

Final Draft as of 10.25

File created on: 10/26/20 5:26:18 PM EDT

Modeling Risk of Police Misconduct

Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

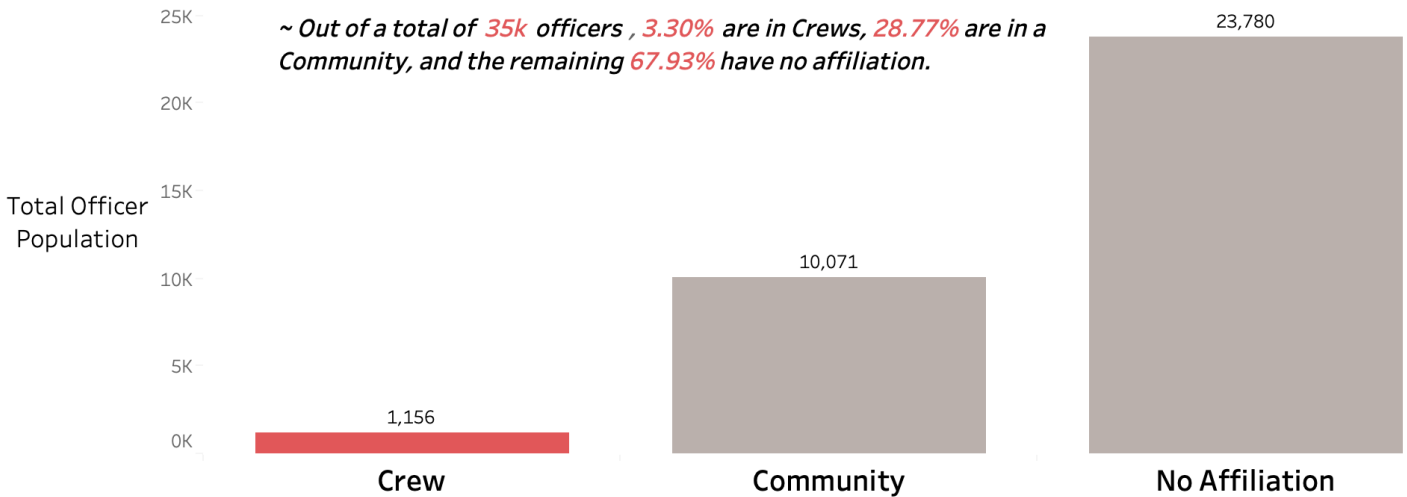
Officer Populations

Is it possible to model the risk of police misconduct?

If so, can we prevent or mitigate misconduct in the future? To find the answer, we start with a prior study from the Invisible Institute that classifies police into distinct groups based on indicators of misconduct. The prior study modeled complaint data as a means to create a better complaint classification system. However, in this study, we investigate whether the identification of "tight-knit communities of officers involved in high levels of egregious misconduct" can be leveraged to model the risk of future misconduct.

Community detection algorithms based on complaint data, such as allegations of illegal search, suggests there distinct groups of officers in Chicago. Though not inherently bad, certain Communities of police exhibit attributes that distinguish them in relation to all other officers. However, when the nature of alleged misconduct is especially severe, a Community is classified as Crew. As a result, for this analysis, we explore the attributes of three Cohorts of police, (1) Crews, (2) Communities, and (3) Unaffiliated.

Officer Cohorts



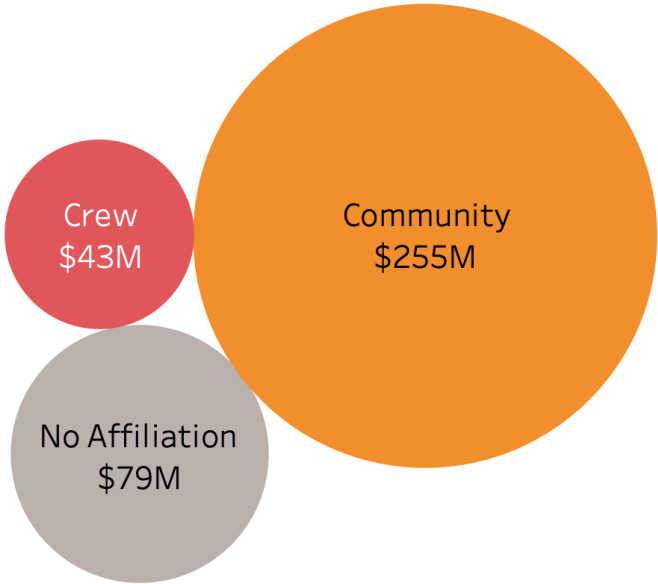
Modeling Risk of Police Misconduct

Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

Costs of Officer Miscoudct

*~ Officers in Crews cost Chicago **45% to 1,000% more in payouts** for misconduct than their peers on a per officer basis.*

Affiliation	Total Legal Cost	Total Settlements	Total Officer Cost	Avg Cost Per Officer
Crew	9,391,756	33,116,687	42,508,443	36,772
Community	34,505,947	220,368,078	254,874,025	25,308
No Affiliation	11,450,704	67,297,283	78,747,987	3,312
Grand Total	55,348,407	320,782,048	376,130,455	65,391



What is the cost of police misconduct?

According to one measure, the combined sum of legal fees and settlements, or "payouts," associated with police misconduct has cost Chicago at least \$320 million. The largest Cohort, Community, accounts for the most payouts with \$254 million while the smallest Cohort, Crews, accounts for the least with \$9 million.

However, on a per officer basis, the average officer in a Crew accounts for \$37 thousand in payouts versus \$25 thousand per officer in a Community.

Modeling Risk of Police Misconduct

Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

Disciplinary Actions

How often is an officer in each cohort disciplined?

It is important to recognize that most officers are likely to receive a complaint during their career. Though we do not wish to minimize the severity of any allegation of misconduct, we should expect there to be some 'normal' level of complaints in the data. Resultantly, there is also an expectation of some 'normal' level of discipline. In other words, we have to identify whether officers in different Cohorts are disciplined at different rates.

The results?

Officers in Cohort 1 (Crew), are infrequently disciplined as compared to other cohorts by as much as three times. Even after accounting the much larger populations in Cohort 2 and 3, Crews still 'out punch' their weight class in terms of discipline rate.

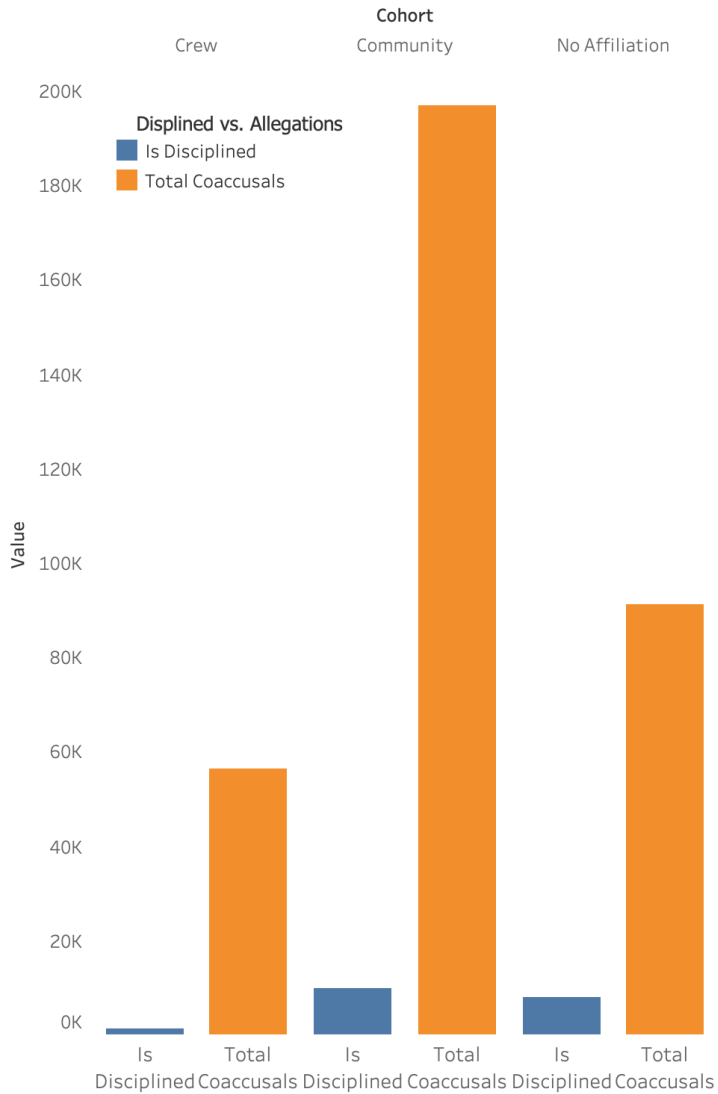
Given this insight, we wonder what factors explain this discrepancy. For instance, are 'bad cops' bad because they are not disciplined, or are good cops good because they are?

~ Officers in Crews are disciplined at less than half the rate for misconduct than all other Officers.

#3

Cohort	Is Disciplined	Total Coaccusals	Disciplined Rate
Crew	1,144	56,294	5.67%
Community	9,921	196,844	10.26%
No Affiliation	7,880	91,000	16.72%

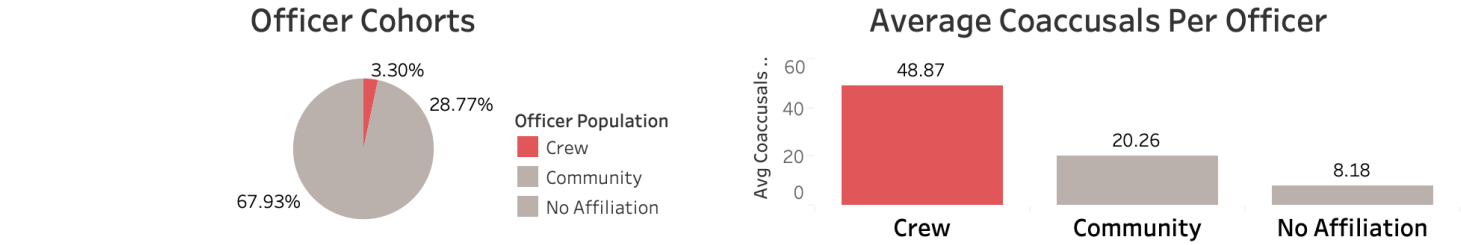
#33



Modeling Risk of Police Misconduct

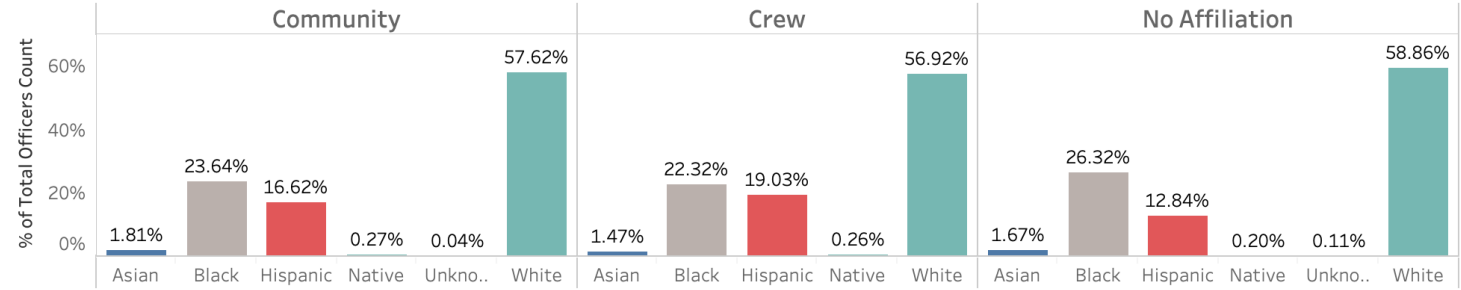
Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

Demographics

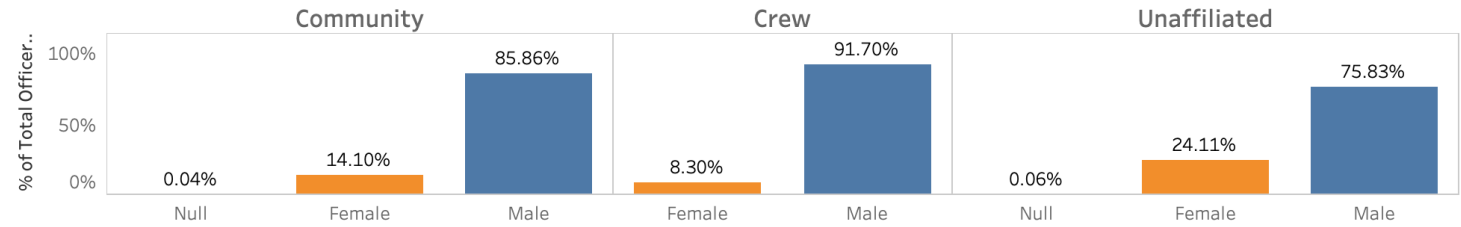


Officer Cohort	Total Officers	Officers With Allegations	Unique Crid Count	Is Disciplined	Total Coaccusals	Avg Coaccusals Per Officer	Discplined Rate	Total Officer Cost
Crew	1,156	1,156	20,174	1,144	56,294	49	0	\$42,508,443
Community	10,071	10,071	96,651	9,921	196,844	20	0	\$254,874,025
No Affiliation	23,780	12,217	47,137	7,880	91,000	8	0	\$78,747,987

Race



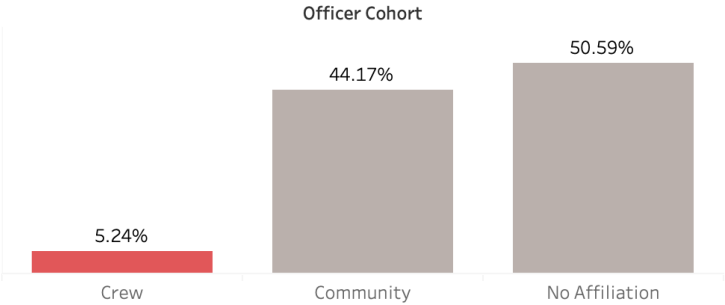
Gender



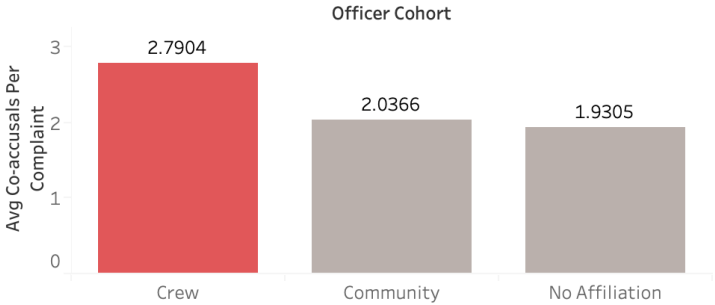
Modeling Risk of Police Misconduct

Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

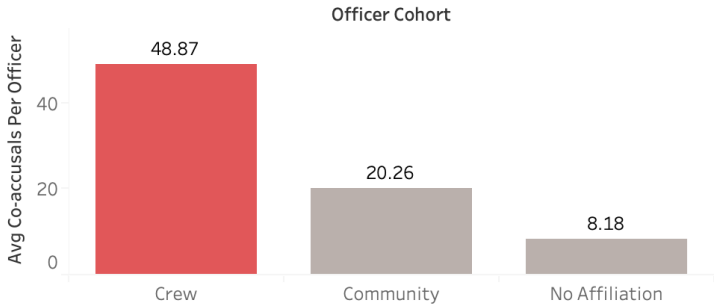
Crews make up just 5% of Total Officer Population



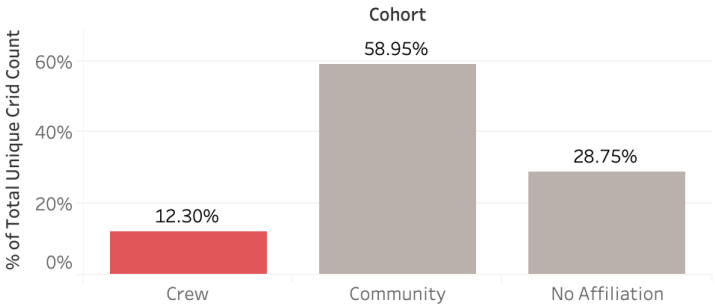
Officers in Crews have the highest average coaccusals per complaint



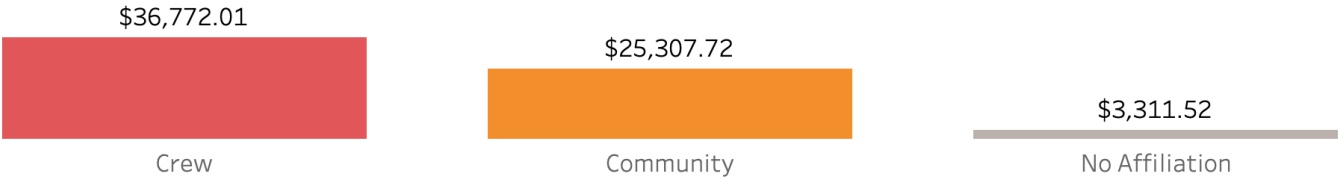
Officers in Crews have the highest average coaccusals per officer



Officers in Crews or Communities are responsible for 70% of all complaints.



Crews have the largest average Cost Per Officer with over \$42M in combined payout and legal fees



Modeling Risk of Police Misconduct

Grouping Officer Misconduct	Costs of Officer Misconduct	Officer Cohort Disciplinary Actions	Officer Cohorts Demographics 1	Officers Cohorts Demographics 2	Conclusion
-----------------------------	-----------------------------	-------------------------------------	--------------------------------	---------------------------------	------------

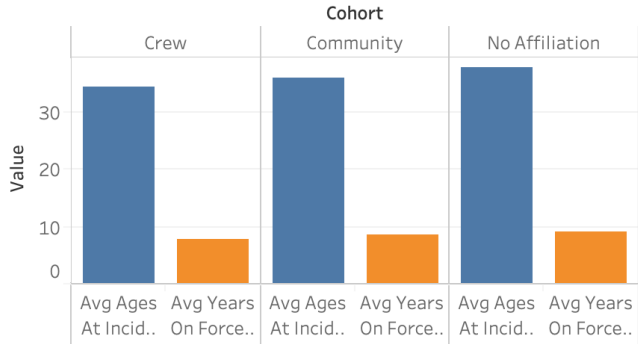
Conclusions

Is it possible to model the risk of police misconduct?

We think it is possible to model the risk of police misconduct. Based on this preliminary analysis of Cohorts of police officers, there are a sufficient number of discriminating attributes that may help us predict which officers exhibit tendencies of Crew members.

For instance, the attributes of the average member in a Crew suggest that officers with high rates of misconduct are younger and have higher rates of coaccusations in complaints than their peers. These and other factors may help managers detect issues intervene before problems fester.

Average Ages and Time on Force at Incident



Why bother to model risk of police misconduct?

There are many reasons but the simplest reason to care is monetary cost. Not only are bad police expensive, but overall police misconduct across both Crews and Communities have piled up to the tune of about \$300 million.

What else could Chicago do with \$300 million dollars?

