

Course 881.29: Investment Decisions in Schooling (1/20/16-3/2/16)

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This course deals with the empirical analysis of schooling investment decisions, with a focus on higher education demand. After presenting the Human Capital and signaling models, we will review the estimation of the returns to schooling and the modeling of educational choices through dynamic structural frameworks. Then, we will focus on post-secondary schooling decisions and examine the determinants of college attendance and major choice, with an emphasis on the role played by expected monetary returns, (imperfect) information, preferences and credit constraints.

The validation of the course will be through the presentation and discussion of a research paper, and on the production of a short research proposal (less than 5 pages long).

Tentative course outline and reading list:

Lectures 1 and 2: Human Capital and signaling models

Becker, G. (1993), *Human Capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.

Bedard, K. (2001), "Human capital versus signaling models: university access and high school dropouts", *Journal of Political Economy*, Vol. 109, No.4, pp. 749-775.

Clark, D., and Martorell, P. (2014), "The signaling value of a high school diploma", *Journal of Political Economy*, Vol. 122, No.2, pp. 282-318.

Ben-Porath, Y. (1967), "The production of human capital and the life cycle of earnings", *Journal of Political Economy*, Vol.75, No.4, pp.352-365.

Fang, H. (2006), "Disentangling the college wage premium: estimating a model with endogenous education choices", *International Economic Review*, Vol.47, No.4, pp.1151-1185.

Kroch, E. and Sjoblom, K. (1994), "Schooling as human capital or signal: some evidence", *Journal of Human Resources*, Vol. 29, No.1, pp. 156-180.

Lang, K., and Kropp, D. (1986), "Human capital versus sorting: the effects of compulsory attendance laws", *Quarterly Journal of Economics*, Vol.101, No.3, pp.609-624.

Spence, M. (1973), "Job market signaling", *Quarterly Journal of Economics*, Vol.87, No.3, pp.355-374.

Tyler, J.H., Murnane, R.J., and Willett, J.B. (2000), "Estimating the labor market signaling value of the GED", *Quarterly Journal of Economics*, Vol.115, No.2, pp.431-468.

Lecture 3: Returns to schooling

Angrist, J. and Krueger, A. (1991), "Does compulsory school attendance affect schooling and earnings?", *Quarterly Journal of Economics*, Vol.106, No.4, pp979-1014.

Card, D. (2001), "Estimating the return to schooling: Progress on some persistent econometric problems", *Econometrica*, Vol.69, No.5, pp.1127-1160.

Carneiro, P. and Lee, S. (2011), "Trends in quality-adjusted skill premia in the United States, 1960-2000", *American Economic Review*, Vol.101, No.6, pp.2309-2349.

Heckman, J. J., Lochner, L.J., and Todd, P.E. (2006), "Earnings functions, rates of return and treatment effects: The Mincer equation and beyond", *Handbook of the Economics of Education*, Vol. 1, pp.307-458.

Mincer, J. (1974), *Schooling, Experience and Earnings*, New York: NBER.

Lecture 4: Dynamic structural models of educational choices

Belzil, C. (2007), "The returns to schooling in structural dynamic models: a survey", *European Economic Review*, Vol.51, pp.1059-1105.

Belzil, C. and Hansen, J. (2002), "Unobserved ability and the return to schooling", *Econometrica*, vol.70, No.5, pp. 2075-2091.

Heckman, J.J., and Navarro, S. (2007), "Dynamic discrete choice and dynamic treatment effects", *Journal of Econometrics*, Vol.136, No.2, pp. 341-396.

Keane, M. P., and Wolpin, K.I. (1997), "The career decisions of young men", *Journal of political Economy*, Vol.105, No.3, pp.473-522.

Todd, P. and Wolpin, K. (2006), "Assessing the impact of a school subsidy program in Mexico: using a social experiment to validate a dynamic behavioral model of child schooling and fertility", *American Economic Review*, vol. 96, No.5, pp.1384-1417.

Lecture 5: College attendance decisions

Bettinger, E. P., Long, B., Oreopoulos, P. , and Sanbonmatsu, L. (2012), "The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment", *Quarterly Journal of Economics*, vol.127, pp. 1205–1242.

Carneiro, P., Hansen, K., and Heckman, J.J. (2003), " Estimating distributions of treatment effects with an application to the returns to schooling and measurement of the effects of uncertainty on college choice ", *International Economic Review*, Vol. 44, No.2, pp. 361 - 422 .

Cunha, F., Heckman, J. and Navarro, S. (2005), "Separating uncertainty from heterogeneity in life cycle earnings", *Oxford Economic Papers*, vol.57, pp. 191-261.

D'Haultfoeuille, X., and Maurel, A. (2013), "Inference on an extended Roy model ,with an application to schooling decisions in France", *Journal of Econometrics*, Vol. 174, pp. 95 - 106.

Pallais, A. (2015), "Small differences that matter: mistakes in applying to college", *Journal of Labor Economics*, Vol. 33, pp. 493-520.

Pistolesi, N. (2014), The effect of advising students at college entrance: Evidence from a French university reform. Mimeo, Toulouse School of Economics.

Willis, R. J., and Rosen, S. (1979), "Education and self-selection", *Journal of Political Economy*, Vol. 87, No. 5, pp. 7-36.

Lecture 6: College major choices

Altonji, J., Arcidiacono, P. and Maurel, A. (2015), "The analysis of field choice in college and graduate school: determinants and wage effects", NBER Working Paper 21655. Forthcoming in the *Handbook of the Economics of Education, Volume 5*.

Altonji, J., Blom, E. and Meghir, C. (2012), "Heterogeneity in human capital investments: high school curriculum, college major, and careers", *Annual Review of Economics*, Vol. 4, pp. 185-223.

Arcidiacono, P. (2004), "Ability sorting and the returns to college major", *Journal of Econometrics*, Vol.121, No.1, pp.343-375.

Arcidiacono, P., Hotz, V.J. and Kang, S. (2012), "Modeling college major choices using elicited measures of expectations and counterfactuals", *Journal of Econometrics*, Vol. 166, pp. 3 - 16.

Beffy, M., Fougere, D. and Maurel, A. (2012), "Choosing the field of study in postsecondary education: do expected earnings matter?", *Review of Economics and Statistics*, Vol. 94, No. 1, pp. 334 - 347.

De Giorgi, G., Pellizzari, M. and Redaelli, S. (2010), "Identification of social interactions through partially overlapping peer groups", *American Economic Journal: Applied Economics*, vol. 2, pp. 241–275.

Stinebrickner, T. R., and Stinebrickner, R. (2014), "A major in science? initial beliefs and final outcomes for college major and dropout", *Review of Economic Studies*, Vol. 81, pp. 426-472.

Wiswall, M., and Zafar, B. (2015), "Determinants of college major choice: identification using an information experiment", *forthcoming in the Review of Economic Studies*.

Zafar, B. (2013), "College major choice and the gender gap", *Journal of Human Resources*, Vol. 48, pp. 545-595.

Lecture 7 : The role of credit constraints

Acemoglu, D. and Pischke, J-S. (2001), "Changes in the wage structure, family income, and children's education", *European Economic Review*, Vol.45, No.4, pp.890-904.

Becker, G. (1967), *Human Capital and the Personal Distribution of Income: An Analytical Approach*, Woytinsky Lecture No. 1., Ann Arbor, Mich.: Inst. Public Admin.

Cameron, S. and Taber, C. (2004), "Estimation of educational borrowing constraints using returns to schooling", *Journal of Political Economy*, vol.112, No.1, pp. 132-182.

Carneiro, P., and Heckman, J.J. (2002), "The evidence on credit constraints in post-secondary schooling", *The Economic Journal*, Vol.112, pp.705-734.

Keane, M.P., and Wolpin, K.I. (2001), "The effect of parental transfers and borrowing constraints on educational attainment", *International Economic Review*, Vol. 42, No.4, pp.1051-1103.