

Fall 2018 | Lectures: Tuesdays, 10:00pm–12:45pm | Classroom: Sarca

Qualitative and Quantitative Political Methodology

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General Information

This course offers an introduction to research methods. The principal aim of the course is to familiarize students with the main quantitative and qualitative methodological tools used in political science. The course teaches how to write a research question, analyze previous research in a given field, how to move from conceptual definition of a political phenomenon to its measurable operational definition, how to write a hypothesis and how to analyze data and test a given hypothesis. By the end of the course, the students will be able to operationalize their own theoretical constructs and collect and analyze their own data in a research paper. The course also teaches various aspects of programming in Stata®. The students can transfer their acquired skills for their careers and have competitive advantage in governmental agencies, think tanks, NGOs, and private sector. There are no mathematical prerequisites for the course other than high-school level basic algebra.

Who should take this course?

This course is designed primarily for International Relations concentrators as a requirement.

Grading

Students are expected to read the assigned readings and are required to actively participate in all class sessions. The course grade will be composed of four elements:

- Research Paper (30 percent)
- Mid-term (20 percent)
- Final Exam (50 percent)

Research paper topics should be discussed and finalized with the instructor until Week 3. You are required to choose one co-author for your project and be responsible for the entire research material. Research papers should be approximately 5000 words. Bibliographic format should follow APA (American Psychological Association) or APSR (American Political Science Review) style and should be generated automatically from a citation management program such as EndNote® or more preferably from freely available Zotero.

Required Books

Throughout the semester, we will use the following books:

- King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press.
- Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press.
- Pollock, Philip H. 2011. *A Stata Companion to Political Analysis*. Washington, DC: CQ Press.
- George, Alexander L., and Andrew Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. MIT Press.

Required Software

Throughout the course, we will use Stata statistical package and it can be obtained from here: <http://www.stata.com/products/which-stata-is-right-for-me/>

Prerequisites

There is no mathematical prerequisite to take the course. Please come to class prepared as others will be counting on you (and you on them). If you don't understand something, that's perfectly fine. I will figure it out and make sure no one is left behind. The lectures and discussions are to be conducted in English. However, I am well aware that each one of us has different levels of experience with English. Please have peace of mind for your mistakes, or asking for assistance when you cannot remember a word. If you don't understand something, that's again perfectly fine. We will figure it out and make sure no one is left behind. I encourage you to come to my office hours throughout the semester. If my stated office hours are impossible for you to visit, then please email me.

Course Canvas Site & Discussion Board

You will receive course relevant communication from the our Canvas Site, including your assignment, course slides, announcements, and questions from your peers. I recommend you to use the discussion board actively for questions of general interest. If you believe your question is not of general interest, you can come over during my office hours or send me an email at omerorsun@istanbul.edu.tr. The instructions to sign up for Course Canvas Site are as follows:

1. Use the link: <https://canvas.instructure.com/enroll/N9FRCE>
2. Enter your email address and choose "I am a new user".
3. Write your full name
4. You will receive a confirmation email. In this email click on "Click here to finish the registration process".
5. Create Password.
6. Time Zone: Istanbul
7. Confirm and Finish.

Academic Honesty

Honesty and trust are important to all of us as individuals. Students and faculty adhere to the following principles of academic honesty in our university:

- Individual accountability for all individual work, written or oral: Copying from others or providing answers or information, written or oral, to others is **cheating**.
- Providing proper acknowledgement of original author: Copying from another student's paper or from another text without written acknowledgement is **plagiarism**. All work for this course is expected to be original. You must not "recycle" a paper previously written for another class.
- Study or project group activity is effective and authorized teamwork: Unauthorized help from another person or having someone else write one's paper or assignment is **collusion**.

Cheating, plagiarism, and collusion are serious offenses resulting in an F grade and disciplinary action. Whether intentional or not, improper use of materials can be considered a violation of academic honesty. All ideas that are obtained from others need to be given due credit. Sources must be listed in a bibliography at the end of the paper. If you are unsure of when and how to use quotation marks or how to cite materials, you should use a guide to writing, visit the Writing Center, or see the instructor. Information on documentation styles is available here:

<http://www.dianahacker.com/resdoc/index.html>.

Course Schedule

Week 1: General Overview

Week 2: The Nature of Political Inquiry

- King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press. Chapters 1-2
 - King, Gary. 2009. *Dissertation Advice*. Unpublished Manuscript. Available at: <http://gking.harvard.edu/files/diss2.pdf>
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Week 3: Foundations of Causal Inference

King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press. Chapters 3-5

Week 4: From Concepts to Operational Definitions

Aims:

Upon completion of this course's material, you will understand:

- how to operationalize a conceptual definition and how we capture certain aspects of various concepts in actual research
- how to recognize problems of reliability and validity

Notes:

One of the building blocks of scientific research is to express conceptual constructs in measurable ways and identify the threats to validity and reliability in construction of the operational definitions. In this week's course, we will go over how to write a conceptual definition, how to select a unit of analysis and how to operationalize these measures and common pitfalls that require special attention.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 1.

Key Concepts:

- Unit of Analysis
 - Measurement Error: Systematic vs. Random
 - Reliability and Validity
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Week 5: Description of Data

Aims:

Upon completion of this course's material, you will understand:

- the essential features of a variable
- how to differentiate different measurement types
- how to describe the measures of central tendency and measures of dispersion

Notes:

The operational definition of a concept provides the main underpinnings for our research. As a result, this course will provide you with a firm understanding of what types of measures we face in political science research. Moreover, we will learn how to describe a given data with its two main measures.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press.

Chapter 2.

Complementary Reading:

Braumoeller, Bear F. 2006. "Explaining Variance; or, Stuck in a Moment We Can't Get Out of." *Political Analysis* 14(3): 268-90.

Key Concepts:

- Levels of measurement: Nominal, Ordinal, Interval, Ratio
 - Measures to locate central tendency: Mean, Mode, Median
 - Skewness: Negative, Normal, Positive
 - Measures of dispersion: Range, Percentile, Standard Deviation
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Week 6: Hypotheses, Causal Explanations and Hypothesis Tests**Aims:**

Upon completion of this course's material, you will understand:

- the difference between a dependent variable and an independent variable
- how to write a hypothesis that links an independent variable to a dependent variable
- how to test a hypothesis using cross-tabulation and mean comparison

Notes:

Political research very often starts with an observation of an interesting variable and its relationship to another phenomenon, then we build a causal explanation for the relationship. This week we will learn the basics of differentiating the explanatory variable

from the explained variable and brainstorm about how to write a causal story between the two variables. This will be followed by how to write a hypothesis and how to test it with very basic, but powerful, methods of cross-tabulation and mean comparison analysis.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 3.

Key Concepts:

- Independent vs. Dependent Variable
- Positive, Negative Relationship
- Linear vs Non-linear Relationship
- Hypothesis Testing
- Cross-Tabulation Analysis
- Mean Comparison Analysis

Week 7: Designing Your Research and the Importance of Rival Explanations I

Aims:

Upon completion of this course's material, you will understand:

- the importance of alternative explanations in political science
- how to rule out the causal effect of alternative variables
- the types of relationships between an independent and a dependent variable

Notes:

When we conduct a research, we would like to know first its contribution to the cumulative knowledge in that specific area and its causal effect. As a result, we want our contribution to be distinct from previous works in the field and make sure that our theories explain a variation that does not mimic a variation corroborated by previous theories. In this course, we will learn how to do this.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 4.

Key Concepts:

- Spurious Relationship
 - Additive Relationship
 - Interactive Relationship
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Week 8: Designing Your Research and the Importance of Rival Explanations II**Aims:**

Upon completion of this course's material, you will understand:

- how to make controlled comparisons via cross-tabulation and mean comparison analysis
- how to identify spurious, additive and interaction relationships in data

Notes:

This week we continue to on the mechanics of controlled comparisons and learn how to partial out the effect of control variables from the causal effect of our main variable of interest via cross-tabulation and mean comparison analysis. After this, we will cover the methods to identify spurious, additive and interaction relationships.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 4,5.

Key Concepts:

- Partial Effect
 - Controlled Comparison Table
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Week 9: Foundations of Inference from Data**Aims:**

Upon completion of this course's material, you will understand:

- the importance of random sampling
- how a small sample can yield accurate information about a much larger population
- sampling methods

Notes:

When we conduct a study, we generally want to maximize accuracy of our description of the world under a budget constraint. As a result, we want the smallest amount of data points to truly represent the political phenomena we want to study. This course will introduce three important features of a good statistical inference: We will cover how random sampling, sample size and variance help us to maximize inference from a small set of observations.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 6.

Key Concepts:

- Descriptive Statistics vs. Inferential Statistics
- Central Limit Theorem
- Random Sampling

- Normal Distribution
 - Population Mean vs. Sample Mean
 - Bias, Consistency, Efficiency
 - Standard Error
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Week 10: Methods in Action I: Comparison of Sample Means

Aims:

Upon completion of this course's material, you will understand:

- how to use statistical tests to make inferences about a given relationship
- different measures of association and how to use them

Notes:

In this course we will learn very simple, but powerful, methods to test our hypotheses. Our hypothesis may posit different levels of armament levels for democracies and autocracies. As a result, we want to compare e.g. the average military spending in democracies and in autocracies. In doing so, we need several tools to show that there is actually a statistically verifiable/meaningful difference in average military spending levels between democracies and autocracies. We will also cover the margins of uncertainty associated with our finding. This week we will learn basics of a powerful software, Stata®, to apply these concepts in a computer environment.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 7.

Pollock, Philip H. 2011. *A Stata Companion to Political Analysis*. Washington, DC: CQ Press. Chapter 6, 7.

Key Concepts:

- Statistical Significance
- Type I vs. Type II Error
- Standard Error of the Difference

- One-Tailed Test vs. Two-Tailed Test
 - χ^2 (Chi-Square) Test
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Week 11: Methods in Action II: Linear Regression I

Aims:

Upon completion of this course's material, you will understand:

- how to use correlation analysis to describe the relationship between two variables
- how to use regression analysis to estimate the effect of an independent variable on a dependent variable

Notes:

In this course we will learn how to use correlation to see the direction and strength of a relationship between two variables. Following this, we will learn the very easy bivariate regression methods to inform policy-makers about how a certain amount of increase military spending of a state increases its rivals military spending. This week we will continue our hands-on practice with Stata®.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 8. pp. 182-199

Pollock, Philip H. 2011. *A Stata Companion to Political Analysis*. Washington, DC: CQ Press. Chapter 8. pp.137-147

Key Concepts:

- Covariation, Correlation
- Bivariate Regression: Intercept, Coefficient and Error Term
- Explained Variation vs. Unexplained Variation: R-Square

Week 12: Methods in Action II: Linear Regression II

Aims:

Upon completion of this course's material, you will understand:

- how to partial out the effect of other variables from the causal effect of our main independent variable
- how to design and interpret an interactive relationship

Notes:

In this course, we will take our linear regression knowledge one step further and will learn how to partial out the effect of the rival explanations from the causal effect of our main variable of interest. Moreover, in political research, we sometimes have hypotheses that posit a conditional relationship between an independent variable and a dependent variable e.g. the effect of income on political attitudes may depend on gender. This week we will continue our hands-on practice with Stata®.

Reading:

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. Chapter 8, 9. pp. 199-206.

Pollock, Philip H. 2011. *A Stata Companion to Political Analysis*. Washington, DC: CQ Press. Chapter 8. pp.147-173.

Key Concepts:

- Partial regression coefficient
- Interaction Effect
- Multicollinearity

Week 13: Small-N Research I

Aims:

Upon completion of this course's material, you will understand

- what qualitative case study research is
- how to select cases

- how cases you select affect the answers you get
- how it relates to quantitative research methods and formal modeling

Reading:

- King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press. Chapters 6
- George, Alexander L., and Andrew Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Mit Press. Chapters 1-2.
- Gerring, John. 2007. "The Case Study: What It Is and What It Does." In *The Oxford Handbook of Comparative Politics*, eds. Carles Boix and Susan C. Stokes. Oxford University Press.
- Geddes, Barbara. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics." *Political Analysis*: 131–150.
- Bennett, Andrew, and Colin Elman. 2007. "Case Study Methods in the International Relations Subfield." *Comparative Political Studies* 40(2): 170–95.
- Mahoney, James. 2007. "Qualitative Methodology and Comparative Politics." *Comparative Political Studies* 40(2): 122–44.
- Seawright, Jason, and John Gerring. 2008. "Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options." *Political Research Quarterly* 61(2): 294–308.

Week 14: Small-N Research II

Aims:

Upon completion of this course's material, you will understand

- cutting edge methods in case selection
- how Qualitative and Quantitative methods complement each other

Reading:

- George, Alexander L., and Andrew Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Mit Press. Chapters 3-8.
- Nielsen, Richard A. 2016. "Case Selection via Matching." *Sociological Methods & Research* 45(3): 569–597.
- Pluemper, Thomas, Vera E. Troeger, and Eric Neumayer. 2010. *Case Selection and Causal Inference in Qualitative Research*. Rochester, NY: Social Science Research Network. SSRN Scholarly Paper.
- Tarrow, Sidney. 2010. "Bridging the Quantitative-Qualitative Divide" *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. 2 edition. eds. Brady, Henry E., and David Collier. Lanham, Md: Rowman & Littlefield Publishers.
- King, Gary, Robert Keohane, and Sidney Verba. 2010. "The Importance of Research Design" *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. 2 edition. eds. Brady, Henry E., and David Collier. Lanham, Md: Rowman & Littlefield Publishers.
- Collier, David, Henry E. Brady, and Jason Seawright. 2010. "Source of Leverage in Causal Inference: Toward an Alternative View of Methodology" *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. 2 edition. eds. Brady, Henry E., and David Collier. Lanham, Md: Rowman & Littlefield Publishers.