Welcome to POLS 5300: Research Methods

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What do we mean by political science?

• It is a field of academic inquiry that applies theories, systematic methods, and tests to describe, explain, and predict political events and behavior.

• This is true of the natural sciences and typically other areas that use data analysis methods, although the substantive topic is obviously not politics.
Where does the analysis of data fit in with different modes of knowing?

• Research and data analysis falls within the realms of Description, Explanation, and Prediction of phenomena.
There are at least four modes of understanding:

1. **Description** -- Who, what, where and when?  
   (starting place for most research)

2. **Explanation** -- Why?  
   (sciences, both natural and social)

If we have good explanations, then prediction may be possible.
Modes of Understanding/Knowledge continued

3. Normative -- Should it be? (Philosophy/Ethic/ etc.)

4. Prescription -- What should we do? (Policy and sometimes philosophy, ideally based on empirically verified theories or other research)
As political scientists or others using scientific method, we are usually interested in explanation, but description must come first and then ideally prediction and well founded prescription.

• How do we do this? We explain phenomena by applying systematic methodologies based on logic and theories.

Here is where the science comes in!!
What do we mean by systematic and why do you think it would be good?

• To be systematic means to attempt to be as objective as possible by looking at a varied amount of data and types of situations.

• To be systematic means to try to reduce subjectivity, opinion, bias, and prejudice, which may lurk in “conventional wisdom”, customs, legends, and myths.
An example of a widely believed assertion of conventional wisdom: **War is good for a national economy**

- What do you think?
- How do we know this?
- What types of wars should we examine, if any?
- What types of variables are important, or simply it is just that simple?
Through *logical reasoning*, it would make sense that wars lead to the demand for goods (weapons etc.) that results in an increased production, jobs, and even wages.

However, what about other variables? What if wars are fought on one’s own territory? What if the economy is not fully mobilized for war?

Considering that many wars are highly destructive for at least one side, if not both, war must not pay for at least half the combatants. Factories and infrastructure, or social costs, may make war too costly.
• To really answer such a question we require a more systematic empirical analysis.

• My own research suggests that this simple assertion is untrue, despite being repeatedly echoed by politicians, the media, and others.

• In American history, 3 wars appear to have stimulated economic growth: Civil War (North), WWI, and WWII.
• Considering that WWII was a monumental conflict that had a huge impact on many peoples lives, it tends to become an object of generalization when it is in fact somewhat anomalous.

• The majority of wars in American history were an economic drain or too short to have much effect: Korea, Vietnam, Gulf War I, War of 1812, Spanish-American War, War with Mexico.
• Actually, my research suggests that for most countries economic growth increases the probability of war, which is then often followed by economic stagnation (inflation, destruction of infrastructure, social disorder, etc.)
What is Science?

1. In some rough form, common to humans as a means of reasoning.
2. A **systematic** way to formulate and **test** research questions.
3. A means of producing useful and reliable empirical information (based on evidence).
4. A communicable endeavor – research must be **replicable**.
Science

5. By necessity, inferences are made of the world – populations or systems may be too complex to analyze in their entirety. Thus, we attempt to generalize about phenomena not directly observed or tested.

6. Conclusions are uncertain. WHAT? Can we ever know for perfect certainty that we are correct about our explanations and predictions?
Again, TESTING is very important to science. In order to make inferences about the world, we must compare our ideas and theories to reality.

We bring evidence to bear when testing hypotheses through the analysis of cases in either:

• Case Studies
• Statistical Analysis
If our theories are found to properly explain our phenomena of investigation, then they can be used for prediction.

Prediction is a prominent goal but very difficult in the non-natural sciences, why?

Prediction is hard because unlike amoebas, people have free will. People can sometimes be unpredictable even if they often follow habits and patterns.