

A close-up photograph of a dark-skinned hand with the index and middle fingers extended in a raised fist gesture. The hand is set against a solid black background. On the back of the hand, the letters 'BLM' are painted in a light, chalk-like substance. The lighting highlights the texture of the skin and the details of the hand's position.

#BLM

UNDERSTANDING THE RELATIONSHIP BETWEEN DEATHS FROM
POLICE SHOOTINGS AND RACIAL INEQUALITY THROUGH DATA

THREE QUESTIONS

1

Are there any identifiable correlation between deaths and demographic?

2

Is there a trend between deaths and firearm purchases in the US?

3

Does media coverage affect the shootings in the preceding months?

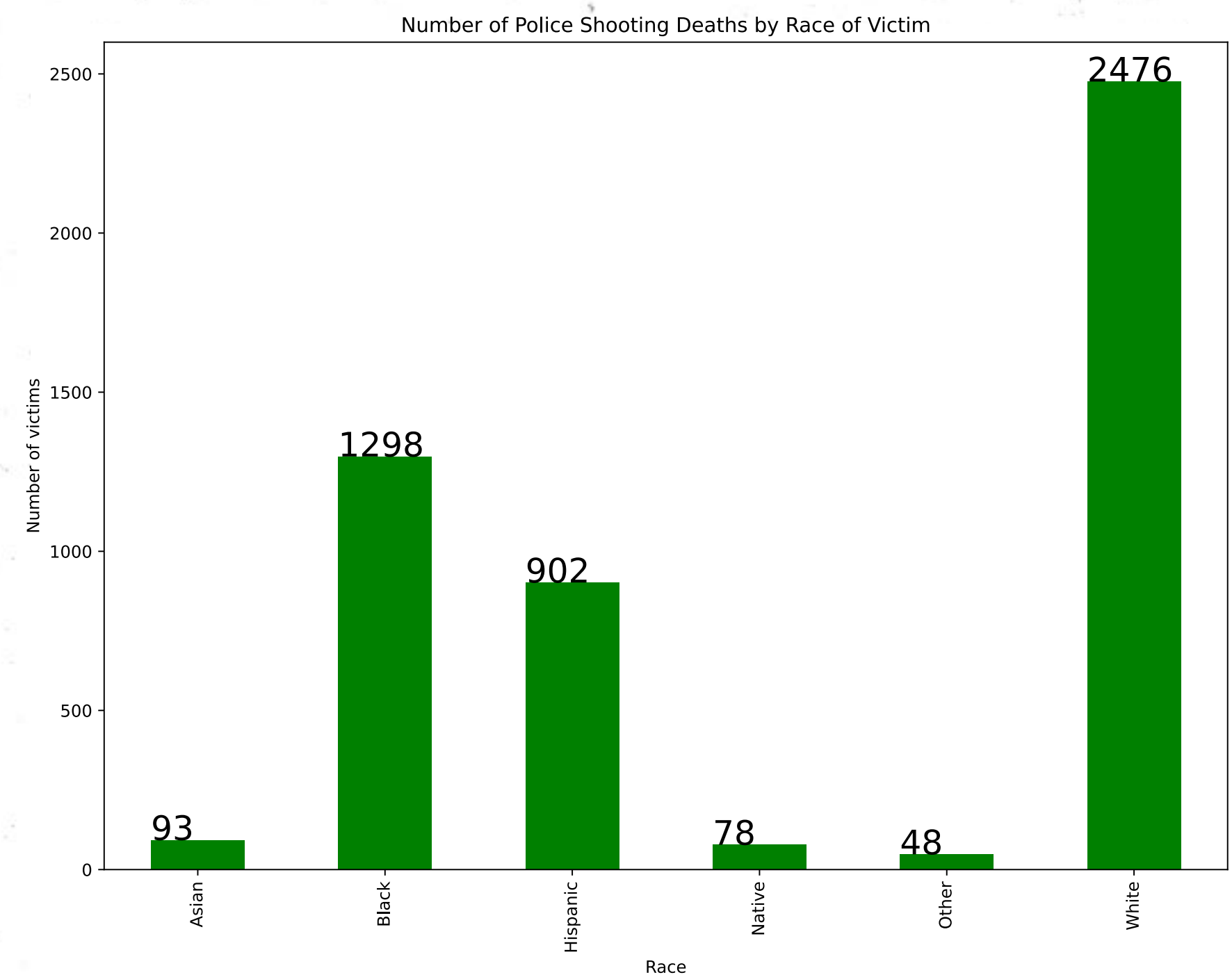
DATA SOURCES

1. Kaggle dataset on deaths from police shootings in the US
2. Kaggle dataset on US protests
3. ATF dataset on background check for firearms in US
4. US Census API
5. NYTime API
6. Google API for geolocation data

ETL

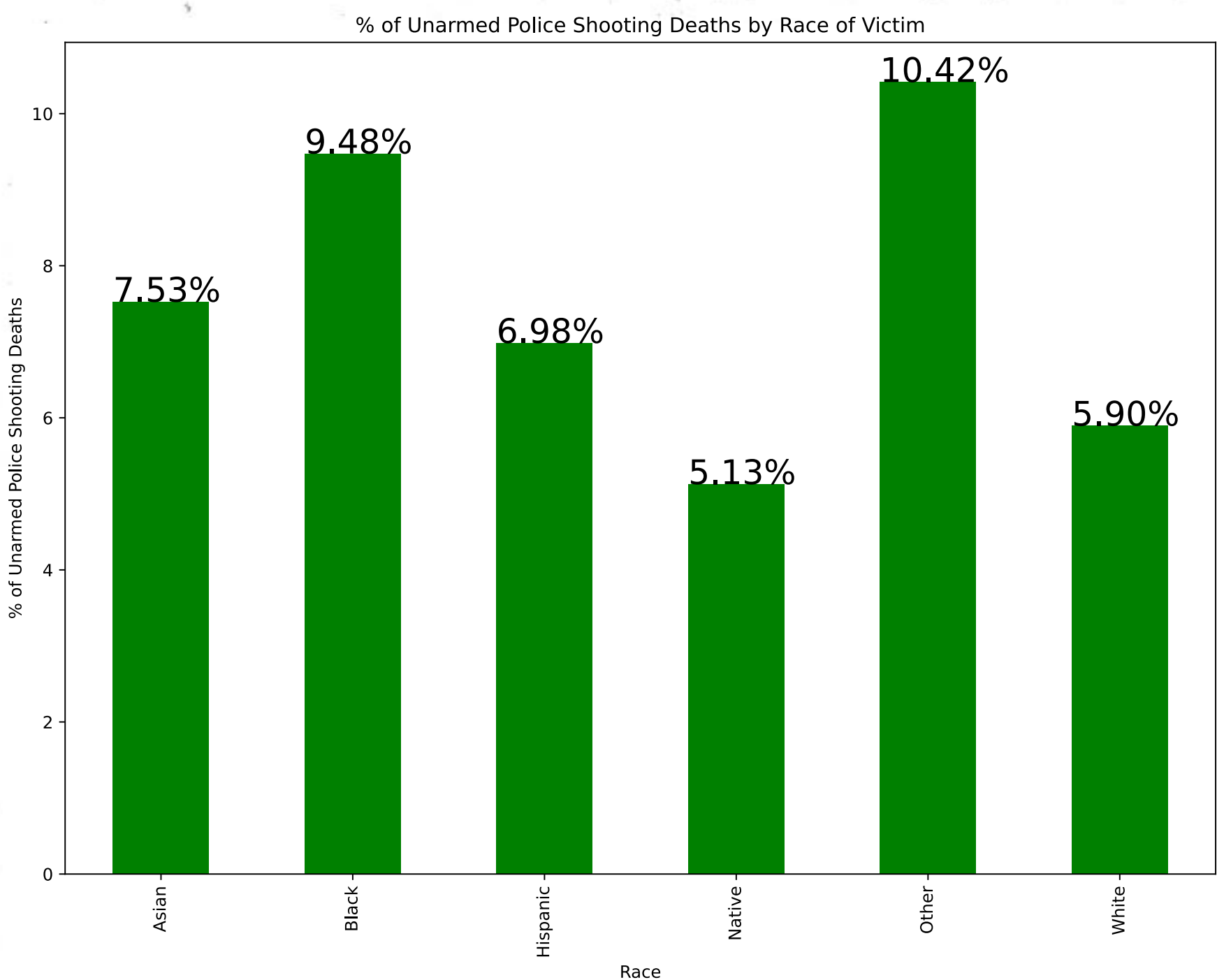
1. Consistent location format
2. Cleaning date information and ensuring consistent axes
3. Extracting race information

SHOOTING VICTIMS BY RACE



CHI SQUARED VALUE = **5,702.8**

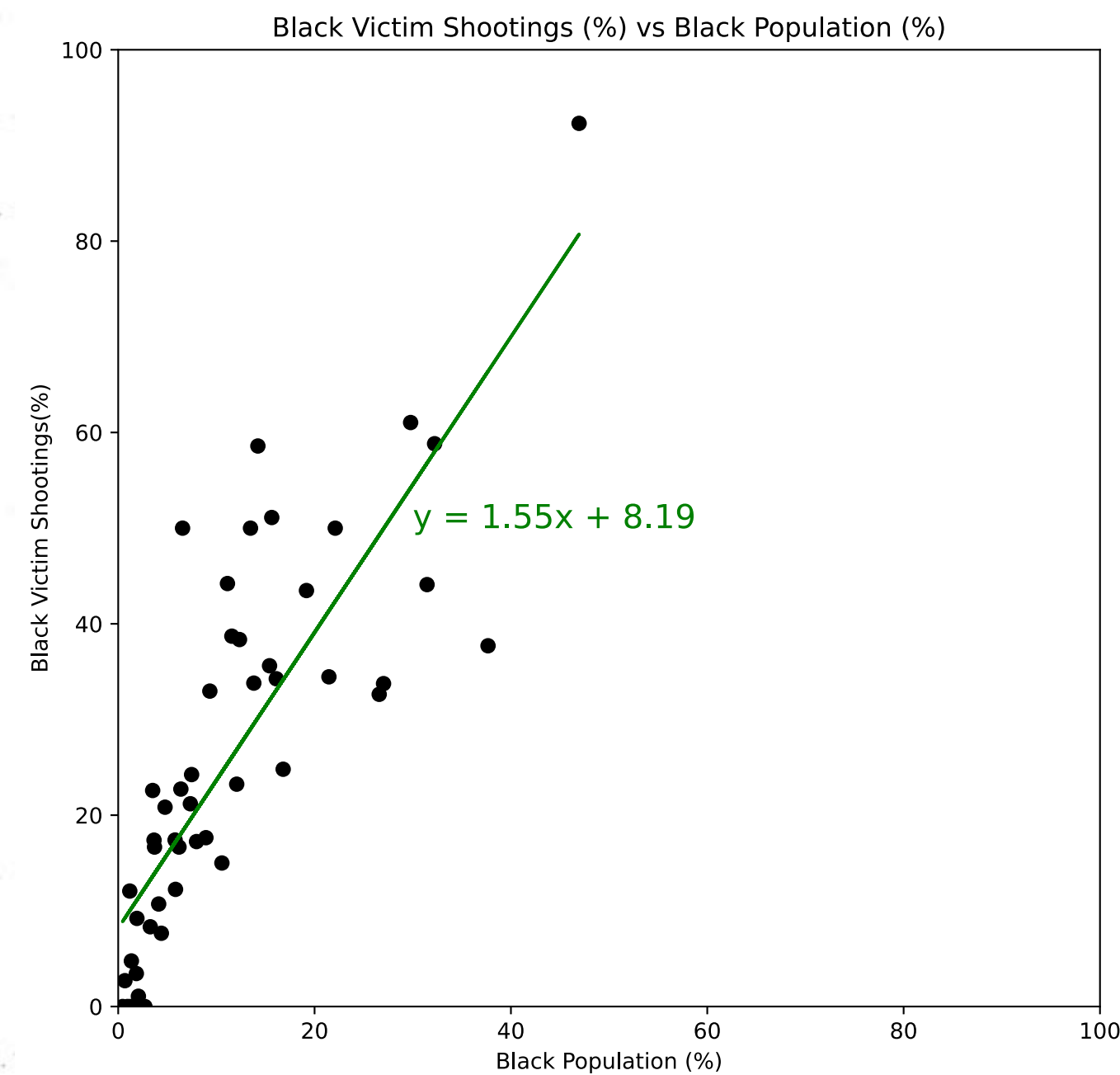
CRITICAL VALUE = **11.1**



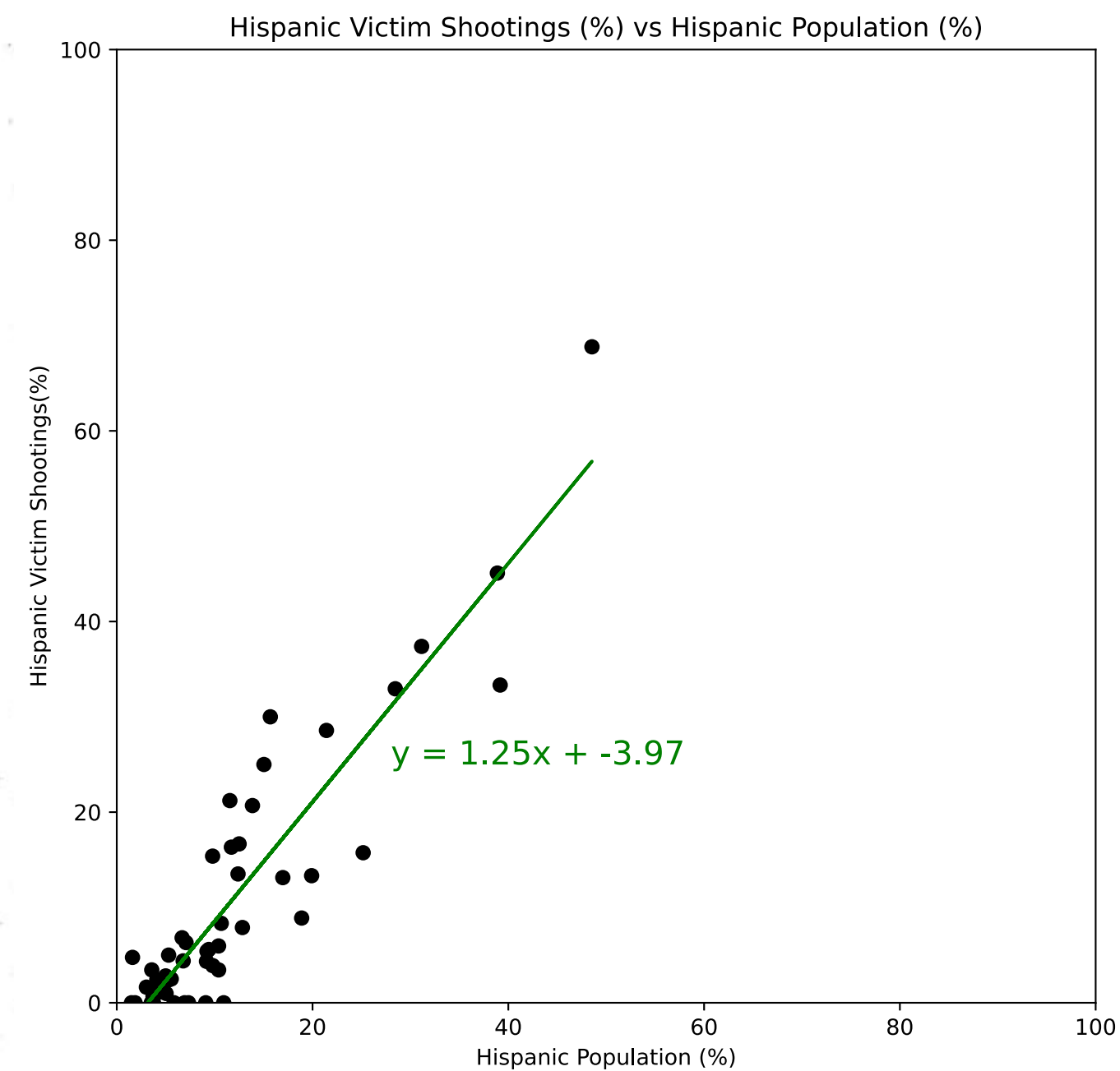
CHI SQUARED VALUE = **350.3**

CRITICAL VALUE = **11.1**

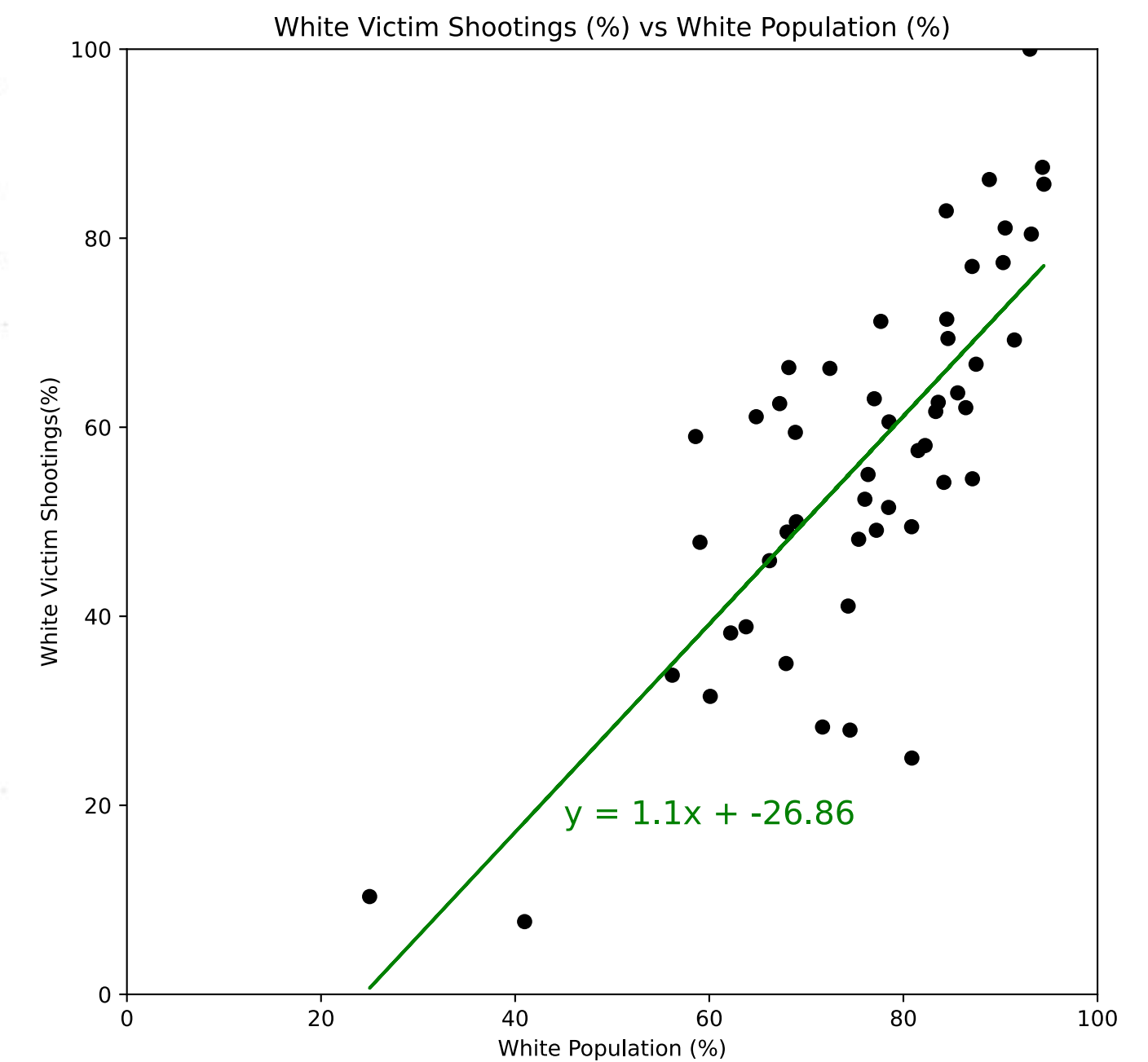
SHOOTING VICTIMS VS POPULATION % OF RACE



R VALUE = **0.82**
R SQUARED = **0.67**
P-VALUE = **1.62E-13**

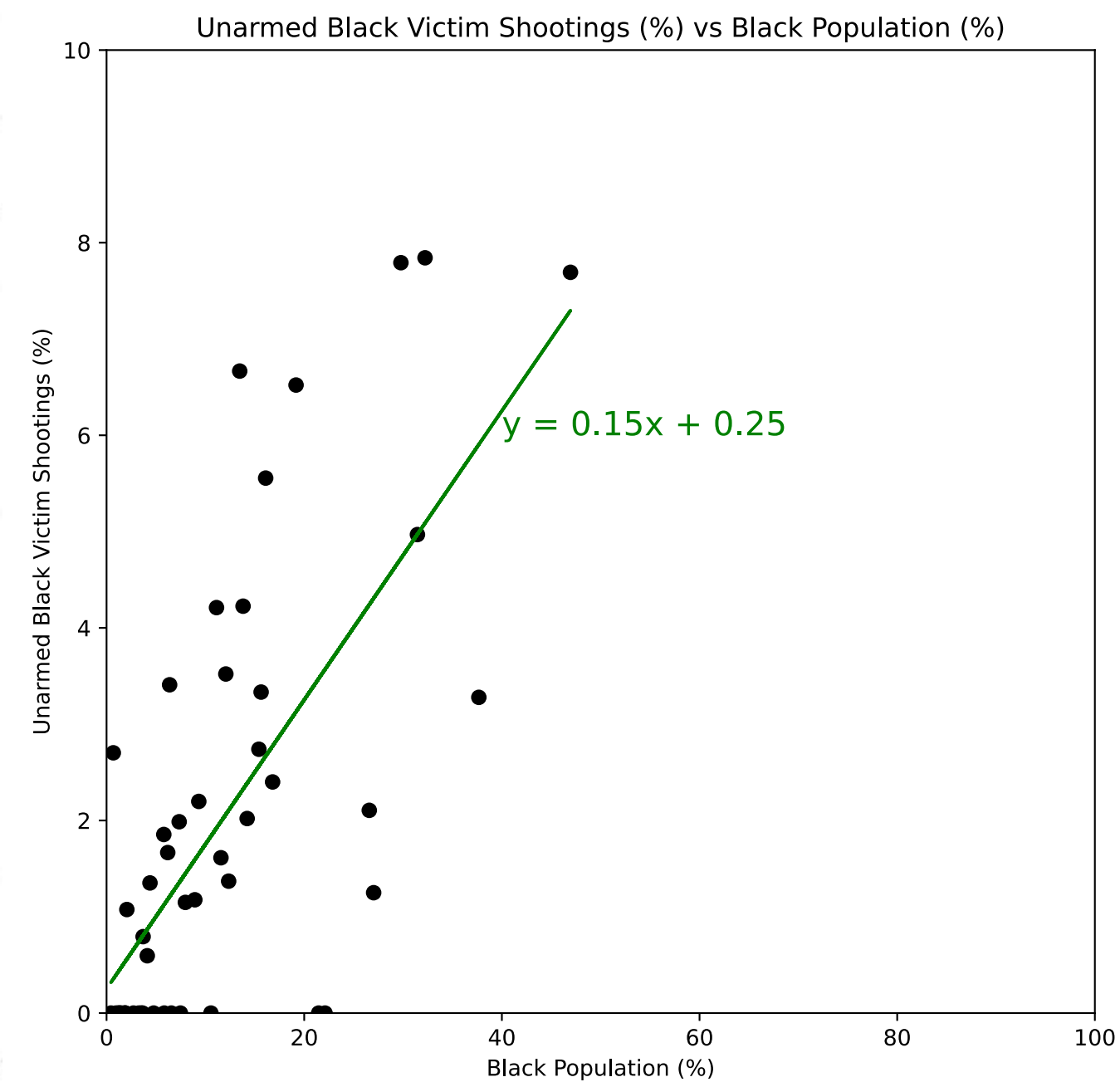


R VALUE = **0.91**
R SQUARED = **0.83**
P-VALUE = **9.36E-21**

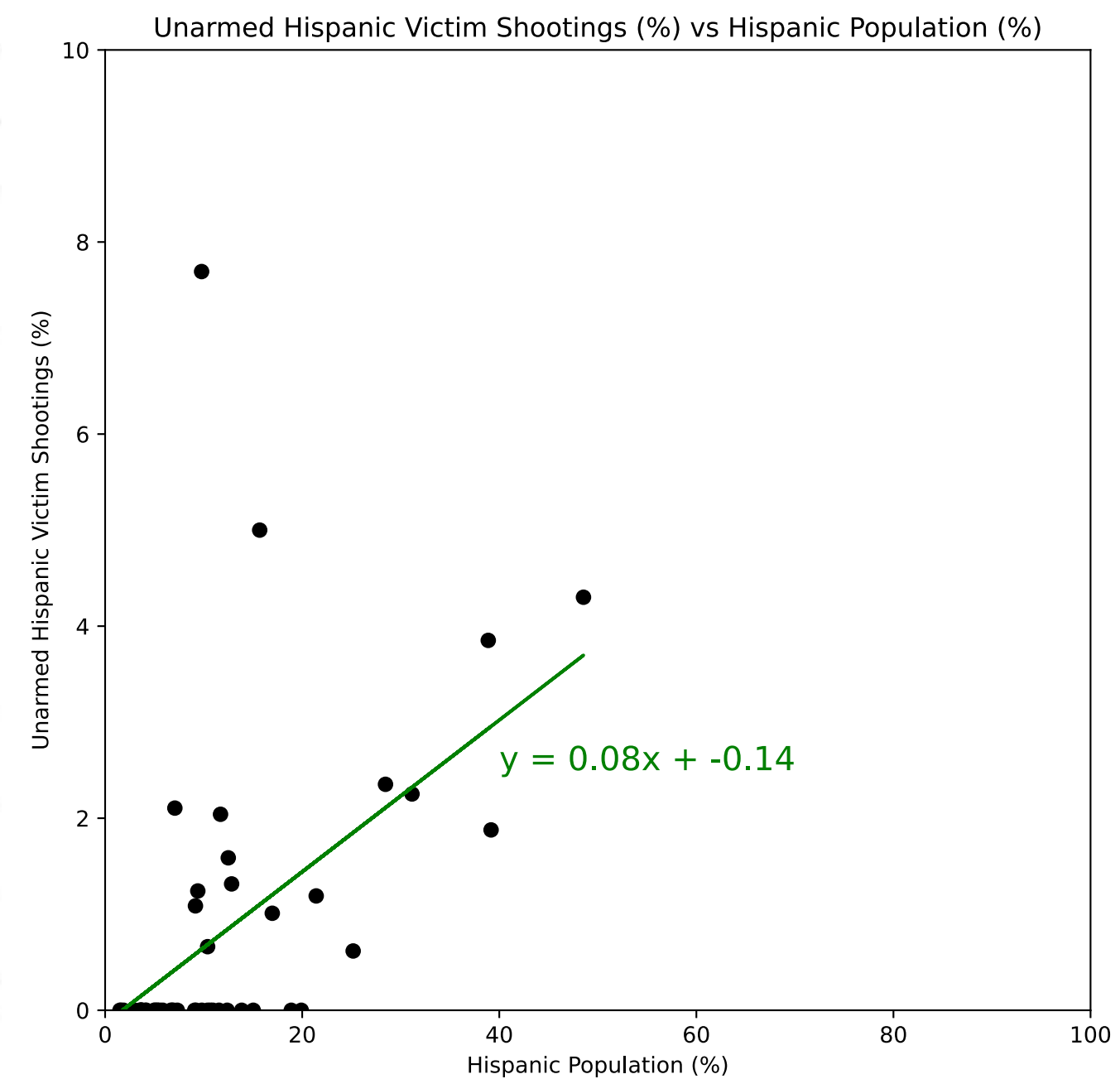


R VALUE = **0.77**
R SQUARED = **0.59**
P-VALUE = **3.67E-11**

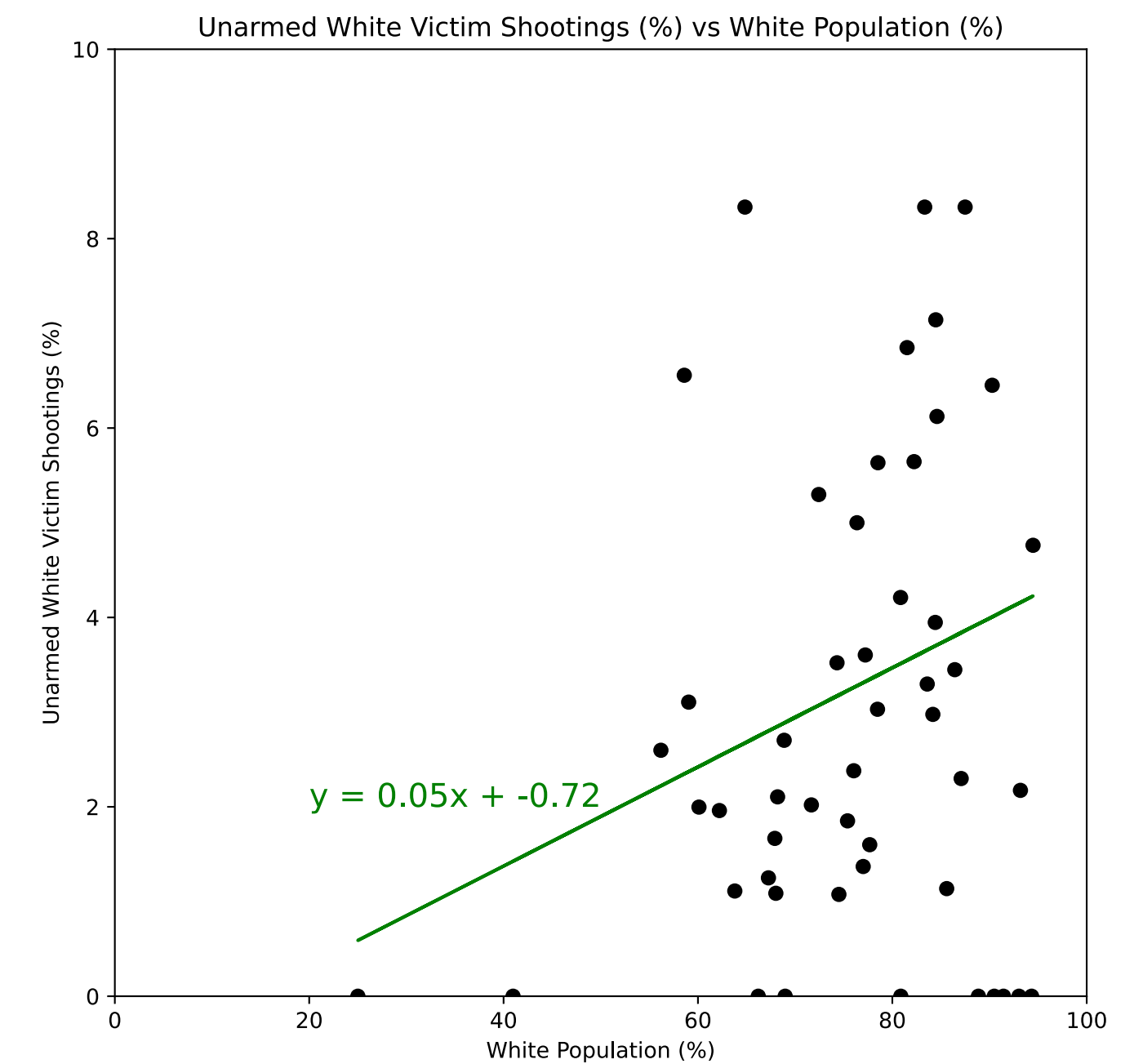
UNARMED SHOOTING VICTIMS VS POPULATION % OF RACE



R VALUE = **0.69**
R SQUARED = **0.48**
P-VALUE = **1.74E-8**

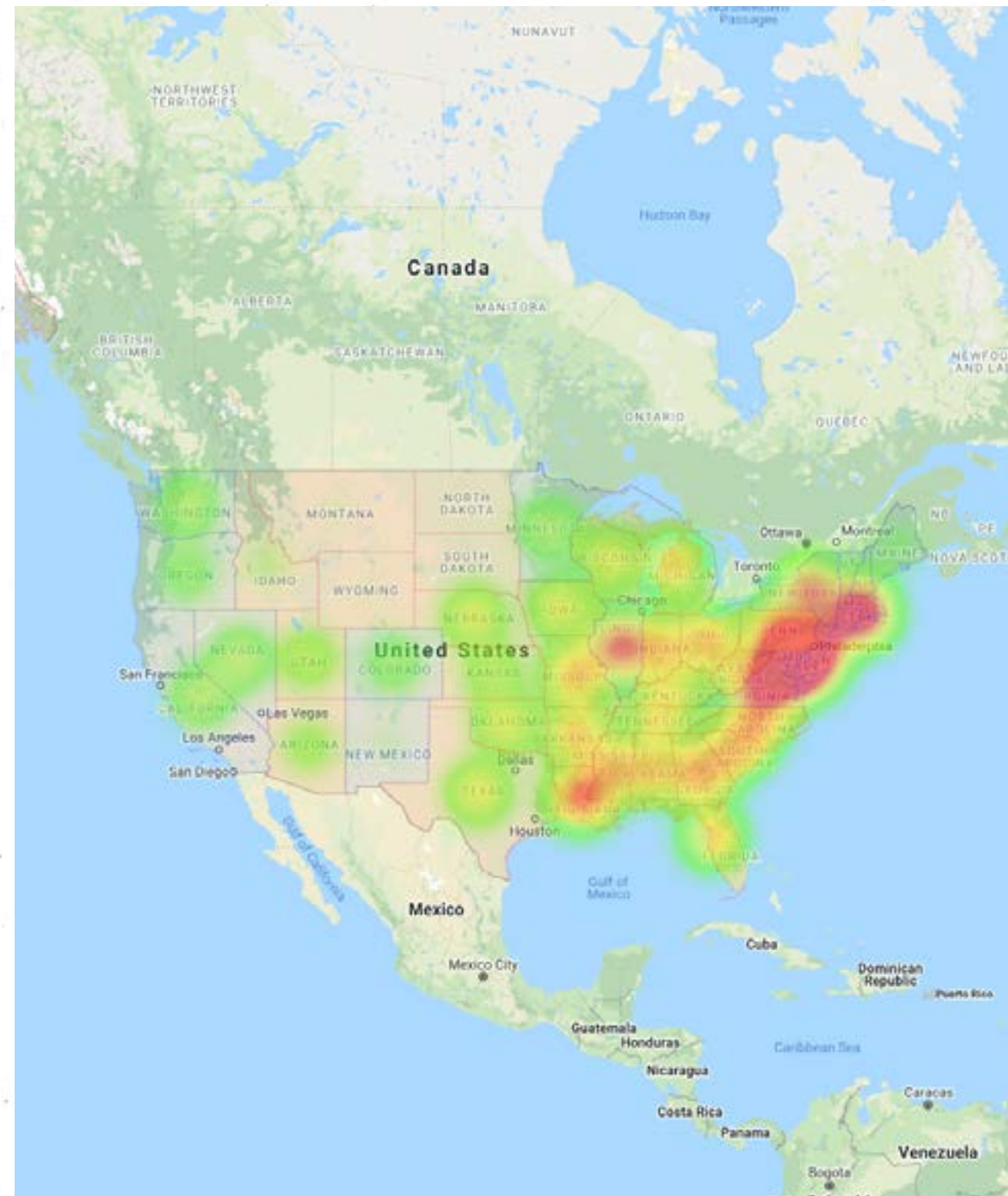


R VALUE = **0.52**
R SQUARED = **0.27**
P-VALUE = **7.74E-5**

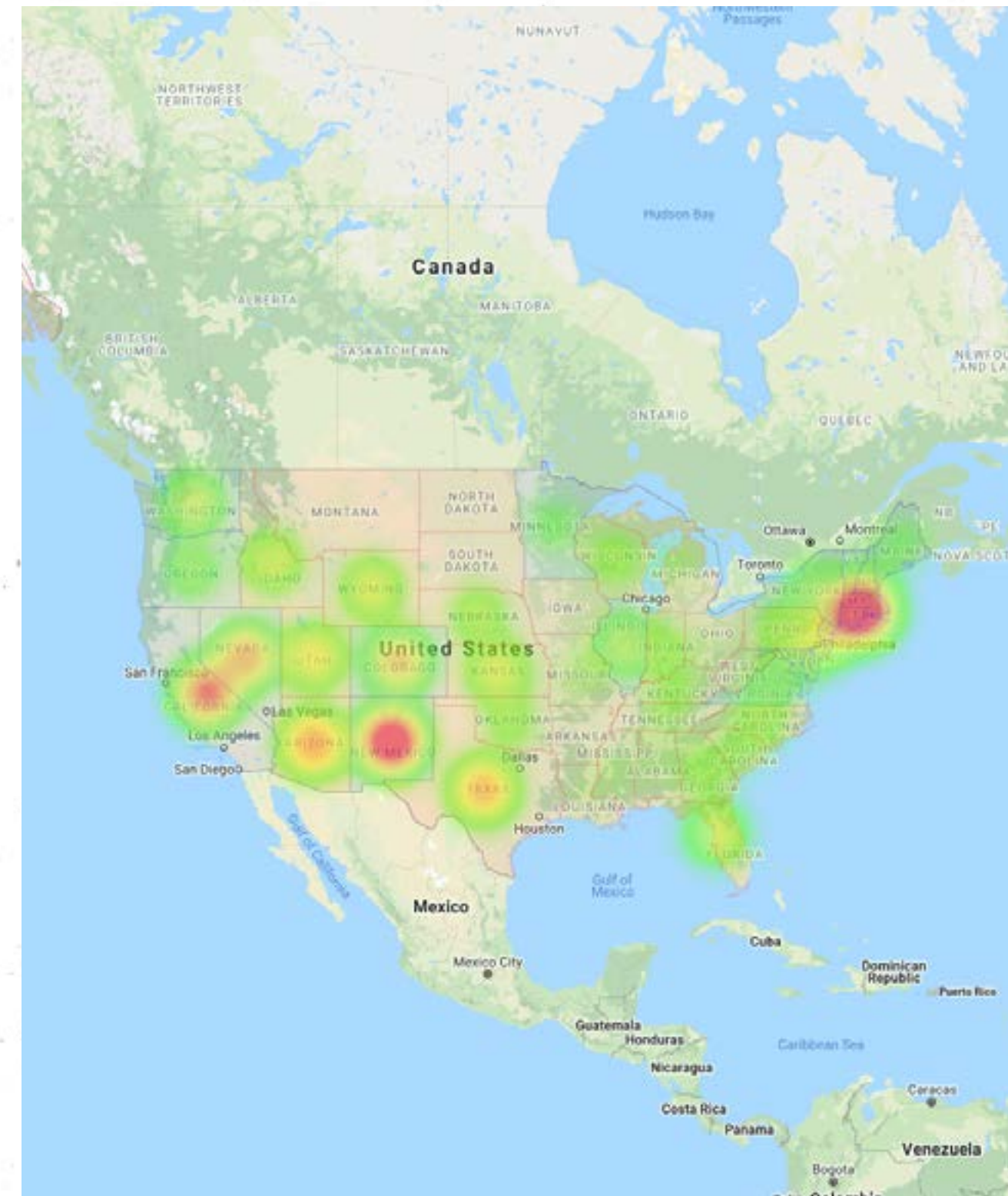


R VALUE = **0.22**
R SQUARED = **0.05**
P-VALUE = **0.12**

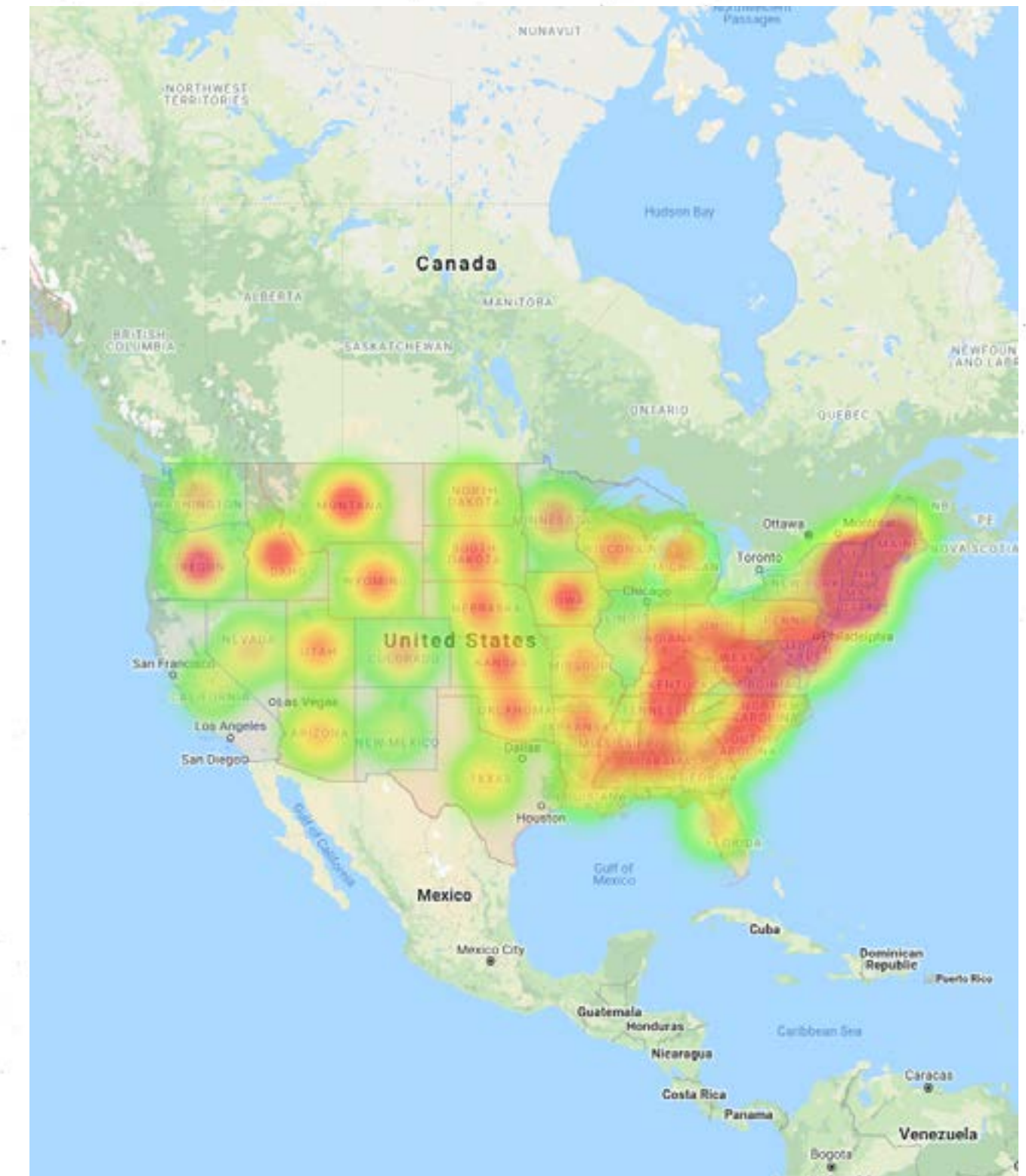
UNARMED SHOOTING VICTIMS VS POPULATION % OF RACE



BLACK VICTIMS

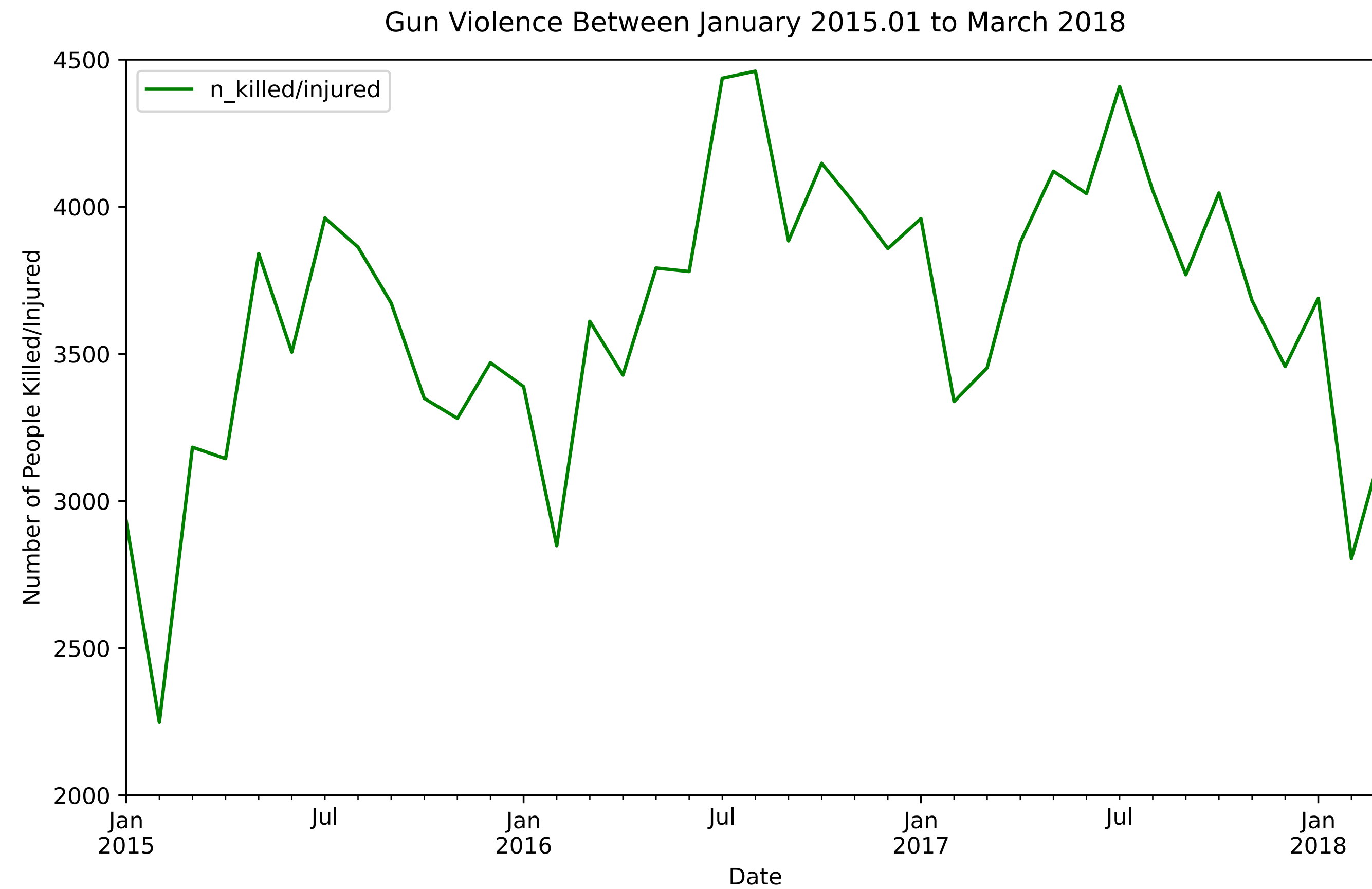


HISPANIC VICTIMS

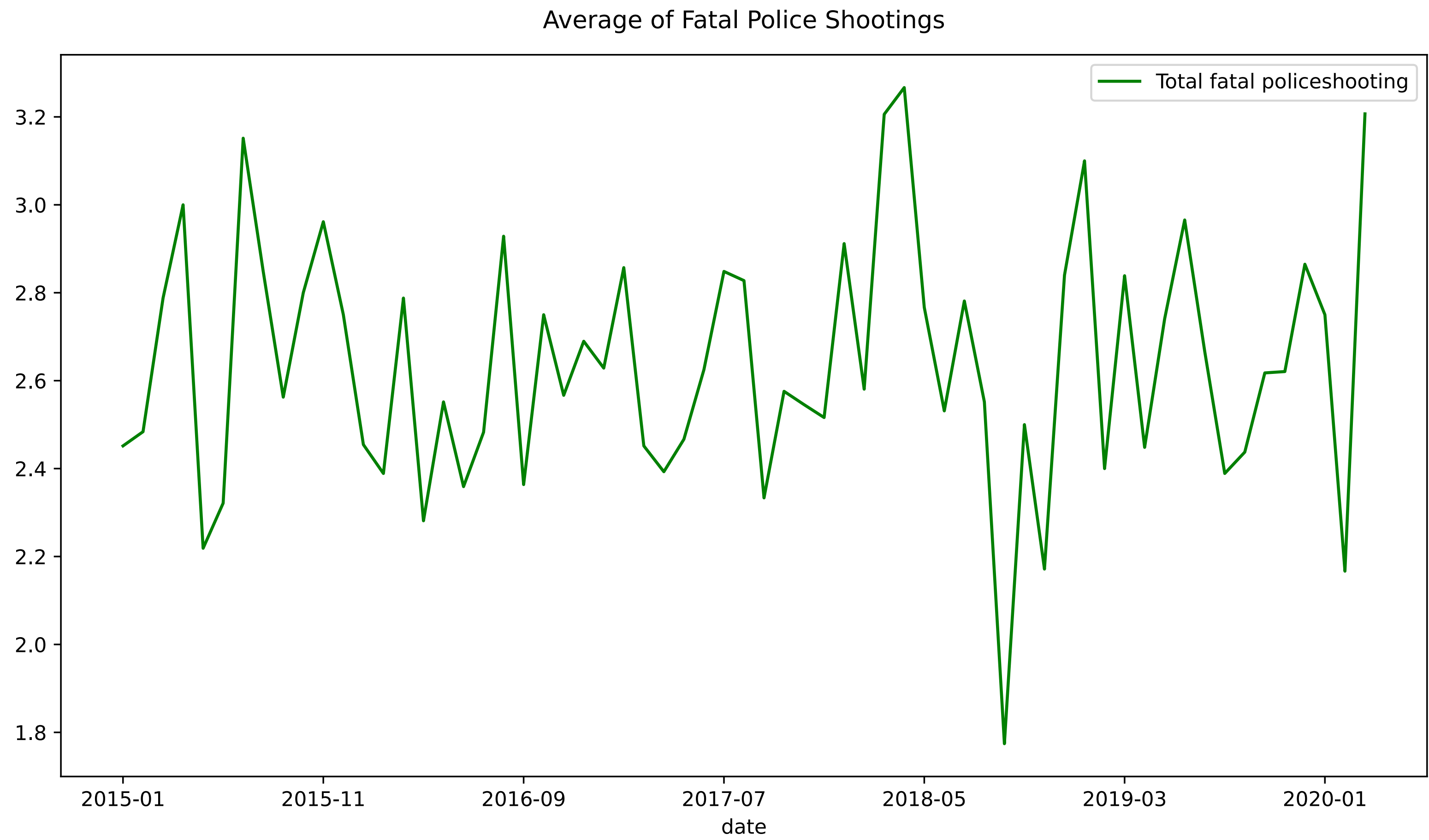


WHITE VICTIMS

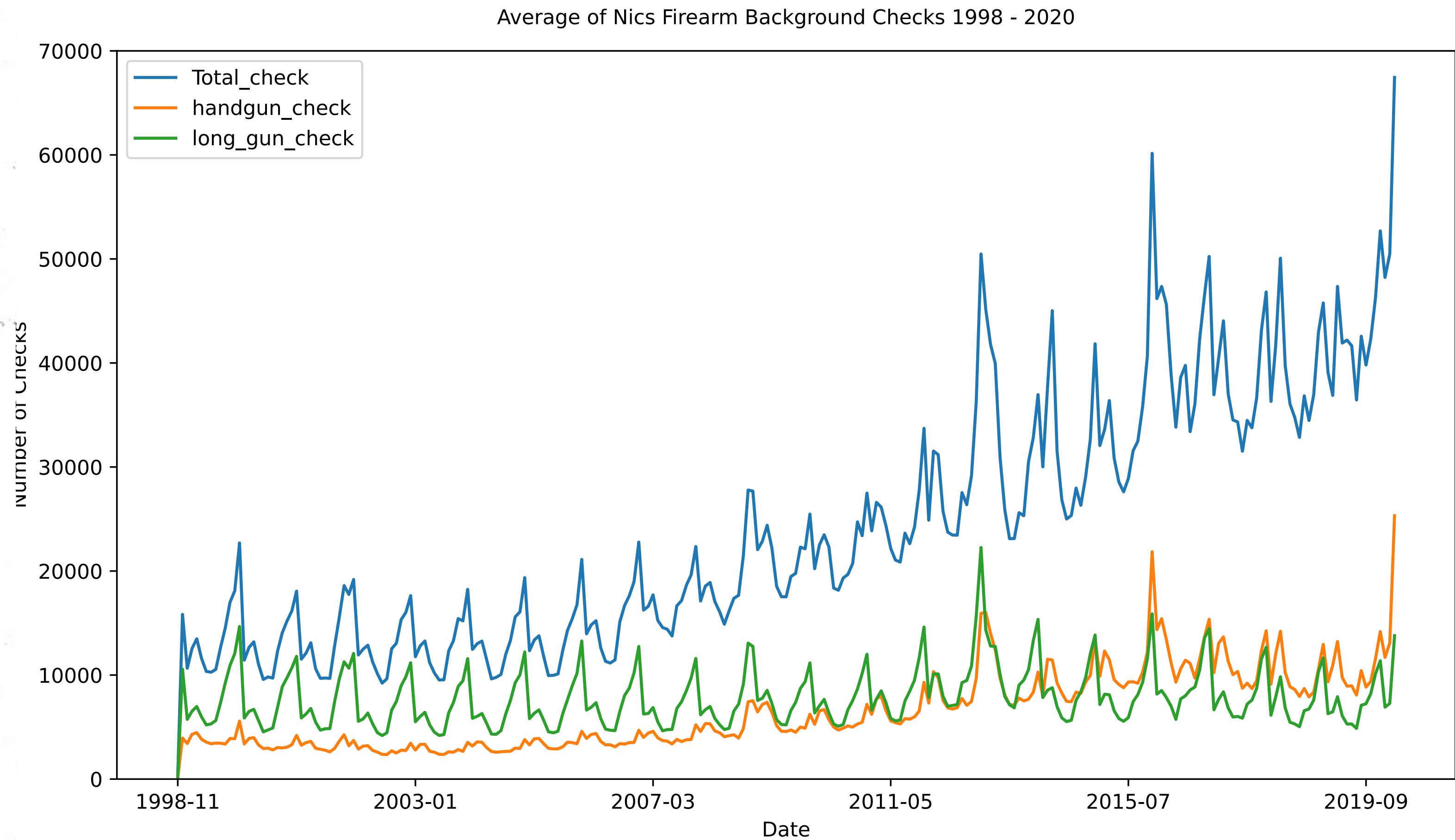
GUN VIOLENCE IN THE US



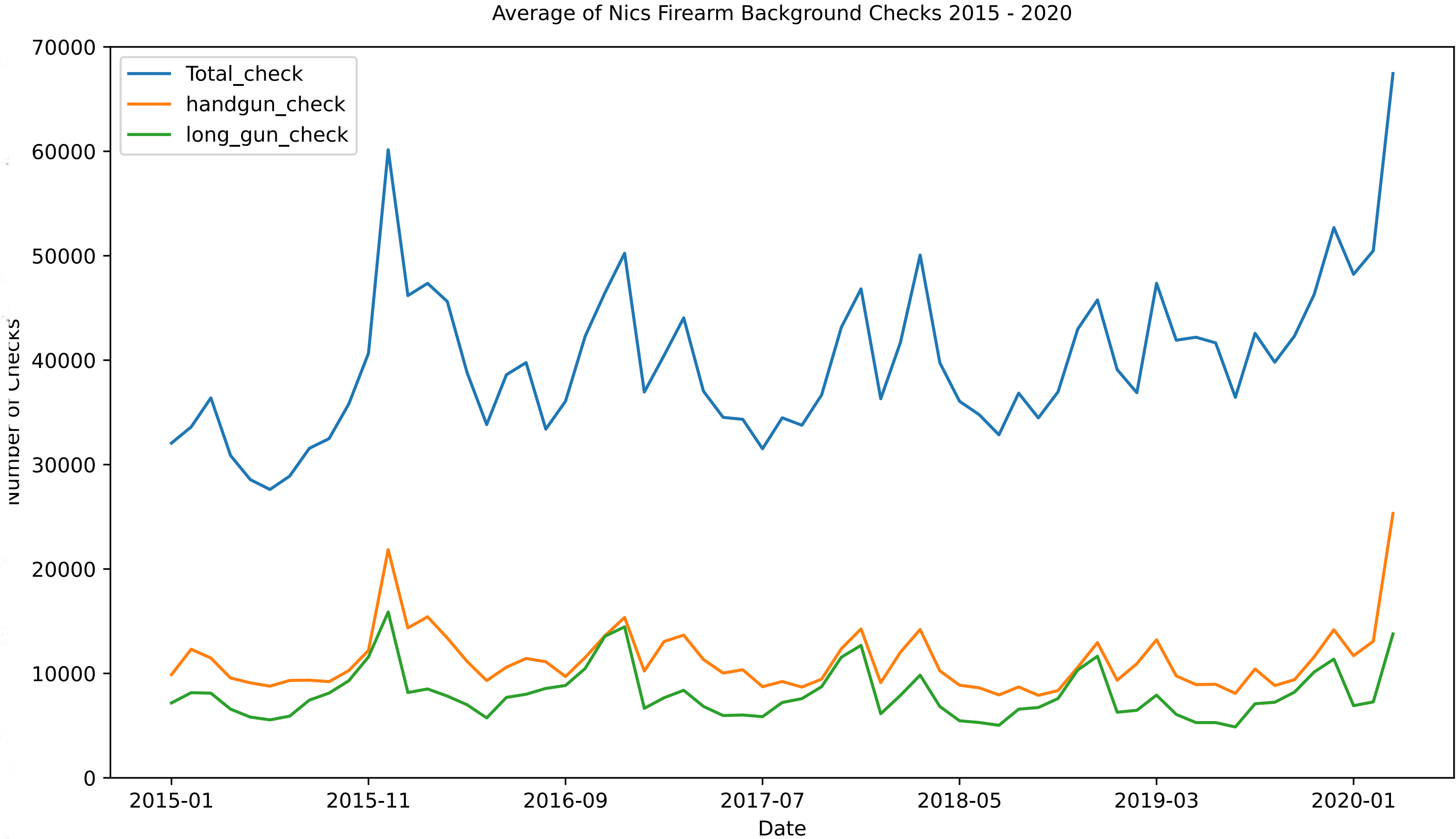
FATAL POLICE SHOOTINGS



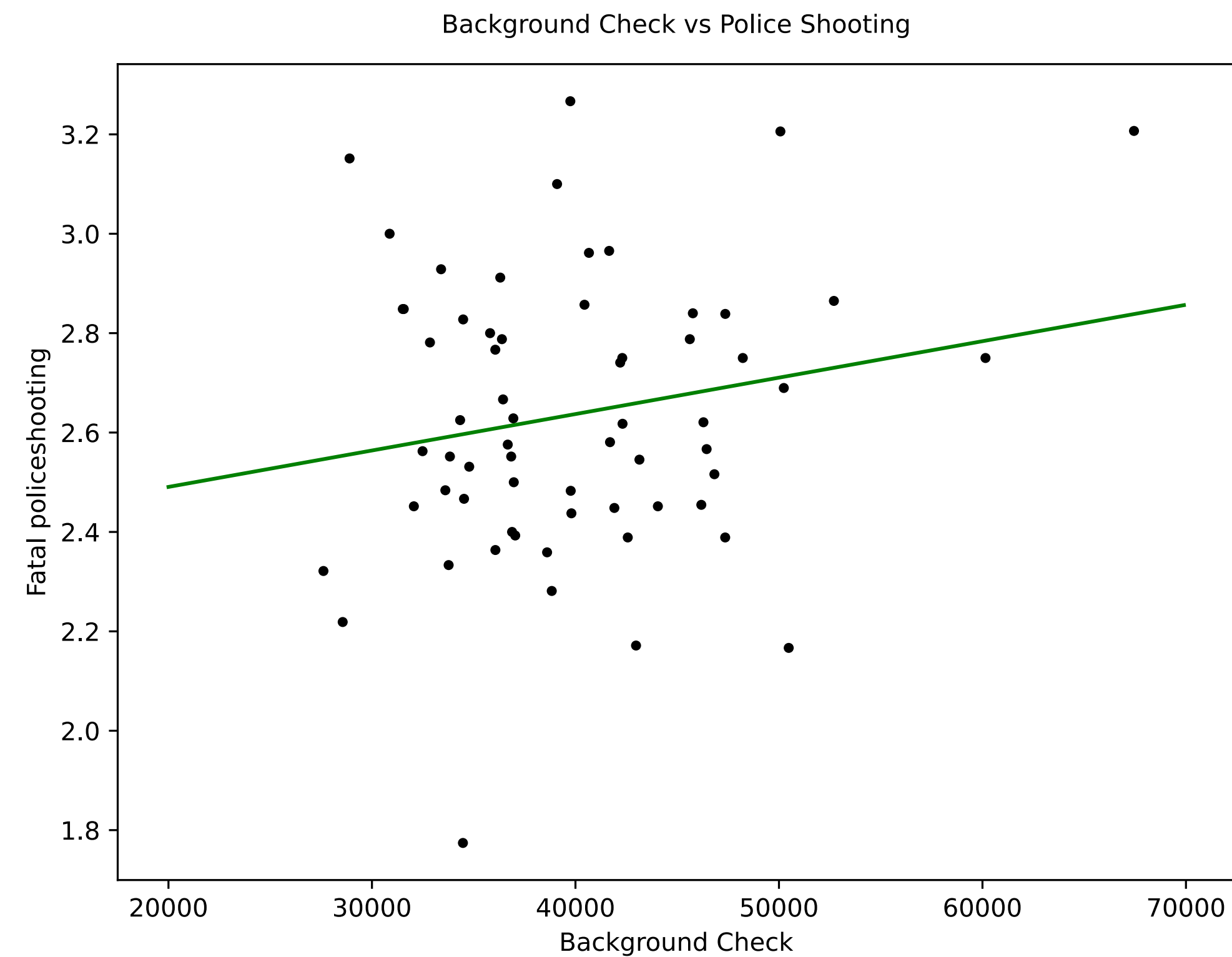
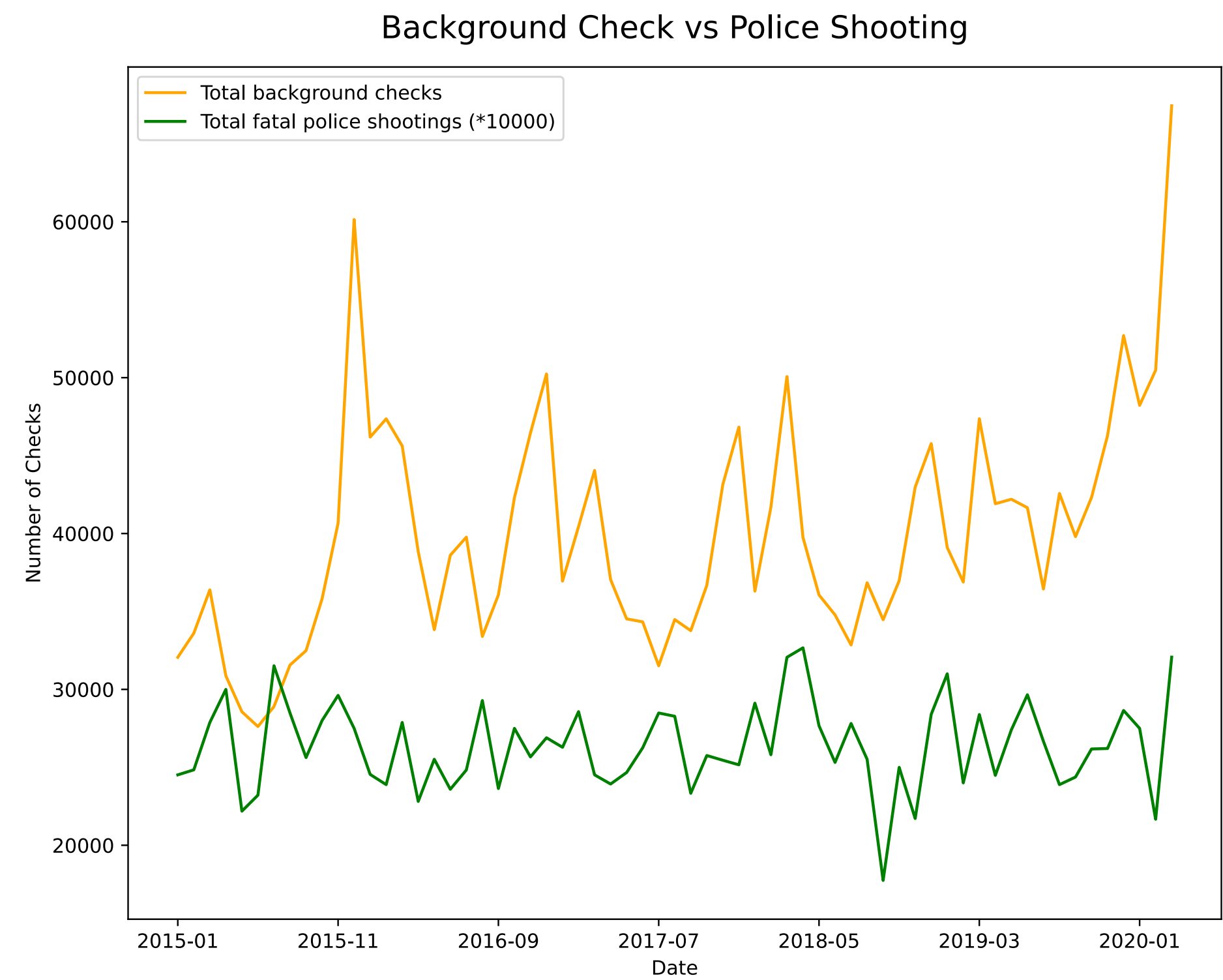
POLICE SHOOTINGS VS NICS BACKGROUND CHECKS



POLICE SHOOTINGS VS NICS BACKGROUND CHECKS 2015-2020



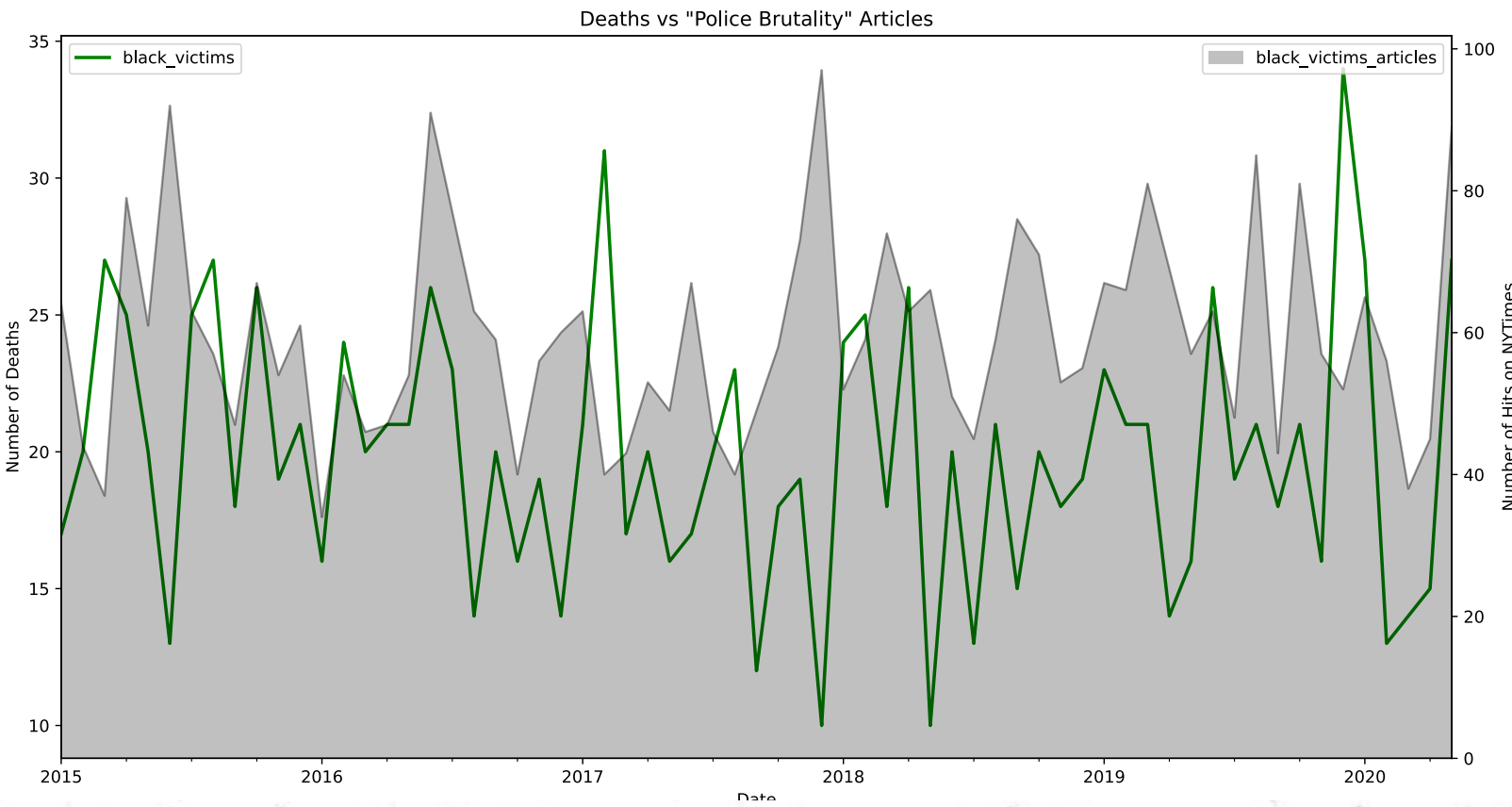
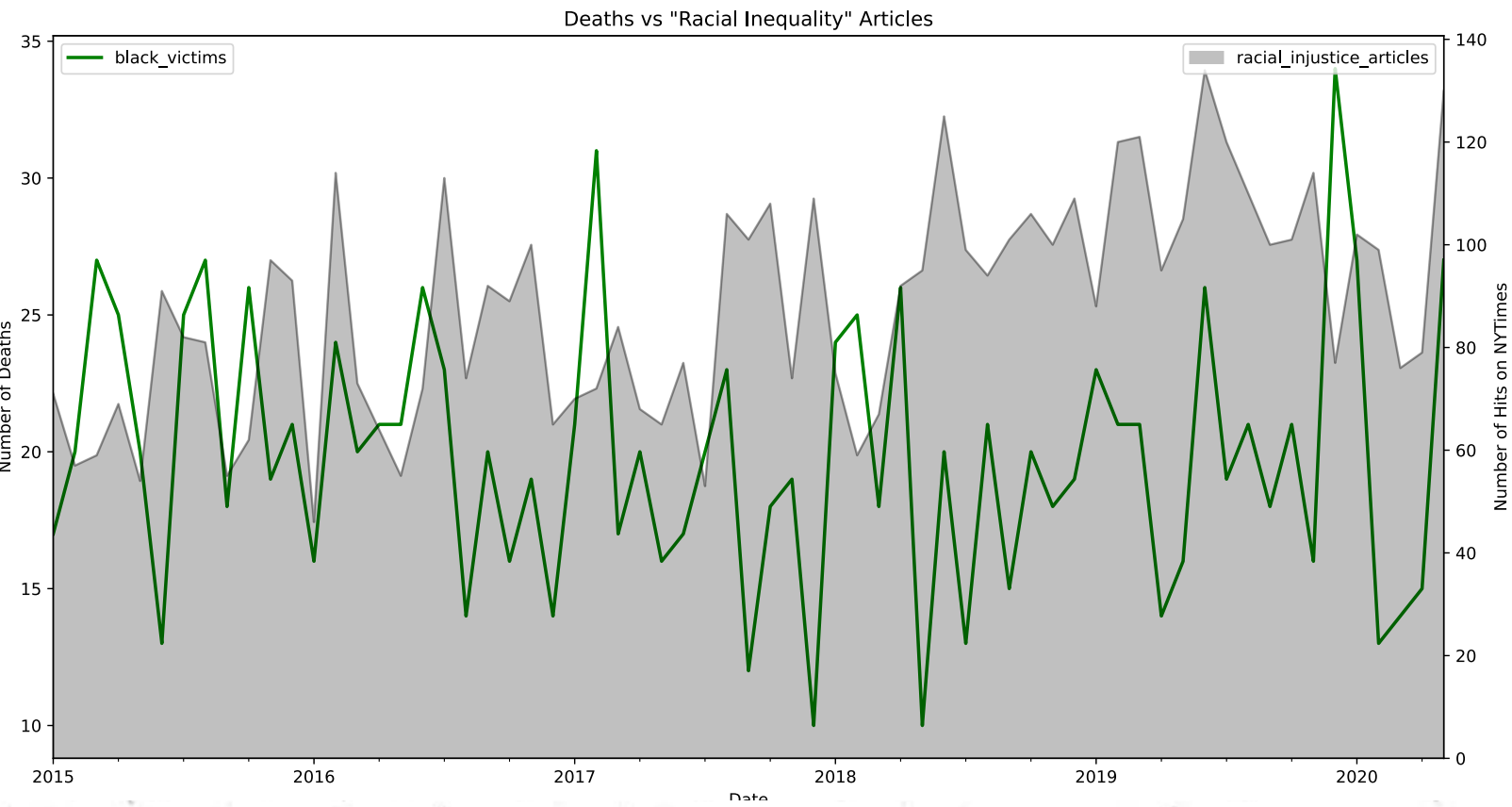
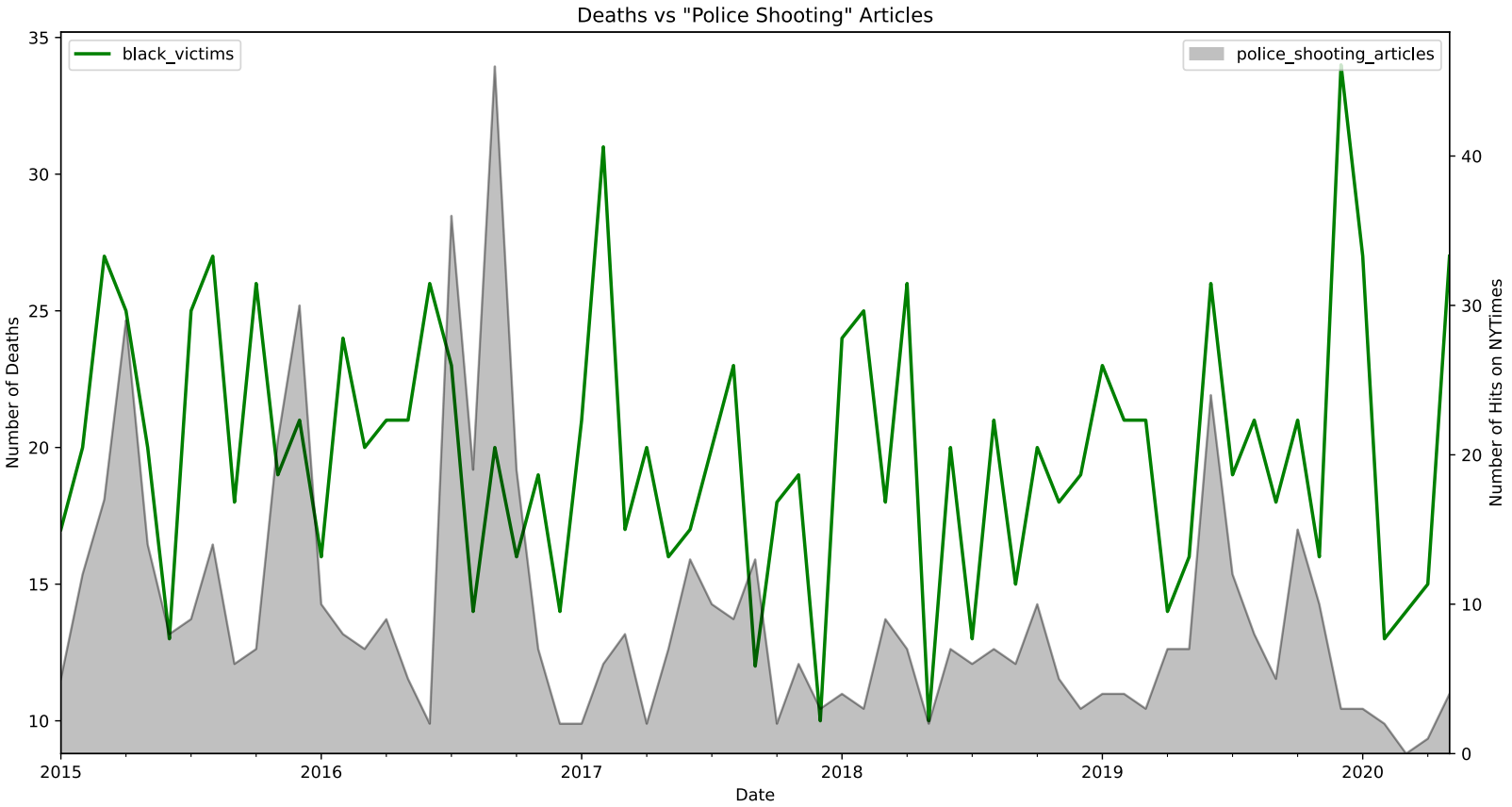
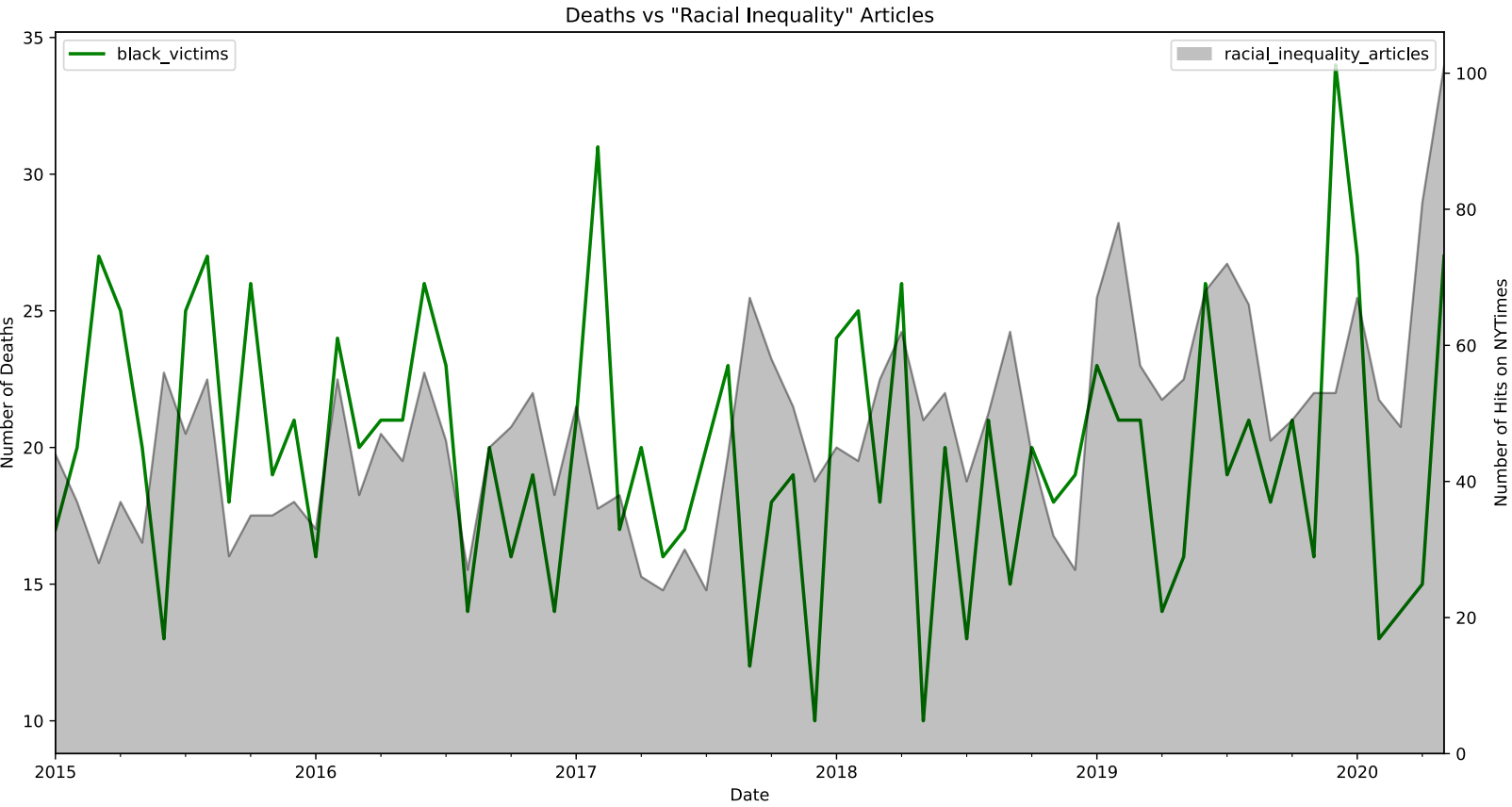
POLICE SHOOTINGS VS NICS BACKGROUND CHECKS 2015-2020



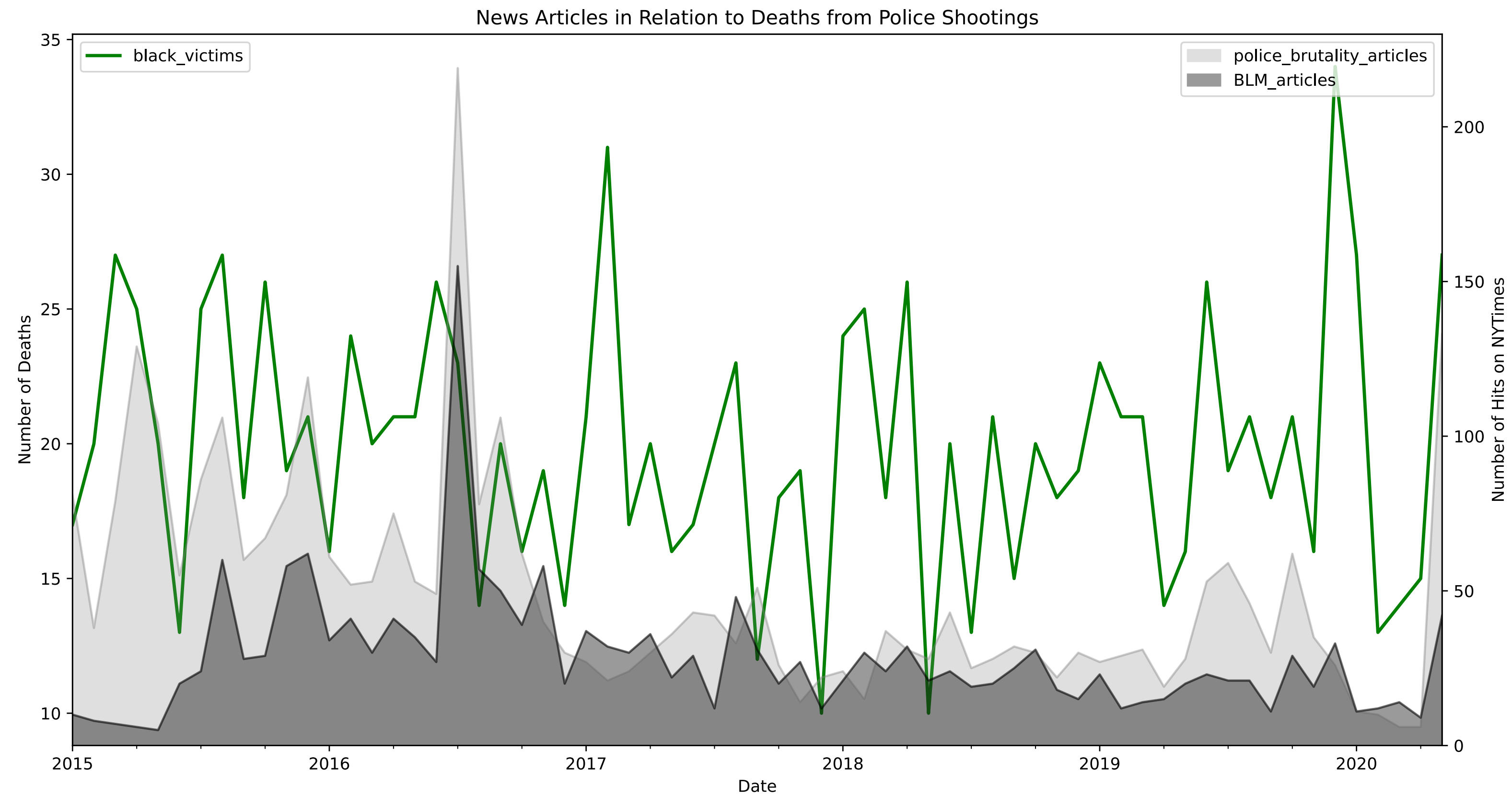
R VALUE = **0.19**

P-VALUE = **0.13**

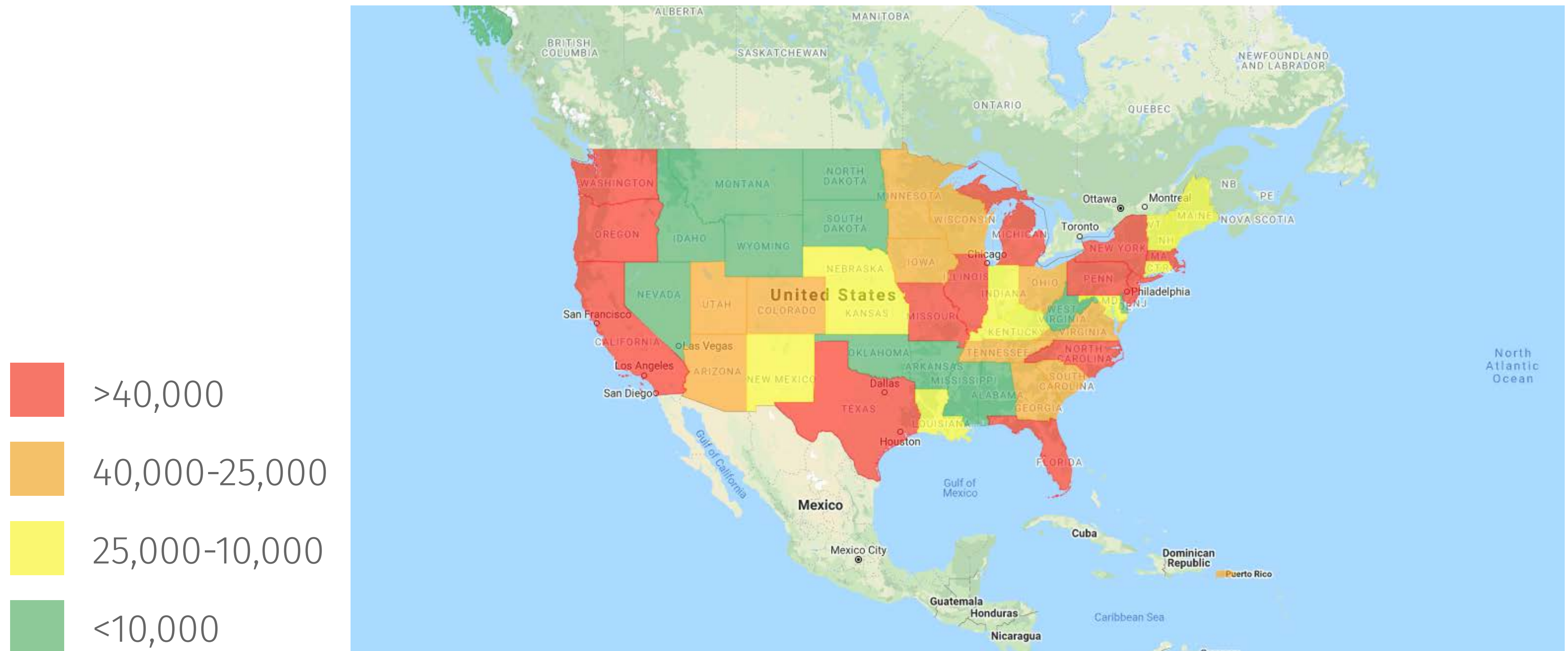
TRENDS IN MEDIA AND SHOOTINGS



TRENDS IN MEDIA AND SHOOTINGS



STATES WITH LARGEST PROTEST



LIMITATIONS

1. Data does not cover deaths from assault (George Floyd)
2. Accuracy of data and classification
3. Fuzziness search of ElasticSearch
4. Categorisation of keywords for NYTimes

CONCLUSIONS

From our study we have found that there appears to be racial inequality when it comes to unarmed victim of police shootings. Media coverage and protest for the deaths of innocent victims tend to decrease the deaths of black victims but that's only momentary.

