

CHICAGO CRIME

Zachary Safir

Part 1: Story Map

Data Set

For this story I would use the City of Chicago's crime data (located [here](#)). It reflects reported incidents of crime (with the exception of murders where data exists for each victim) that occurred in the City of Chicago from 2001 to present, minus the most recent seven days. It is a publicly accessible data set offered by the City of Chicago itself. The data is extracted from the Chicago Police Department's CLEAR (Citizen Law Enforcement Analysis and Reporting) system. In order to protect the privacy of crime victims, addresses are shown at the block level only and specific locations are not identified.

This data set is trustworthy as it comes from the city itself, rather than coming from a separate entity that could be influenced to alter the data. As mentioned above, some information is not provided due to concerns for privacy. There is also a disclaimer stating as follows: "These crimes may be based upon preliminary information supplied to the Police Department by the reporting parties that have not been verified. The preliminary crime classifications may be changed at a later date based upon additional investigation and there is always the possibility of mechanical or human error. Therefore, the Chicago Police Department does not guarantee (either expressed or implied) the accuracy, completeness, timeliness, or correct sequencing of the information and the information should not be used for comparison purposes over time.". This is important to keep in mind, especially with this data set containing over six million observations.

There are many relevant variables in this data set that can be used to create an interesting story. The first one being the date variable. As you might imagine, it gives the date the crime occurred. This variable contains the year, month, day, and even the time when an incident occurred. Each piece alone can be used to find different and interesting trends. I will go into more detail later in this paper about some of those uses.

The next relevant variables are best used together. They are called primary type and description within the data. The first variable gives a general label for the type of crime, such as gambling, robbery, assault, arson. The description fills in more details about the crime that occurred.

Finally, within this data are a variety of different location data that can be used to figure out where each crime occurs within Chicago. We have block, which gives a partially redacted address where the incident occurred, placing it on the same block as the actual address. A variable that tells you the general location the crime occurred, whether within a residence, on the street, at a gas station so on so forth. Then we are given a ward variable that lets you know which ward the crime occurred in. Ward being how the Chicago city is split up into different neighborhoods. Finally, we are given coordinates that let you easily map out the location where each crime occurred, shifted slightly again but still on the same block.

Story

With this data there are various stories that can be told. Chicago is one of the biggest cities in the U.S, while simultaneously having one of the highest crime rates. There is a high number of shootings that occur every year in Chicago. According to [this](#) news article, that gets updated weekly, as of right now in April of 2019, 604 people have been shot in Chicago. According to [this](#) article, during one weekend alone, in August of 2018, 66 people were shot. There is a clear problem of violent crime occurring in Chicago.

With that in mind, it would be interesting to cover a story following different violent crimes, like gun violence, over time. Explore how the crime rate has changed over time within Chicago and try finding any trends within that. I will report on what other crimes are most common as well. I will also find and detail how different factors lead to certain crimes occurring.

Overall, it will be story looking into different trends within the crimes of Chicago and how it impacts the lives of those who live there. Exploring outside the data, part of story will be about the possible problem of gang violence, and education problems within Chicago. I will gain more information on the people of Chicago itself, and what their experiences living within the City are like.

My news article will be targeted towards residents of Chicago. Potentially as well, those who are interested in visiting Chicago. For the people of Chicago, becoming more aware of the crimes occurring within their own city might help lead them to work towards making change happen. Hopefully the story I produce will act as a wake-up call for the entire city. Those who live in safer areas of the city might not realize how bad the crime problem is, and this story will hopefully alert those people. For many in Chicago though, they are probably already well aware of what is going on. If anything, maybe my story will make them more conscious of where crimes commonly occur so they will better know what places to avoid so that they can keep safe. For people planning on visiting, knowing what parts of the city are safe to explore can be important for their safety as well.

Analyzing the Data

The data has some missing data, but other than that it requires no further cleaning or transforming. The variables included work without any further changes needed.

In finding the various trends mentioned in the previous section, I will devise some questions here to help guide the story.

Starting with the first variable mentioned in this paper, the date, these are some important questions to answer. How has the crime in Chicago changed from year to year? Are certain crimes more likely to happen during certain months? Are there certain days of the week where crimes are more likely to happen? Is there a time of day where crimes are most likely to happen? Using the date and crime info variables, these questions will be simple to explore.

For the crime info variables, some important questions will be as follows. Which category of crime is most common? Are crimes involving guns the most common? What other crimes are big within Chicago? Are violent crimes, involving murder, common? Also, using an additional column called arrest which tells if you if the crime ended with an arrest, we can see what it takes to for a crime to warrant an

arrest. We can also see how many violent cases were properly closed with the arrest of a suspect; this topic can lead into an entirely different story though.

For the location variables, I can look to answer even more questions. What wards (neighborhoods) have the most crime. Does the location affect what crimes occur? Has the crime in certain areas changed over time? In what locations are crimes most likely to happen? Are there certain roads, or blocks where there is an especially high rate of crime?

Outside data can be used to further explore some of the trends in this data as well. For example, using weather data and linking the crimes up with the temperature and weather conditions on the day each crime occurred, I can explore two new important factors. How both temperature and weather conditions effects crime rates. Would a higher temperature lead to more, and more violent, crimes to occur? Does rain deter crimes from occurring, or even encourage burglaries? Do more domestic crimes occur on rainy days? Are cloudy days different from sunny days? These are just a few of the many more questions this outside data would allow me to explore.

Human Sources

The human resources I would likely use would come from [here](#). The Institute for Policy Research (IPR) seems to be a trustworthy source of public policy research that gathers together experts from different fields. The three IPR experts mentioned in this article are political scientist [Wesley Skogan](#), sociologist [Andrew Papachristos](#), and economist [Jonathan Guryan](#). Each and every one of these people are experts on the problems occurring within Chicago. They can each offer a great amount of insight into the reasons for why these problems exist. They can also explain possible solutions they might be currently researching.

Wesley Skogan holds a joint appointment in Northwestern University's Institute for Policy Research. He has written two books on the policing in Chicago *Police and Community in Chicago: A Tale of Three Cities*. New York: Oxford University Press, 2006, and *Community Policing, Chicago Style*. New York and London: Oxford University Press, 1997 (with Susan M. Hartnett).

I would likely ask him questions about those books. Such as, what his opinion is on the current way policing is handled in Chicago, and why it isn't preventing all the violent crimes that occur. What is currently failing? How could the police work towards making Chicago a safer place? Is that currently happening? To name a few questions I could ask him.

Andrew Papachristos is researching the evolution of black street gangs and politics in Chicago from the 1950s to the early 2000s. He is also involved in policy-related research involving the evaluation of gun violence prevention programs in more than a dozen U.S cities, including Chicago.

There is a lot of valuable information I can gain from Andrew Papachristos. Starting with, what are the main points in the evolution of street gangs of Chicago? According to his research, the evolution of these gangs shaped the city itself. With that in mind, it would be interesting to get more information about how exactly that happened. Is the result of this one of the main reasons for all the violence that occurs in the city?

Then, I would like to explore gun violence in Chicago with him. What his general thoughts are on the gun problem in Chicago. Then find out how it compares to other troubled cities in the U.S. Figure out what the city has been trying to do, if anything, to fix the issue. Is there anything that needs to change?

What needs to happen, something that could be realistically done, for Chicago's gun violence to become less of a problem? These are but a few of many questions I could ask him. Learning more about gangs and the nitty gritty details about the gun problem will be very important information for my story.

Finally, we have Jonathan Guryan. He is currently researching how to improve academic outcomes for disadvantaged adolescents within Chicago Public Schools. He is working in partnership with SAGA Innovations and the Chicago Public Schools. Guryan and his Education Lab colleagues have shown that providing individualized, one-on-two math tutoring for an hour a day during the regular school day can substantially improve outcomes for youth.

He is also working towards fixing a major cause of homicides in Chicago. This being from altercations that turn into tragedies due to someone overreacting to a provocation. These provocations are often very minor, while the response seems very impulsive and almost automatic. Guryan is working with a program called Youth Guidance's Becoming a Man (BAM) which works to use cognitive behavioral therapy to help youth slowdown in high-stakes situations.

I would ask him questions about the link between the education problem and crime. Such as, how much does the lack of proper education influence crime? How much of an impact does your program have on the overall population of students in Chicago? How are you planning on making sure all students have proper access to this program? Will this program help prevent crime and if so, how much would you think it does?

In regard to the BAM program, it seems to have a lot of success. I would like to know more about how it all works. How the program began, was there any inspirations for it, and how it might change in the days ahead to further improve the end goal of getting students to react better to provocation.

Visuals

There is a myriad of different visuals I could use in my news article. Depending on the focus of each section, there can be a different visual for each part. I will likely start with a broad focus and get down to nitty gritty details as the story progresses. For the broader focus section these are some strong visuals I could likely use to convey my story.

Using the ward information from the data, the different neighborhoods of Chicago, I can map out the distribution of crimes in each area with a gradient displaying clearly the number of crimes in a given ward using a choropleth map. I would likely look at each year individually, and first see if there were any changes, or trends occurring over time.

If the crime concentration in most neighborhoods stays relatively the same over time, I would focus on emphasizing the potential growth of crime in each area and point out which places are the most dangerous in Chicago. This would show the reader clearly how crime is distributed within Chicago, as well what areas they should truly avoid.

In the case of a trend appearing I would go about this process a bit differently. Some such trends as crime spreading out from certain areas or transferring from one neighborhood to another. In the case of this, I would try looking into the reason for this occurring. If it turns out to have an interesting reason for occurring, I would make sure I point that out in the visual, and in the final story.

Another visual I would likely use, is one for gun violence. Starting with a simple line graph displaying the number of gun related crimes over time. I might put other lines showing the trends of other common crimes occurring in Chicago. This simple graphic would be very effective in conveying a growing trend of gun violence within the city, highlighting the need for change my story will be advocating for.

Part 2: Reflection

The parts of this class that focused on how to use R were a great refresher for me. I haven't had a proper chance to use many of the packages we went over for a long while. With my familiarity of the material, I also had room to explore new ways to approach data analysis. I found new ways to integrate different packages together to get results. Such as in the second challenge assignment, where I was able to mix dplyr and stringr together to efficiently make a new column for the broader category for different player positions.

This class has been a great learning experience for me as well. While I have plenty of experience analyzing data, using it to tell real life stories was something I did not know how to do well. Prior to this class I only ever learned how to use data to find meaningful business insights, health related correlations, and statistical analyses.

In this class I got to put what I knew to the test and push it in new ways. I have never had a chance to learn about journalism before this class, so everything we learned about data journalism was new and fresh to me. The style a journalist writes a story in is completely different from any other writing form. Learning how to translate what I saw in data, into this new writing style was very jarring for me at first. I feel like I can get better at it though with more practice.

In addition, learning how to supplement what is seen in the data with the real-life experiences of people was very cool to me. It gives a new dimension to what is happening within data. Giving it real life context makes the trends that occur within the data, seem so much more familiar. Instead of just being a concept that exists in numbers, confirming the existence of a trend through people's experiences is very exciting.

For how journalism should be used, I don't know for sure. I would say it's the same as before, act with integrity and with the goal of reporting something happening in world without letting your bias cloud the story. I don't feel like my thoughts about that were challenged or changed by what we learned in class.

As for how I can apply the knowledge I learned to my future goals, my honest answer is that I do not know. I am not a journalism major, and I do not know if what I will do in the future will involve any of what we learned in class. With that being said, I now have a better appreciation and understanding for data journalism articles I come across. I now have a proper criterion to judge those articles, so that I can understand the information presented in a more informed way. I feel like this skill will possibly come in handy someday, maybe.