Contents

Development Team Membership

Name	Email	Phone	Availability
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Development Team Contributions

K.Laborde 60% | N.Kohler 40%

Abstract

The YRBSS (Youth Risk Behavioral Surveillance System) is a questionnaire developed by the CDC beginning in 1991 that analyzes different risk factors that face middle and high school students in the United States. The survey covers a broad spectrum of questions relating to demographics, drug use, sexual activity, physical activity, and violence. The survey is taken anonymously and it's results are

published by the CDC once the next questionnaire has been given out. While the CDC does analyze the responses and report changes between results each year, they do not look at correlations between questions. Our goal with this project was to determine if there was a correlation between individuals who responded that they had been threatened with a weapon on school property and those who responded that they had brought a weapon onto school property in an attempt to see if the problem further accentuates itself due to students feeling they are unable to keep themselves safe. The methodology we utilized was first downloading the YRBSS data in an access file, using SQL to winnow the data down to our two questions and the demographic questions. Python was used for our data analysis and graph creation.

USCB Student Scholarship & Research Day Participation (SSRD)

We will not be participating in the Student Scholarship and Research Day.

About the YRBS Data Set

The YRBS(Youth Risk Behavior Surveillance System) is organized by the CDC and has been conducted every two years since 1991. As of 2019, the data set we will be using for this project, there are 89 questions on the questionnaire covering demographics, drug use, sexual activity, violent activities, and health mannerisms.

Research Question & Hypothesis

The overall question is “What is the relationship between students bring a weapon to school and threatening or using their weapon based on them getting bullied.

Null: There IS a correlation between being threatened with a weapon on school property and the victim bringing one to school property.

Alternative: There IS NOT a correlation between being threatened with a weapon on school property and the victim bring one to school property.

13. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

Hypothesis: If a student gets bullied physically at school based on their age, weight, sex, or height, then they will be more likely to bring a weapon to school.

16. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property.

Hypothesis: If a student gets bullied at school there is a direct relationship to bring a weapon and threaten the bully.

YRBS Behavioral Questions

13. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club **on school property**?
    - A. 0 days
    - B. 1 day
    - C. 2 or 3 days
    - D. 4 or 5 days
    - E. 6 or more days

16. During the past 12 months, how many times has someone threatened or injured you with **a weapon** such as a gun, knife, or club **on school property**?
    - A. 0 times
    - B. 1 time
    - C. 2 or 3 times
    - D. 4 or 5 times
    - E. 6 or 7 times
    - F. 8 or 9 times
    - G. 10 or 11 times
    - H. 12 or more times

Questions 13 and 16 are Categorical.

1. How old are you?
   A. 12 years old or younger
   B. 13 years old
   C. 14 years old
   D. 15 years old
   E. 16 years old
   F. 17 years old
   G. 18 years old or older

2. What is your sex?
   A. Female
   B. Male

3. In what grade are you?
   A. 9th grade
   B. 10th grade
   C. 11th grade
   D. 12th grade
   E. Ungraded or other grade

4. Are you Hispanic or Latino?
   A. Yes
   B. No

5. What is your race? **(Select one or more responses.)**
   A. American Indian or Alaska Native
   B. Asian
   C. Black or African American
   D. Native Hawaiian or Other Pacific Islander
   E. White

YRBS Demographic Information

6. How tall are you without your shoes on?

Directions: Write your height in the shaded blank boxes. Fill in the matching oval below each number.

Example

Height	
Feet	Inches
5	*7*
③	⓪
④	①
●	②
⑥	③
⑦	④
	⑤
	⑥
	●
	⑧
	⑨
	⑩
	⑪

Height	
Feet	Inches
③	⓪
④	①
⑤	②
⑥	③
⑦	④
	⑤
	⑥
	⑦
	⑧
	⑨
	⑩
	⑪

7. How much do you weigh without your shoes on?

Directions: Write your weight in the shaded blank boxes. Fill in the matching oval below each number.

Example

Weight		
Pounds		
1	*5*	*2*
⓪	⓪	⓪
●	①	①
②	②	●
③	③	③
	④	④
	●	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨

Weight		
Pounds		
⓪	⓪	⓪
①	①	①
②	②	②
③	③	③
	④	④
	⑤	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨

1-5: Categorical 6-7: Numerical

Data Retrieval & Winnowing

SELECT weight, stratum, PSU, age, sex, grade,

race4, race7, stheight, stweight,

bmi, bmict, qnobese, qnowt, q13, q16

FROM SADCQ

WHERE q13 is NOT null

AND q16 is NOT null

Data Types

Categorical Data: Categorical data is a group of information that has been gathered by fitting responses into the group they chose in the question.

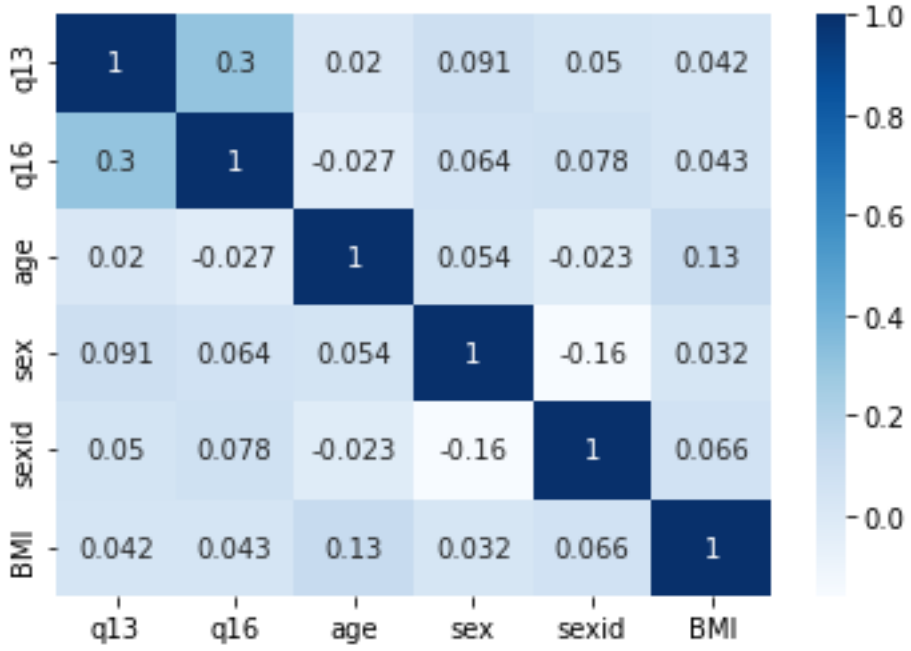
Any questions with ABCD answers are categorical data as the answers are categorical, fitting you into buckets essentially.

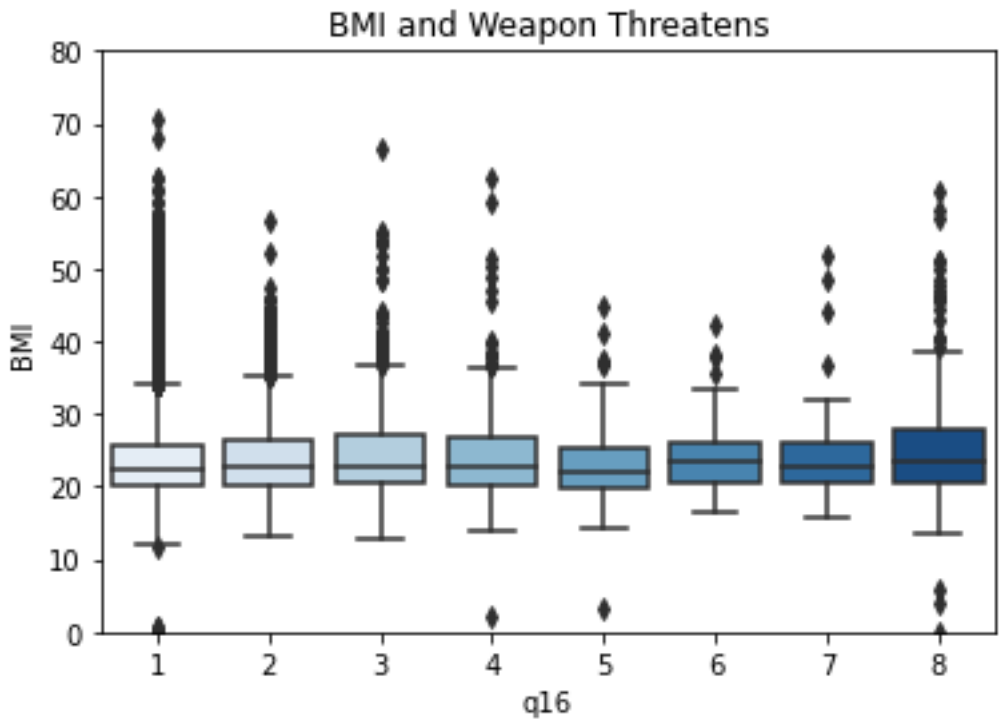
Numerical Data: Numerical data consists of information that is purely numerical and does not use any natural language.

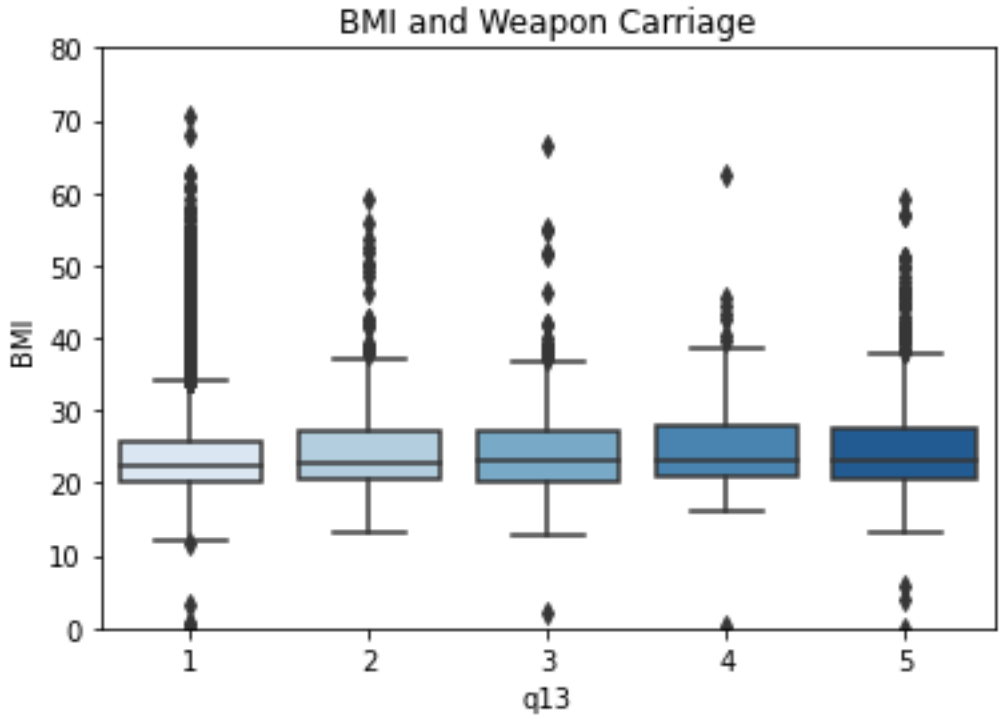
An example of numerical data would be a dataset full of individuals ages, as the results are purely numerical.

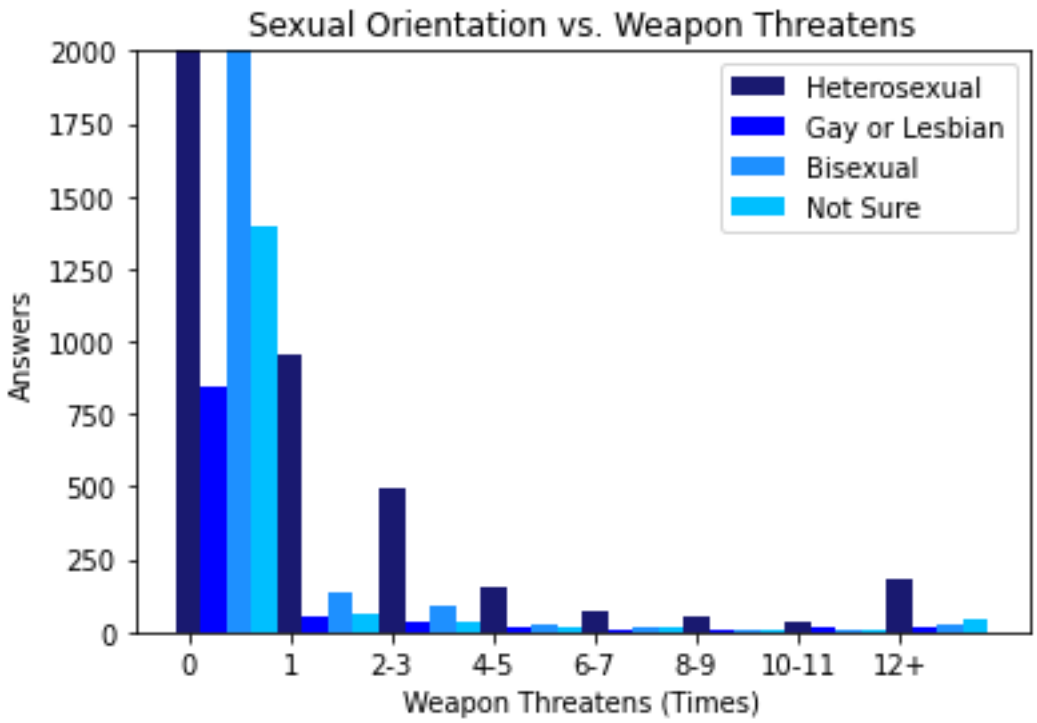
Difference: A true correlation can be found from numerical data as a statistical relationship can be found between the values, however with categorical data only relations between answers can be found as there is no numerical data to correlate.

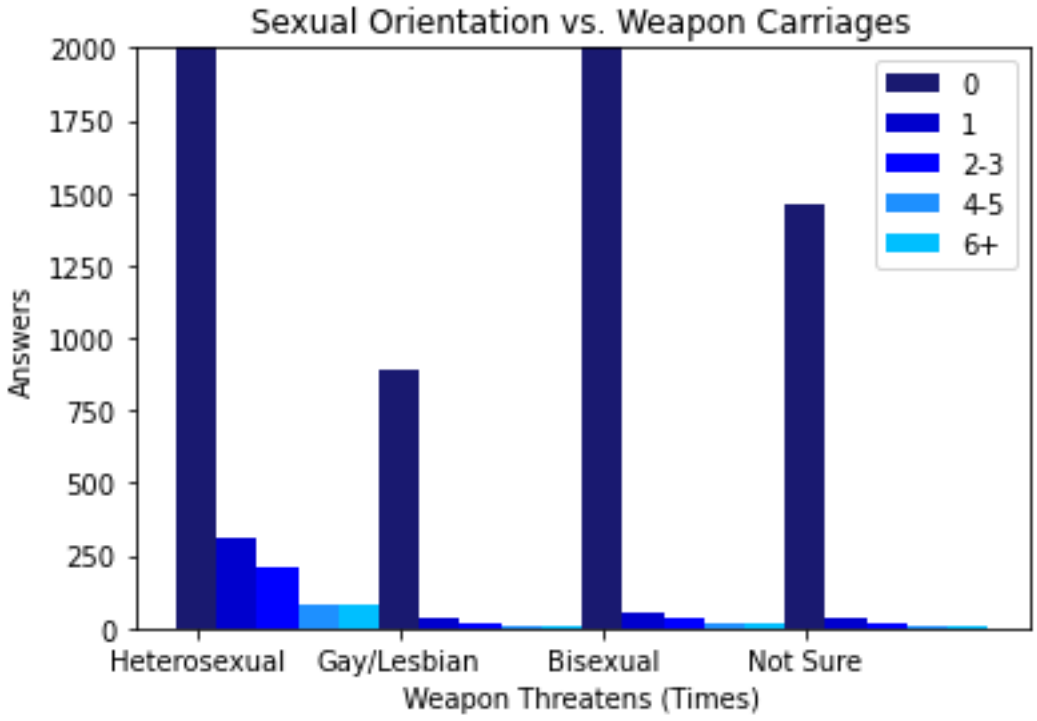
Results

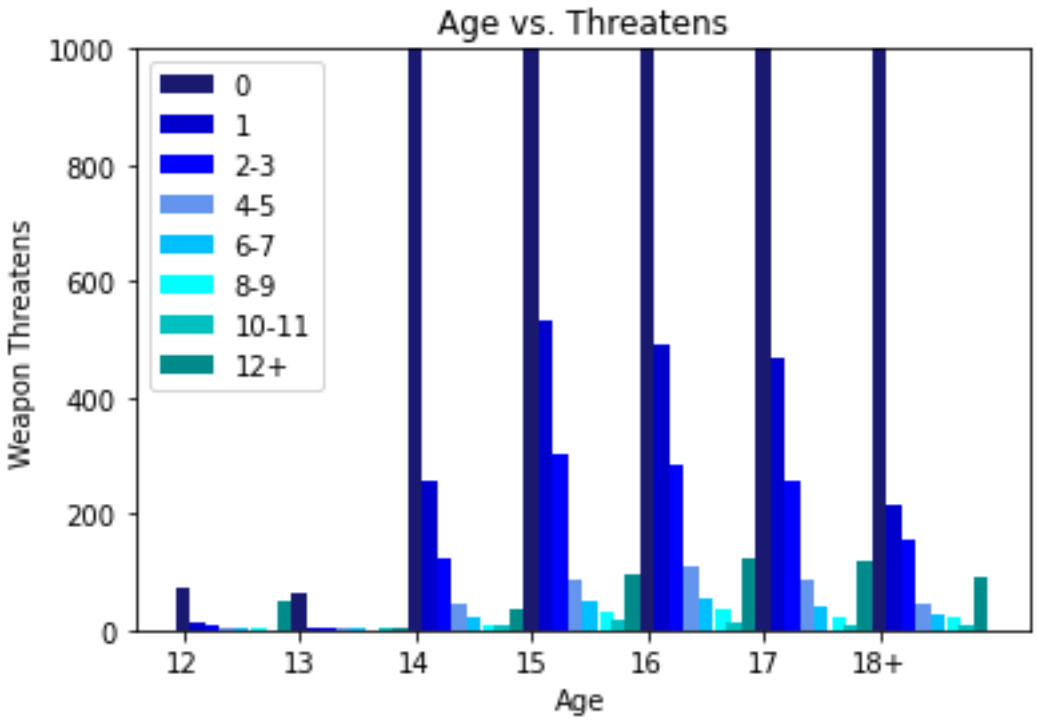


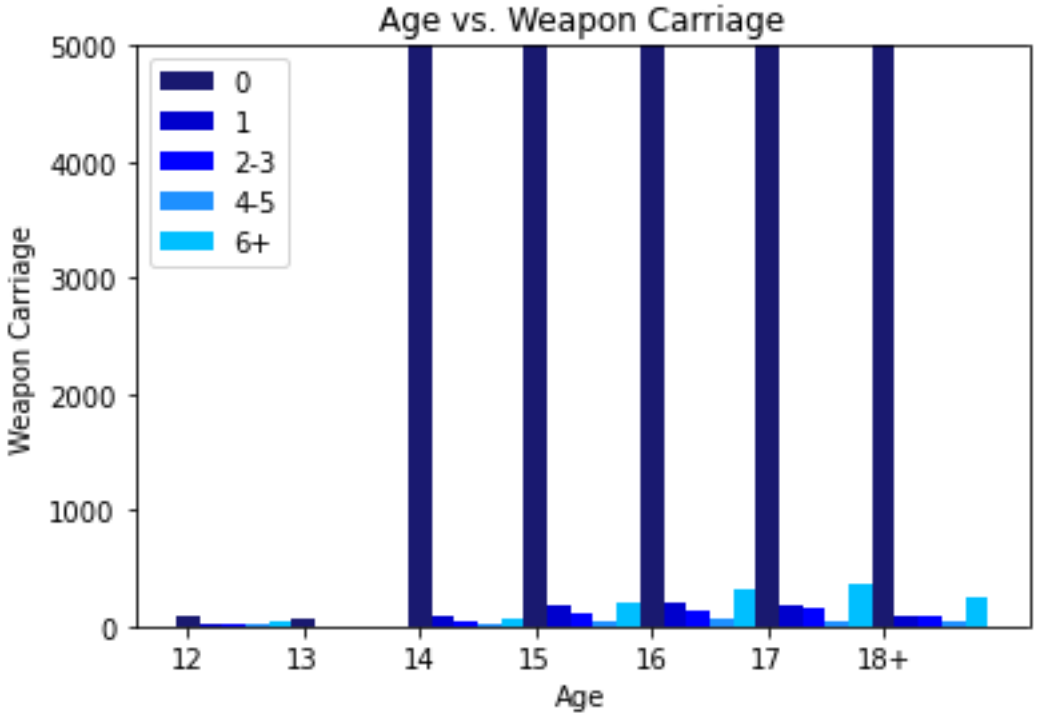

BMI and Weapon Threatens
BMI
q16
0
10
20
30
40
50
60
70
80
1
2
3
4
5
6
7
8

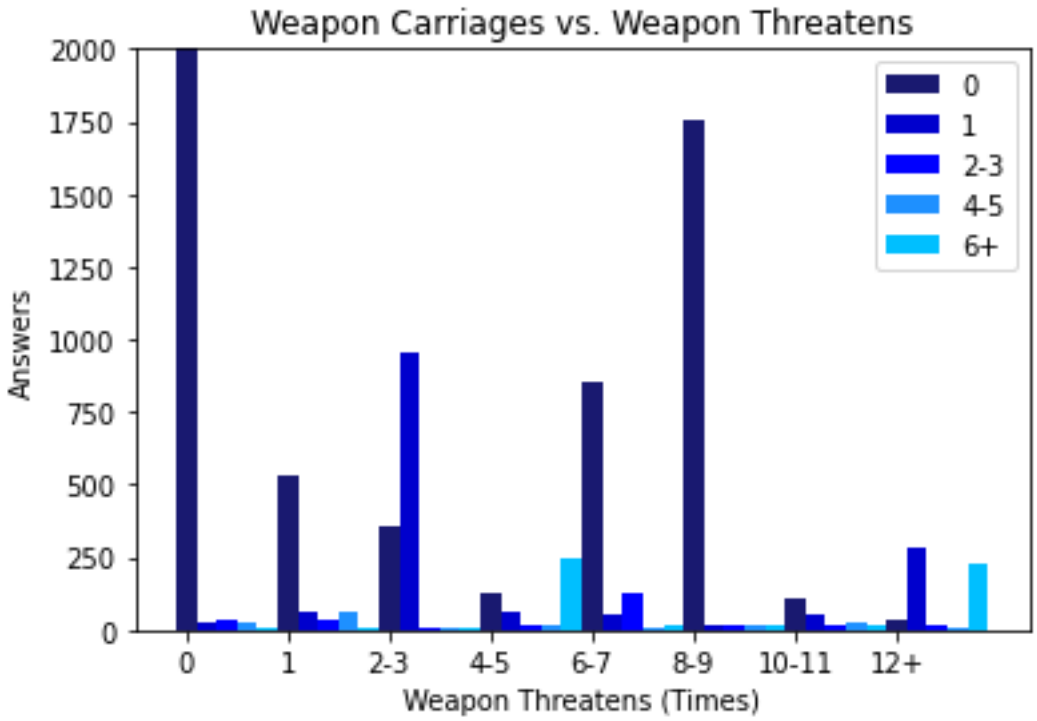

BMI and Weapon Carriage
BMI
q13
0
10
20
30
40
50
60
70
80
1
2
3
4
5

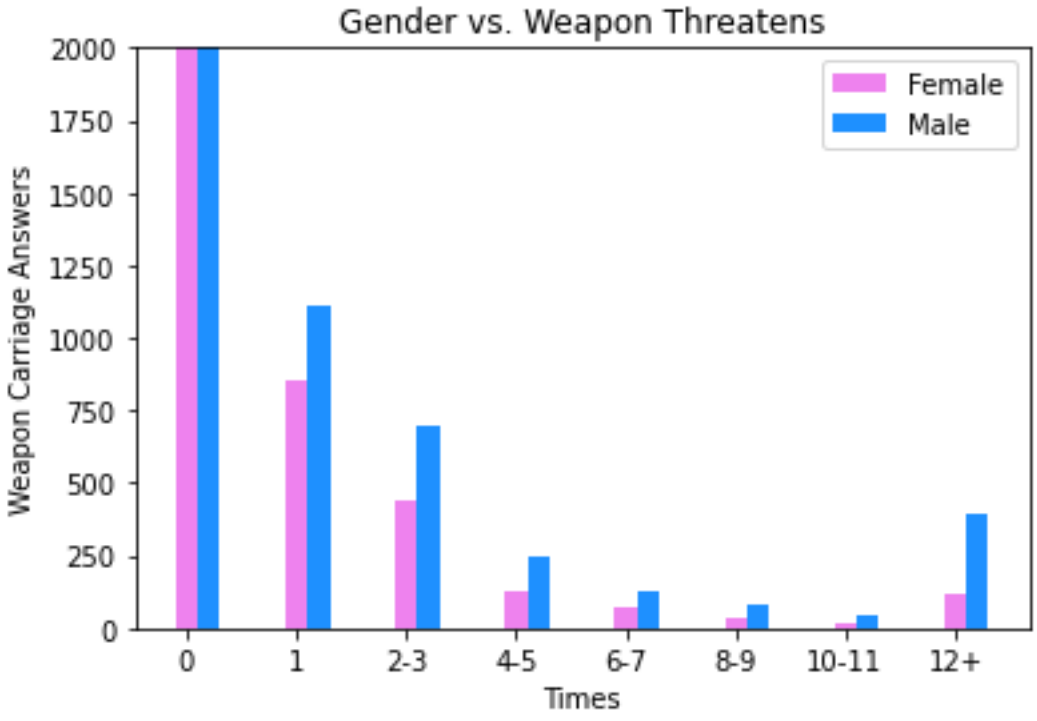

Sexual Orientation vs. Weapon Threatens
Heterosexual
Gay or Lesbian
Bisexual
Not Sure
Answers
2000
1750
1500
1250
1000
750
500
250
0
0
1
2-3
4-5
6-7
8-9
10-11
12+
Weapon Threatens (Times)


Sexual Orientation vs. Weapon Carriages
0
1
2-3
4-5
6+
Answers
2000
1750
1500
1250
1000
750
500
250
0
Heterosexual
Gay/Lesbian
Bisexual
Not Sure
Weapon Threatens (Times)


Age vs. Threatens
Weapon Threatens
Age
0
1
2-3
4-5
6-7
8-9
10-11
12+
1000
800
600
400
200
0
12
13
14
15
16
17
18+


Age vs. Weapon Carriage
Weapon Carriage
Age
0
1
2-3
4-5
6+
5000
4000
3000
2000
1000
0
12
13
14
15
16
17
18+





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