

Dr. Fernando Saltiel
Department of Economics
McGill University
426 Leacock Building
Email: fernando.saltiel@mcgill.ca

ECON 641 Labour Economics: Economics of Human Capital

Class Time: Tuesdays and Thursdays, 2:35-3:55pm. Individual (virtual) office hours can be scheduled through e-mail.

Class Delivery: Since students may be in different time zones due to the pandemic, I am pre-recording the class lectures. While you will not be able to directly ask questions in class, I encourage you to contact me through e-mail and/or attend virtual office hours for any questions that may arise and for further engagement with the material. Recorded lectures will be uploaded to MyCourses prior to each corresponding class session.

Communication: E-mails should be sent from your official McGill e-mail address and include [ECON 641] in the subject line. I aim to reply to e-mails within 24 hours, except on weekends.

Prerequisite: The course is suitable for both M.A. and Ph.D. students.

Course Overview: This syllabus covers a course in the economics of human capital. The course contains two parts. In the first part, which covers three-fourths of the semester, we analyze the returns to human capital accumulated during formal schooling. We first examine the extensive literature on the returns to education, where we analyze different identification strategies, focusing on OLS, instrumental variable and regression discontinuity approaches. We then examine the returns to specific investments, including the returns to early-life cognitive and non-cognitive skills, the returns to course-taking in high school, as well as the role of college majors and college quality in affecting labor market outcomes. We also examine the role of human capital as a potential driver of gender and racial wage gaps.

In the second part of the course, we examine the drivers of post-schooling wage growth. We first consider theoretical and empirical evidence on the returns to labor market experience and tenure, along with the importance of job displacement. We also examine the returns of tasks in the labor market, and present empirical evidence regarding their importance. If time permits, we will further analyze a growing literature on the role of firms in driving labor market outcomes and wage inequality.

This course presumes that students have successfully completed coursework in econometrics and a course in intermediate microeconomics. The course will not be based on a book, but rather on reading the papers assigned in each section. The reading list presented below contains readings that will be discussed in the lectures as well as other references for interested students. Additional papers may be added to each section during the semester.

Evaluation: Your grade in this course will depend on your performance on four problem sets and a final exam. The grade is determined as follows:

Problem Sets (60 %): Problem sets encompass material covered in the class lectures and require reading additional papers. Each problem set will also include empirical exercises aimed at helping

you become familiar with implementing the various empirical techniques taught in the course. Given the remote delivery of this course, the problem sets will also include a number of questions to ensure you have followed the assigned readings in each section. Problem sets will be distributed ten days in advance of their due date. Each problem set accounts for 15% of the final grade.

Tentative Problem Set Dates

1. Due Tuesday 2/9. Distributed on Thursday 1/28.
2. Due Tuesday 3/9. Distributed on Thursday 2/23.
3. Due Tuesday 4/6. Distributed on Thursday 3/25.
4. Due Tuesday 4/20. Distributed on Thursday 4/8.

Final Exam (40%): The final exam will be a take-home exam, which can be completed over one week (handed out on Thursday 4/15, and due on Thursday 4/22). It will include theoretical and empirical questions encompassing all the topics covered in class.

McGill Policy Statements

Academic Integrity: McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).

Language of Submission: In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Copyright of Lectures Statement: All slides, video recordings, problem sets and lecture notes remain the instructor's intellectual property. You may use these only for purposes of your own learning, but you are not permitted to disseminate or share these materials. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.

Extraordinary Circumstances Statement: In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

Accessibility and Policy: As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the Office for Students with Disabilities, 514-398-6009.

Course Outline

Part I: Returns to Schooling and Human Capital Accumulation (20 lectures)

I. Returns to Schooling, Empirical Approaches and Credit Constraints **(8 lectures)**

Mincer, J. (1962). "Investment in Human Capital and Personal Distribution of Income," *Journal of Political Economy*, Vol. 66, No. 4, pp. 281-302.

Ben Porath, Y. (1976). "The Production of Human Capital and the Life Cycle of Earnings," *Journal of Political Economy*, Vol. 75, 352-65.

J. Angrist and A. Krueger, "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics*, CVI(4), 1991, pp. 979-1014.

O. Ashenfelter and A. Krueger. 1994. "Estimates of the Economic Return to Schooling from a New Sample of Twins." *American Economic Review*, 84(5), 1994, pp. 1157-73.

Card, D. (2001) "Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems," *Econometrica*, 69(5), 1127-1160.

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

S. Zimmerman. (2013) "The Returns to College Admission for Academically Marginal Students," *Journal of Labor Economics*. October 2014, pp. 711-754

Ost, B., Pan, W., & Webber, D. (2018). The returns to college persistence for marginal students: Regression discontinuity evidence from university dismissal policies. *Journal of Labor Economics*, 36(3), 779-805.

Carneiro, Pedro, and James J. Heckman. "The evidence on credit constraints in post-secondary schooling." *The Economic Journal* 112.482 (2002): 705-734.

Belley, Philippe, and Lance Lochner. "The changing role of family income and ability in determining educational achievement." *Journal of Human capital* 1.1 (2007): 37-89.

Kinsler, Josh, and Ronni Pavan. "Family income and higher education choices: The importance of accounting for college quality." *Journal of human capital* 5.4 (2011): 453-477.

II. Returns to Skills in the Labor Market **(4 lectures)**

Heckman, J., J. Stixrud and S. Urzua (2006). "The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior," *Journal of Labor Economics*, 24(3): 411-482, (July).

Lindqvist, E., & Vestman, R. (2011). The labor market returns to cognitive and noncognitive ability: Evidence from the Swedish enlistment. *American Economic Journal: Applied Economics*, 3(1), 101-28.

Castex, G., & Kogan Dechter, E. (2014). The changing roles of education and ability in wage determination. *Journal of Labor Economics*, 32(4), 685-710.

Deming, D. J. (2017). The growing importance of social skills in the labor market. *The Quarterly Journal of Economics*, 132(4), 1593-1640.

Goodman, J. (2019). The labor of division: Returns to compulsory high school math coursework. *Journal of Labor Economics*, 37(4), 1141-1182.

III. Returns to Investments in High School **(2 lectures)**

Heckman, J. J., & LaFontaine, P. A. (2010). The American high school graduation rate: Trends and levels. *The Review of Economics and Statistics*, 92(2), 244-262.

Altonji, J. G., Blom, E., & Meghir, C. (2012). Heterogeneity in human capital investments: High school curriculum, college major, and careers. *Annual Review of Economics*, 4(1), 185-223.

J. Tyler, R. Murnane, and J. Willett. (2000) "Estimating the Impact of the GED on the Earnings of Young Dropouts Using a Series of Natural Experiments," *Quarterly Journal of Economics*, May, 2000, pp. 431-69.

Heckman, J. J., Humphries, J. E., LaFontaine, P. A., & Rodriguez, P. L. (2012). Taking the easy way out: How the GED testing program induces students to drop out. *Journal of Labor Economics*, 30(3), 495-520.

Hanushek, E. A., Schwerdt, G., Woessmann, L., & Zhang, L. (2017). General education, vocational education, and labor-market outcomes over the lifecycle. *Journal of Human Resources*, 52(1), 48-87.

Bertrand, M., Mogstad, M., & Mountjoy, J. (2019). Improving Educational Pathways to Social Mobility: Evidence from Norway's "Reform 94" (No. w25679). National Bureau of Economic Research.

IV. Returns to College Majors **(2 lectures)**

Canaan, S., & Mouganie, P. (2018). Returns to education quality for low-skilled students: Evidence from a discontinuity. *Journal of Labor Economics*, 36(2), 395-436.

Altonji, J. G., Arcidiacono, P., & Maurel, A. (2016). The analysis of field choice in college and graduate school: Determinants and wage effects. In *Handbook of the Economics of Education* (Vol. 5, pp. 305-396). Elsevier.

Hastings, J. S., Neilson, C. A., & Zimmerman, S. D. (2013). Are some degrees worth more than others? Evidence from college admission cutoffs in Chile (No. w19241). National Bureau of Economic Research.

Kirkeboen, L. J., Leuven, E., & Mogstad, M. (2016). Field of study, earnings, and self-selection. *The Quarterly Journal of Economics*, 131(3), 1057-1111.

V. Returns to College Quality (2 lectures)

Hoekstra, M. (2009). The effect of attending the flagship state university on earnings: A discontinuity-based approach. *The Review of Economics and Statistics*, 91(4), 717-724.

Zimmerman, S. D. (2019). Elite colleges and upward mobility to top jobs and top incomes. *American Economic Review*, 109(1), 1-47.

MacLeod, W. B., Riehl, E., Saavedra, J. E., & Urquiola, M. (2017). The big sort: College reputation and labor market outcomes. *American Economic Journal: Applied Economics*, 9(3), 223-61.

Dale, S. B., & Krueger, A. B. (2014). Estimating the effects of college characteristics over the career using administrative earnings data. *Journal of Human Resources*, 49(2), 323-358.

Hickman, Brent and Mountjoy, Jack. 2020. The Returns to College(s): Estimating Value-Added and Match Effects in Higher Education. mimeo.

VI. Gender Wage Gaps (2 lectures)

Altonji, J. G., & Blank, R. M. (1999). Race and gender in the labor market. *Handbook of Labor Economics*, 3, 3143-3259.

Mulligan, C. B., & Rubinstein, Y. (2008). Selection, investment, and women's relative wages over time. *The Quarterly Journal of Economics*, 123(3), 1061-1110.

M. Bertrand. "New Perspectives on Gender," *Handbook of Labor Economics*, 2010, vol.4B, pp. 1543-90.

K. Lang and M. Manove, "Education and Labor Market Discrimination," *American Economic Review* 95(4), 2011, pp. 1327-40.

Goldin, C. (2014). A grand gender convergence: Its last chapter. *American Economic Review*, 104(4), 1091-1119.

Blau, F. D., & Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature*, 55(3), 789-865.

Part II: Post-Schooling Wage Growth (6 lectures)

I. Returns to Labor Market Experience and Firm Tenure (2 lectures)

E. Lazear, "Why Is There Mandatory Retirement?" *Journal of Political Economy*, 87(6), 1979, pp. 1261-84.

R. Topel and M. Ward, "Job Mobility and the Careers of Young Men," *Quarterly Journal of Economics*, May 1992, pp. 439-479

R. Topel, "Specific Capital, Mobility, and Wages: Wages Rise with Job Seniority." *Journal of Political Economy*, 99(1), 1991, pp. 145-76.

J. Altonji and N. Williams, "Do Wages Rise with Job Seniority? A Reassessment," *Industrial and Labor Relations Review*, April 2005, Vol. 58, no. 3, pp.

Dustmann, C., & Meghir, C. (2005). Wages, experience and seniority. *The Review of Economic Studies*, 72(1), 77-108.

Lagakos, David, Benjamin Moll, Tommaso Porzio, Nancy Qian, and Todd Schoellman. "Life cycle wage growth across countries." *Journal of Political Economy* 126, no. 2 (2018): 797-849.

II. Consequences of Job Displacement (2 lectures)

L. Jacobson, R. LaLonde, and D. Sullivan, "Earnings Losses of Displaced Workers," *American Economic Review*, September 1993, pp. 685-709.

Neal, D. (1995). Industry-specific human capital: Evidence from displaced workers. *Journal of Labor Economics*, 13(4), 653-677.

Lachowska, M., Mas, A., & Woodbury, S. A. (2018). Sources of displaced workers' long-term earnings losses (No. w24217). National Bureau of Economic Research.

Flaen, A. B., Shapiro, M. D., & Sorkin, I. (2019). Reconsidering the consequences of worker displacements: Firm versus worker perspective. *American Economic Journal: Macroeconomics* 11(2): 193-227, 2019.

III. The Task Framework in the Labor Market (2 lectures)

Autor, D. H., Levy, F., & Murnane, R. J. (2003). The skill content of recent technological change: An empirical exploration. *The Quarterly Journal of Economics*, 118(4), 1279-1333.

Spitz-Oener, A. (2006). Technical change, job tasks, and rising educational demands: Looking outside the wage structure. *Journal of Labor Economics*, 24(2), 235-270.

Gathmann, C and U. Schonberg (2010), "How general is human capital? A task based approach," *Journal of Labor Economics*, 28: 1-50.

Acemoglu, D., & Autor, D. (2011). Skills, tasks and technologies: Implications for employment and earnings. In *Handbook of labor economics* (Vol. 4, pp. 1043-1171). Elsevier.

Autor, D. & Dorn, D. (2013). The growth of low-skill service jobs and the polarization of the US labor market. *American Economic Review*, 103(5), 1553-97.

Autor, D. H., & Handel, M. J. (2013). Putting tasks to the test: Human capital, job tasks, and wages. *Journal of Labor Economics*, 31(S1), S59-S96.

IV. The Importance of Firms in the Labor Market (if time permits)

Abowd, John, Francis Kramarz, and David N. Margolis. 1999. "High Wage Workers and High Wage Firms," *Econometrica*. 67 (2). 251-333.

Card, D., Heining, J., & Kline, P. (2013). Workplace Heterogeneity and the Rise of West German Wage Inequality. *The Quarterly Journal of Economics*, 128(3), 967-1015.

E. Barth, A. Bryson, J. Davis, and R. Freeman (2016), "It's Where You Work: Increases in Earnings Dispersion across Establishments and Individuals in the U.S.," *Journal of Labor Economics*, 34(S2)

Engbom, N., & Moser, C. (2017). Returns to education through access to higher-paying firms: Evidence from US matched employer-employee data. *American Economic Review*, 107(5), 374-78.

Song, J., Price, D. J., Guvenen, F., Bloom, N., & Von Wachter, T. (2018). Firming up inequality. *The Quarterly Journal of Economics*, 134(1), 1-50.

Card, D., Cardoso, A. R., Heining, J., & Kline, P. (2018). Firms and labor market inequality: Evidence and some theory. *Journal of Labor Economics*, 36(S1), S13-S70.