CPS85 Lab

[redacted]

February 4, 2015

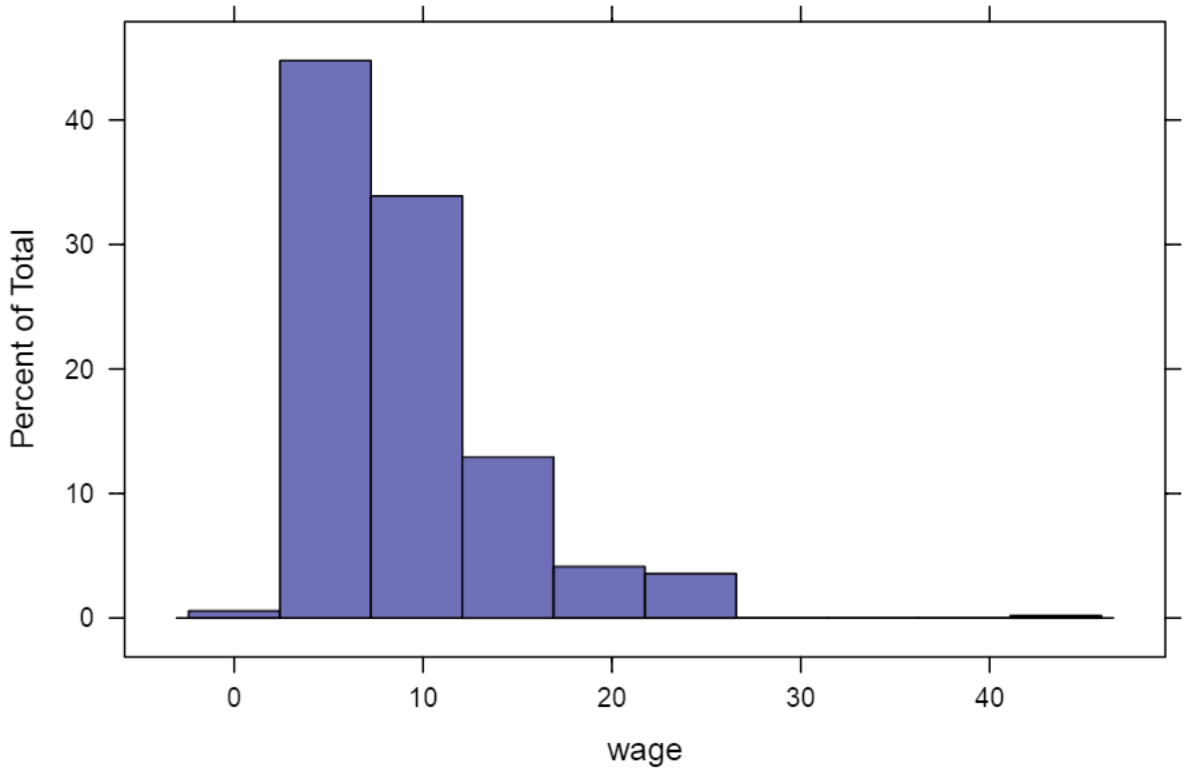
Instructions

Important: Make sure you delete this entire section before you submit your file to Moodle!

In your groups, tackle the `CPS85` dataset within the `mosaicData` package. You may want to type `?CPS85` and `head(CPS85)` to get a glimpse at what this dataset contains. Next, start exploring the dataset using plots, tables, and other numeric summaries. Select 3 favorite plots and tell a story (in writing) about each of them. Extra brownie points if you can weave the 3 plots together into one cohesive story. You should include at least 1 univariate and 1 bivariate plot.

PLOT 1

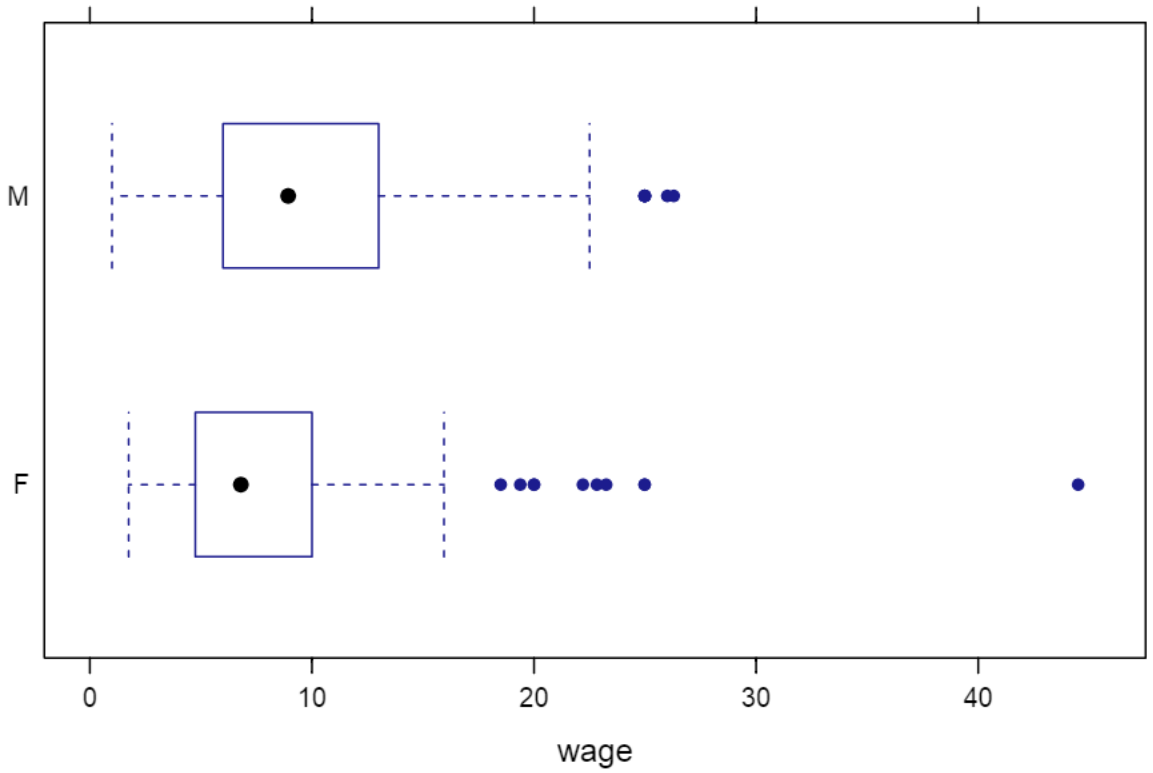
```
histogram(~wage, data=CPS85, type = "percent")
```



The wage is shown to be unimodal and skewed to the right. It has a median of $7.78 per hour and a mean of $9.02 per hour. Given that the data is skewed, the median is a more accurate representation of the center of the wage data. Most people in the data set make about $8 an hour. Because the data is skewed right, it demonstrates the poor distribution of wealth and a small middle class.

PLOT 2

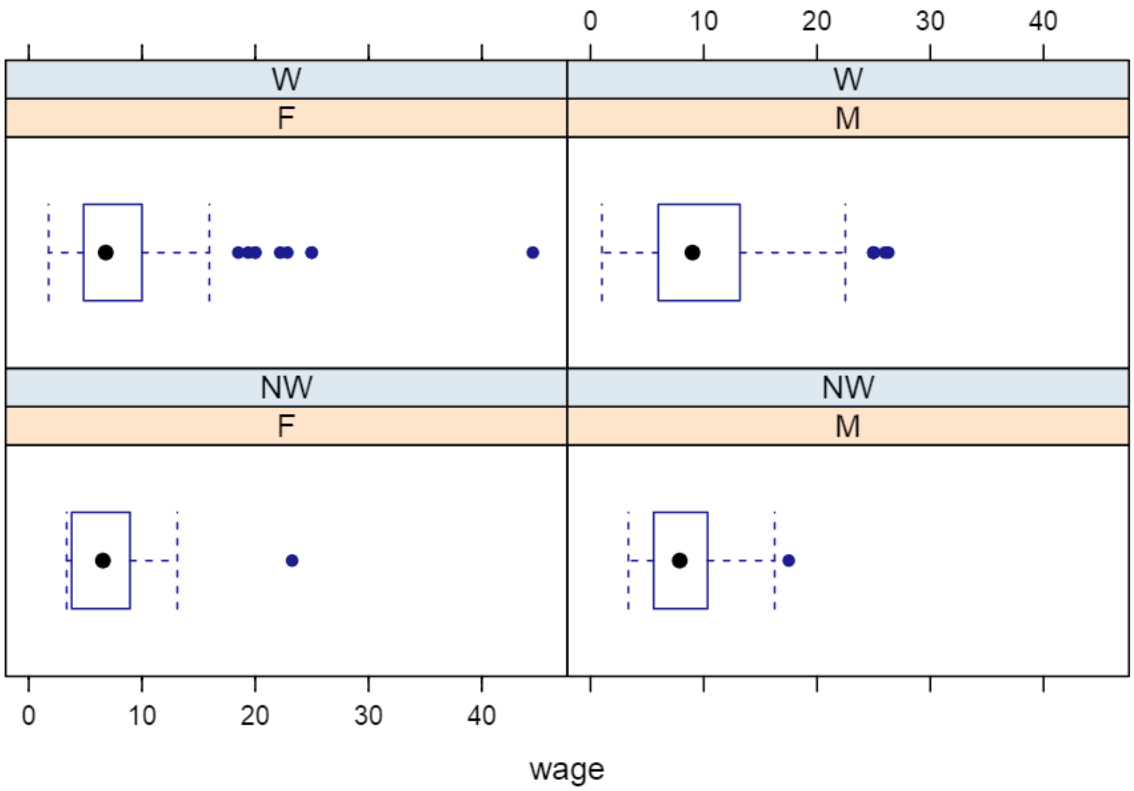
```
bwplot(sex ~ wage, data = CPS85)
```



The data shows that men tend to make more than women, as they have a higher mean of their wages. Women have a median wage of $6.80 per hour against men's median wage of $8.93 per hour. The median is more indicative of the center of the data since there are outliers shown outside of the fences of the boxplot. The men have a larger IQR, though, and do have a lower minimum than the women. Looking at Plot 1, we can see that women have a lower median than the general median of the total wages while men have a higher median.

PLOT 3

```
bwplot(~wage | sex+race, data =  CPS85)
```



The data shows racial disparity in wages, with nonwhite men and women making less than white men and women, respectively. The median wages, representive of the data's center because of outliers, is higher for white men and women than for nonwhite men and women, respectively. Additionally, the maximum value for white men and women is much higher than that of both nonwhite men and women. Sex has more of an influence on the median of wages while race has a larger influence on the maximum value of wages.