Problem set 2

S670 Spring 2019

Upload a HTML/PDF/Word document with your code, graphs, and write-up to Canvas by 11:59 pm, Wednesday 23rd January.

The data

The file `anes_pilot_2016.csv` contains data for 1200 respondents to the 2016 American National Election Studies (ANES) pilot study conducted in January 2016. To simplify things, we assume the respondents are a simple random sample from the population of adult U.S. citizens (this is not true but is close enough for our purposes.)

The data includes "feeling thermometer" measurements for various public figures. Respondents give a score from 0 to 100 for the figure, where 0 indicates "very cold" and 100 indicates "very warm." (A value of more than 100 denotes a missing value and should be omitted.) We'll look at the feeling thermometer scores for four Presidential candidates: Donald Trump (variable `fttrump`), Hillary Clinton (`fthrc`), Bernie Sanders (`ftsanders`), and Marco Rubio (`ftrubio`).

In addition, we know (in retrospect) that immigration was a decisive issue in the 2016 election. One of the questions asked in the pilot study was "Should the number of people who are allowed to legally move to the United States to live and work be increased, decrease, or kept the same as it is now?" The responses, recorded in the variable `immig_numb`, were coded numerically:

- 1: Increased a lot
- 2: Increased a moderate amount
- 3: Increased a little
- 4: Kept the same
- 5: Decreased a little
- 6: Decreased a moderate amount
- 7: Decreased a lot

For the purpose of this problem set, treat this as an (ordered) categorical variable.
The questions are on the next page.

Questions

1. Draw ONE graph that clearly shows the differences in the *shape* of the distributions of feeling thermometer scores for Clinton, Sanders, Rubio, and Trump. (A faceted plot counts as one graph.) Describe what you see in a paragraph.

2. Draw ONE graph that clearly shows the differences in the *mean* feeling thermometer score *for each level of immigration attitude* for each of the four candidates. (Again, a faceted plot counts as one graph.) Describe what you see in a paragraph.

You'll be graded on both graphs and writing. All graphs should be sufficiently labeled such that if they're taken out of context, a viewer should have a chance of working out what they are showing. Check that your graph (in whatever format you upload it) is readable on Canvas; you'll lose points if it isn't. If your graph shows really interesting things that you don't talk about, you'll lose points for that as well.