HW4 Question 1

(b) How many numbers did you call? How many people responded according to your Response variable? How many people did not respond according to your Response variable? What is your response rate?

I made phone calls to all of the 200 number on the list. Only 3 of them responded and the remaining 197 did not respond. My response rate is 1.5%.

(c) What fraction of those for whom Response = 1 answered the voting question? What fraction of those for whom Response = 1 answered the age question?

100% of those Response = 1 in my sample answered the voting question. However, only 66.67% answered the age question.

(d) What time of day was it in the area codes you called when you called them? What role did the time of day play in your response rate?

I made phone calls to the first 100 number from 12:30-1:30pm on Wednesday and the rest 100 from 6:00-7:00pm on Thursday. Looking at the results for the variable Response, I can find that 3 answered my question from the first 100 number, while nobody responded from the rest 100. Although 12:30-1:30 is the time most people are at work, they probably just finish lunch and have these 2 minutes to answer my question. However, 6-7pm is almost personal time, people are more likely to accompany their family or on the way home, so that they would not like to be distracted.

(e) What is the median age of your respondents? How does that compare to the average age in the state of the phone numbers you called? What are some reasons why your sample median does or does not match the State data?

The mean and median age of my respondents is 35.5. The median age of Oregon State is 39.1. So the sample median is below State data. The reason is that the sample size of my investigation is quite small. Although I made phone calls to 200 number, only 3 responded. Besides, age is a sensitive question. 1 of 3 in my sample is not willing to answer this question. Within those 2 who gave the answer, it is still possible that they were not telling the truth.

(f) What percent of your respondents voted Republican (Trump) in the 2016 U.S. Presidential election? What percent of your respondents voted Democrat (Clinton)? How do those percentages compare to the actual voting percentages from the 2016 election? How might you test if the order in which you say the candidates or categories in the survey question influences the results?

In my sample, 33.33% voted Republican(Trump) in the 2016 U.S. Presidential election and 33.33% voted Democrat(Clinton). The actual voting percentage of the Oregon State is 51.7% for Democrat(Clinton) and 41.1% for Republican(Trump). My sample statistics are all below the actual voting percentages of the State. This is also due to a small sample size. To test if the order of saying the candidates influence the results, we could create another random sample of 200 numbers and change the order of saying the categories. After collecting the results, we can see if it is significantly different from the former and if the first said candidate is more possible to be the answer.