

Checkpoint 1: Relational Analysis Findings

The Silver Imps

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Number of Repeaters

In our proposal we defined the repeaters as the top 10% of officers with most complaints in a timespan.

For 2006-2010 we identify 887 repeaters among a total of 8874 officers.

For 2010-2014 we identify 744 repeaters among a total of 7445 officers.

For 2014-2018 we identify 557 repeaters among a total of 5567 officers.

Q1: Using our definition of “repeaters” above, what percentage of total complaints are they responsible for?

The result from the query code shows the percentage of the cases that “repeaters” were responsible for:

2006-2010 (Timespan3 in our code): 33.27%

	total	cases_of_repeater	percentage
1	30676	10205	33.2670491589516234

2010-2014 (Timespan2 in our code): 31.93%

	total	cases_of_repeater	percentage
1	20820	6648	31.930835734870317

2014-2018 (Timespan1 in our code): 28.15%

	total	cases_of_repeater	percentage
1	10223	2878	28.1522058104274675

We can see that the percentage of the repeater cases in all complaints are consistent, averaged to around 31%, but slightly decreasing, from 33% in 2006-2010 to 28% in 2014-2018. Given that the number of repeaters is 10% in total officers with complaints, and the fact that the complaint number of repeaters are 31% (which is much higher than 10%), it shows that the term “repeaters” accurately describes their behaviors. Also, from the result of the 3 timespans, we notice that the total number of allegations of officers decreased considerably (from 30676 to 10223). However, given such a drop, the percentage of repeater cases are still consistent. This trend is meaningful to do research on.

Q2: What is the demographic information (race, age and sex) of the “repeaters” using our definition above?

2006-2010:

	race	ct
1	White	511
2	Black	184
3	Hispanic	174
4	Asian/Pacific	16
5	Native American/Alaskan Native	2

	gender	ct
1	M	834
2	F	53

	age_range	ct
1	40 - 50	466
2	50 - 60	246
3	30 - 40	105
4	older than 60	70

2010-2014:

	race	ct
1	White	405
2	Hispanic	159
3	Black	156
4	Asian/Pacific	21
5	Native American/Alaskan Native	3

	gender	ct
1	M	669
2	F	75

	age_range	ct
1	40 - 50	352
2	30 - 40	213
3	50 - 60	147
4	older than 60	32

2014-2018:

	race	ct
1	White	280
2	Hispanic	151
3	Black	110
4	Asian/Pacific	15
5	Native American/Alaskan Native	1

	gender	ct
1	M	498
2	F	59

	age_range	ct
1	40 - 50	214
2	30 - 40	209
3	50 - 60	111
4	older than 60	21
5	younger than 30	2

We can see that there is an obvious pattern of the repeaters. From the results of all 3 timespan, we can see that the repeaters are largely middle-aged white males.

Specifically speaking, the race and gender demographics show strong consistency. Using a descending order, we can see that the number of repeaters of the five races are ordered as: White, Hispanic, Black, Asian/Pacific, Native American/Alaskan Native. And the White outnumbered other races very obviously. The pattern is consistent for the gender demographics, as male repeaters outnumbered female a lot.

But for the age, the pattern is interesting. For all 3 timespans, the majority of the repeaters falls into the age range of 40-50. But the second most frequent age range for the repeaters change from 50-60 in 2006-2010, to 30-40 in 2010-2014 and 2014-2018. And the oldest age range (older than 60) is decreasing its percentage in the repeaters from 7.9% (70 out of 887 repeaters) to 3.8% (21 out of 557 repeaters). Also in 2014-2018, repeaters younger than 30 emerges, which is not seen in 2006-2010 and 2010-2014. We can see that over the years, the data shows a trend of repeaters getting younger. Future research addressing the reason behind this trend will be interesting.

Q3: What is the distribution of the categories of the misconducts (illegal search, use of force, etc.) for those “repeaters” we defined above?

First, let's see the composition of misconduct categories in each timespan:

2006-2010:

	category	totalct
1	Illegal Search	3246
2	Use Of Force	2394
3	Operation/Personnel Violations	2073
4	False Arrest	915
5	Lockup Procedures	523
6	Verbal Abuse	223
7	Criminal Misconduct	222
8	Domestic	219
9	Traffic	152
10	Money / Property	62
11	Conduct Unbecoming (Off-Duty)	58
12	Bribery / Official Corruption	41
13	Supervisory Responsibilities	37
14	Racial Profiling	5
15	Drug / Alcohol Abuse	4
16	First Amendment	2

The three leading allegations categories are Illegal Search, Use of force and Operation/Personnel Violations

2010-2014:

	category	totalct
1	Illegal Search	1766
2	Use Of Force	1689
3	Operation/Personnel Violations	1185
4	False Arrest	882
5	Lockup Procedures	405
6	Verbal Abuse	198
7	Domestic	191
8	Traffic	102
9	Conduct Unbecoming (Off-Duty)	47
10	Bribery / Official Corruption	32
11	Supervisory Responsibilities	31
12	Criminal Misconduct	24
13	Money / Property	10
14	Drug / Alcohol Abuse	9
15	Excessive Force	3
16	First Amendment	1

The three leading allegations categories are Illegal Search, Use of force and Operation/Personnel Violations

2014-2018:

	category	totalct
1	Operation/Personnel Violations	666
2	Illegal Search	622
3	Use Of Force	440
4	False Arrest	370
5	Lockup Procedures	185
6	Traffic	103
7	Money / Property	81
8	Verbal Abuse	56
9	Domestic	52
10	Conduct Unbecoming (Off-Duty)	43
11	Criminal Misconduct	37
12	Supervisory Responsibilities	17
13	Bribery / Official Corruption	15
14	Racial Profiling	5
15	Unknown	4
16	Medical	3
17	Drug / Alcohol Abuse	3
18	Excessive Force	2

The three leading allegations categories are Operation/Personnel Violations, Illegal Search and Use of force.

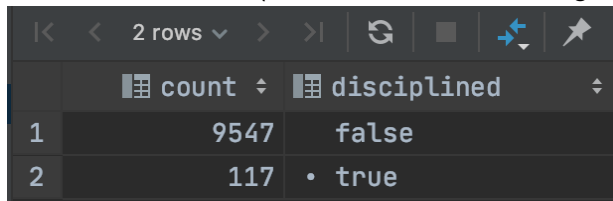
Overall, we can see the consistency of allegations with most number. It reflects that the misconduct of repeaters does follow a pattern. We can also notice for 2014-2018 Operation/Personnel Violations for the first time become the primary misconduct category. Operation/Personnel Violations generally include seat belt, failure to report, Radio Violation, etc.

and should be considered much less serious violations compared with other two. I guess future inquiry should focus on how to address the issue of Illegal Search and Use of force and how to mitigate the impact of these two misconducts.

Q4: Among the allegations against the “repeaters”, what percentage of these cases lead to the “repeaters” being sustained? And disciplined?

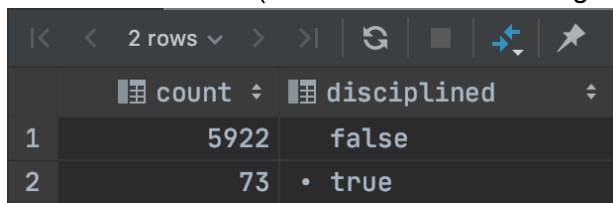
First of all, let's see the percentage of repeaters that get disciplined in each timespan:

2006-2010: 1.21% (from a total of 9664 allegations)



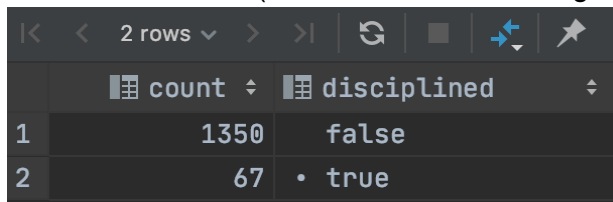
	count	disciplined
1	9547	false
2	117	• true

2010-2014: 1.22% (from a total of 5995 allegations)



	count	disciplined
1	5922	false
2	73	• true

2014-2018: 4.73% (from a total of 1417 allegations)



	count	disciplined
1	1350	false
2	67	• true

In the theme we defined the repeaters and we are interested in detecting patterns for the repeaters. Here from pure numerical value, we can see that the percentage of repeaters that get disciplined is about the same between 2006-2014 and increases significantly over 2014-2018. However we should also take into account there is a drop of disciplined action over time. The result hints that we need further inquiry into the repeaters. Again, same to the result from Q1, we need to see why there is such a considerable drop in total allegations: is the count going down because repeaters are behaving better or are people filing fewer allegations for some reason? It will be interesting for future research.