Homicide Reports: Serial Killer

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Introduction

For this project, I am only concerned in identifying serial killers from this dataset. According to Robert Ressler, the FBI Agent that created the phrase "Serial Killer," a serial killer is a person who murders three or more people in a period of over a month, with a "cooling down" time between murders. In extend, the murders must be separate events. For this dataset, I am unable to identify if the murders took place in separate events. Therefore, we can not differentiate serial killers with spree and mass murderers. For the purpose of this project, Spree and mass murderers would be categorized as serial killers to achieve the desired results. Nevertheless, this project focuses on the victims itself in order to understand the serial killer target audience. If we concentrate our attention on the groups that serial killers constantly target, we will do a lot more to reduce the incidence of serial murder in our cultures as opposed to attempting to catch serial killers by studying their damaged psyches mind.

Disclaimer: This analysis will not include unknown victims. The victim must be identified.
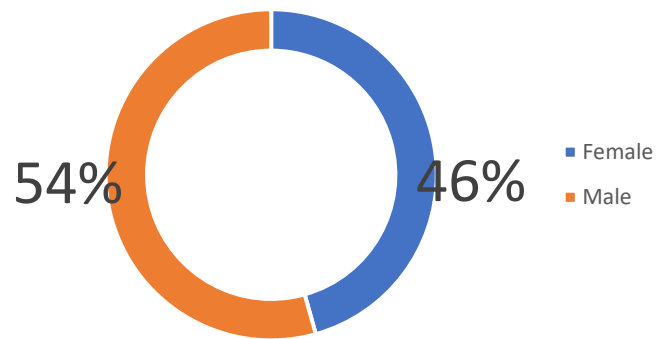
Appendix

1. The data source for this analysis can be found in Kaggle. The data was compiled and made available by the Murder Accountability Project, founded by Thomas Hargrove.
   Link: https://www.kaggle.com/datasets/murderaccountability/homicide-reports
1. This dataset provides 22,000 homicide reports from 1980 to 2014. It includes information of the victim and the perpetrator such as their demographic information, the relationship of the perpetrator to the victim, the weapon used, and the type of crime.
2. For this case study, I filtered some data in order to identify any serial killer activity. The following columns were filtered to the corresponding value:
   Crime Type: Murder or Manslaughter
   Victim Count: Range(3,11) (3 to 10 murders)
   Perpetrator Count: 1 (only 1 individual) the preparator needs to act alone
4. The dataset was cleaned but, I prepared the dataset by removing any unnecessary columns. Such as Record ID, Agency Code, Agency Name, Agency Type, City, State, Year, Month, Incident, and Record Source. I created an additional column named "Victim Age Category" in order to categorize age groups.
5. Lastly, I begun my exploratory data analysis to gain insights in who serial killers constantly target.
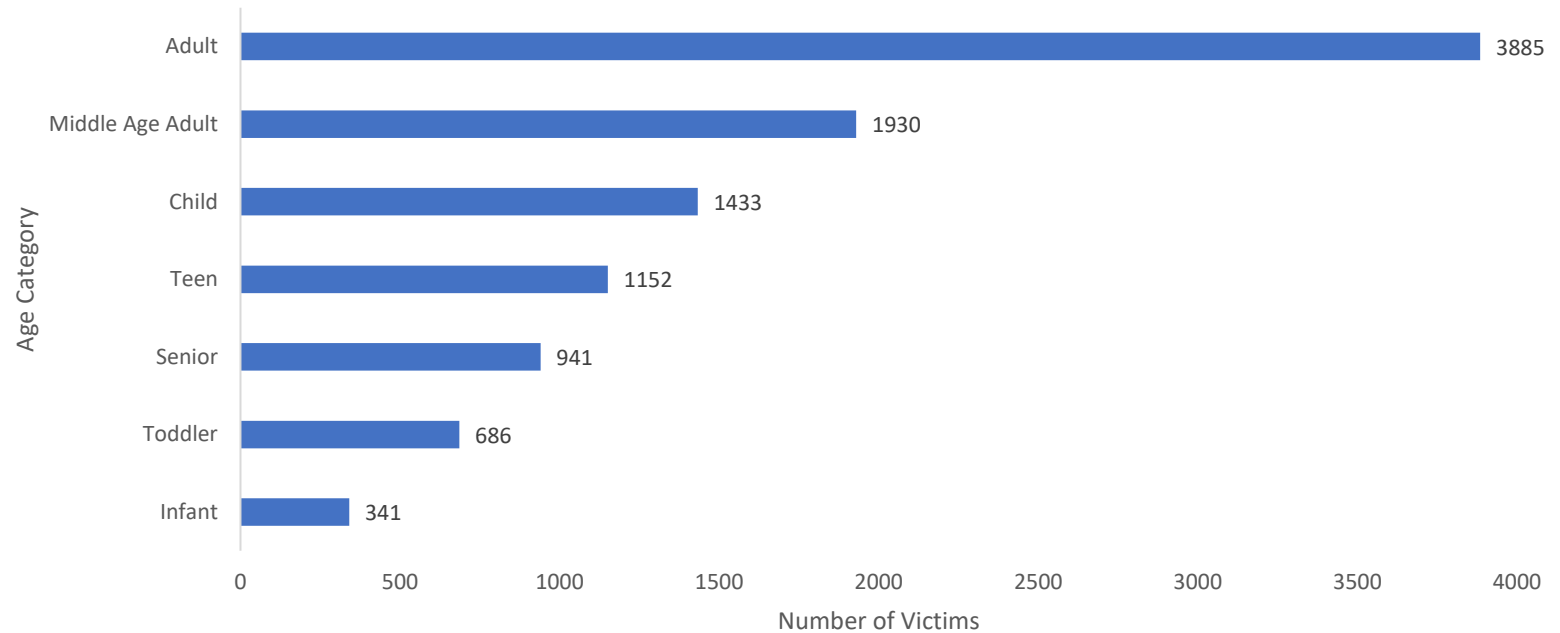
Questions

1. How many serial killers are in this dataset?
2. What percentage of serial killers' victims are male and female?
3. Do serial killers target woman more often than men?
4. Which age group are targeted the most by serial killers?
5. Are elderly people more at risk than other age groups?
6. Which race is targeted the most by serial killers?
7. What type of relationship did these serial killers had with the victim? Which relationship type is most at risk?
8. Do Serial Killers target victims of their own race? If not, which ethnicity group do they most likely target?
9. Do male and female serial killers commit their crimes in different ways?
10. Do male and female serial killers choose their victims differently?

Who do Serial Killers target the most?
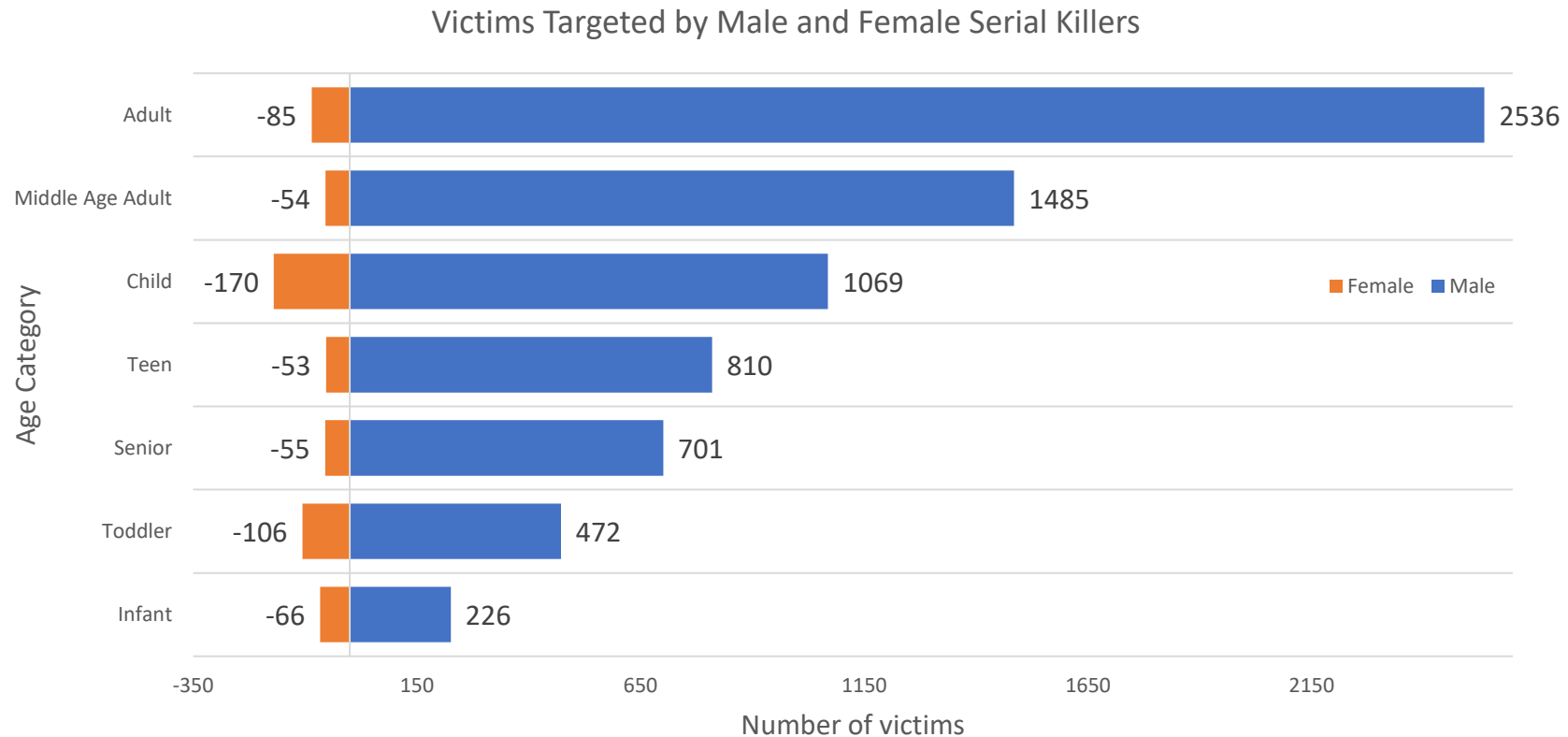
Serial Killer Victims Based on Sex

54% Male
46% Female

- Female
- Male

Serial Killer Victims Based on Age Category

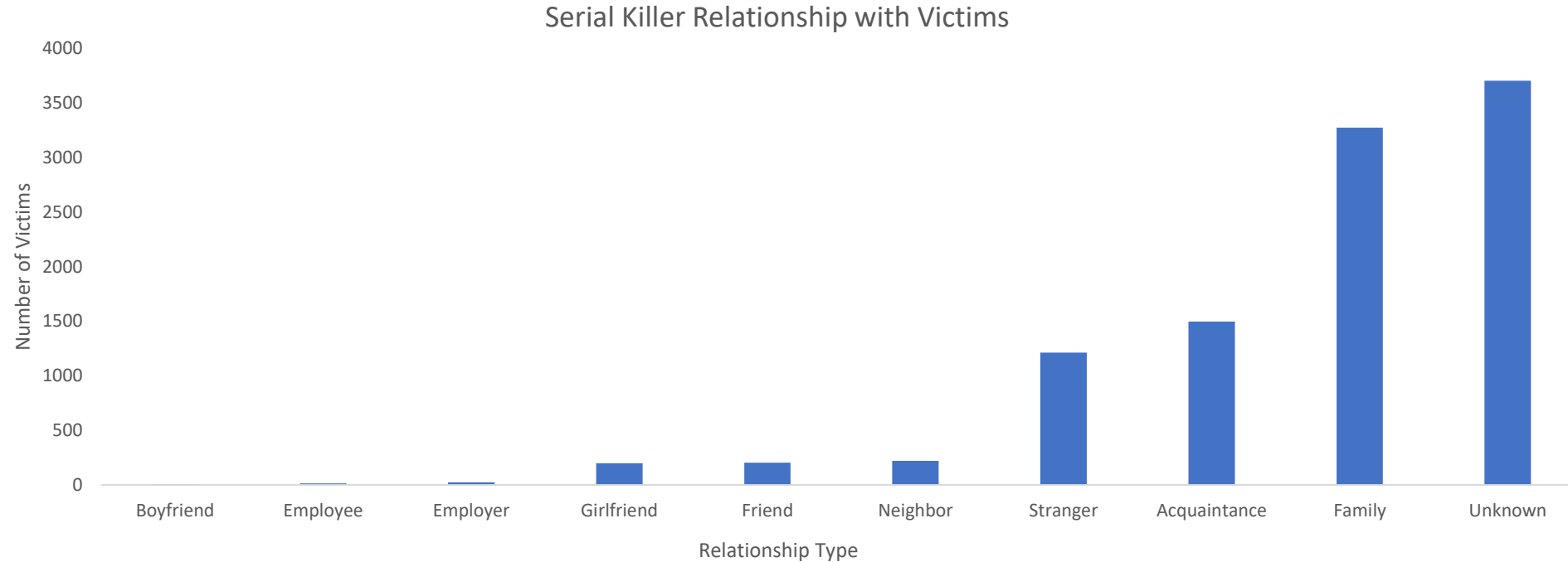| Age Category	Number of Victims
Adult	3885
Middle Age Adult	1930
Child	1433
Teen	1152
Senior	941
Toddler	686
Infant	341

Number of Victims

We can see that there are more male victims than female victims in this dataset. Overall, the target age range for serial killers are adults between the ages of 20 and 39. The second most target victims is Middle-Aged adults in the age range between 40 and 59.

Target Age Range for Male and Female Serial Killer

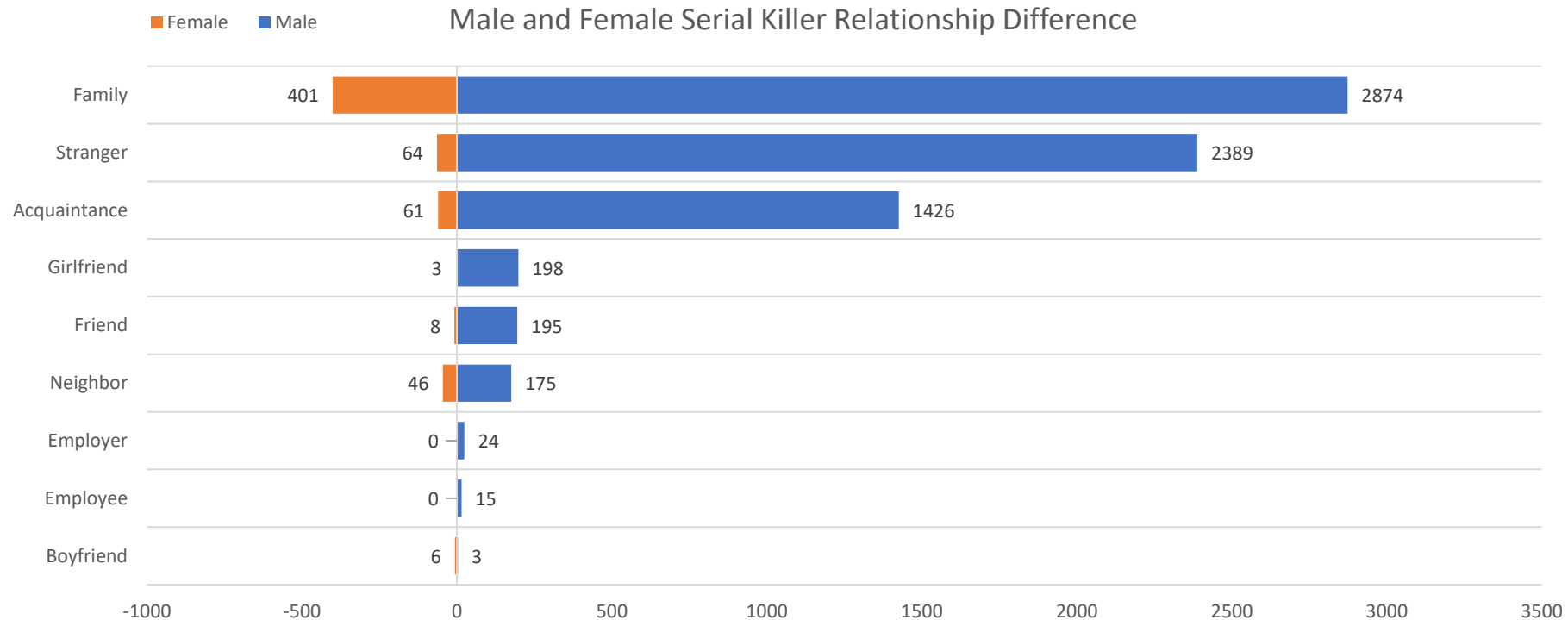Victims Targeted by Male and Female Serial Killers

We can see that the target age range between male and female serial killers differs. Male serial killers tend to target adults whereas female serial killers tend to target mostly children and toddlers.

Relationship between Serial Killer and Victim

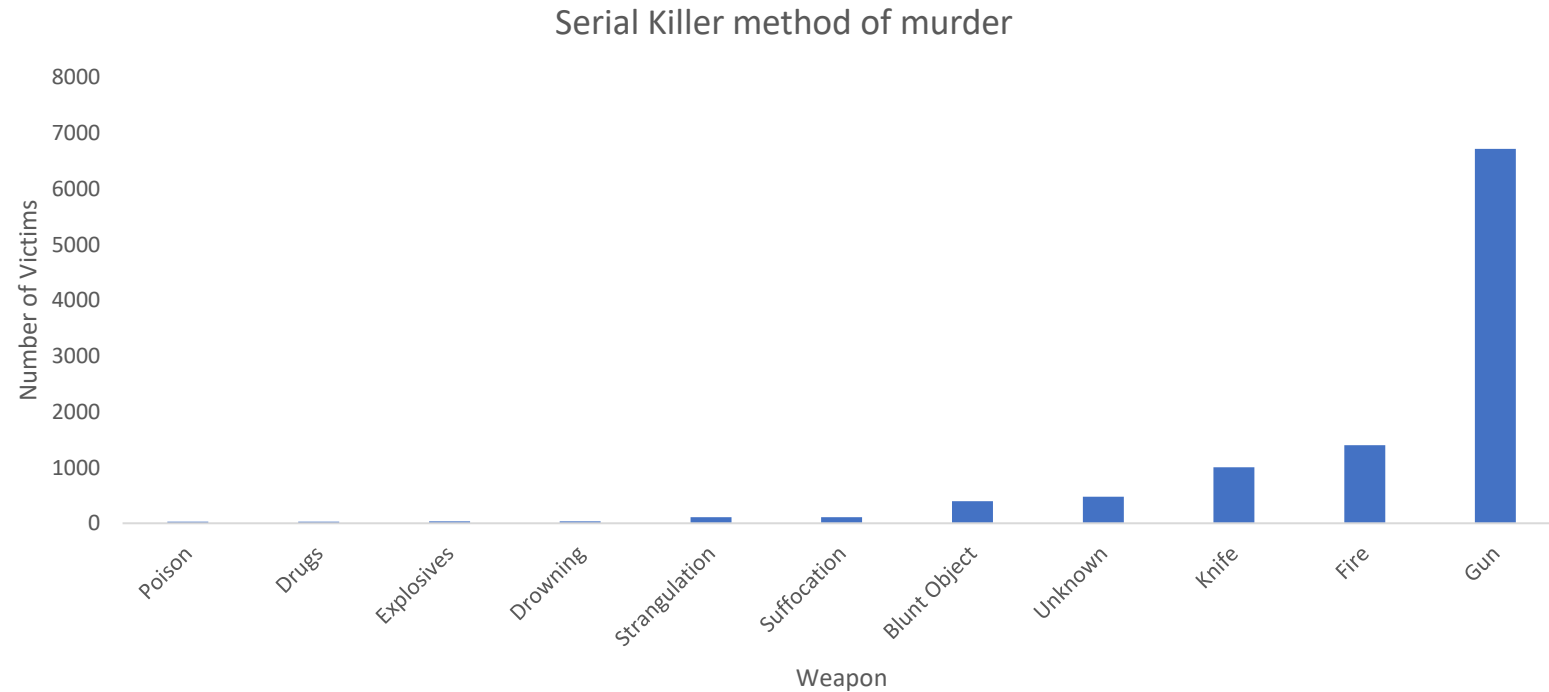Serial Killer Relationship with Victims

We can see that most of the cases we weren't able to identify the relationship between the preparator and the victim. In the majority of the cases, the main victims of serial killers are family. In this dataset, Family includes husband, wife, brother, sister, son, daughter, father, mother, stepfather, stepmother, stepson, stepdaughter, ex-husband, ex-wife, common-law husband, common-law wife, and in-law. Next, Acquaintance is the second among serial killer's target. It appears that most of these victims known who the preparator was. For stranger, serial killers target people randomly. What are the motive factors behind these serial murders?

Do Male and Female Serial Killers Choose Their Victims Differently?

Male and Female Serial Killer Relationship Difference

■ Female ■ Male

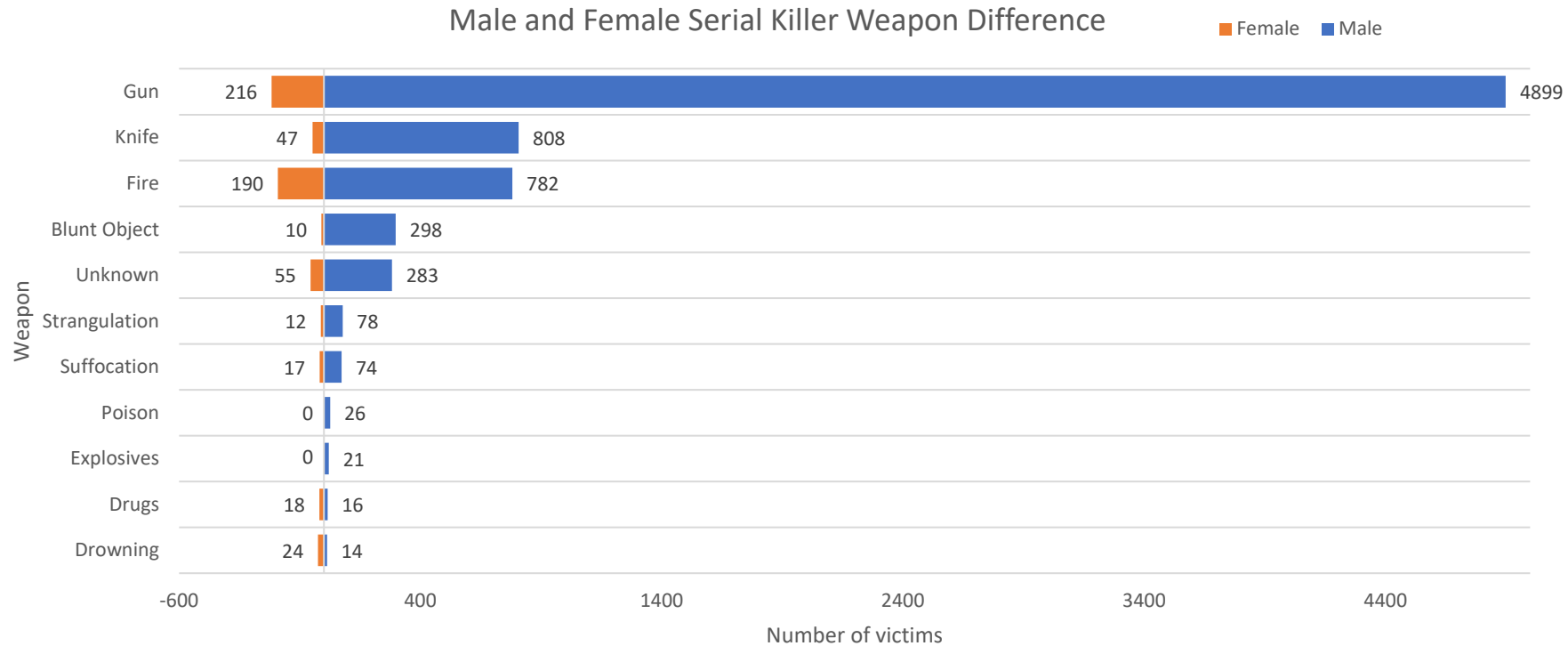| Relationship	Female	Male
Family	401	2874
Stranger	64	2389
Acquaintance	61	1426
Girlfriend	3	198
Friend	8	195
Neighbor	46	175
Employer	0	24
Employee	0	15
Boyfriend	6	3

There's a huge sample size between male and female serial killers. There are similarities between male and female serial killers choosing their victims. They both target mainly family members, strangers, or an acquaintance.

Method of Murder

Serial Killer method of murder

It's difficult to extinguish the method of murder for serial killers as most will kill their victims in different ways. That being said, Gun appears to be the top weapon for these serial murders. I was surprised to see fire in this list. Another use common weapon are knife.

Do male and female serial killers commit their crimes in different ways?

Male and Female Serial Killer Weapon Difference

Weapon	Female	Male
Gun	216	4899
Knife	47	808
Fire	190	782
Blunt Object	10	298
Unknown	55	283
Strangulation	12	78
Suffocation	17	74
Poison	0	26
Explosives	0	21
Drugs	18	16
Drowning	24	14

Number of victims

We are not able to distinguish a difference between the male and female methods of murder. As the top three murder weapon for both preparator sex are gun, fire, and knife. Unknown is not included.