

APRIL 2019

# RISE OF HATE CRIME IN THE UNITED STATES

An Analysis of 2007-2017 FBI Data

Crime motivated by prejudice on the  
basis of race, religion, sexual  
orientation, or other grounds.

Prepared by Project Team 8  
Cristalle Pronier  
Shivam Patel  
Michael Malig  
Deepak Gupta



# ABOUT HATE CRIME

The United States has seen a significant increase in hate crimes with 2017 seeing a 17% increase over the prior year. Across the country, hate crimes occur in varying forms across a multitude of types of public and private places. Hate crimes are differentiated from non-hate crime by the motive of the perpetrator. Hate crimes are motivated by bias against a specific group based on characteristics such as race or ethnicity, gender, religion, sexual orientation or disability status. Hate crimes are further defined separately from hate incidents, which include non-criminal acts such as hate speech and displaying hate sentiment on one's own property. Hate crimes are the escalation of hate incidents with involve destruction of a victim's property, intimidation, assault or other forms of violence.

## RESEARCH GOALS

Using the FBI crime data explorer API, our goal is to measure the rate of hate crimes within the United States over the past eleven years. We analyzed them to better understand how and where they occurred, and which places, populations and geographical locations were at greater risk.

Overview of research questions:

1. What is the annual trend of hate crimes from 2007 – 2017?
2. What are the most frequent offense types in hate crimes?
3. Where do hate crimes occur most frequently?
4. What is the monthly fluctuation of hate crime rates?

# DATA & API SOURCE

FBI Hate-Crime data 2017 (crime incidents records for 1997 – 2017 )

[http://s3-us-gov-west-1.amazonaws.com/cg-d4b776d0-d898-4153-90c8-8336f86bdfec/hate\\_crime.zip](http://s3-us-gov-west-1.amazonaws.com/cg-d4b776d0-d898-4153-90c8-8336f86bdfec/hate_crime.zip)

US Govt portal

<https://api.usa.gov/crime/fbi/sapi/>

We used below endpoints to collect additional inputs for state's total crime and population data:

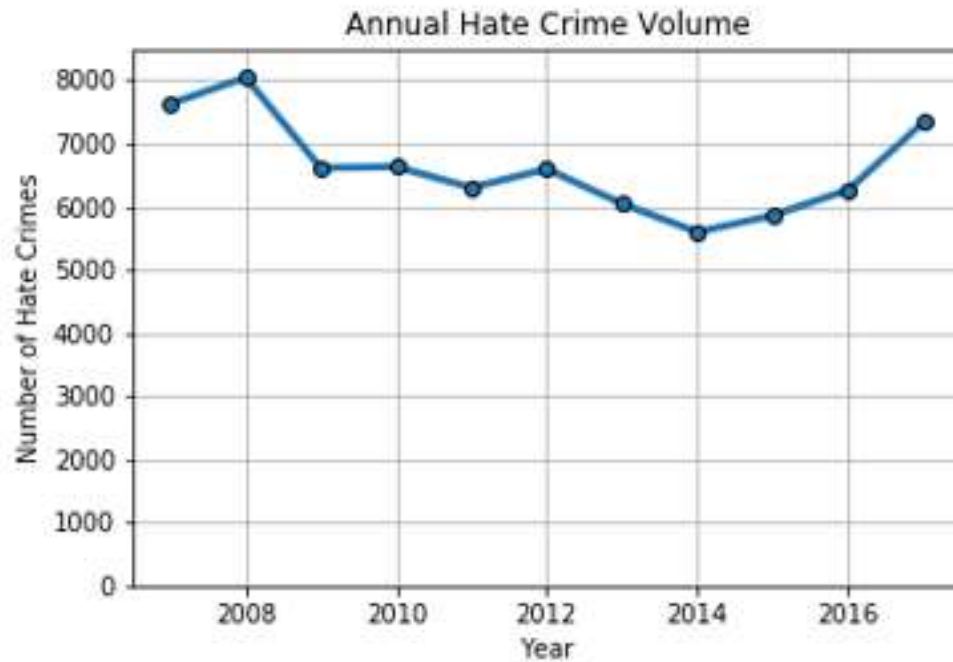
- /api/participation/agencies/{ori}
- /api/summarized/agencies/{ori}/offenses/{since}/{until}
- /api/estimates/states/{state}/{since}/{until}

API info available at <https://crime-data-explorer.fr.cloud.gov/api>

## DATA CLEANING

To process the FBI's published hate crime data we converted the read csv file into a Pandas data frame. We deleted all records prior to our analysis timeframe. The dataset was further cleaned to drop non-useful columns and rename columns. Columns containing bias description, offense name and crime location contained ~ 100 unique values as combination of multiple categories, split into individual category columns and major groups formed for analysis. The incident date column converted to datetime -month for seasonal analysis. Lastly, the total crime numbers and states population estimates were collected as JSON response through API calls, saved into python dictionaries and converted to pandas dataframes.

# Q1: WHAT IS THE ANNUAL TREND OF HATE CRIMES FROM 2007 – 2017?



**17%**

Rise last year

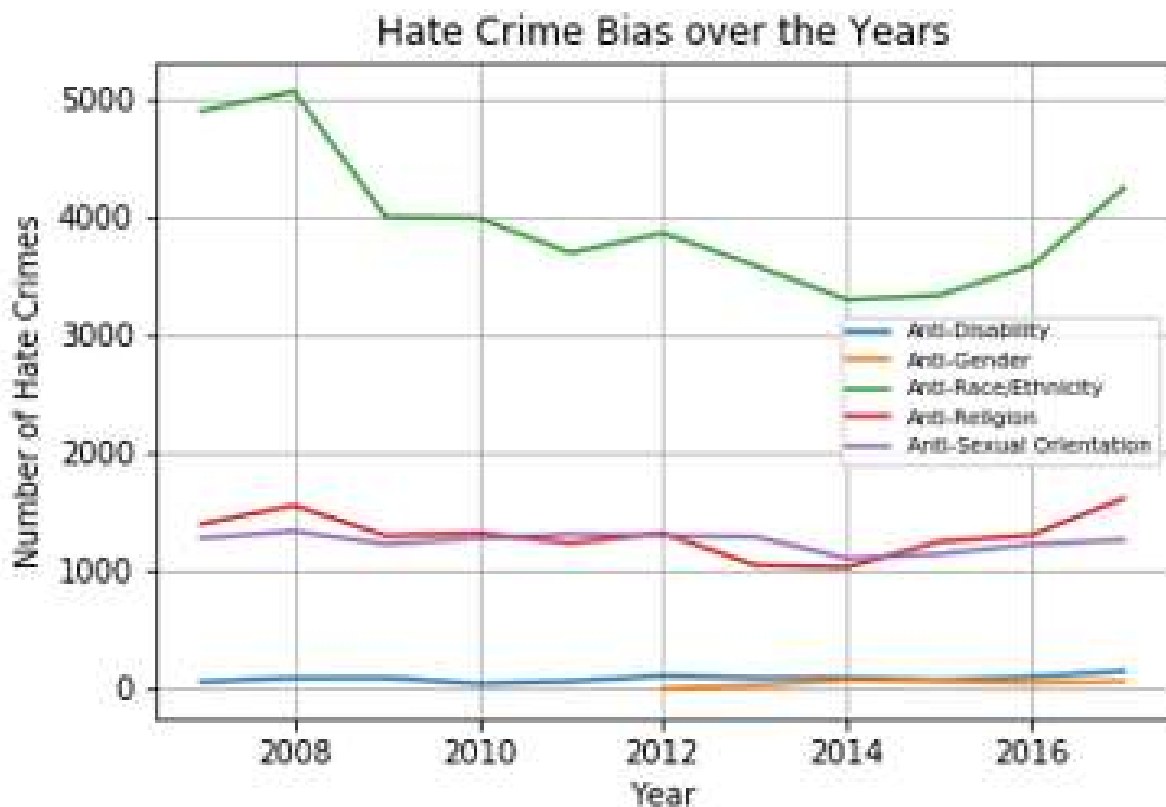
*While hate crimes peaked in 2008, 2017 saw a sharp 17% rise over 2016. This rise continues from an upward trend from 2014.*

# EXAMINING HATE CRIME BIAS TYPE

**“An attack motivated by hate against one of us is an attack on all of us. We must strive to make California a place of tolerance — hate crimes have no place here,” said Attorney General Becerra.**

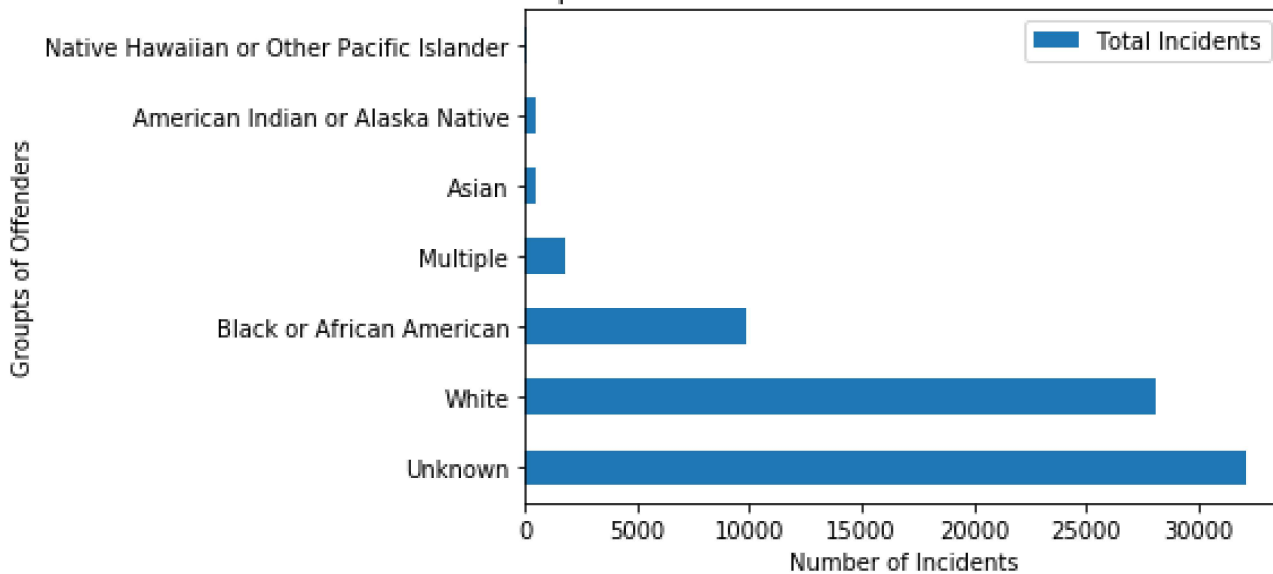
*Hate crimes motivated by Anti-Race/Ethnicity is the most common type of bias motivation and closely matches the overall trend of incidents.*

To better visualize this data point we recoded the bias description variables in order to reduce the number of categories reported. For example, "Anti-Jewish" and "Anti-Muslim" were combined into the boarder category "Anti-Religion." Note that "Anti-Gender" did not become an official reported category until 2012.

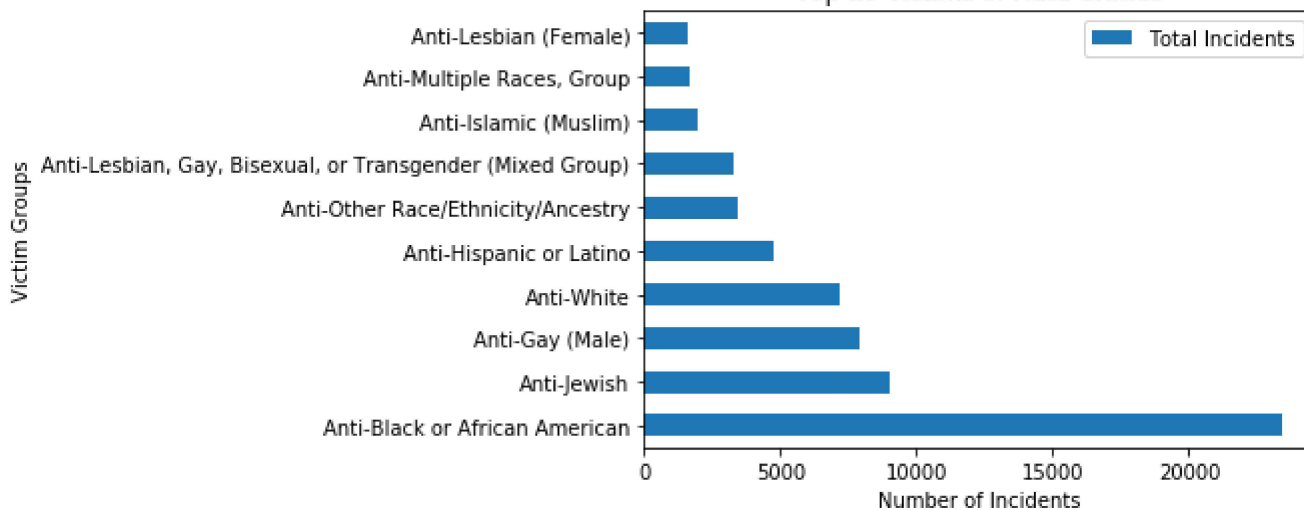


# OFFENDER & VICTIM CLASSIFICATIONS

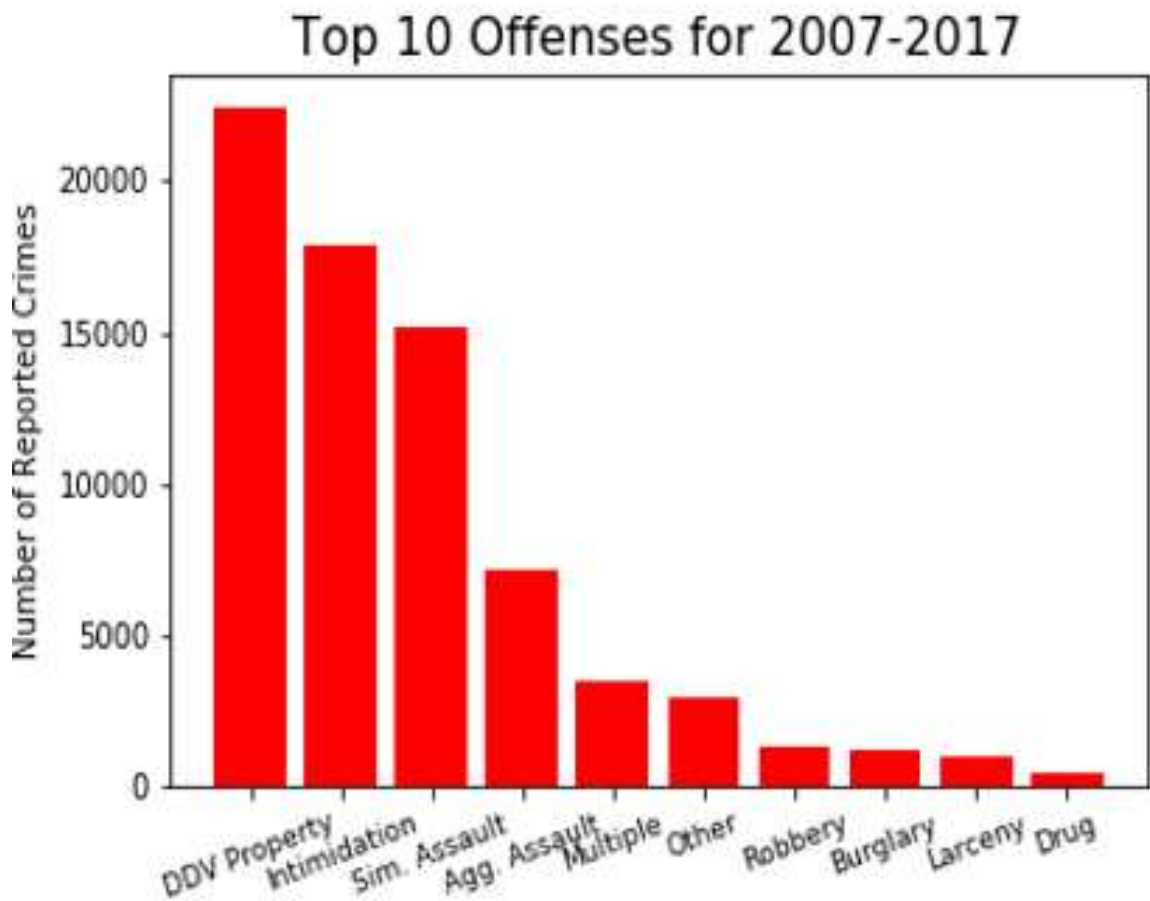
Top 10 Offender Classification and Number of Incidents



Top 10 Victims of Hate Crimes



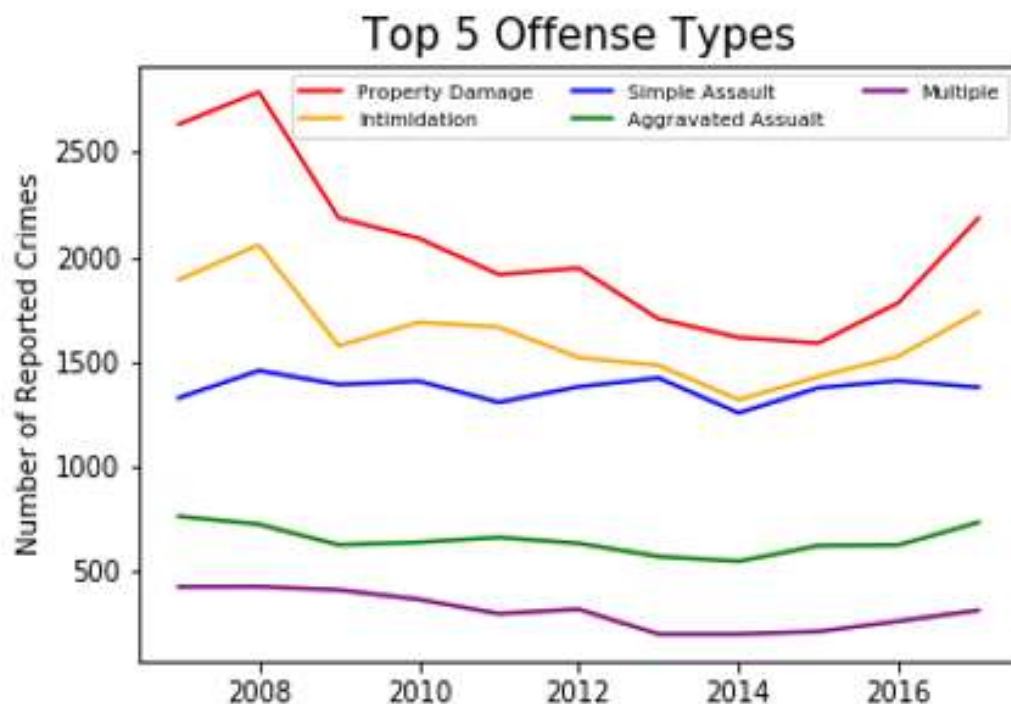
## Q2: WHAT ARE THE MOST FREQUENT OFFENSE TYPES IN HATE CRIMES?



- Original dataset contained 47 unique offenses
- Recoded the smallest categories into “Other”
- Recoded records with more than one category as “Multiple”
- The majority of hate crime involves damage/destruction of property, intimidation and assault.



# EXAMINING THE TOP 5



1

*Four of the top five types saw an increase in 2017.*

2

*The top two offenses most closely mirror the overall numbers and drive the trend.*

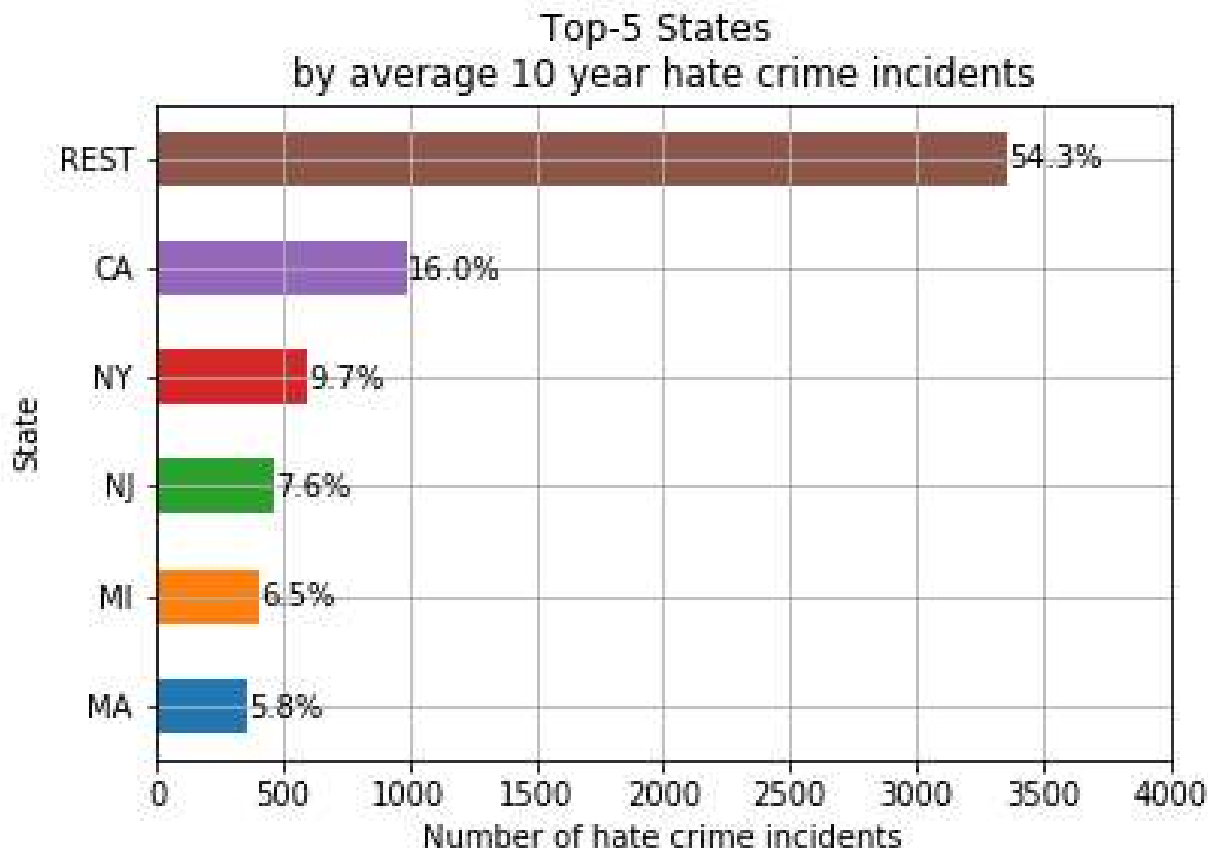
## HIGHLIGHTS

Property damage, destruction and/or vandalism remained the highest reported offense type across all years. Threats of violence and assault remained the next most common types. Note that aggravated assault tends to involve weapons whereas simple assault tends not to involve weapons. The simple assault trend line leveled off last year while the rest continued on their upward trend.



# Q3: WHERE DO HATE CRIMES OCCUR MOST FREQUENTLY?

Exploring geographic locations and location types

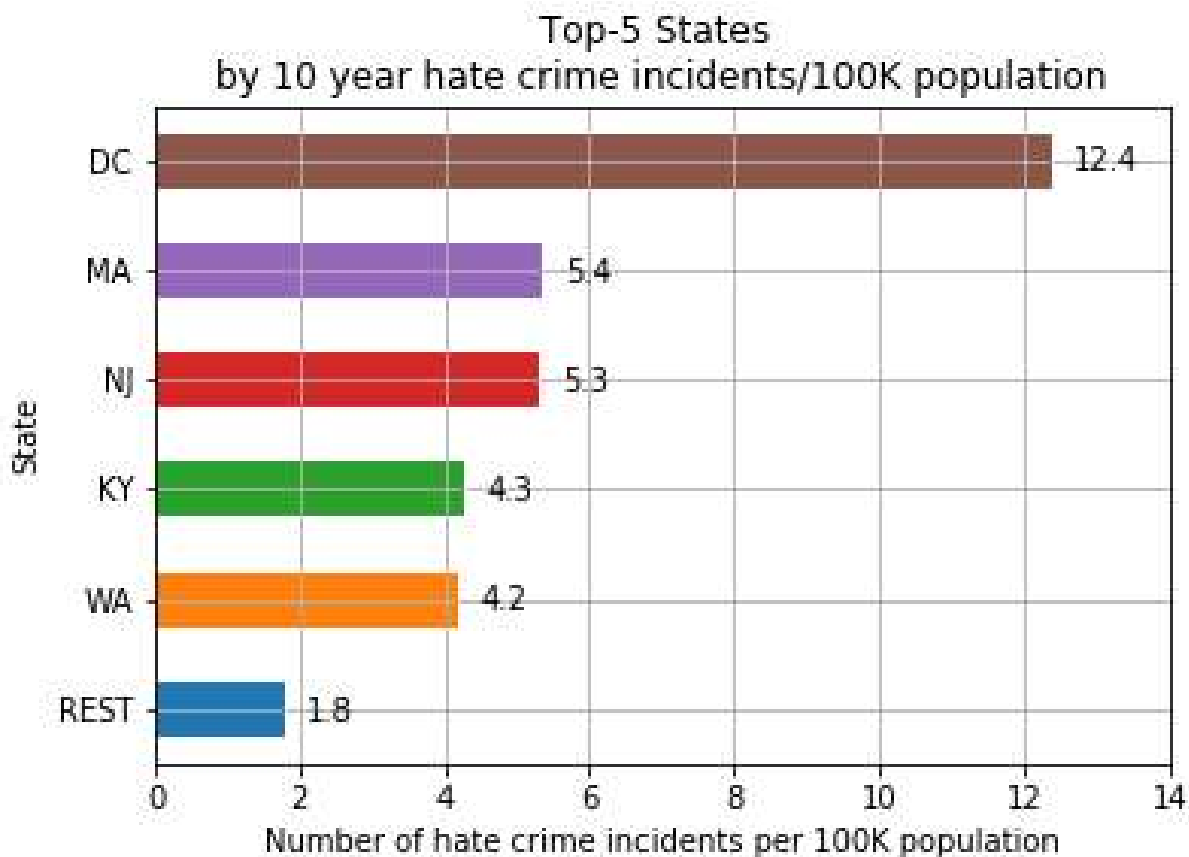


1. California
2. New York
3. New Jersey
4. Michigan
5. Massachusetts

**These represent total numbers and do NOT account for population size.**

# PROPORTION OF HATE CRIME BY POPULATION SIZE

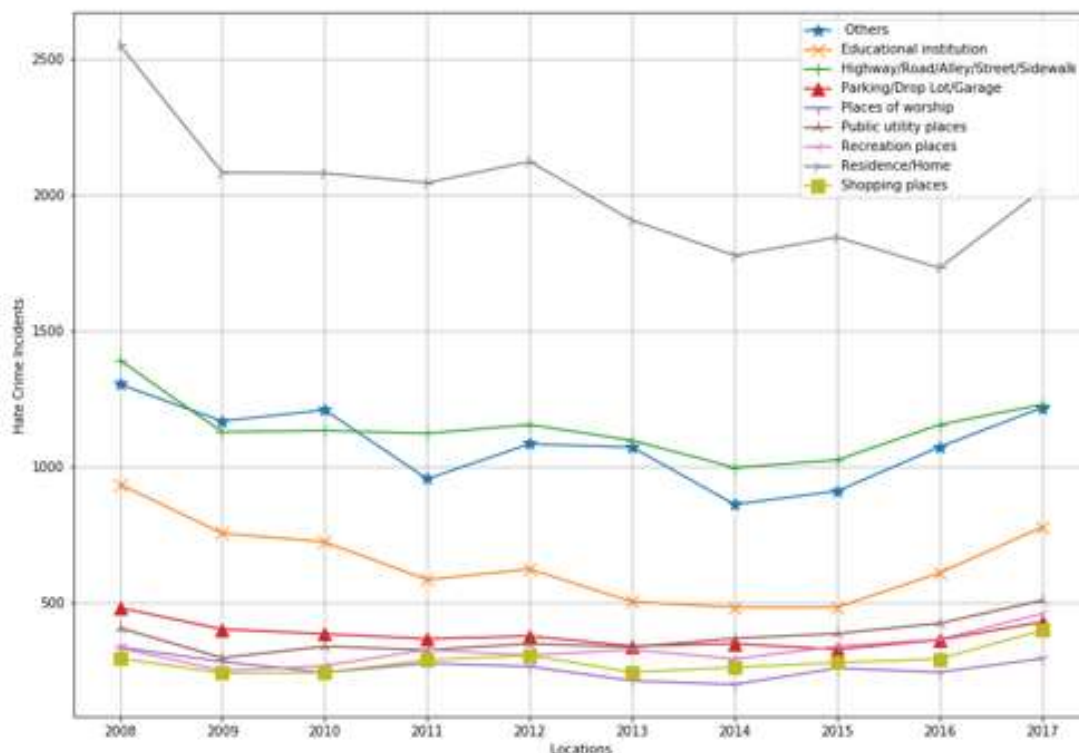
With substantial population differences between states, examining the data by population size is imperative.



1. Washington DC
2. Massachusetts
3. New Jersey
4. Kentucky
5. Washington

# TYPES OF LOCATIONS WHERE HATE CRIMES OCCUR

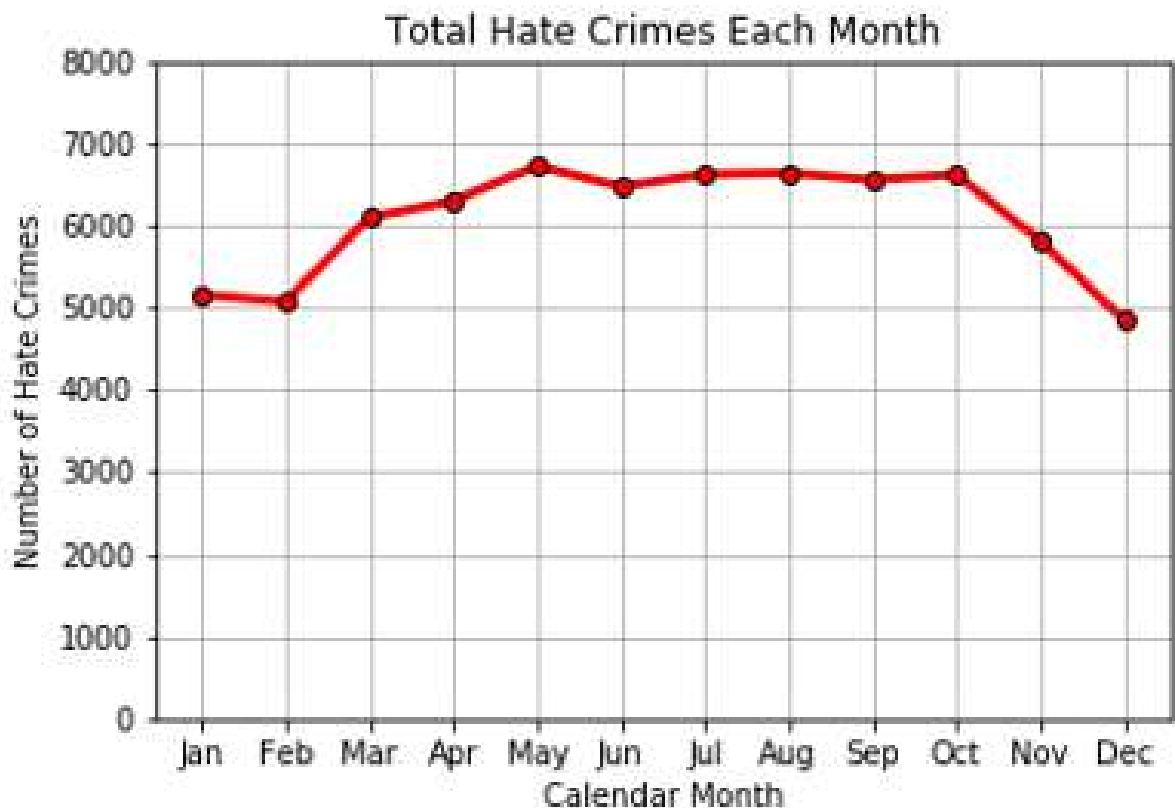
The most common location of hate crime is in or near a home/residence followed by streets and roadways in public.



*Knowing where hate crime victims are more likely to be targeted can help in implementing prevention techniques and increase safety in higher risk areas.*

# Q4: WHAT IS THE MONTHLY FLUCTUATION OF HATE CRIMES RATES?

Looking at seasonal trends in hate crimes



- Occurrences will generally see an increase as the year progresses. Reaching a high during the early parts of summer.
- The aggregate totals show that May is the peak month of hate crimes in recent years.
- Hate Crimes are marginally lower during the holiday season (Nov - Feb)

# MONTHLY CHANGE OVER YEARS

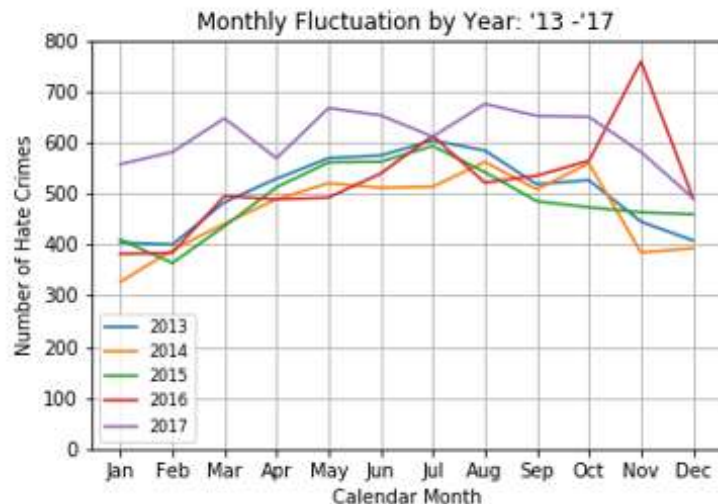
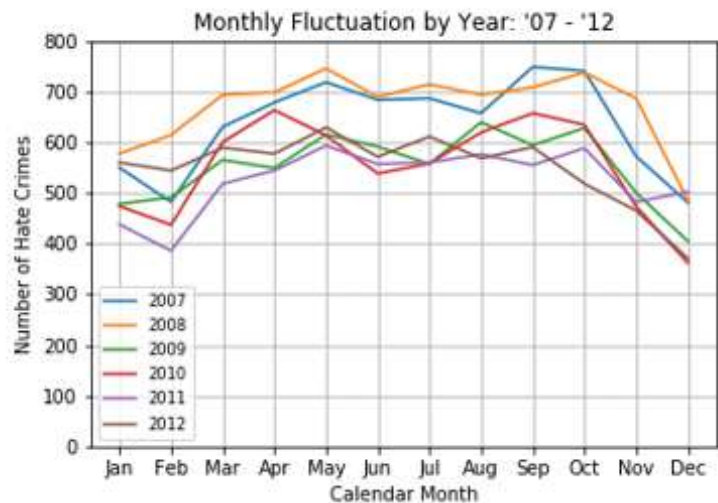
**November 2016 saw the  
largest single increase**

1

*Each year seems to follow the same  
trend line with the exception of a  
few monthly spikes.*

2

*Most significant monthly increase  
occurred Nov 2016 and  
subsequently the largest monthly  
decrease on Dec 2016*



Monthly seasonal trends of the number of hate crimes reported is relatively stable over the period examined. There are a couple of notable peaks in the data.

# CONCLUSION

## FBI Reported Hate Crime Data

1

After showing an overall decrease after 2008, hate crimes are at a high point in 2017.

2

A majority of hate crimes hold Anti-Race/Ethnicity related motivations with religion and sexual-orientation sharing an even percentage after.

3

The largest concentration of hate crimes occur in largely populated areas such as California and New York

4

Most hate crime offences involve property damage or threat of violence, occur in the Residence/Home more than any other location and tend to decrease in the winter months.

*While law enforcement agencies push for more comprehensive and efficient reporting, some amount of increase may be attributed to better reporting practices rather than an absolute increase in hate crime.*

*Under reporting by victims of crime is a common limitation in all crime data. Removing barriers to reporting is essential to capturing the real number of incidents.*

# RESOURCES & REFERENCES

- **FBI most recent hate crime data:** <https://ucr.fbi.gov/hate-crime/2017>
- **For information about crime reporting from the Bureau of Justice Statistics:** <https://www.bjs.gov/index.cfm?ty=dcdetail&iid=301>
- **Details on NIBRS data collection and reporting (will become future standard):**  
<https://www.fbi.gov/services/cjis/ucr/nibrs>
- **California 2017 Hate Crimes Report:**  
<https://openjustice.doj.ca.gov/resources/publications>
- **California Preventing Hate Crimes Brochure:**  
[https://oag.ca.gov/sites/all/files/agweb/pdfs/civilrights/ENG\\_Preventing\\_Hate\\_Crimes\\_Brochure\\_PL\\_INT\\_ADA.pdf](https://oag.ca.gov/sites/all/files/agweb/pdfs/civilrights/ENG_Preventing_Hate_Crimes_Brochure_PL_INT_ADA.pdf) text

**Team Project 8 is made up of these number ninjas:**

**Deepak “The CS Sage” Gupta**  
**Michael “The Visualization Wizard” Malig**  
**Shivam “The Data Detective” Patel**  
**Cristalle “The Social Scientist” Pronier**