

Motivation:

Crime has become a growing national issue, but an understanding of its actual rates, what causes it, and how to best deal with it, are still opaque to many Americans. We hoped to inform people of the facts of the current rates and types of crime, and analyze it through two important factors: the general demographics and socioeconomic status of the cities, towns, and counties where crime takes place (giving details on what crime happens where), and the police presence in these areas (what kind of measures do the police take, and what is the correspondence between police staffing and crime rate in their area of authority). By doing so, we wished to illuminate what parts of our current crime response structures are effective at dealing with it, and what should be tweaked for a safer America.

User Stories:

Some of the customer suggestions we've taken to improve the website in terms of usability include modifying and left justifying the navigation to bring it more in-line with the web standard, as well as adding a footer with basic information about the website's source. We've also improved the interconnectivity of the site by crosslinking the police departments' profiles to the city pages with which they are associated. Finally, we've improved the functionality of the schema for the API, by implementing a way to query police stations by a certain city, providing a good example for other web developers seeking to develop their own APIs.

Models:

As stated above, our primary focus is on crime, and so that is the most important model. Some of the data points that can be sorted by in the main table are the type of offense, the time/location of the crime, details about the offender, and for each crime, further data such as details of the victim, any relation between the victim and offender, and broad modifiers such as the involvement of drugs, weapons, or a hate crime bias. These crimes, of course, do not exist in a vacuum, they occur in cities/towns, and they are reported and addressed by police, which form the other two models. The information on cities is fairly standard: we have the location, many general demographics such as population, size, income, ethnic make-up, land use, and rural/suburban/urban. More pertinent to this project, we have links to crimes committed in a given city, as well as to the police departments that have jurisdictions associated with the city (while most cities have one, this is not always the case). Finally, we analyze police departments with statistics such as the number of officers, civilian officials, the number of arrests made, the region/county they cover, and crimes that they handled, thus completing the interaction of the three models.

Tools: We've used a variety of tools for this project, chiefly Postman, to develop the API that will later be used to scrape the databases to populate our city/crime/police pages. Those databases include the FBI's Crime Data Explorer, and its other databases on police employment, and the U.S. Census's broad demographic data, arranged by city. For designing the style of the website, we used Bootstrap to implement the CSS. Finally, we've used Gitlab to manage version control for the site, and manage the information on the About Us page.

Hosting: We are using Amazon Web Services to host crimstats.me, and the domain name was obtained from Namecheap.