Final Project

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```
depress <- read.delim("/Users/celesteake/Desktop/homework130/depress_081217.txt",
    header = TRUE, sep = "\t")
```

1. Introduction of the Data Depress Data The depression data set, which consists of 294 observations, is drawn from the first round of interviews for a prospective study of depression in adult inhabitants of Los Angeles County. I will be looking at education (educat),income (income), and gender (sex). I am interested in seeing wheather there are correlations between the amount of income a person makes and the education level. I also want to see which sex suffers the most with depression.
2. Univarate Exploration

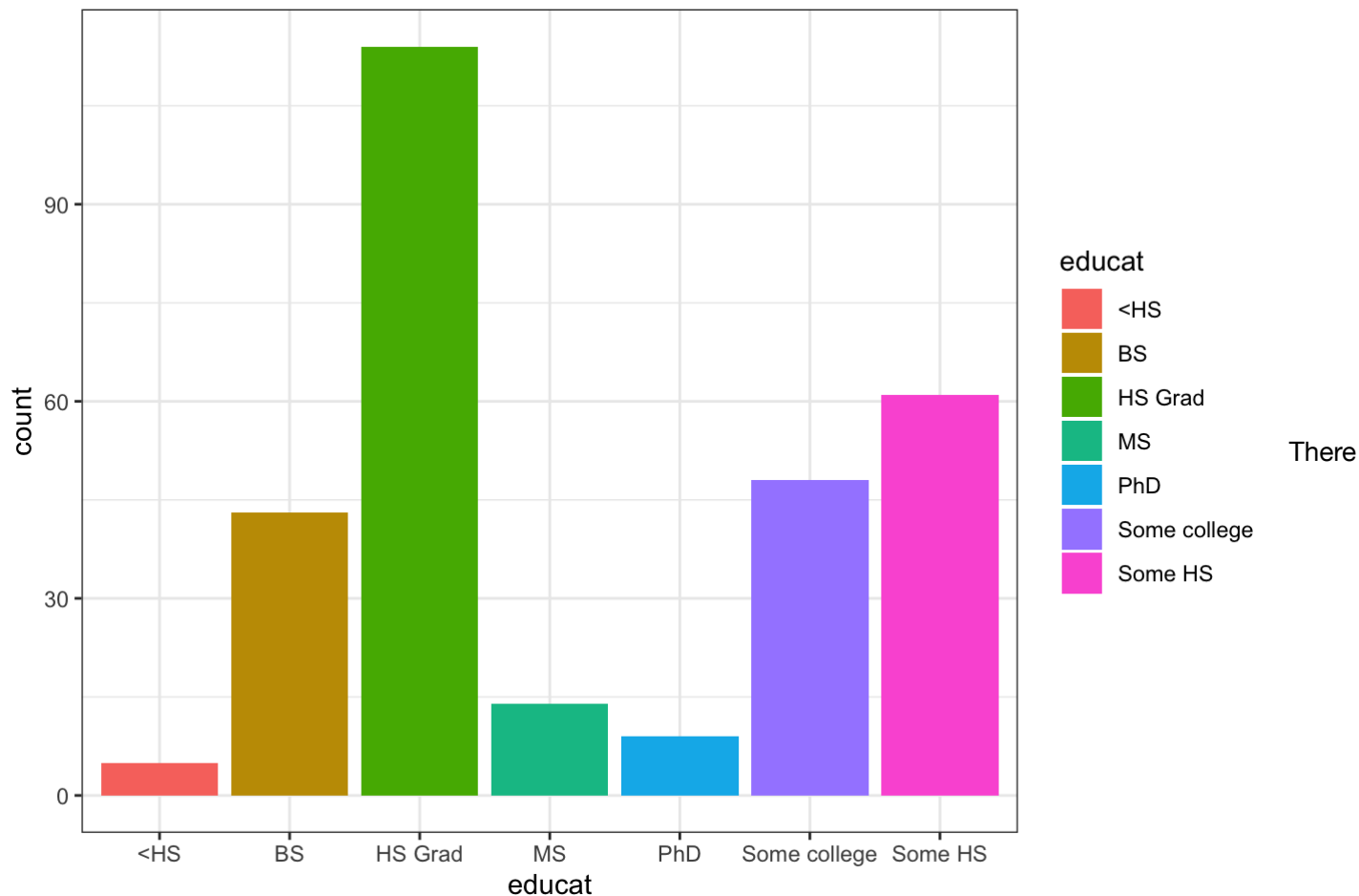Education

```
table(depress$educat)
```

```
##
##           <HS           BS      HS Grad           MS          PhD Some college
##             5           43          114           14            9           48
##       Some HS
##            61
```

```
ggplot(depress, aes(x = educat, fill = educat)) + theme_bw() + geom_bar()
```

are 23 people in total with a PhD or a master's degree out of the 294 people that were polled, or roughly 8% of the overall population, which is a very low percentage.
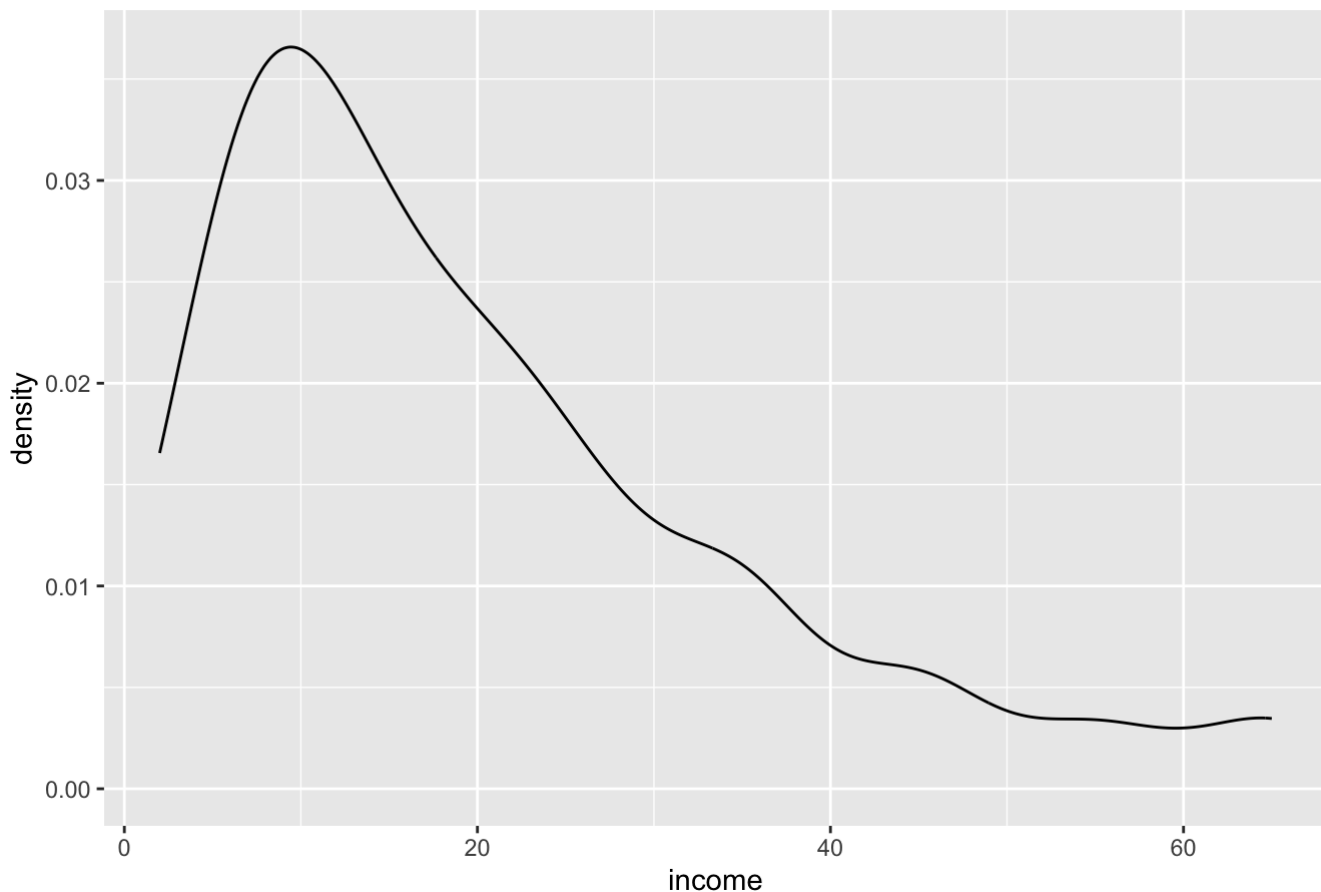
Income

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

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

```
ggplot(data = depress, aes(income)) + geom_density() + ggtitle("Income of Individuals")
```

Income of Individuals

According to the graph, those with lower incomes are more likely to experience depression.

Sex

```
depress$sexrename <- factor(depress$sex, labels = c("male", "female"))
summary(depress$sex)
```

```
##     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.0000  0.0000  1.0000  0.6224  1.0000  1.0000
```
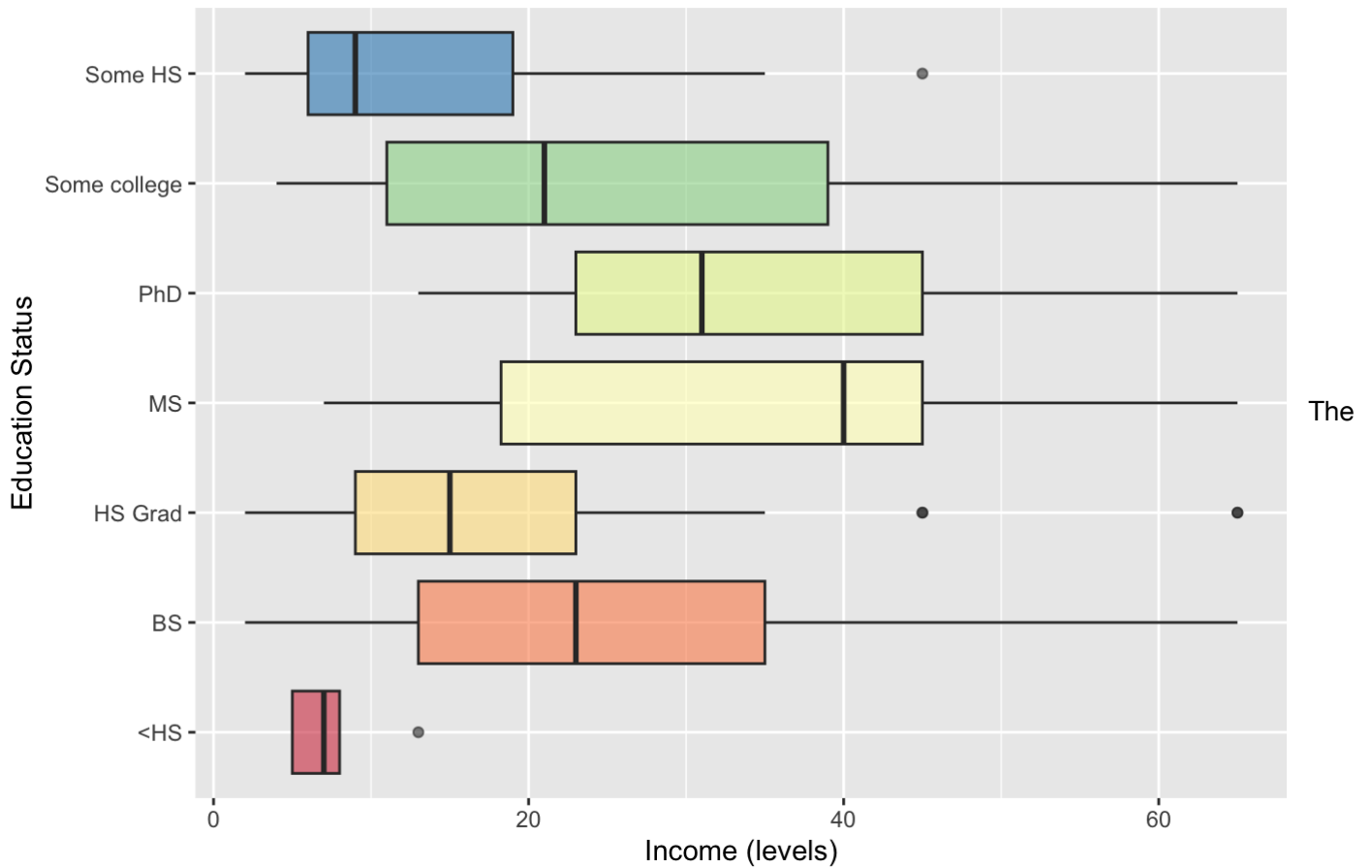
```
table(depress$sexrename)
```

```
##
##    male female
##     111    183
```

It appears that the women experince a greater level of depression based on the tables shown above. 3. Bivariate Exploration Income Vs Education

```
ggplot(depress, aes(x = educat, y = income, fill = educat, )) + geom_boxplot(alpha = 0.
6) +
    theme(legend.position = "none") + scale_fill_brewer(palette = "Spectral") + ylab("In
come (levels)") +
    xlab("Education Status") + ggtitle("Income vs Education Status") + coord_flip()
```
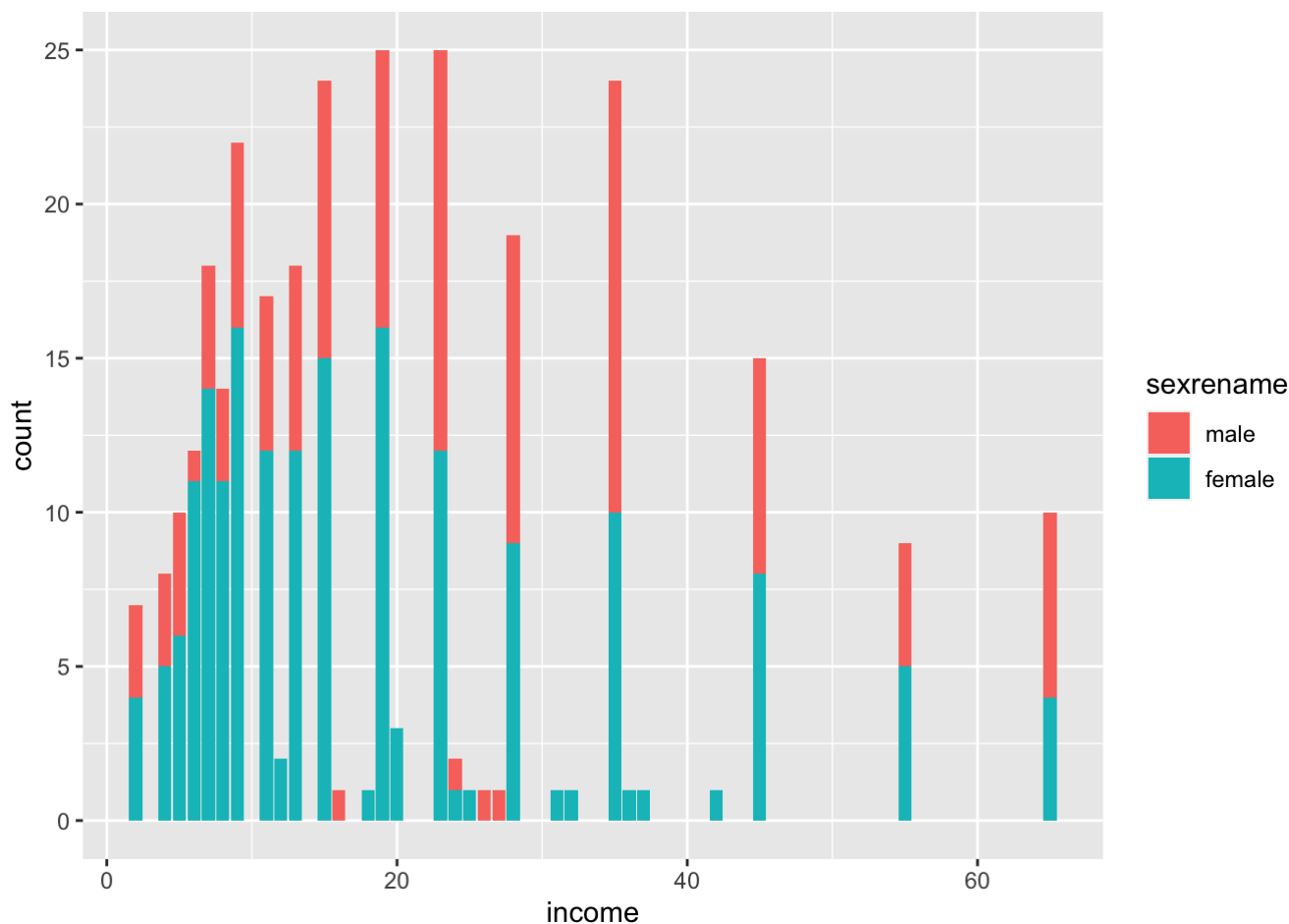
Income vs Education Status

box plot shown above compares the income status, which is expressed in thousands of dollars, with the education status. Individuals with greater levels of education earned more money than individuals with lower levels of education. Those with education levels below a high school diploma can view the income brackets with the lowest earnings.

Income Vs Gender

```
ggplot(depress, aes(x = income, fill = sexrename)) + geom_bar()
```

According to the plot, males typically earn more than women do, but we also find that women are more distressed even when their incomes are comparable.

4. Conclusion

Finally, we looked at three variables: education, income, and sex. According to the findings, persons with greater incomes and educational levels had less depression than those with lower incomes and educational levels. Additionally, we found that women were more likely than males to experience depression, which may be connected to the stigma associated with mental health among women.