Teaching Statement of David Agrawal

1 Teaching Philosophy

I view teaching and research as complements to each other. Teaching makes me a better researcher, as it helps me determine how to explain ideas and knowledge clearly, articulately, and in a manner that is exciting. Similarly, my own research makes me a better teacher. Understanding how to pose and solve a problem in a scholarly article is similar to teaching students how to make a hypothesis about a problem in the world, how to develop a plan to determine if that hypothesis is true, and how to solve a particular problem. My ultimate goal is the instill students with a love of economics including its: relevance for policymaking, elegant applicability, and simple yet "different" approach to viewing the world.

I take various approaches to student learning. In an typical class, students will see me lecture, will spend time working in groups, and will have an assessment activity such as a quiz, problem, or a question for thought. In some courses, I have also taught using the case-study methodology. With respect to assessments, these vary by classes, but include exams, weekly in-class exercises, participation, policy debates, student presentations, and a piece of empirical analysis.

At Kentucky, have mostly taught applied Masters/PhD level classes. I teach two classes that have very different goals: (i) PA 652 "Public Policy Economics" is a required course that acts as an introduction to the theory of economic analysis for MPA and MPP students and (ii) PA 683 "Tax Policy" is an elective for MPP and PhD students focusing on empirical studies regarding the effect of tax policy on economic outcomes. In addition, at the purely PhD level I have taught (i) Eco 752: Advanced Public Economics and (ii) PA 752: Public Policy Economics. While at the University of Georgia, I taught undergraduate courses in (i) "Public Economics," (ii) "Urban Economics" and (iii) "Spatial Data Analysis."

2 Undergraduate Level Courses

I last taught undergraduates while on the faculty at the University of Georgia. In addition to teaching undergraduate public economics, I convinced my department to create a new course in urban economics. The first semester I taught the course, it was so successful that my department elected to offer it every year. In addition, I taught a tutorial in spatial data analysis for students seeking to analyze with geo-spatial data and understand how use such data in the thesis. I do miss teaching urban economics.

By the end of the semester, I want my students to be able to work with data and to understand how to conduct simple statistical analysis. In doing so, they should be able to critique other empirical studies that they may encounter in their work. Second, I hope that students will have an improved ability to solve problems—to identify particular economic problems in their own lives, develop a plan for solving or testing those problems, and understanding how to think critically about the problem in order to develop a solution.

At Georgia, most students took my upper division classes without yet having had a class in advanced econometrics. As the world is becoming more quantitative, I believe that it is important to emphasize (visual) statistical techniques in my economics class and to require students to study and critique empirical analysis. I often use visual evidence and simple figures/tables to make compelling claims about causal identification. Difference-in-differences and regression discontinuity designs provide students with easy to understand visual evidence. For example, in my public economics class, I teach Chetty, Looney, and Kroft (2009). The authors in this paper asked a grocery store to post the sales tax inclusive price to certain items, while maintaining the pre-tax pricing convention to other items. I then walk through why a simple comparison of the treatment group to the control would not be enough and explain why the authors also need to collect data before and during the experiment. We then set up a four cell table of average sales for before and after the experiment by treatment and control groups. This simple comparison can teach students the basic idea of using the design mentioning the word regression.

Throughout the semester, I also require my students to collect data to analyze a problem. For example, at the beginning of my urban economics class, each student is assigned a particular Metropolitan Statistical Area (MSA). Throughout the semester, relating to each module of the class, students are required to collect data on their MSA and to compare the data across time or across urban areas. For example, students might use the BLS website to calculate location quotients documenting the concentration of particular industries within the MSA. They may have to collect data from the Census on racial segregation by county or may have to use the FBI crime data to determine changes in violent crimes over time. At the end of the semester, the students can use this data to write their term paper, which relates to a policy problem in their assigned MSA.

One of my former students from UGA recently wrote an email to me saying, "At the time, I was just concerned about getting a good grade, but I got a lot more out of it. The main thing that I took away from your course was actually learning how to apply economic concepts in different contexts and thinking about these situations analytically. ...now, ... it seems like I think about one of your lessons every day."

3 Masters Level Courses

Many professional students in our programs have never taken an economics course before the required course I teach them. My job is to instill an appreciation for economic analysis into them. During my courses, students will develop an appreciation for why economics cannot easily provide clear-cut policy recommendations to all problems—but can provide important analysis necessary to help answer the question. In particular, part of the course is designed for students to realize whether differences in models and assumptions, differences in values, or differences in facts result in policymakers reaching different conclusions. A common theme is that the policies selected by society are a function of both the policymakers equity preferences and how large the inefficiencies are from the policies being implemented. For many professional students, economics can be a new way of approaching a problem. To that end, every week, I have my students participate in an in-class exercise that relates to my prior lectures. This in-class exercise could be a simple quiz designed to assess the student's preparation for class. Alternatively, I might present a policy problem to the class and ask students to work in groups to analyze it. For other exercises, I ask students to brainstorm policies and how they would analyze them. These in-class exercises, while designed to make sure the students have kept up to date on prior material, bring to life the theories and graphs that I lecture about and demonstrate its applicability to the policymaking process.

In my elective masters courses, I spend about two-thirds of class-time discussing empirical analysis of tax policies. Given that many of my students are likely to be doing policy analysis or management, I use visual evidence and simple figures/tables to make compelling claims. At the end of the semester, students are required to write a policy analysis on a recent tax reform in a state of their choosing. This paper requires them to collect data to back up their claims. I have found students to be extremely excited about this project and most of the papers are very creative. Formal regression analysis is discouraged, but instead, students are asked to use simple comparisons of means using a causal identification method from class. For example, the best papers often conduct a simple difference-in-differences design using convincing graphical evidence that supports their claim. Most importantly, students must acknowledge the limitations of their study by highlighting the assumptions they are required to make in their analysis.

4 PhD Courses

I have taught two PhD courses at the University of Kentucky, including in the public finance field in the economics department. In PhD courses, the emphasis in my courses is on learning theoretical and empirical techniques that can be applied to produce original research and to critically analyze existing research in the field of public economics. My goal is to teach students: a broad working knowledge of modern literature, how to think critically about existing research, and how to gain knowledge of how/when to use appropriate causal designs to analyze data. My PhD course are literature intensive, involving the discussion of numerous article each week. Depending on the course, students are expected to write up two short papers about possible research ideas, write a referee report on a working paper, write paper summaries of the articles we are reading, and present a paper from the literature.

One of the most important parts of my PhD courses, inspired by my own advisor's class, are the writing of mini-papers. PhD students are expected to write two short research papers. Short papers are expected to be less complete than a full research article. They will motivate a piece of research on a topic, describe its methods and the contribution to the related literature. A critical component of the evaluation of the short papers will include their feasibility and their contribution to the broader economics literature.

5 Dissertation Students and Advising

Supervising PhD students is one of my favorite parts of being a professor. My advisor, Joel Slemrod, was always generous with his time and taught me many life-long lessons. I am motivated to match his enthusiasm at supervising PhD students. I have have been (or currently am) the chair for five dissertation committees. One student's first placement was Oxford University and another student's first placement was the University of Exeter. Both of these placements are top placements for taxation in Europe. Two of my students have returned to the Department of the Treasury in their home country. In addition, I have been a committee member on eight more dissertations. The initial placements of these students include the University of Wisconsin, Madison and Rutgers University.

6 Summary of Evaluations

My teaching evaluation scores are almost always at or above the average in my department, with the exception of the first times that I taught the courses and select semesters during the COVID-19 crisis, which faced numerous childcare challenges at home.

In this section, I summarize the responses to the overall course statements (\mathbf{C}) "I consider the course PA ... to be a quality course" and to the instructor statement (\mathbf{I}) "The instructor David Agrawal provided quality teaching." Students are asked to rate these statements on a five point scale, with five being the highest score. The following table summarizes my

Teaching Evaluation Scores							
# Semesters	Course	\mathbf{C}	Ι	Notes			
1	Advanced Public Economics (PhD)	-	-	threshold not met			
1	Public Policy Economics (PhD)	-	-	threshold not met			
5	Public Policy Economics (MPP)	4.51	4.50				
6	Public Policy Economics (MPA)	4.13	4.03				
5	Tax Policy (MPA/MPP/PhD)	4.51	4.47				

teaching evaluations by averaging across the semesters that I have taught each course. More than five students must fill out an evaluation for the scores to be released to the instruction.

At the University of Georgia, evaluations were summarized in three statements: **Q5**: "Overall, the course was excellent."; **Q13**: "Overall, the instructor was effective at teaching."; **Q20**: "I learned a lot in this course." Students are asked to rate these statements on a five point scale, with five being the highest score. For my undergraduate courses, I summarize my evaluations below:

Average Evaluations at UGA						
#	Courses	$\mathbf{Q5}$	Q13	$\mathbf{Q20}$		
Semesters						
3	Urban Economics (undergrad)	4.09	4.64	4.65		
2	Spatial Data Analysis (undergrad)	5.00	5.00	5.00		
6	Public Economics (undergrad)	3.88	4.30	4.49		

7 Select Comments

- "This was easily the best class I have taken in the economics department. Urban economics was fascinating to me in a way that no other econ class can come close to."
 Urban Economics
- "Dr. Agrawal forced us to understand and apply economic concepts to solve problems. Most importantly, the paper forced me to locate and communicate economic data. Being able to analyze data and effectively communicate analysis to somebody else is the most critical skill to have coming out of school with an Economics degree. Dr. Agrawal is the first teacher in the Econ department to force me to do these things well." – Urban Economics

- "Professor Agrawal was really enthusiastic and passionate about the class, which definitely translated into my passion as a student." – Urban Economics
- "This is a course that I think would be a great addition to any Economics department. One theme of Dr. Agrawal's classes is that they provide both the theoretical foundations of a phenomenon as well as equip students with the empirical skills to analyze those phenomena using real world data." – Spatial Data Analysis
- "The course overall has been the most interesting economics course I have taken. The subject matter and class lectures were always intriguing to me, and I felt them to be very useful, as the course helped me to further understand current events I was interested in. I enjoyed how clearly and logically the course seemed to be organized."
 Public Economics
- "I learned more in this class than any other class in college I would say." Public Economics
- "He studies what he teaches and he enjoys what he studies." Public Economics
- "His emphasis on critiquing academic research was valuable knowledge to completing my senior thesis. This shows that he was an effective teacher both in public sector economics but also applying economic tools to other fields too." –Public Economics
- "Agrawal is a really great professor. He is an expert in his field and got me excited about topics I thought would put me to sleep. I liked that Agrawal was willing to expand on lectures that were of particular interest to the students." – Public Economics
- "The class was taught very well, and even things that I thought would be boring (studying taxes) were proven to be rather interesting." Public Economics
- \bullet "This course is essential for an MPA/MPP. I have been very pleased with it." PA 652 Student
- "Lectures were always well done and informative." PA 652 Student
- "Overall, one of the best instructors in the Martin School." PA 652 Student
- "I'm going to be quite frank. You are a really difficult instructor, but that's what makes you good.....You are the first instructor in a long time to give me an actual challenge and I really do appreciate it." – PA 652 Student

- "I liked that you challenged us for our facts/beliefs about economics. I liked when you asked why? I think that really helps if we are in front of lawmakers/non-economic experts who ask why or might state something dumb. We need to be able to answer those questions." PA 652 Student
- "Finally, he is the only person I have ever had that helped me to get more interested in economics! I REALLY MEAN IT. I would love to take more courses with him. Yes, he is not "easy," but you learn a lot with him." – PA 652 Student
- "I enjoyed its applied aspect. Although we talked about theory some, I found it valuable to walk through papers and examples of taxes/tax related areas. It greatly increased my understanding of things I had heard of, but never really understood." – PA 683 Student
- "I was a tax officer for many years and this course teaches me the logic behind the policies. It was a very good class and I really recommend this course to all students."
 PA 683 Student