



- Sex
- Age
- Marital State
- Disability
- Nativity
- Citizenship
- Language Skills
- School Level
- Employment Status

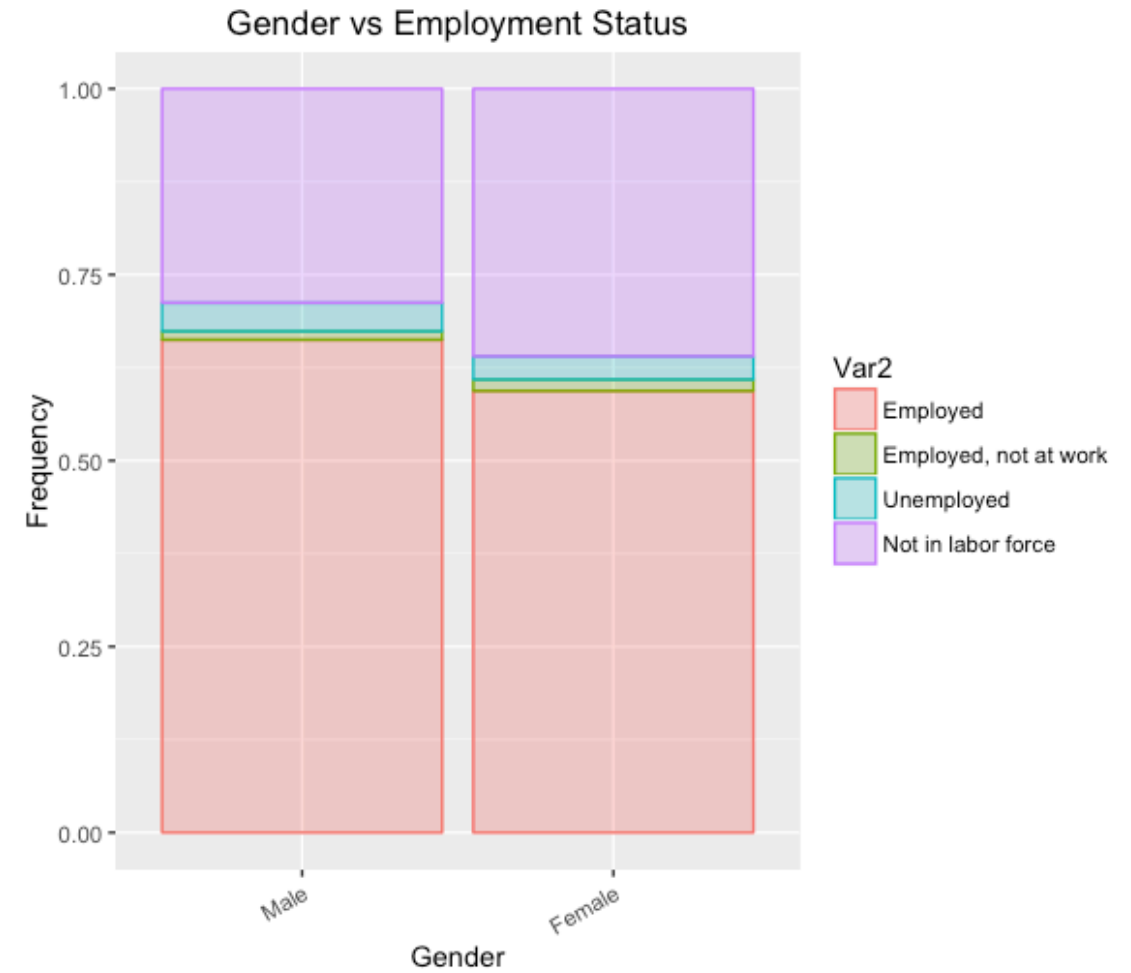
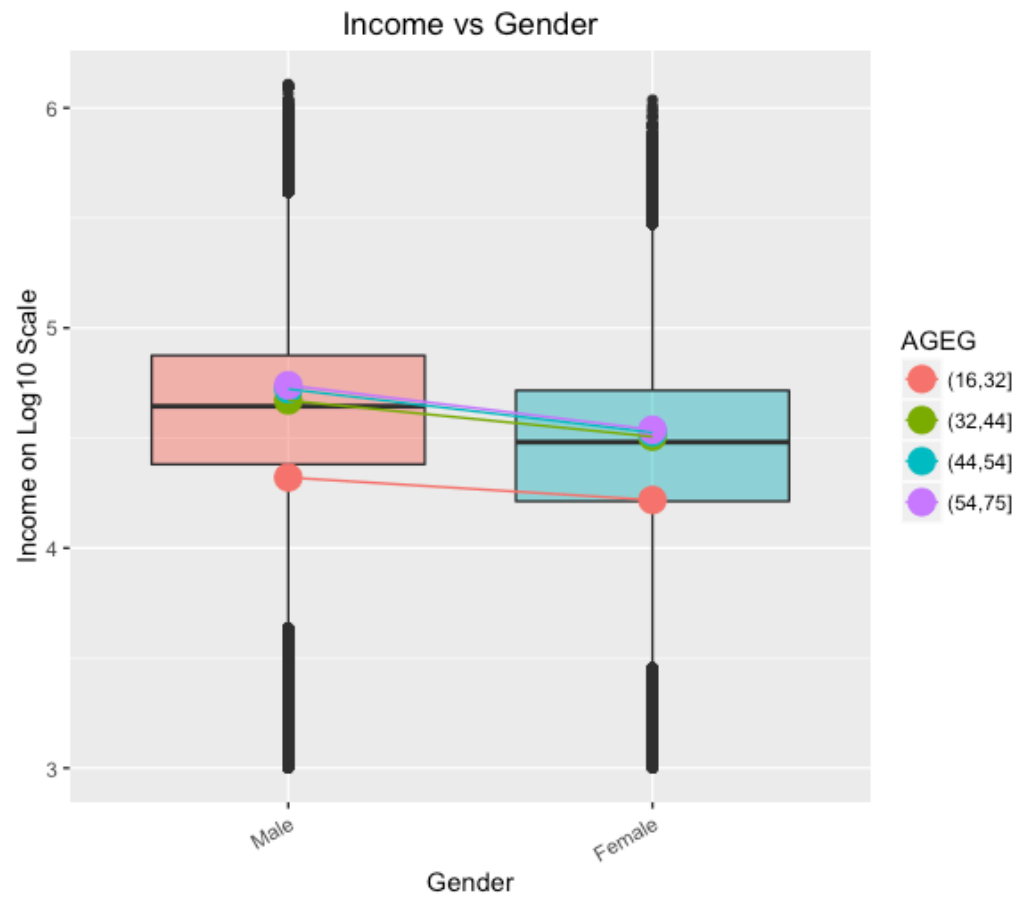
|                   | Estimate  | STD Error | P Value   |
|-------------------|-----------|-----------|-----------|
| (Intercept)       | -0.9116   | 0.1592    | 1.018e-08 |
| CITNotCitizen     | -0.2039   | 0.09201   | 0.02672   |
| AGEP              | -0.003014 | 0.001907  | 0.1139    |
| MARSingle         | -0.5562   | 0.05486   | 3.68e-24  |
| SCHLMSc           | 0.3229    | 0.05162   | 3.944e-10 |
| SCHLPhD           | 0.4372    | 0.1103    | 7.392e-05 |
| LANXmultiLang     | 0.1438    | 0.06576   | 0.02875   |
| SEXFEMALE         | -0.017    | 0.04433   | 0.7013    |
| DISHealthy        | 1.125     | 0.1062    | 3.259e-26 |
| NATIVITYNonNative | -0.08082  | 0.07654   | 0.291     |

We can see that the correlations of the “Sex”, “Age”, and “Nativity” with the output is not statistically significant. This is due to a collinearity between the input variables, which prevents them from being statistically significant. To report the variance inflation factor between the variables:

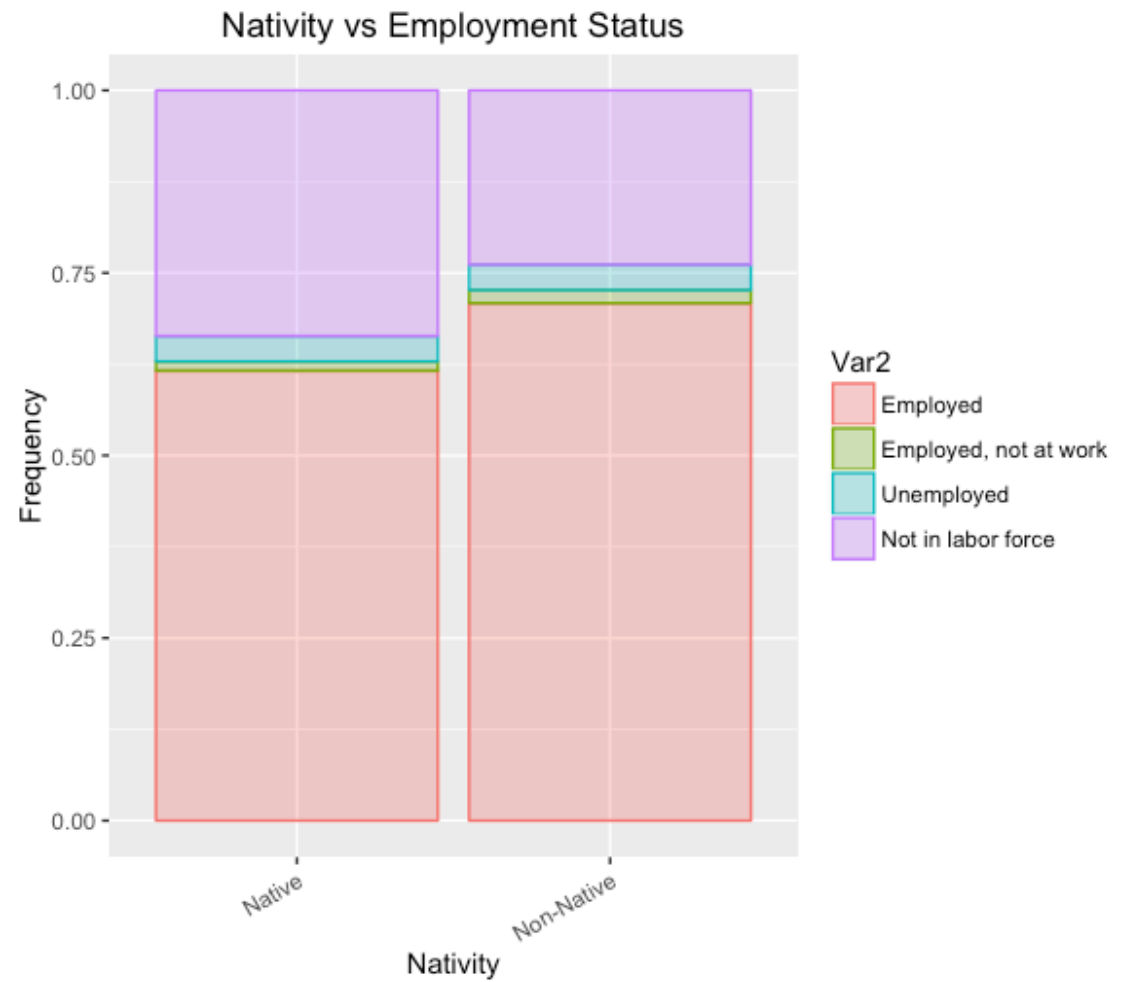
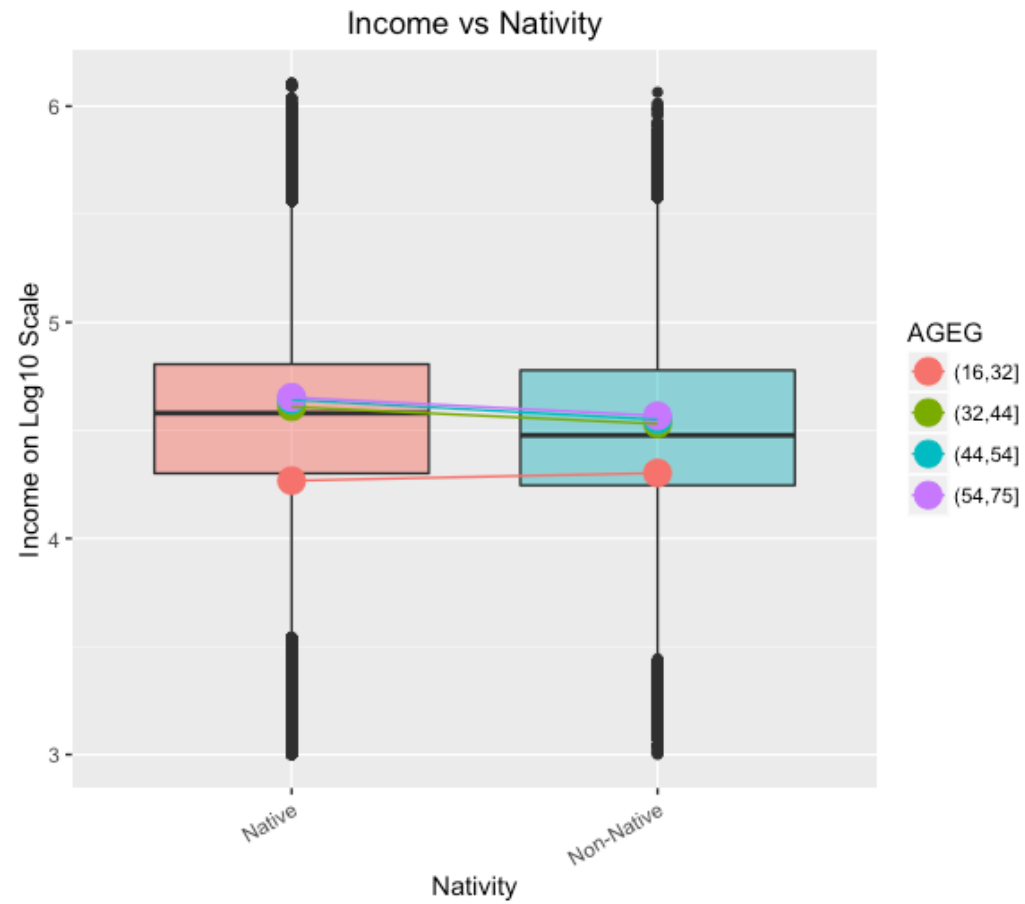
|          | GVIF  | Df |
|----------|-------|----|
| CIT      | 1.439 | 1  |
| AGEP     | 1.402 | 1  |
| MAR      | 1.329 | 1  |
| SCHL     | 1.036 | 2  |
| LANX     | 1.886 | 1  |
| SEX      | 1.013 | 1  |
| DIS      | 1.03  | 1  |
| NATIVITY | 2.305 | 1  |

It doesn't seem like it!

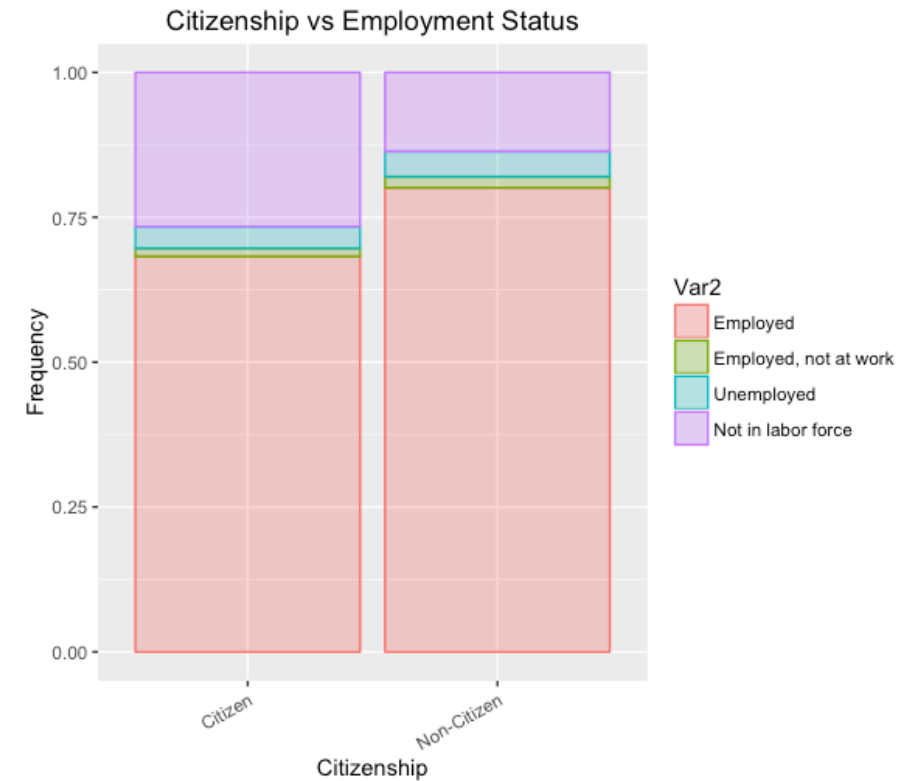
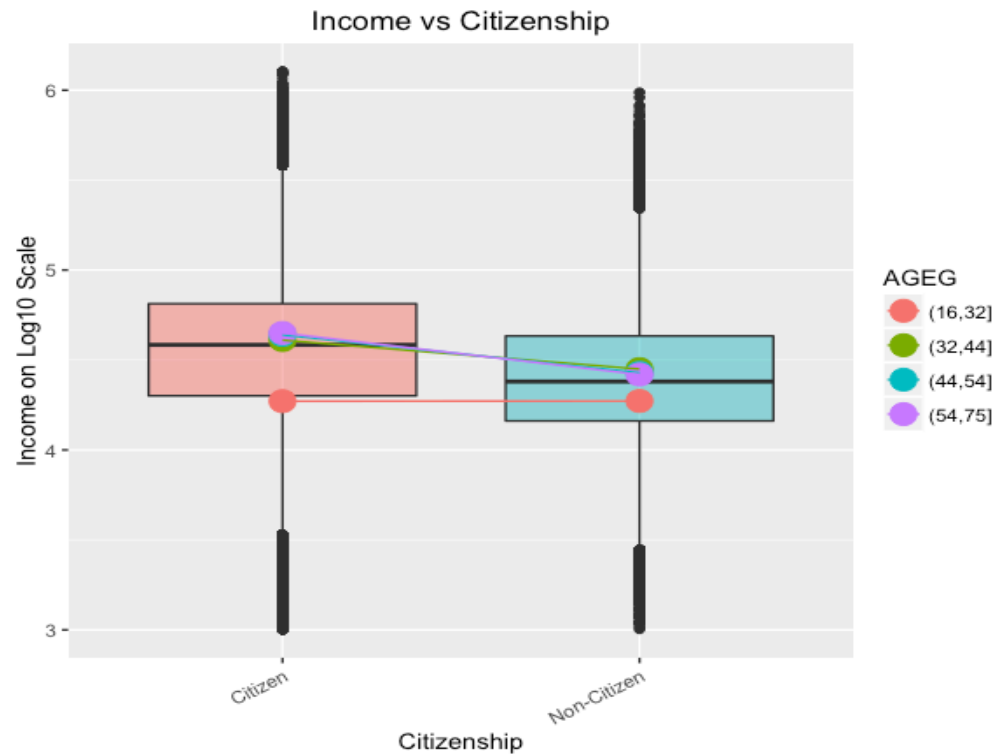
# Income vs Sex



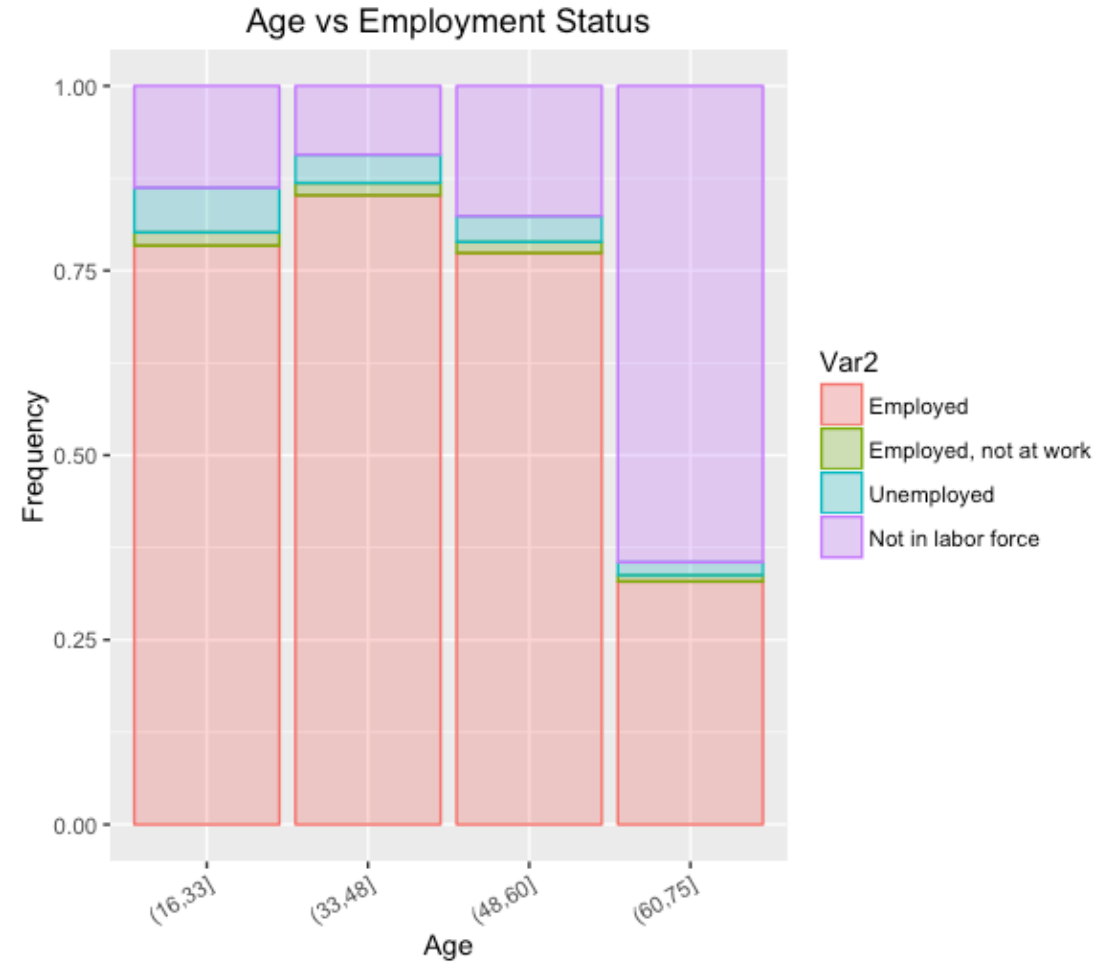
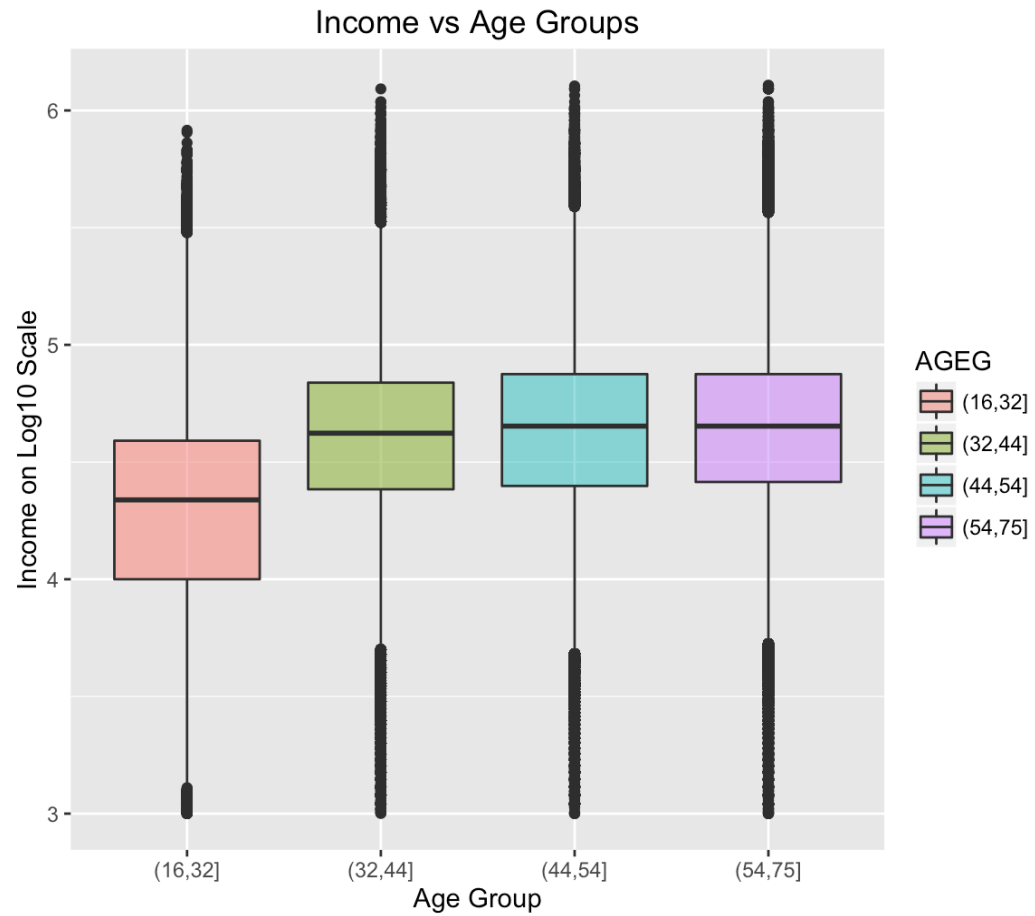
# Income vs Nativity



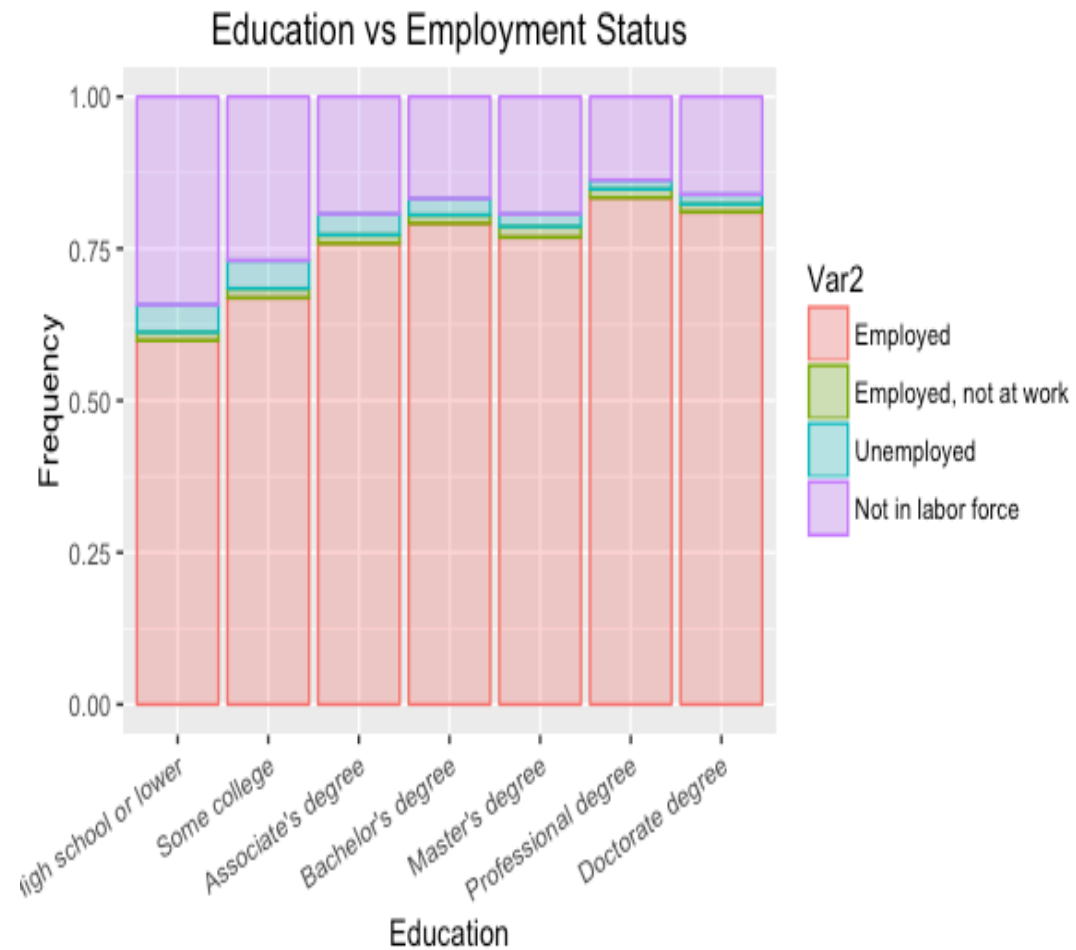
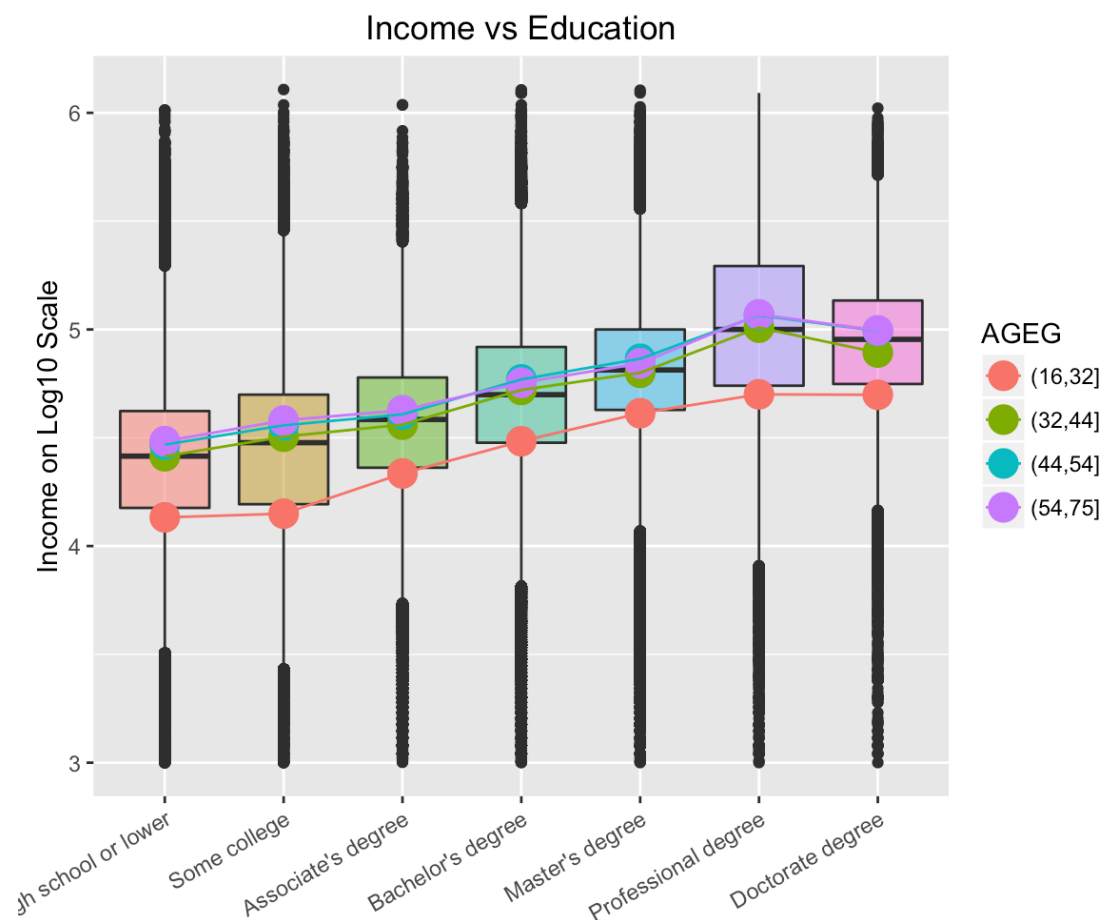
# Income vs Citizenship



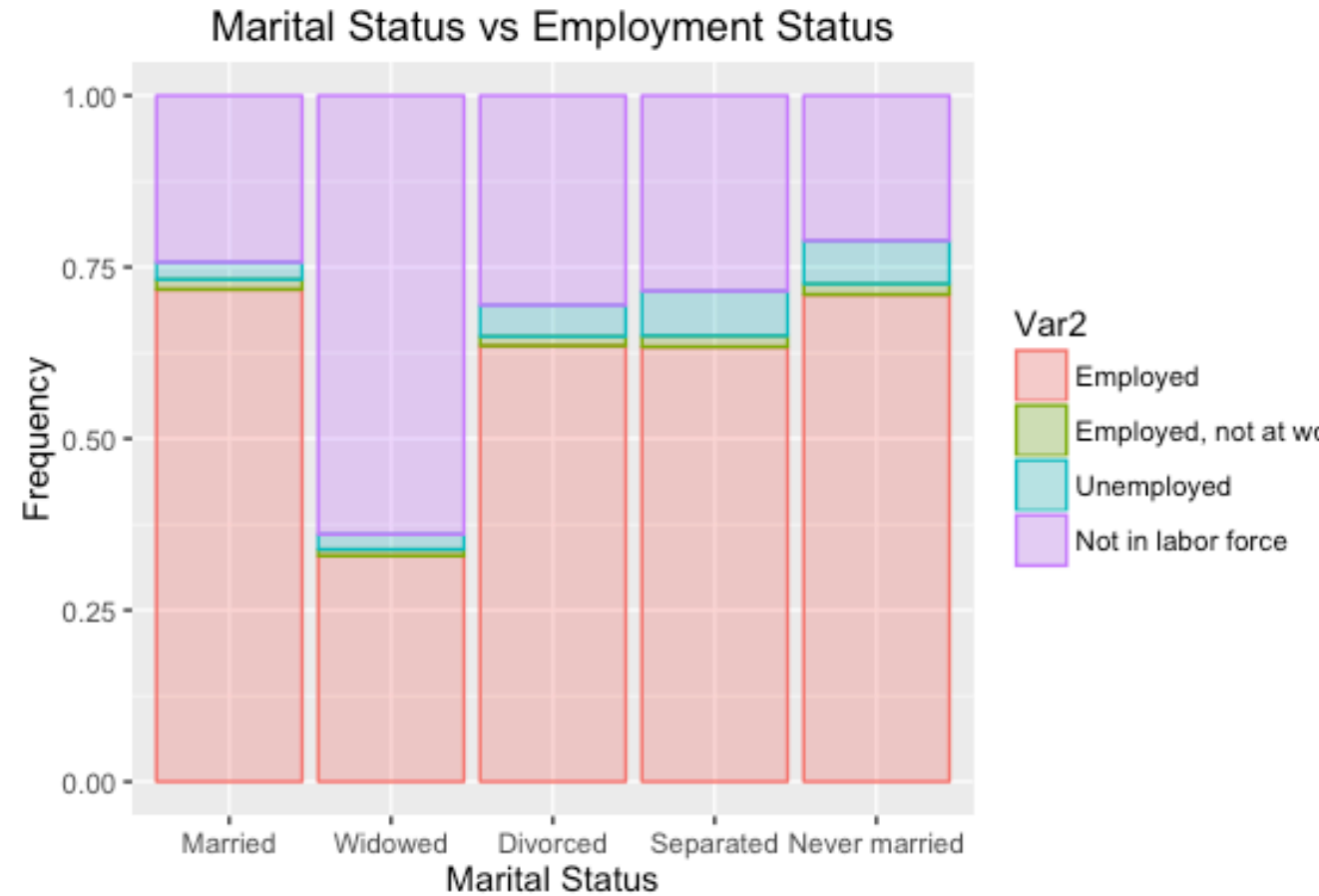
# Income vs Age



# Income vs Education

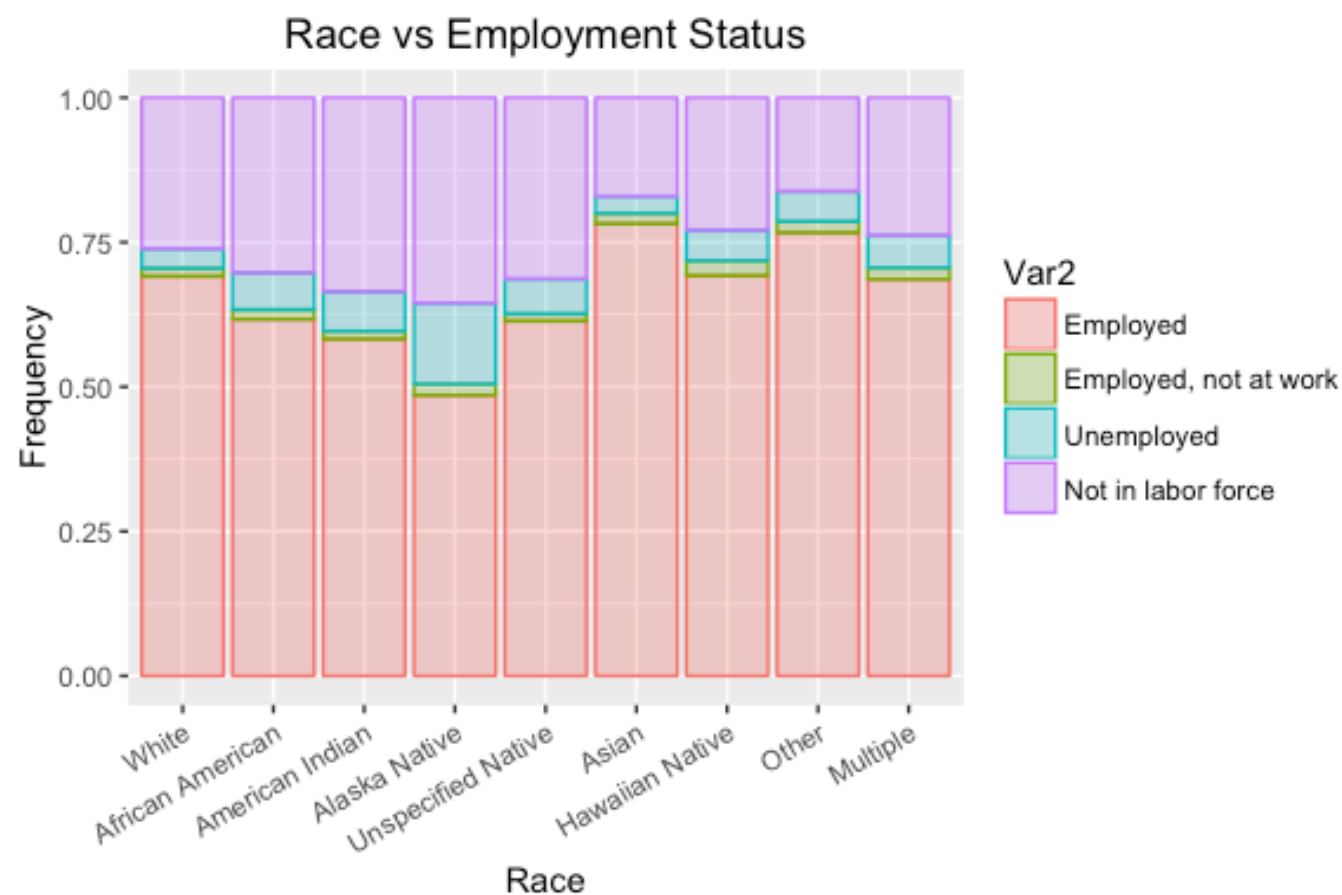
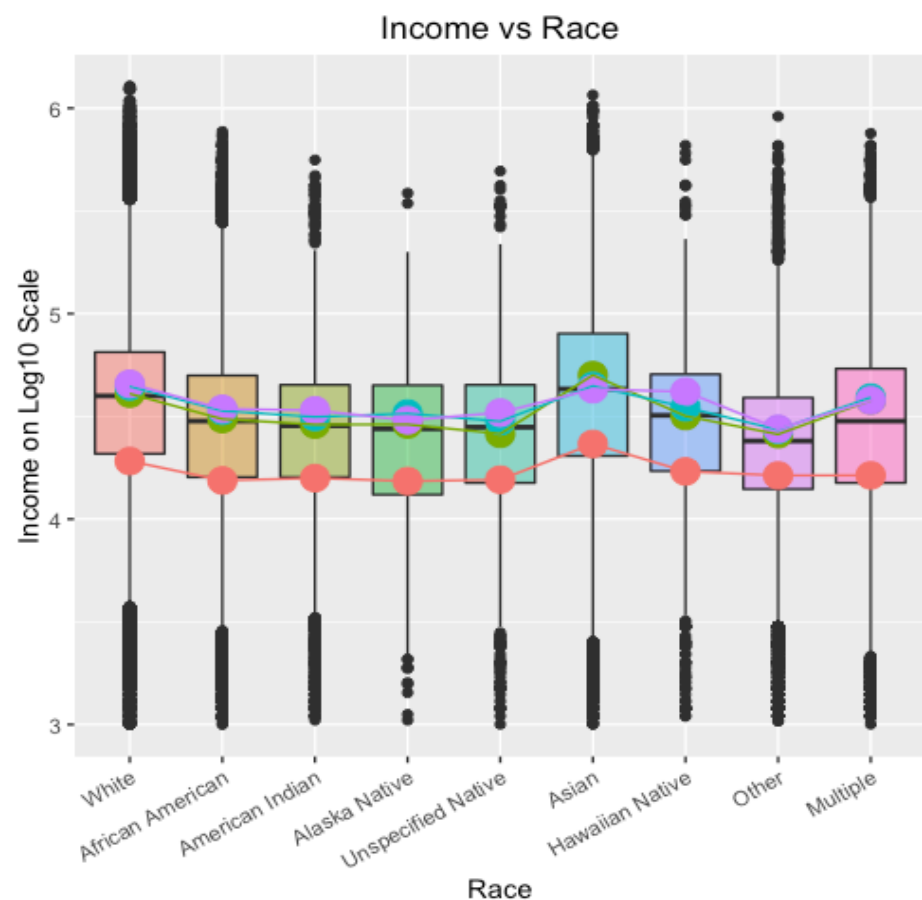


# Income vs Marital Status



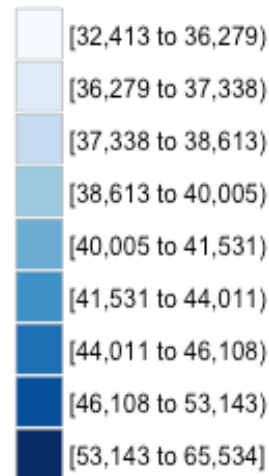
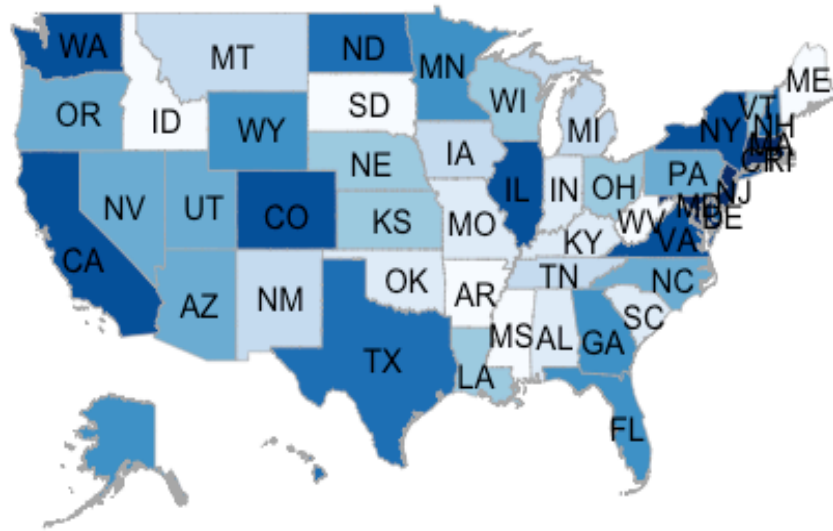


# Income vs Race

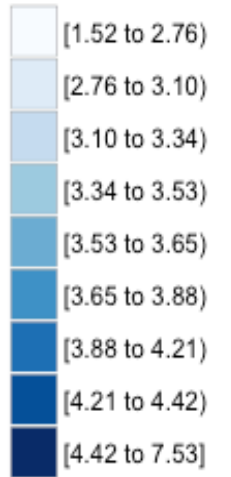
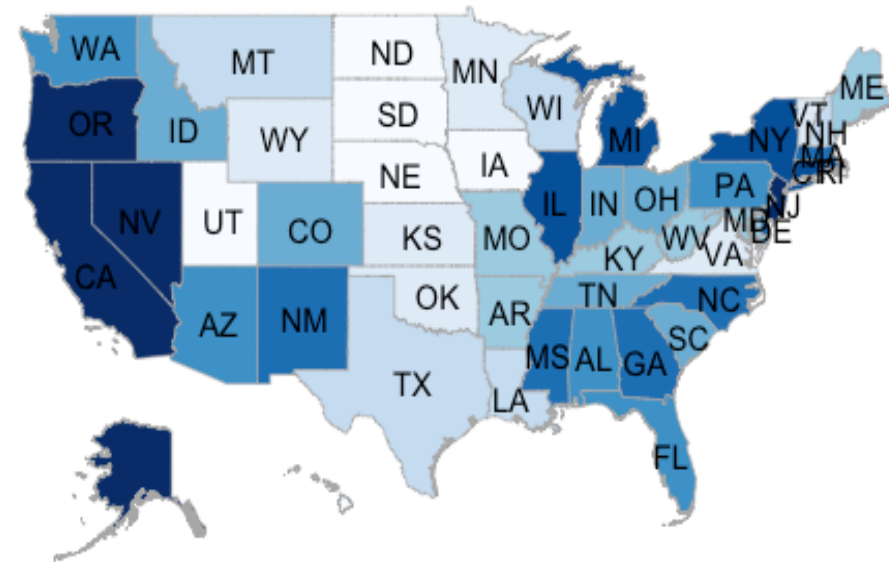


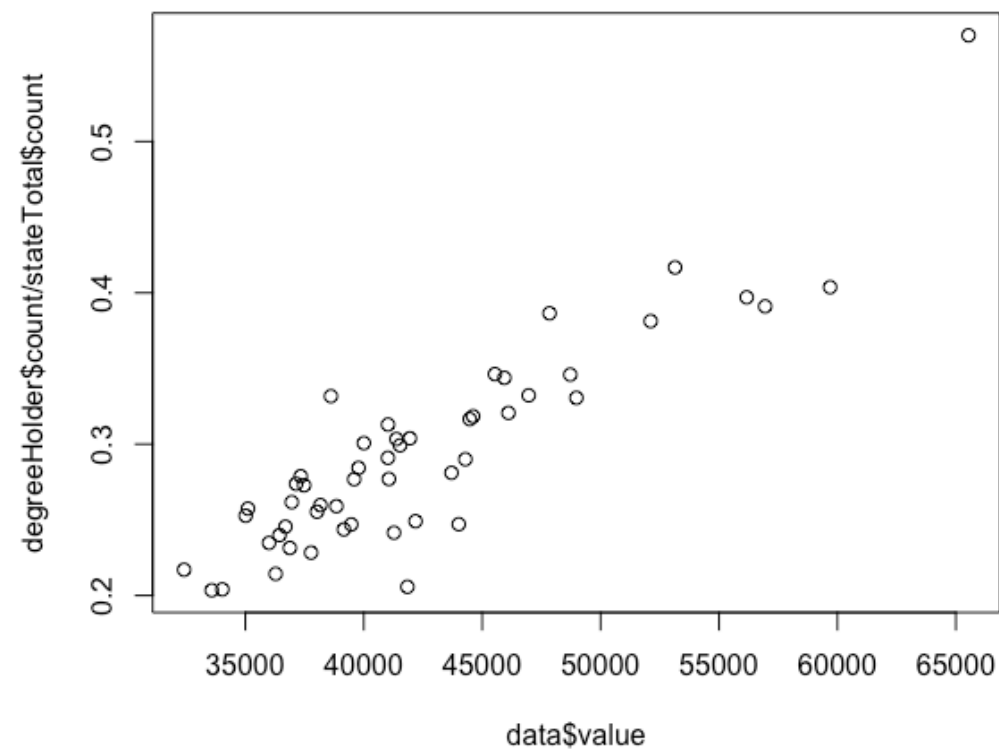
# Income vs Employment Map across the States

State Average Incomes Map



State Unemployment Map

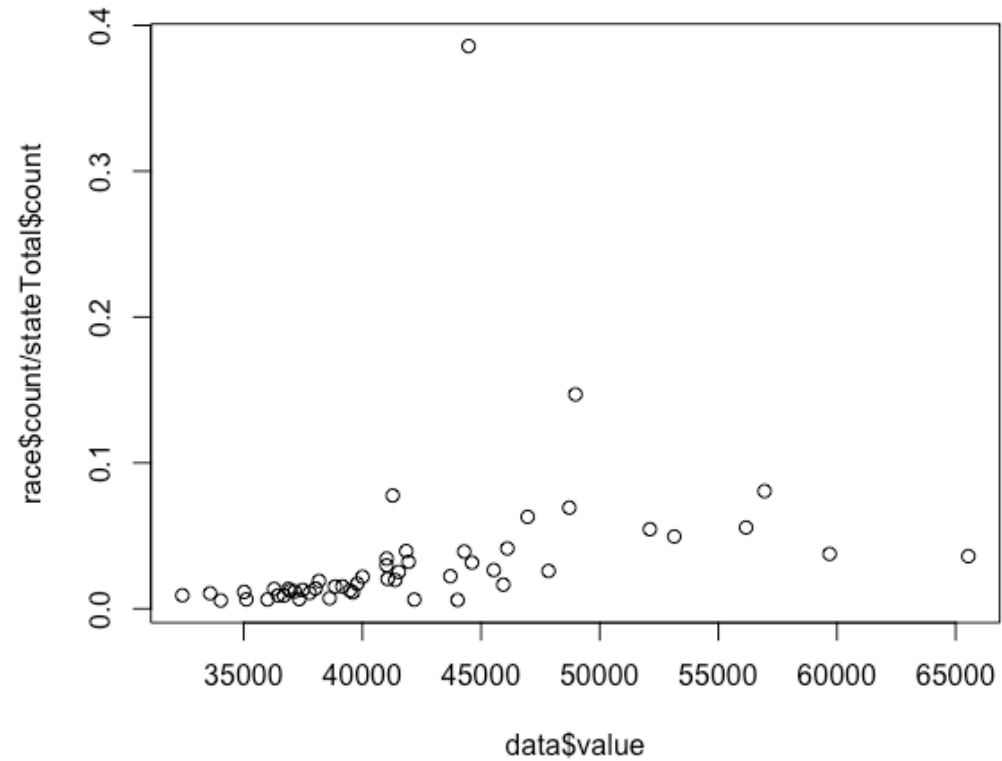




Cor=0.903

# RACE=Asian

Cor=0.33



```
> cor
```

```
[1] -0.2078640225  0.2911087046 -0.2412356918  0.0274550146  0.1125843177
```

```
[6]  0.3345368383  0.0003149281  0.3367420952  0.1302585273
```

# AGE

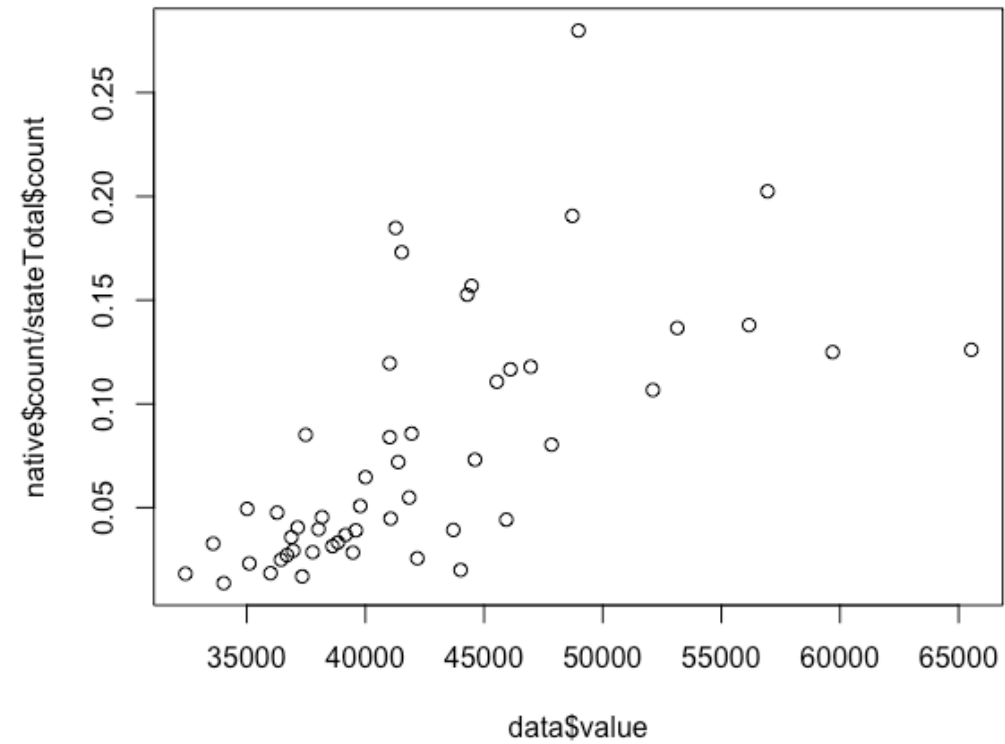
```
> age <- ds%>%
+   filter(AGEP>=16&AGEP<=32)%>%
+   group_by(ST)%>%
+   summarise(count = n())
> cor(data$value,age$count/stateTotal$count)
[1] 0.4576832
> plot(data$value,age$count/stateTotal$count)
> age <- ds%>%
+   filter(AGEP>=33&AGEP<=44)%>%
+   group_by(ST)%>%
+   summarise(count = n())
> cor(data$value,age$count/stateTotal$count)
[1] 0.450071
> plot(data$value,age$count/stateTotal$count)
> age <- ds%>%
+   filter(AGEP>=45&AGEP<=54)%>%
+   group_by(ST)%>%
+   summarise(count = n())
> cor(data$value,age$count/stateTotal$count)
[1] 0.1916612
> plot(data$value,age$count/stateTotal$count)
> age <- ds%>%
+   filter(AGEP>=55&AGEP<=75)%>%
+   group_by(ST)%>%
+   summarise(count = n())
> cor(data$value,age$count/stateTotal$count)
[1] -0.1506796
> plot(data$value,age$count/stateTotal$count)
```

# Marital Status

```
> cor  
[1] -0.2036917 -0.5031219 -0.5386787  0.1030570  0.7206929
```

# Nativity

Non-nativity vs income  
Cor: 0.65



# The rich

- The rich: whose annual Income  $\geq$  \$120000

