

Question 1

The following is a regression where the outcome is attitudes towards Hillary Clinton as measured by a standard feeling thermometer ratings (the variable ranges from 0 to 100 where 100 indicates high levels of support for Clinton). Researchers use two explanatory variables in their regression. First, they include a standard 7-point party identification measure that ranges from 1 (Strong Republican) to 7 (Strong Democrat). Second, they include a dummy variable (0 or 1) indicating whether the respondent lives in the South (the 13 states of the former Confederacy). The regression includes $N=100$ observations.

- Write a paragraph interpreting these results both substantively and statistically. For example, discuss both the statistical significance and size of the effect of each independent variable.
- The researchers claim that the regression indicates that partisanship *causes* changes in attitudes towards Clinton. That is, what assumptions would we need to make to interpret these results as causal? And do these assumptions seem reasonable in this situation? Give your answer in a paragraph.
- Calculate the F-statistic for this regression and interpret. You *do not* need to provide a precise p-value, but you *do* need to provide some indication that you understand what the F-statistic means (i.e., what it tells us about the model).

1. Statistically, a large portion of voters lean democratic, while not a large number of these voters are from the South. Substantively this would make sense as the South leans Republican.

Outcome variable is thermometer rating of Clinton

| | |
|-----------------|------------------|
| Intercept | 41.00 (4.24) |
| Party ID | 6.09 (2.49) |
| South | -13.53 (7.06) |
| R-squared: 0.24 | |

Stand. errors are in parentheses.

2. The assumption is that those who are democrat support Clinton, the democratic candidate. ~~But~~ I don't believe this is reasonable as there are many democrats who did not support Clinton.
3. The F statistics tells us that it is quite low that the probability these results happened just by chance. This would substantively be supported by southern voters typically voting against Clinton.