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Checkpoint 1: Relational Analytics

What we learned

Looking at the percentage of types of complaints levied against officers based on race and gender revealed several interesting discrepancies. Notably, women officers received complaints alleging use of force substantially less than the average officer; the same is true for illegal search allegations, albeit to a lesser extent. Women also received complaints alleging Operation/Personnel Violations substantially more than the average officer.

For Black women in particular, the percentage of complaints alleging unbecoming off-duty conduct was substantially higher than both women overall and for the average officer, and higher than for Black men. That said, Black women also received complaints alleging illegal searches significantly less than women overall, as well as Black men and the average officer.

Although very few complaints in total alleged racial profiling, white officers seemed to receive these allegations noticeably more than other officers. No allegations of racial profiling were levied against Asian/Pacific or Native officers, though this may simply be due to their relatively small representation in the police force.

Something that was surprising about the proportion of allegations that ended up with a punishment was the same for both male and female officers, though the proportion of allegations against women was slightly less than the proportion of allegations against males.

We also learned that while 59% of all allegations counts were from black complainants only 23% of allegation counts were against black officers and while 21% of all allegations counts were from white complainants, 61% of allegation counts were against white officers. It was challenging to draw inferences from the distribution of investigators as many investigator records did not come with gender nor race.

The distribution of TRR counts by race and gender generally matches the distribution of complaints by race and gender. One area of difference was that male, black officers were in 22% of complaint counts but in 13% of TRR counts. In general, the queries for this question and the one before were straightforward to write out but figuring out ways to analyze the query results were challenging.

Queries

Question 1: Is there a correlation between race and gender of the officer and the type of complaint (verbal abuse, use of force, etc)?

Counts of allegations by category

```
SELECT category, COUNT(*)
FROM data_allegationcategory JOIN data_officeralllegation
ON data_allegationcategory.id=data_officeralllegation.allegation_category_id
GROUP BY category;
```

category	count
Bribery / Official Corruption	871
Conduct Unbecoming (Off-Duty)	8138
Criminal Misconduct	6586
Domestic	6421
Drug / Alcohol Abuse	1307
Excessive Force	23
False Arrest	8491
First Amendment	77
Illegal Search	37125
Lockup Procedures	14004
Operation/Personnel Violations	76546
Racial Profiling	44
Supervisory Responsibilities	4532
Traffic	8024
Unknown	1
Use Of Force	56957
Verbal Abuse	13716

(17 rows)

Counts of instances of allegations by category against officers of each race and gender

```
SELECT race, gender, category, COUNT(*) FROM data_allegationcategory JOIN
data_officeralllegation ON
data_allegationcategory.id=data_officeralllegation.allegation_category_id JOIN
data_officer ON data_officeralllegation.officer_id=data_officer.id GROUP BY race,
gender, category;
```

race	gender	category	count
Asian/Pacific	F	Bribery / Official Corruption	2
Asian/Pacific	F	Conduct Unbecoming (Off-Duty)	2
Asian/Pacific	F	Criminal Misconduct	3
Asian/Pacific	F	Domestic	4
Asian/Pacific	F	False Arrest	6
Asian/Pacific	F	Illegal Search	23
Asian/Pacific	F	Lockup Procedures	15
Asian/Pacific	F	Operation/Personnel Violations	103

Asian/Pacific	F	Supervisory Responsibilities	1
Asian/Pacific	F	Traffic	14
Asian/Pacific	F	Use Of Force	36
Asian/Pacific	F	Verbal Abuse	10
Asian/Pacific	M	Bribery / Official Corruption	18
Asian/Pacific	M	Conduct Unbecoming (Off-Duty)	84
Asian/Pacific	M	Criminal Misconduct	82
Asian/Pacific	M	Domestic	109
Asian/Pacific	M	Drug / Alcohol Abuse	8
Asian/Pacific	M	False Arrest	177
Asian/Pacific	M	Illegal Search	590
Asian/Pacific	M	Lockup Procedures	204
Asian/Pacific	M	Operation/Personnel Violations	1011
Asian/Pacific	M	Supervisory Responsibilities	37
Asian/Pacific	M	Traffic	102
Asian/Pacific	M	Use Of Force	948
Asian/Pacific	M	Verbal Abuse	184
Black	F	Bribery / Official Corruption	26
Black	F	Conduct Unbecoming (Off-Duty)	788
Black	F	Criminal Misconduct	313
Black	F	Domestic	427
Black	F	Drug / Alcohol Abuse	73
Black	F	False Arrest	253
Black	F	First Amendment	3
Black	F	Illegal Search	978
Black	F	Lockup Procedures	775
Black	F	Operation/Personnel Violations	6200
Black	F	Supervisory Responsibilities	177
Black	F	Traffic	457
Black	F	Use Of Force	1724
Black	F	Verbal Abuse	671
Black	M	Bribery / Official Corruption	183
Black	M	Conduct Unbecoming (Off-Duty)	2772
Black	M	Criminal Misconduct	1812
Black	M	Domestic	1699
Black	M	Drug / Alcohol Abuse	462
Black	M	Excessive Force	4
Black	M	False Arrest	1279
Black	M	First Amendment	17
Black	M	Illegal Search	6179
Black	M	Lockup Procedures	3246
Black	M	Operation/Personnel Violations	18298
Black	M	Racial Profiling	3
Black	M	Supervisory Responsibilities	820
Black	M	Traffic	1604
Black	M	Use Of Force	12513
Black	M	Verbal Abuse	2704
Hispanic	F	Bribery / Official Corruption	10
Hispanic	F	Conduct Unbecoming (Off-Duty)	132
Hispanic	F	Criminal Misconduct	57

Hispanic	F	Domestic	144
Hispanic	F	Drug / Alcohol Abuse	17
Hispanic	F	False Arrest	178
Hispanic	F	First Amendment	1
Hispanic	F	Illegal Search	578
Hispanic	F	Lockup Procedures	233
Hispanic	F	Operation/Personnel Violations	1712
Hispanic	F	Racial Profiling	2
Hispanic	F	Supervisory Responsibilities	37
Hispanic	F	Traffic	198
Hispanic	F	Use Of Force	671
Hispanic	F	Verbal Abuse	217
Hispanic	M	Bribery / Official Corruption	141
Hispanic	M	Conduct Unbecoming (Off-Duty)	827
Hispanic	M	Criminal Misconduct	886
Hispanic	M	Domestic	985
Hispanic	M	Drug / Alcohol Abuse	136
Hispanic	M	Excessive Force	8
Hispanic	M	False Arrest	1571
Hispanic	M	First Amendment	3
Hispanic	M	Illegal Search	6216
Hispanic	M	Lockup Procedures	1838
Hispanic	M	Operation/Personnel Violations	9156
Hispanic	M	Racial Profiling	14
Hispanic	M	Supervisory Responsibilities	394
Hispanic	M	Traffic	1013
Hispanic	M	Use Of Force	8989
Hispanic	M	Verbal Abuse	1622
Native American/Alaskan Native	F	Conduct Unbecoming (Off-Duty)	3
Native American/Alaskan Native	F	Criminal Misconduct	2
Native American/Alaskan Native	F	Domestic	4
Native American/Alaskan Native	F	False Arrest	1
Native American/Alaskan Native	F	Illegal Search	13
Native American/Alaskan Native	F	Lockup Procedures	2
Native American/Alaskan Native	F	Operation/Personnel Violations	29
Native American/Alaskan Native	F	Traffic	1
Native American/Alaskan Native	F	Use Of Force	16
Native American/Alaskan Native	F	Verbal Abuse	4
Native American/Alaskan Native	M	Bribery / Official Corruption	3
Native American/Alaskan Native	M	Conduct Unbecoming (Off-Duty)	17
Native American/Alaskan Native	M	Criminal Misconduct	9
Native American/Alaskan Native	M	Domestic	18
Native American/Alaskan Native	M	Drug / Alcohol Abuse	6
Native American/Alaskan Native	M	False Arrest	32
Native American/Alaskan Native	M	Illegal Search	70
Native American/Alaskan Native	M	Lockup Procedures	33
Native American/Alaskan Native	M	Operation/Personnel Violations	157
Native American/Alaskan Native	M	Supervisory Responsibilities	5
Native American/Alaskan Native	M	Traffic	24
Native American/Alaskan Native	M	Use Of Force	166

Native American/Alaskan Native	M	Verbal Abuse	30
Unknown		Conduct Unbecoming (Off-Duty)	8
Unknown		Criminal Misconduct	6
Unknown		Domestic	1
Unknown		Drug / Alcohol Abuse	1
Unknown		False Arrest	1
Unknown		Illegal Search	2
Unknown		Lockup Procedures	16
Unknown		Operation/Personnel Violations	19
Unknown		Supervisory Responsibilities	5
Unknown		Traffic	1
Unknown		Use Of Force	23
Unknown		Verbal Abuse	5
Unknown	F	Operation/Personnel Violations	1
Unknown	M	False Arrest	1
Unknown	M	Illegal Search	1
Unknown	M	Supervisory Responsibilities	1
Unknown	M	Use Of Force	1
White	F	Bribery / Official Corruption	28
White	F	Conduct Unbecoming (Off-Duty)	523
White	F	Criminal Misconduct	317
White	F	Domestic	396
White	F	Drug / Alcohol Abuse	52
White	F	Excessive Force	1
White	F	False Arrest	433
White	F	First Amendment	3
White	F	Illegal Search	1948
White	F	Lockup Procedures	950
White	F	Operation/Personnel Violations	6167
White	F	Racial Profiling	7
White	F	Supervisory Responsibilities	372
White	F	Traffic	648
White	F	Use Of Force	2590
White	F	Verbal Abuse	888
White	M	Bribery / Official Corruption	460
White	M	Conduct Unbecoming (Off-Duty)	2982
White	M	Criminal Misconduct	3099
White	M	Domestic	2634
White	M	Drug / Alcohol Abuse	552
White	M	Excessive Force	10
White	M	False Arrest	4559
White	M	First Amendment	50
White	M	Illegal Search	20527
White	M	Lockup Procedures	6692
White	M	Operation/Personnel Violations	33693
White	M	Racial Profiling	18
White	M	Supervisory Responsibilities	2683
White	M	Traffic	3962
White	M	Unknown	1
White	M	Use Of Force	29280

Question 2: How does the gender of an officer affect the amount of allegations they receive and the rate at which those allegations lead to punishments?

The total number of officer allegations by gender

```
SELECT data_officer.gender, COUNT(*) FROM data_officer,  
data_officer.allegation WHERE data_officer.id =  
data_officer.allegation.officer_id  
GROUP BY data_officer.gender;
```

gender	count
	88
F	32918
M	211449

The total number of officers by gender

```
SELECT data_officer.gender, COUNT(*) FROM data_officer GROUP BY  
data_officer.gender;
```

gender	count
	24
M	27868
F	5779

Total proportion of allegations for each gender

gender	count
	3.66
M	7.59
F	5.67

Total number of allegations that ended up with punishments

```
SELECT data_officer.gender, COUNT(*) FROM data_officer,
data_officerallegation WHERE data_officer.id =
data_officerallegation.officer_id and
data_officerallegation.final_outcome <> 'No Action Taken' and
data_officerallegation.final_outcome <> 'Penalty Not Served'
GROUP BY data_officer.gender;
```

gender	count
	16
F	4991
M	24064

Total proportion of allegations that end up with punishments for each gender

gender	count
	0.667
F	1.16
M	1.16

Question 3: What is the distribution of officers, investigators, and victims across race and gender?

The distribution of investigators by race and gender

```
SELECT race, gender, COUNT (1) as num
FROM data_investigator
GROUP BY race, gender;
ORDER BY race, gender;
```

race	gender	num
		3198
	F	6
	M	5
Asian/Pacific Islander	F	2
Asian/Pacific Islander	M	4
Black	F	46
Black	M	42

Hispanic	F	15
Hispanic	M	21
White		1
White	F	45
White	M	79

(12 rows)

The distribution of officer by race and gender

```
SELECT race, gender, COUNT (1) as num
FROM data_officer GROUP BY race, gender
ORDER BY race, gender;
```

race	gender	num
-----	+-----	+-----
Asian/Pacific	F	63
Asian/Pacific	M	476
Black	F	1959
Black	M	5671
Hispanic	F	965
Hispanic	M	3614
Native American/Alaskan Native	F	13
Native American/Alaskan Native	M	49
Unknown		24
Unknown	F	51
Unknown	M	115
White	F	2728
White	M	17943

(13 rows)

The distribution of complainants by race and gender

```
SELECT race, gender, COUNT (1) as num
FROM data_complainant
GROUP BY race, gender
ORDER BY race, gender;
```

race	gender	num
-----	+-----	+-----
		2354
	F	1852
	M	4042

Asian/Pacific Islander			3
Asian/Pacific Islander	F		210
Asian/Pacific Islander	M		499
Black			86
Black	F		24232
Black	M		26004
Hispanic			15
Hispanic	F		3619
Hispanic	M		4860
Native American/Alaskan Native	F		47
Native American/Alaskan Native	M		62
White			32
White	F		6183
White	M		11746

(17 rows)

Question 4: Is the distribution of TRRs by officer race proportionate to the distribution of allegations against officers?

The distribution of counts of allegation against an officer of a race and gender by race and gender

```
SELECT race, gender, COUNT(*)
FROM data_officerallegation
JOIN data_officer ON
data_officerallegation.officer_id=data_officer.id
GROUP BY race, gender;
```

race	gender	count
-----+-----+-----		
Asian/Pacific	F	222
Asian/Pacific	M	3586
Black	F	12963
Black	M	53891
Hispanic	F	4236
Hispanic	M	34106
Native American/Alaskan Native	F	75
Native American/Alaskan Native	M	573
Unknown		88
Unknown	F	1
Unknown	M	4

White	F	15421
White	M	119289

(13 rows)

The distribution of TRRs by the race and gender of the officer filing

```
SELECT race, gender, COUNT(*)
FROM data_officer
JOIN trr_trr ON data_officer.id=trr_trr.officer_id
GROUP BY race, gender;
```

race	gender	count
-----	-----	-----
Hispanic	F	1481
Black	M	8619
White	M	34978
Asian/Pacific	F	121
Native American/Alaskan Native	F	21
White	F	3753
Native American/Alaskan Native	M	289
Asian/Pacific	M	1919
Black	F	1980
Hispanic	M	13571

(10 rows)