

## Analysis of Hate-Crime Statistics

Before the 2000s and After the 2010s

Figure 1

# Data science for POLITICAL Science

## **ABSTRACT**

How have the rates of racist hate crimes changed throughout the years nationwide; has it decreased? Has hate crimes against specific groups increased while overall numbers decrease?

Using a before and after comparison of the 1990s and 2010s, I found that while they had significantly decreased since the 90s, they had been rising in recent years.

I think it's important to analyze how much things have changed in the last 20-30 years and how they are trending differently in more recently years.

## **BACKGROUND**

Research Question: How have certain types of hate crimes changed between specific decades and also more broadly throughout the years?

Importance: Social movements and policies are made and supported by data and statistics to bolster their arguments. A model of this data can help conceptualize the various conclusions that are pulled from it.

**Background:** Here are some previous scholars who have developed forecasting models on this topic and the variables I have analyzed.

- Regression Models (Yan Zhang, et.al 2022)
- Descriptive Statistics for Hate Crimes by Motivation by Year (Campbell, 2019)

#### Contribution/Hypotheses

- I expect that overall racial hate crime has gone down between the 1990s and now.
- Possible assumptions would be that the decrease is due to policy/social progress and not simply a lack of reporting.
- I intend to explore patterns related to when spikes are present and if rates of hate crime compared to other minority groups both under the category of "race-based" and not.

## DATA AND METHODS

#### DATA

- The dataset is "hate\_crime.csv" and comes from the FBI's crime data explorer.
- There are 219,577 rows; each row contains information about a hate crime incident, such as the year it occurred, the state where it occurred, and the type of bias involved
- I used three variables; type of bias, year, and average rate per year.
- The variable for "race-based" hate crimes includes and is limited to "Anti-Black or African American", "Anti-White", "Anti-Jewish", "Anti-Hispanic or Latino", "Anti-Arab", and "Anti-Other Race/Ethnicity/Ancestry".
- The variable for years is 1991-2020. For comparison purposes I analyzed specifically the 1990's and the 2010's
- The variable for Anti-LGBT hate crimes includes "Anti-Gay", "Anti-Lesbian", "Anti-Trans", and "Anti-Gender Non-Conforming"

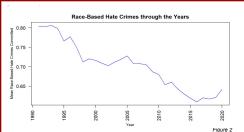
Hate Crimes	During the 1990s	During the 2010s	Difference in Means
Race-based	62366 instances	47873 instances	-0.1197549
Anti-Asian	3178 instances	1719 instances	-0.0154594
Anti-LGBTQ	10926 instances	13853 instances	0.0513657

#### APPROACH

### Difference in Means Comparison: "Before and After"

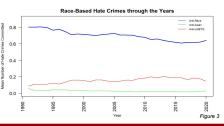
- I found the difference in means of race-based hate crimes during the 1990s vs during the 2010s.
- My dependent variable was the rate of race-based hate crimes.
- Independent variable was time.
- Figure 1 shows the number of hate crimes committed for each category during each decade examined.

### RESULTS



- Figure 2 compares the number of race-based hate crimes committed per year.
- For a "Before and After" comparison, we must assume that there is no confounding time trend.
- However, something else may be changing over time that is affecting these results outcome (Events to consider could include the COVID-19 Pandemic).

- This model shows the variable category "race-based" changed over time.
- I also looked into specific minorities (both within and without the category "race-based") to compare the overall trends.
- I was able to further isolate certain groups and even use the same method to see the visual difference in means in racial bias vs other bias' (Figure 3)
- Based on this, I was able to show a more comprehensive view of societies prejudice and racism.



## **CONCLUSIONS**

What these three graphs and their data show is that hate crimes regarding race have been decreasing however in recent years such as 2019-2020 they've been rising. The inverse is true for Anti-LGBTQ hate crimes; they've been rising overall however in more recent years they've been falling.

What this says about our current society is that while we have progressed some, however it seems we are beginning to backslide a little hit

Of course, this does not take into account the number of crimes that go unreported. we simply do not have those reports so the actual numbers may be different since we cannot include what we don't know. It also does not account for what various precincts count as a "Hate Crime", so reportings can be skewed.

## **Works Cited**

Zhang, Yan, et al. "Hate Crimes against Asian Americans - American Journal of Criminal Justice." *SpringerLink*, Springer US, 7 Jan. 2021, <a href="https://link.springer.com/article/10.1007/s12103-020-09602-9/tables/3">https://link.springer.com/article/10.1007/s12103-020-09602-9/tables/3</a>

Campbell, Shawntozi. *The Prevalence of Hate Crimes Motivated by Sexual Orientation in Florida After the U.S. Supreme Court Legalization of Same-Sex Marriages*, Nova Southeastern University, Ann Arbor, 2019. *ProQuest*, <a href="https://login.proxy.libraries.rutgers.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fprevalence-hate-crimes-motivated-sexual%2Fdocview%2F2247281396%2Fse-2%3Faccountid%3D13626.">https://login.proxy.libraries.rutgers.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fprevalence-hate-crimes-motivated-sexual%2Fdocview%2F2247281396%2Fse-2%3Faccountid%3D13626.

Hate Crime Data <a href="https://crime-data-explorer.fr.cloud.gov/pages/downloads#datasets">https://crime-data-explorer.fr.cloud.gov/pages/downloads#datasets</a>