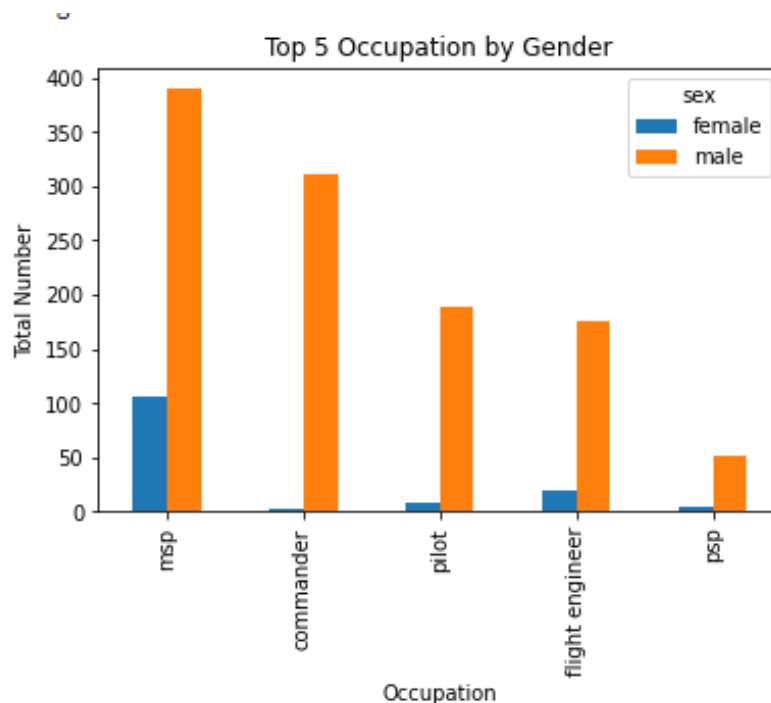


ANALYSIS PERTAINING TO ASTRONAUTS AND THEIR MISSION

This project aims to present some interesting facts gleaned from astronauts' missions from 1961 until 2019, including their ages, gender, nationality, mission titles, total number of hours spent on each mission, mission status, and more. The dataset has been cleaned up by removing duplicates and NaN values.

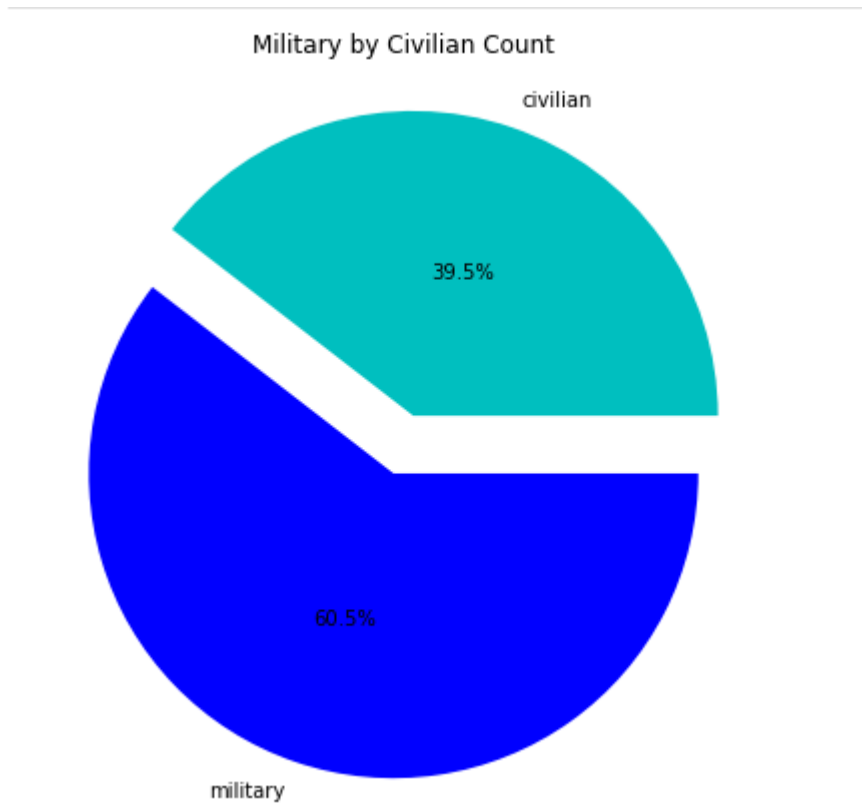
Gender and Occupation Distribution

The overall number of individuals who have gone to space is 554, with men outnumbering women. A total of 63 women and 491 males were present, accounting for approximately 11% and 89% of the total. The image depicts the gender distribution of the top five jobs (msp, commander, pilot, flight engineer, and psp). Many of the women are also managed service providers (msp), as can be seen.



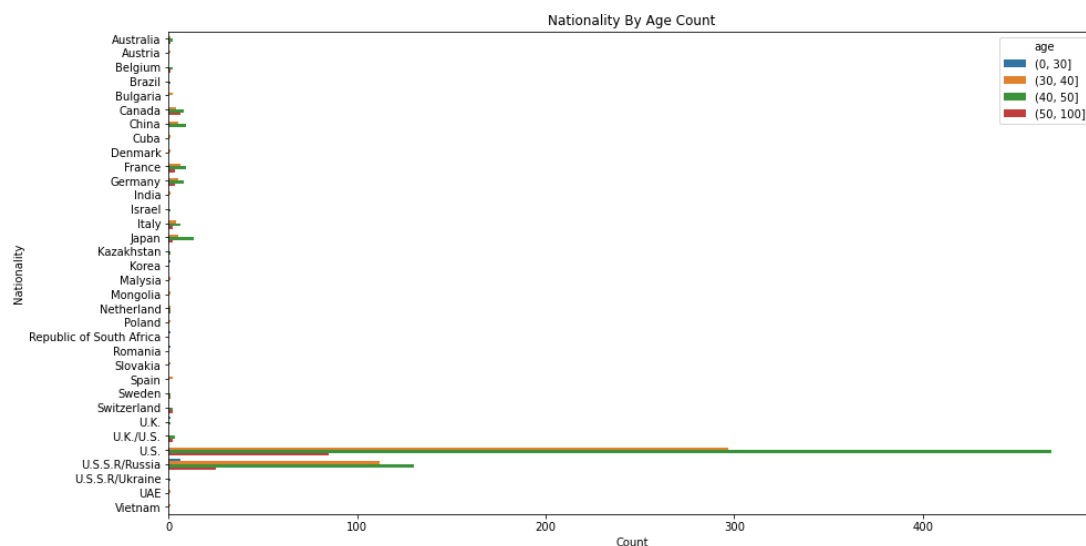
Military Civilian Distribution

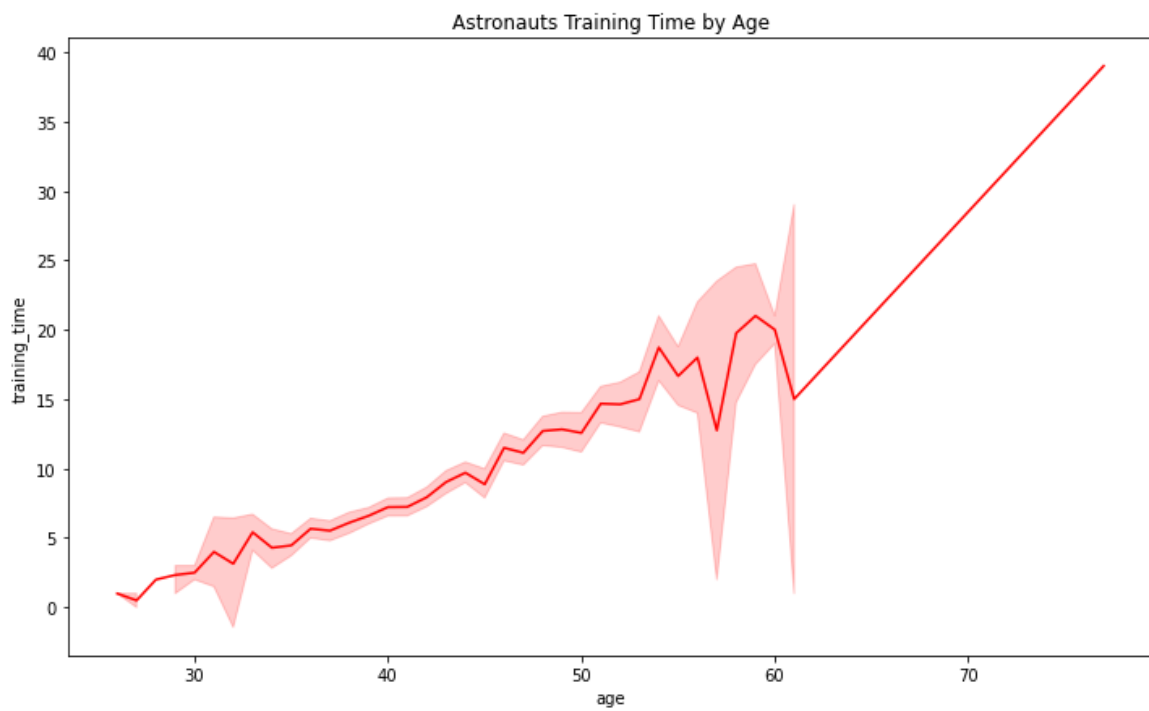
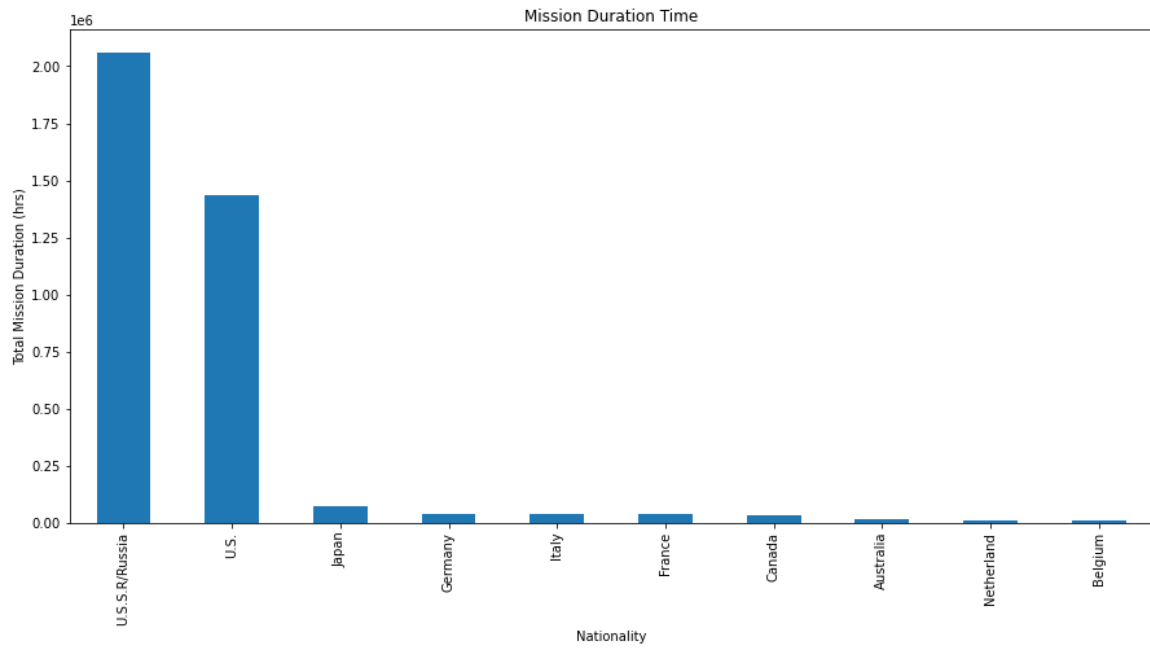
The visualization depicts the proportion of astronauts with military or civilian backgrounds. The missions are made up of 60.5% military personnel and 39.5% civilians, which could be attributed to military personnel's training and civilians' anxiety about space flight, which makes military personnel more inclined.



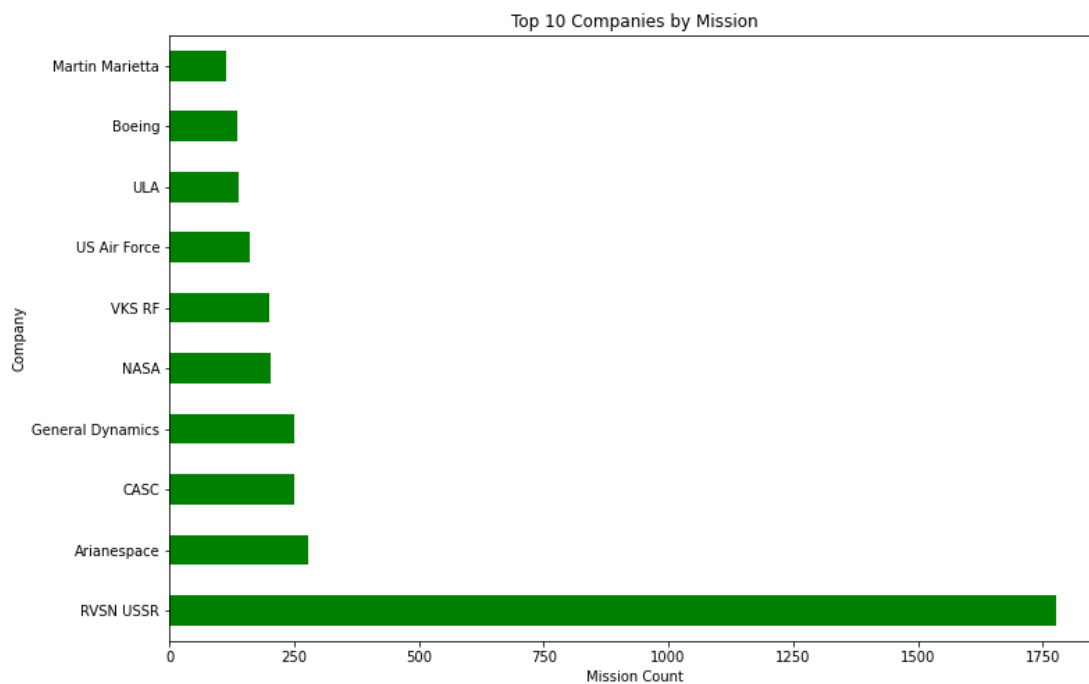
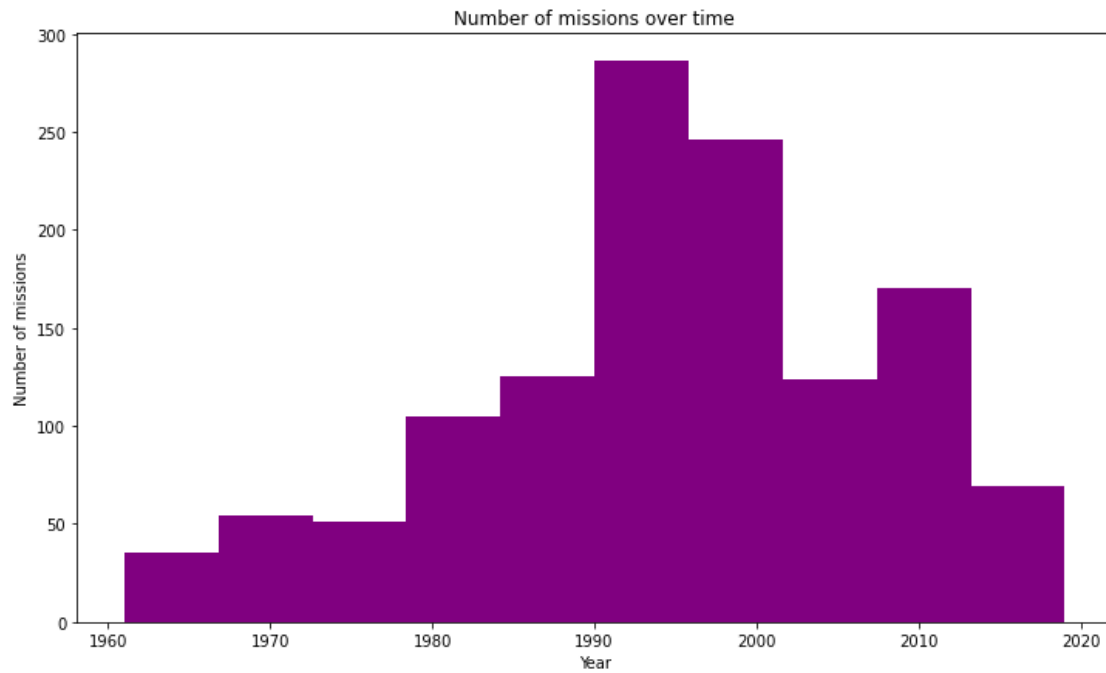
Nationality and Age by Mission

Many of the astronauts who participated in the flights were from the United States and were between the ages of 40 and 50. However, astronauts from the Soviet Union/Russia spent the longest time in space, with the topmost astronauts named Afanasyev Viktor Mikhaylovich, who is a commander, spending the most time in space.



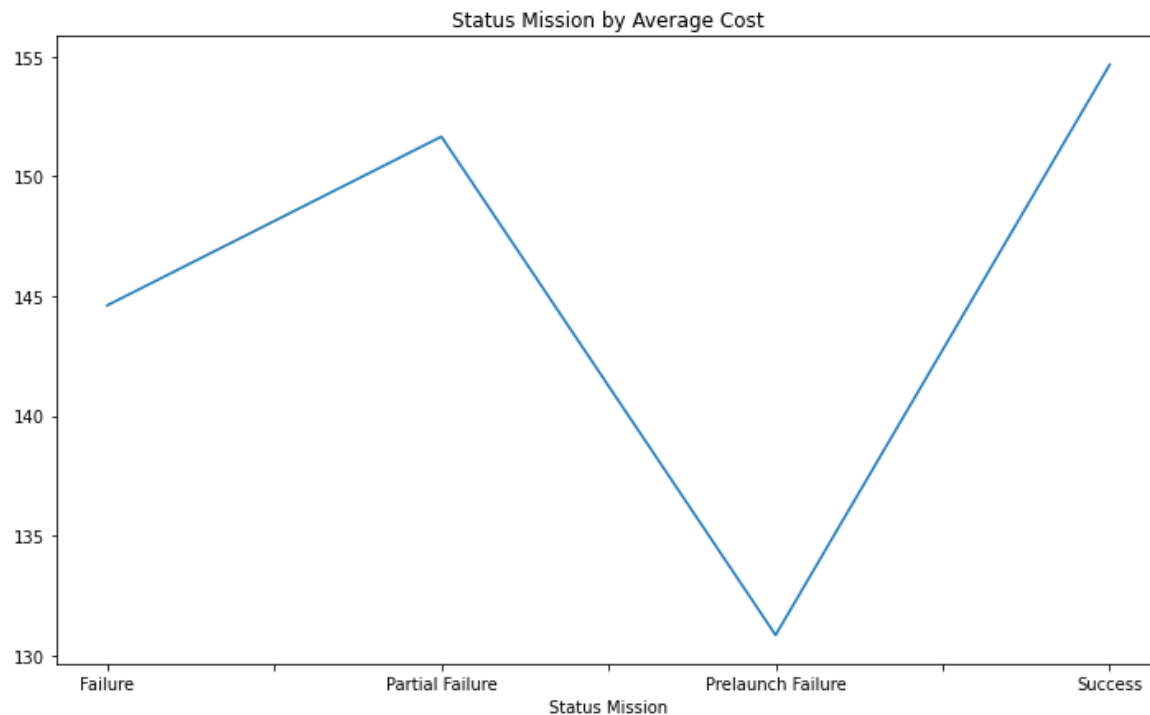


The graph depicts the number of missions over time, with the highest number of missions occurring between 1990 and 2000 and the lowest number being between 1960 and 1970.



Average Cost by Mission Duration

The visualization depicts the average cost of each mission as well as the mission's current state. In general, there have been more successes throughout time. The rockets were launched in 22 nations, with the RVSN USSR company spending the most money in 1987 in the United States of America. It can also be observed that the missions with the most funding had the highest success rate, while the missions with the least funding failed prelaunch, which could be due to the less funding received for the mission.



The STS-42 and ISS are also the most utilized space shuttles for ascending, descending, and orbit. Many of the rockets that were used have been retired.

Conclusion

It is suggested that the force be gender diverse, and that women be trained for a wider range of jobs that can be performed during the mission. Missions must be well-funded to be effective and achieve more successes. Individuals who are willing to work in the mission should be hired when they are young to prevent lengthy training. More rockets should be introduced, and it will be ensured that they are operational and ready to use.