The best way to really understand the techniques we are learning in class is to conduct your own project. Your assignment is to select a topic you are interested in, collect relevant data (or find an existing dataset), use statistical techniques to estimate the model you have in mind, and interpret the results. The assignment may be conducted individually, but students are encouraged to work in pairs. The assignment has several main components.

**The Proposal (due February 14th)**

Please submit a **1-2 page proposal** that includes:

1. a one paragraph abstract (see examples on course website) that includes:
   - a succinct statement of the question you are asking
   - a succinct statement of your principal hypothesis
   - an indication of the data you will use
2. the model you have in mind (your dependent variable and the key independent variables)
3. the data you will be using (if you don’t know, explain what you plan to do to find data)
4. cites to relevant academic literature you have read or will read

You may obviously make changes after submitting the proposal, but the idea is to get something down on paper and start working seriously on the paper early in the semester.

**Descriptive Statistics (due March 31st)**

To encourage you to get your data set put together enough in advance so you can complete the project on time, I ask you to turn in summary statistics for your data (e.g., number of observations and mean, std. dev., min and max values for all your variables). This should be appropriately formatted for the purposes of presentation.

**The Ruhlman Presentation (April 30th)**

All students will present their work in a poster session at the Ruhlman conference on April 30th. Guidelines for this will be discussed as we get closer to the conference. I will provide a sample of how to present research papers.

**The Final Paper (due as part of the final portfolio by noon on May 12th)**

The **final paper** should be about 15-20 pages (although I am not picky about length and will not penalize you for being too short or too long, provided the quality of the material is good), including tables and references. Please read section 1.4 in the text for more detail on the format of a research paper. Here is a brief list of the sections your paper should include and a guide to their approximate length and content.

1. **Introduction** (1-2 pages of text): Describe the question are you asking, motivate why it is important, and give a road map for the rest of the paper.

2. **Literature review** (1-3 pages of text): Describe what other work has been done on this topic and explain how your work adds to or improves on it (note: this is an undergraduate research project for class, not a paper you are trying to publish, so it is not essential that your paper be a major advance over the past literature, though it’s nice if there is at least some tweak, such as newer data or controlling for additional variables). Note that this means that you need to know the literature well enough to know how your project makes a contribution or not.
3. **Economic model** (2 pages of text): Describe the specific model you are using. Why did you pick these variables? What are they expected to explain? Have you captured all the important effects? What is the expected sign of the coefficients? Write down the equation you are estimating or include a figure that has your model depicted.

4. **Data** (1-2 pages of text): Describe your data. Where exactly do they come from? Make a table with the means, standard deviation, min, and max values. Explain what the numbers mean and specify the units. You may want to include graphs or other tables to describe relationships between the variables.

5. **Empirical Results** (3-4 pages of text): Present the results of your regression analysis and carefully explain what they mean. Make a table showing the coefficients, standard errors, number of observations, and $R^2$. Do the coefficients have the expected sign? Are they significant? Are the effects large or small? How is the fit of the model? Estimate alternative models to test the robustness of the results (different Xs). Discuss potential problems with your model and mention possible solutions (even if they involve data you don’t have). Your paper doesn’t have to be perfect (few published papers are!), but it’s important to show that you understand the weaknesses as well as the strengths of your analysis.

6. **Conclusion** (1-2 pages of text): Summarize your main findings and their implications. What future research is suggested by your work?

7. A list of references and your tables and figures (if any) should be at the end of the paper (or tables can be embedded throughout the paper, if you prefer). Use a standard format for citing papers and other materials you reference (I’ll hand out more information on this later). **Please do not include any SPSS output; key results should be displayed neatly in tables.**

The Project Grade
The final grade is based solely on the portfolio you turn in on May 12th. However, all of the earlier work products are essential inputs into the final paper and my comments on those intermediate products will be more helpful to you if your work is farther along, so doing a good job on these will help your final grade.

How to Find a Topic
You and your partner should first come up with a few possible ideas for the paper (the ideas can be related). Then you should come talk to me before you write the proposal so I can give you some feedback to assist you in selecting the final topic. We have individual meetings scheduled on February 7th, but you should feel free to come talk to me earlier if you would like. If you’re not sure how to come up with ideas, think of something in politics that you find interesting. Then ask yourself why it is interesting to you and what questions you have about it. If you start there, then I can help you hone it into a researchable project.

How to Get Data
Once you have a topic and a rough idea of your question in mind, it’s time to look for data. There are lots of useful links on our course website. I also encourage you to talk to me about feasibility of finding data for your project.