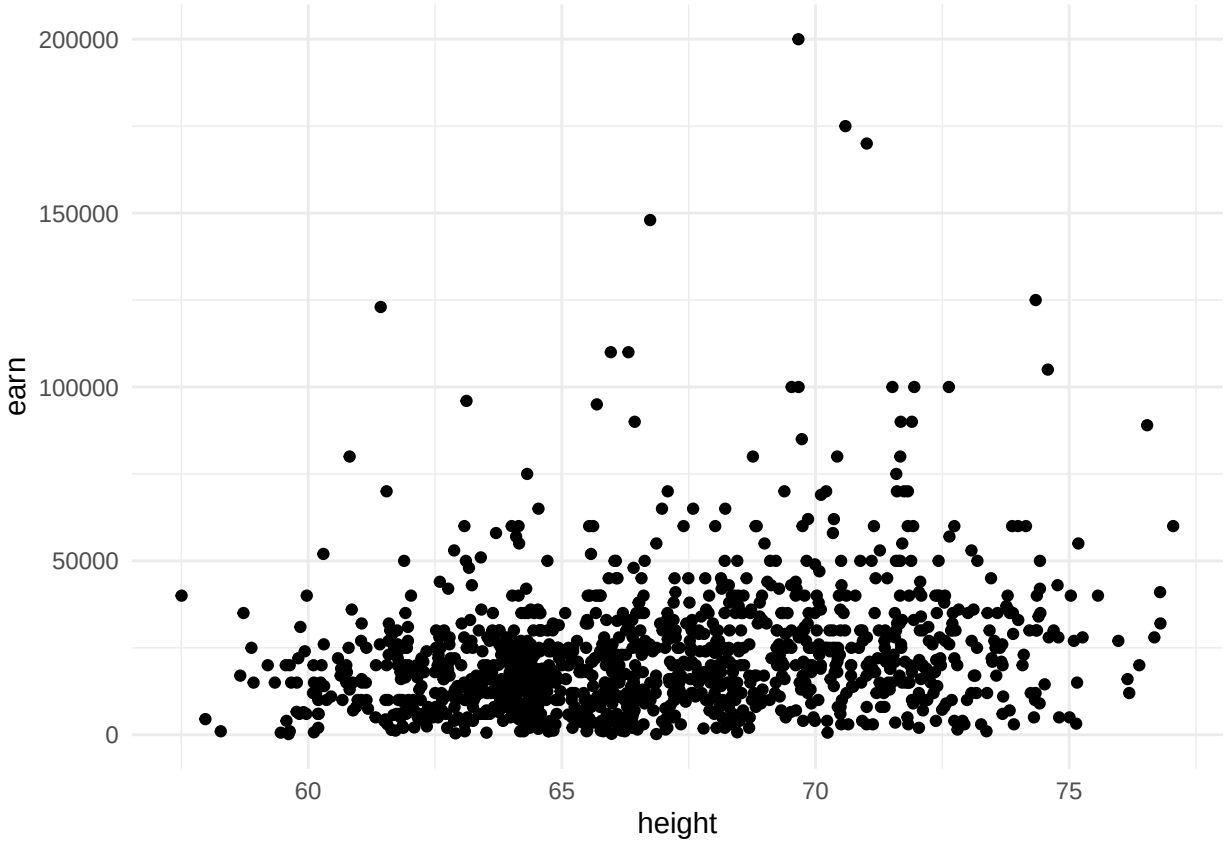
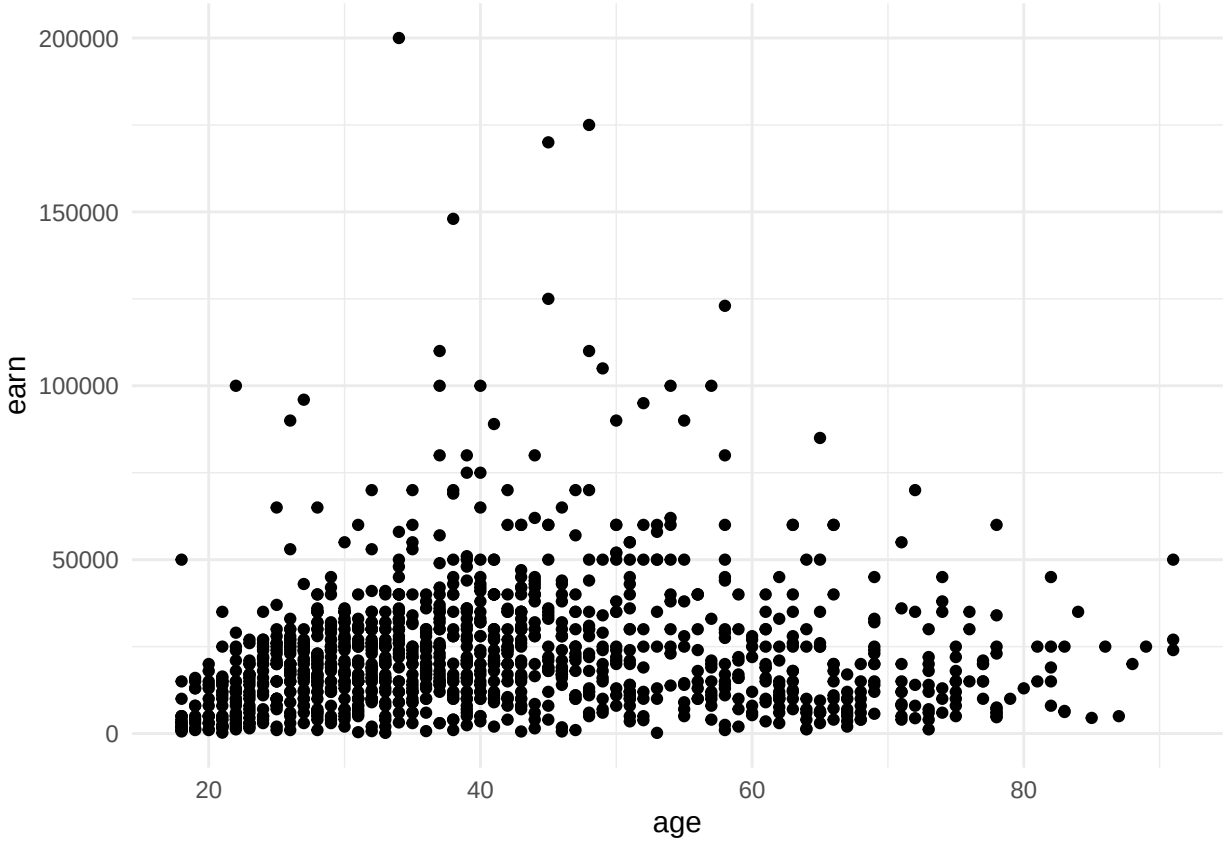
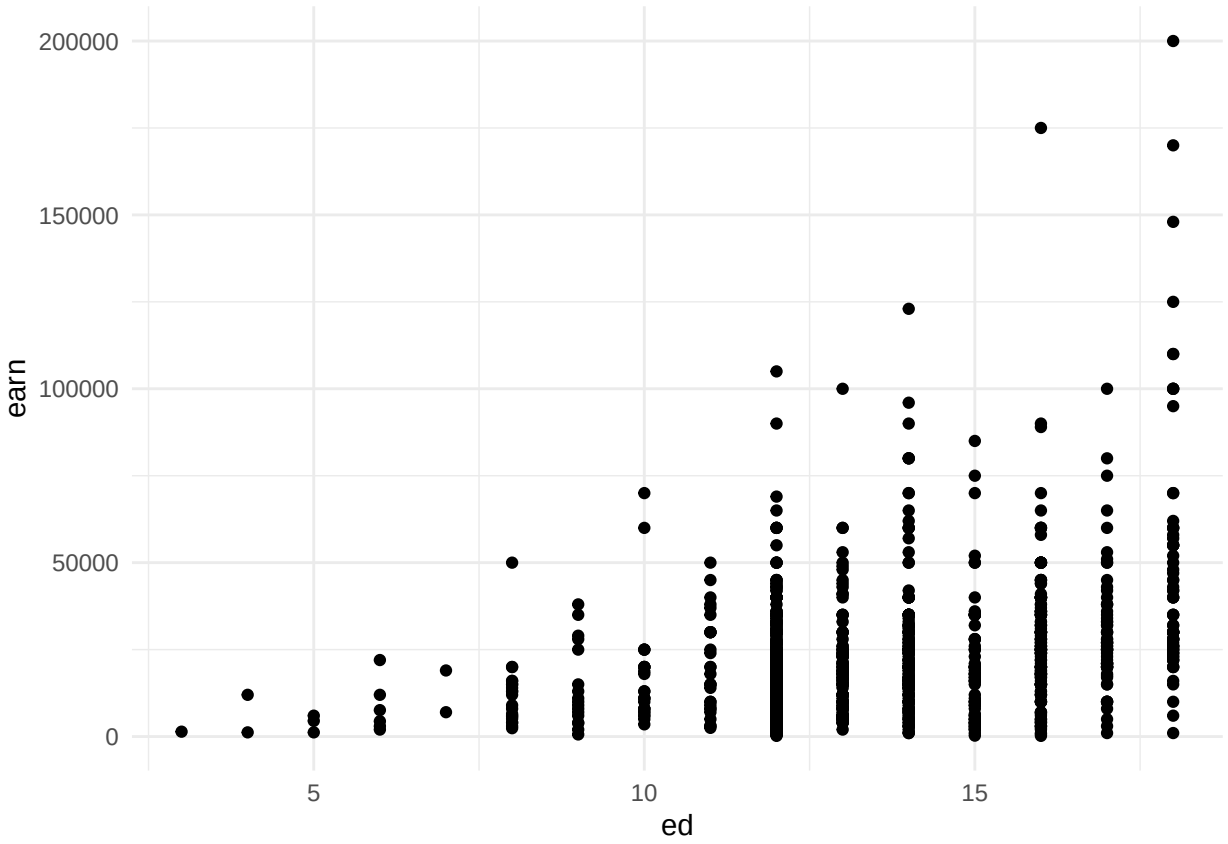
```r
# Assignment: ASSIGNMENT 3
# Name: Rodriguez Felipe
# Date: 2022-12-18

## Load the ggplot2 package
library(ggplot2)
theme_set(theme_minimal())

## Set the working directory to the root of your DSC 520 directory
setwd("/Users/feliperodriguez/OneDrive - Bellevue University/Github/dsc520/")

## Load the `data/r4ds/heights.csv` to
heights_df <- read.csv("data/r4ds/heights.csv")

# https://ggplot2.tidyverse.org/reference/geom_point.html
## Using `geom_point()` create three scatterplots for
## `height` vs. `earn`
ggplot(heights_df, aes(x=height, y=earn)) + geom_point()
```




```r
## `age` vs. `earn`
ggplot(heights_df, aes(x=age, y=earn)) + geom_point()
```

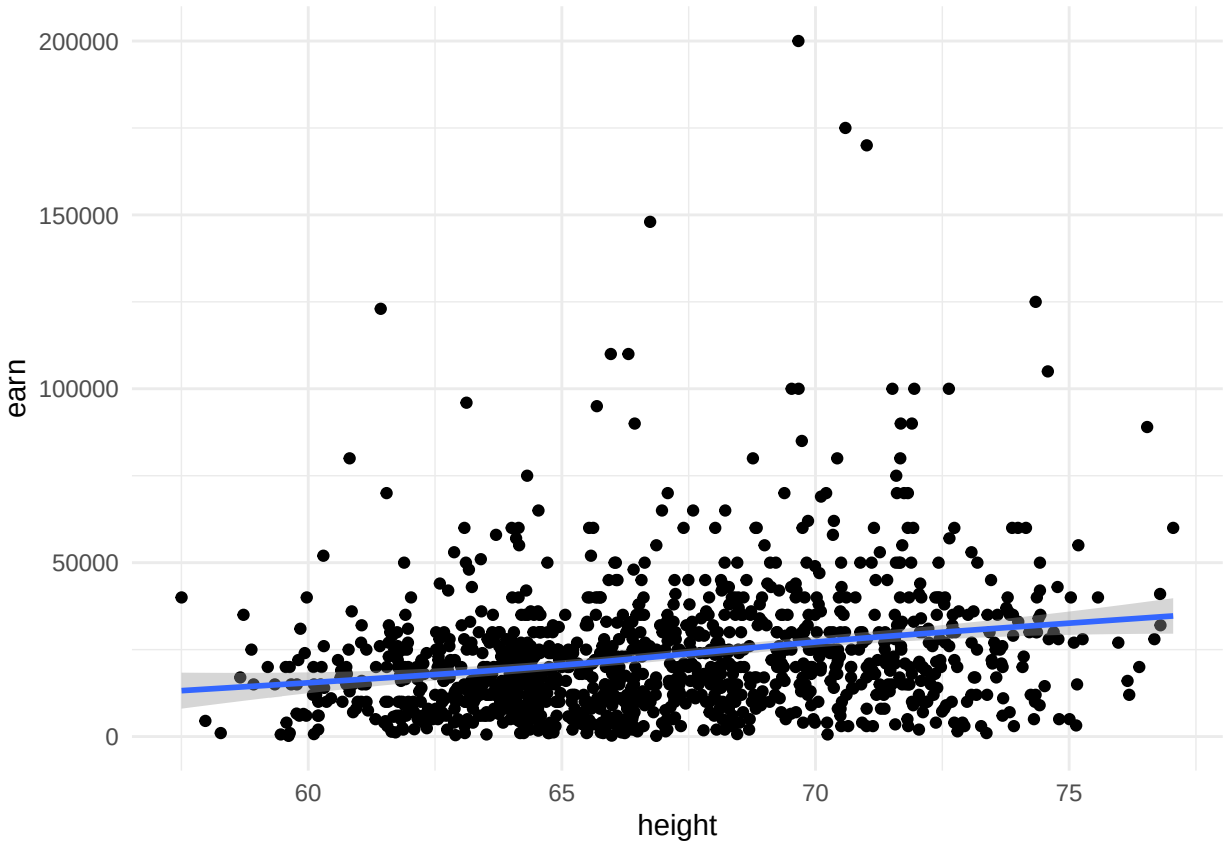



```
## `ed` vs. `earn`
ggplot(heights_df, aes(x=ed, y=earn)) + geom_point()
```



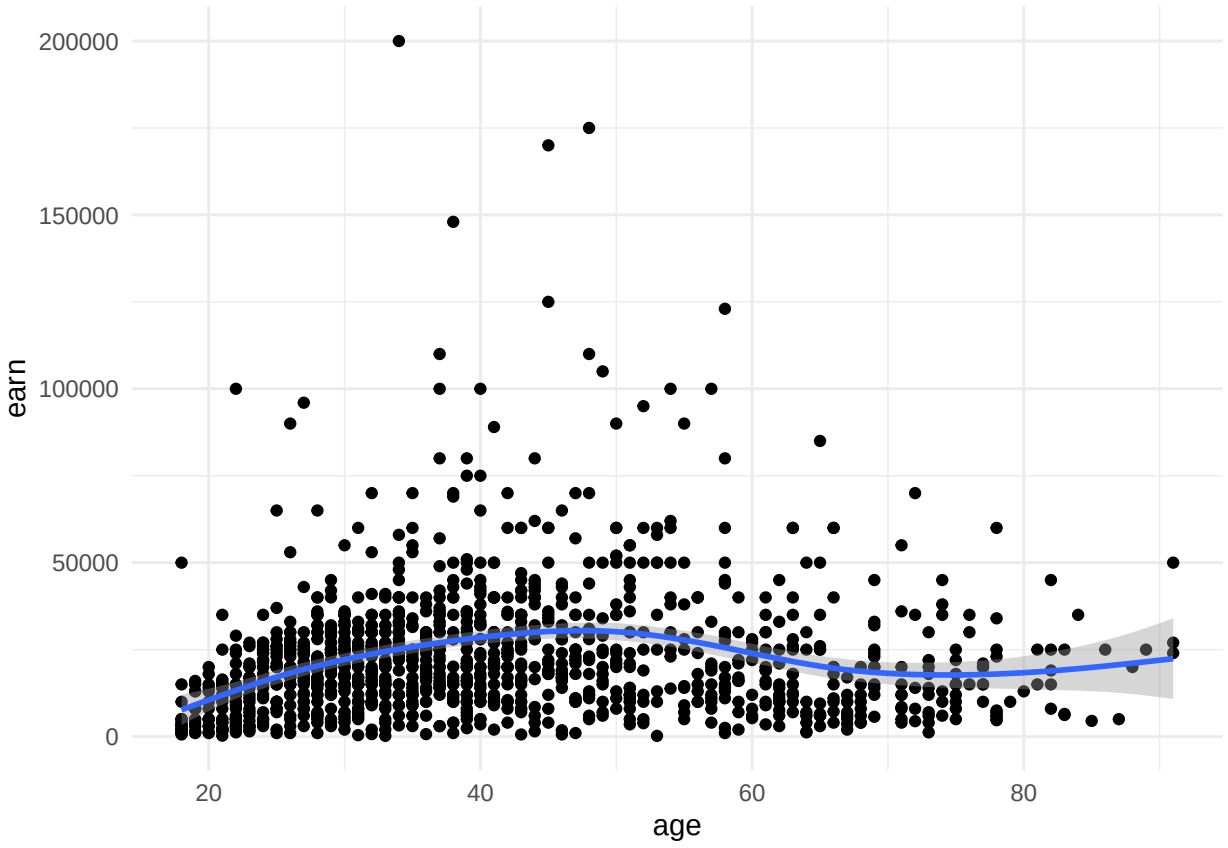

```
## Re-create the three scatterplots and add a regression trend line using
## the `geom_smooth()` function
## `height` vs. `earn`
ggplot(heights_df, aes(x=height, y=earn)) + geom_point() + geom_smooth()
```

```
## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'
```



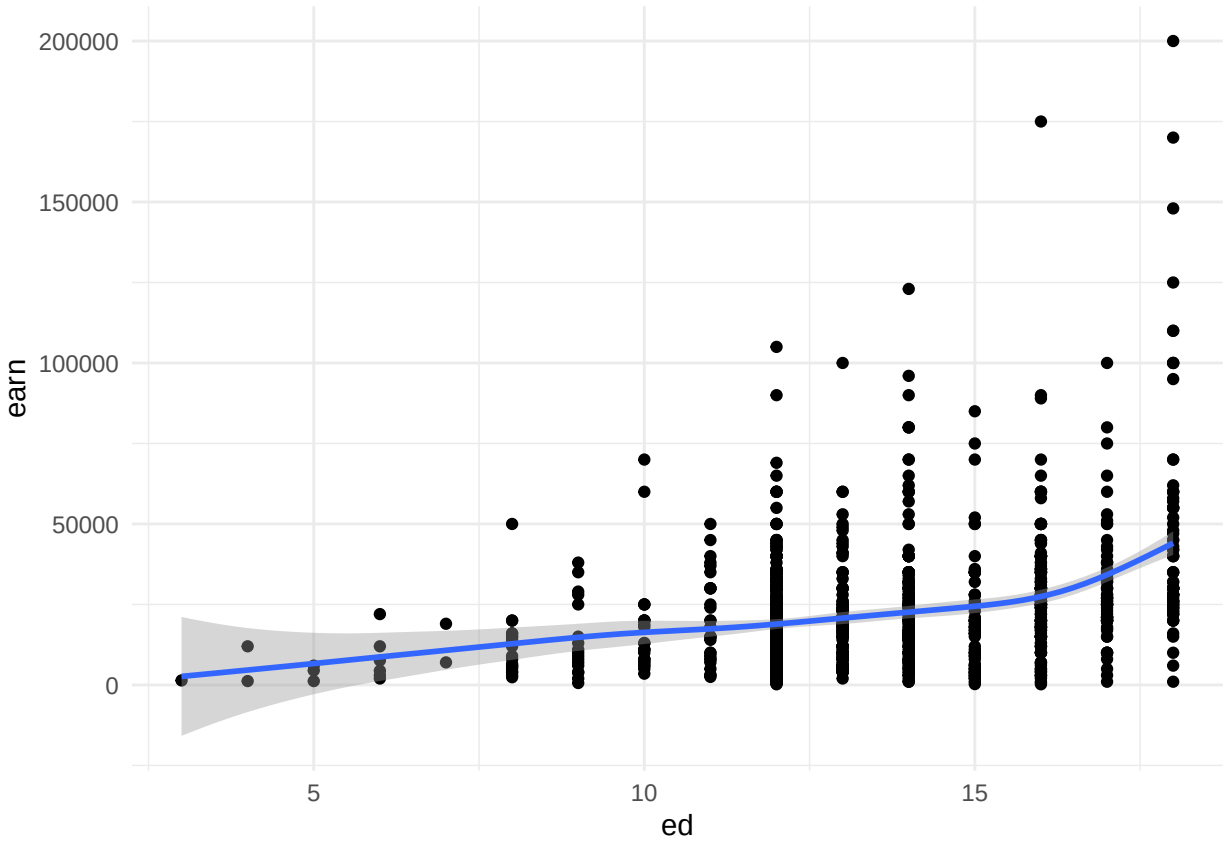

```
## `age` vs. `earn`
ggplot(heights_df, aes(x=age, y=earn)) + geom_point() + geom_smooth()
```

```
## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'
```

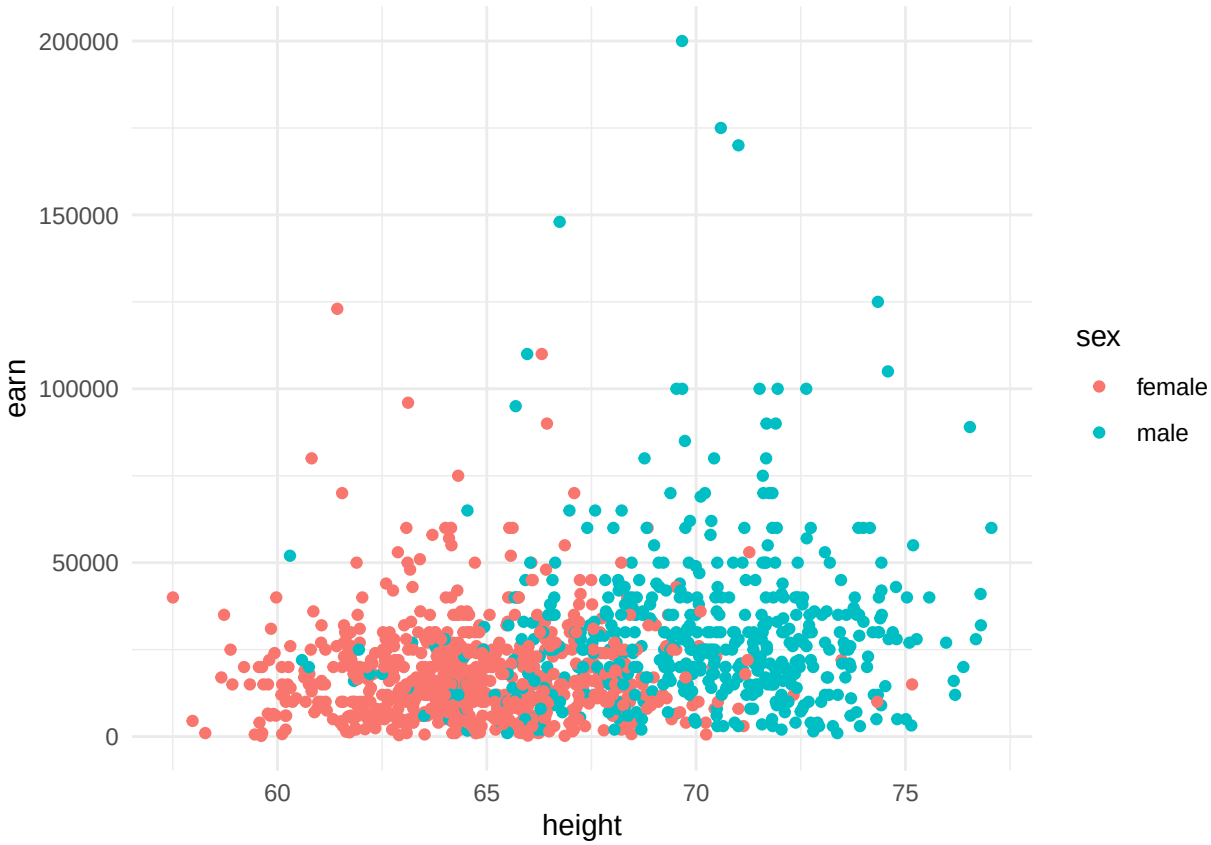



```
## `ed` vs. `earn`
ggplot(heights_df, aes(x=ed, y=earn)) + geom_point() + geom_smooth()
```

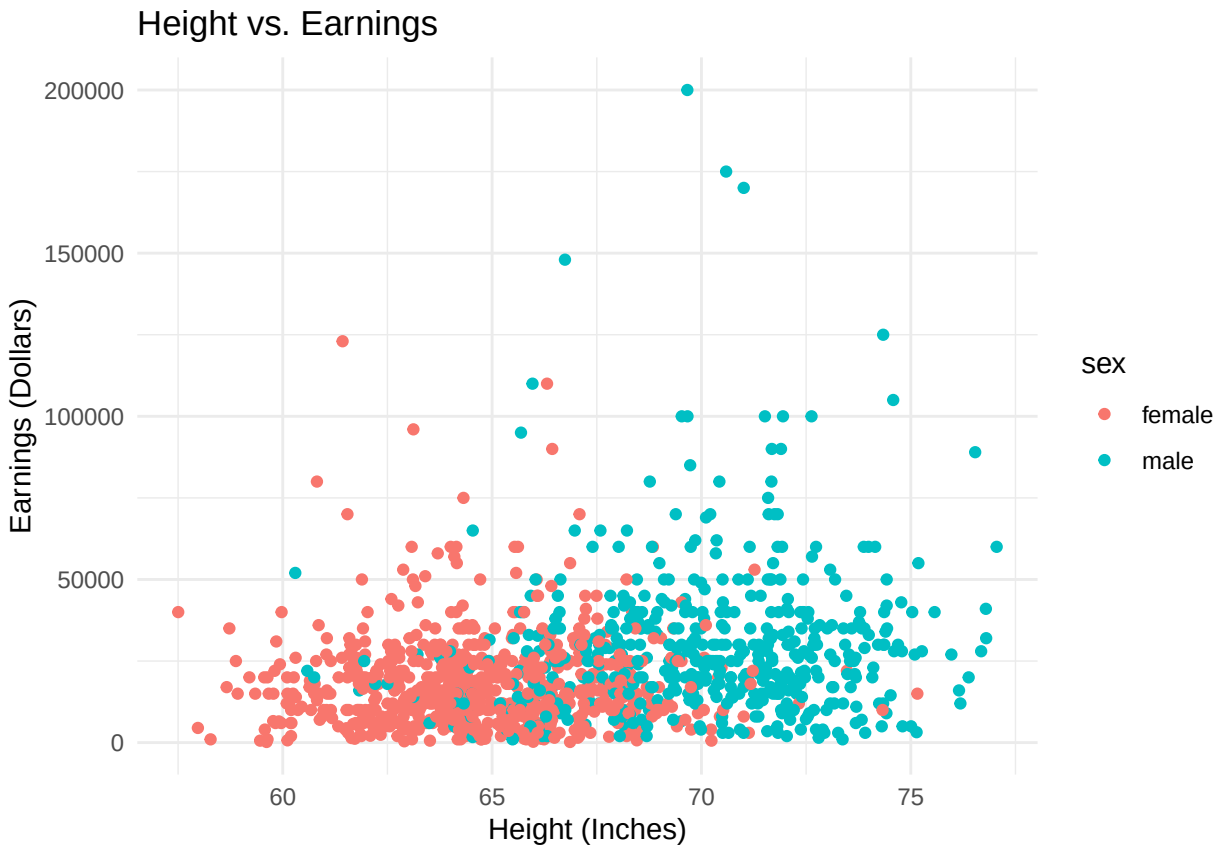
```
## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'
```




```
## Create a scatterplot of `height`` vs. `earn`.  Use `sex` as the `col` (color) attribute
ggplot(heights_df, aes(x=height, y=earn, col=sex)) + geom_point()
```

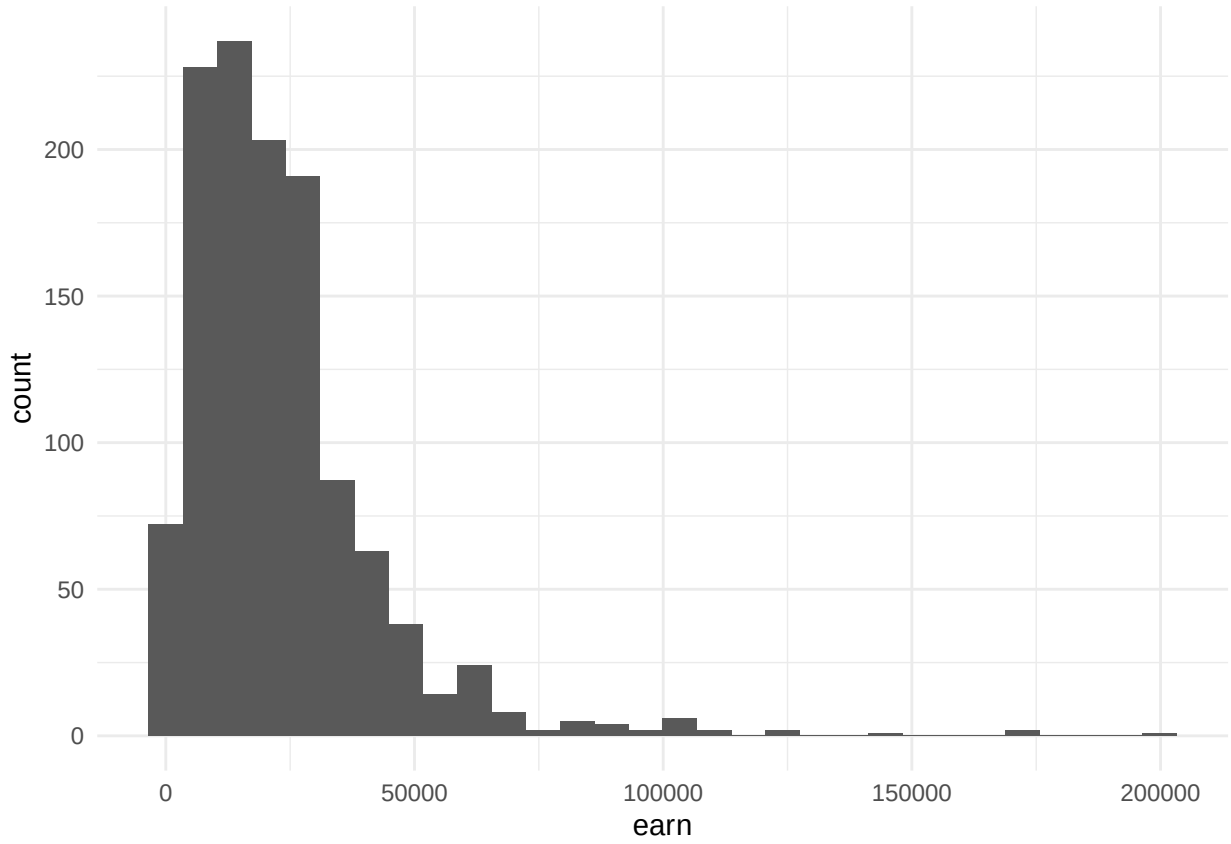



```
## Using `ggtitle()`, `xlab()`, and `ylab()` to add a title, x label, and y label to the previous plot
## Title: Height vs. Earnings
## X label: Height (Inches)
## Y Label: Earnings (Dollars)
ggplot(heights_df, aes(x=height, y=earn, col=sex)) + ggtitle('Height vs. Earnings') + xlab('Height (Incl
```

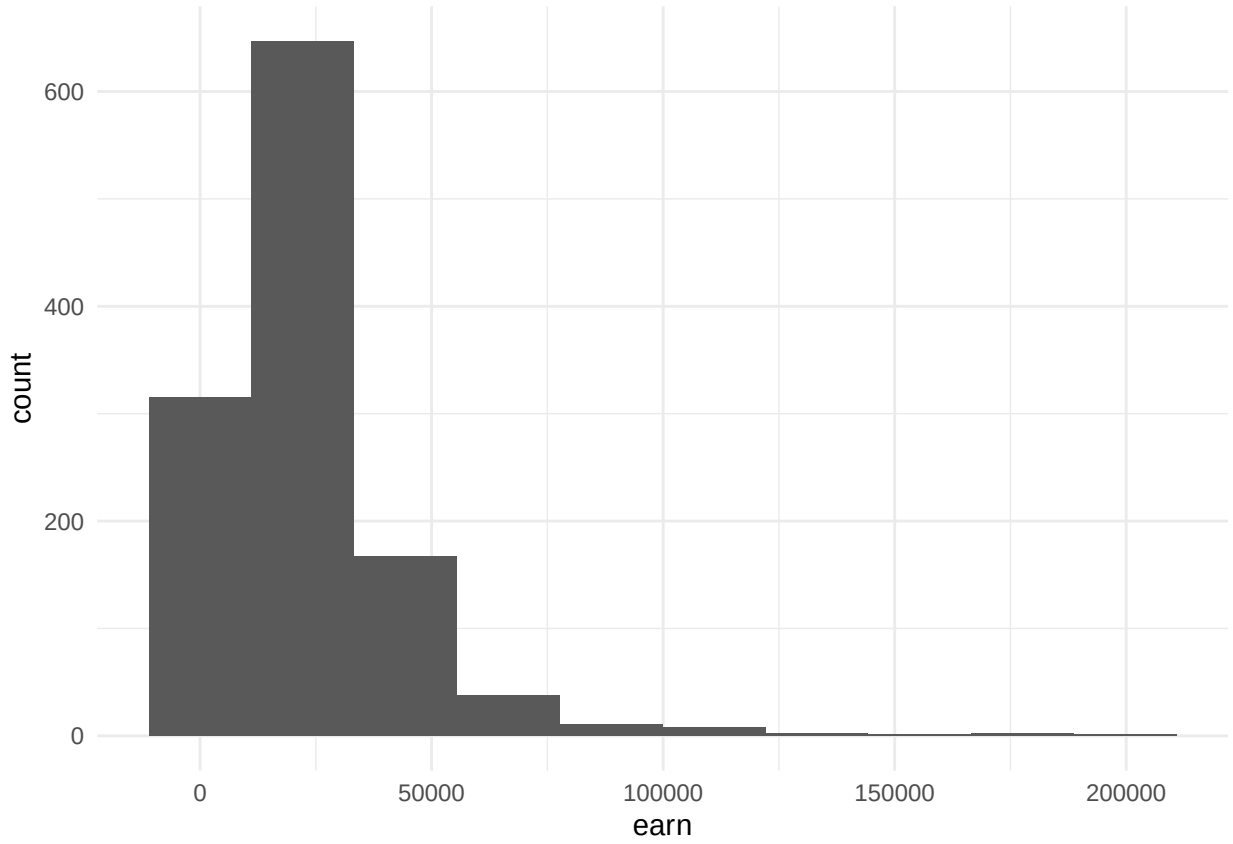



```
# https://ggplot2.tidyverse.org/reference/geom_histogram.html
## Create a histogram of the `earn` variable using `geom_histogram()`
ggplot(heights_df, aes(earn)) + geom_histogram()
```

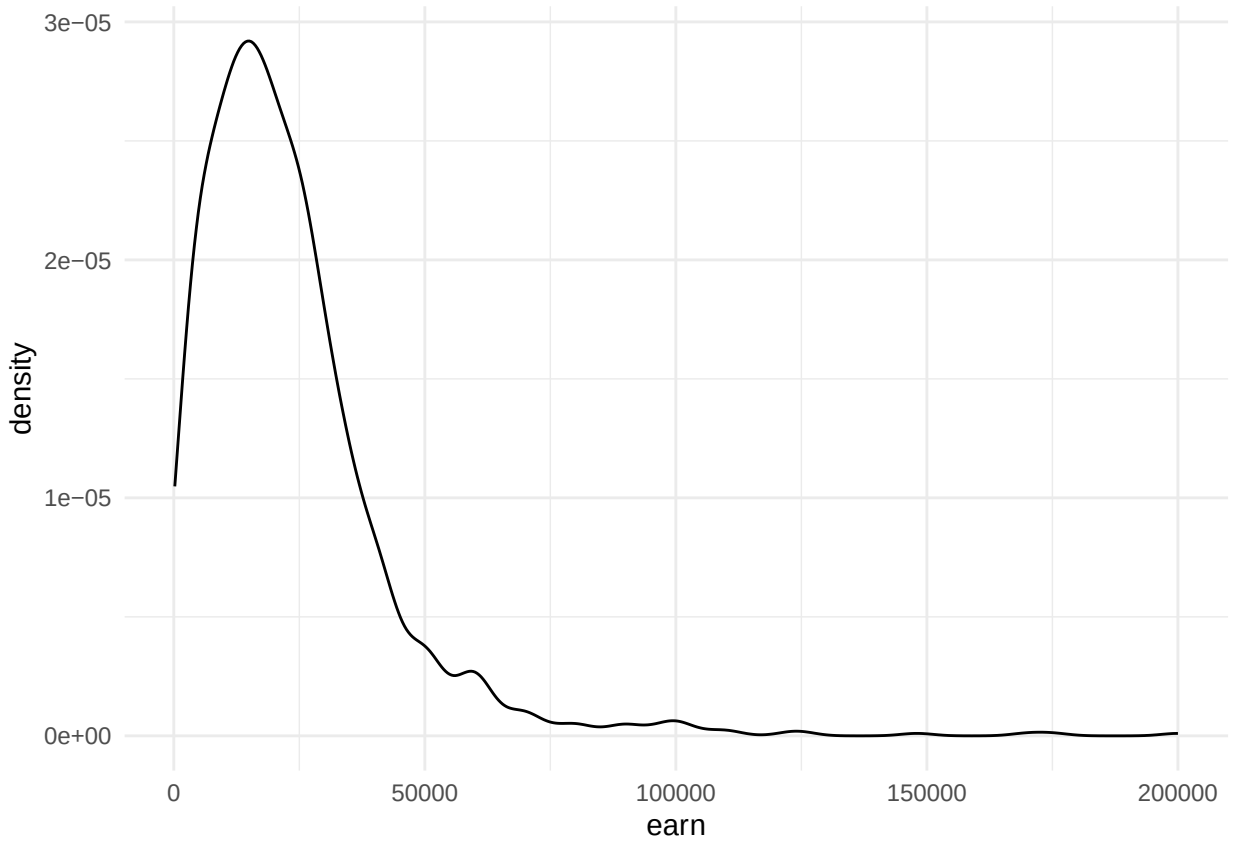
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```




```
## Create a histogram of the `earn` variable using `geom_histogram()`
## Use 10 bins
ggplot(heights_df, aes(earn)) + geom_histogram(bins = 10)
```




```
# https://ggplot2.tidyverse.org/reference/geom_density.html
## Create a kernel density plot of `earn` using `geom_density()`
ggplot(heights_df, aes(earn)) +  geom_density()
```


3e−05
2e−05
1e−05
0e+00
density
0
50000
100000
150000
200000
earn