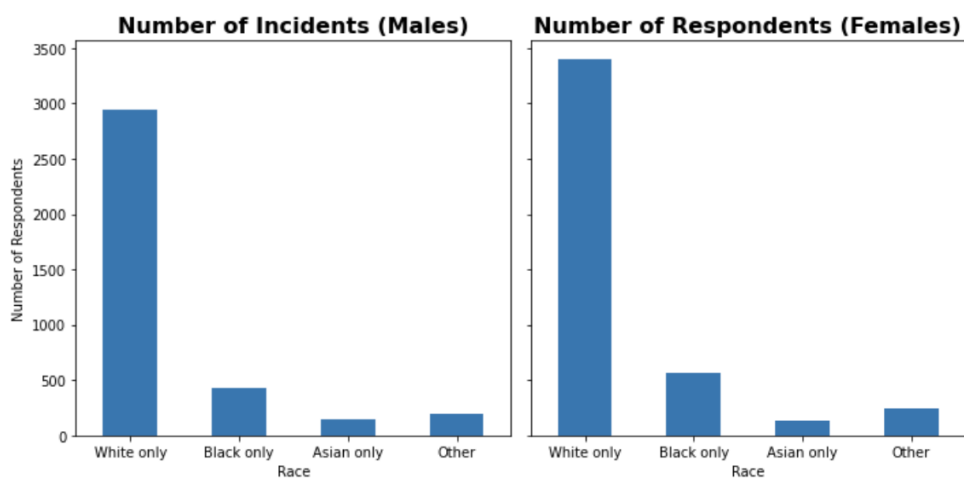


Addressing Disparities in Crime Experiences Across Race and Ability

Justin Zhou

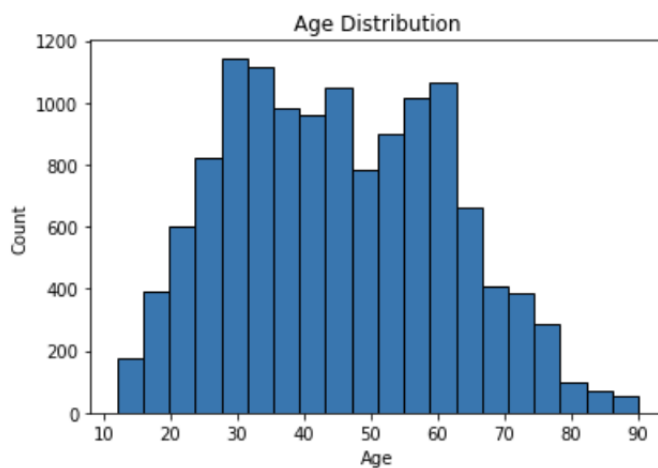
For this study, I used the National Crime Victimization Survey (NCVS) to analyze the relationship between race, disability, and victimization rates. The NCVS is a survey conducted by the United States Department of Commerce's U.S. Census Bureau. The NCVS was designed to collect information about victims of crime, to explore the consequences of crime, and to estimate the number and types of crimes that go unreported. The study was a prospective observational study because the survey followed victims prospectively, for a three-year period over seven interviews. For the consolidated NCVS DataFrame that I used in my analysis, there were 81 unique variables that included demographic variables (age, race, sex, etc.) and incident variables (type of crime, the location where it occurred, etc.). There are 8043 rows and thus 8043 distinct households. The NCVS is intended to be an unbiased sample because the NCVS randomly samples from the U.S. population. The NCVS also uses stratified sampling, which means that the population is divided into subgroups based on key demographic characteristics to ensure that the sample is representative of the population with respect to these key demographic characteristics. However, the National Crime Victimization Survey (NCVS) is subject to nonresponse bias, which can occur when individuals or households selected for the survey choose not to participate or are unable to be reached, and thus, the data may not represent the full population.

To begin my analysis, I first observed the demographic characteristics of the NCVS sample. The first demographic characteristic I observed was race. I decided to use the top three most populous race categories and consolidate all other racial groups into an “Other” group. From this bar chart, we can see that for males and females, those that identify with the “white only” demographic are by far the most common respondent. Between the sexes, it also appears that more women responded than men overall.



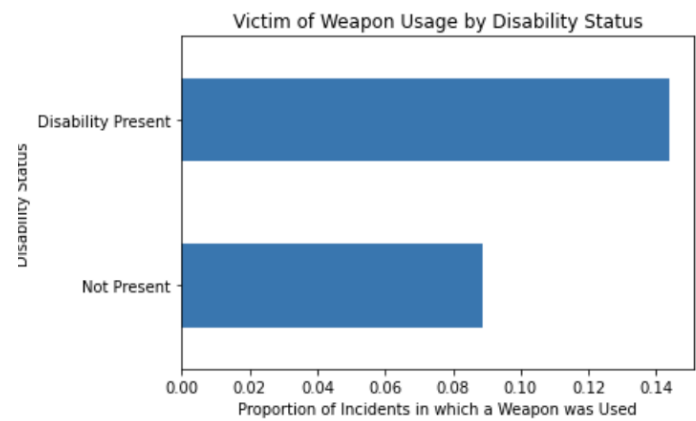
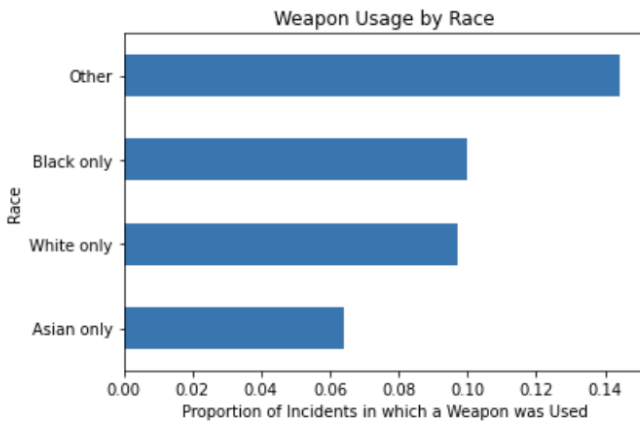
I also observed the distribution of income levels across the sample. The income levels appeared to have a symmetrical distribution with a center at \$50,000 to 74,999. As the income level approaches the extremes of low income and high income, the frequency count of sample responses decreases. This is in line with U.S. census data, in which they record the real median household income at approximately \$70,784.

Finally, I observed the distribution of ages which showed a similar symmetrical distribution centered around the 40-years-old range. This too is in line with U.S. census data in which the median household age is approximately 38 years old, indicating that the sample represented the U.S. population well.



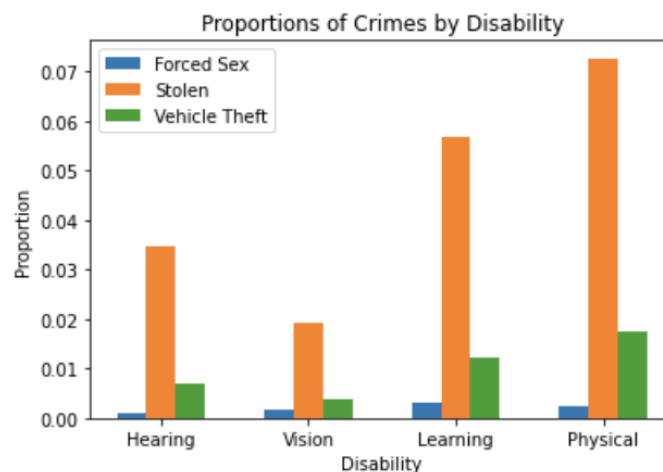
Income Level	Count
Less than \$5,000	228
5,000 to \$7,499	109
7,500 to \$9,999	170
10,000 to \$12,499	270
12,500 to \$14,999	192
15,000 to \$17,499	181
17,500 to \$19,999	182
20,000 to \$24,999	470
25,000 to \$29,999	358
30,000 to \$34,999	443
35,000 to \$39,999	427
40,000 to \$49,999	717
50,000 to \$74,999	1349
75,000 to \$99,999	986
100,000-\$149,999	998
150,000-\$199,999	436
200,000 or more	527

For my analysis, I observed whether different racial demographics or levels of disability were more likely to be subject to different forms of crime. By identifying disparities in data, law enforcement and policymakers can better implement crime prevention efforts and ensure that all communities are safe and secure. I compared each race by the proportion of incidents in which a Weapon was Used. This is because using the raw count of times a weapon is used would be confounded by the fact that most of the respondents were white. By using the proportion, we can calculate the rate in which these victims experience crimes with weapons. I calculated the proportion by counting each row of a race in which a weapon is used and then dividing that value by the total entries of that race. Through the data, we can see that the Other category had the most proportion of crimes in which a weapon was involved. It is important to investigate who is included in this category and understand the reasons behind the high incidence of weapons used in these crimes. Those that identified with “White Only” and “Black Only” experienced a similar proportion of weapons used against them. Finally, those that identified as “Asian Only” were the least likely to experience a crime in which a weapon was involved.



For my analysis on disability status, I created a dummy variable called “DIS_NONE” in which if the person has none of the disabilities listed in the dataset, they are given the value 1. Otherwise, they are given the value 2. This is so that we can directly compare the proportion of incidents in which a weapon was used between those with a disability and those without. From the model, we can see that those with a disability are significantly more likely to experience a crime in which a weapon was involved.

To follow up this analysis, I chose to observe each individual disability in order to better understand whether certain disabilities were more susceptible to certain types of crimes. I achieved this by taking the total number of people with a certain disability who has experienced each crime and dividing that by the total number of people with that disability. I decided to restrict the disabilities to hearing, vision, learning, and physical, because the “Dress/Bathe” and “Leaving Home” is likely to significantly overlap with the Physical Disability column. From the data, we can see that those with physical disabilities are the most likely to have items stolen from them and vehicle theft. Those with learning disabilities are most likely to be a victim of forced sex. Those with hearing disabilities are the least likely to be a victim of forced sex and those with vision disabilities are the least likely to be a victim of having items stolen from them and vehicle theft.



My data analysis suggests that different racial demographics and levels of disability may be more susceptible to certain types of crimes. The proportion of weapons used in crimes against individuals who identified as "White Only" and "Black Only" were similar. This indicates that both groups may face similar risks of being a victim of a violent crime involving a weapon, despite the fact that they are from different racial backgrounds. However, Individuals who identified as "Asian Only" were the least likely to experience a crime involving a weapon. While this is a positive finding, it is important to investigate the underlying reasons for this. It may be due to a lower overall crime rate in areas where many people identify as "Asian Only," or it may be due to other social, economic, or cultural factors.

It is important to note that these associations do not necessarily indicate causality, and there may be confounding variables that explain the relationships observed in the data. For example, it is possible that certain racial or disability groups live in areas that are more prone to certain types of crime, or that they have different levels of access to resources that may make them more or less likely to experience certain types of crime. One question to explore for further analysis would be: Are certain races more likely to be arrested for a crime than others, even if they are not the ones who committed it? To answer this question, data on arrest rates by race, as well as the reasons for those arrests, would be needed.

When observing the effect proportion of weapon usage by disability, individuals with disabilities are more likely to experience crimes involving weapons. This could be explained for a variety of reasons: Depending on the nature of their disability, individuals may have limited mobility or be slower to respond to dangerous situations, which could increase their risk of being harmed by a weapon. So, I took a closer look at the type of disability and it appears that those with physical disabilities were more likely to be a victim of crime across most of the crime variables in our dataset. However, once again, this study design cannot prove causation. One potential confounder is age. People with disabilities may be more likely to be older, and older people may be more likely to experience crime in general. Another example could be geographic location, in which people with disabilities may be more likely to live in urban areas (due to accessibility concerns) where crime rates are higher. One question to explore for further analysis would be: what are the long-term consequences of experiencing a crime involving a weapon for individuals with disabilities? To answer this question, data would need to be collected longitudinally to track outcomes such as physical and mental health, employment, and quality of life for individuals who have experienced such crimes.

In exploring the National Crime Victimization Survey dataset, I discovered that different racial demographics and levels of disability may be more susceptible to certain types of crimes. This highlights the importance of identifying disparities in crime victimization and implementing targeted crime prevention efforts to ensure the safety and security of all communities. Additionally, I gained an understanding of the demographic characteristics of the NCVS sample, including race, income level, and age distribution, which helped me better interpret and analyze the data. Overall, this analysis provides valuable insights into crime victimization in the United States and can inform future research and policy decisions.

Works Cited

1. *National Crime Victimization Survey (NCVS) Redesign : Technical Background. [Washington, D.C.] :Bureau of Justice Statistics, 1994.*