1. Non-probability sampling phone survey

b) I have made 200 phone calls, 4 people responded and 196 didn't (including those answered the call but refused the survey). The response rate is 2%.

c) All of those who responded answered the voting question and only half of them answered the age question.

d) I called at about 12 am for the first 100 phone numbers and 4 pm for the rest numbers. There were a lot of cases that the number was valid but no one answered, I thought that might because people were at work when I called them. So the time might contributed a lot to the low response rate.

e) The median age of my respondents is 33, while the median age of the population in Pennsylvania is approximately 40.6. The reason for the difference mainly comes from the really small sample (only 2 answered the age question), which has almost no representativeness.

f) 25% of respondents voted Republican and 75% of them voted Democrat. It's similar to the result of 2016 election while Trump got 39.91% and Clinton got 56.55% in Allegheny County. I changed some expressions to try to avoid offend people, like I started with "Did you vote in 2016" rather than "Are you 18 years old or older" and thus the 2nd question was "who did you vote". So I think in my survey there was no bias related to order. But if I said the exact candidate, it might affect people's willingness to show me their true choice because they might think I have some preference for some candidate. Again, the sample is too small. If I have a lot of respondents, I may randomly mention Trump first or Clinton first and compare the answers of those respondents having similar characteristics but hearing different questions to find out whether the order really matters.