

Checkpoint 1:

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Relational Analytics:

What percentage of officers get disciplined for misconduct given the number of previous disciplines they have received?

According to the data, 6.6988859% of non-officer complaints were sustained in total. This is a useful number to use as a baseline. Additionally, the total number of allegations and sustained allegations are listed to get a sense of the scope of the database.

	percent_sustained	total_allegations	sustained_allegations
1	6.698885927663934	(235263)	(15760)

I then used the complaint data already in data_officer, which was grouped by the number of allegations to see if officers were more likely to sustain allegations if they had a large number of allegations.

	number_of_allegations	number_of_officers	total_allegations_sustained	percent_sustained
1	1	3139	828	26.377827333545717
2	2	2175	818	18.804597701149426
3	3	1808	841	15.505162241887904
4	4	1549	833	13.444157520981278
5	63	12	99	13.095238095238097
6	5	1350	794	11.762962962962963
7	7	1202	940	11.171856429759924
8	6	1218	814	11.13847837985769
9	9	903	872	10.729666543620032
10	8	1020	872	10.686274509803921
11	11	740	799	9.815724815724817
12	12	676	758	9.344181459566075
13	10	826	755	9.14043583535109
14	18	369	594	8.94308943089431
15	17	400	592	8.705882352941176
16	13	595	673	8.70071105365223
17	14	543	660	8.681925808997633
18	23	244	485	8.642195295794727
19	15	496	631	8.481182795698924
20	42	36	124	8.201058201058201

The above table has columns that show the number of allegations which act as our bins, the number of officers that have had that number of misconduct allegations, the total number of misconduct allegations sustained, and the percentage sustained. As can be seen above, officers that have fewer misconduct allegations seem to have a larger number sustained. Additionally, officers that have many misconduct allegations seem to sustain a much lower percentage of them, as can be seen below. These findings seem to support the idea that officers that sustain many misconduct allegations are held less accountable, which is disappointing since you would hope that they would actually sustain more allegations as it became clearer that their behavior was clearly inappropriate and harmful to the communities they are policing.

	number_of_allegations	number_of_officers	total_allegations_sustained	percent_sustained
1	48	32	61	3.9713541666666665
2	51	13	31	4.675716440422323
3	57	14	38	4.761904761904762
4	44	32	71	5.042613636363636
5	40	49	101	5.153061224489796
6	67	14	49	5.223880597014925
7	45	34	81	5.294117647058823
8	61	16	52	5.327868852459016
9	52	18	50	5.3418803418803416
10	49	32	88	5.612244897959184
11	34	84	163	5.707282913165266
12	47	50	139	5.914893617021277
13	26	173	267	5.935971542907959
14	39	63	151	6.1457061457061455
15	41	48	123	6.25
16	55	13	45	6.293706293706294
17	25	186	296	6.365591397849463
18	37	68	162	6.43879173290938
19	46	30	89	6.44927536231884
20	43	40	111	6.453488372093023

Given the number of previous misconduct disciplines, what are the number of misconduct allegations sustained?

The below table shows the discipline count for officers, the misconduct allegations per officer with said discipline count, the number of officers with said discipline count, and the percentage of misconduct allegations that were sustained. Complaints are both civilian and officer. Here we can see that officers that have been disciplined for at least one incident also seem to sustain a much higher percentage of misconduct allegations. While a statistical test for correlation would need to be used to confirm this, it seems that there is a positive correlation between misconduct allegations and discipline count as well, which may indicate that officers that are routinely disciplined are also committing higher levels of misconduct. This information could prove useful in helping to predict which officers may commit more misconduct.

	discipline_count	misconduct_allegations_per_officer	number_of_officers	percent_sustained
1	10	35.77272727272727	22	31.13087674714104
2	8	31.326923076923077	52	27.440147329650095
3	7	27.875	88	26.29433346922136
4	11	45.94444444444444	18	26.23941958887545
5	9	39.94871794871795	39	24.197689345314505
6	5	24.550239234449762	209	21.906061196647826
7	12	58.46153846153846	13	21.842105263157897
8	6	29.454545454545453	121	21.745230078563413
9	4	22.62749445676275	451	18.85350318471338
10	3	20.835084033613445	952	15.67935467607764
11	2	15.843881856540085	2133	13.67362035804113
12	1	10.93541773449513	5853	10.247636903366924

What categories of misconduct allegations are more likely to result in disciplinary action?

The below table shows the percentage of sustained allegations based on the category of the allegation. It is also split up into a percentage that includes only allegations tagged as not sustained and sustained versus a percentage consisting of the sustained allegations divided by the total number of allegations, which includes the unknowns. This data set does not include non-civilian allegations. Right away, it seems that drug and alcohol violations and excessive force lead to a large percentage of sustained allegations, which indicates that cutting down on

those abuses of power related to those categories could make a significant impact on officer compliance. The least sustained allegations include some misconduct categories that may be harder to prove such as verbal abuse, illegal searches, and first amendment violations. These also may be more approved within the culture of policing.

	percentage_sustained_unknown_unincluded	percentage_sustained_over_total_allegations	category
1	71.86666666666667	55.0561797752809	Drug / Alcohol Abuse
2	88.88888888888889	30.76923076923077	Excessive Force
3	31.550492373044992	22.5223983459683	Conduct Unbecoming (Off-Duty)
4	66.66666666666666	22.22222222222222	Medical
5	30.76923076923077	17.114914425427873	Bribery / Official Corruption
6	60	16.666666666666664	Unknown
7	19.057680118318192	14.171249018067558	Criminal Misconduct
8	23.311184939091916	11.34272060804583	Operation/Personnel Violations
9	16.0429402117191	8.334624322230828	Lockup Procedures
10	13.437690587517789	8.297765503389405	Traffic
11	14.993184915947296	7.462686567164178	Supervisory Responsibilities
12	7.805148076390811	4.69139910164698	Domestic
13	4.653833533851034	3.020033003885941	Use Of Force
14	2.493229993463442	1.9669957271253868	Verbal Abuse
15	5.555555555555555	1.8181818181818181	Racial Profiling
16	6.25	1.36986301369863	First Amendment
17	1.204578730200985	0.4851246314660949	Illegal Search
18	2.127659574468085	0.3195240193918025	False Arrest
19	0	0	Money / Property

The below graph also shows the frequency of the categories of complaint. Personal violations, use of force, and illegal search are much higher frequency compared to the other categories. I am not sure what the difference between Use of Force and Excessive Use of Force is, Excessive Use of Force is 10x less likely to be sustained and is 230x more frequent so maybe the categorization is used to shield officers from accountability. Maybe future work could include a breakdown of language used in Use of Force and Excessive Force allegations to discern the difference.

	percentage_sustained_over_total_allegations	category	percentage_of_allegations
1	11.34272060804583	Operation/Personnel Violations	29.975389245227678
2	3.020033003885941	Use Of Force	23.954893034603828
3	0.4851246314660949	Illegal Search	15.85884733255973
4	1.9669957271253868	Verbal Abuse	5.769713044550142
5	8.334624322230828	Lockup Procedures	5.487475718663793
6	0.3195240193918025	False Arrest	3.8578101953983417
7	8.297765503389405	Traffic	3.3859977982088134
8	22.5223983459683	Conduct Unbecoming (Off-Duty)	3.0837828302793047
9	14.171249018067558	Criminal Misconduct	2.705482800100313
10	4.69139910164698	Domestic	2.5550129004560853
11	7.462686567164178	Supervisory Responsibilities	1.8795985769117964
12	55.0561797752809	Drug / Alcohol Abuse	0.41613003319689024
13	17.114914425427873	Bribery / Official Corruption	0.3476959827937245
14	0	Money / Property	0.15132001207159648
15	1.36986301369863	First Amendment	0.031029103598950964
16	1.8181818181818181	Racial Profiling	0.023378091752634285
17	16.666666666666664	Unknown	0.01530202369263335
18	30.76923076923077	Excessive Force	0.011051461555790754
19	22.22222222222222	Medical	0.0038255059231583374

Are senior officers more likely to escape disciplinary action?

For this question, I created this table based on the ranks of the officers and their misconduct allegations. This data includes officer allegations as well as civilian ones. Data incompleteness aside, it seems that the higher-ranking officers sustain significantly less complaints when compared to other ranks of officers. This supports the hypothesis that accountability is more difficult the further up the promotion ladder you go and that police officers may be more willing to abuse their disciplinary power so that they will not be disciplined in similar situations. While these percentages are not necessarily surprising, they are disappointing. More research into this could include graphical representations of this data and even a breakdown of which misconduct categories higher ranking officers find themselves involved in.

	percent_sustained	rank_description
1	30	Unknown
2	26.02829878249424	Police Officer / Mounted Patrol Officer
3	20.43010752688172	<null>
4	14.457831325301203	SR Evidence Technician
5	12.03155818540434	Police Forensic Investigator I
6	11.178247734138973	Police Officer Assign Youth Off
7	9.458023379383635	Police Officer Assigned Traffic Specialist
8	9.397810218978101	Police Officer Assigned Security Specialist
9	9.10209102091021	Police Agent
10	8.713227037951942	Police Officer / Field Training Officer
11	8.622847194813382	Police Officer
12	8.339990413804122	Police Officer Assigned Evidence Technician
13	7.301630068705375	Captain of Police
14	6.848401922604638	Lieutenant of Police
15	6.492454277349868	Sergeant of Police
16	5.872340425531915	Police Officer / Marine Officer
17	5.684796854521625	Commander
18	5.5132390279289085	Gang Crimes
19	5.392198521288349	Police Officer as Detective
20	4.960460100647016	Police Officer / Explosives Detective Canine Handler
21	4.893092105263158	Deputy Chief