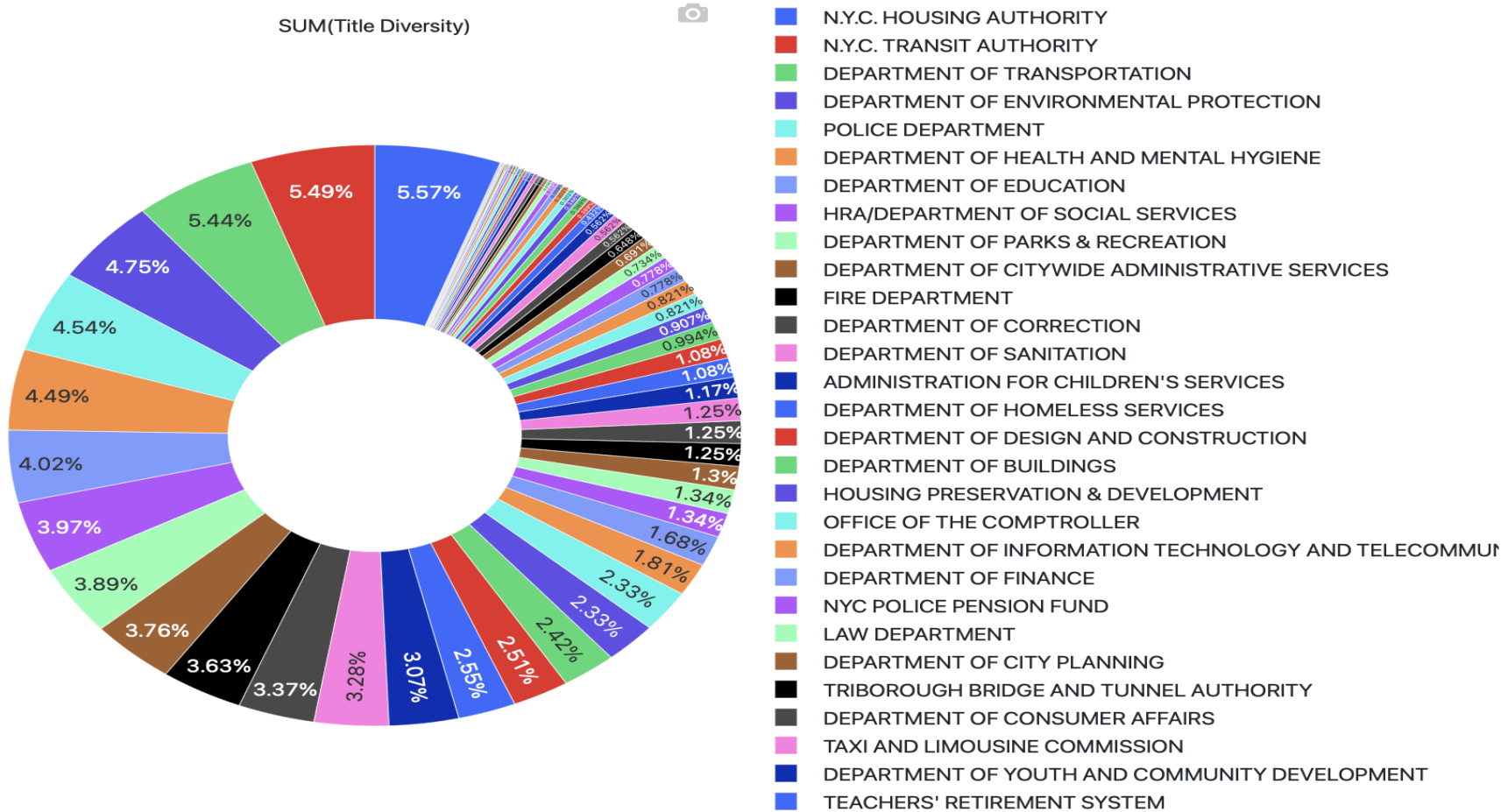|	List Title Desc	Average Salary	Minimum Salary	Maximum Salary
1	ADMINISTRATIVE SUPERINTENDENT OF BRIDGE OPERATIONS	171666	171666	171666
2	YOUTH DEVELOPMENT SPECIALIST	46824.0925058548	43904	49427

Salary Disparity: The ADMINISTRATIVE SUPERINTENDENT OF BRIDGE OPERATIONS earns the highest salary, while the YOUTH DEVELOPMENT SPECIALIST earns the lowest, indicating a significant salary discrepancy across job titles.

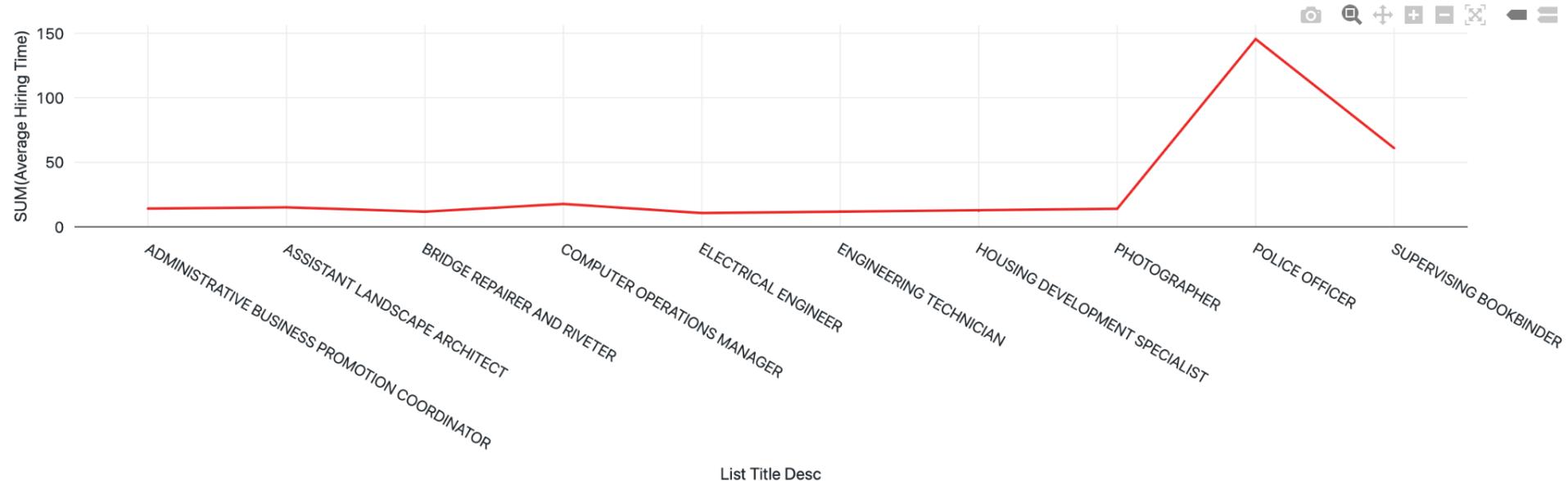# Top 10 certificates which has more Expiration days
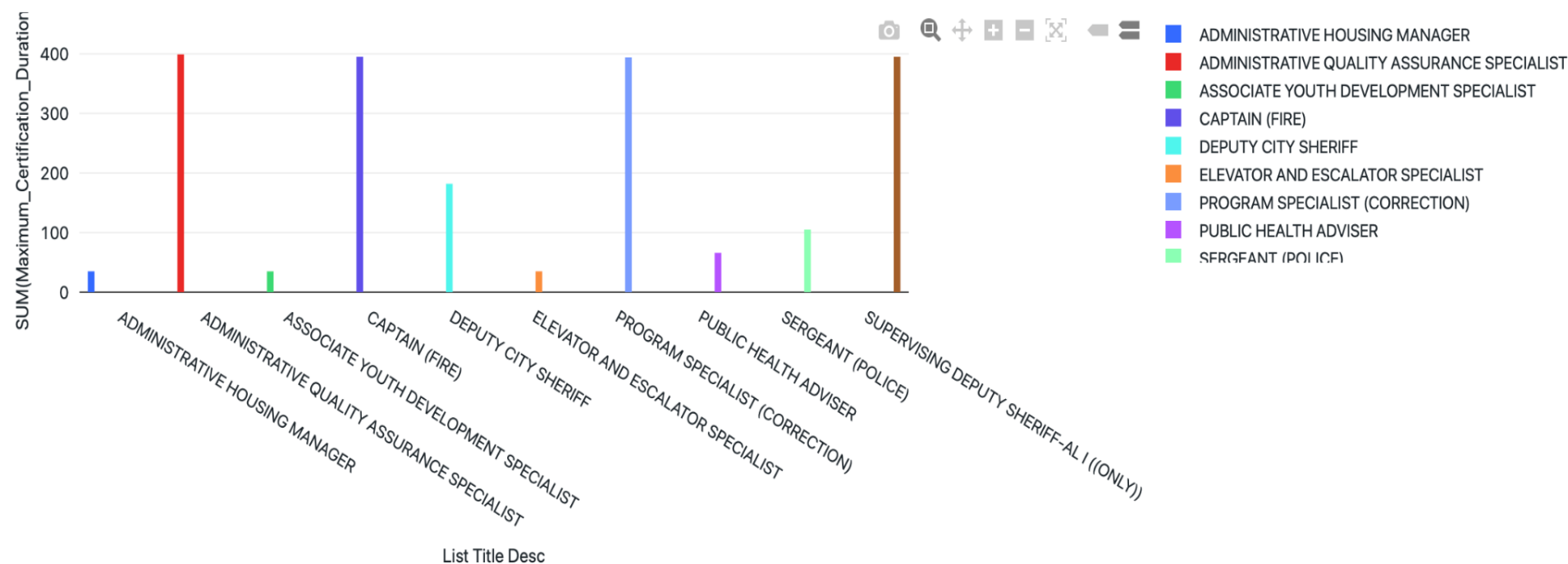
Certifications like SUPERVISING DEPUTY SHERIFF-AL I ((ONLY)) and CAPTAIN (FIRE) have relatively longer certificate expiry dates, potentially requiring longer periods of recertification or renewal.

No. of Positions handled by each agencies

SUM(Title Diversity)

Legend:
- N.Y.C. HOUSING AUTHORITY
- N.Y.C. TRANSIT AUTHORITY
- DEPARTMENT OF TRANSPORTATION
- DEPARTMENT OF ENVIRONMENTAL PROTECTION
- POLICE DEPARTMENT
- DEPARTMENT OF HEALTH AND MENTAL HYGIENE
- DEPARTMENT OF EDUCATION
- HRA/DEPARTMENT OF SOCIAL SERVICES
- DEPARTMENT OF PARKS & RECREATION
- DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES
- FIRE DEPARTMENT
- DEPARTMENT OF CORRECTION
- DEPARTMENT OF SANITATION
- ADMINISTRATION FOR CHILDREN'S SERVICES
- DEPARTMENT OF HOMELESS SERVICES
- DEPARTMENT OF DESIGN AND CONSTRUCTION
- DEPARTMENT OF BUILDINGS
- HOUSING PRESERVATION & DEVELOPMENT
- OFFICE OF THE COMPTROLLER
- DEPARTMENT OF INFORMATION TECHNOLOGY AND TELECOMMUN
- DEPARTMENT OF FINANCE
- NYC POLICE PENSION FUND
- LAW DEPARTMENT
- DEPARTMENT OF CITY PLANNING
- TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
- DEPARTMENT OF CONSUMER AFFAIRS
- TAXI AND LIMOUSINE COMMISSION
- DEPARTMENT OF YOUTH AND COMMUNITY DEVELOPMENT
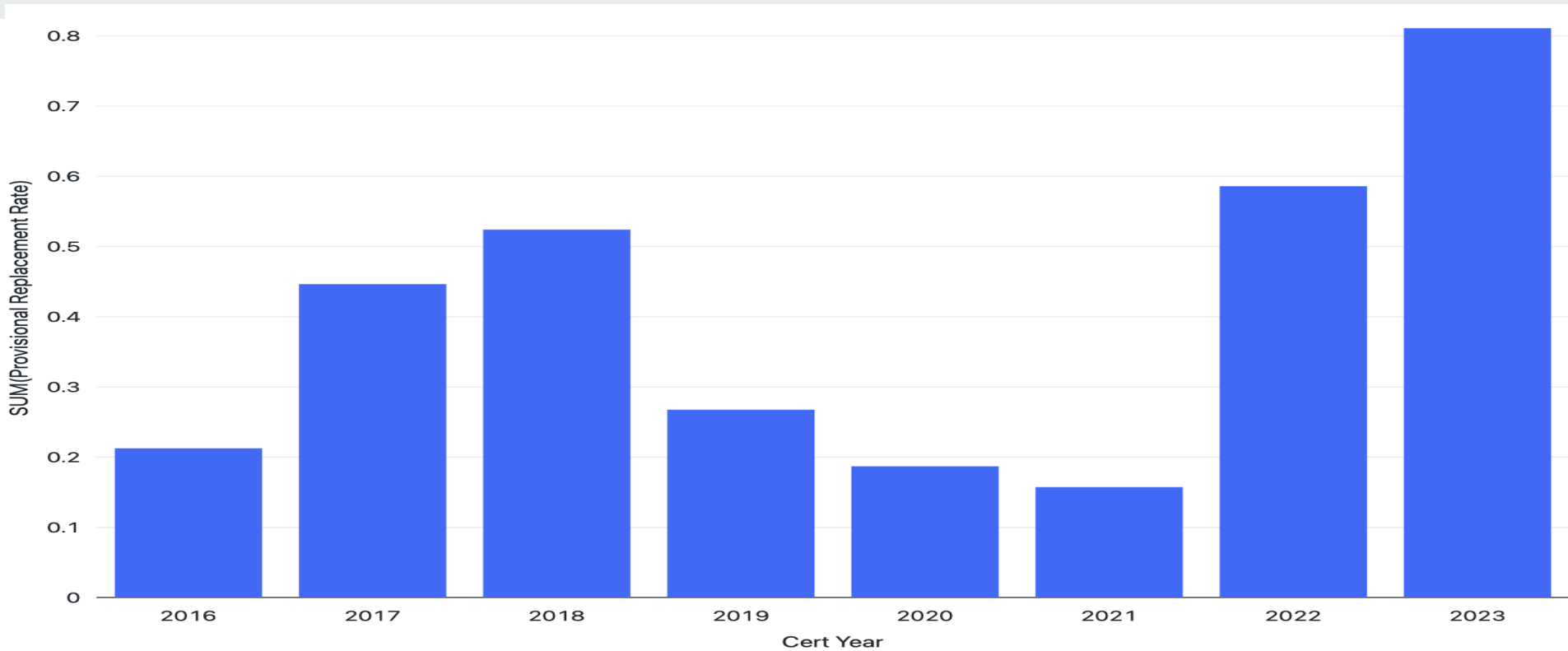- TEACHERS' RETIREMENT SYSTEM

Job Titles which take more hiring time

Lengthy Hiring Process: Hiring a Police officer appears to have a longer duration compared to other positions, indicating a potentially rigorous selection and vetting process.

Provisional Replacement Rate over the years

Provisional Replacement Rate: Over time, there has been an increase in the rate at which provisional employees are being replaced with permanent employees, indicating a shift towards a more stable and permanent workforce.

Conclusion

- **Increase in Exam Clearing:** The number of individuals clearing the exam has shown significant growth, exceeding 35,000 compared to the previous year, indicating a strong pool of qualified candidates.
- **Job Titles Distribution:** Agencies such as N.Y.C. Transit, Housing, Police Department, and Environment have a diverse range of job titles, suggesting a wide variety of career opportunities within these sectors.
- **Salary Disparity**: The ADMINISTRATIVE SUPERINTENDENT OF BRIDGE OPERATIONS earns the highest salary, while the YOUTH DEVELOPMENT SPECIALIST earns the lowest, indicating a significant salary discrepancy across job titles.
- **High Demand Titles**: The positions of ADMINISTRATIVE MANAGER and PRINCIPAL ADMINISTRATIVE ASSOCIATE show high hiring rates, suggesting a consistent need for professionals in these roles.
- **Popular Certifications**: PRINCIPAL ADMINISTRATIVE ASSOCIATE, ADMINISTRATIVE MANAGER, and COMPUTER SYSTEMS MANAGER are the top three preferred certifications by candidates in recent years, indicating their relevance and demand in the job market.
- **PRINCIPAL ADMINISTRATIVE ASSOCIATE** is the most sought-after certification, with over 300,000 candidates obtaining it, highlighting its popularity and potential career prospects.
- **Lengthy Hiring Process**: Hiring a Police officer appears to have a longer duration compared to other positions, indicating a potentially rigorous selection and vetting process.
- **Provisional Replacement Rate**: Over time, there has been an increase in the rate at which provisional employees are being replaced with permanent employees, indicating a shift towards a more stable and permanent workforce.
- **Agency Analysis**: The N.Y.C. Transit Authority and Police Department have the highest number of certified individuals, suggesting these agencies attract a significant number of candidates. However, the Police Department is the most preferred choice among all agencies.

Thank You!!!