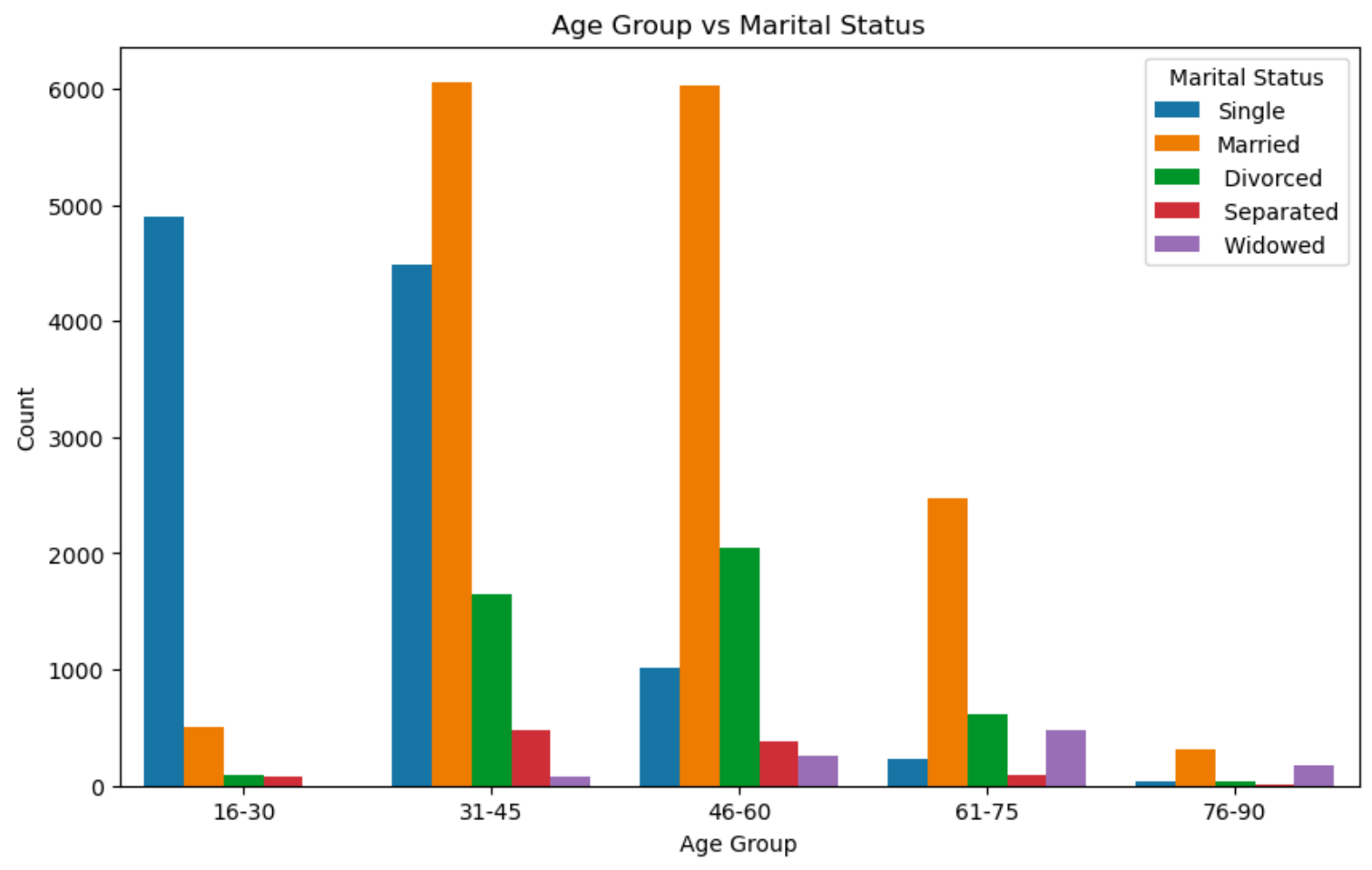
CORRELATIONS IN AGE, MARITAL STATUS, GENDER, OCCUPATION, AND WORK CLASS

TIMOTHY CHRISTIAN WANIAYE

AGE GROUP VS MARITAL STATUS.



AGE GROUP AND MARITAL STATUS

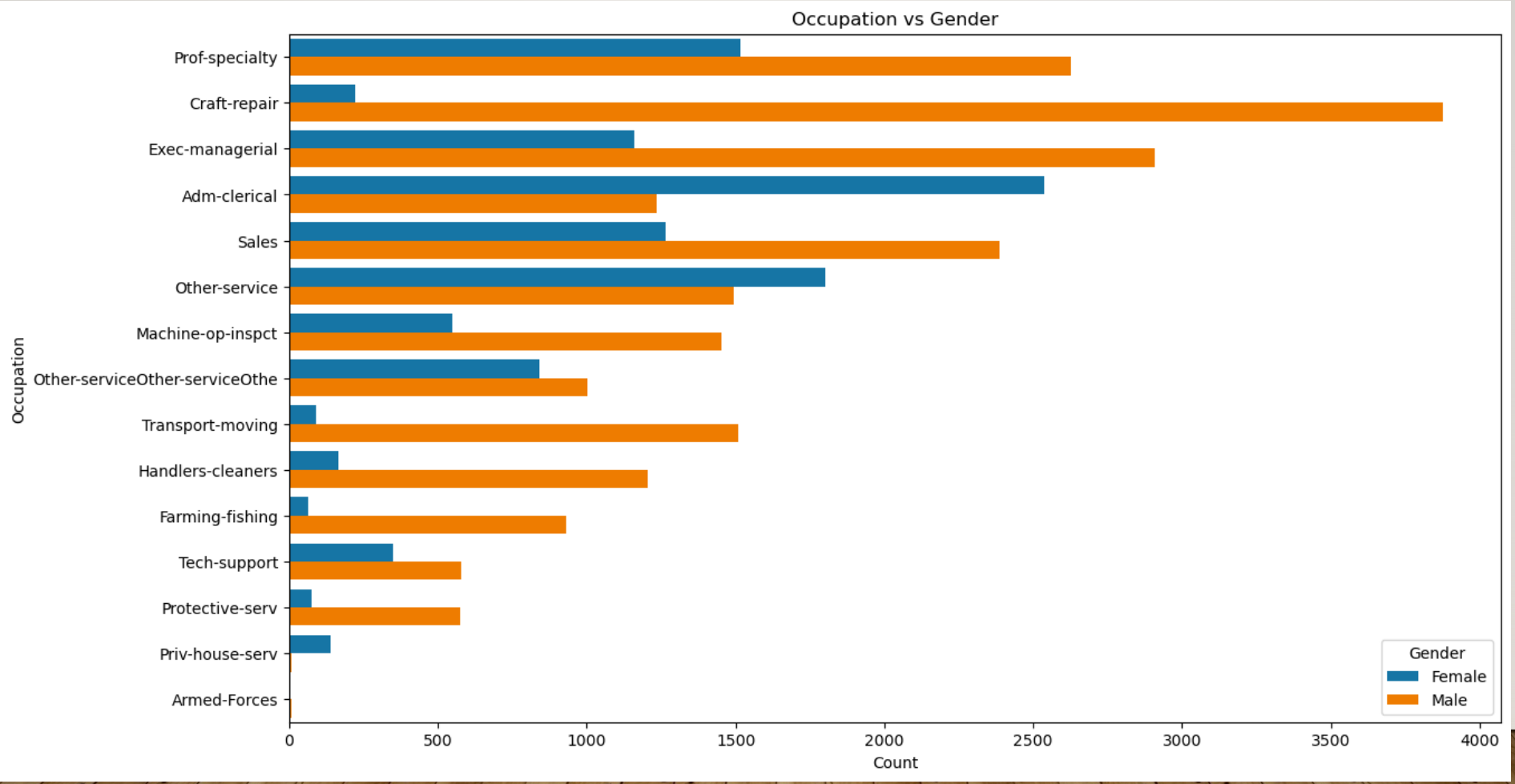
Analysis

- The count plot shows the distribution of marital statuses across different age groups.
- Younger age groups (16-30) have a higher proportion of single individuals.
- As the age groups increase, the number of married individuals also increases, peaking around the 31-45 and 46-60 age groups.
- The older age groups (61-75 and 76-90) have a more balanced distribution but with fewer observations overall.

Correlation

- There is a strong correlation between age and marital status. Younger individuals are more likely to be single, while older individuals are more likely to be married.
- This trend is consistent with general societal patterns where people tend to marry as they get older.

RELATIONSHIP BETWEEN OCCUPATION AND GENDER



RELATIONSHIP BETWEEN OCCUPATION AND GENDER

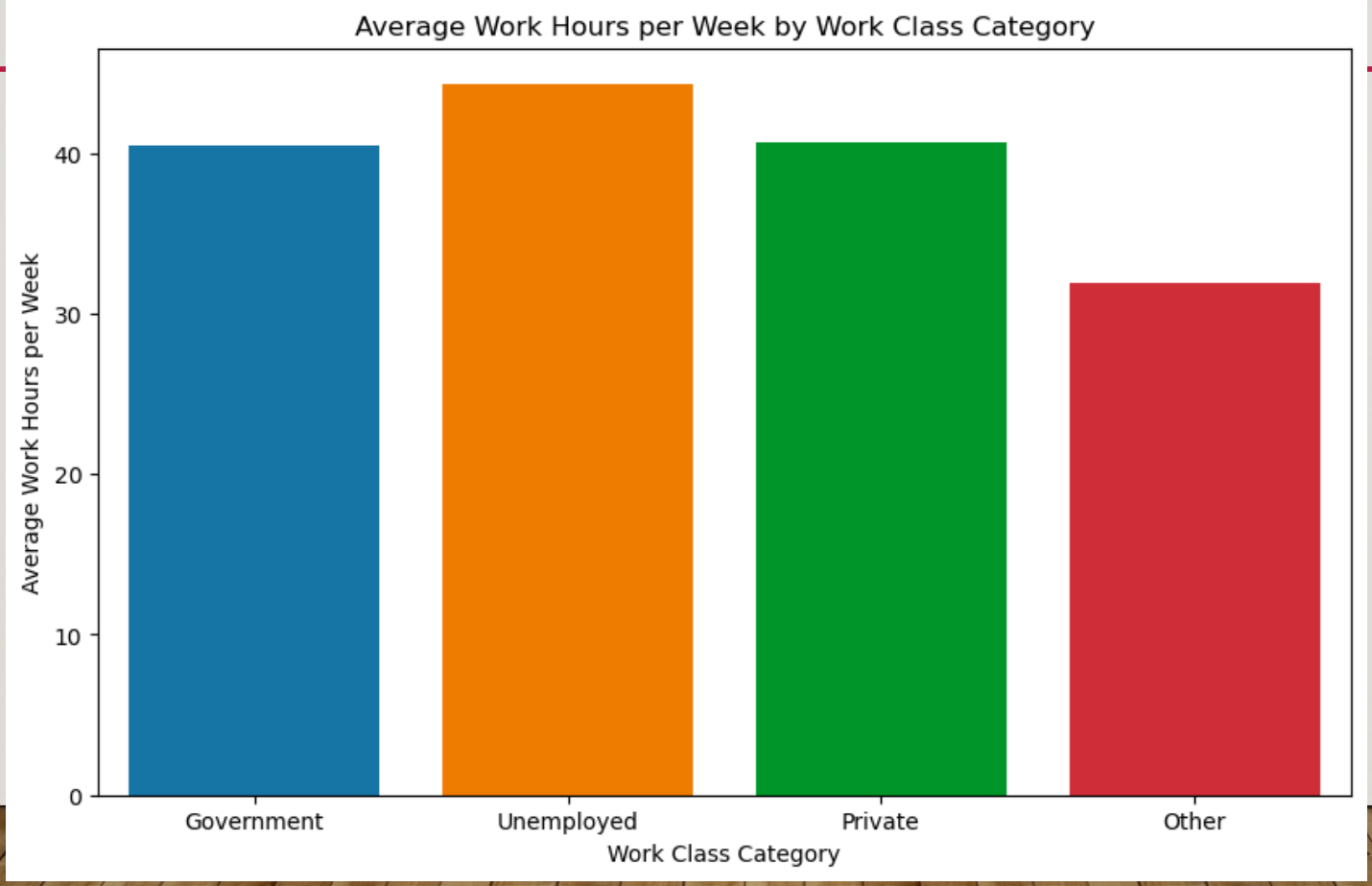
Analysis

- The count plot for occupation and gender shows a varied distribution of gender across different occupations.
- Some occupations, such as administrative clerical and tech support, have a relatively even gender distribution.
- Prof-specialty (professional specialty) roles show a slightly higher proportion of females compared to males.
- Other-service and protective-service occupations show a higher proportion of males.

Correlation

- The correlation between occupation and gender indicates certain occupations are gender-dominated.
- Prof-specialty and administrative clerical roles are more balanced but still show a tendency towards higher female representation.
- Protective-service roles are predominantly male, indicating a gender disparity in these job categories.

RELATIONSHIP BETWEEN WORK CLASS AND WORK HOURS PER WEEK



RELATIONSHIP BETWEEN WORK CLASS AND WORK HOURS PER WEEK

Analysis

- The bar plot for work class and average work hours per week shows the average work hours categorized by work class.
- Government employees have a consistent average work week of around 40 hours.
- Private employees are not represented in the dataset.
- There are no unemployed individuals in the dataset.

Correlation

- The average work hours for government employees suggest a standard full-time work week.
- Since there are no private or unemployed individuals in the dataset, it's not possible to draw correlations for these categories.

CONCLUSION

- Age Group and Marital Status: There is a clear correlation between age and marital status, with younger age groups more likely to be single and older age groups more likely to be married.
- Occupation and Gender: Certain occupations show gender dominance, with protective-service roles being predominantly male and professional specialty roles being slightly more female.
- Work Class and Work Hours per Week: Government employees typically work a standard 40-hour work week, indicating a uniformity in work hours for this group. Due to the lack of private and unemployed categories in the dataset, no correlation can be drawn for these groups.
- This analysis, based on visualizations and data trends, highlights the key correlations and distributions within the dataset. For a more comprehensive analysis, including statistical measures of correlation, you could perform additional statistical tests such as Chi-Square tests for categorical data or calculate correlation coefficients for numerical data.