**Policy Memo – Assignment Description (PUAD 605)**

You should complete this assignment using the survey data we have jointly collected as a class. If you would like to use another dataset, please check with me first (you will need to assume primary responsibility for getting that data into a format that can be analyzed, which can be a ***lot*** of work).

**Due dates**

* Feb 23: First draft due by start of class (sections 1 & 2 only, ungraded)
* April 6: Second draft due by start of class (full draft, ungraded)
* April 27: Final draft due by start of class

**Memo Structure**

Your final memo should have the following three sections:

1. Identification of research question
2. Description of data & measures
3. Analysis

**1. Identification of research question**

* Identify a dependent variable
* Identify two or three independent variables that you think will have an effect on the dependent variable
* Create two or three research hypotheses
  + Each hypothesis should state how you expect one of the independent variables to be associated with the dependent variable
  + Example: “Women tend to be more liberal than men.”
  + Example: “More liberal respondents tend to have more negative views of President Trump.”

**2. Description of data & measures**

* Describe how each of your variables (independent or dependent) are measured in the dataset
  + What values are used? And what units do those values represent?
  + Example: “The gender variable is coded as a 1 for women and as a 0 for men.”
  + Example: “Salary is measured in thousands of dollars per year.”
* Provide basic descriptive statistics for each variable (independent or dependent) you will analyze
  + Categorial variables: use frequency tables and histograms
  + Ordinal variables: use frequency tables (or descriptive stats for continuous variables) and histograms
  + Continuous variables: use descriptive statistics (e.g., mean, standard deviation) and histograms or boxplots

**3. Analysis**

* Analyze/explain bivariate associations between each independent variable and your dependent variable
  + There should be one bivariate relationship for each hypothesis
  + For 1 quantitative variable and 1 qualitative variable: compare the means (using a t-test or ANOVA) for different categories and create a boxplot for different categories
  + For 2 quantitative variables: calculate a correlation and create a scatterplot
  + For 2 qualitative variables with more than 2 categories: create a two-way a frequency table (with a chi-squared test) and a bar chart
* Include a brief discussion of possible causal processes that may have produced the observed associations among variables
  + Is the association you find statistically significant, or could it have easily been caused by coincidence (random noise)?
  + Is it possible that your dependent variable actually caused one or more of your independent variables?
  + Could there be some third variable you didn’t include in your analysis that affected both the dependent variable and one or more independent variables?

**Grading:** The contents of drafts 1 and 2 will not be graded, but you are still responsible for submitting these drafts on time; failure to do so (except for an excused reason) will adversely affect your final grade. I will also provide feedback on the ungraded drafts, but late submissions may receive less feedback.

Grading criteria for the final draft are:

1. Complete presentation of all analyses/information required for memo
2. Correct application of statistical concepts and tools to research setting
3. Accurate, clear, and professional explanation in paragraph form of all analyses/information presented in tables/figures

**Collaboration**

* You are welcome to collaborate with other classmates (or anyone else) as long as any drafts you turn in are written entirely by you
* Others may help you generate ideas, give you feedback on drafts of your paper, and help you identify grammar/spelling errors
* ***No one else should write any portion of your individual issue paper***
* Others may help you troubleshoot use of Stata, but ***you should run the Stata commands yourself that generate statistics/graphs for your paper***

**Writing Style**

* You *don’t* need to include an introduction, literature review, conclusion, or abstract; you can just jump right in to explaining you research question and hypotheses
* You should write your memo using normal paragraph form (rather than just bullet points) and a professional tone
* Any time you present a table or figure, you should explain in the text what you can conclude based on the information presented in the table/figure

**Format**

* Make sure the memo is formatted in a way that is easy to read
* There are no specific requirements regarding use of a specific format or style guide
* Figures/tables may either be included at the end of the document or within the main memo
* Some tips for transferring results from Stata into Word can be found here: <https://stats.idre.ucla.edu/stata/faq/how-do-i-copy-stata-output-and-stata-graphs-into-word/>

**Length**

* There is no minimum or maximum length; you simply need to accurately and adequately describe all of the information/analysis required for each of the three sections
* Here are some *rough guidelines* regarding what I anticipate typical lengths will be for each section (not including tables or graphs):
  + Section 1: ~1-3 paragraphs (depending on how hypotheses are formatted)
  + Section 2: ~2-4 paragraphs
  + Section 3: ~3-5 paragraphs (more details to come)