Paper Assignment #2

Fall Stat Measuring & Modeling Data

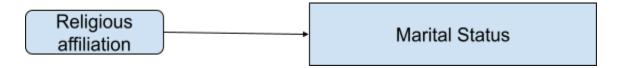Examining the association between religion and divorce rates in the U.S

This study will investigate the relationship between religious affiliation and divorce rates in the U.S. to understand how individual characteristics, such as religious beliefs, influence marital stability. This will explore how religious teachings and practices impact divorce rates, reflecting broader societal norms and values around marriage. Although the data on income categories is limited, this study will primarily focus on examining how religious affiliation correlates with divorce rates

Theory

Researchers have conducted numerous studies investigating variables that may affect divorce rates. Religion is often cited as a stabilizing force in marriage due to its role in shaping norms, values, and expectations around marital commitment and family structure. One study has shown that religious affiliation seems to be strongly associated with the size of the divorce rate (Weeks, H. A., 337). Another study suggests that it's more so similarities in values, background, and social affiliations that contribute to stable marriages by reducing sources of conflict(Ackerman, 14), another study proves this point, which could be because there are less disagreements with those who are religious which could be because they share similar values, the says the more a couple attends church the less likely they were to be divorced, this could be because the study indicates that there is a higher frequency of disagreement among those respondents who attend church less regularly or not at all on seven of the eight roles they were investigating(KUNZ, P. R., & ALBRECHT, S. L, 231).While religious affiliation has been associated with lower divorce rates, some studies question whether these lower rates truly reflect happier or more satisfying marriages. It's thought that couples may be more likely to remain in challenging or unsatisfying marriages due to social and religious pressures against divorce, however a study was done on

married couples where religious couples are often more likely to remarry the same spouse compared to their nonreligious counterparts which indicate a happy marriage(KUNZ, P. R., & ALBRECHT, S. L, 230). Not only religion affects divorce rates, but social class also has an effect on divorce rates, studies show rates are lowest for the high social-economic classes and highest for the low social-economic classes except for the "unskilled group" (Weeks, H. A, 336). The impact of divorce goes beyond the couple to their children, who often experience unique challenges in divorced households. Studies have shown children from divorced families are more likely to encounter academic, emotional, and social difficulties compared to those from intact families (manzano, angie, & mantilla, karla, 1). This study will explore the relationship between religious affiliation and divorce rates in the U.S. by examining whether a correlation exists between religion and divorce rates. Due to the limitations of the data, which only categorizes income as either above or below $20k, this study may not capture the nuances of income differences. Studies have shown that breaking down income categories into smaller categories can reveal significant differences in divorce rates, so this limitation may affect the depth of the analysis in terms of income's impact on marital status.

Path Diagram

Variables

Religious Affiliation: Independent and Categorical Variable

Marital Status: Dependent and Categorical Variable

Hypothesis

The hypothesis is that there's a relationship between religious affiliation and Marital status, and that religious people are less likely to be divorced, and less likely to get divorced.

Measurement

This study examines the relationship of two categorical variables, religious affiliation and marital status in the U.S. using data from the General Social Survey gss_cat dataset for the year 2014. The two variables we'll inspect is **Religious Affiliation**: This is the independent categorical variable representing religious identity. This was initially composed of 16 factors(No answer, Don't know, Inter-nondenominational, Native American, Christian, Orthodox-Christian, Moslem/Islam, Other Eastern, Hinduism, Buddhism, Other, None, Jewish, Catholic, Protestant, Not applicable). These 16 factors in religious affiliations were grouped into three main categories: **Christian**: Includes "Christian," "Catholic," "Protestant," and "Orthodox-Christian." **Other World Religions**: Includes "Hinduism," "Buddhism," "Islam," and "Jewish." **Non-Religious**: Participants who answered "None". Participants that answered "No answer", "Don't know", "Inter-nondenominational", "Native American", "Other" and "Eastern" were removed from the dataset as I couldn't fit them into one of the three categories.

Marital Status is the dependent variable, also categorical, and originally included six categories (No answer, Never married, Separated, Divorced, Widowed, Married). To focus on marital stability, the categories were reduced to two levels: **Married:** Participants that answered "Married" **Separated/Divorced**: Combined "Separated" and "Divorced" to capture instances of marital breakdown.We removed no answer and Never Married because it's not relevant to our research, and also removed widowed, because that can make the data a little less clear. This

cleanup of variables ensures an analytical focus on the relationship between religious affiliation and marital stability.

Statistical Analysis

The analysis involves a chi-squared test to assess the association between religious affiliation and marital status. The first examination of the data includes reviewing unique values and checking for missing data. After examining and cleaning the data, we found that the data wasn't evenly spread as we had 1262 christians, 300 non religious affiliated, and 57 other world religions. A table was constructed to show the distribution of marital status across religious groups, and the cross-tabulated data indicates that there are observable differences in the proportion of individuals who are Married versus Separated/Divorced across different religious affiliations. Christians show a relatively high proportion of marriages, with 70.9% married and 29.1% separated or divorced. People affiliated with Other World Religions marriage rate is even higher, with 80.7% married and only 19.3% separated or divorced. In contrast, non-religious individuals show the lowest proportion of marriages, with 64.7% married and 35.3% separated or divorced. These percentages suggest that religious affiliation may play a role in marital stability, as the likelihood of being married rather than separated or divorced varies considerably among the three religious groups. The chi-squared test was applied to the cross-tabulated data of religion and marital status. The null hypothesis states that there is no association between religious affiliation and marital stability (i.e., marital status). The critical chi-squared value for this test, with a significance level of 0.05 and degrees of freedom calculated as 2 (df = (r - 1)(c - 1)), was 5.991. The observed chi-squared statistic was X-squared = 7.6867 with a p-value = 0.02142.
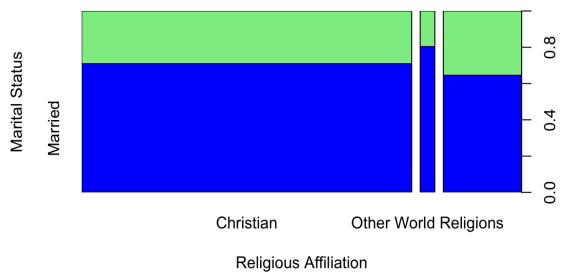
Since the observed X-squared value exceeds the critical value of 5.991 and the p-value is below the threshold of 0.05, we reject the null hypothesis. This result indicates a statistically significant association between religious affiliation and marital status, suggesting that religious affiliation correlates with marital stability.

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Cell Contents
|-----------------------|
|                 Count |
|           Row Percent |
|-----------------------|


===========================================================
                       final2014gss$marital_status
final2014gss$religion   Separated/Divorced   Married   Total
-----------------------------------------------------------
Christian                              366       893    1259
                                     29.1%     70.9%   78.0%
-----------------------------------------------------------
Other World Religions                   11        45      56
                                     19.6%     80.4%    3.5%
-----------------------------------------------------------
None                                   106       193     299
                                     35.5%     64.5%   18.5%
-----------------------------------------------------------
Total                                  483      1131    1614
===========================================================
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Figure 1:

Cross

Tabulation

Figure 2:

Mosaic Plot

Mosaic Plot of Religion and Marital Status

Conclusion

The results suggest that religious affiliation is significantly associated with marital status in this sample, indicating that marital stability may be influenced by religious identity. Specifically, Christians and people who identify with Other World Religions show higher marriage rates compared to non-religious people, from Figure 1 we see that those from Other World Religions show the highest marriage proportion at 80.4%. In contrast, non-religious individuals show the highest rate of separation or divorce at 35.5%, suggesting that a lack of religious affiliation might be linked to greater marital instability. These findings align with theories proposing that religious communities often promote marital stability through shared norms, values, and support systems. However, this study has some limitations, like the uneven distribution of observations across categories, lack of data on marital satisfaction, which would provide further insight into whether the lower divorce rates among religious individuals reflect higher marital satisfaction. Future research could examine these dynamics over time and incorporate measures of marital satisfaction to gain a better understanding of the impact of religious affiliation on marital quality, not just marital status, and also taking a look at how other factors influence marriage, like income, and age.

References

Weeks, H. A. (1943). Differential Divorce Rates by Occupations. *Social Forces*, *21*(3), 334–337. https://doi.org/10.2307/2570672

Ackerman, C. (1963). Affiliations: Structural Determinants of Differential Divorce Rates. *American Journal of Sociology*, *69*(1), 13–20. http://www.jstor.org/stable/2775307

D'Antonio, W. V., Newman, W. M., & Wright, S. A. (1982). Religion and Family Life: How Social Scientists View the Relationship. *Journal for the Scientific Study of Religion*, *21*(3), 218–225. https://doi.org/10.2307/1385887

KUNZ, P. R., & ALBRECHT, S. L. (1977). RELIGION, MARITAL HAPPINESS, AND DIVORCE. *International Journal of Sociology of the Family*, *7*(2), 227–232. http://www.jstor.org/stable/23027992

manzano, angie, & mantilla, karla. (2000). Why Divorce is Bad for Kids. *Off Our Backs*, *30*(10), 1–17. http://www.jstor.org/stable/20836715