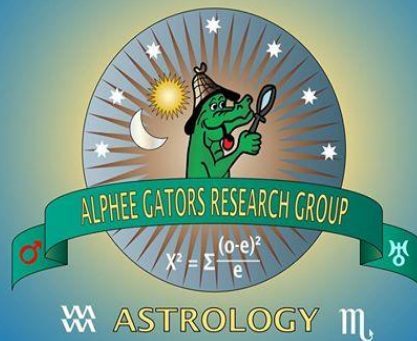


# MASS SHOOTINGS IN THE USA FROM 2013 TO JULY 2022

The United States of America has several shootings a day. Many of them are mass shootings. Mass shootings can be classified in a couple of ways. The first is four or more people shot, or the more lethal, four or more killed. In this analysis, we examined the charts of the shootings where four or more people were killed.

A Study by the  
Astrological  
Investigators

The Gators are an Astrological Group Dedicated to do Statistical Scientific Research to Prove and Disprove Astrology



## **THE TEAM**

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Data collection by Franco Minatel, Pamela Kokott, Tim Gore, Jeanne Beaulieu and Patricia

## **INTRODUCTION**

The United States of America has several shootings a day. Many of them are mass shootings. Mass shootings can be classified in a couple of ways. The first is four or more people shot, or the more lethal, four or more killed. In this analysis, we examined the charts of the shootings where four or more people were killed.

The study will determine if there is any correlation between astrological placements and the time when these murders occurred.

## **DATA**

The shooting data was collected from <https://www.gunviolencearchive.org/> and various news sources for the years between 2013 to 2021. There were 244 mass shootings during this period. Of the 244, 205 could have a time ascertain for the time of the killing, typically when the shooting was reported. We were unable to determine the time for the remaining 39.

## **CRITERIA**

This particular study examined Sun, Moon, Mars, and Venus in sign. We also considered the Moon phase, retrograde and out-of-bound planets.

## **STATISTICS**

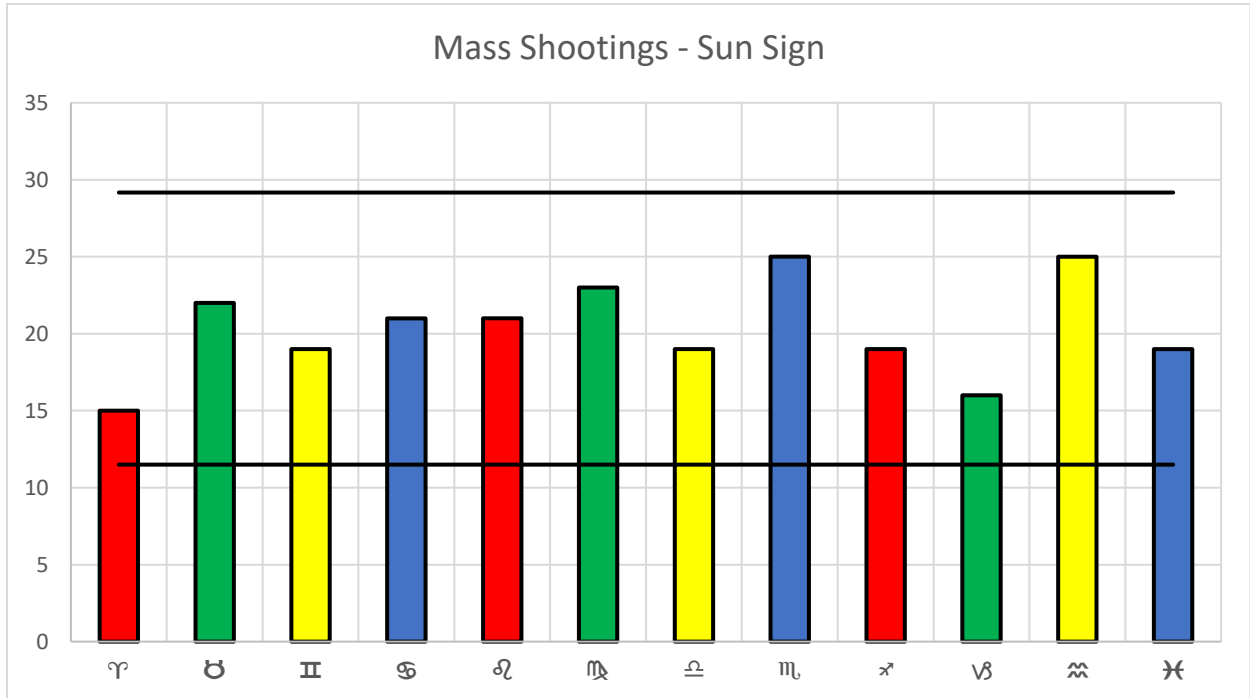
**Chi-Square** is a value that measures the probability of an event being beyond chance or not. The typical chi-square value used is 3.85, which equates to an event's likelihood of being unique at 95%. A chi-square value below that means that the event can happen by chance.

$$X^2 = \sum \frac{(o - e)^2}{e}$$

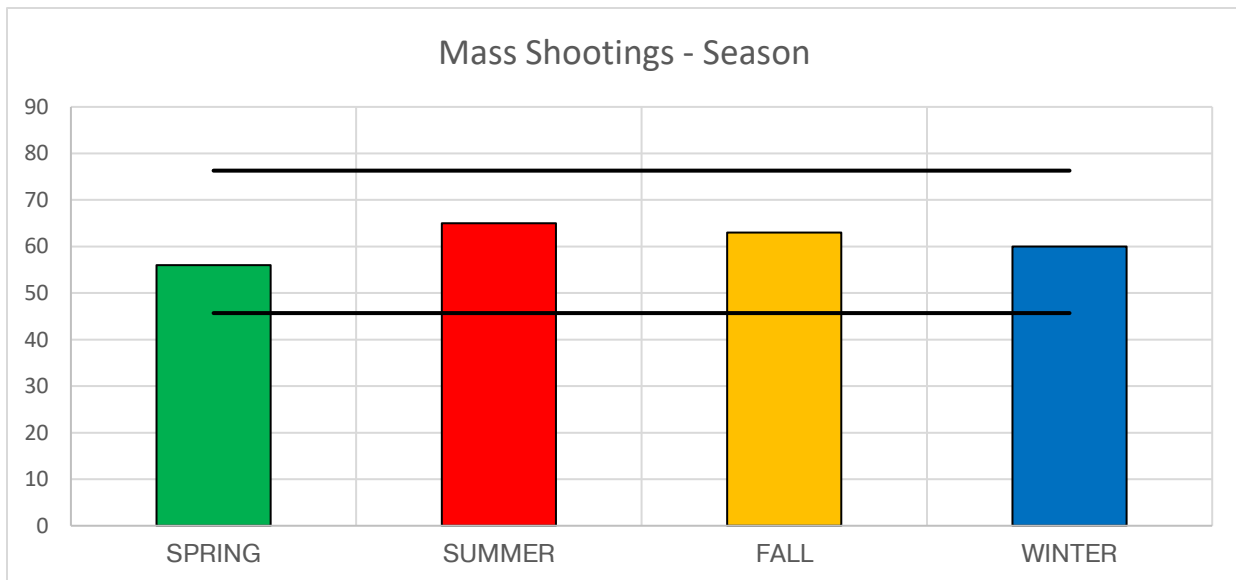
**P-value** is a probability measurement which corresponds to the chi-square value. A p-value of .05 represents the event has a 95% probability of occurrence, meaning that it is above chance.

**RESULTS – SUN**

We examined the position of the Sun. The lines shown are the  $\chi^2 = 3.85$ , meaning if an event falls between those lines, there is nothing significant about the measurement. More mass shootings occur when the Sun is in Scorpio and Aquarius and less in Aries and Capricorn but still fall in the normal probability of occurrence.

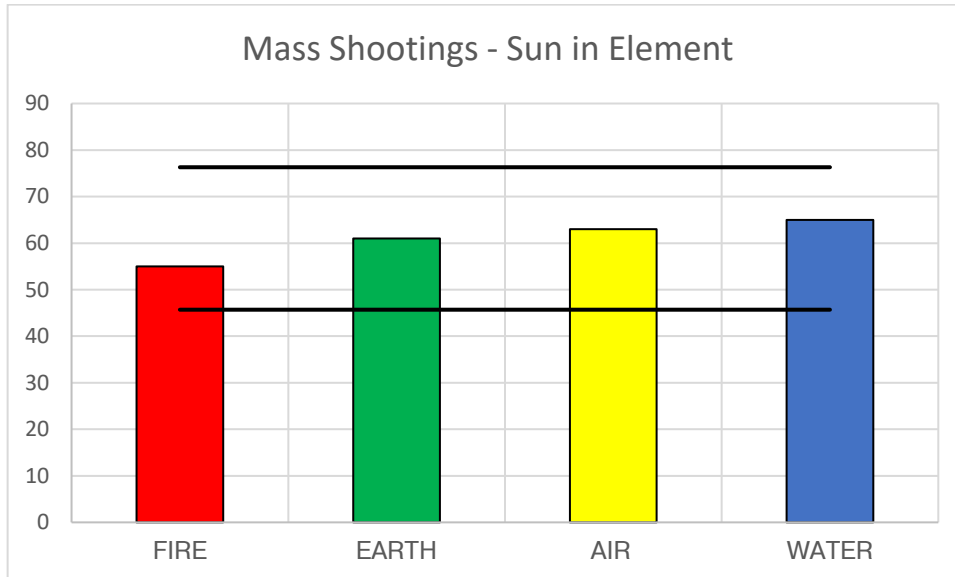


If we examine the seasonal distribution, the results show that nothing is out of the ordinary.

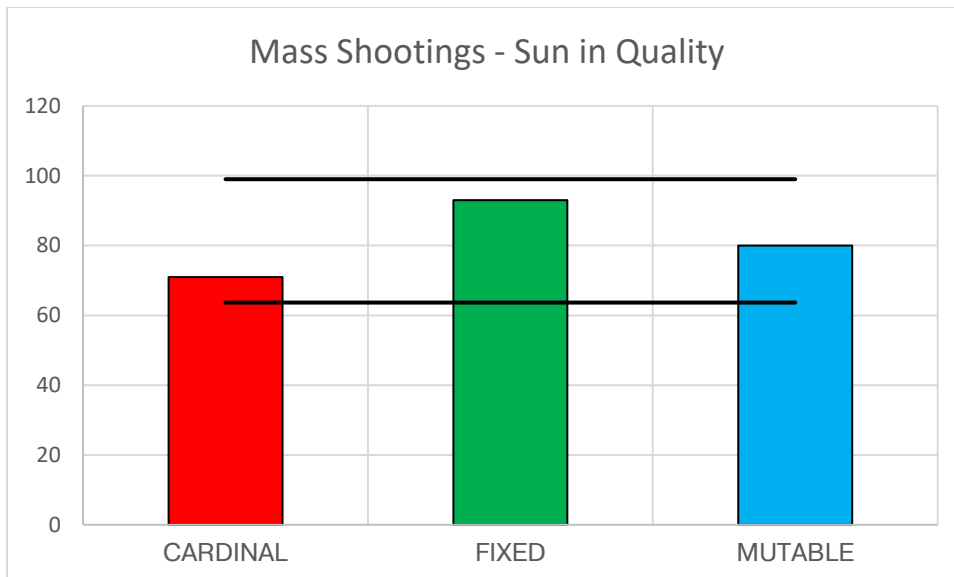


## Mass Shootings Study

Again, when examining the shootings by element, nothing is out of the ordinary. Still, it is interesting to note that fewer shootings occur in fire signs than in water signs by approximately 18%.

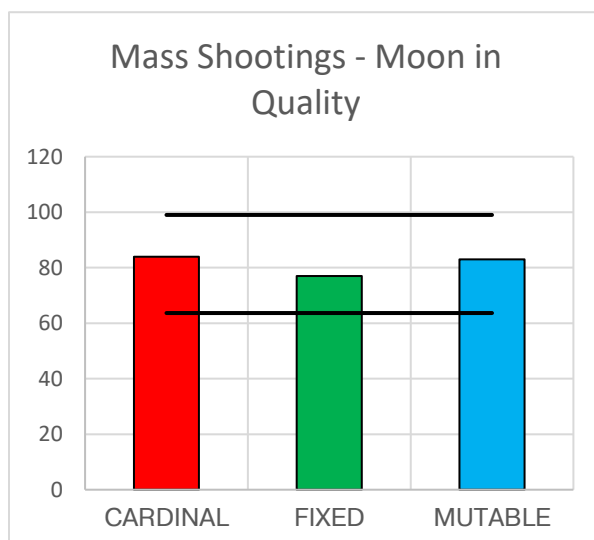
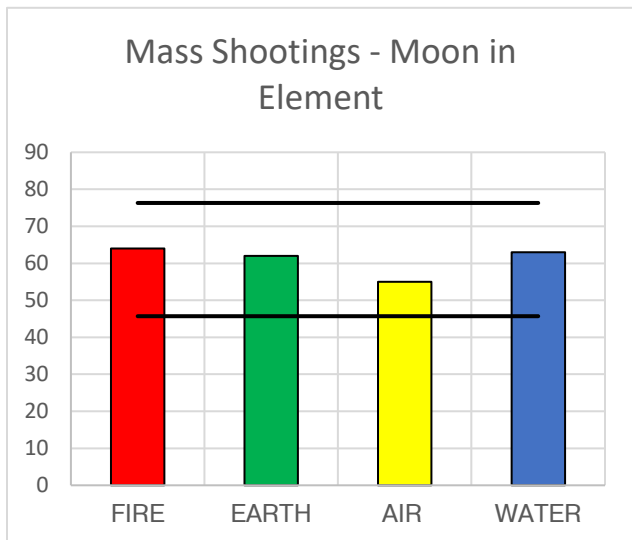
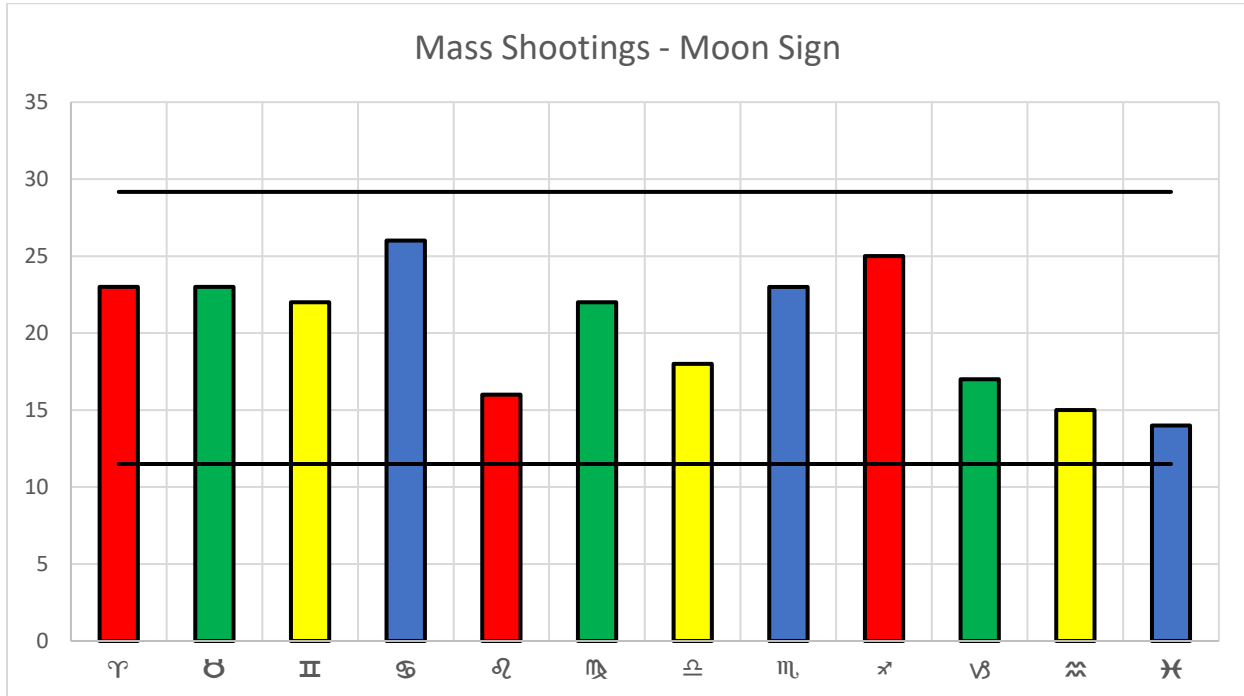


The Sun in quality shows a 30% difference between cardinal and fixed. These still fall within the expected limits but there is greater chance of a mass shooting occurring during the Sun's travel in fixed signs.



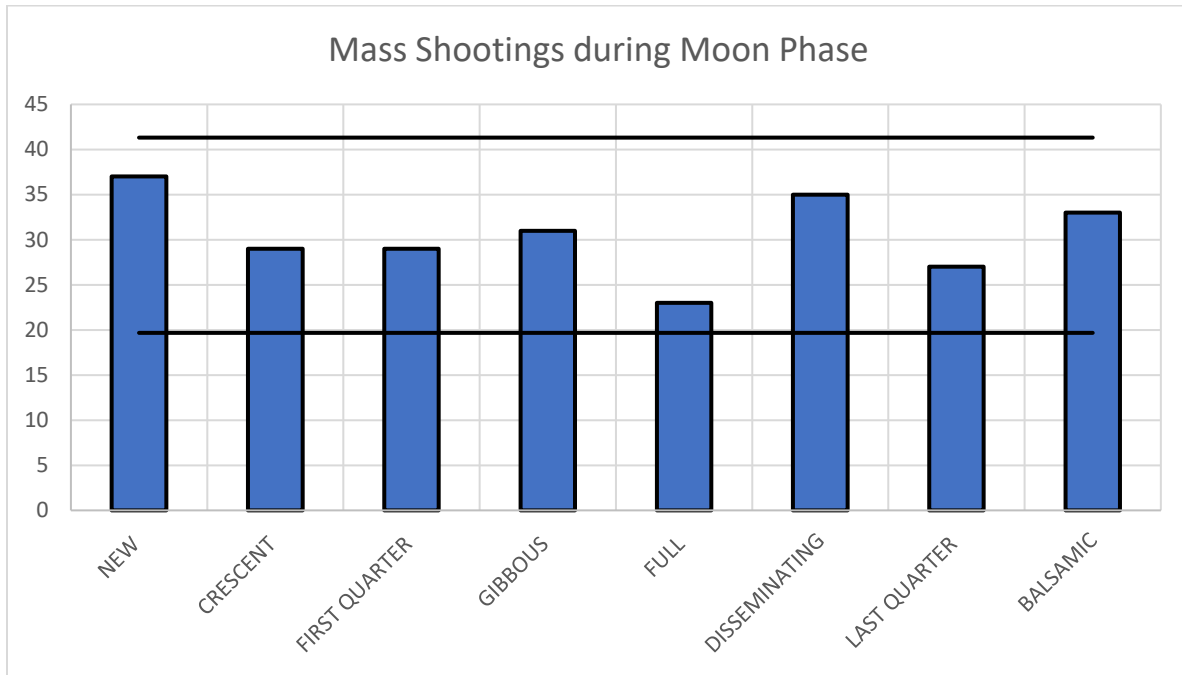
**RESULTS – MOON**

The Moon’s placement in sign still falls within the expected range. While the Moon in Cancer and Sagittarius have the most occurrences and the Moon in Leo, Aquarius, and Pisces are the least, none fall out of the expected range.

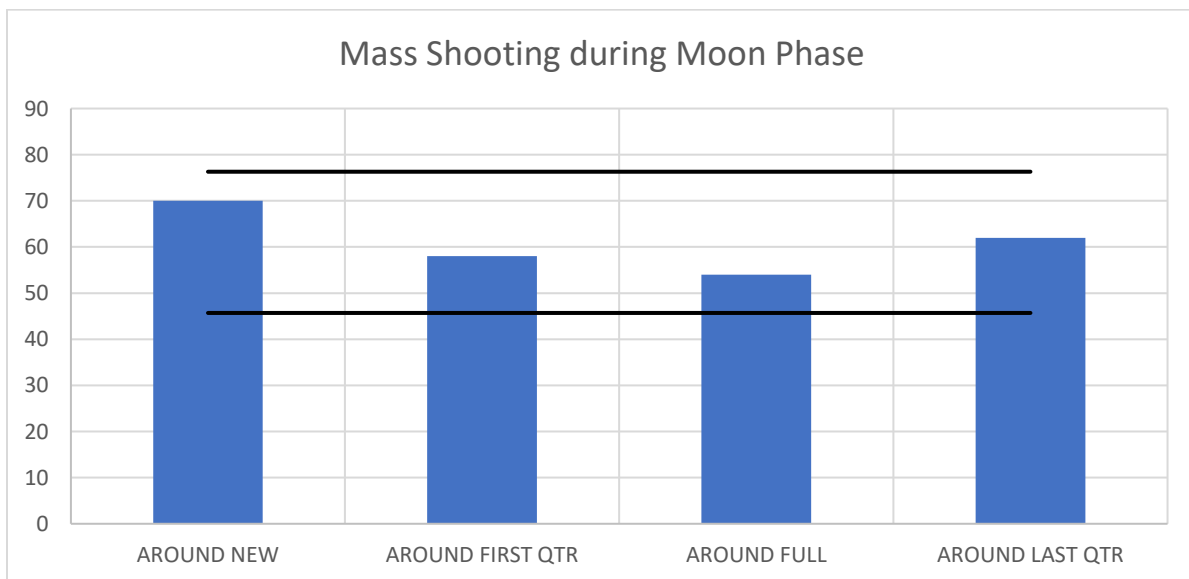


**MOON IN PHASE**

Once again, nothing out of the ordinary with the Moon’s phases. One point that is interesting to note is there were more mass shootings around the new Moon than during the full Moon. Typically, the full Moon is associated with erratic behaviour, and the emergency wards are generally believed to have higher occupancy during the full Moon. These results show the opposite, with the new Moon having 60% more shootings than the full Moon.

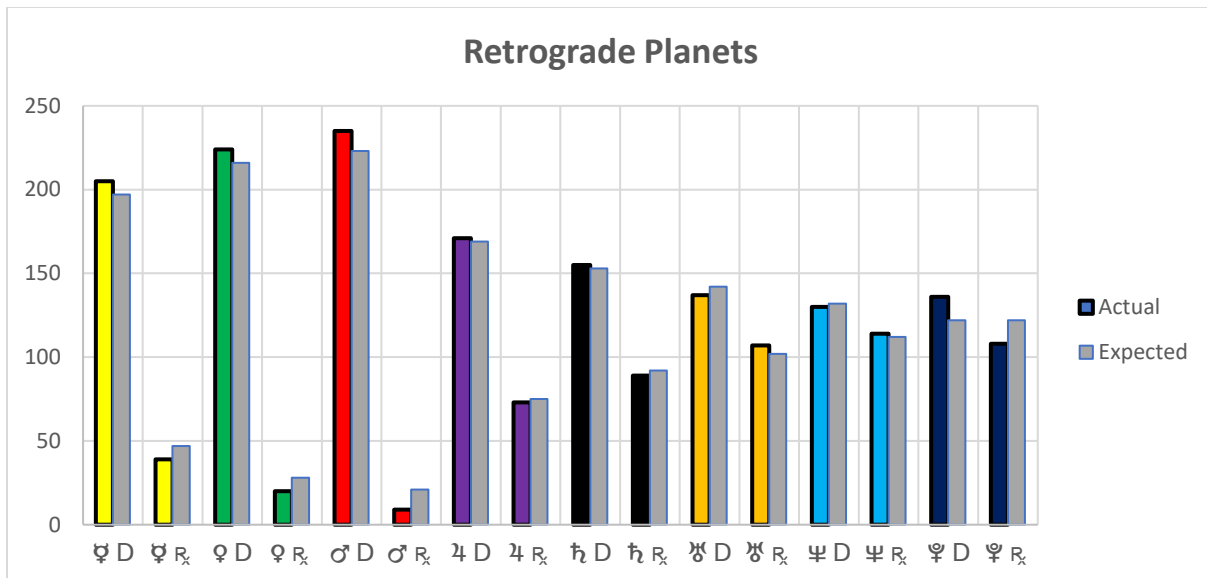


This table shows shootings around the moon phase before and after the quarter moon phase.



**RETROGRADES**

An analysis of the occurrences of killings during retrograde planets did not yield any significant results.



**OUT OF BOUNDS**

Planets being out of bound is sometimes an indicator, but the table shows the occurrences are insignificant.

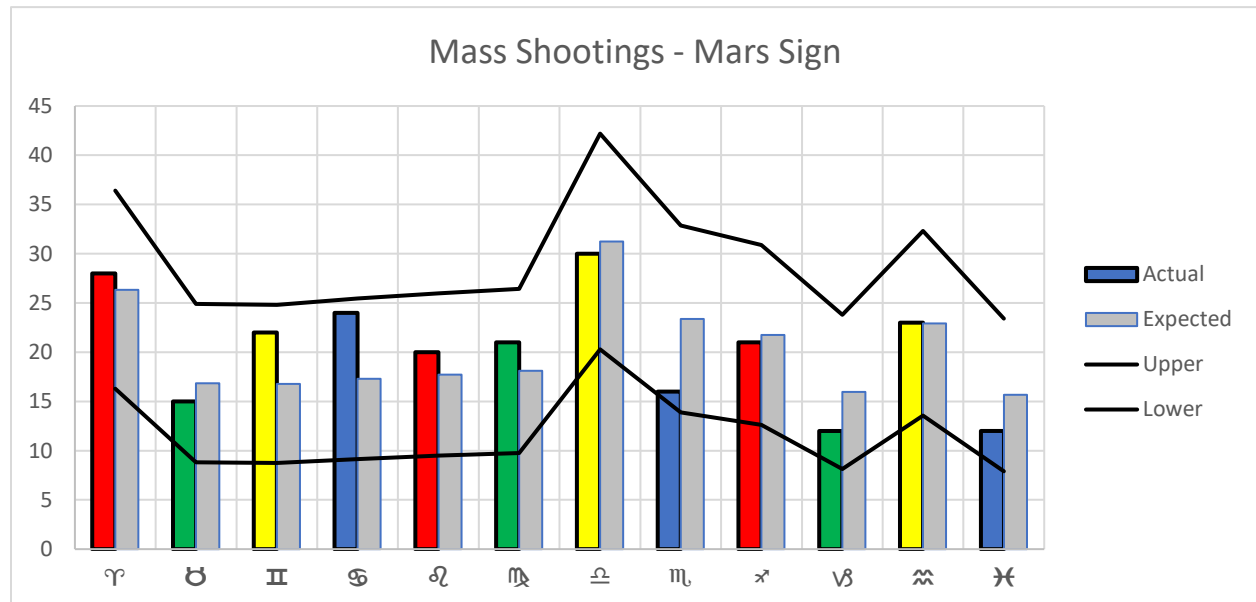
PLANET	OCCURRENCE	%
♃	8	3.3%
♃	30	12.3%
♀	27	11.1%
♂	40	16.4%

**MARS PLACEMENT**

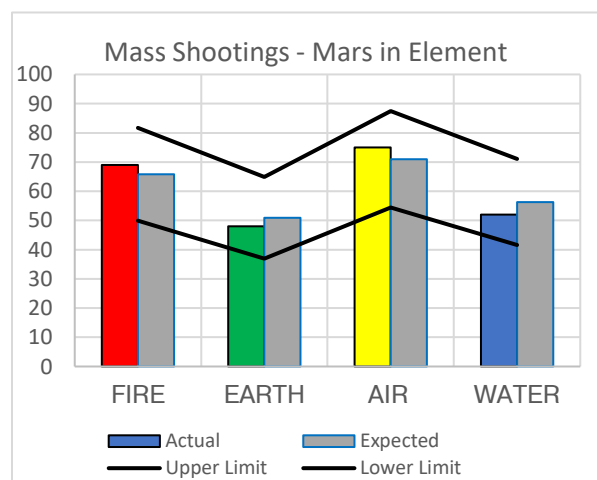
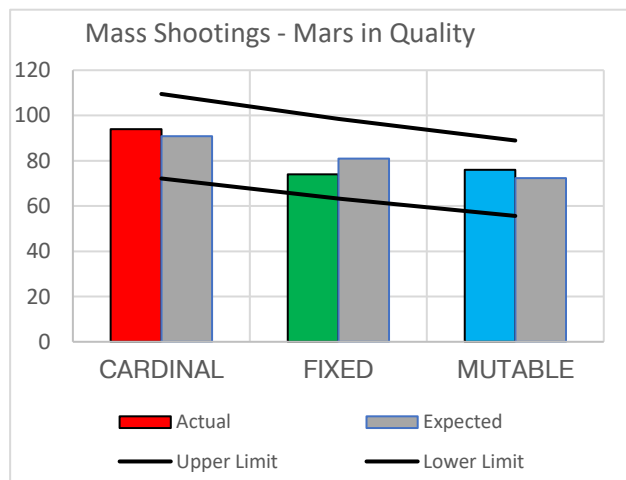
Mars does not spend equal time in each sign over the span of eight years. Mars goes retrograde every two years and will be retrograde for approximately two months. The chart below considers how long Mars spent in each sign over the study period.

Mars in sign results fall within the expected range. However, there are a couple of signs that are approaching the limit. Mars in Cancer is close to the upper limit with a chi-square of 2.8 or a p-value of .106. This equates to an 89.4% probability that a mass shooting will occur if other factors are in play.

The other is Mars in Scorpio being close to the lower limit. It translates into a chi-square of 2.32, a p-value of .128 or a probability of 87.3 of a mass shooting not occurring.



What is interesting here is that Mars is in detriment in Cancer and does not operate with strength, yet it yields more mass shootings than Scorpio, a Mars-ruled sign and a sign associated with death.



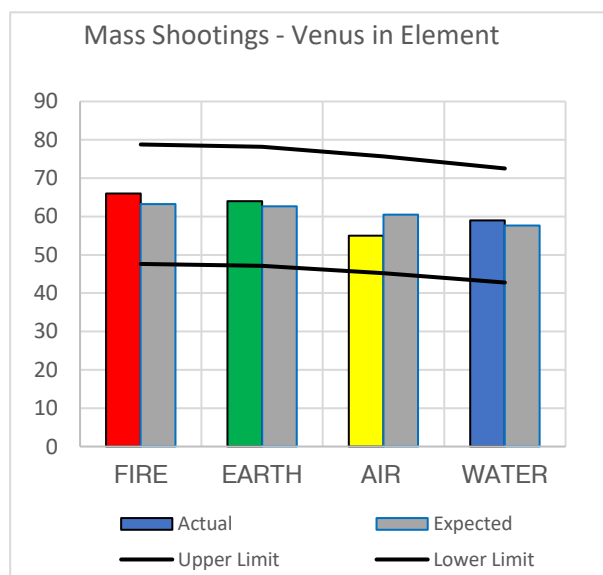
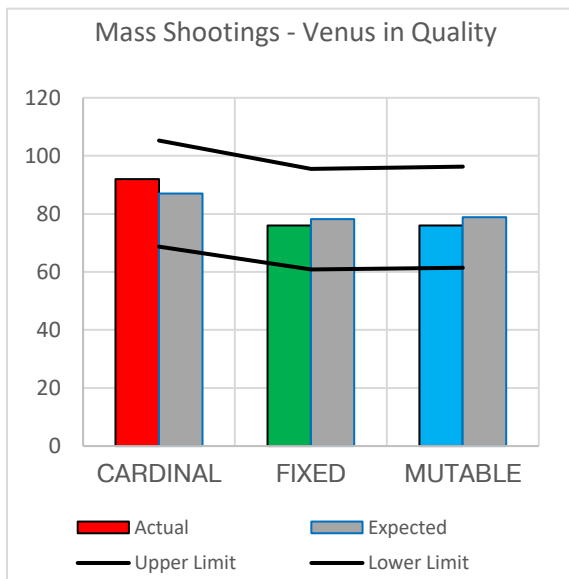
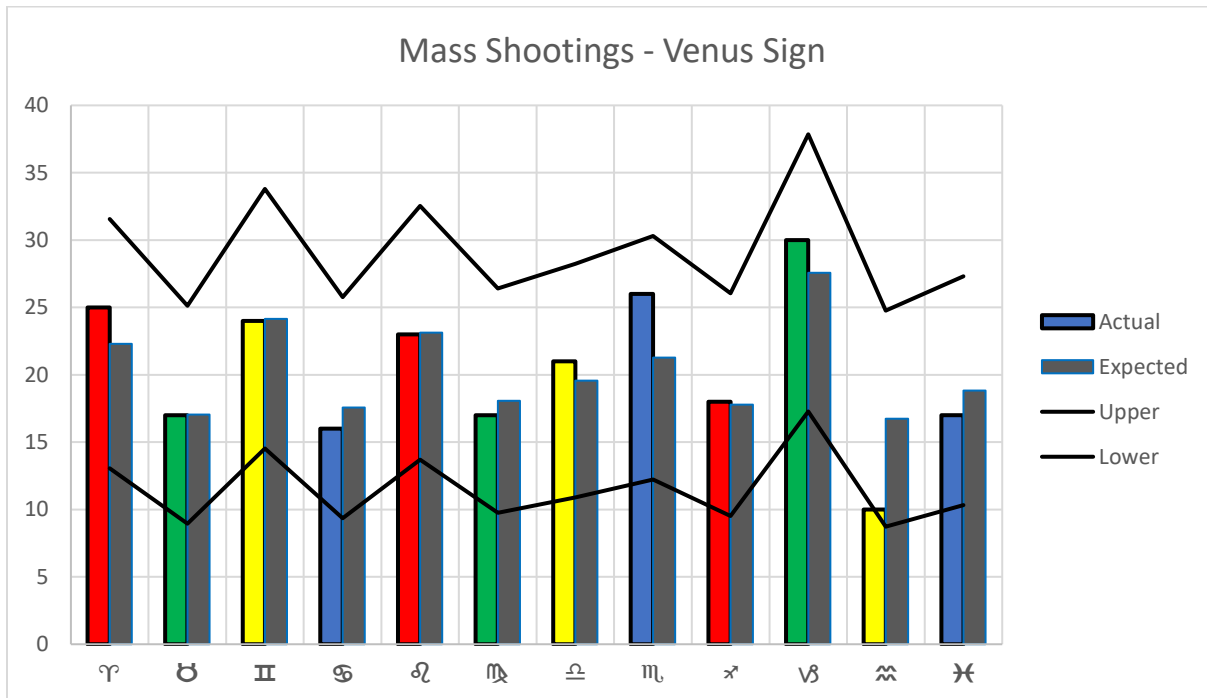




**VENUS PLACEMENT**

Venus, like Mars, does not spend equal time in each sign over the span of eight years. Venus goes retrograde five times every eight years and will be retrograde for approximately 41 days. The chart below considers how long Venus spent in each sign over the study period.

The only one that is close to being significant is Venus in Aquarius. Venus in Aquarius has a chi-square of 2.7, with a p-value of .10 or a 90% probability that there will not be a mass shooting. This could be that Venus is a social sign, and Aquarius is a sign of groups.



## **CONCLUSIONS**

By examining the criteria shown, there are not any criteria of the ones chosen that could indicate whether a mass shooting resulting in four deaths will occur. Just because this study is inconclusive, it does not mean there might be other angles from which to view this study.

This study will have to examine other factors. We can look at house placements with a study group containing 205 with known times versus 244 charts.

The United States of America is a large landmass, so we can examine the charts with a regional split to see if that make a difference. Divisions like time zone or dividing the USA in quarters or other regions to see if there exists other trends.

Also, the collection of additional data for the years before 2013 will help solidify the findings.