

Final Project

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Introduction of the Data:

For my final project, I will be analyzing a data set provided by Dr. D on their website. This data set explores the depression levels of adult residents residing in Los Angeles County.

Variables Being Explored:

- Education Level
- Employment

```
head(depress[5:6])
```

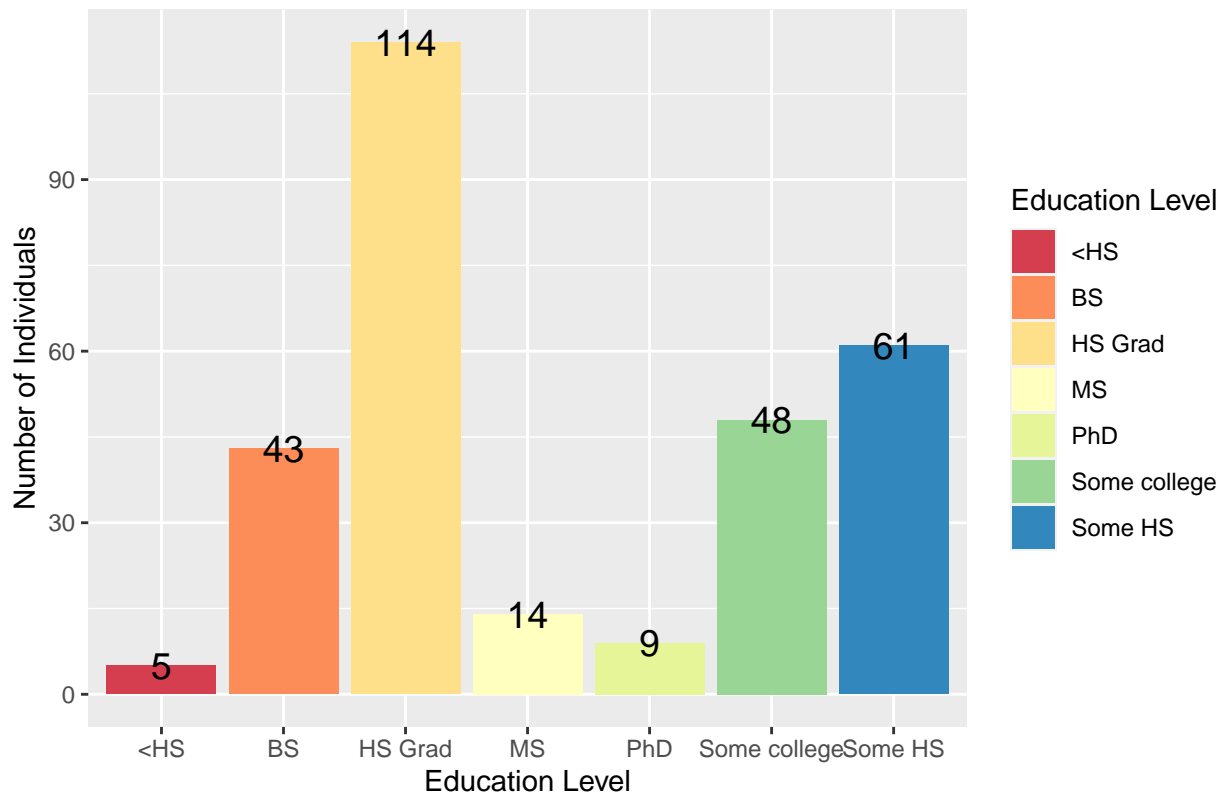
```
##      educat  employ
## 1   Some HS  Retired
## 2  Some college    FT
## 3   HS Grad     FT
## 4   HS Grad  Unemp
## 5   HS Grad     FT
## 6   HS Grad     FT
```

Univariate Analysis:

Variable 1- Education Level

```
ggplot(depress, aes(x=educat, fill=educat)) +
  geom_bar() +
  ylab("Number of Individuals") +
  xlab("Education Level") +
  ggtitle("Number of Depressed Individuals in Each Education Level") +
  scale_fill_brewer(palette="Spectral",name="Education Level")+
  geom_text(aes(y=..count.. + 0, label=..count..), stat='count', size = 5)
```

Number of Depressed Individuals in Each Education Level

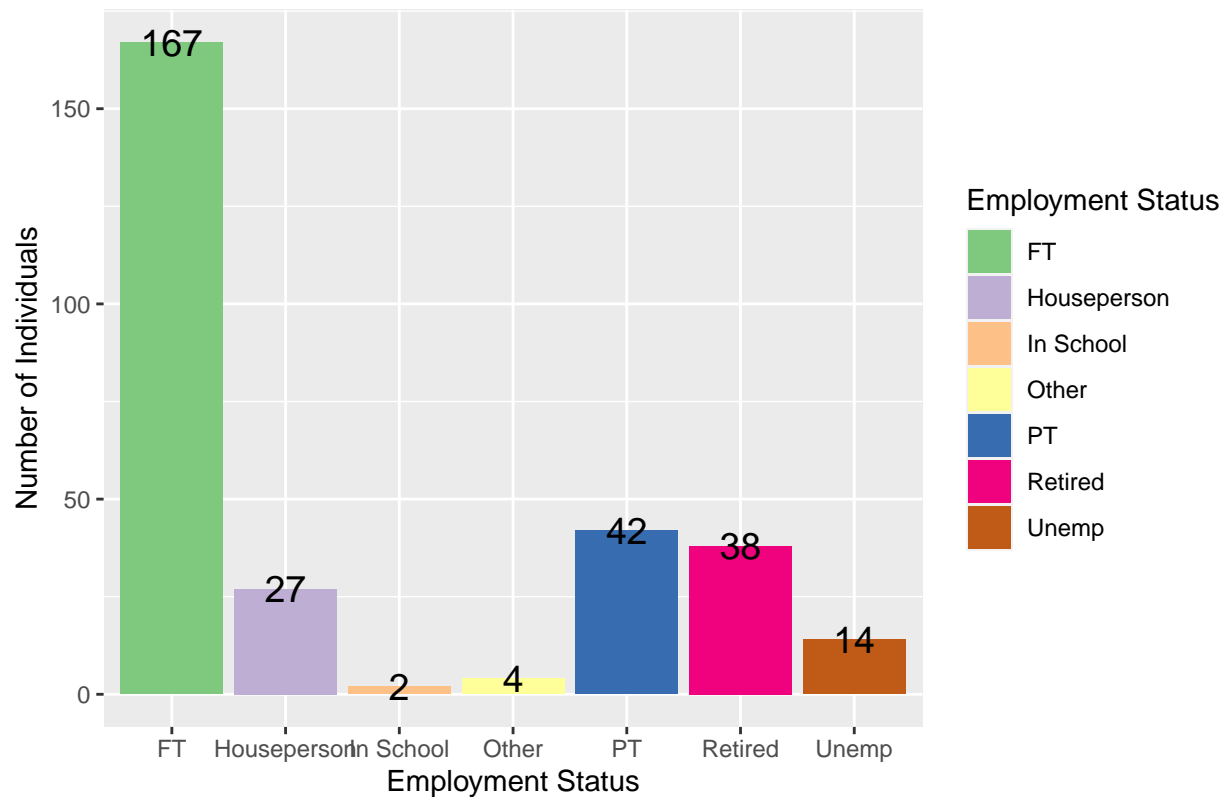


As we can see from the graph, the majority of individuals with depression are either a high school graduate or have only some high school education. Individuals with a PhD, MS or less than high school have the least amount of depression from this data set.

Variable 2- Employment Status

```
ggplot(depress, aes(x=employ, fill=employ)) +  
  geom_bar() +  
  ylab("Number of Individuals") +  
  xlab("Employment Status") +  
  ggtitle("Employment Status of Depressed Individuals in LA County") +  
  scale_fill_brewer(palette="Accent", name="Employment Status") +  
  geom_text(aes(y=..count.. + 0, label=..count..), stat='count', size = 5)
```

Employment Status of Depressed Individuals in LA County

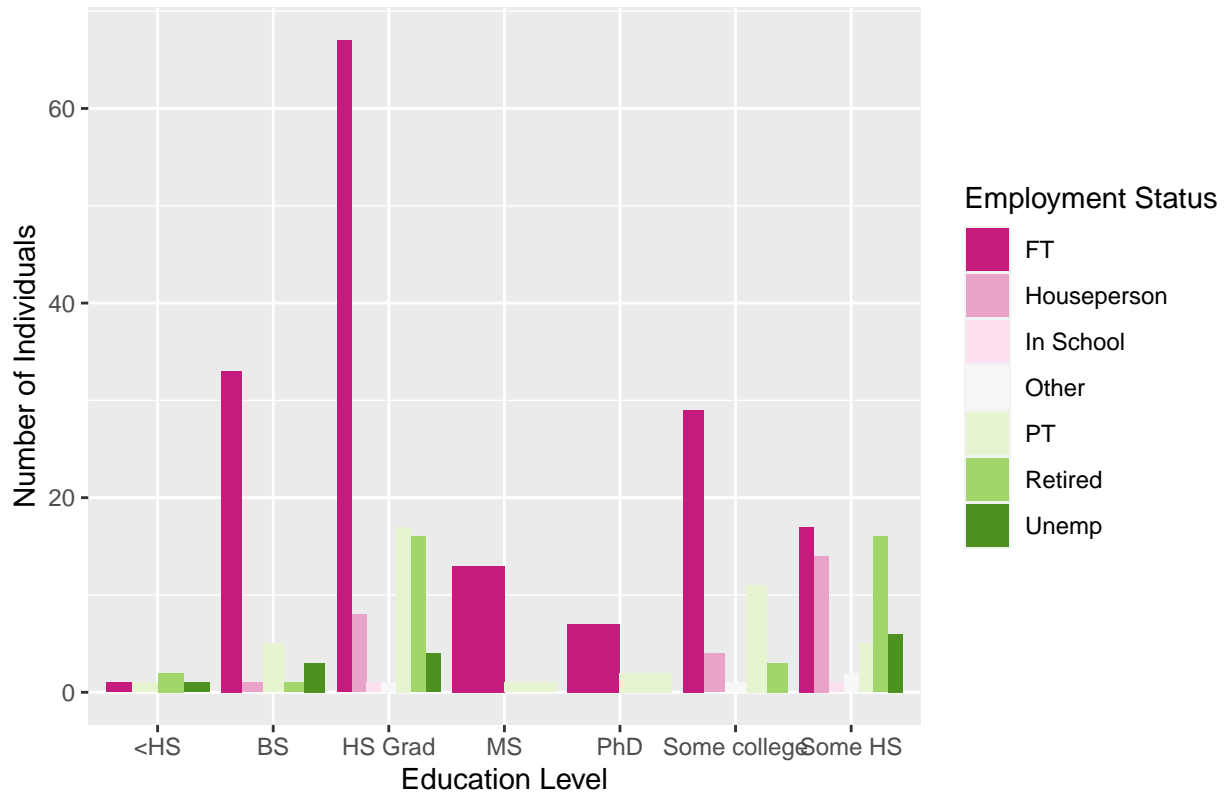


According to this graph, a huge majority of depressed individuals work full time. The least amount of people with depression are in school, is a house-person or some other form of employment.

Bivariate Analysis:

```
ggplot(depress, aes(x=educat, fill=employ)) +  
  geom_bar(position="dodge") +  
  ggtitle("Employment Status and Employment Status of Depressed Individuals in LA County")+  
  scale_fill_brewer(palette="PiYG",name="Employment Status")+  
  xlab("Education Level")+  
  ylab("Number of Individuals")
```

Employment Status and Employment Status of Depressed Individuals in LA



As we can see from the graph above, a majority of depressed individuals work full time, regardless of education status. The second largest group of depressed individuals are retired with only a high school degree or some high school completed.

Closing Statements:

The relationship between depression, education level and employment status are apparent from these graphs shown. There could be a correlation between not completing higher education and higher depression levels. There could also be a correlation between the amount you work and higher depression levels. A majority of these depressed individuals have high school or below education and work full time. Because they do not have a higher education, they could be working more minimum wage jobs or mentally unfulfilling jobs, thus encouraging their depression.