## PUAD 7972: Homework 3

The Cooperative Congressional Election Study (CCES) is an annual survey that samples over 50,000 Americans. You can access the 2018 iteration of the CCES <u>here</u>. You can find the codebook for this survey <u>here</u>. Using these files, please complete the following prompts using a decision rule of  $\alpha = 0.01$  (one-tailed). Don't forget to attach the commands you used to the end of your assignment. Homeworks are due by March 22, 2020 (II:59:59 pm).

- I. Create a dependent variable that takes the value of "1" if a respondent reports they are married or in a domestic/civil partnership, a "2" if they are separated/divorced, a "3" if they are widowed, and a "4" if they have never been married.
- 2. Choose five covariates that you think are reasonably related to an individual's marital status.
- 3. In a table called, "Table 1: [Caption goes here]," present descriptive statistics for each of your six variables. Textually explain each variable's central tendency and dispersion.
- 4. Provide hypotheses for each independent variable's effect upon the dependent variable.
- 5. Estimate a multinomial logit regression. If you need to include clustered standard errors, fixed effects, hierarchical coefficients, etc., then explain why and how you're doing this. If not, explain that too.
- 6. Present the results of the multinomial regression in a table called "Table 2: [Caption goes here]." In it, provide coefficients, standard errors, and any other information needed to interpret the results.
- 7. Appropriately interpret statistically significant results both textually and graphically.
- 8. Assess goodness of fit appropriately. How well are the independent variables explaining outcomes in the dependent variable? Is model specification a problem?
- 9. Now choose a sixth independent variable you believe is not only reasonably related to outcomes in the dependent variable but also is conditioned by one or more independent variables. State a hypothesis for the independent variable and as many hypotheses are needed for your hypothesized interaction effects.
- 10. Estimate a new multinomial logit, and present these results in a table called "Table 3: [Caption goes here]." Interpret the results of the new model appropriately (textually and/or graphically). How does model fit compare to the model presented in Table 2? Does the addition of the new covariates statistically improve model fit?