**Rubric for original research project**

The original empirical microeconomics research paper is worth 50% of your grade. You will turn in a **readable** essay with six sections. These sections more or less correspond to the structure of a typical applied microeconomics study.

1. Interesting title (but not cute/funny), Abstract and Introduction section. Should be well written. Draw the reader in. Look at other papers to get an idea of how to write a good introduction and abstract. Your introduction section is where you clearly lay out what your study is, why it matters, and how you went about it.
2. Background. Help the reader know a little bit about this question and context. Sometimes that is discussing papers, or just explaining the context itself of the study.
3. Description of the data you are using for the study. You presumably have a dataset. Where did you get it? What’s it named? How big is it? Describe it. See below for what I want to see.
4. Explanation of the research design, econometric estimator and the underlying assumptions on which the estimator can obtain consistent estimates of the target parameter. This is the core of our class – the causal inference theories.
5. Discussion of results, including tables and figures showing your answers.
6. Concluding remarks with your own opinions of what you learned.

Your grade will be based on the following.

1. (**50 points).** Clear description of the causal question and the corresponding aggregate causal parameter you are hoping to measure. Make very clear what your outcome of interest is, as well as what your treatment variable is.

Example: I am interested in estimating the causal effect of minimum wage increases on unemployment. The parameter I care about is the average treatment effect of minimum wage increases on employment.

1. (**10 points).** Summary statistics table summarizing the key variables in your data.

Produce a table showing summary statistics for the key variables in your dataset. Your table will show sample averages and standard deviations, as well as clear labeling of each variables. The table should be attractive to read and not messy.

1. (**10 points**). Research design and econometric estimator. Your paper should clearly explain:
   1. The **research design** you are using (e.g., DiD, RDD, synthetic control)
   2. The identifying **assumptions** needed to identify the target parameter in part (1)? For instance, parallel trends, no anticipation, etc.
      1. What are identifying assumptions for RDD? For IV? For DiD? For synthetic control?
   3. The **equation** used to make the underlying calculations, and if necessary, what aggregation is used to reach the aggregate parameter of interest (for instance, is it using weights?)
2. (**30 points**). Analysis. Your paper should show with tables but also at least one figure the results of your analysis. The following are needed for whichever design is yours.
   1. **RDD**: report McCrary density test, visualization of outcome across discontinuity in a figure, estimation with OLS with and without polynomial in tables, experimenting with different polynomials, different bandwidths, etc. Anything beyond the basics is up to you.
   2. **IV**: report the first stage, Anderson-Rubin weak instrument test and F test, explain why exclusion holds, explain what monotonicity means in this context, show figures for first stage and reduced form, estimation with 2SLS and/or additional IV model.
   3. **DiD**: Can you say anything about the ATT parameter? What are the weights? Report table of coefficients and standard errors for your treatment variable. If differential timing, use TWFE and at least one “robust” model. Report event study graphs using TWFE and robust model like SA.
   4. **Matching**: which causal parameter? Which matching method? Directed acyclic graph supporting your conditioning set. Report table of treatment effects using at least two matching/weighting methods.