

**Course Syllabus TE982**  
**TEACHER LABOR MARKETS, TEACHER QUALITY, AND POLICY**

Instructor: Prof. Cassandra Guarino

Fall 2007

Tuesdays 12:40-3:30pm

111 Erickson Hall

This course will study the labor market characteristics of the teaching profession and policies that affect teacher labor markets. In addition, it will discuss the empirical evidence relating to teacher effectiveness. Students will understand issues and policies relating to teacher labor markets and teacher quality, with particular attention paid to understanding and evaluating the methodologies used by researchers to determine the links between policy and teacher recruitment, retention, and effectiveness.

This seminar will deepen an understanding of the characteristics of the teaching profession and professional labor markets: namely, patterns of entrance to and exit from teaching, school and district characteristics that affect teacher recruitment and retention, and pre-service and in-service policies that affect recruitment and retention. It will also deepen an understanding of ways of defining teacher effectiveness, assumptions about the characteristics of effective teachers, and the relationship of instructional practices to effectiveness in the classroom. The class will emphasize the relationship between theory, model building, and empirical testing, as well as the uses of empirical evidence for public policy purposes.

Part of the semester will be devoted to guiding each student through a small empirical research project related to the subjects covered in the course. This will consist of small group projects conducted with real databases. In their projects, students might explore questions on any topic related to teacher labor markets and teacher effectiveness. The instructor will provide students with basic public use datasets relating to teachers and student achievement (such as the Schools and Staffing Survey and its associated Teacher Follow-up Survey and the NELS or ECLS-K), and students will tailor the data to their needs.

Students will benefit most if they have completed the first year policy program curriculum or have prior experience in quantitative techniques elsewhere. Most of the readings and work in this course will be on statistical and econometric methods. Other social science skills will also be valuable in understanding the education research assigned for the class—in particular, an understanding of basic microeconomic theory.

***Instructor***

The instructor is Cassie Guarino, an assistant professor and former RAND economist who studies teacher quality, teacher labor markets, school choice, and the connection between health and education. She recently published a report for the National Center of Education Statistics that uses value-added models of student performance to determine the relationship between learning gains and the qualifications and instructional practices of teachers. Her recently published review of the empirical research on teacher recruitment and retention has been used nationally by policymakers and scholars as a guiding tool on the subject. Her work on school

choice has included the study of the charter school movement in California and charter schools in the nation of Qatar.

### ***Requirements and Grading***

Students are expected to prepare carefully for class and read all assigned papers. Two to three papers will be assigned per week, depending upon the scheduled topic. Students will also be expected to lead a portion of the class discussion on more than one assigned paper during the term. When leading the discussion of a paper, students should prepare a short summary handout (1-2 pages) for the class. The format of the handout will be discussed in the first class meeting.

During the project portion of the class, students should also prepare short handouts (1-4 pages) or equivalent computer files for discussion of their progress in the research project. During the final two classes, students are expected to make a full Power Point presentation on their topics, which could form the basis for a paper.

One-third of the grade will be based on the paper discussions each student leads. One-third will be based on oral and written presentations of the research project. The final third of the grade will be based on the quality of general contributions to class discussions of papers and projects.

### ***Class Schedule***

The workshop will be conducted in 15 3-hour instructional blocks as shown below. The schedule may be updated as the course progresses; please consider this a fairly complete draft.

**The first class will meet Tuesday, August 28 and will not require advance preparation by the students.**

#### **Class 1      Aug 28      Introduction to teacher labor markets in the US**

Students will see basic features of the U.S. teacher labor market and the labor market paradigm will be discussed. Labor market theory provides a conceptual framework that explains teachers' choices and movements in and out of teaching.

#### **Class 2      Sep 4      Who enters and exits teaching?**

Assigned papers:

- Alt & Henke
- Farkas, Johnson & Foleno
- Podgursky, Monroe & Watson

#### **Class 3      Sep 11      What characteristics of schools and districts are related to teacher recruitment and retention?**

Assigned papers:

- Hanushek, Kain & Rivkin
- Lankford, Loeb & Wyckoff

**Class 4      Sep 18      What pre-service and in-service policies are related to teacher recruitment and retention?**

Assigned papers:

- Ingersoll & Smith
- Figlio
- Liu, Johnson & Peske

**Class 5      Sep 25      Education production functions and measuring teacher quality**

This class will discuss empirical research aimed at determining what and how teachers contribute to student learning. Among other models, value-added models of teacher contributions will be discussed.

Assigned papers:

- Harris & Sass
- Loeb & Page

**Class 6      Oct 2      Empirical studies of teacher quality**

Assigned papers:

- Krieg
- Rowan, Correnti & Miller
- Erhenberg & Brewer

**Class 7      Oct 9      More empirical studies of teacher quality**

Assigned papers:

- Dee
- Smith, Desimone & Ueno
- Wright, Horn & Sanders

**Class 8      Oct 16      Wrap-up of literature, discussion of data sources, and development of empirical projects**

Assigned papers:

- Guarino, Santibanez & Daley
- McCaffrey et al. (selections)

During this class, we will further synthesize the lessons learned from the literature. Then, the instructor will introduce the data sources, the students will present research questions of interest, the class will discuss the issues involved in studying each proposed question, and students will begin the process of forming into teams for the projects.

**Class 9      Oct 23      Continuation of development of empirical projects**

During this class period, the instructor will support each team with exploration of an analytic strategy to support each proposed study. Research questions will be modified, if necessary.

**Class 10      Oct 30      Further readings and project discussions**

Each project team will discuss additional research from the literature that supports its question and present evidence to the class. In this manner, the teams will develop their analytic strategies.

**Class 11      Nov 6              Review of preliminary data analyses**

Each project team will make a brief presentation on the structure and content of their data, elementary descriptive statistics, and any difficulties or challenges they have encountered in using the data.

**Class 12      Nov 13              First results for empirical projects**

In this class, each team should report on its hypotheses, methods, and first results. The class and the instructor will offer suggestions for further work to complete the project.

**Class 13      Nov 20              One-on-one session with instructor**

Instructor will work one-on-one with students to develop analyses.

**Class 14      Nov 27              Preliminary presentations of empirical projects**

Each project team will give a draft presentation on its results, then propose and discuss additional analyses prior to the final presentations to be delivered the following week. Instructor will then provide teams with detailed feedback on the drafts.

**Class 15      Dec 4              Final presentations of empirical projects**

Project teams will present written and oral findings. Students will act as peer reviewers for the project reports.

### **Assigned Readings and Bibliography**

Electronic or paper copies of the articles will be made available by the instructor. For each class, the assigned readings will be chosen from a list. The following is a list of papers from which assigned readings may be chosen.

#### **Teacher Labor Markets**

Alt, M.N., and Henke, R.R. (2007). *To Teach or Not to Teach? Teaching Experience and Preparation Among 1992–93 Bachelor’s Degree Recipients 10 Years After College* (NCES 2007-163). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Clotfelter, C., Ladd, H., Vidgor, J., & Diaz, R. (2004). Do school accountability systems make it more difficult for low-performing schools to attract and retain high-quality teachers? *Journal of Public Policy Analysis and Management*, 23(2), 251-271.

Ballou, D. & Podgursky, M., “Teachers’ Attitudes Towards Merit Pay: Examining Conventional Wisdom,” *Industrial and Labor Relations review*, 47(1): 50-61, 1993.

Ballou, D., & Podgursky, M. (1998). Teacher Recruitment and Retention in Public and Private Schools. *Journal of Policy Analysis and Management*, 17(3), 393–417.

Ballou, D., & Podgursky, M. (1995). Recruiting Smarter Teachers. *Journal of Human Resources*, 30(2), 326–338.

- Brewer, D. "Career Paths and Quit Decisions: Evidence from Teaching," *Journal of Labor Economics*, 1986.
- Farkas, S., Johnson, J., & Foleno, T. (2000). *A Sense of Calling: Who Teaches and Why*. New York: Public Agenda.
- Figlio, D. (2002). Can Public Schools Buy Better-Qualified Teachers? *Industrial and Labor Relations Review*, 55(4), 686–697.
- Guarino, C., Santibanez, L., & Daley, G. (2006) Teacher Recruitment and Retention: A Review of the Recent Empirical Literature, *Review of Educational Research*, 76(2), pp. 173-208.
- Hanushek, E., Kain, J., & Rivkin, S. (2004) Why Public Schools Lose Teachers. *Journal of Human Resources*, 39(2), 326-54.
- Hanushek, E. & Pace, R. (1995) Understanding Entry into the Teaching Profession, *Economics of Education Review*.
- Ingersoll, R. (2001a). Teacher Turnover and Teacher Shortages: An Organizational Analysis. *American Educational Research Journal*, 38(3), 499–534.
- Ingersoll, R. & Smith, T. (2004). What Are the Effects of Induction and Mentoring on Beginning Teacher Turnover? *American Educational Research Journal*, 41(3), 681-714.
- Krieg, J. (2006) Teacher Quality and Attrition. *Economics of Education Review*, 25(1), 13-27.
- Lankford, M., Loeb, S., & Wyckoff, J. (2002). Teacher Sorting and the Plight of Urban Schools. A Descriptive Analysis. *Educational Evaluation and Policy Analysis*, 24(1), 37–62.
- Liu, E., Johnson, S., & Peske, H. (2004). New teachers and the Massachusetts Signing Bonus: The limits of inducements. *Educational Evaluation and Policy Analysis*, 26(3), 217-236.
- Loeb, S., & Page, M. (2000). Examining the Link Between Teacher Wages and Student Outcomes: The Importance of Alternative Labor Market Opportunities and Non-Pecuniary Variation. *The Review of Economics and Statistics*, 82(3), 393–408.
- Marvel, J., Lyter, D.M., Peltola, P., Strizek, G.A., and Morton, B.A. (2006). *Teacher Attrition and Mobility: Results from the 2004–05 Teacher Follow-up Survey* (NCES 2007–307). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Murnane, R. & Cohen, D. (1986) "Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and A Few Survive," *Harvard Educational Review*, 56(1): 1- 17.
- Podgursky, M., Monroe, R., & Watson, D. (2004). The academic quality of public school teachers: An analysis of entry and exit behavior. *Economics of Education Review*, 23, 507-518.

## **Teacher Quality (and Education Production Functions, more generally)**

Baker, B., & Dickerson, J. (2006) Charter Schools, Teacher Labor Market Deregulation, and Teacher Quality: Evidence from the Schools and Staffing Survey. *Educational Policy*, 20(5), 752-778.

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006) How Changes in Entry Requirements Alter the Teacher Workforce and Affect Student Achievement. *Education Finance and Policy*, 1(2), 176-216.

Dee, T. (2004) Teachers, Race, and Student Achievement in a Randomized Experiment. *The Review of Economics and Statistics*, 86(1): 195-210.

Ehrenberg, R., & Brewer, D. (1994). Do School and Teacher Characteristics Matter? Evidence from High School and Beyond. *Economics of Education Review*, 13(1), 1–17.

Ehrenberg, R., & Brewer, D. (1995). Did Teachers' Verbal Ability and Race Matter in the 1960s? Coleman Revisited. *Economics of Education Review*, 14(1), 1–21.

Goldhaber, D., & Brewer, D.(2000). Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement. *Educational Evaluation and Policy Analysis*, 22(2), 129–145.

Guarino, C., Hamilton, L., Lockwood & J.R., Rathbun, A. (2006) *Teacher Qualifications, Instructional Practices, and Reading and Mathematics Achievement Gains in Kindergartners*, (NCES2006-031) U.S. Department of Education: National Center for Education Statistics.

Hanushek, E. "The Economics of Schooling: Production and Efficiency in the Public Schools," *Journal of Economic Literature*, XXIV (3): 1141-78, 1986.

Hanushek, E. "Conceptual and Empirical Issues in the Estimation of Educational Production Functions," *Journal of Human Resources*, 14(3): 351-388, 1979.

Harris, D. & Sass, T. (2006) Value-Added Models and the Measurement of Teacher Quality, Unpublished Draft.

McCaffrey, D., Lockwood, J.R., Louis, T., & Hamilton, L. (2004) Models for Value-Added Models of Teacher Effects. *Journal of Educational and Behavioral Statistics*, 29(1), pp. 67-101.

McCaffrey, D., Lockwood, J.R., Koretz, D., & Hamilton, L. (2003) Evaluating Value-Added Models for Teacher Accountability. RAND MG-158, Santa Monica.

Monk, D. (1994). Subject Area Preparation of Secondary Mathematics and Science Teachers and Student Achievement. *Economics of Education Review*, 13(2), 125–145.

Nye, B., Konstantopoulos, S., & Hedges, L. (2004) How Large are Teacher Effects? *Educational Evaluation and Policy Analysis*, 26(3), pp. 237-257. (not sure about this reference)

Rivkin, S., Hausheck, E., & Kain, J (2004) Teachers, Schools, and Academic Achievement. *Econometrica*, 73(2), pp. 417-458.

Rockoff, J. (2004) The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data *The American Economic Review*, Vol. 94, No. 2, Papers and Proceedings of the One Hundred Sixteenth Annual Meeting of the American Economic Association San Diego, CA, January 3-5, 2004. (May, 2004), pp. 247-252.

Rowan, B., Correnti, R., and Miller, R. (2002). What Large-Scale Survey Research Tells Us About Teacher Effects on Student Achievement: Insights from the Prospects Study of Elementary Schools. *Teachers College Record*, 104(8), 1525–67.

Smith, T., Desimone, L & Ueno, K (2005) "Highly Qualified" to Do What? The Relationship Between NCLB Teacher Quality Mandates and the Use of Reform-Oriented Instruction in Middle School Mathematics. *Educational Evaluation and Policy Analysis*, Vol. 27, No. 1, pp. 75-109.

Todd, P. and Wolpin, K. (2003). “On the Specification and Estimation of the Production Function for Cognitive Achievement.” *Economic Journal*, 113(485), 3-33.

Wright, S., Horn, S., & Sanders, W. (1997). Teacher and Classroom Context Effects on Student Achievement: Implications for Teacher Evaluation. *Journal of Personnel Evaluation in Education*, 11, 57–6.