Materials for Project Workday 2/27

KHL

2024-02-27

Three Specific Research Questions

-How does educational attainment impact the personal earnings of an individual in the United States?
-Does the gender of a person impact their personal earnings in the United States?
-Does a person's health exhibit a correlation with their earnings in the United States?

Clearly Defined Observations

An observation is defined as an individual surveyed by the US Census with the responses for the 8 following variables:

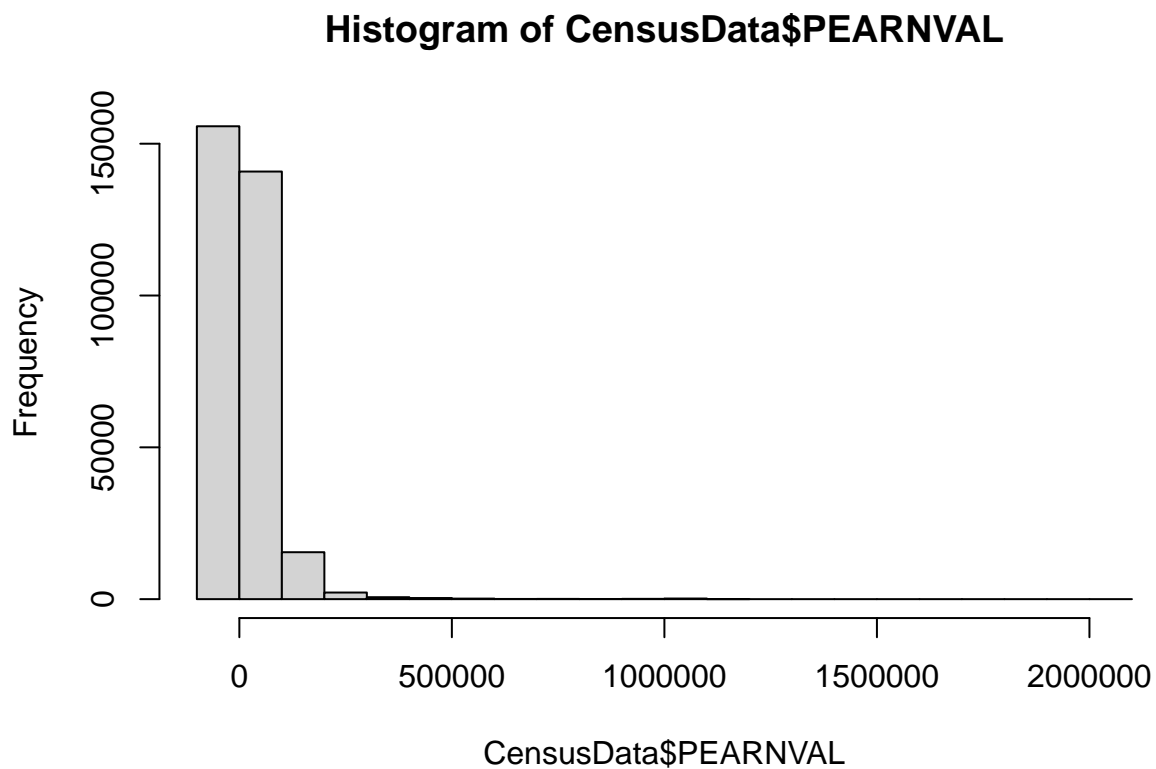| Race | RACE |
Highest Education	H_ED
Gender	SEX
Total Household Income	TOT_IN
Total Personal Earnings	PEARNVAL
Marital Status	MARITL
Health Status	HEA
Previous Year of Residence	RES_DIV

```
head(CensusData, n=1)
```

```
##   RACE H_ED SEX TOT_IN PEARNVAL MARITL HEA RES_DIV
## 1    1   39   2     22    52500      1   3       1
```

Response Variable

The response variable is "PEARNVAL," referring to the personal earnings of a person.

```
hist(CensusData$PEARNVAL)
```

Histogram of CensusData$PEARNVAL


```
summary(CensusData$PEARNVAL)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## -9999       0     932   29308   42000 2074999
```

Dataset

Chosen data sets: 2020+2021 Annual Social and Economic Benefits, Collected by the US Census https://www.census.gov/data/datasets/2020/demo/cps/cps-asec-2020.html https://www.census.gov/data/datasets/2021/demo/cps/cps-asec-2021.html

```r
head(CensusData, n=10)
```

```
##    RACE H_ED SEX TOT_IN PEARNVAL MARITL HEA RES_DIV
## 1     1   39   2     22    52500      1   3       1
## 2     1   39   1     30    56000      1   3       1
## 3     1   39   1     18    34000      1   3       1
## 4     1   36   2      9        0      1   3       1
## 5     1   39   2     17    40000      5   2       1
## 6     1   39   2      1        0      5   5       1
## 7     1   39   1      4     8424      7   3       1
## 8     1   42   2      1        0      1   3       1
## 9     1   40   1     24    58000      1   2       1
## 10    1   39   1      1        0      7   1       1
```