

ALTSCHOOL DATA ANALYSIS CAPSTONE PROJECT

CRIME ANALYSIS 2020-2023

A FOCUS ON GENDER-BASED
VIOLENCE IN CALIFORNIA, USA

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Learning Circle 1A

INTRODUCTION AND DATA DESCRIPTION

What is Gender-Based Violence?

According to the European commission, Gender-based violence is violence directed against a person because of that person's gender or violence that affects persons of a particular gender disproportionately. It can impact anyone regardless of their location, socio-economic background, race, religion, or sexuality.

The dataset utilized for this analysis, named "Crime Data 2020 to present" was sourced from Kaggle. It originally comprised of a wide array of crime data, including incidents such as theft, vandalism, assault, and other criminal activities recorded within California. However, we focused specifically on gender-based violence as defined by the UN which encompasses various forms of violence including physical, sexual, emotional, and economic abuse targeting individuals based on their gender identity or expression.



DATA QUESTIONS



1.

What was the distribution of male and female victims affected by these gender-based crimes in California?

2.

How were the victims of gender-based violence distributed across different age groups based on their gender?

3.

What is the status of the investigations into the reported crimes during that period?

4.

What were the top 5 most common forms of crimes related to gender that occurred in California from 2020 to 2023?

5.

In what specific locations or premises did most of these incidents of gender-based violence take place?



DATA CLEANING

I used Excel's Power Query Editor to clean and prepare my dataset for analysis. Firstly, I renamed columns in the dataset to provide more informative descriptions. I also replaced values in specific columns such as 'Case Status' and 'Victims' Sex' with more descriptive labels.

To focus on the main objective of my analysis, I eliminated irrelevant columns like 'crime code' and 'report district number'. I filtered the 'Crime Description' column to only include crimes that fall within the UN's definition of Gender-Based Violence.

Lastly, I transferred the refined data to Power BI, where I categorized the victims' age into distinct age groups, allowing for better analysis and understanding of age-related patterns.

These actions significantly improved the quality and relevance of the dataset, setting a solid foundation for my data analysis process.

DATA WRANGLING

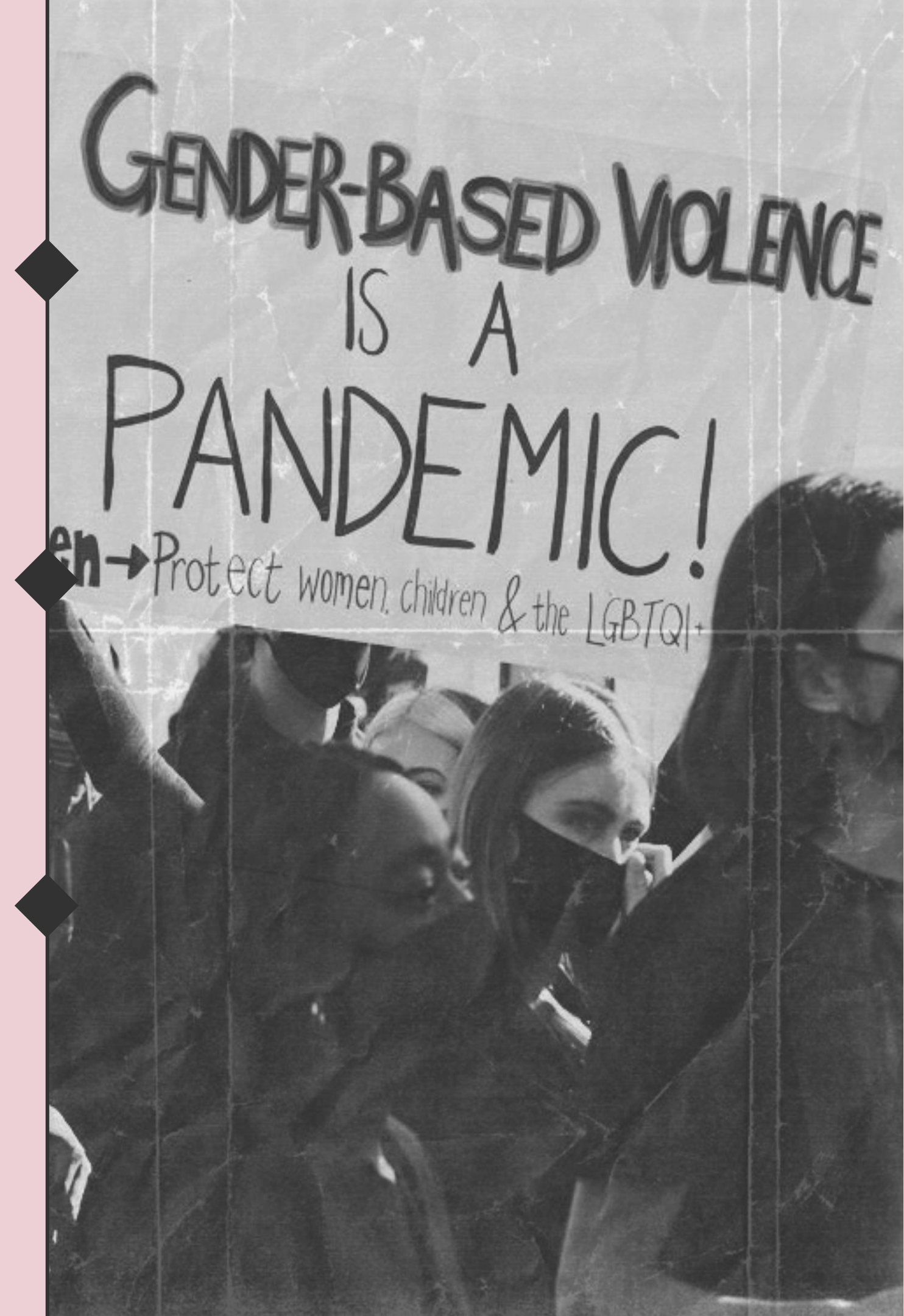
The data was obtained from [Kaggle](#) in CSV format and imported into Excel. It was then converted to Xlsx format and transformed into a table using the first row as the header.

This allowed for filtering and obtaining a general overview of the data. The table was then processed in Power Query Editor for further cleaning and refining.

Once the cleaning process was complete, the data was uploaded to Power BI for visualization and deriving insights.



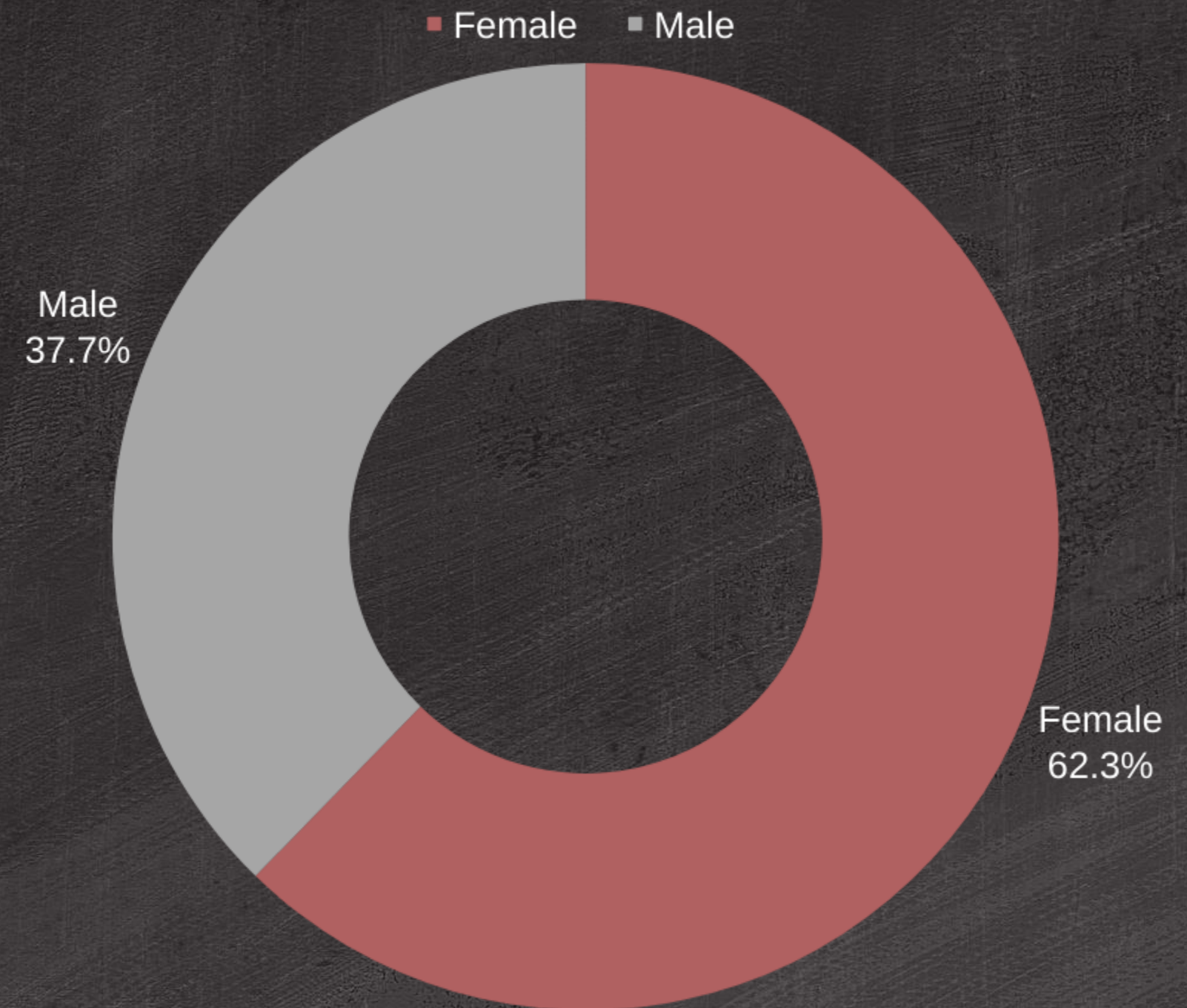
ANALYSIS & RECOMMENDATIONS



DISTRIBUTION OF GENDER-BASED CRIMES BY VICTIMS' SEX

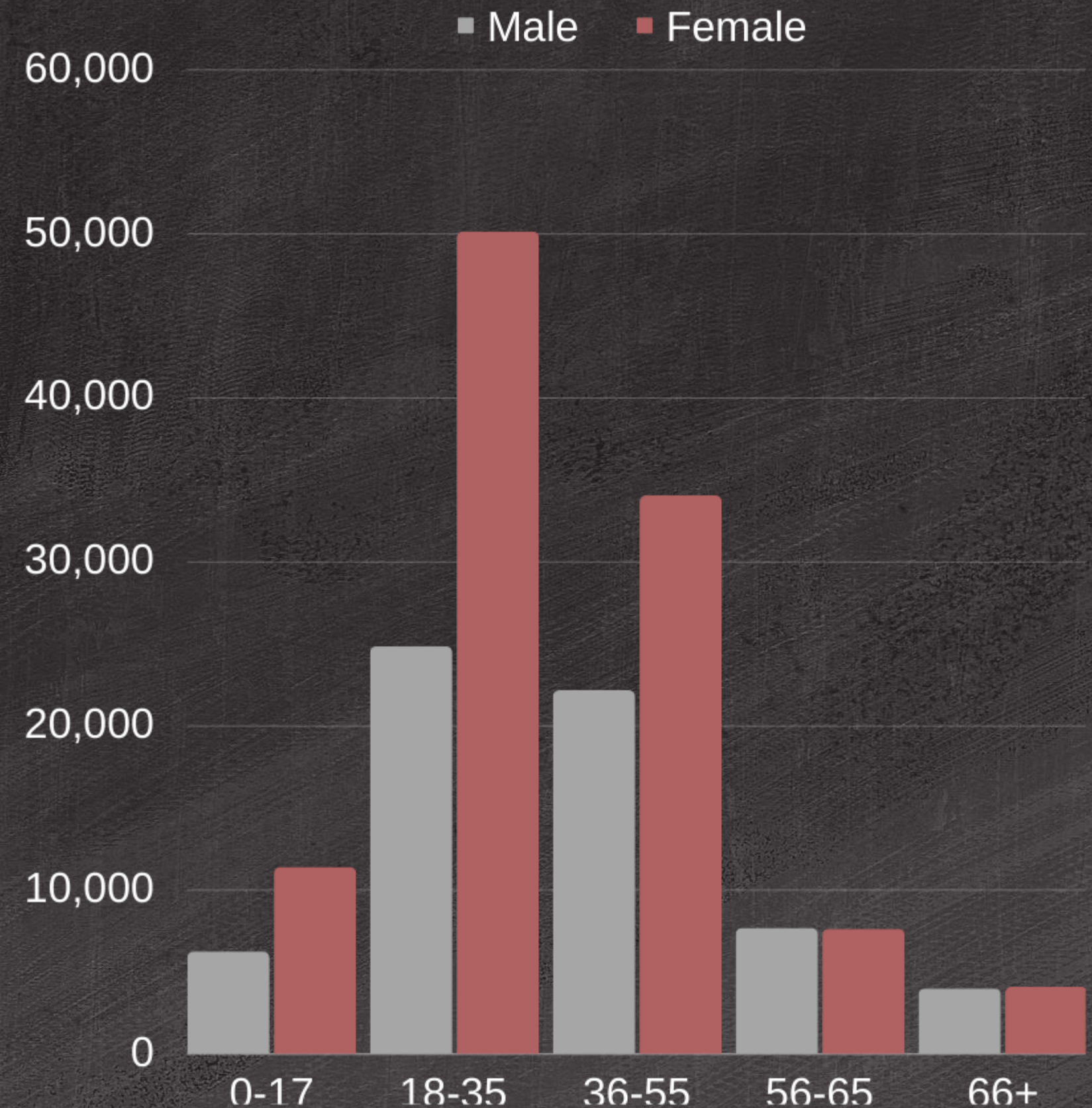
- The total number of gender-based crimes in California between 2020 and October 2023 stands at 172,429.
- Around 62.28% of the victims affected by gender-based violence were females, accounting for 107,397 reported incidents.
- Approximately 37.72% of the victims were males, with 65,032 reported incidents.

This information underscores that a larger proportion of reported incidents of gender-based violence affected females.



AGE DISTRIBUTION OF GENDER-BASED CASES

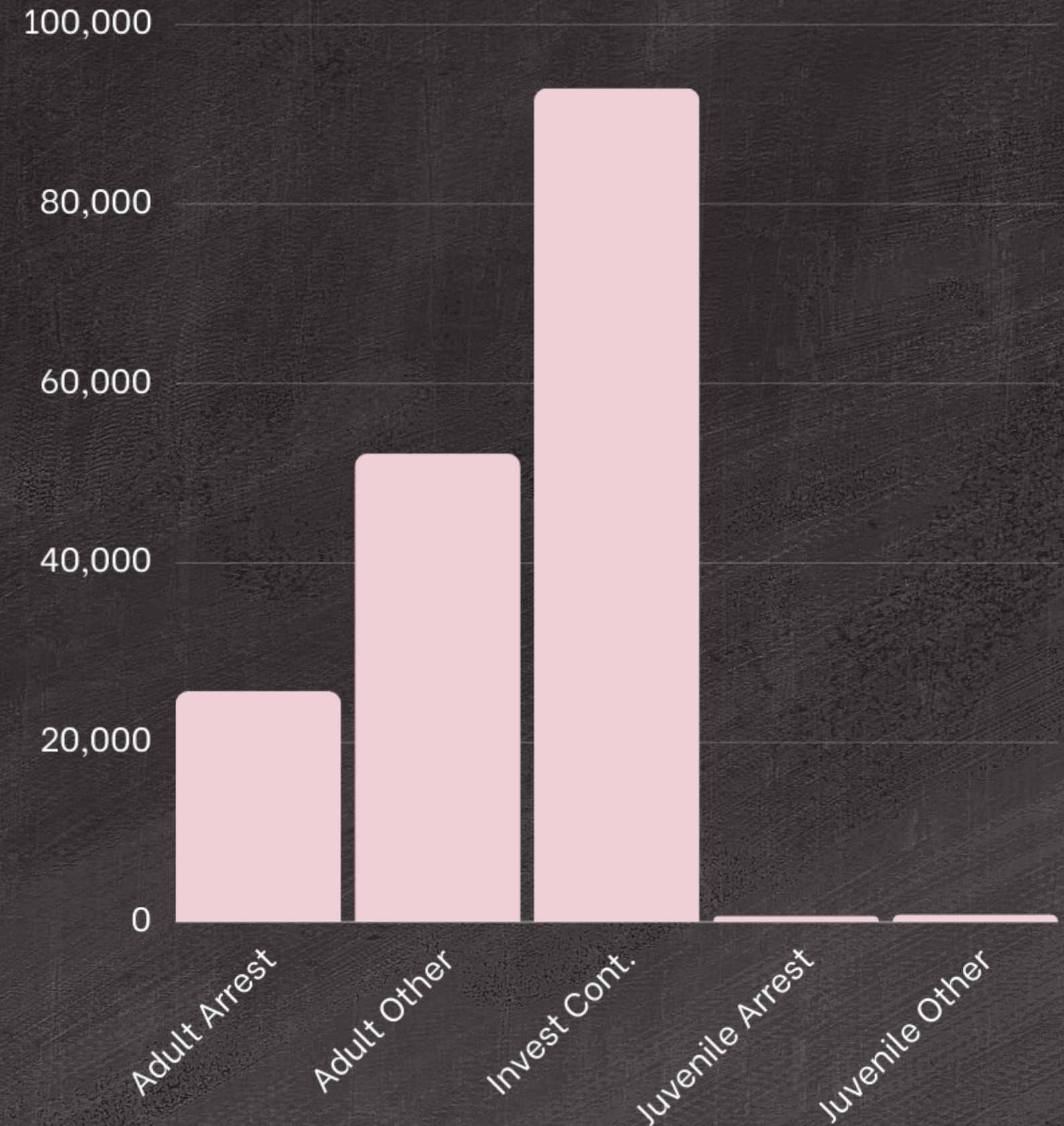
- Victims aged 18-35 represent the highest counts for both males and females within the dataset with 24,866 and 50,156 respectively accounting for over 40% of the crimes reported during the 4 year period.
- Age groups 36-55 also show substantial victim counts for both genders with 22,192 males and 34,068 females.
- For the Age groups of 56-65 and 66+, number of gender based cases reduce significantly and the distribution by gender is almost the same.
- The 0-17 age group is made up of toddlers, babies, children and teenagers and it accounts for 17,618 cases reported during this period.



STATUS DISTRIBUTION OF GENDER-BASED CASES

- Adult Arrest and Adult Other: This encompasses 77,947 incidents where adults were either arrested or alternative resolutions were put into place for Gender based crimes.
- Juvenile Arrest and Juvenile Other: In 1,553 cases, juveniles have either been arrested or alternative resolutions have been implemented.
- Investigation Continued: This represents the largest portion of the cases, accounting for 92,928 incidents. These cases are still under investigation or have ongoing legal processes.

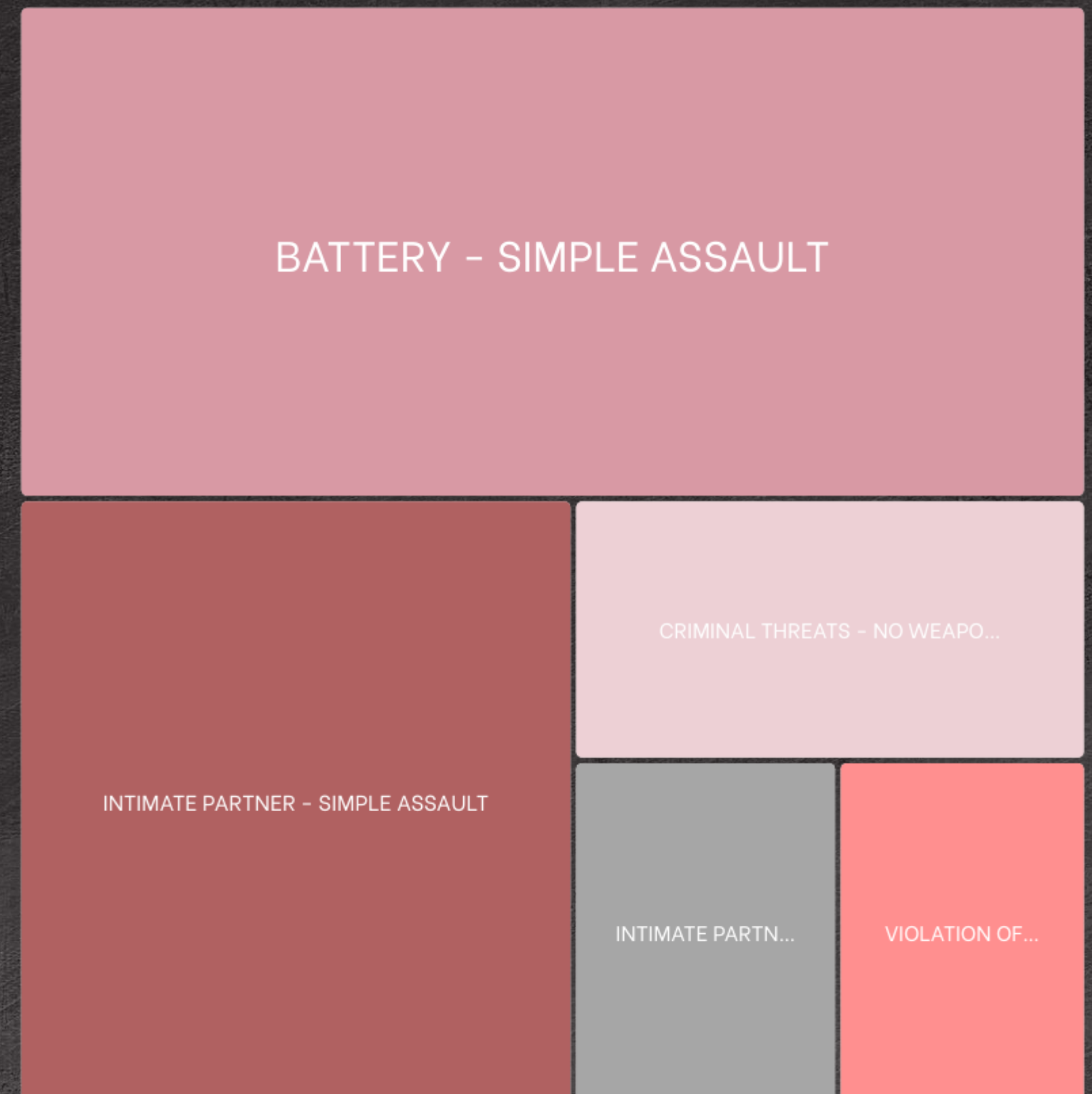
The data reveals that a significant number of gender-based violence cases remain unresolved, with over half of the reported incidents still under investigation or undergoing legal processes.



TOP 5 MOST COMMON FORMS OF GENDER-BASED CRIMES

Among the top 5 most common crimes, the combined number of reported assault-related cases stands at 117,231. This includes:

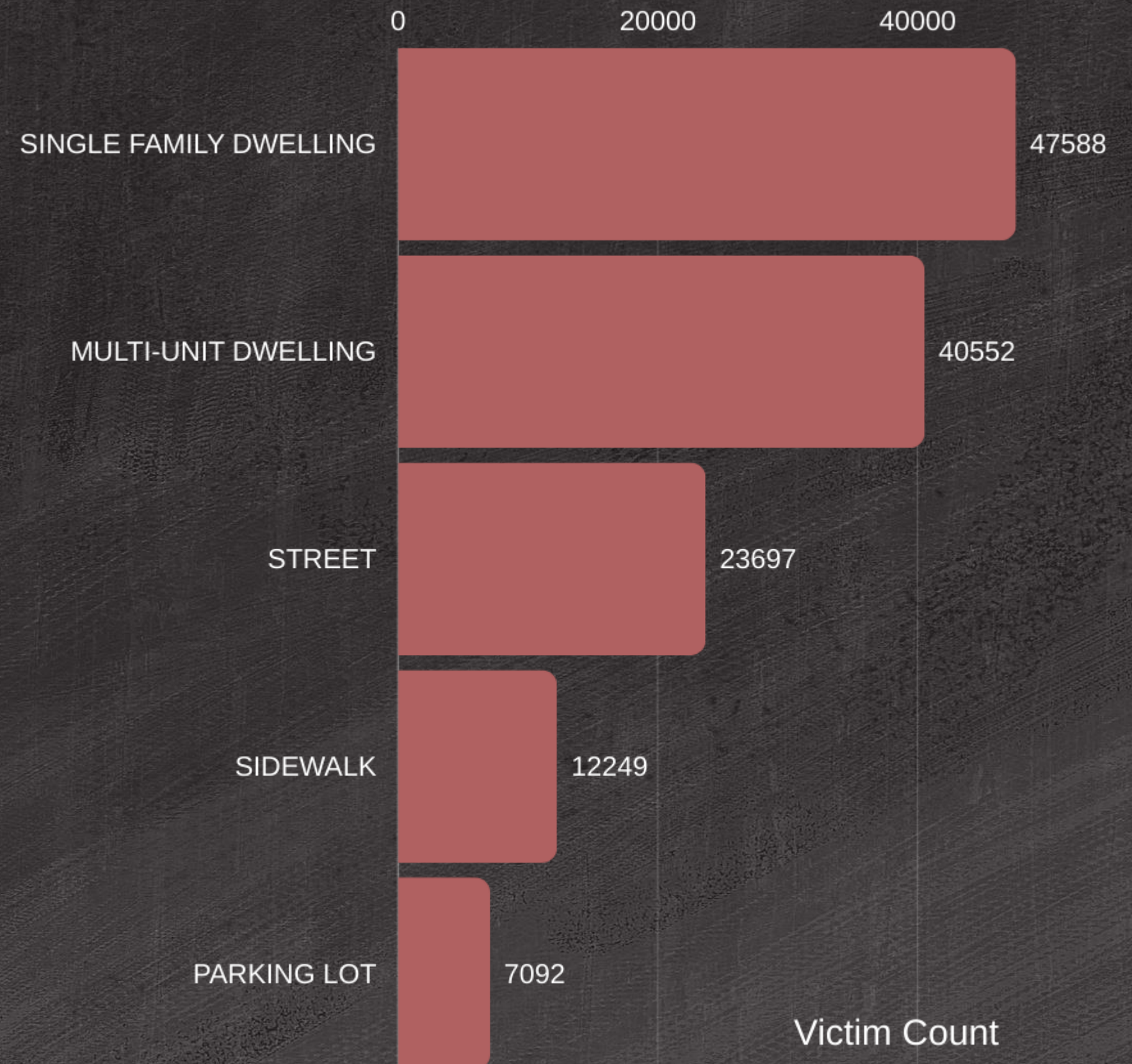
- Battery - Simple Assault: 64,541 cases involving physical violence without weapons.
- Intimate Partner (Aggravated Assault & Simple Assault): There were 11,102 reported aggravated assault cases and 41,049 cases of simple assault, highlighting varying levels of violence within these relationships.
- There were 16,539 reported cases of criminal threats without displaying a weapon and 10,318 cases involving violations of restraining orders during the specified period.



TOP 5 LOCATIONS OF GENDER-BASED INCIDENTS

- Residential areas (single-family and multi-unit dwellings) accounted for a high number of incidents, totaling 88,140 cases. With single family dwellings having 47,588 incidents and multi unit dwellings (apartments, duplexes) having 40,522.
- Public spaces like streets, parking lots and sidewalks collectively reported 35,946 incidents.

The data indicating a high prevalence of gender-based violence incidents occurring in residential areas suggests that in a significant number of cases, the perpetrator might be someone known to the victim or within their social or domestic sphere.



INSIGHTS

- **Victim Gender Disparity:** Majority of gender-based violence victims were female, accounting for over 60% of all reported cases during the 4-year period, this emphasizes the need to address the specific vulnerabilities faced by women.
- **Age Vulnerability:** The data shows a higher vulnerability among younger age groups (0-17 and 18-35), particularly with a higher number of females. Additionally, the 56-65 and 66+ age brackets show the susceptibility of the elderly to gender-based violence.
- **Perpetrator Identification:** The data strongly supports that a significant portion of gender-based violence cases occur at the hands of people known to the victims, especially within intimate partner relationships and residential settings.
- **Unresolved Cases:** Over 50% of all reported gender-based crimes remain unresolved, leaving numerous victims without justice or closure, underscoring the urgency to improve investigative procedures and provide better support for victims.
- **Varying Degrees of Severity:** The data shows a wide range of violence, from severe cases like assault, human trafficking, and rape to less severe instances, highlighting the complex nature and varying degrees that gender-based crimes can have.
- **Underreporting:** This data likely represents only reported cases, indicating potential underestimation of the true scale of gender-based violence due to stigma or fear, emphasizing the need for improved reporting systems and enhanced victim support.

RECOMMENDATIONS

VICTIM SUPPORT

- **Accessible Support Services:** Establish easily accessible support services, such as hotlines, counselling centres, and shelters, to provide immediate help and support to victims of gender-based violence.
- **Trauma-Informed Care:** Ensure that support services are trauma-informed, meaning they take into account the psychological and emotional impact of violence on victims and provide specialized care and assistance.

THE JUSTICE SYSTEM

- **Strengthening Laws and Policies:** Review and strengthen existing laws and policies related to gender-based violence to provide better protection for victims and ensure appropriate punishment for perpetrators. This includes addressing gaps in legislation and enhancing penalties for offenders.
- **Supportive Court Processes:** Implement measures to make court processes victim-friendly, such as providing special waiting areas, separate testimony rooms, and support from victim advocates to reduce re-traumatization and increase victim confidence in the justice system.

RECOMMENDATIONS

◆ SOCIETAL AWARENESS AND EDUCATION

- **Comprehensive Awareness Campaigns:** Launch targeted awareness campaigns in schools and communities to educate the public about gender-based violence, its impact, and available resources. These campaigns should challenge societal norms, raise awareness about consent, and promote bystander intervention.
- **Engaging Men and Boys:** Promote the involvement of men and boys in efforts to end gender-based violence by educating them about healthy masculinity, respectful relationships, and the importance of being allies to survivors.
- **Community Partnerships:** Foster collaboration with community organizations, NGOs, and grassroots movements to create a network of support and strengthen efforts to prevent and address gender-based violence at the local level.
- **Comprehensive Education:** Integrate comprehensive education about healthy relationships, consent, and respect in school curriculums to prevent GBV from an early age.

CONCLUSION

Gender-based violence is a complex issue that affects people of all ages and occurs in various intimate settings. The analysis reveals the prevalence of this disturbing phenomenon, emphasizing that it transcends age boundaries and familiarity with the perpetrators. The data highlights the urgent need for a comprehensive approach that includes tailored victim support, legal reforms, and societal education.

Beyond just numbers, it calls for recognizing the collective responsibility to create a world where safety, respect, and dignity are universal rights. It urges us to take action, unite, speak out, and work towards a future free from gender-based violence.

THANK YOU!!!!

