Checkpoint 2 Findings: "She thought she was safe in her own home"

Mandy Davis, Brendon Eby, Lexi Ryan

10/22/2020

Introduction

"She thought she was safe in her own home" is what Los Angeles Sparks' Kristine Anigwe said regarding the killing of Breonna Taylor in Louisville, Kentucky. Our project investigates this question of, "Are you safe at home?" in Chicago. Specifically for our visualization step, we start looking further into the stories of the home invasions we know have already occurred in Chicago. For this step, we focus on the settlement data available from the Settling for Misconduct initiative (1454 total settlements), as the summaries provided are well-equipped for the analysis we wished to complete. There are 269 summaries for home invasions that resulted in a settlement (after deleting null or blank entries).

Developments in the Breonna Taylor case

Since the last checkpoint, there have been many developments in the information we have about Breonna's case. Notable, we now know that what was originally understood to be a "no-knock" warrant was actually a "knock-and-announce" warrant, as the warrant type was changed before the invasion. Still in contention is whether or not the cops properly executed this "knock-and-announce" warrant. The cops argue they did, of course, but Breonna's boyfriend says he asked who was at the door after hearing loud banging, but did not hear a response. We also know that the cop who secured the warrant was not among the cops who entered Breonna's apartment. The differences in these warrants suggest that our work of home invasions, warrant or not, is, well, warranted. Lastly, though the cops did have a warrant for the investigation, the actual suspect had been successfully located prior to the invasion into Breonna's apartment, though it is unclear whether the cops had this knowledge. Either way, that demonstrates another complication with warrants.

The police report on the incident has also been released. On the report, Breonna's injuries were listed as "none," though 5 bullets hit her and led to her death. The officers also reported no forced entry, though they used a battering ram to enter Breonna's apartment. This demonstrates why we should be highly skeptical of the information contained in cpdb tactical response reports.

Viz 1: Home invasion word cloud

We created a word cloud from the summaries as a way to explore common themes throughout the summaries. We first split all of the words in all of the 269 summaries into their own row in a table.

The following specifies the parameters of the data used (also listed in the README): The bigger the word, the more often it appears in summaries. You can hover a word to view this frequency. In our custom SQL statement, we filtered for words that are greater than 3 characters long, transformed all words to lowercase, filtered to words that appeared 50 or more times, and finally, we removed the following words from the dataset: when, they, were, with, them, that, their, while.

Observations. This visualization ended up being less insightful than intended, though there are some notable observations to be made. For example, we can see words like "dragged," "pushed," and "threatened" have a high frequency. We can also get a feel for the potential context surrounding an invasion through the presence of words like "drugs" and "guns." Also notable is the size of the word "warrant." While this is likely contributed by summaries that say "with a warrant" as well as those that say "without a warrant"

this indicates that our planned NLP strategy will likely be possible, as there is likely a large proportion of summaries that mention the word (233 total mentions).

Room for improvement. Using this sort of a dataset proved somewhat difficult to clean up enough in order to create a useful word cloud, as the summaries include prepositions, punctuation, and more. We effectively cleaned things up to an extent, but there is room for improvement. First, we could combine the plural version of a word into the singular so they are not represented twice (e.g., officer = officers). Second, we should filter the words to adjectives, nouns, and verbs to get rid of more words that we did not exclude yet, like "while" and "this."

Viz 2: "What victims were doing when. . . " wordcloud

Breonna Taylor was in her bed in the middle of the night when the police entered her home using a battering ram. We created a word cloud to represent, like in the previous sentence, what victims were doing when their home was invaded.

The following specifies the parameters of the data used (also listed in the README): The larger the size of the text, the larger the settlement amount was. The colors are arbitrary and simply serve to make the word cloud more readable. You can hover over each entry to view the total settlement amount. When browsing the Settling for Misconduct interface, we noticed that many of the summaries were written in the format, "[victim] was [doing something] when [the police entered their home]". Thus, we exploited this observation to extract substrings of the summaries that did follow that structure. We also filtered down to summaries that were between 2 than 100 characters (not inclusive) to clean out some substrings that were mistakenly grabbed.

Observations. This visualization confirmed a suspicion we had when browsing the home invasion summaries on the Settling for Misconduct interface. We noticed many where the victim was completing some completely mundane action at the moment their home was invaded, which is a powerful way to realize the complete absurdity and unacceptableness of the situation. I once saw a billboard that did something similar, listing out "Ahmaud Arbery: going on a run," Breonna Taylor: sleeping," etc. Our visualization does this, but on a larger scale and localized to the Chicago area.

What we see are disturbing examples of the innocent actions people were engaging in when the police invaded their home. For example:

- In the kitchen of his brother's home eating lasagna
- Getting dressed
- Letting her dog outside

This visualization really does speak for itself.

Room for improvement. The "was. . . when" criteria worked really well but was not foolproof. For example, there is an entry that reads "investigating the whereabouts of two cocaine dealers," which clearly describes what an officer was doing, not what a victim was doing.

Viz 3: Settlement expenditure dashboard

One of our goals with this project is, in addition to the impact on people's lives, to also demonstrate the financial cost of home invasions to the CPD, as that would be an incentive for them to prevent future home invasions.

Observations. We can immediately see that millions of dollars are spent each year on home invasion settlements. However, there does not seem to be any clear trend in any of the three graphs. This makes sense, as settlements can vary greatly in size. There could be the same number of home invasion settlements in two given years, yet their bars could drastically differ if one of the years was a collection of $10,000 settlements versus $5M settlements in the other year.

Room for improvement. The type of chart (bar) does not seem to do this justice. Because of the $15M settlement of 1993, the rest of the bars end up being quite squashed even though most of them represent

multiple millions of dollars.