Project Final

Jessica Latino

02/21/2022

```
depress <- read.delim("/Users/jessicalatino/Desktop/math130/depress_081217.txt", header=TRUE, sep="\t")

dim(depress)
```

```
## [1] 294  37
```

Description: This data set will be analyzing Depression among 294 participants in the Los Angeles County. One of my first questions is whether or not the participants that are most depressed are either male or female. The variables I will be focusing on the most will be income and marital, which are two big components that contribute to depression.

Marital: I chose this variant because it is one of the biggest contributors to depression, whether or not your marriage is strong and happy or not. I feel that those who are single will be more depressed rather than those who are married.

Income: This was another variant that I chose because, a lot of problems stem from money problems and the stress that comes with it. I feel that those who have more money are way less depressed than those who are struggling financially. Those who struggle financially are stressed about financials and how they are going to pay for things like necessities; they also are not able to buy things they may want as much which can lead to sadness in some cases.

Univariate Exploration:

```
summary(depress$marital)
```

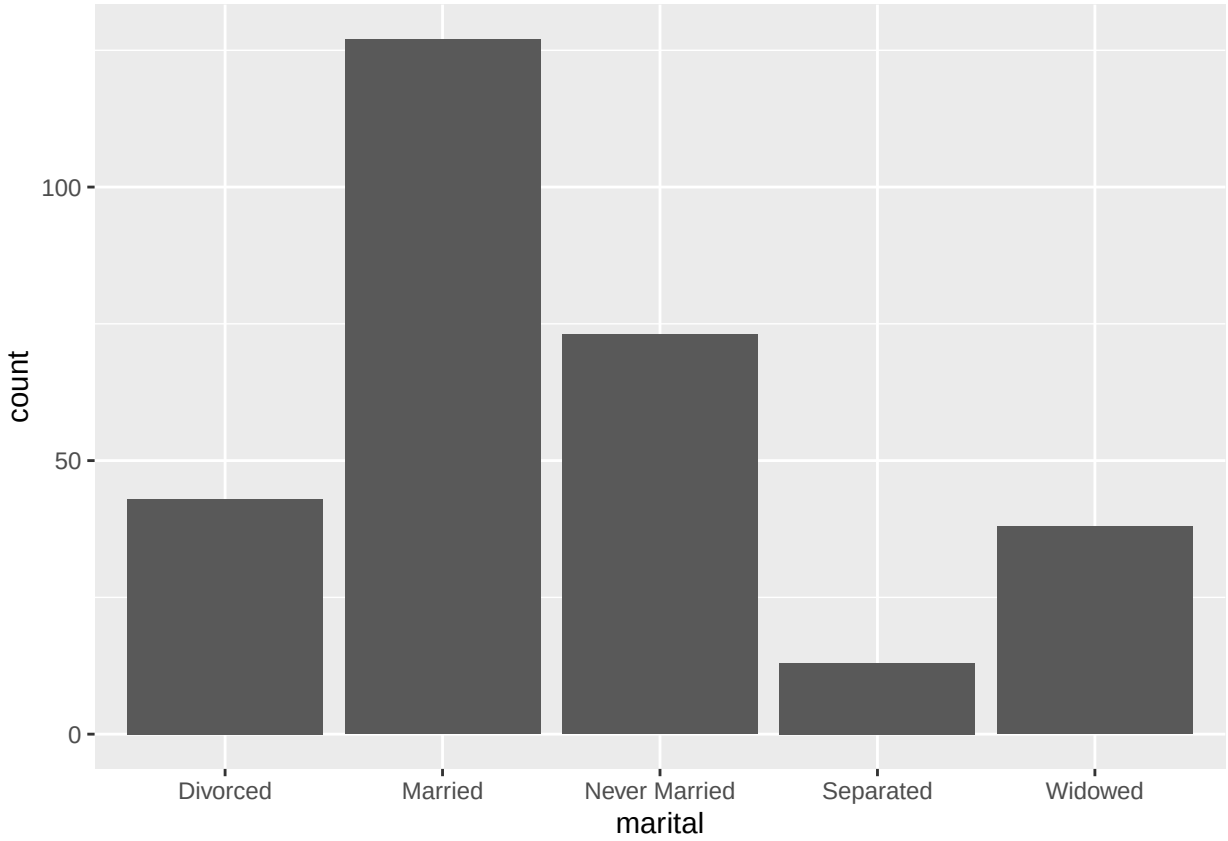
```
##    Length     Class      Mode
##       294 character character
```

```
table(depress$marital)
```

```
##
##      Divorced       Married Never Married     Separated       Widowed
##            43           127            73            13            38
```

In my statement above, I stated that I thought people who were single would be more depressed but after looking at the data, it looks like people who are married are more likely to be depressed.

```
ggplot(depress, aes(x=marital)) + geom_bar()
```



The ggplot above gives a better visual to of the marital status among depressed individuals. Married participants have the highest amount while separated has the lowest. This could be because of people getting out of bad marriages and then feeling less depressed afterwards.

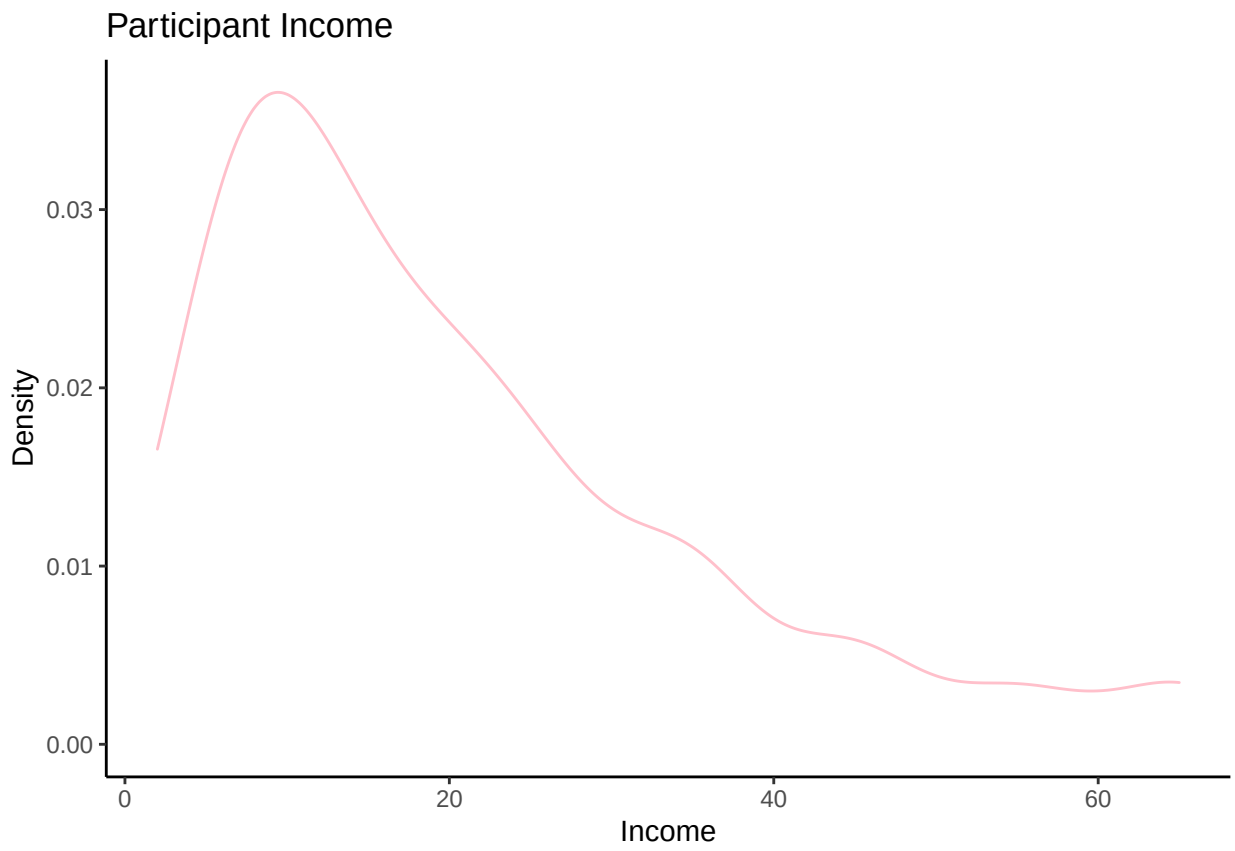
```
summary(depress$income)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    2.00    9.00   15.00   20.57   28.00   65.00
```

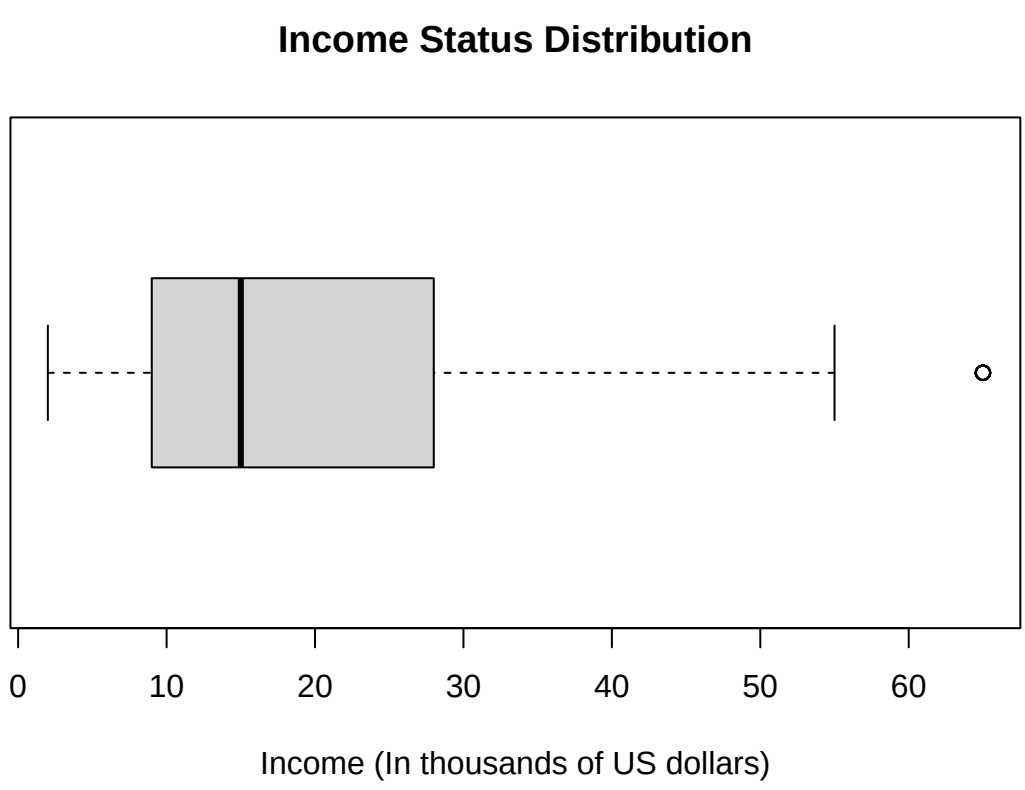
```
mean(depress$income)
```

```
## [1] 20.57483
```

```
ggplot(depress, aes(x=income))+geom_density(col=" pink")+ggtitle("Participant Income") + ylab("Density")
```



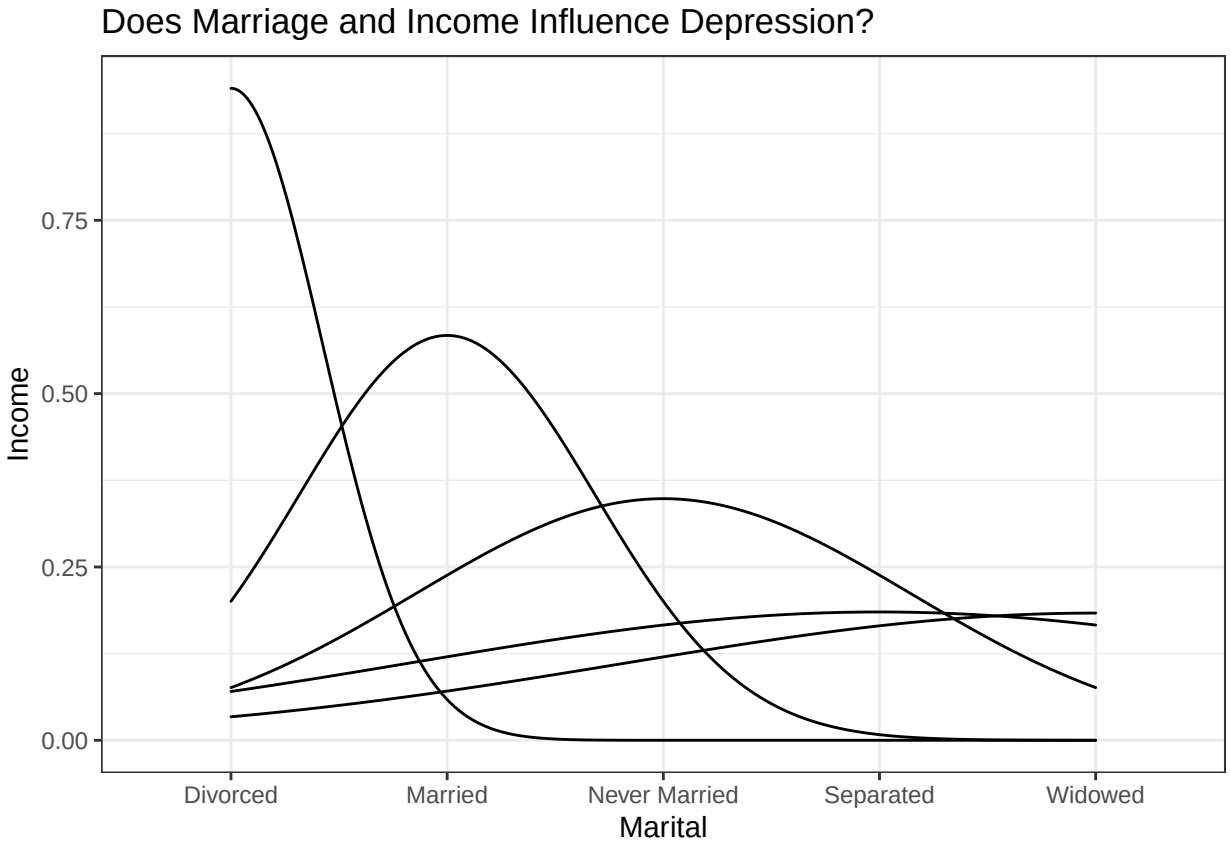

```
boxplot(depress$income, horizontal= TRUE, main= "Income Status Distribution", xlab="Income (In thousands
```



In the box plot above, it shows that participants that made $30,000 and less as their income. Due to this plot, it proves my statement about wealthy people being less depressed than people who are struggling financially.

Bivariate Comparison:

```
ggplot(depress, aes(x=marital, fill=income)) + geom_density(alpha=.3) +
ggtitle("Does Marriage and Income Influence Depression?") + xlab("Marital") +
ylab("Income") + theme_bw()
```



Conclusion: In my findings, I have found that people that are married are more depressed than people who are single. This made my hypothesis about single people being more depressed false. Also, people who have financial problems are more prone to depression than people who are more well off financially.