Quantitative Analysis in International Affairs
SIS 600   Prof Powner   Fall 2009

Research Project

Over the next several weeks, we will engage in the process of writing empirical research papers. (I'm doing it too!) The purpose of empirical investigation is to enquire about how the world actually works. In its quantitative form, it seeks patterns and general explanations across categories of cases. The topic of your research is entirely your choice, though it is subject to approval to ensure do-ability with the time and resources available.

Empirical research papers typically include six major components:

- *Introduction*, which presents the research question and summarizes the paper's argument and findings,
- *Literature review*, which places the research question, the proposed approach, and the proposed argument in the context of prior scholarship,
- *Theory and hypotheses*, which explicitly specify the expected relationship between concepts, the mechanisms producing these links, and the expectations about coefficients or tests,
- *Research design*, which discusses the scope or domain of the project, operationalization and measurement, data sources, and data analysis technique,
- *Analysis*, where the evidence is presented, and
- *Conclusion*, which summarizes the theory, evidence, and findings, and specifies avenues for related future research (unresolved or newly-raised questions, etc.), policy implications, or similar extensions of the work.

For this paper, the emphasis is primarily on the research design and analysis, though of necessity theory is important as well. Mindless data mining that is devoid of theory does not help to advance our understanding of the world; you must be able to answer both the "why" and "so what" questions about your work. To assist you in doing this well, we will do the project in stages, with plenty of feedback, according to the schedule described on the reverse. I will also make additional resources available online, and we'll schedule update conferences midway through the semester.

Most students will find that their papers will be 12-15 pages long, though papers could conceivably be as short as 10 pages or as long as 20 pages. As a warning, this type of paper has a tendency to grow out of control if you do not define your question well. If you find that your paper is running long, you should be in touch with me; more than 20 pages should be unnecessary.

Your First Task

To prepare for this project, your first task is to identify a research question that interests you and to flesh it out a bit. At this point, go for interest. Your research proposal, which is due on Bb before our next class meeting, should contain four things.

1. Find a puzzle that interests you, and use the principles we discussed in class to articulate a good research question about it.
2. Identify two potential answers to your question – that is to say, two hypotheses – and an observable implication for each.[1]

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[1] An observable implication is something that you would expect to see if your hypothesis is correct. Falsifiers, on the other hand, are things you'd expect to see if your hypothesis were incorrect. In the case of most quantitative research, the falsifying evidence is simply the converse of the expectations.

3. Operationalize your hypotheses: find an observable indicator (something you could measure, count, or observe) that you could use to establish a value for each case on that variable. (Never mind what the possible cases are at this point.) (_Hint:_ Think about the unit of analysis.)
4. Conduct a brief literature search and find at least four articles that are reasonably related to your research question. Provide their citations at the end of your proposal.[2]

Summary of Project Timeline

Sep 14-17   Proposal assignment out
Sep 21-24   Proposals due
Oct 5-8   Literature review due (optional)
Oct 26-29   Draft dataset due
Nov 9-12   Draft analysis due
Nov 22-23   Draft due to peer reviewers
Nov 30/Dec 3   Peer responses due
Dec 7-10   Final drafts due

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[2] Any citation format is fine, so long as it is a recognized format and you use it consistently. MS Word 07 supports Chicago, Turabian, and APA styles in its built-in bibliography and referencing tool. EndNote supports a slightly wider range but requires either purchasing the software or using it only on university computers.