

Checkpoint 3

Theme:

Our theme is analyzing the influence that supervisors have on the officers they manage.

What percentage of law enforcement supervisors who are named in settlements were above the 75th complaint percentile?

Our hypothesis for this question was that supervisors above the 75th percentile would make up a significant amount of the supervisors named in settlements. When we ran our queries, we found 45 total supervisors named in settlements. Out of these 45, 22 have complaint percentiles greater than 75. This means that 49% of the supervisors named settlements have a complaint percentile that is above 75. We thought this was quite high, but is in alignment with our hypothesis and our findings throughout these checkpoints. We also found that there are 124 settlements involving supervisors, which we thought was an interesting finding.

	officer_id	unit_id	unit_name	description	complaint_percentile
1	27797	160 214	Freedom Of Information Section		98.4563
2	14630	6 005	District 005		98.2805
3	9970	132 167	Evidence And Recovered Property Section		97.9863
4	12479	212 620	Detective Area - South		97.8258
5	27415	36 051	Airport Law Enforcement Section - South		97.3062
6	13273	173 311	Gang Enforcement - Area Central		95.8122
7	20913	9 008	District 008		94.9792
8	23492	174 312	Gang Enforcement - Area South		94.2952
9	29882	107 142	Bureau Of Patrol		94.1194
10	13303	27 026	Executive Officers Unit		93.8405
11	16617	21 020	District 020		93.7756
12	15368	13 012	District 012		92.4497
13	6792	19 018	District 018		90.2105
14	10170	10 009	District 009		88.3077
15	27274	204 606	Central Investigations Division		87.1232
16	7471	215 630	Detective Area - North		85.3043
17	29225	208 610	Detective Area - Central		84.7503
18	1932	16 015	District 015		83.5772
19	23543	31 045	District Reinstatement Unit		82.1711
20	8026	26 025	District 025		78.7933
21	18434	142 177	Forensic Services Division		78.0635
22	12628	151 191	Intelligence Section		75.2130

Which supervisors cost the department the most money in settlements?

For this question, we decided to define settlements as the total from fees_cost and payment. We felt we should use the total from both fields because they indicate how much money these officers are costing the department. Of the 45 supervisors that are named in settlements, payment data were available for 30 supervisors; and we displayed this data in descending total_cost order. While we don't know what a "normal"

settlement amount is, we found our results shocking, especially how much money the top officer alone (officer_id 27415) cost the department in settlements (\$10,326,759). Identifying these officers and seeing how much money one officer's actions can end up costing in taxpayer money was striking and may be a motivator for the Chicago Police Department to do future preventative work with these officers.

	supervisor_id ↕	unit_id ↕	description	total_cost ↕
1	27415	36	Airport Law Enforcement Section - South	10326759
2	27797	160	Freedom Of Information Section	6887130
3	23492	174	Gang Enforcement - Area South	1710000
4	20271	157	Bureau Of Patrol - Area South	1695999
5	16617	21	District 020	1005500
6	21024	183	Gang Enforcement Division	870000
7	25306	153	Gang Investigation Division	750000
8	8026	26	District 025	449500
9	4620	4	District 003	372000
10	30254	36	Airport Law Enforcement Section - South	332500
11	27274	204	Central Investigations Division	271000
12	1193	174	Gang Enforcement - Area South	258500
13	14630	6	District 005	235000
14	28348	82	Human Resources Division	235000
15	2185	7	District 006	191000
16	1932	16	District 015	175000
17	22077	169	Court Section	96000
18	12628	151	Intelligence Section	85000
19	12479	212	Detective Area - South	85000
20	32313	149	Narcotics Division	80000
21	14192	86	Research And Development Division	70000
22	13303	27	Executive Officers Unit	70000
23	10170	10	District 009	66500
24	25661	42	Marine Operations Unit	49750
25	4131	55	Special Investigations Unit	39000
26	16870	38	Mounted Unit	26250
27	24044	82	Human Resources Division	23000
28	30180	8	District 007	21000
29	11756	126	General Support Division	18000
30	13273	173	Gang Enforcement - Area Central	2000

How do the settlement costs of law enforcement supervisors compare to the average of their subordinates?

Comparing the table from the previous question to this one, it looks as though the top costly supervisors cost the department significantly more than the average unit. The top supervisor cost \$10,326,759.00 for instance, whereas the top unit cost an average of \$5,998,333.33. That said, the total cost for each unit varied dramatically. For that same unit, for instance, the total was >\$15,000,000. However, the averages for all other units were \$1,000,000.00 and lower. It would be worthwhile in our next set of queries to directly compare the settlement costs of supervisors to the average settlement costs of

the units they oversee. It would also be useful to run standard deviation calculations to see exactly how much variation there is within a unit. These results suggest that supervisors are more costly than the average unit of officers when it comes to settlement payouts.

	unit_id ÷ description	total_cost ÷	avg_cost ÷	total_settlements ÷
1	133 Auto Pound Section	15025000	5008333.333333333333	3
2	134 Police Documents Section	2000000	1000000	2
3	72 Legal Affairs Section	11868122	912932.461538461538	13
4	132 Evidence And Recovered Property Section	20949647	910854.217391304348	23
5	155 Asset Forfeiture Investigation Section	23536299	574056.073170731707	41
6	85 Inspection Division	6429424	401839	16
7	206 Major Accident Investigation Unit	10592083	320972.212121212121	33
8	208 Detective Area - Central	209321450	314769.097744360902	665
9	107 Bureau Of Patrol	24489198	260523.382978723404	94
10	35 Airport Law Enforcement Section - North	58495694	229394.878431372549	255
11	136 Central Detention Unit	1292500	215416.666666666667	6
12	212 Detective Area - South	175238148	214752.632352941176	816
13	204 Central Investigations Division	29713431	206343.270833333333	144
14	42 Marine Operations Unit	11905269	192020.467741935484	62
15	5 District 004	844179536	175359.272122974657	4814
16	215 Detective Area - North	58261945	170856.143695014663	341
17	145 Bureau Of Detectives	680000	170000	4
18	19 District 018	249308038	169022.398644067797	1475
19	80 Bureau Of Internal Affairs	31133264	167383.139784946237	186
20	82 Human Resources Division	9154886	163480.107142857143	56
21	23 District 022	245961900	155968.230818008878	1577
22	6 District 005	721076991	149136.916442605998	4835
23	160 Freedom Of Information Section	14670964	148191.555555555556	99
24	148 Bureau Of Organized Crime	1034000	147714.285714285714	7
25	55 Special Investigations Unit	5610161	147635.815789473684	38
26	153 Gang Investigation Division	159585204	146006.591033851784	1093
27	20 District 019	219095138	143199.43660130719	1530
28	21 District 020	138081479	141332.117707267144	977
29	83 Education And Training Division	39242839	137694.171929824561	285
30	119 Special Functions Support Unit	544267801	129927.858916209119	4189

Comparing the complaint percentile to the average of their subordinates, is this value greater, or lesser?

Our hypothesis for this question was that the average complaint percentile of the supervisor's unit would be similar to the supervisor's, and that this information would be useful in identifying groups of officers liable to cost the department in settlements. This was not always the case. The units percentiles were usually lower than their supervisor's, but many times the opposite was also true. There was not a clear relationship apparent just by looking at the data. It would be worthwhile in future queries to compare this to data on complaint percentiles for supervisors and their units regardless of settlement involvement.

	unit_id :	description :	supervisor_id :	supervisor_complaint_percentile ▼ 1	avg_unit_complaint_percentile :
1	160	Freedom Of Information Section	27797	98.4563	95.64595
2	6	District 005	14630	98.2805	66.0636653879686138
3	212	Detective Area - South	12479	97.8258	66.1354051764705882
4	36	Airport Law Enforcement Section - South	27415	97.3062	58.901427777777778
5	173	Gang Enforcement - Area Central	13273	95.8122	80.3775394557823129
6	174	Gang Enforcement - Area South	23492	94.2952	85.2487195652173913
7	27	Executive Officers Unit	13303	93.8405	53.7181684210526316
8	21	District 020	16617	93.7756	57.95167664
9	10	District 009	10170	88.3077	65.438033836058006
10	204	Central Investigations Division	27274	87.1232	60.407098
11	16	District 015	1932	83.5772	59.4226904339250493
12	26	District 025	8026	78.7933	60.9137824776785714
13	151	Intelligence Section	12628	75.2130	59.9461708333333333
14	86	Research And Development Division	14192	73.1382	39.89513
15	157	Bureau Of Patrol - Area South	20271	70.3068	65.3382
16	169	Court Section	22077	63.5016	69.9897
17	42	Marine Operations Unit	25661	62.7756	60.6074803571428571
18	8	District 007	30180	61.9579	65.6404247148288973
19	82	Human Resources Division	28348	57.3230	47.2781222222222222
20	126	General Support Division	11756	52.1914	43.7604888888888889
21	4	District 003	4620	50.4681	62.10333168
22	55	Special Investigations Unit	4131	49.9026	56.315965
23	38	Mounted Unit	16870	49.7115	60.0771340425531915

Conclusions:

Overall, it seems that problematic supervisors (i.e. those with complaint percentiles >75%) can cost the department a significant amount of money in settlements, more than the average officer in a unit does.