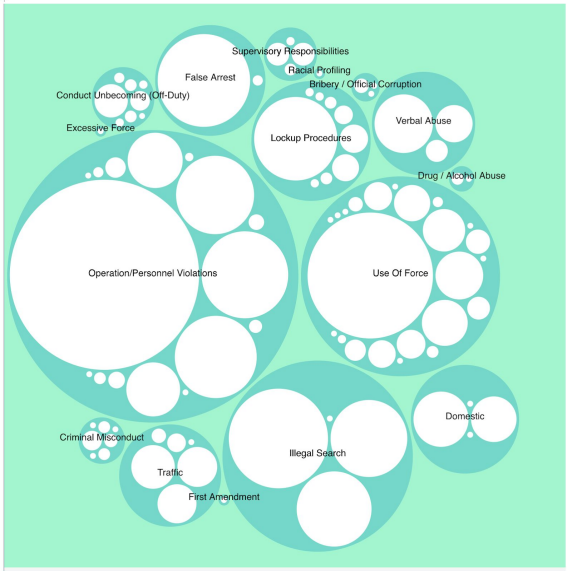
The Wise Lobsters

Theme: *Identifying allegations early in a repeater officer's career and exploring patterns that lead to increasing allegations over time.*

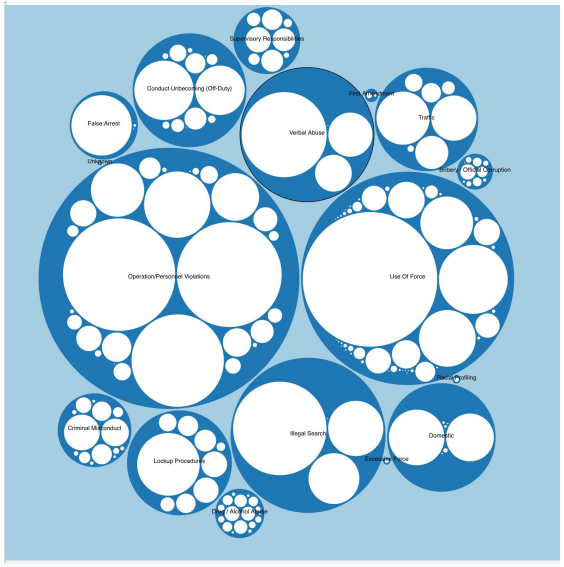
Question 1

What allegation categories/allegation name are most prominent as the first allegation against an officer?

- Observable Notebook (First allegations)



- Observable Notebook (All Allegations)



Use

Click on first level bubbles to zoom in on a allegation category to see corresponding allegation names. Click anywhere in the second level to zoom back out.

Implementation & Graphic Details
For these graphics we used an example of nested bubble cart (see forked observable notebook in above examples). We loaded data using queries (`src/queries/d3_packed_all.sql` & `src/queries/d3_packed_first.sql`). All allegations are filtered by civilian allegations. The larger bubbles are allegation categories and the 2nd level of allegations are allegations names.

Findings
Relating to our question we are focusing on the graphic for first allegations. This allegation gives us an insight into the overall complaints against an officer's first offence. The top first allegation categories and names are as follows:

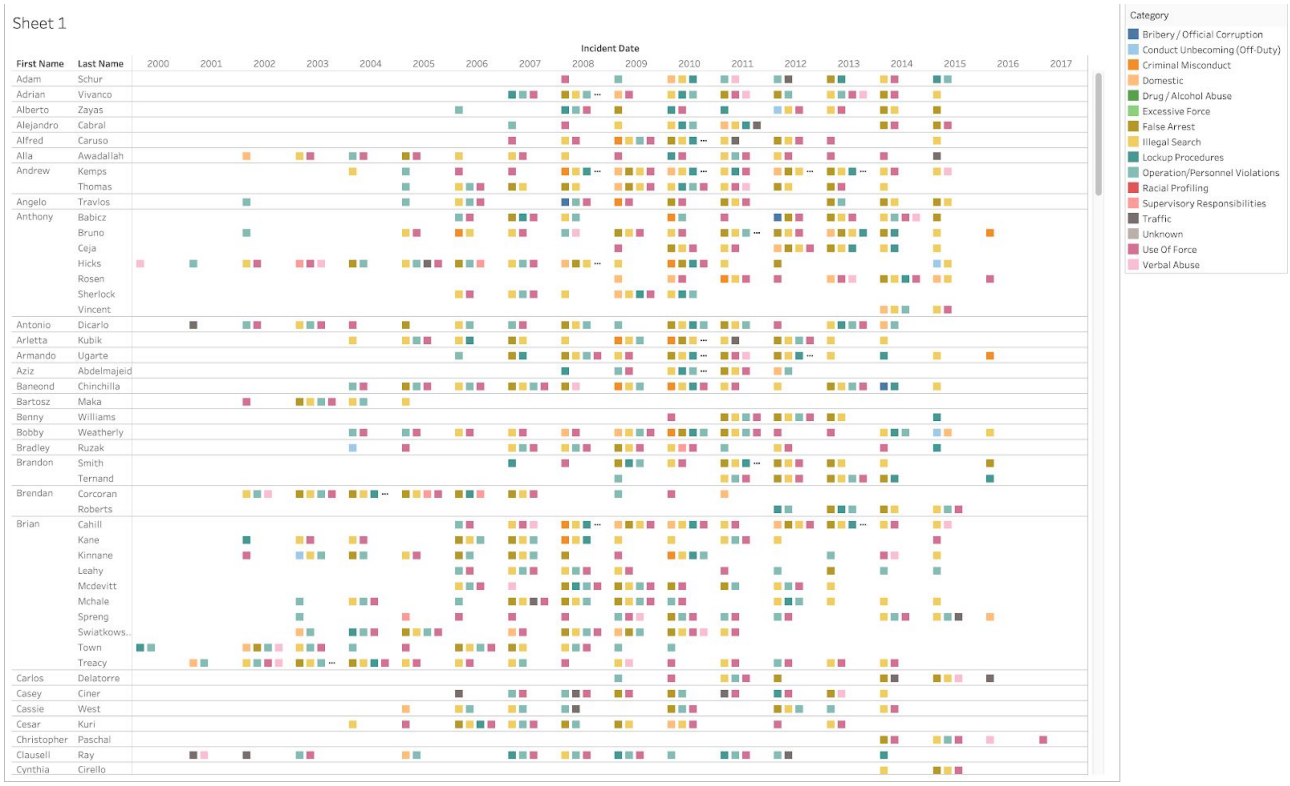
- Operational/Personnel Violations
    - Inadequate / Failure to provide service
- Use of Force
    - Excessive Force / On Duty - Injury
    - Excessive Force / On Duty - No Injury
    - Excessive Force / Off Duty - No Injury
- Illegal Search (close to an even split among the 3)
    - Search of Premise without Warrant
    - Improper Search of Person
    - Improper Search of Vehicle

All allegation distribution seems to match closely to first allegations with more Operational/Personnel Violations.

Question 2

Is there a visible pattern of increasing allegations of officers with similar allegation categories/names?

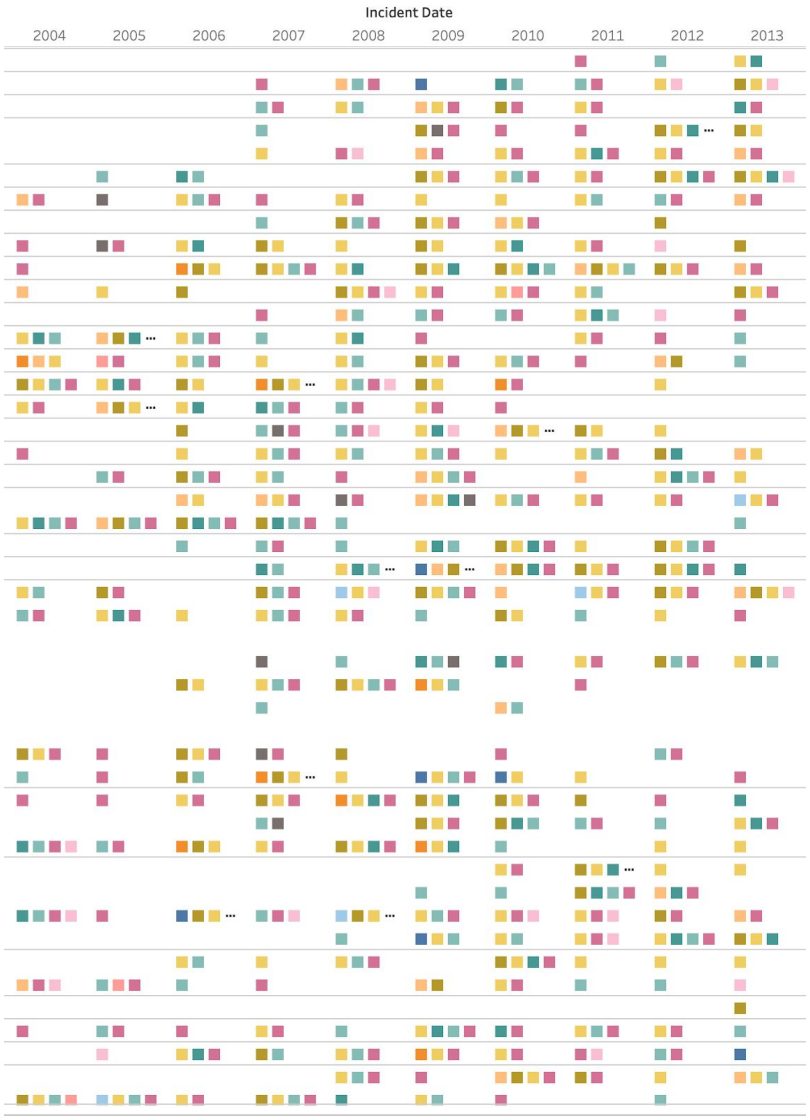
Implementation & Graphic Details
For this question, we used an implementation of a modified Gantt chart (see tableau workbook and attached images). We loaded data using queries, working across data_officer and data_allegation worktables and pulling categories and allegation details accordingly. Studying a pattern of increase in allegations under a similar category name has derived some insights.



Findings

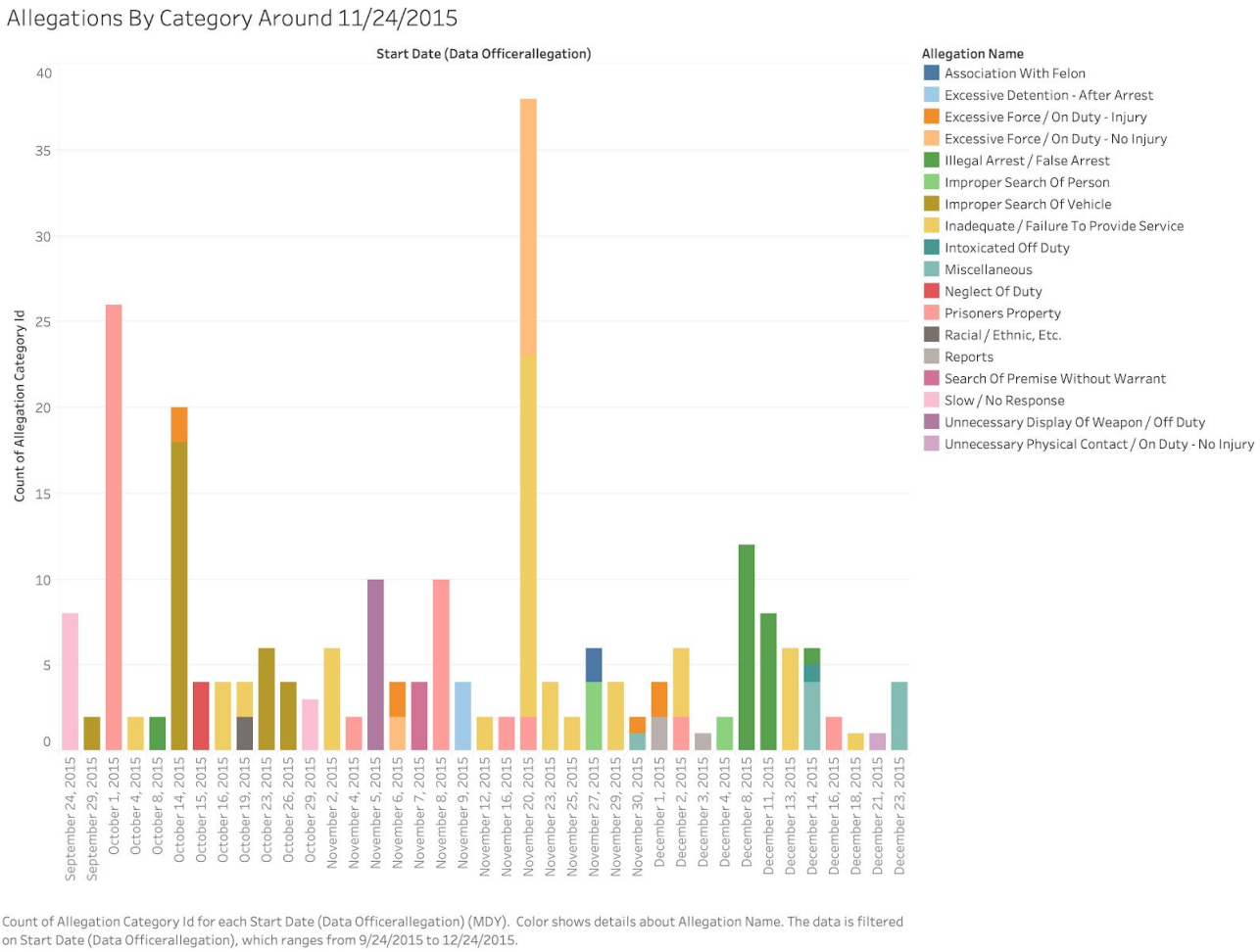
To answer our question, we mapped a selective subset of officers by means of a filter (against civilian allegation percentile). The chart has been developed with the aid of this metric, studying the allegation for incident_dates for the repeaters since the first allegation. As there are inferred patterns in how violence has triggered racial and verbal profiling for the officers, implied patterns have been seen for lockup and search allegation types, and these further escalating to use of force & domestic incidents. Below are some patterns of developing in subsequent allegations:

- Operational/Personnel Violations
- Use of force
- False arrest
- A significantly high number of ‘Lockup procedure’ cases in 2010.
- A majority of allegations in the Criminal misconduct category surfaced from 2008 to 2010.


Incident Date
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

Question 3

Around a major media event, like the release of Officer Van Dykes dash cam video of the shooting of Laquan McDonald (November 24, 2015), is there an increase in reported first allegations?



Findings

The graph shows the tables combined for allegation name, allegation date, count of allegation category ID. The time segmented is two months before and two months after the release of the video Officer Van Dykes dash cam. In the findings, there was not an increase in reported first allegations after the media release of the video (tableau bar chart). Focusing on the allegation start date, not the incident date to see report times Is there is not a pattern. Similar incidents are reported / first-time allegations however they do not coincide with the hypothesis that such allegations are linked to media events. There are unrelated spikes on October 1st and October 14th 2015. At this time there was not a media event related to the spike in allegation events.

The spike of allegations on November 20th 2015 is unexpected and we are unable to correlate it to a media event at this time.

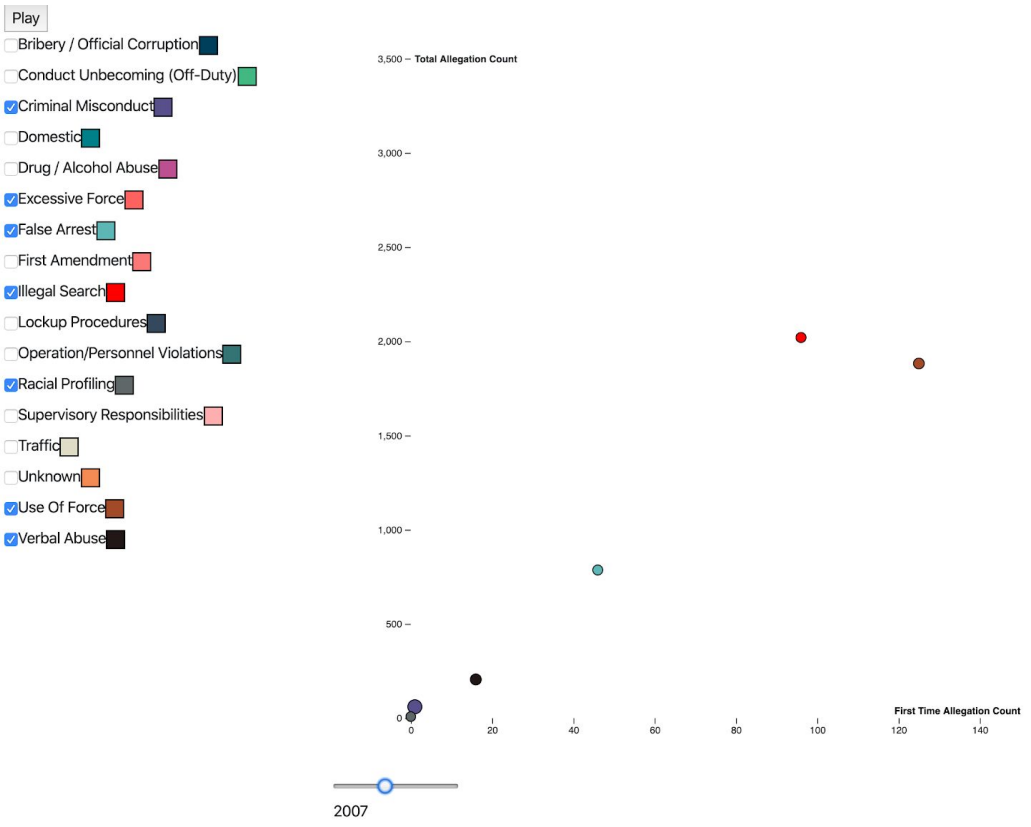
The findings surfaced that there was however, an increase of allegation activity days before the release of the video. This does not seem to be related to our initial hypothesis that after a media event we were expecting a spike in allegations. The data revealed the findings were quite counter intuitive and at best random when attempting to draw conclusions between the allegations and media events. In addition, there are a few points of data on the graph named as miscellaneous, those will require more investigation to surface what type of allegation they are.

The initial hypothesis was proven wrong. The data did not surface concrete patterns of the correlation between the number of allegations and a media event such as a shooting video release, and an actual shooting. Once we visualized the data points via tableau, this showcased that in fact there is not a correlation. We observed spikes in allegations are not related to media or press events.

Some questions around media and allegations could be further studied by searching local news for any other type of events that were occurring on the dates where allegations spiked. Also for future analysis we can search that perhaps other events that occurred with the corresponding dates of increase in allegations.

Question 4

How as the number of complaints by allegation type/name changed over time?



Use

The graph updates when moving the slider or selecting/deselecting categories from the side list. Updating the categories list with update the scale of the graph. Pressing play will animate the changes in the categories from the selected year through 2016. See `README.md` for instructions on how to run locally.

Implementation & Graphic Details

This interactive visualization was built with D3 and illustrates how reported allegation categories change over time. D3 has quite a learning curve and requires some knowledge of web development, specifically DOM manipulation similar to JQuery. There was definitely a challenge getting this environment set up, but now with a working interaction this is something that can be built on moving forward. The first draft of this was built using observable.

The graphic is a scatter plot with the y-axis representing total number of allegations for a given year and the x-axis first allegation counts for that same year. The size of the circle is determined by the percentage of sustained allegations of that particular category. The animation is built with D3 transition. The interactions (slide, check boxes and play button) and built with JQuery.

The data for the graphic was generated from 3 queries located in `src/queries` directory (data is stored in `src/data`). The first is a count of all allegations by year and allegation category from 2000 - 2017. The second is the count of sustained allegations in the same range. The third is the first allegation by an officer that started on the force after 2000, this is our focus area from checkpoint 1. Also, we are only counting first allegations of officers that have 10 or more total allegations over their career. All allegations are filtered to civilian reported allegations. Allegation counts are based on `incident_date` to determine when the event occured.
2000 and 2017 were removed from the interaction due to data outliers. 2000 had much higher allegation count than other years. We assume this was because of defaulted dates. 2017 had much lower numbers of allegations, we assume this is because of the lack of reports from that year at the time of the last dataload.

Findings

The goal of this graph was to see trends in allegation categories over time and see if there are sufficient changes in the way the public reports types of allegations. For purposes of these findings we will focus on the following allegation categories:

- Criminal Misconduct
- Excessive Force
- Illegal Search
- Racial Profiling
- Use Of Force
- Verbal Abuse

Overall there seems to be a downtrend in the total number of allegations reported. Specifically for Use of Force, Verbal Abuse and Illegal Search. The counts peak in 2002 and end in 2015 with about half or less of the 2002 values (see 4a & 4b). 2016 shows suspiciously small amounts of reports for those categories. We are unsure why this would occur, but we hypothesize

it may be with when allegations are reported, perhaps happening years after the event. It would be interesting to try and figure out what else could cause downticts in these reports, could media coverage and public awarenesses of this issue actually be causing less violent allegations? This visualization doesn't provide any insight into why these allegations have decreased, but it at least gives a new point of exploration.

Another interesting trend from our exploration of these categories is the increase in first time allegations around 2005 - 2007 for excessive force and use of force (see 4c - 4e). This could be happening in part with more officers entering the force, because our first allegation count is limited to officers starting after 01-01-2000. That assumption doesn't necessarily hold because there is a downtick in the following years.

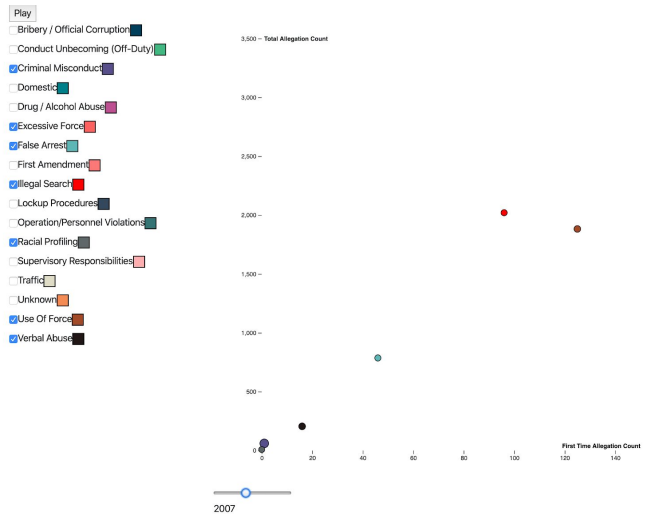
Theme & Future Exploration

To continue exploration of our theme, it's beneficial to understand the overall trends of allegation categories over time, especially relating to first allegation categories. This can help support our narrative when we pinpoint certain types of allegation types or allegation names that lead to repeating behavior.

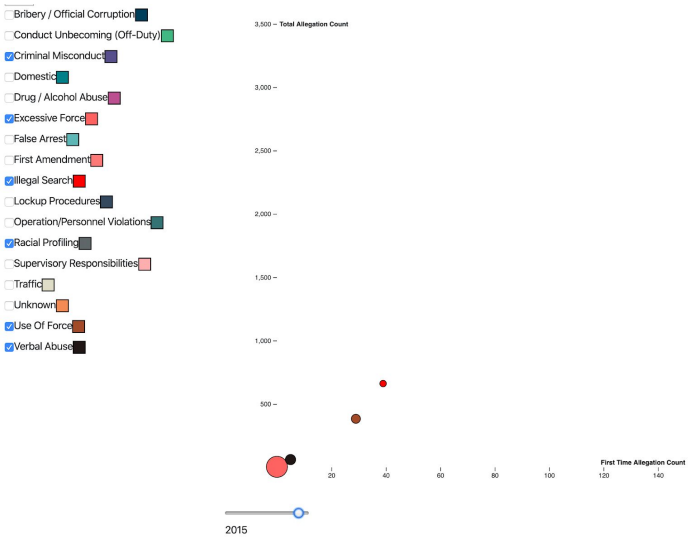
There are a few areas of this graph we would like to expand on. First, we would like to include allegation names under each category. Allegation names are more specific descriptions of the allegation and are grouped under categories. This could help us if we are exploring a specific category. Second, the visual cue for sustained doesn't change much for most allegations. Simply put, most allegations are not sustained. It could be interesting to instead focus on the number of allegations disciplined for a certain category.

Supporting Images

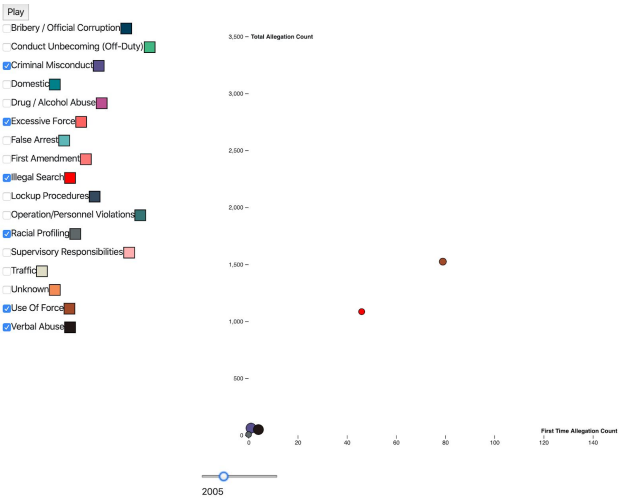
4a.



4b.


Bribery / Official Corruption
Conduct Unbecoming (Off-Duty)
Criminal Misconduct
Domestic
Drug / Alcohol Abuse
Excessive Force
False Arrest
First Amendment
Illegal Search
Lockup Procedures
Operation/Personnel Violations
Racial Profiling
Supervisory Responsibilities
Traffic
Unknown
Use Of Force
Verbal Abuse
3,500 – Total Allegation Count
3,000 –
2,500 –
2,000 –
1,500 –
1,000 –
500 –
20
40
60
80
100
120
140
First Time Allegation Count
2015

4c


Play
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40
60
80
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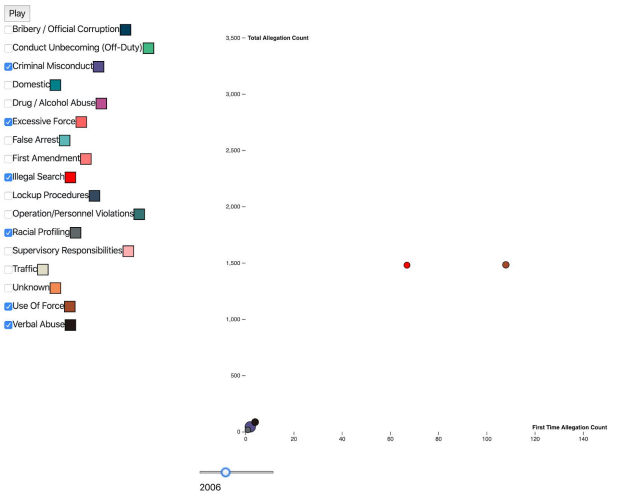
140
First Time Allegation Count
2005

4d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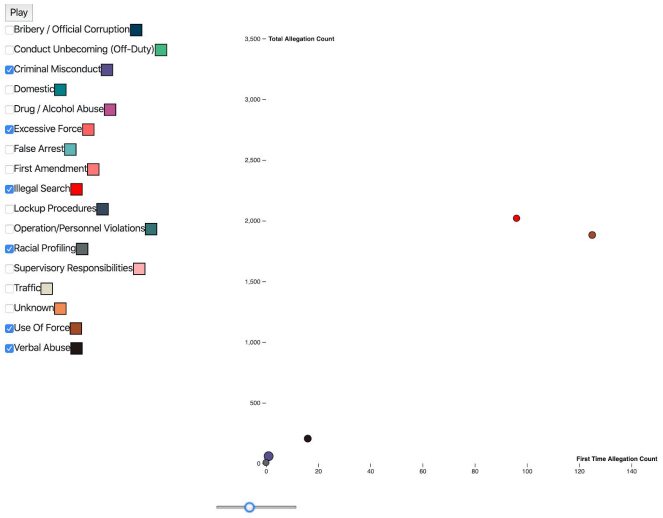
3,000
2,500
2,000
1,500
1,000
500
0
First Time Allegation Count
0
20
40
60
80
100
120
140
2006

4e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2007