

# ECON 8400-002 — Topics in Education

## Course prospectus

University of Pennsylvania  
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### Course description

**Synopsis.** As most second-year Ph.D. courses, this course is designed to help you transition to you conducting your own research. Through the discussion of seminal and recent papers, the goal is to help you gain an understanding of the literature that allows you to come up with original questions of interest and/or new useful methods.

While this class will focus on the discussion of education-related questions (see list of topics below), the models and methods we will discussed are useful in economics and empirical micro, beyond the study of education questions. A number of papers we will discuss use methods from other economics fields or econometrics techniques useful for all empirical work.

### Logistics and instruction planning

**Email:** [mluflade@sas.upenn.edu](mailto:mluflade@sas.upenn.edu)

**Meeting times:** Monday, Wednesday, 12–1:30pm, Fall session 2 (Oct. 18th to Dec. 12th)

**Office hours:** by appointment, feel free to email me.

#### Typical class structure:

- Each class, we'll discuss in depth one or two papers. For each paper, a student or I will be in charge of preparing a presentation of the paper. I'll give a quick broader view of where these papers fit in the literature and how they are connected to other papers of interest.
- In the last few class sessions, students may make short presentations of their original research ideas.

### Assessment

- Presentation and discussion of paper(s)
- I am currently working on adding a problem set. The goal of the problem set will be to have you work more in depth on the implementation of empirical research. I will give you a (simulated) dataset and ask you to code some estimator to answer some question.
- A short research proposal: each student will submit an short original research proposal. The goal on this assignment is to start the transition to the third year of the Ph.D., during which you'll start developing your own research full time. Typically, the proposal would present the research question; explain why it is an interesting question; and describe the (planned) contributions of the paper to the literature. I don't expect you to submit a fully completed paper outline, rather I will ask for a 1 or 2-page proposal. The idea is to give you a deadline for you to put together the beginning of a project that you could further develop over the spring or the summer. For instance, if it is an empirical project, the proposal could explain clearly the key empirical challenges, propose an identification strategy and data that could be used. If you don't have a complete identification strategy in mind, clearly establish what you could do with what you have, and what you still need to figure out for the paper to make a contribution. Think about the next steps: at the end of the proposal, establish a to-do list for the summer.

# Tentative overview of topics

## 1. Models of education decisions, skill formation, and identification of the returns to education

- In-class discussions
  - P. Arcidiacono (2005). Affirmative action in higher education: How do admission and financial aid rules affect future earnings? *Econometrica*, 73(5): 1477–524.
  - P. Todd, K. Wolpin (2003). On the specification and estimation of the production function for cognitive achievement. *Economic Journal*, 113(485): F3–F33.
- Additional readings
  - P. Arcidiacono (2004). Ability sorting and the returns to college majors. *Journal of Econometrics*, 121(1–2): 343–75.
  - P. Carneiro, J. Heckman, E. Vytlačil (2011). Estimating marginal returns to education. *American Economic Review*, 101(6): 2754–81.
  - J. Altonji (1993). The demand for and return to education when education outcomes are uncertain. *Journal of Labor Economics*, 11(1, Part 1): 48–83.
  - M. Keane, K. Wolpin (1997). The career decisions of young men. *Journal of Political Economy*, 105(2): 2075–91.
  - L. Kirkeboen, E. Leuven, M. Mogstad (2016). Field of study, earnings, and self-selection. *Quarterly Journal of Economics*, 131(2): 1057–112.
  - F. Cunha, J. Heckman, S. Schennach (2010). Estimating the technology of cognitive and noncognitive skill formation. *Econometrica*, 78(3): 883–931.

## 2. School choice and mechanism design

- In-class discussions
  - N. Agarwal, P. Somaini (2018). Demand analysis using strategic reports: An application to a school choice mechanism. *Econometrica*, 86(2): 391–444.
  - M. Luflade (2018). The value of information in centralized school choice systems. *Working paper*.
  - T. Larroucau, I. Ríos (2021). Dynamic college admissions and the determinants of students' college retention. *Working paper*.
- Additional readings
  - A. Abdulkadiroğlu, T. Sönmez (2003). School choice: a mechanism design approach. *American Economic Review*, 93(3): 729–47.
  - G. Fack, J. Grenet, Y. He (2019). Beyond truth-telling: preference estimation with centralized school choice and college admissions. *American Economic Review*, 109(4): 1486–529.

## 3. School and neighborhood choice

- In-class discussions
  - P. Bayer, F. Ferreira, R. McMillan (2007). A unified framework for measuring preferences for schools and neighborhoods. *Journal of Political Economy*, 115(4): 588–638.
  - T. Nechyba (2000). Mobility, targeting, and private-school vouchers. *American Economic Review*, 90(1): 120–146.
  - F. Agostinelli, M. Luflade, P. Martellini (2021). On the spatial determinants of educational access. *Working paper*.
- Additional readings
  - S. Black (1999). Do better schools matter? Parental valuation of elementary education. *Quarterly Journal of Economics*, 114(2): 577–99.
  - D. Epple, R. Romano (2003). Neighborhood schools, choice, and the distribution of educational benefits. In Caroline M. Hoxby, ed., *The Economics of school choice*. University of Chicago Press, p.227–286.

## 4. Supply side

- In-class discussions
  - M. Dinerstein and T. Smith (2021). Quantifying the supply response of private schools to public policies. *American Economic Review*

- J. Singleton (2019). Incentives and the supply of effective charter schools. *American Economic Review*, 109(7): 2568–612.
- C. Allende (2020). Targeted vouchers, competition among schools, and the academic achievement of poor students. *Working paper*.

- Additional readings

- D. Epple, R. Romano, S. Scarpa, H. Sieg (2017). A general equilibrium analysis of state and private colleges and access to higher education in the US. *Journal of Public Economics*, 155: 164–178.

## 5. Educational inputs —teachers, peers, school quality

- In-class discussions

- A. Abdulkadiroğlu, P. Pathak, N. Schellenberg, C. Walters (2020). Do parents value school effectiveness? *American Economic Review*, 110(5): 1502–39.
- B. BIASI, C. Fu, J. Stromme (2021). Equilibrium in the Market for Public School Teachers: District Wage Strategies and Teacher Comparative Advantage. *Working paper*.
- M. Bates, M. Dinerstein, A. Johnston, I. Sorkin (2022). Teacher Labor Market Equilibrium and Student Achievement. *Working paper*.

- Additional readings

- C. Manski (1993). Identification of endogenous social effects: The reflection problem. *Review of Economic Studies*, 60(3): 531–42.
- C. Hoxby, G. Weingarth (2006). Taking race out of the equation. The structure of peer effects. *Working paper, Harvard University*.
- J. Rothstein (2015). Teacher Quality Policy When Supply Matters. *American Economic Review*, 105(1): 100–30.
- A. Calvó-Armengol, E. Patacchini, Y. Zenou (2009). Peer effects and social networks in education. *Review of Economic Studies*, 76(4): 1239–67.
- W. Brock, S. Durlauf (2001). Discrete choice with social interactions. *Review of Economic Studies*, 68(2): 235–60.
- Y. Bramoullé, H. Djebbari, B. Fortin (2009). Identification of peer effects through social networks. *Journal of Econometrics*, 150(1): 41–55.

## 6. Unequal access to education/ affirmative action

- In-class discussions

- D. Epple, R. Romano, H. Sieg (2008). Diversity and affirmative action in higher education. *Journal of Public Economics*
- P. Arcidiacono, E. Aucejo, H. Fang (2012). Affirmative action and mismatch: new test and evidence. *Quantitative Economics*

- Additional readings

- S. Coate, G. Loury (1993). Will affirmative action policies eliminate negative stereotypes? *American Economic Review*