

The Price of Police

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Introduction

2020 was a year like no other that compelled many Americans to fundamentally reconsider how their cities are policed. In Chicago, this reckoning came to a head during a weekend of protests and looting after a Minneapolis police officer murdered George Floyd on May 25th. Chicago's mayor, Lori Lightfoot, enacted emergency powers that effectively shut down the central city while Chicago Police Department (CPD) officers fanned out through the city to quell the unrest. The city's iconic river-spanning bridges were raised, interstate ramps were blockaded, the Chicago Transit Authority temporarily suspended service, and the Governor deployed the Illinois National Guard to deter further violence. The Summer of 2020 saw unfolding reprisals of civil unrest in different parts of the city ¹ that persisted into the Fall. As the dust settled in Chicago and elsewhere, people across the country grappled less with the "why" and more with the "how" of police reform. Police department budgets received new levels of scrutiny as many citizens and politicians openly advocated and mobilized for sweeping change.

The future of local policing depends largely on how municipal governments choose to allocate resources. Reimagining public safety and charting a new path that hopefully leads cities and the nation away from our troubled past requires a clear-eyed view of where we currently stand. The City of Chicago maintains a large Open Data Portal that contains City Budget Ordinances going back to 2011. This report examines the Fiscal Year 2021 Budget Ordinance with particular focus on the CPD budget and related appropriations. The goal of this report is to be strictly descriptive while providing a base level of knowledge for other researchers and curious citizens. However, it's worth noting that the choice of what to measure and how to present data is inherently subjective.

Summer 2021 has been a busy season for Chicago's City Council, particularly regarding the CPD. In July, the City Council threatened a vote of no confidence in the CPD Superintendent appointed by the Mayor unless he agreed to a public grilling on community violence ². Weeks later, the same Council passed the Mayor's proposal for a citizen oversight board that she originally crafted as the President of the Police Board ³. The recently negotiated contract between the City and the Fraternal Order of Police (CPD union) will substantially increase the CPD budget while also adopting new accountability measures recommended by the Department of Justice ⁴. On July 30th, the Civilian Office of Police Accountability began searching for a new Chief Administrator ⁵. Police spending in Chicago is certain to go up over the coming years, and how that money is spent will remain a contentiously argued topic.

What may come of these new changes is hard to predict for the beleaguered Department, and for the City. A shared understanding of facts is the first step towards meaningful change, and finding a path forward, at the very least, requires a compass and a map. I used two sources for this initial report, both from the City

¹<https://www.chicagotribune.com/news/breaking/ct-cb-george-floyd-fallout-impact-chicago-20201006-lkndggmch5emjiefplywhcaeou-story.html>

²<https://chicago.suntimes.com/city-hall/2021/6/30/22557658/chicago-violence-shootings-fourth-july-weekend-police-plans-brown-council-aldermen-special-meeting>

³<https://blockclubchicago.org/2021/07/21/city-council-approves-first-ever-civilian-led-commission-to-oversee-chicago-police-department/>

⁴<https://news.wttw.com/2021/07/26/police-officers-get-back-pay-face-new-accountability-rules-under-proposed-8-year-deal>

⁵<https://www.chicagocopa.org/press/the-city-of-chicago-begins-official-search-and-selection-process-for-the-next-chief-administrator-of-copa/>

of Chicago Open Data Portal. The primary resource is the Fiscal Year 2021 Budget Ordinance ⁶, and the secondary resource is the Fiscal Year 2021 Budget Ordinance – Positions and Salaries ⁷ which is a detailed subset of the full budget ordinance.

Chicago City 2021 Budget Overview

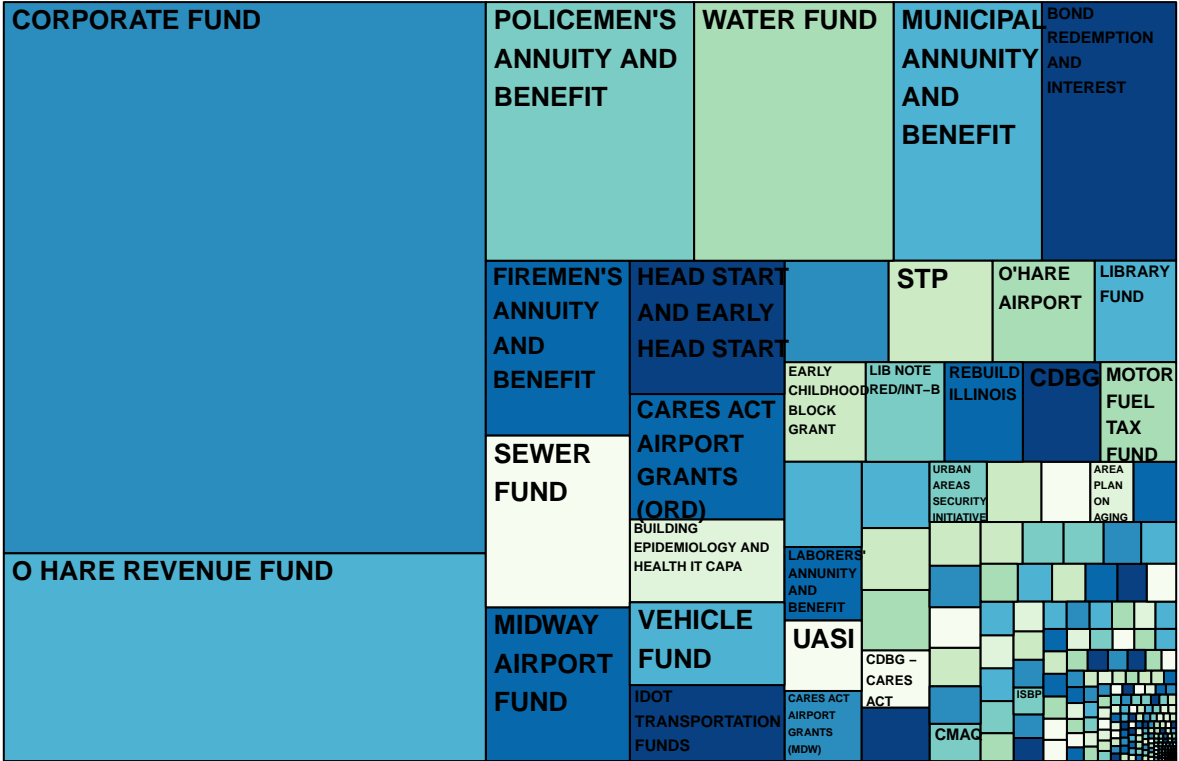
The City of Chicago, like most local governments in the United States, divides its budget into three broad categories: the general fund, enterprise funds, and special revenue funds. The City of Chicago calls its general fund the Corporate Fund, which contains most of the CPD budget. Enterprise and special revenue funds are highly restricted in discretionary spending choices because they require stability to support essential services. The largest enterprise fund for most US municipalities is the water and/or sewer funds. Special revenue funds, such as fiduciary funds (pensions), are also legally structured to resist changes in spending choices between election cycles. Although municipal general funds permit more flexibility, most of the budget is similarly constrained under contract, such as, for example, the Chicago FOP contract. The motivating goal of constrained budgeting is stability and predictability of public investment. Moreover, the dynamics of political economy compels negotiators to demand credible commitments from politicians who may or may not be in office for the duration of a contract.

When engaging with something like the City of Chicago budget, the first noticeable characteristics are its size and complexity. Through close study and data manipulation using R, I've attempted to display these characteristics while illustrating my decisions for the sake of interpretation and gathering insight by narrowing focus on particular datapoints. To start, let's get a picture of the proportions of every named City fund using a treemap chart.

⁶<https://data.cityofchicago.org/Administration-Finance/Budget-2021-Budget-Ordinance-Appropriations/6tbx-h7y2>

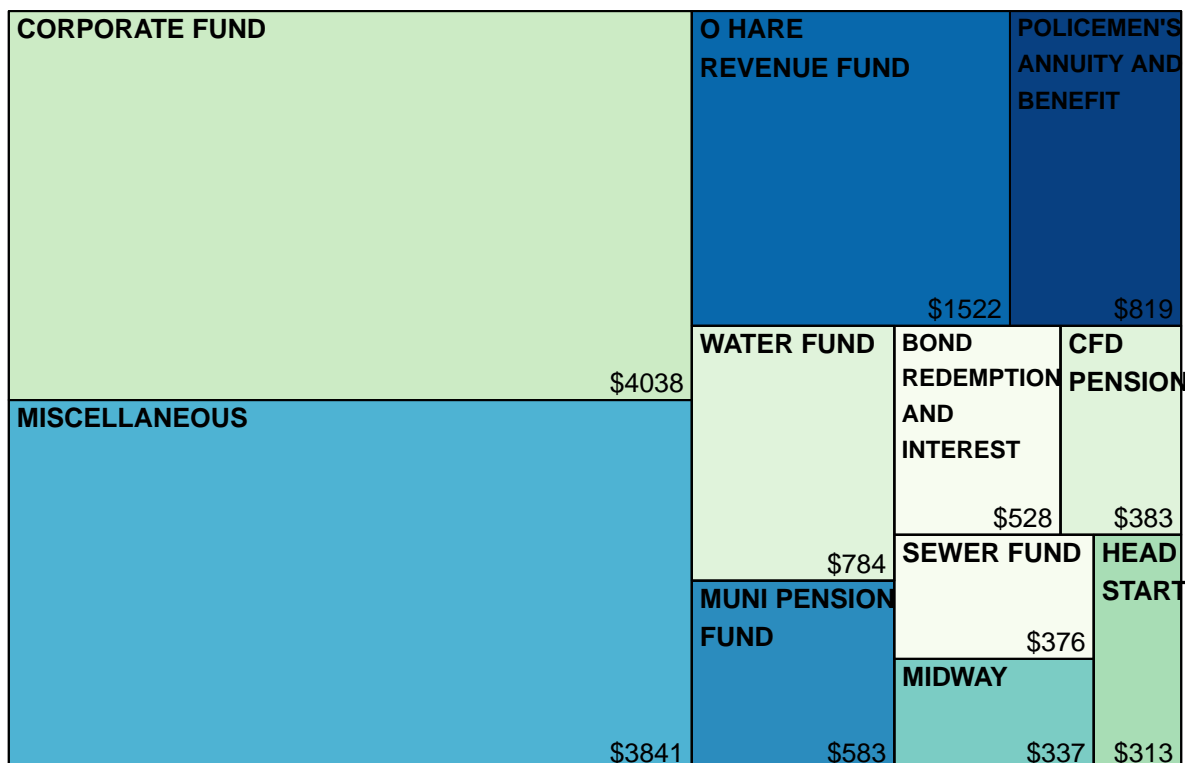
⁷<https://data.cityofchicago.org/Administration-Finance/Budget-2021-Budget-Ordinance-Positions-and-Salarie/gcw-xm5a>

Chicago City Budget Ordinance 2021, ~13.5 Billion



The chart above gives us a superficial level of insight, but mostly demonstrates the number of individual funds within the City budget; 251 in total. To aid legibility and increase information, I grouped all the funds below the top ten largest into a 'Miscellaneous' category. I also shortened a few names and divided the appropriation amount by one million so I could fit the dollar amount within the same square region.

Chicago Budget by Fund, Millions of \$



In tabular format, we can include more exact numbers and add a percentage column.

Table 1: Chicago Budget Appropriations by Fund

Fund Description	Total Appropriation (\$)	% of Total
CORPORATE FUND	4,037,639,000	29.86
MISCELLANEOUS	3,841,353,000	28.41
O HARE REVENUE FUND	1,521,857,000	11.25
POLICEMEN'S ANNUITY AND BENEFIT	818,850,000	6.06
WATER FUND	783,708,000	5.80
MUNICIPAL ANNUNITY AND BENEFIT	582,886,000	4.31
BOND REDEMPTION AND INTEREST	527,794,000	3.90
FIREMEN'S ANNUITY AND BENEFIT	382,779,000	2.83
SEWER FUND	375,696,000	2.78
MIDWAY AIRPORT FUND	336,559,000	2.49
HEAD START AND EARLY HEAD START	313,400,000	2.32

The Corporate Fund comprises about 30% of the total City budget at \$4.03 billion. The proliferation of enterprise and special revenue funds makes the Miscellaneous the second biggest category. 33 different departments get at least a portion of their budget from the Corporate Fund, of which CPD is largest by a significant proportion at \$1.55 billion or 38.56% of the total.

Chicago Corporate Fund Appropriations, Millions of \$

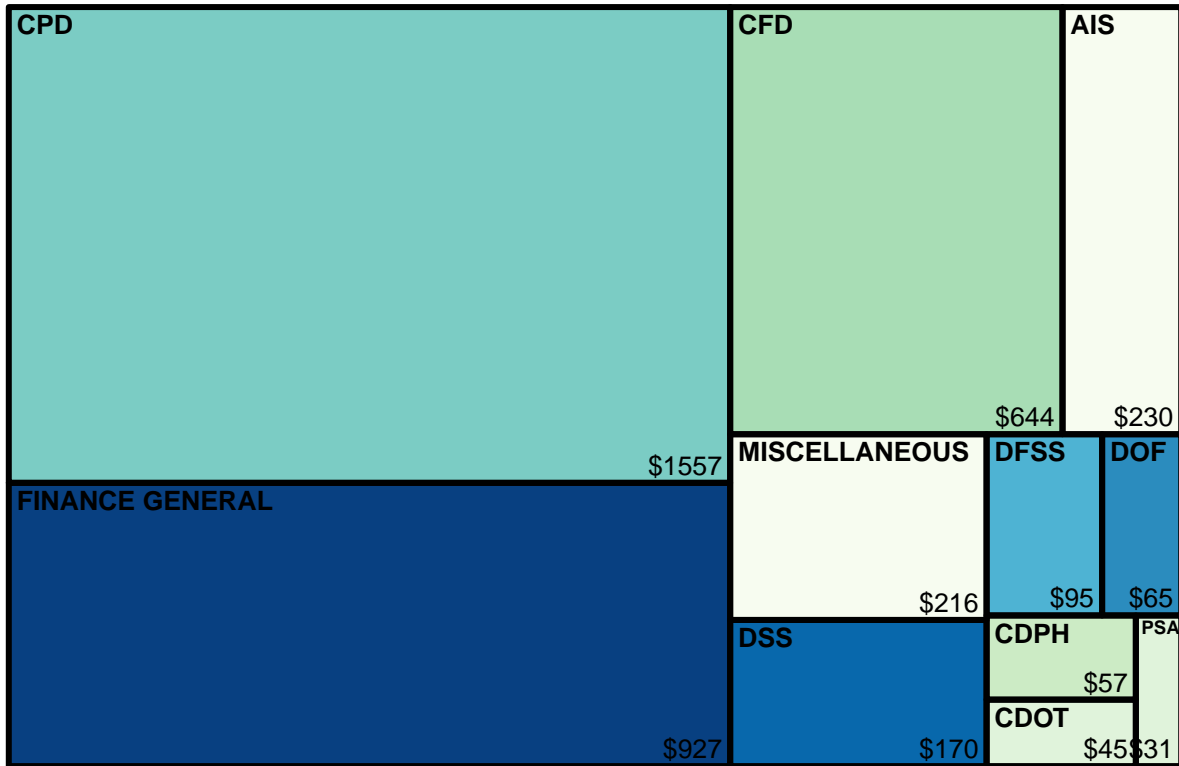


Table 2: Corporate Fund by Department

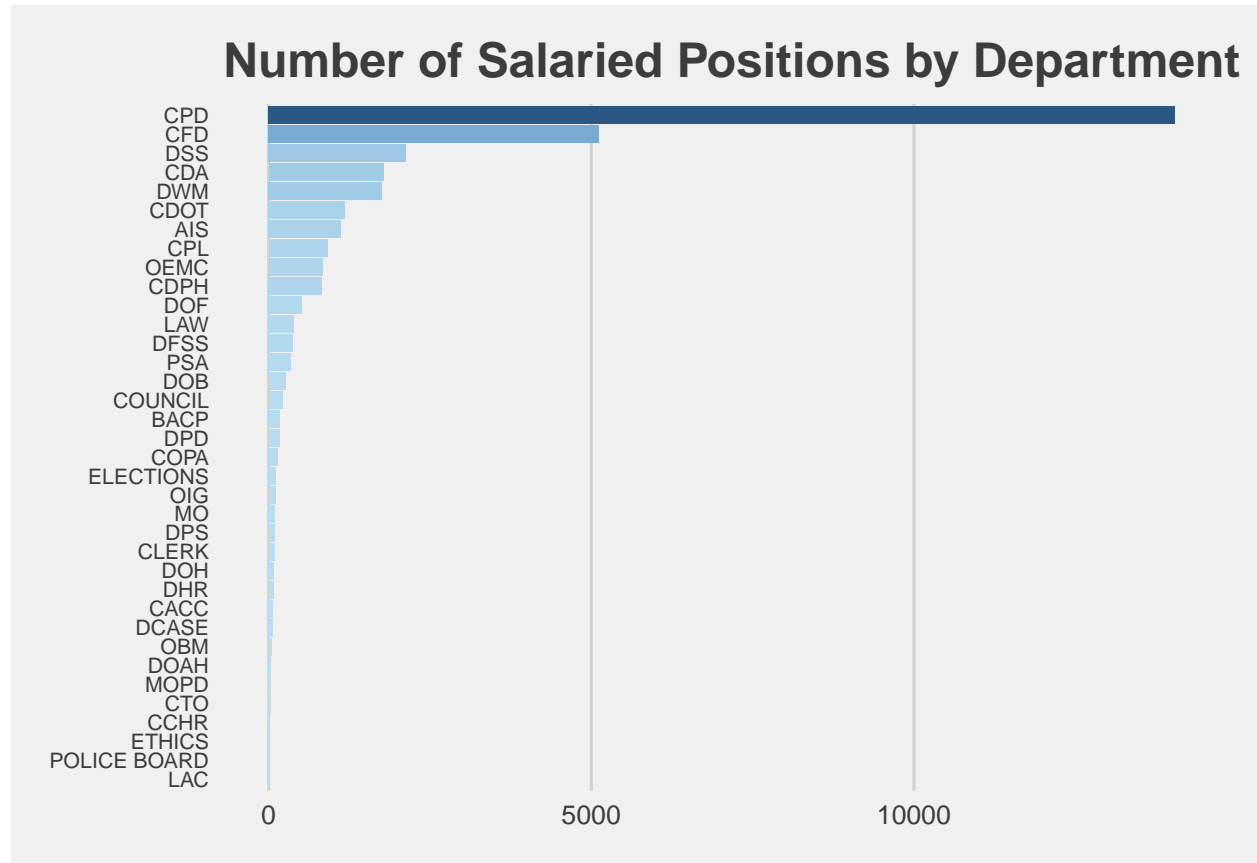
Dept Description	Total Appropriation (\$)	% of Total
CPD	1,556,831,274	38.56
FINANCE GENERAL	926,868,050	22.96
CFD	644,435,437	15.96
AIS	229,915,485	5.69
MISCELLANEOUS	215,991,727	5.35
DSS	170,125,492	4.21
DFSS	95,388,336	2.36
DOF	64,939,265	1.61
CDPH	57,344,506	1.42
CDOT	45,172,718	1.12
PSA	30,626,710	0.76

Next, let's take a quick look at Positions and Salary data for the City by department. One important note about the Positions and Salary dataset is the 'position control' variable that designates whether a position is hourly or salaried. For our purposes, hourly positions need to be filtered out because it affects how the position counts and appropriations are counted. Salaried positions are counted individually, and appropriations specify that annual salary for each position. Hourly positions are counted in hours per position not number of positions, and appropriations specify how much money is available to payout at the hourly rate for a position. CPD hourly positions (mostly trainees) account for roughly \$10 million.

Table 3: Positions by Department

Department	Total Positions	% of Positions	Salary App. (\$)	% Salary App.
CPD	14,051	42.22	1,261,135,566	42.10
CFD	5,124	15.40	544,271,849	18.17
MISCELLANEOUS	3,565	10.71	298,717,976	9.97
DSS	2,130	6.40	165,138,382	5.51
CDA	1,780	5.35	143,461,471	4.79
DWM	1,752	5.26	167,035,378	5.58
CDOT	1,181	3.55	111,329,366	3.72
AIS	1,125	3.38	106,006,661	3.54
CPL	913	2.74	65,690,560	2.19
OEMC	834	2.51	62,774,776	2.10
CDPH	828	2.49	69,715,524	2.33

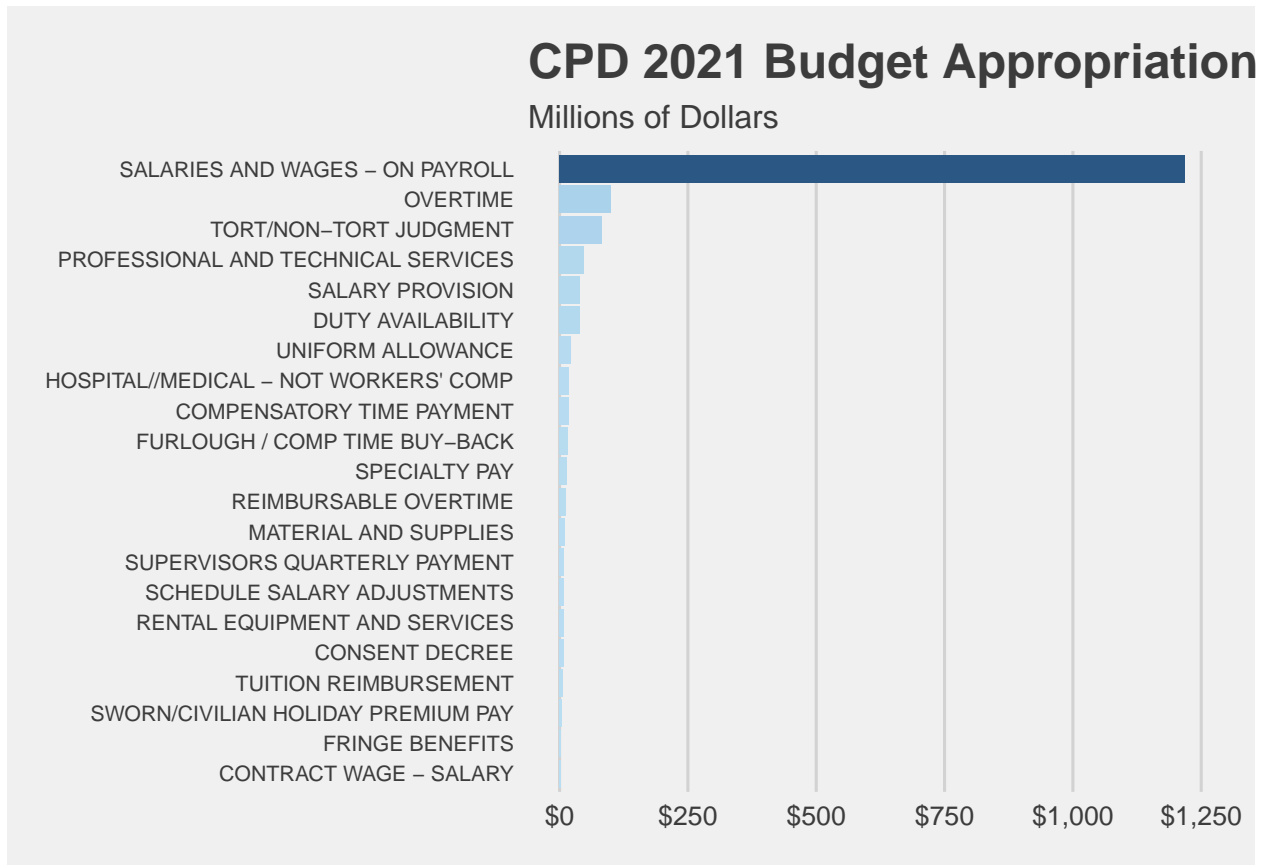
The CPD employs 42% of the City's total workforce and salary appropriations. For a visual comparison of positions by department, let's use a horizontal bar chart.



CPD Budget Analysis

The chart below shows a simplified list of the appropriations for the CPD in the 2021 budget. For the sake of legibility, I filtered out any items below \$2 million divided the amounts by \$1 million. CPD is primarily a payroll expense, however, there are a few line items outside of payroll that represent different

forms of compensation. We'll explore appropriation categories after a quick detour into the CPD Positions and Salaries data.



I decided to leave this particular table unreduced to fully display a meaningful layer of complexity. There are 114 job titles within the CPD, although many are different types of assignments for police officers.

Table 4: CPD Appropriation by Job Title

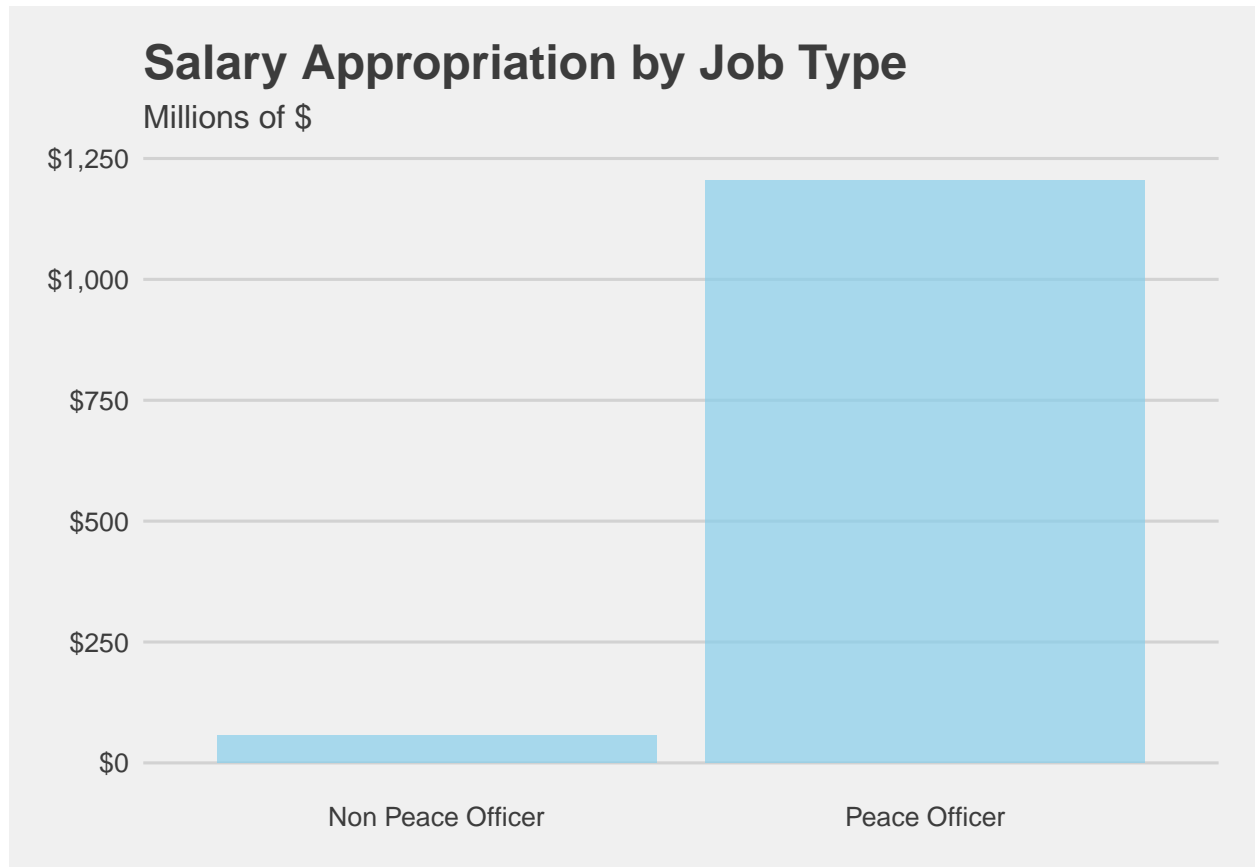
Title Description	Total Appropriation (\$)	Number of Employees
Police Officer	816,484,008	9,693
Sergeant	157,590,024	1,316
Police Officer - Assigned as Detective	116,089,704	1,192
Lieutenant	37,198,824	271
Police Officer - Assigned as Training Officer	25,093,938	280
Detention Aide	15,677,904	229
Police Officer - Assigned as Evidence Technician	12,180,492	133
Commander	7,646,148	47
Police Administrative Aide	5,326,020	110
Police Officer - Assigned as Explosives Detection Canine Handler	5,237,946	59
Captain	4,200,072	28
Senior Data Entry Operator	4,185,036	63
Police Officer - Assigned as Marine Officer	3,168,360	34
Police Officer - Assigned as Security Specialist	2,387,562	22
Deputy Chief	2,381,568	14
Police Officer - Assigned as Canine Handler	2,365,092	26

Title Description	Total Appropriation (\$)	Number of Employees
Police Officer - Assigned as Traffic Specialist	2,156,562	24
Police Officer - Assigned as Mounted Patrol Officer	2,082,840	24
Explosives Technician I	2,070,834	19
Community Organizer - CAPS	1,790,388	24
Criminal Intelligence Analyst	1,748,976	21
Clerk III	1,631,196	27
Police Technician	1,617,636	17
Training Officer	1,600,560	17
Property Custodian	1,592,148	28
Warrant and Extradition Aide	1,476,528	21
FOIA Officer	1,438,596	24
Principal Operations Analyst	1,236,900	17
Deputy Director	1,234,584	9
Fingerprint Technician II	1,151,868	16
Police Officer - Assigned as Latent Print Examiner	1,038,588	13
Assistant Director	958,548	9
Chief	926,820	5
Clinical Therapist III	876,804	11
Project Strategy Manager - CPD	785,340	10
Criminal History Analyst	767,772	10
Personal Computer Operator I	682,416	11
Administrative Assistant II	583,428	8
Police Forensic Investigator I	567,042	5
Subpoena Officer	557,280	7
Police Legal Officer II	524,766	4
Youth Services Coordinator	470,712	6
Police Officer Assigned as Helicopter Pilot	453,768	5
Fingerprint Technician III	433,512	6
Information Service Coordinator	411,000	6
Chief Performance Analyst	371,712	4
Paralegal II	370,872	5
Chief Operations Analyst	368,712	4
Clerk IV	340,272	5
Police Officer - Per Arbitration Award	339,192	4
Digital Intelligence Analyst	323,520	5
Research and Policy Analyst - CPD	301,632	4
Laboratory Technician	291,816	4
Senior Research Analyst	275,832	3
Accountant	275,556	3
Administrative Assistant III	275,472	3
Domestic Violence Advocate	264,480	5
Supervising Property Custodian	263,784	4
Superintendent of Police	260,004	1
Area Coordinator - CAPS	249,468	3
Associate Staff Attorney	247,200	4
Police Legal Officer I	226,098	2
Senior Performance Analyst	215,688	3
Information Coordinator	210,816	3
Staff Assistant	201,432	2
First Deputy Superintendent	197,724	1
Deputy Superintendent	192,000	1
Auditor III	185,868	2

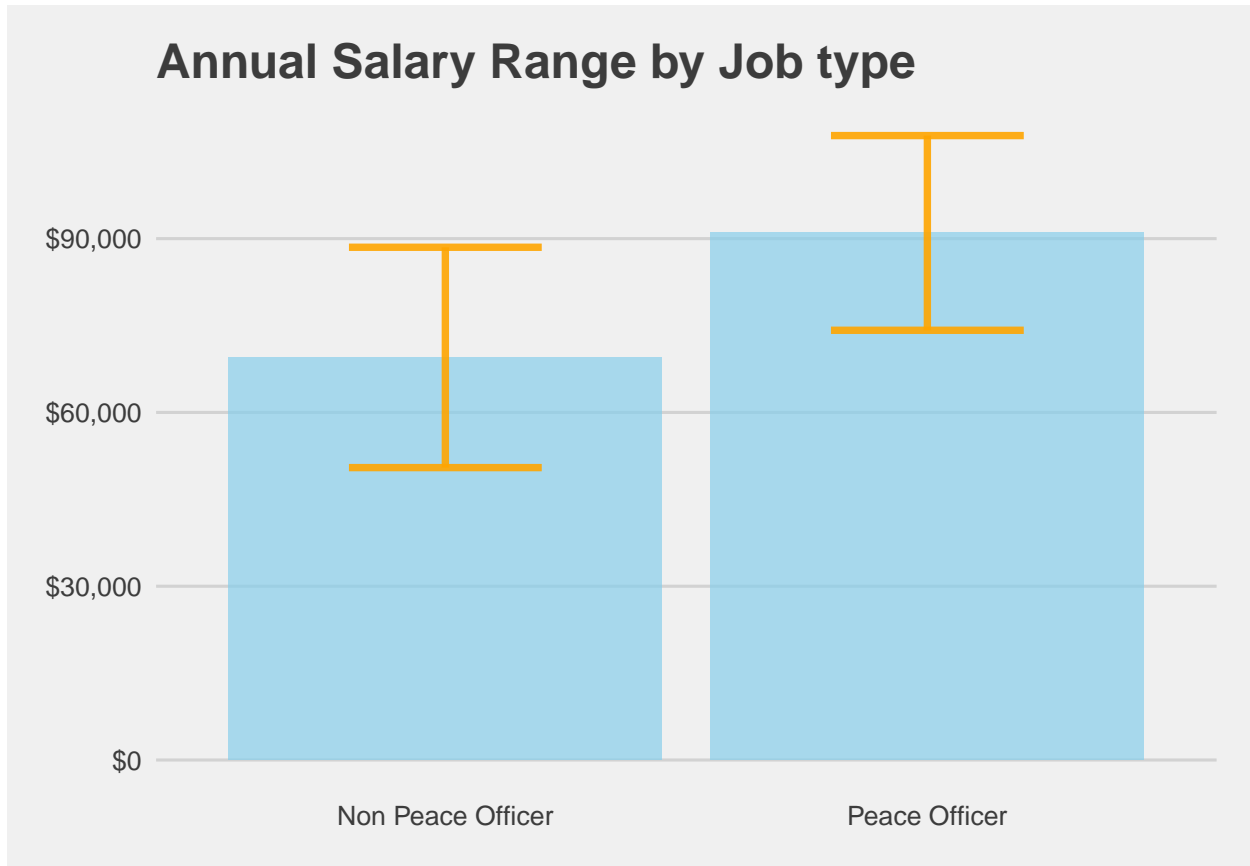
Title Description	Total Appropriation (\$)	Number of Employees
Superintendent's Chief of Staff	180,240	1
Graphic Artist III	168,072	2
General Counsel	165,516	1
Attorney	157,776	2
Personnel Assistant	149,076	2
Public Relations Coordinator	147,432	2
Crime Victim Advocate	146,880	3
Fingerprint Technician IV	139,776	2
Director of Professional Counseling Services	138,348	1
Director of News Affairs	135,672	1
Director of CAPS	134,292	1
Personal Computer Operator II	132,816	2
Assistant General Counsel	126,504	1
Director of Police Records	121,260	1
Senior Programmer/Analyst	119,712	1
Director of Research and Planning	119,148	1
Public Information Officer	116,040	2
Assistant Director of News Affairs	115,656	1
Risk Manager-CPD	115,656	1
Program Analyst	110,508	1
Criminalist III	109,620	1
Forensic Firearm / Toolmark Examiner	108,960	1
Coordinator of Special Projects	105,420	1
Firearms Identification Technician I	104,502	1
Police Officer - Assigned as Supervising Latent Print Examiner	104,502	1
Police Officer - Assigned as Supervising Substance Abuse Counselor	104,502	1
Director of Administration II	100,668	1
Police Agent	98,052	1
Assistant to the Executive Director	96,096	1
Coordinator of Community Services	87,564	1
Personal Computer Operator III	76,248	1
Projects Administrator	75,408	1
Auditor II	71,196	1
Senior Intelligence Analyst	70,272	1
Compliance Officer	70,140	1
Language Access Coordinator	70,140	1
Programmer/Analyst	69,048	1
Police Officer - Assigned as Armorer	68,616	1
Principal Storekeeper	66,336	1
Senior Labor Relations Specialist	64,320	1
Community Outreach Coordinator	63,720	1
Payment Services Representative	60,420	1
Executive Administrative Assistant II	58,968	1
Assistant Supervisor of Police Records	53,736	1
Manager of Data Entry Operators	53,736	1
Photographic Specialist	53,736	1

The primary distinction between CPD job titles is between peace officers and non-peace officers as defined by under Illinois statute (720 ILCS 5/2-13). The Office of the Inspector General (OIG) maintains a list of job title codes that signify peace officer designation (<https://informationportal.igchicago.org/cpd-sworn-officer-unit-assignments/>). I used this list of job title codes as a reference applied to job title codes in the Positions and Salaries dataset to divide CPD employees into either category. However, several police officer

assignments and the Deputy Superintendent were not included in the OIG list. Using basic knowledge and inductive reasoning, I applied the peace officer designation to all relevant job title codes and descriptions.



Although the budget appropriation for peace officer salaries is much higher than non-peace officers, their average annual salary ranges are fairly close. This is the broadest categorization possible, so future research could reveal more about how the hierarchy among peace officers affects compensation costs.



Total Policing Costs

The price of police is more than the CPD budget line in the City government. Most notably, the Policemen's Annuity and Benefit Fund (pension) is an actuarial fund completely separate from the Corporate Fund that falls under the authority of the City Department on Finance. State law mandates the level of yearly City contributions to the pension fund, which are set to increase until the fund reaches actuarial solvency. Other meaningful costs is the Civilian Office of Police Accountability, the Police Board, and various Consent Decree appropriations scattered across different departments. Below is a table of all the appropriations either contained within the CPD budget specifically or ancillary to it. This list is almost certainly not exhaustive, but based on what I can surmise for myself, the grand total for policing in Chicago for Fiscal Year 2021 is \$2.53 billion.

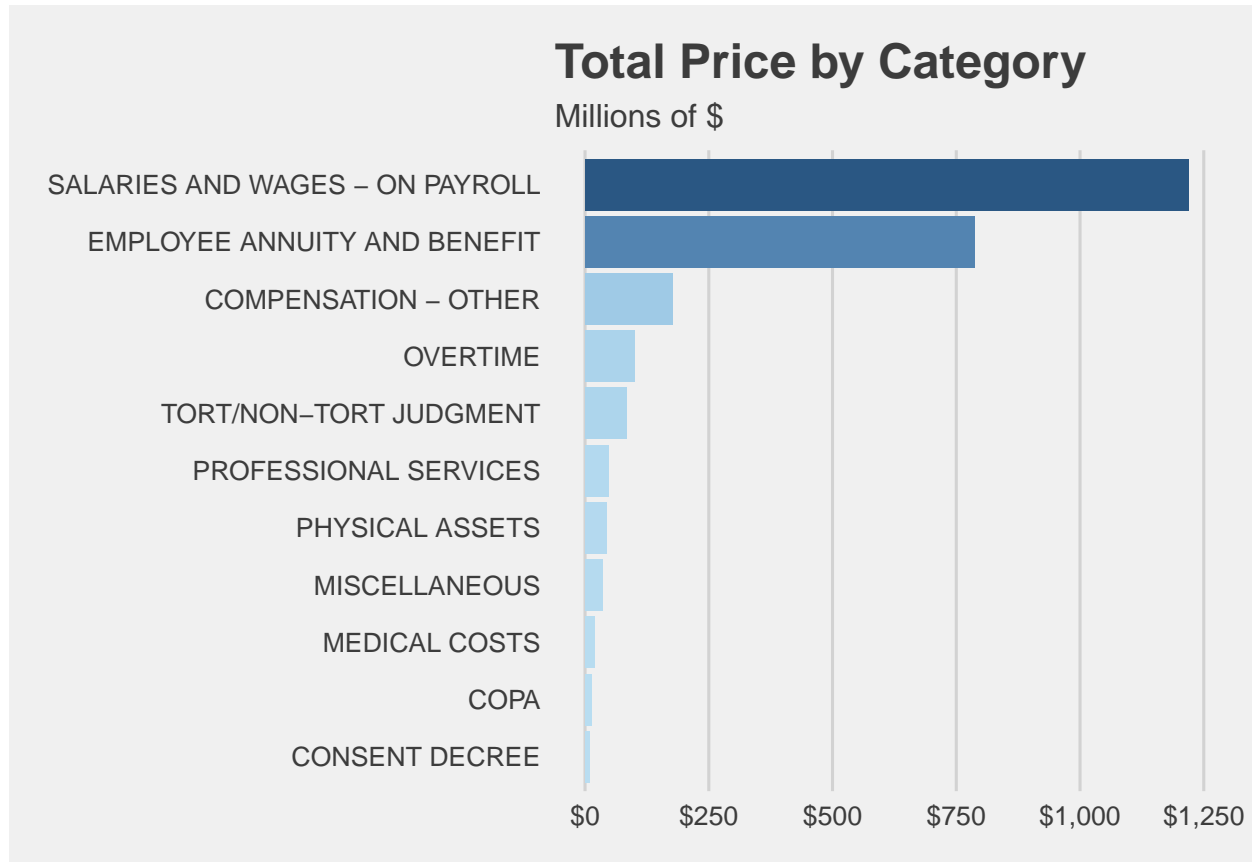
Table 5: Total Costs

Appropriation Type	Total Appropriation (\$)
SALARIES AND WAGES - ON PAYROLL	1,230,229,131
EMPLOYEE ANNUITY AND BENEFIT	786,793,000
OVERTIME	99,641,798
TORT/NON-TORT JUDGMENT	82,558,000
PROFESSIONAL AND TECHNICAL SERVICES	47,291,956
SALARY PROVISION	40,023,092
DUTY AVAILABILITY	39,525,800
LOSS IN COLLECTION OF TAXES	32,057,000
UNIFORM ALLOWANCE	22,273,775

Appropriation Type	Total Appropriation (\$)
HOSPITAL//MEDICAL - NOT WORKERS' COMP	19,243,000
COMPENSATORY TIME PAYMENT	18,569,385
FURLOUGH / COMP TIME BUY-BACK	15,923,324
SPECIALTY PAY	14,905,625
REIMBURSABLE OVERTIME	12,700,000
CONSENT DECREE	9,956,491
MATERIAL AND SUPPLIES	9,618,655
SUPERVISORS QUARTERLY PAYMENT	9,447,500
RENTAL EQUIPMENT AND SERVICES	8,385,100
SCHEDULE SALARY ADJUSTMENTS	8,068,749
TUITION REIMBURSEMENT	7,340,000
SWORN/CIVILIAN HOLIDAY PREMIUM PAY	4,123,484
FRINGE BENEFITS	3,148,943
CONTRACT WAGE - SALARY	2,992,515
DELEGATE AGENCIES	1,823,000
INDIRECT COSTS	828,454
RENTAL-DATA HARDWARE EQ	787,461
SOFTWARE MAINTENANCE AND LICENSING	700,369
REPAIR PARTS AND MATERIAL	497,718
PAYMENT RETROACTIVE SALARIES	438,052
MACHINERY AND EQUIPMENT	389,000
TECHNICAL MEETING COSTS	360,238
REPAIR/MAINT EQUIPMENT	304,822
REIMBURSEMENT - DSS	250,000
FOOD	237,250
VEHICLES	125,000
STIPENDS	111,000
VIOLENCE REDUCTION PROGRAM	100,000
TRANSPORTATION AND EXPENSE ALLOWANCE	98,500
COURT REPORTING	85,000
DUES SUBSC & MEM	73,699
MOBILE COMMUNICATION SERVICES	70,017
TECHNICAL AND SCIENTIFIC EQUIPMENT	66,000
LIVESTOCK	54,600
WASTE DISPOSAL SERVICES	40,710
LEASE/PURCHASE EQUIPMENT	29,500
CLOTHING	29,175
TELEPHONE - CENTREX BILLINGS	21,000
APPARATUS AND INSTRUMENTS	18,658
BOOKS AND RELATED MATERIAL	18,471
OUTSIDE GRAPHIC SERVICES	17,500
STATIONERY AND OFFICE SUPPLIES	16,125
CULTURAL PROGRAMMING GRANTS	12,000
DRUGS MEDICINE AND CHEMICAL MATERIALS	10,041
FREIGHT AND EXPRESS CHARGES	10,000
POSTAGE	6,000
REIMBURSEMENT - AIS	5,000
ADVERTISING	2,400
GRAPHIC DESIGN SERV	1,500
LOCAL TRANSPORTATION	1,500
IT MAINTENANCE	1,000
LICENSE STICKER TAG AND PLATES	750

Appropriation Type	Total Appropriation (\$)
GASOLINE	500
CLEANING AND SANITATION SUPPLIES	381
OFFICE AND BUILDING SERVICES	300
TELEPHONE - MAINTENANCE	300

To simplify this table, I created four categories for medical costs, non-salary compensation, physical assets, and professional services.



Conclusion

The total Chicago Police Department Budget Appropriation (including appropriations outside the Corporate Fund) is \$1.6 billion dollars for Fiscal Year 2021, or 12.56% of the full City budget. It's proportion of the Corporate Fund is \$1.5 billion or 38.56%. Most City employees work for the CPD (~14 thousand) and the overwhelming majority of salary expenses flow towards that department. However, the budget line for CPD does not capture all the direct costs of policing for the City. Pension contributions (\$818 million), the Civilian Office of Police Accountability, the Police Board, and various Consent Decree expenses bring the total up to \$2.5 billion.

Opportunities for future research include a closer look at personnel costs and how compensation is structured through the CPD hierarchy. The City also maintains datasets on crime and COPA cases, which could prove insightful with regard to effectiveness and performance measures. These data along with past City budgets can shed light on what has come before, where we are now, and what the future may hold.