Williams College ECON 523:

Program Evaluation for International Development

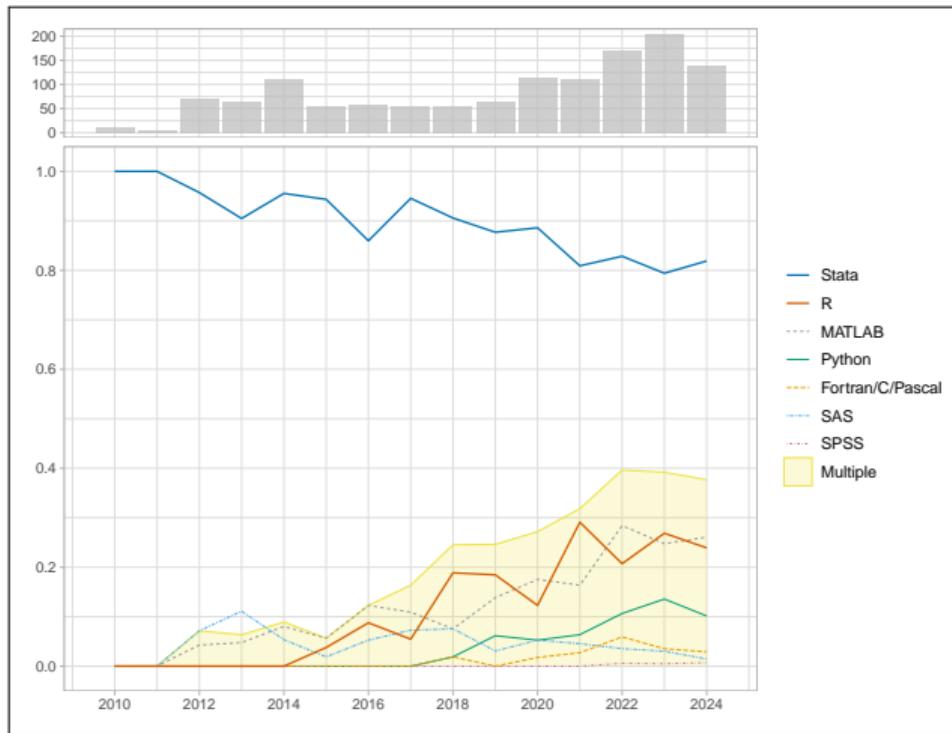**Lecture 0: Intro to the Course**

Professor: Pamela Jakiela

What This Course Is About

- Framework: potential outcomes, selection bias, linear regression

- Identification strategies: RCTs, DD, IV, RD

- Randomized evaluations: implementation, power calculations, clustering, analysis, controls

- How to code for data analysis (transparent and reproducible social science)

Course Logistics

- Class meetings: Monday, Wednesday, Friday from 11:00 AM to 12:15 PM in 211 CDE

  ▶ Mondays = lecture, Wednesdays = Stata lab, Fridays = R/Python lab*

- Instructor: Professor Pamela Jakiela (pj5@williams.edu)

  ▶ Office hours: Wednesdays from 2–3 PM, Fridays from 3–4 PM in 339 Schapiro

- Teaching Assistant: Manuela Sanchez-Decotto (ms43@williams.edu)

  ▶ Office hours: TBD at the CDE (somewhere)

- Prerequisites: ECON 255, ECON 503, ECON 502 + 53, STAT 346

- Course websites:

  ▶ https://pjakiela.github.io/ECON523/ (course materials)

  ▶ https://www.gradescope.com/courses/1249762 (submitting assignments)

Stata vs. R vs. Python in Economics

Source: Cai, Jakiela, Ozier, Raman, Upton, Zimmerman (2025)

Stata vs. R vs. Python in Statistics and Political Science
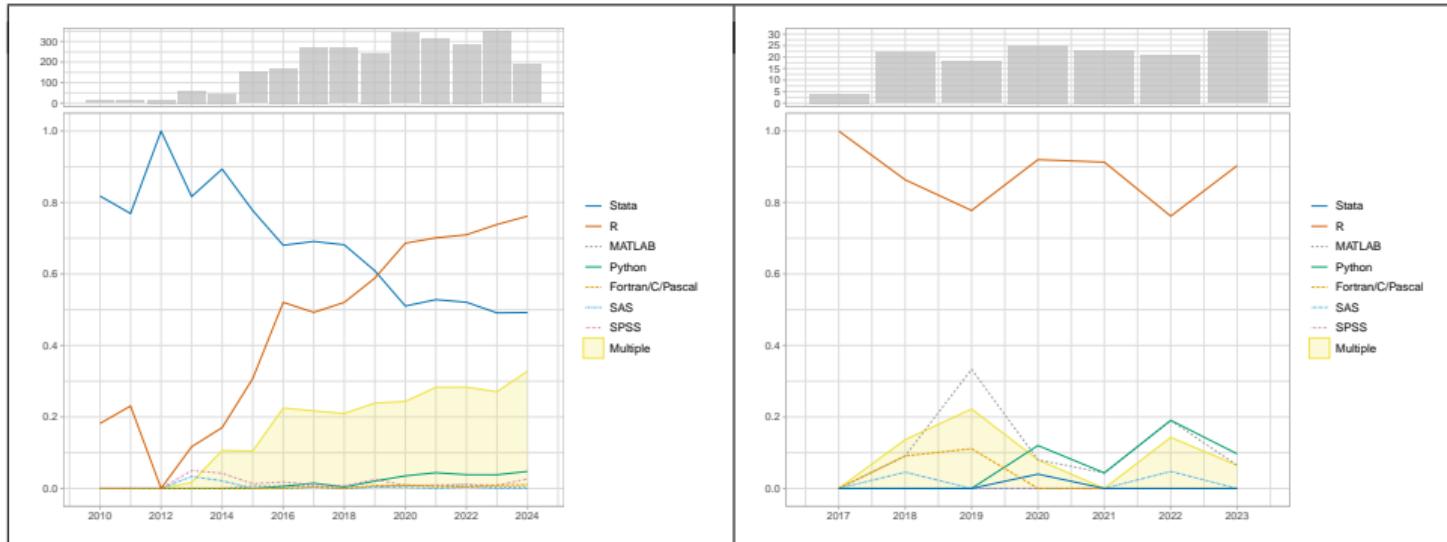
Source: Cai, Jakiela, Ozier, Raman, Upton, Zimmerman (2025)

Getting Started in Stata, R, or Python

- Download Stata SE from Williams OIT (if you haven't already)

    ▶ Williams' Stata tutorials: `https://pjakiela.github.io/stata/`

- If you are interested in using R:

    ▶ Download R and R Studio: `https://posit.co/download/rstudio-desktop/`

    ▶ Hadley Wickham's R for Data Science (2e) is a good primer: `https://r4ds.hadley.nz/`

- If you are interested in using Python:

    ▶ Install Anaconda distribution (but not the navigator), run Python with Spyder

    ▶ You can also "test drive" Python with google colabs

Assignments, Grading, and Important Dates

Assignment(s)	Date(s)	Points
One-on-one coding assessments	Weeks of 3/16–3/20 and 5/11–5/13	30 points
Empirical exercises	Every week/module, due on Sunday night	20 points
Final exam	During the final exam period	15 points
Replication project	Due March 15	10 points
Pre-analysis plan project	Due May 19	10 points
In-class worksheets	March 9, April 27	5 points
Class participation	Every class meeting	5 points
Reading comprehension questions	Every week/module, due on Tuesday night	5 points

To Do List

- Read the syllabus

- Readings for next week:

    ▶ Mostly Harmless Econometrics, Chapter 1

    ▶ J-PAL: A Balancing Act

    ▶ Optional: "Price Subsidies, Diagnostic Tests, and Targeting of Malaria Treatment: Evidence from a Randomized Controlled Trial" by Cohen, Dupas, and Schaner (AER, 2015)

- Make sure you are ready to work in Stata, R, and/or Python by Wednesday/Friday

    ▶ Stata review sheet