

# PS0700

## Introduction to the Course: The What, The Why, The How, The Who

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Political Science Research Methods

Professor Steven Finkel

Fall Semester 2022

1500 WW Posvar Hall



# What?

- This course is an introduction to the political science research process, that is, the basics of *social scientific inquiry*, *research design*, *data collection* and *data analysis*
- We will cover:
  - The nature, uses and limitations of the “scientific method” in political science research
  - The fundamentals of designing political science research, including theory and hypothesis formation, measurement strategies, and alternative research designs used to explore political science questions
  - Alternative strategies for sampling and collecting political science data
  - Basic statistical analysis for political science research

# Why?

- Bad Reasons:
  - It is a required course!
  - It is offered at a convenient time by a first-rate instructor!
- Good Reasons
  - You are going to be political science majors, so you need to know how political scientists go about their business!
    - How do we acquire knowledge about political phenomena?
    - How do we know if this knowledge is “true” or not?
    - Why do some political scientists use mathematics and statistical reasoning in their research? Are these the only methods that count as “scientific” ones? Are these the only methods that can yield valid knowledge about politics?

- Good reasons (continued)
  - You are going to be political science majors, so you need to know how to **read** and **critique** existing work (“literature”) in the discipline
    - Does the work have an adequate “theory” and “hypotheses”?
    - Does it properly define and measure the “variables” in the “hypotheses”?
    - Is the research design appropriate for the question that is asked?
    - Were the data collected properly with the appropriate method(s)?
    - Were the data analyzed and interpreted properly?
    - In what ways could the study have been conducted differently to generate more credible results?

# You will understand tables like these (really)!!

Gordon and Segura, “Cross-National Variation in the Political Sophistication of Individuals: Capability or Choice?” *Journal of Politics* (1997)

TABLE 1

MEAN OF SOPHISTICATION MEASURE AND STANDARD DEVIATION OF  
SOPHISTICATION MEASURE BY COUNTRY

Country	Mean of Dependent Variable	Standard Deviation
France	7.6907	.6996
Belgium	6.6278	.8276
Netherlands	7.3182	.7736
Germany	7.5743	.8032
Italy	7.2224	.7089
Luxembourg	7.0296	.7178
Denmark	7.6908	.8114
Ireland	7.1621	.7888
Great Britain	7.0834	.7553
Greece	8.1540	.3121
Spain	6.7286	.7006
Portugal	7.3086	.6758

TABLE 4

MODELS OF POLITICAL SOPHISTICATION—  
CONTEXTUAL AND INDIVIDUAL VARIABLES

	Model 1	Model 2	Model 3
<b>Contextual Variables</b>			
<b>Electoral System</b>			
National Competitiveness	.378 (30.47)**		.362 (25.00)**
Electoral Disproportionality	-.059 (-17.86)**		-.047 (-12.74)**
Compulsory Voting Dummy	.042 (1.77)*		.122 (4.76)**
<b>Party System</b>			
No. of Effective Parties	1.122 (26.75)**		.843 (17.95)**
Multi-Party Dummy	2.213 (24.82)**		1.623 (17.05)**
Parties X Dummy	-1.275 (-31.02)**		-1.004 (-21.81)**
<b>Degree of Unicameralism</b>			
No. of Years Since Natl. Election	.073 (8.96)**		.064 (7.15)**
	-.079 (-9.65)**		-.088 (-10.21)**
<b>Individual Variables</b>			
<b>Socioeconomic Measures</b>			
Income		.047 (5.07)**	.065 (7.81)**
Education		.032 (10.09)**	.036 (12.21)**
<b>Political Information</b>			
Occupational Impingement		.168 (8.59)**	.077 (4.39)**
TV Usage (1 = High)		-.041 (-4.22)**	-.421 (-4.76)**
Newspaper Usage (1 = High)		.346 (15.16)**	.210 (10.09)**
Constant	4.647 (43.85)**	7.21 (222.27)**	5.144 (43.41)**
Number of observations	11,528	8,963	8,963
Adjusted $R^2$	.2296	.0820	.2729
F-Ratio	430.42	161.18	259.79

Note: Coefficients are unstandardized and are the result of ordinary least-squares regression;  $t$ -ratios are in parentheses.

\*  $n < .05$ . \*\*  $n < .001$

- Good reasons (continued)
  - You are going to be political science majors, so you may be required (or choose) to conduct your own research at some point in your academic career
    - Undergraduate courses and/or Capstone Seminars
    - Graduate school in political science or other social or policy sciences
  - You may be required or have the opportunity to use or evaluate social scientific research in your professional career
    - Government agencies (e.g., State or Federal Budget Offices, United States Agency for International Development)
    - International Organizations (e.g., World Bank, United Nations)
    - Non-Governmental Organizations (e.g., Amnesty International, Transparency International, Urban League)
    - Law
    - Opportunities in Data Science and Technology, e.g., Political Campaigns, Lobbying, Data Mining, Redistricting, Private Sector

- Good reasons (continued!)
  - Social science research is presented almost every day in newspaper, internet, television news reports, and the results of social science research are frequently discussed in society at large. You need to be able to evaluate this research and determine its credibility
  - Examples:
    - [“Does it Matter Where You Go to College?”](#), *Atlantic* 11-11-2018
    - [“Does Instagram Harm Girls? No One Actually Knows”](#), New York Times, 1-10-2021

- Good reasons (continued!)
  - Thinking like a social scientist will help you make sense of the world and, ideally, help you to determine the values and policies you want to see furthered in the U.S. and global political systems
    - [“Do International Monetary Fund \(IMF\) loans cause tuberculosis?”](#) *Slate* 6-22-2008
    - Finkel, Pérez-Liñán, and Seligson, [“The Effects of U.S. Foreign Assistance on Democracy Building”, 1990-2003”](#) *World Politics* (2007)
    - Mansfield and Synder, [“Incomplete democratization and the outbreak of militarized disputes”](#), *International Studies Quarterly* (2002)



- In short, this course is designed to increase your political science, social science and statistical literacy, thereby enhancing your roles as:
  - Political science majors
  - Professionals in your later life
  - Citizens and participants in public discourse
- So it will be good for you!!!!

# How?

- Develop Knowledge in Three Areas
  - The “Scientific Method” (and Some Criticisms)
  - Alternative Approaches and Designs Used in Political Science Research
  - Fundamentals of Statistics and Statistical Computing with R
- Combination of:
  - Textbook Readings
  - Examples from Political Science Research
  - Examples from Web Sites, Mass Media and Public Discourse
- Recitation discussions
- Examinations
- Research Exercise in which you will analyze and interpret your own hypotheses using real political data

# Course Overview

- Weeks 1-2: The Scientific Method
  - The Logic of Social Science Inquiry
  - Can We Study Politics “Scientifically”?
  - The “Perestroika” Movement
  - The Building Blocks of Political Science Research:
    - Theories
    - Hypotheses
    - Variables
    - Measurement
    - Causality and Causal inference

- Weeks 3-5: Causality and Research Design in Political Science
  - Causality and Causal Explanations
  - Experimental research
  - Quasi-experiments and “natural” experiments
  - Observational research
  - Multilevel (“Macro-Micro”) designs

- Weeks 6-7: Alternative Designs and Approaches in Political Science
  - Formal, Comparative and “Small-N” Qualitative Designs
- Week 8: Data Collection Strategies
  - Sampling and Survey Research
  - “Big Data” and “Unobtrusive” Methods for Data Collection
    - Aggregate Statistics and Historical Data
    - Content Analysis
    - Social Media

- Weeks 9-15: Statistical Reasoning and the Analysis of Quantitative Data
  - Descriptive statistics and graphical presentation of data
  - Statistical inference and testing statistical hypotheses
  - Estimating bivariate relationships:
    - T-Tests and Analysis of Variance to Compare Group Means
    - Cross-Tabulation to Analyze Categorical Variables
    - Correlation and Regression for Analyzing Continuous Variables
  - Multivariate Analysis

# Who

- Me
  - Professor of Political Science
    - University of Pittsburgh, 2005 - present
    - Department Chair, 2011 - 2018
    - Hertie School of Governance, Berlin, Germany, 2005 - 2008
    - University of Virginia, 1984 - 2005
  - Research Interests
    - Political Behavior, Participation, Democratization
    - Civic Education and Democratic Development
    - Evaluation of US Democracy Promotion and Countering Violent Extremism Programs
    - Statistical Methods for Longitudinal or Panel Data
  - Home Page: [www.pitt.edu/~finkel](http://www.pitt.edu/~finkel)
  - Google Scholar:  
<https://scholar.google.com/citations?hl=en&user=nJTbi8oAAAAJ>

- Jungmin Han (Teaching Assistant)
  - PhD Student in Political Science (2018- )
  - Research Interests: International Relations and Political Methodology
    - Intersection between international and domestic politics
    - Experimental methods and text analysis
  - Masters Degree in Political Science, University of Pittsburgh (2021)
  - Masters Degree in International Relations, Peking University (China), 2016
  - BA, Political Science and Economics, Stony Brook University, 2013
- You?