Teaching Statement

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My Teaching Experience

I have the pleasure to work as teaching assistant in econometrics since September 2013. I am in charge of all weekly econometrics tutorials, review sessions and office hours for all first-year graduate students of the Paris School of Economics. The syllabus covers all basic courses on univariate and multivariate OLS regressions, methods for policy evaluation (IV, difference-in-differences, RDD, matching, RCT), non-linear models (probit, multinomial logit, Heckman's selection model), and panel analysis.

I am also lecturer for 2nd year graduate students, in charge of compulsory lectures on "Empirical Methods for Policy Evaluation". I teach all non-experimental methods for policy evaluation, and provide small introductions to non-parametric methods, partial identification and quantile regressions. I prepare the exam and mark the copies.

Apart from this recent experience with graduate students, I have founded in 2006 and have managed since then a non-profit organization that helps high school students from deprived backgrounds to prepare for higher education. The major challenge was to find innovative teaching practices to teach advanced higher education contents to high school students who were not necessarily very successful in class. I spent years working on the pedagogical engineering, and have been myself teaching mathematics, biology and economics to lots of high school students, both in small groups and large classes. Thanks to this experience, I learned a lot about the transmission of knowledge, which is, from my point of view, more difficult with high school students than with graduate students.

My Teaching Philosophy

I think the greatest challenge in teaching consists in transmitting knowledge simultaneously to lots of people who think in different ways. When I teach, I always try to take into account this heterogeneity by preparing myself to explain the same content in different ways. For example, understanding econometrics in the long run requires students to go constantly back and forth between formalization and intuition. Yet, while some students need to get the verbal intuition first, others cannot think correctly before equations are written on the boards, or need a graphical visualization. My responsibility as a teacher is to provide to each student something natural for her to cling on, as she tries to follow my line of reasoning. Online education can help a lot in this perspective, and this is something I would like to develop in the future (see below).

When teaching econometrics, I put a strong emphasis on what parameters mean in a model, and what the identification assumption is. Econometrics is not only about math, and one needs to understand in depth what the instrument, the treatment, and the parameter of interest are and how to interpret them. Phrased in the wrong way, a credible assumption can look much stronger than it is.

Also, I try to teach to my students how to implement a research approach. As econometrics is not only about math, a good convincing paper is not only about econometrics. Good

econometricians are not necessarily good researchers. The same assumption can look credible or not depending on the accompanying evidence. Sometimes, giving a simple descriptive figure can do more than adding another regression table. Students need to understand what is important to show at different stages of a paper to convince the reader, to anticipate her doubts and remove them as soon as possible. Though a significant part of this understanding comes with practice and experience, I am convinced that insightful advices can be provided to early graduate students.

What I would like to teach

The core class I would like to teach is applied econometrics, either at the undergraduate or the graduate level. Apart from basic courses on linear and non-linear models, I would place a strong value in formalizing the causal identification issue, even to undergraduate students. I think that understanding omitted variable, reverse causality and selection biases is key for all citizens to critically analyze naïve statements made by medias or politicians. The Wooldridge textbook works well for undergraduate students, while the *Mostly Harmless Econometrics* from Angrist&Pischke is more adapted to graduate students who already started a research project. I would also like to go one step further and develop online contents including videos, games and applets for understanding applied econometrics for policy evaluation.

I would also enjoy teaching a course in economics of Education, alone or jointly with another faculty. This course could be prepared for economists or an interdisciplinary audience. It would encompass all recent development in economics of education, such as peer effects at school, school choice, social networks or gender issues.