George Mason University  
Schar School of Policy and Government  
PUBP 511: Statistical Methods for Policy Analysis  
Spring 2018

Instructor: Anh Pham  
Office hours: TBD  
Email: apham16@gmu.edu (for main communication)  
Class website: Blackboard

Course Description:

Many times, public policy work requires statistical analysis. PUBP 511 introduces a range of quantitative tools that are used to inform public policy issues. The course is divided into four broad units: Descriptive Statistics, Probability, Statistical Inference, and Regression Analysis. The course emphasizes on the ways in which they are applied to practical policy questions. The course also introduces you to STATA, commonly used software in social sciences, as a tool to analyze quantitative data.

Learning Outcomes

- Conduct basic statistical analysis (hypothesis testing, regression, etc.) to analyze various policy issues.
- Interpret the STATA outputs of various basic statistical analysis
- Acquire programming skills necessary to conduct basic statistical analysis in STATA. In this class, I will only introduce basic skills of STATA to facilitate the understanding of statistical analysis. The purpose of this class is not to be proficient at STATA
- Critically consume policy studies/papers/reports in which statistical analysis is used.

Required Course Texts and Resources


2. *Getting Started with Stata for Windows (or Mac) - Release 14*
   Publisher: Stata Press  
   You can download this book for free from the following link:  

Course software: STATA 13 or newer IC (or SE). You will need access to this software in and outside of class.

Ways to get access to STATA:

1. You are recommended to purchase a 6-month (or longer) license of Stata13 or newer version, either IC or SE. If you are planning to deal with a large dataset, you may want to invest in SE rather than IC. For the product (IC vs. SE) comparison, visit: http://www.stata.com/products/which-stata-is-right-for-me/
   For the detailed pricing information, visit: http://www.stata.com/order/new/edu/gradplans/course-pricing/
2. STATA are installed in all machines in the computer labs on the Arlington campus.
3. You can get free access to STATA using the Virtual Computing Lab at https://itservices.gmu.edu/services/view-service.cfm?customel_dataPageID_4609=5385

Grades

10% - Pre-class Exercises
10% - Problem Sets
30% - Midterm
30% - Final Exam
20% - Data Exercise

Pre-class exercises:
- Pre-class exercises have questions about the new reading material.
- They help you realize what you understand or do not understand from the reading.
- They also help me see what the difficult concepts are.
- You may work in small groups. However, you must turn in your own individual answers.
- Pre-class exercises are graded based on effort.

Problem Sets
- The weekly problem sets are to ensure that you have understood the important concepts from the lecture.
- You may work in small groups. However, you must write up your answers individually, in your own words. Put the names of your study group member(s) on your problem sets. Duplicate answers will receive no credit.
- Problem sets are graded based on effort.

Exams
- In class, closed notes, closed book. All students are expected to be present.
- One question on each exam (midterm and final) will be taken directly from the problem sets or the pre-class exercises.
- There will be no STATA coding questions on the exam.

Data Exercise:
The Data Exercise helps you get familiar with STATA and gain some understanding of how to do a quantitative data analysis.

It also enhances your critical thinking as a consumer of policy analyses.

I will suggest a topic and a dataset. You can either work on the topic and the dataset I suggest or pick your own topic and dataset.

*Class participation and engagement:* I strongly believe that student participation can substantially enrich the learning experience for both the students and the instructor. In this spirit, class participation is encouraged. Effective class participation requires that you read any assigned readings before coming to class. You are encouraged to ask questions, to share relevant insights you have from previous experiences, and to treat your classmates’ participation with courtesy. If you are on the margin between receiving two final grades, I will use the quality of your class participation to help determine which of the two grades you receive.

**Reading and Assignments: TBA**

**George Mason Academic Integrity:** It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: “To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work.” More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at [http://oai.gmu.edu](http://oai.gmu.edu)

**Violation of Academic Integrity:**
- **First offense:** Report to the Honor Board and recommend a 0 on the assignment
- **Second offense:** Report to the Honor Board, recommend a F in the course, and suspension from the institution
- **Third offense:** Usually result in expulsion.

More information about typical sanctions can be found at the Office of Academic Integrity website [http://oai.gmu.edu](http://oai.gmu.edu)

**SPGIA Policy on Plagiarism**
The profession of scholarship and the intellectual life of a university, as well as the field of public policy inquiry, depend fundamentally on a foundation of trust. Thus, any act of plagiarism strikes at the heart of the meaning of the University and the purpose of the School of Policy, Government, and International Affairs. It constitutes a serious breach of professional ethics and it is unacceptable. Plagiarism is the use of another’s words or ideas presented as one’s own. It includes, among other things, the use of specific words, ideas, or frameworks that are the product of another’s work. Honesty and thoroughness in citing sources is essential to professional accountability and personal responsibility. Appropriate citation is necessary so that arguments, evidence, and claims can be
critically examined. Plagiarism is wrong because of the injustice it does to the person whose ideas are stolen. But it is also wrong because it constitutes lying to one’s professional colleagues. From a prudential perspective, it is shortsighted and self-defeating, and it can ruin a professional career. The faculty of the School of Policy, Government, and International Affairs takes plagiarism seriously and has adopted a zero-tolerance policy. Cases of suspected plagiarism are referred to the Office of Academic Integrity and may lead to termination from the program. This termination will be noted on the student’s transcript. For foreign students who are on a university-sponsored visa (eg. F-1, J-1 or J-2), termination also results in the revocation of visa.

To help enforce the SPGIA policy on plagiarism, all written work submitted in partial fulfillment of course or degree requirements must be available in electronic form so that it can be compared with electronic databases, as well as submitted to commercial services to which the School subscribes. Faculty may at any time submit a student’s work without prior permission from the student. Individual instructors may require that written work be submitted in electronic as well as printed form. The SPGIA policy on plagiarism is supplementary to the George Mason University Honor Code; it is not intended to replace it or substitute for it. (http://oai.gmu.edu/the-mason-honor-code-2/)

**Academic Accommodation for a Disability**
If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through the DRC.