# Data Schema

# Officer Roster

- birth\_year: Birth year of the officer.
- appointed\_month: The month and year the officer was made an officer in YYYY-MM-DD format. The day is always the first day of the month.
- officer\_id: Unique identifier for each officer.
- officer\_race: Race of the officer.
- officer\_gender: Sex of the officer.
- spanish: Does the officer speak Spanish or not?
- Uniquely identified by **officer\_id**. The unit of observation is an officer.
- Number of officers: 33645

### numeric

col	min	$first\_q$	med	mean	$third\_q$	max	$\operatorname{sd}$	iqr	mad	na	prcnt_na
birth_year	1916	1944	1956	1956.5	1971	1996	18.13	27	20.76	926	0.03

### \$factor

n	prent	name	value
20675	0.6145044	officer_race	officer_white
7634	0.2268985	officer_race	officer_black
4578	0.1360678	officer_race	officer_hisp
538	0.0159905	officer_race	officer_aapi
153	0.0045475	officer_race	NA
67	0.0019914	officer_race	officer_native
27869	0.8283252	officer_gender	MALE
5771	0.1715262	officer_gender	FEMALE
5	0.0001486	officer_gender	

### \$logical

col	mean	true	false	missing	prcnt_missing
spanish	0.0845296	2844	30801	0	0

# \$other

col	missing	prcnt_missing
appointed_month	70	0.0020805
officer_id	0	0.0000000

## Shift Assignments

- officer\_id: Unique identifier for each officer.
- month: Month of the shift in YYYY-MM-DD format. The day is always the first day of the month.
- rank: Rank of the officer assigned to the shift.
- unit: Unit of the officer assigned to the shift.
- date: Date of the shift in YYYY-MM-DD format.
- **shift**: The shift the officer is assigned to.
- start\_time: Hour start time of the shift in military time.
- end\_time: Hour end time of the shift in military time.

- weekday: Day of the week of the shift.
- beat\_assigned: The beat the officer is assigned to.
- appointed\_month: The month and year the officer was made an officer. Dropped as it's redundant.
- months\_from\_start: The number of months between the officer's appointment date and their shift date.
- months\_from\_start\_sq: The number of months between the officer's appointment date and their shift date, squared. Dropped as it can be recreated.
- duration: Length of the shift in hours.
- shift\_id: Unique identifier for each shift assignment. Created by me.
- Uniquely identified by **officer\_id** and **date** or **shift\_id**. The unit of observation is a specific shift for a specific officer.
- Number of shift assignments: 3519518

n	prent	name	value
$\frac{n}{3050853}$	prent 0.8668383	rank	POLICE OFFICER
	0.0801147		SERGEANT
281965		rank	POLICE OFFICER / FLD TRNG OFFICER
74751	0.0212390	rank	/
53622	0.0152356	rank	NA
28077	0.0079775	rank	POLICE OFFICER (ASSIGNED AS DETECTIVE)
16467	0.0046788	rank	COMMANDER
4678	0.0013292	rank	LIEUTENANT
3918	0.0011132	rank	POLICE OFFICER (ASSIGNED AS SECURITY SPECIALIST)
2909	0.0008265	rank	POLICE OFFICER (PER ARBITRATION AWARD)
1080	0.0003069	rank	POLICE OFFICER (ASSIGNED AS CANINE HANDLER)
350	0.0000994	rank	DEPUTY CHIEF
275	0.0000781	rank	POLICE AGENT
218	0.0000619	rank	EXPLOSIVES TECHNICIAN I
143	0.0000406	rank	
84	0.0000239	rank	POLICE OFFICER (ASGND AS MARINE OFFICER)
77	0.0000219	rank	POLICE OFFICER (ASSIGNED AS EVIDENCE TECHNICIAN)
47	0.0000134	rank	CHIEF
2	0.0000006	rank	SERGEANT ( PER ARBTRN AGR)
1	0.0000003	rank	POLICE LEGAL OFFICER I
1	0.0000003	rank	POLICE LEGAL OFFICER II
210250	0.0597383	unit	7
200102	0.0568549	unit	8
197317	0.0560636	unit	11
194330	0.0552149	unit	2
191057	0.0542850	unit	12
185394	0.0526760	unit	9
$\frac{184942}{184942}$	0.0525475	unit	19
$\frac{184342}{182661}$	0.0518994	unit	3
$\frac{102001}{179211}$	0.0509192	unit	6
$\frac{173211}{176369}$	0.0503132	unit	4
169000	0.0301117	unit	25
$\frac{103000}{149365}$	0.0430179	unit	10
$\frac{149303}{144866}$	0.0424590	unit	24
$\frac{144800}{139062}$	0.0411007		15
		unit	
137113	0.0389579	unit	18
132216	0.0375665	unit	22
131301	0.0373065	unit	5
124804	0.0354605	unit	14
117569	0.0334049	unit	
114630	0.0325698	unit	20
114422	0.0325107	unit	17
110579	0.0314188	unit	16
23516	0.0066816	unit	13
4846	0.0013769	unit	23
4596	0.0013059	unit	21
_1331644	0.3783598	shift	3
1204317	0.3421824	shift	2
983557	0.2794579	shift	1
547248	0.1554895	weekday	Tue
546066	0.1551536	weekday	Wed
538404	0.1529766	weekday	Thu
515802	0.1465547	weekday	Fri
508085	0.1443621	weekday	Mon
436811	0.1241110	weekday	Sat 3
427102	0.1213524	weekday	Sun
	1		<u> </u>

col	min	first_q	med	mean	third_q	max	sd	iqr	mad	na	prcnt_na
start_time	0.0	7	14	13.87	20.5	23.5	6.02	13.5	10.38	48210	0.01
end_time	0.5	16	23	22.80	29.5	46.0	6.10	13.5	10.38	48210	0.01
months_from_start	1.0	107	172	172.18	230.0	646.0	83.78	123.0	90.44	778	0.00
months_from_start_sq	1.0	11449	29584	36663.51	52900.0	417316.0	31136.20	41451.0	29330.28	778	0.00
duration	0.0	9	9	8.93	9.0	23.5	0.39	0.0	0.00	48210	0.01

#### \$other

col	missing	prcnt_missing
officer_id	0	0
month	0	0
date	0	0
beat_assigned	0	0
appointed_month	0	0
shift_id	0	0

## Stops

- **stop\_id**: Identifier for each stop.
- time: Time of the stop in YYYY-MM-DD HH:MM:SS format.
- date: Date of the stop in YYYY-MM-DD format.
- district: Police district where the stop took place.
- po\_first: Was the focal officer the first to respond to the scene?
- **stop\_type**: What was the type of the stop?
- contact\_type: Collapsed version of stop\_type (less categories).
- civ.race: Race of the civilian.
- civ.gender: Sex of the civilian.
- **civ.age**: Age of the civilian at the time of the stop.
- lat: Latitude of the stop.
- lon: Longitude of the stop.
- officer\_id: Unique identifier for the officer.
- month: Month of the stop in YYYY-MM-DD format. The day is always the first day of the month.
- civilian\_race\_short: Collapsed version of civ.race (less categories).
- hour: Hour of the day when the stop took place rounded to the nearest hour in military time.
- stop\_officer\_id: Unique identifier for each entry. Created by me.
- The unit of analysis is a unique officer involved in a stop. Each row can be uniquely identified by officer\_id and stop\_id or by stop\_officer\_id.
- Each stop involves only one civilian, but they can involve multiple officers. It is possible multiple stops are all a part of one larger incident involving multiple civilians. This can be investigated by examining stops that took place in the same location at the same time involving the same officers.
- Number of rows: 1703158
- Number of unique stops: 946912

#### \$numeric

col	min	first_q	med	mean	third_q	max	sd	iqr	mad	na	prcnt_na
civ.age	0	22	29	32.90	42	1815	13.82	20	13.34	19459	0.01
hour	0	9	16	13.61	19	23	7.24	10	7.41	0	0.00

n	prent	name	value
$\frac{153554}{153554}$	0.0901584	district	7
$\frac{106694}{116621}$	0.0684734	district	11
$\frac{113954}{113954}$	0.0669075	district	9
$\frac{119394}{109460}$	0.0642688	district	3
$\frac{103400}{107179}$	0.0629296	district	8
$\frac{107179}{105842}$	0.0621446	district	6
$\frac{105842}{105072}$	0.0621446	district	10
$\frac{103072}{97039}$	0.0569759	district	2
90303	0.0530209	district	4
79885	0.0469040	district	25
77759	0.0456558	district	15
73882	0.0433794	district	12
72292	0.0424459	district	5
61321	0.0360043	district	19
61013	0.0358235	district	22
52571	0.0308668	district	24
44496	0.0261256	district	18
41572	0.0244088	district	20
39832	0.0233871	district	16
37711	0.0221418	district	14
27783	0.0163126	district	17
22671	0.0133112	district	1
4844	0.0028441	district	13
4219	0.0024772	district	31
1455	0.0008543	district	23
828	0.0004862	district	21
488592	0.2868741	stop_type	Other
449868	0.2641376	stop_type	Traffic Related
326587	0.1917538	stop_type	Suspicious Person
238349	0.1399453	stop_type	Investigatory Stop
175939	0.1033016	stop_type	Gang / Narcotics Related
14370	0.0084373	stop_type	Dispersal
9314	0.0054687	stop_type	Gang and Narcotics-Related Loitering
139	0.0000816	stop_type	Repeat Offender Geog. Urban Enforcement Strategy (ROGUES)
564936	0.3316991	contact_type	suspicious
488731	0.2869558	contact type	other
449868	0.2641376	contact_type	traffic
175939	0.1033016	contact_type	drug
23684	0.0139059	contact_type	loitering
1124118	0.6600198	civ.race	BLACK
346558	0.2034797	civ.race	HISPANIC
210545	0.1236204	civ.race	WHITE
19871	0.0116672	civ.race	ASIAN/PACIFIC ISLANDER
2066	0.0012130	civ.race	AMER IND/ALASKAN NATIVE
1322801	0.7766754	civ.gender	M
$\frac{1322001}{379401}$	0.2227632	civ.gender	F
953	0.0005595	civ.gender	X
3	0.00003393	civ.gender	11
1124118	0.6600198	civilian_race_short	civilian black
$\frac{1124118}{346558}$	0.0000198	civilian race short	civilian_hisp
$\frac{340558}{210545}$	0.2034797	civilian_race_short	civilian_white
$\frac{210343}{19871}$	0.1236204	civilian_race_short	civilian_aapi
$\frac{19871}{2066}$	0.0110072	civilian_race_snort civilian_race_short	NA
2000	0.0012130	crvman_race_snort	INA

## \$logical

col	mean	true	false	missing	prcnt_missing
po_first	0.5523228	940693	762465	0	0

### \$other

col	missing	prcnt_missing
stop_id	0	0.0000000
time	0	0.0000000
date	0	0.0000000
lat	248657	0.1459976
lon	248657	0.1459976
officer_id	0	0.0000000
month	0	0.0000000
stop_officer_id	0	0.0000000

### Arrests

- date: Date of the arrest in YYYY-MM-DD format.
- hour: Hour of the day when the arrest took place rounded to the nearest hour in military time.
- **crime\_code**: The suspected crime type causing the arrest.
- statute\_description: More detailed categories describing what specific statute was suspected to have been violated.
- lat: Latitude of the arrest.
- lon: Longitude of the arrest.
- district: Police district where the arrest took place.
- civ.race: Race of the civilian.
- civ.gender: Sex of the civilian.
- civ.age: Age of the civilian at the time of the stop.
- arrest id: Identifier for each arrest.
- officer\_id: Unique identifier for each officer.
- month: Month of the arrest in YYYY-MM-DD format. The day is always the first day of the month.
- civilian\_race\_short: Collapsed version of civ.race (less categories).
- arrest\_officer\_id: Unique identifier for each entry. Created by me.
- The unit of analysis is a unique officer involved in an arrest. Each row can be uniquely identified by officer\_id and arrest\_id or by arrest\_officer\_id.
- Each arrest involves only one civilian, but they can involve multiple officers. It is possible multiple arrests are all a part of one larger incident involving multiple civilians. This can be investigated by examining arrests that took place in the same location at the same time involving the same officers.
- Number of rows: 321872
- Number of unique arrests: 164802

### \$numeric

col	min	first_q	med	mean	third_q	max	sd	iqr	mad	na	prcnt_na
hour	0	7	15	13.05	19	23	7.31	12	7.41	0	0
civ.age	18	23	29	32.55	41	94	11.92	18	11.86	22	0

			1			
110071	prent	name	value			
119271	0.3705541	crime_code	other			
81042	0.2517833	crime_code	violent			
57604	0.1789656	crime_code	property			
36240	0.1125913	crime_code	drug			
27715	0.0861057	crime_code	TRF			
28523	0.0886160	district	11			
25911	0.0805009	district	25			
23109	0.0717956	district	8			
22166	0.0688659	district	6			
21130	0.0656472	district	7			
20592	0.0639757	district	9			
19144	0.0594771	district	4			
19134	0.0594460	district	10			
18995	0.0590141	district	15			
17732	0.0550902	district	3			
14253	0.0442816	district	5			
11458	0.0355980	district	19			
10463	0.0325067	district	18			
10152	0.0315405	district	2			
9786	0.0304034	district	12			
8194	0.0254573	district	1			
7622	0.0236802	district	14			
7279	0.0226146	district	22			
7143	0.0221921	district	24			
7014	0.0217913	district	17			
5946	0.0184732	district	16			
4510	0.0140118	district	20			
1274	0.0039581	district	13			
193	0.0005996	district	23			
149	0.0004629	district	21			
214048	0.6650097	civ.race	BLACK			
70132	0.2178879	civ.race	HISPANIC			
34528	0.1072725	civ.race	WHITE			
2167	0.0067325	civ.race	ASIAN/PACIFIC ISLANDER			
670	0.0020816	civ.race				
327	0.0010159	civ.race	NATIVE AMERICAN/ALASKAN NATIVE			
262116	0.8143486	civ.gender	MALE			
59722	0.1855458	civ.gender	FEMALE			
34	0.0001056	civ.gender				
214048	0.6650097	civilian_race_short	civilian_black			
70132	0.2178879	civilian_race_short	civilian_hisp			
34528	0.1072725	civilian_race_short	civilian_white			
2167	0.0067325	civilian_race_short	civilian_aapi			
670	0.0020816	civilian race short	NA			
327	0.0010159	civilian_race_short	civilian native			

\$other

col	missing	prcnt_missing
date	0	0.0000000
statute_description	2	0.0000062
lat	59621	0.1852320
lon	59621	0.1852320
arrest_id	0	0.0000000
officer_id	0	0.0000000
month	0	0.0000000
arrest_officer_id	0	0.0000000

### Uses of Force

- date: Date of the use of force in YYYY-MM-DD format.
- time: Time of the use of force in YYYY-MM-DD HH:MM:SS format.
- district: Police district where the use of force took place.
- lat: Latitude of the use of force.
- lon: Longitude of the force.
- civ.race: Race of the civilian.
- civ.gender: Sex of the civilian.
- **civ.age**: Age of the civilian at the time of the stop.
- civ.injured: Was the civilian injured?
- force\_id: Unique identifier for each use of force incident.
- officer\_id: Unique identifier for each officer.
- month: Month of the arrest in YYYY-MM-DD format. The day is always the first day of the month.
- civilian\_race\_short: Collapsed version of civ.race (less categories).
- hour: Hour of the day when the use of force took place rounded to the nearest hour in military time.
- The unit of analysis is a use of force incident. Only one police officer is listed for each use of force incident. Each row can be uniquely identified by **force\_id**.
- Number of uses of force: 9293

#### \$numeric

col	min	first_q	$\operatorname{med}$	mean	third_q	max	$\operatorname{sd}$	iqr	mad	na	prcnt_na
civ.age	18	23	28	30.52	36	81	10.33	13	8.9	31	0
hour	0	4	15	12.76	19	23	7.77	15	8.9	0	0

n	prent	nemo	voluo
n	prent 0.1006134	name	value
$\frac{935}{782}$	0.1000134	district	11 6
	0.0841494 $0.0839341$	district	7
$\frac{780}{647}$		district	
647	0.0696223 0.0674701	district	15
627		district	4
559	0.0601528	district	8
525	0.0564941	district	25
465	0.0500377	district	3
443	0.0476703	district	5
442	0.0475627	district	10
431	0.0463790	district	19
$\frac{427}{255}$	0.0459486	district	9
$\frac{255}{252}$	0.0274400	district	24
252	0.0271172	district	12
249	0.0267944	district	18
248	0.0266868	district	14
216	0.0232433	district	22
195	0.0209835	district	16
183	0.0196922	district	20
178	0.0191542	district	17
173	0.0186162	district	1
161	0.0173249	district	2
50	0.0053804	district	13
34	0.0036587	district	NA
24	0.0025826	district	31
10	0.0010761	district	23
1	0.0001076	district	41
1	0.0001076	district	21
6774	0.7289358	civ.race	BLACK
1387	0.1492521	civ.race	HISPANIC
949	0.1021199	civ.race	WHITE
106	0.0114064	civ.race	
62	0.0066717	civ.race	ASIAN/PACIFIC ISLANDER
15	0.0016141	civ.race	NATIVE AMERICAN/ALASKAN NATIVE
7539	0.8112558	civ.gender	MALE
1746	0.1878834	civ.gender	FEMALE
8	0.0008609	civ.gender	
6774	0.7289358	civilian_race_short	civilian_black
1387	0.1492521	civilian_race_short	civilian_hisp
949	0.1021199	civilian_race_short	civilian_white
106	0.0114064	civilian_race_short	NA
62	0.0066717	civilian_race_short	civilian_aapi
15	0.0016141	civilian_race_short	civilian_native

# \$logical

col	mean	true	false	missing	prcnt_missing
civ.injured	0.2704186	2513	6780	0	0

# \$ other

9

$\operatorname{col}$	missing	prcnt_missing
date	0	0.0000000
time	0	0.0000000
lat	1754	0.1887442
lon	1754	0.1887442
force_id	0	0.0000000
officer_id	0	0.0000000
month	0	0.0000000