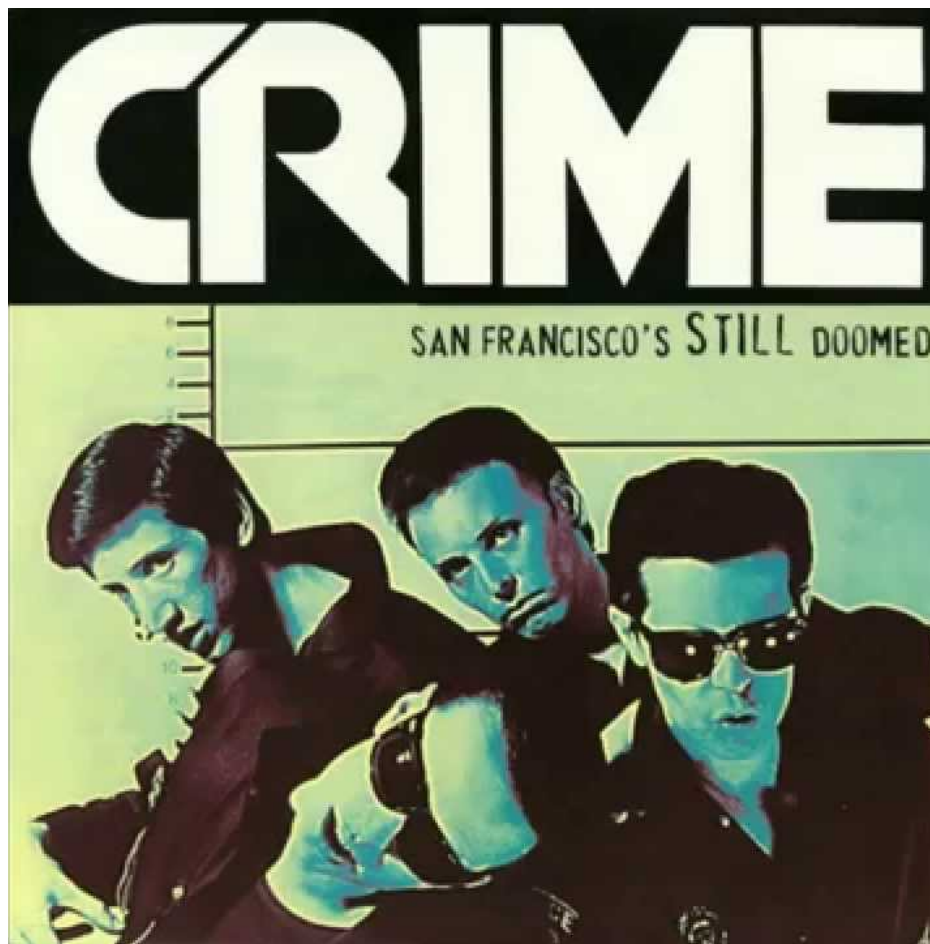


# Crimes in San Francisco

– A Carto visualization by group D



Link to Carto: <https://jonashellevang.carto.com/builder/254d481d-e282-47d8-90cb-10e64c8e259a/embed>

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## Dataset

For this assignment we have used 4 different datasets:

- **Crimes in San Francisco:** In order to make this dataset easier to work with, we decided to do feature creation to have a range of values for the severity of the crimes.
- **Zip-Code Shapefile**
- **Zip-Code Income**
- **Location of Police Stations**

## Layers

### Layer 1 – Severity of Crime

For this layer, we used the crimes dataset and the new column we created based on our personal opinion of how severe a crime is. Homicide will, for example, be of value 5, while crossing the street on a red-light value 1. From this, we created point with size based on the value of severity, as well as opacity equals to 1 for the most severe crimes, and 0.2 for the least severe crimes. We also chose the color red because crime is dangerous. It does not tell you much right now, but if you zoom in and interact with our widgets you will be able to see some clear differences.

### Layer 2 – Number of Incidents

Here we can see what areas have the most crime regardless of the severity. We have used a scale of color from the least amount of crime (white - purity) to the most amount of crimes (red - dangerous). We also made it transparent with an opacity of 0.85 to be able to see some of the other layers we have created better.

### Layer 3 – Police Stations

There are 10 police stations that we have placed based on their location with the shape of a police station and the color white. We chose white because white can be interpreted as pure and innocent, and that is who the police are fighting for.

### Layer 4 – Zip-Code Gridlines

This layer is a shapefile to mark the areas for the different zip-codes. This is connected to the next layer in that sense for you to be able to filter and focus on different zip-codes when you zoom in.

### Layer 5 – Average Income per Household

Lastly, we have the average income per household per zip-code. Here we also have the population, San Francisco- and national income rank that all is broadcasted to the viewer when hovering over it. We have illustrated this with a dollar-sign icon that varies in size based on the income for the area. It is also colored black due to wealth.

## Storytelling

As a first step, it makes the most sense for us to add the grid lines of the zip-code (layer 4) before adding the police stations (layer 3) to the map. From this, we can see that the police stations are placed very close to each other and keeping that in mind we can add the next layer. We start off by adding severity of crimes (layer 1) to see where the most severe crimes are located, if this view is not satisfying, we can focus on the most severe crimes (valued 5)

from the widgets. If you want to investigate certain months of the year you can use the widget “Month of Crime”, or if you want to analyze certain types of crime you can do that also. Going back to the main view we can remove the first layer and add the number of incidents (layer 2). Here we can see that most crimes are in the same areas and that every police station is either placed on or around an area of a high density of crime. We can also add the last layer (layer 5) to see that areas with little crime also has a low average income per household, and by hovering over the dollar sign we get information such as population, average income per household and rank of income compared to other zip codes in san Francisco and nationally.

## Improvements

If we had more time, we would love to have connected all the datasets to make them interact with each other. As there were no common column values for zip-code and location of the crime, we were not able to create this link between the datasets. Although we tried using Dataiku, we were not able to install the add-on properly and do this quick fix of changing coordinates to addresses.

We also wanted to check how good the placements of the police stations are based on a travel buffer, but somehow managed to run out of credits on our accounts to do this analysis.