## Sta 325 Final Project

#### Will Frauen and Jack Miller

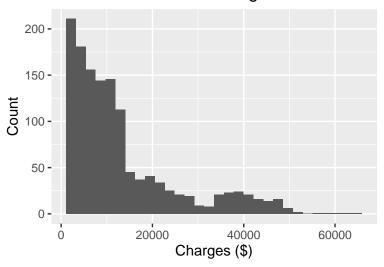
#### Introduction

Our project aims to build a model that best predicts insurance costs given predictors such as age, sex, BMI, number of children, and more. These predictor variables will hopefully help us understand the motiviating factors behind insurance costs. We will aim to draw inference using our findings from both our exploratory data analysis as well as our model building.

### **Exploratory Data Analysis**

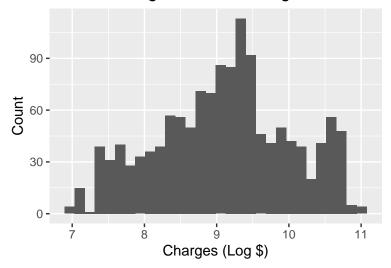
## 'stat\_bin()' using 'bins = 30'. Pick better value with 'binwidth'.

#### Counts of Insurance Charges

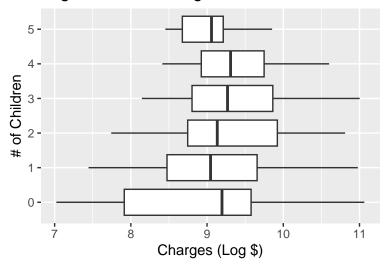


## 'stat\_bin()' using 'bins = 30'. Pick better value with 'binwidth'.

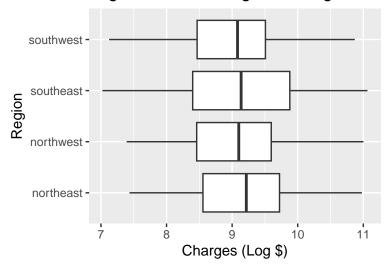
## Counts of Log Insurance Charges



## Log Insurance Charges vs. Number of Childre



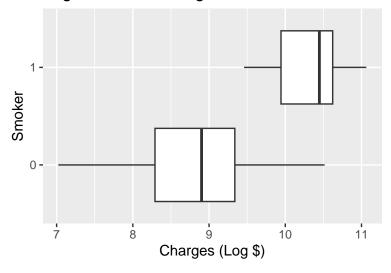
Log Insurance Charges vs. Region



Log Insurance Charges vs. Male



Log Insurance Charges vs. Smoker



Log Insurance Charges vs. BMI Colored by Smoker



# Log Insurance Charges vs. Age

