

Bellevue University, Bellevue, NE

Hate Crime in US in 2020 and its associated factors

Project Report

For

DSC 680 Applied Data Science, MSDS

Submitted to:

Prof. Catherine Williams

Bellevue University

Submitted by:

Yograj Karki

Summer 2022

Problem Statement

At the federal level, hate crime laws include crimes committed based on the victim's perceived or actual race, color, religion, national origin, sexual orientation, gender, gender identity, or disability. Hate crime laws have been passed by 47 states and the federal government since the 1980s. Today, only Arkansas, South Carolina and Wyoming do not have hate crime laws.

This data Project is aimed at analyzing the different kinds of hate crimes, their occurrences based on various time periods and US states.

Objectives

1. To analyze the crime data descriptively
2. To gauge the scope and nature of hate crime in United States of America
3. Assess the associated factors with different types of hate crimes
4. To detect any correlation between different variables of the dataset

Research Questions

1. What States and Cities have higher and lower hate crime rates?
2. What kind of hate crimes are the most prevalent?
3. What race is more targeted for hate crime?
4. What kind of offence does hate crime accompany with?
5. Were Asians most hated race in during pandemic (Year 2020) in America?
6. Is hate crime rate in US Possession regions (eg. Puerto Rico, Virgin Islands etc) similar to other country regions?
7. Is there any correlation between time (day of the week, month, season) and hate crime?
8. Does hate crime occur mostly on holidays and weekends?
9. What kind of place (park, restaurant, street etc.) is highly attributed for hate crime occurrences?
10. What race does the offenders belong to?
11. Are the victims usually individuals or group of people?

Data Source

Dataset is downloaded from Crime Data Explorer website using the option to download the entire master file dataset by type of crime and year. For this study, only the data of year 2020 has been utilized

Federal Bureau of Investigation, Crime Data Explorer
<https://crime-data-explorer.fr.cloud.gov/pages/downloads>

Methods

The project is mostly focused on exploratory data analysis. However, there are various statistical tests to test the hypotheses the study has initially brought up.

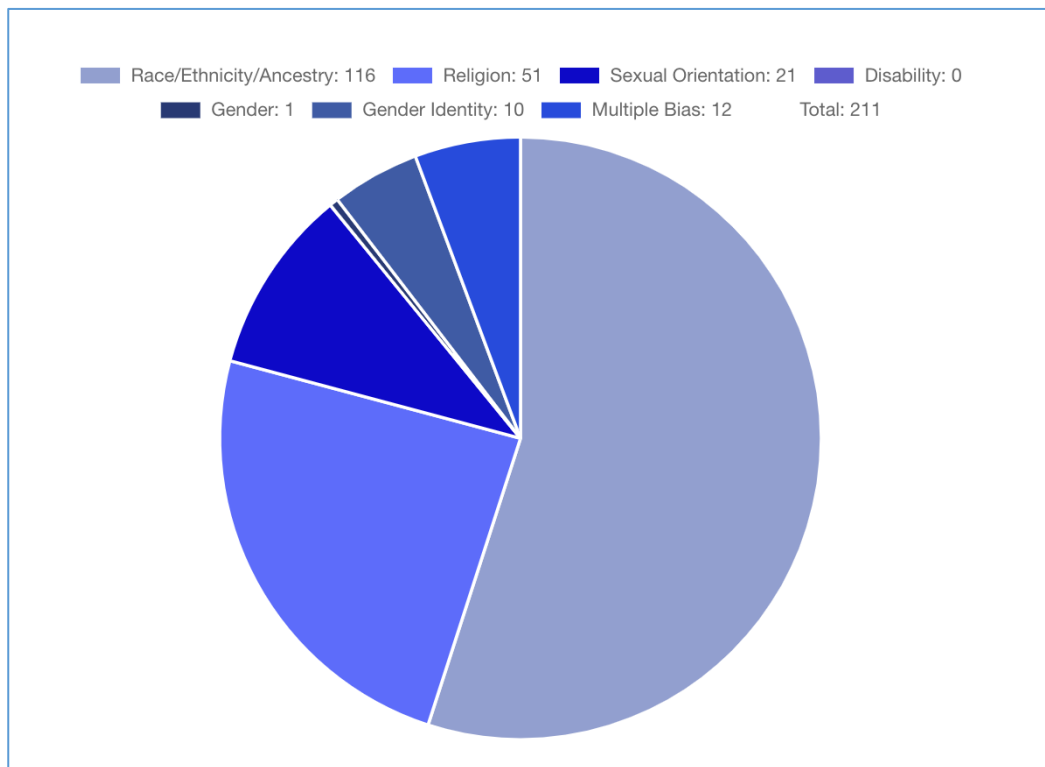
Tools

Python is the programming language to run the data analyses and statistical methods. Various libraries such as numpy, pandas, seaborn, plotly etc. are being used as per necessary to answer the research questions and visualize the data outputs.

Results

Hate Crime Bias

The major bias for hate crime has been found to be again Race and Ethnicity.

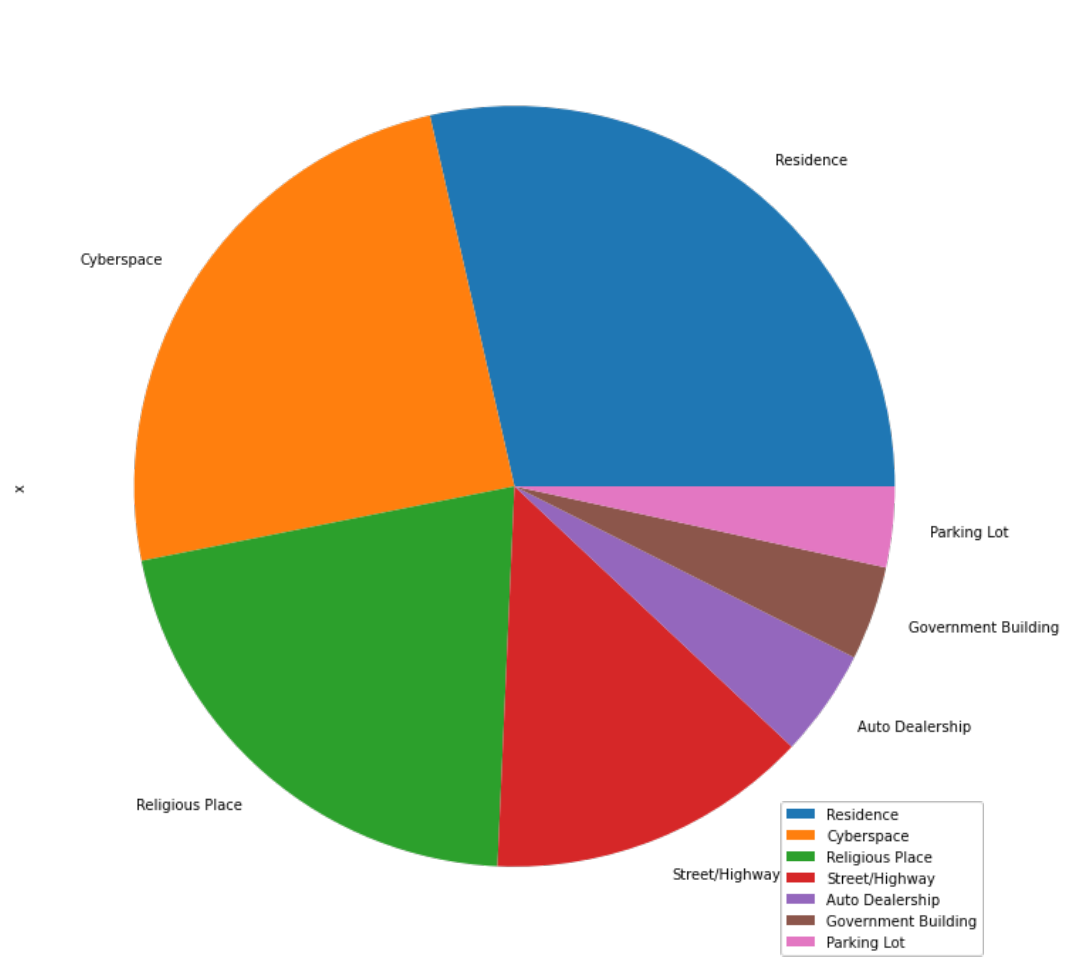


Types of Offense

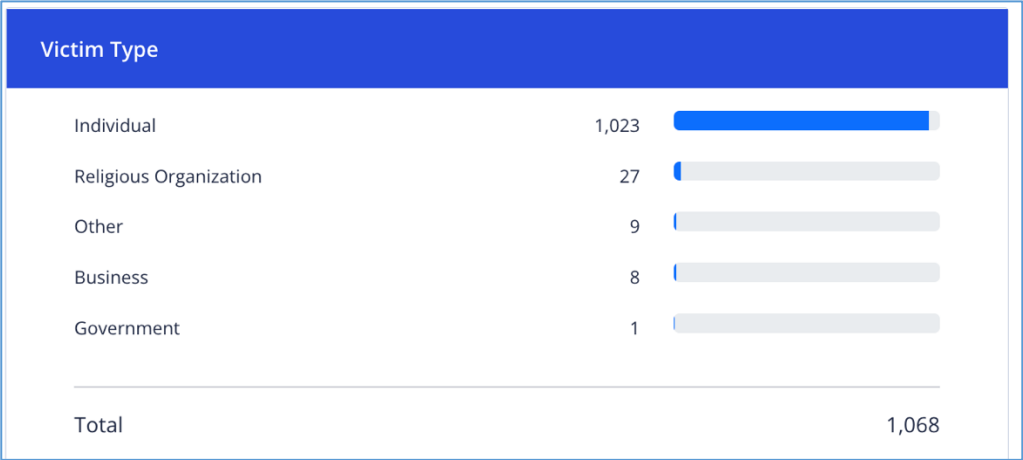
The table below shows the main types of offense involved in the hate crime. The majority of offense was recognized as Intimidation followed by Aggravated Assault to the victim.

Offense Type		
Intimidation	863	<div><div></div></div>
Aggravated Assault	69	<div><div></div></div>
Destruction/Damage/Vandalism of Property	43	<div><div></div></div>
Arson	16	<div><div></div></div>
Murder and Nonnegligent Manslaughter	13	<div><div></div></div>
Total		1,018

Location of Hate Crime



Types of Victim



Ethical Considerations

The results this study is going to produce is purely motivated by informational and educational purposes. Results only do not reflect any kind of biases towards any race, color, religion, sexual orientation, or disability.

The hate crime data was made available to the public at any time in the FBI's website, so there's no issue of privacy and copy rights. Dataset was downloadable by anyone not requiring any request or consent.

The dataset itself does not have any confidential, sensitive, and private information on any individual, group, or agency regardless of them being offenders or victims.

The dataset or the results will not be manipulated to skew the results or cause wrong impressions to the audience.

The results of this study will be submitted to the corresponding academic body of researcher's university and will be made public online via GitHub repository.

Challenges/Issues

Dataset is believed to represent the tip of the iceberg only. Although, the FBI has been gathering information on hate crimes from law enforcement departments and organizations all throughout the country since 1990, participation in the bureau's annual reporting program is still voluntary, which makes it impossible to determine the precise number of hate crimes. There are more than 18,000 agencies in the United States and more than 3,000 did not submit their crime statistics in 2020.

This project is focused on the hate crimes of year 2020 only. If there were more time allocated for the project, comparative study of past years would have been more prolific.

Another hypothesis that could be tested was the negative influence of presidential election on hate crime rate.

Potential Uses of the Final Report

- help understand the situation of hate crimes in the country
- help law enforcement address issues for their communities
- provide lawmakers with justification for certain legislation
- supply the media with credible information
- show hate crime victims that they are not alone

References:

1. <https://crime-data-explorer.fr.cloud.gov/pages/downloads>
2. <https://www.justice.gov/hatecrimes/learn-about-hate-crimes>
3. <https://www.cnn.com/2021/08/30/us/fbi-report-hate-crimes-rose-2020/index.html>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441947/>
5. <https://ejournal.org/news/fbi-reports-hate-crimes-at-highest-level-in-12-years/>