

**Miles Corak**  
**Department of Economics**

365 Fifth Avenue, Room 6203.12  
New York, NY 10016-4309  
212.817.8706

mcorak@gc.cuny.edu  
MilesCorak.com @MilesCorak



---

## Economics 87100

### LABOUR ECONOMICS I

Spring 2019

---

The class meets in Room 4433 on Wednesday afternoons from 2:00 to 4:00 pm according to the following schedule (which is subject to adjustments according to the professor's perception of student needs and other opportunities and includes the assigned student for each in-class presentation).

January 30	0. Administration
February 6	1. Research Design -- Randomized Controlled Trials
February 13	2. Labour Supply – the intensive margin
February 20	3. Labour Supply – the extensive margin
February 27	4. Labour Supply – econometric analysis
March 6	5. Individual meetings, no class
March 13	6. Labour Supply – case study and review
March 20	7. Job search and unemployment – Will
March 27	8. Labour demand and minimum wage – Twisha
April 3	9. Human capital, schooling, and earnings – Hieu
April 10	10. Technical change and inequality – Luis
April 17	11. Globalization and inequality – Ke
April 24	12. Spring Recess
May 1	13. Human Capital, post schooling investments
May 8	14. Human Capital, post schooling investments
May 15	15. Reading Day

---

## **Course Description**

The course is intended for graduate students of economics who have had exposure to microeconomic theory and econometrics during their undergraduate or graduate studies. Upon completion of the course students will have the skills and knowledge associated with an advanced level in labour economics. They will be able to critically read public policy documents dealing with labour market issues, and many related articles published in academic journals. Students will have also developed most of the skills needed to formulate and complete a research project in applied labour market analysis.

## **General Course Objectives**

Upon completion of this course students will be familiar with: (1) the principles of economic theory used to understand contemporary labour markets; (2) the use of theory to construct empirical models of the most important issues in labour market analysis; and (3) the most common econometric methods, identification strategies, and data sets used in applied analyses of these issues. The course involves developing knowledge of both economic theory and empirical methods, but also of the institutions and the data needed to use theory and econometrics to understand labour markets in the OECD countries.

Students will read, summarize, and critically assess texts in microeconomic theory and econometric techniques, as well as develop a familiarity with the basic structure of labour markets in rich countries and the types of data used to study them. They will complete an assignment examining a case study of a policy relevant issue. With guidance from the instructor, and in conjunction with their peers, each student will lead a class and prepare a term paper on an issue they find of interest and relevant to contemporary public policy.

## **Learning Goals and Outcomes**

1. To develop a knowledge of microeconomic theory used to understand contemporary labour markets

Students will be introduced to the basic principles of microeconomic theory through lectures based upon readings they will do from standard textbooks, but also from some of the most important journal articles and books that have influenced the discipline.

2. To use theory to construct empirical models of the most important issues in labour market analysis

Students will enhance their familiarity with microeconomic theory and its use to construct empirically testable models through assignments and presentations dealing with contemporary issues in public policy. Students will work in small groups and individually in the preparation of presentations and assignments.

3. To understand the most common econometric methods, identification strategies, and data sets used in applied analyses of labour market issues

Students will be introduced to the most common econometric techniques and identification strategies through lectures based upon readings they will do from standard textbooks and the most influential journal articles. Students will develop a sense of the most common data used in the study of labour markets in the OECD through a series of assignments and presentations.

Assignments and presentations will also be used as a means of progressively completing a term paper, covering all three of these objectives. Assignments and term papers must be submitted to the professor by the beginning of class, they cannot be slid under the office door or submitted at any other time.

## **Teaching Methods**

The successful student will take full advantage of the opportunities provided in class. Attending classes, handing in assignments on time, and consistently contributing to the class in all activities—whether group, pair, or individual—will all be considered as measures of success in effectively using your class time. The classroom is intended to be a safe place where students can question and practice, receive feedback from both the instructor and their peers, and rely on their classmates as partners and resources in the learning process.

The instructor's role is to provide resources, guidance, and support, but students are responsible for engaging actively in the process. Students are responsible for completing readings before the class, being prepared for discussions, submitting assignments on time, volunteering material for consideration by the class, offering feedback to their classmates, and constructively incorporating the feedback they receive from both classmates and the instructor into their own work. Working individually or in groups, and in conjunction with the professor, students will also make in-class presentations of early drafts of their term papers.

## **Resources**

There is one required text for the course.

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg (2014). *Labor Economics*. Second Edition. Cambridge Massachusetts: The MIT Press.

This text will serve as your primary resource for readings, some assignments, and presentations. It will also often be the starting point for some of the lectures. Other texts will be relied upon in order to introduce more advanced or supplementary material.

Students, particularly those who have not previously studied labour market economics, may wish to consult one or more undergraduate textbooks.

A couple of examples include:

George Borjas (2016). *Labor Economics*. Seventh edition. McGraw-Hill.

Ronald G. Ehrenberg and Robert S. Smith (2018). *Modern Labor Economics: Theory and Public Policy*. Thirteenth edition. Routledge.

Reference may also be made throughout the course to a number of the essays in the following texts:

Orley C. Ashenfelter and David Card, editors (1999). *Handbook of Labor Economics*, Volume 3A. Amsterdam: Elsevier North Holland.

Orley C. Ashenfelter and David Card, editors (2011). *Handbook of Labor Economics*, Volume 4A. Amsterdam: Elsevier North Holland.

Two essays in these volumes will be of particular interest with reference to the empirical methods used in labour economics. The first chapter in Volume 3A by Joshua D. Angrist and Alan B. Krueger, “Empirical Strategies in Labor Economics,” pages 1277-1366, offers an important backdrop for the course. A follow up essay by John DiNardo and David S. Lee in Volume 4A may also be of interest: John DiNardo, David S. Lee, “Program Evaluation and Research Designs,” pages 463-536. These chapters offer expositions and critical overviews of some of the most important identification strategies used in modern labour economics, but they also presuppose a certain level of econometric knowledge.

Another equally important and related text that focuses on the most important empirical methods used by labour economists, and that directly addresses and offers a clear exposition of some methods covered in the course is:

Joshua D. Angrist and Jörn-Steffen Pischke (2009). *Mostly Harmless Econometrics: An Empiricist’s Companion*. Princeton: Princeton University Press

This text details many of the important identification strategies that are overviewed in the two *Handbook of Labor Economics* chapters, and as such offers students important econometric background. Depending upon their background students may also wish to rely upon standard econometric texts to support their work in this course.

The course will also rely upon articles in standard economic journals, all but the most recent of which can be obtained through JSTOR, an electronic catalogue of academic journals available through the University.

## Assessment Methods

The final mark will be determined as follows

Informed engagement:	10 %
Case study assignment:	20 %
Presentation:	10 %
Paper, first draft:	10 %
Paper, second draft:	30 %
Final test:	20 %

A mark below 65% corresponds to a C, 65 to 69% to a B- , 70 to 74% to a B, 75 to 79% to a B+ , and in a similar way 80 to 84%, 85 to 89%, and 90 or above to respectively A- , A , and A+ . The passing grade for the course is a 65 %.

Please note that attendance at courses is compulsory, and that professors may exclude from the final test any students whose attendance is unsatisfactory. Further, please note that students who do not submit the first and second drafts of the term paper according to the specified deadlines, without valid and appropriate documentation being given to the instructor, will not be permitted to write the final test.

### **Informed engagement (10%)**

Emphasis is given to your engagement in the course and the activities of the class. This is best demonstrated by motivated and informed involvement. This requires attending all scheduled classes, but also involves having completed the readings before the class and being prepared to engage in discussion. It involves your contributions to group work, completion of assignments by the required date, and attention to feedback from your peers and instructor.

But obviously if you are not present you cannot participate, and regular attendance is therefore expected as is punctually arriving for the beginning of class. Appropriate documentation justifying an extended absence is required.

### **Case study assignment (20%)**

The assignment is intended to develop your familiarity with, and use of, the standard (static) theory of labour supply to evaluate the impacts of an important public policy—the Earned Income Tax Credit, or simply the EITC—supporting the low-income population in the United States. The assignment has three parts, each due in three successive weeks.

The assignment will be distributed as a separate document. It requires students to submit a hardcopy of a memo at the beginning of class on February 20th for Part 1, February 27th for Part 2, and electronically for Part 3 to arrive in the Professor’s inbox on or before March 6th at 2:00pm. Each answer should include a properly formatted bibliography of all sources used,

which certainly should include articles and resources on the course reading list, but likely others, including web-based resources. In addition, each successive answer should incorporate previous answers, revised and improved in a way that reflects feedback from the instructor and your classmates. To be clear, this implies, for example, that the last submission of the assignment on March 6th will respond to the question in Part 3 as the concluding part in a complete three-part essay of 10 to 20 pages in length.

Students are free to work individually, in pairs or small groups, or even collectively, in developing your answers, and you are free to exchange resources with your classmates. But all assignments must be written and submitted individually, with appropriate acknowledgement of any help received.

### **Presentation, paper first draft, paper final draft (10% + 10% + 30%)**

Students are required to complete a term paper, submit a first draft of the paper, and also engage one-on-one with the instructor.

The first draft of the paper is due at any point after students have completed their in-class presentation, but no later than April 24th. The in-class presentation must be preceded by a one-on-one discussion with the professor at a mutually convenient time but no later than five days before the scheduled in-class presentation. At this meeting students will mock up (that is to say, actually give) their presentation and receive feedback from the instructor, using this experience to improve their class presentation. If at this meeting the instructor judges that the student has not made sufficient progress, the student's in-class presentation will be cancelled and the student will receive a mark of zero for this portion of the course. The meeting and class presentation should be seen as a stepping stone toward completing the first draft of the paper, to be submitted electronically to the professor at < mcorak@gc.cuny.edu > .

The professor will offer feedback on the first draft within one week of receiving it from the student, and the final (second) draft of the paper is due before 4:00pm on May 15th, to be submitted electronically to the professor at < mcorak@gc.cuny.edu > as a pdf properly formatted and edited following accepted academic standards. Papers dated as arriving past this deadline will not be read, and students will receive a zero for this portion of the course

In conjunction with the professor, students will collectively determine their presentation and paper topics using the chapters of the textbook as a starting point. This current and final draft of the course outline reflects this conversation with students, and includes a complete list of required readings as well as the schedule for the in-class presentations.

### **Final test (20%)**

A final test will be conducted toward the end of the course to assess students' knowledge of the core course materials. The structure and deadline of this test will be negotiated with the students at some point during the second half of the course.

## Required readings

### 1. Randomized Controlled Trials, and the meaning and significance of “identification strategy”

#### (a) Overview and competing perspectives

Joshua D. Angrist and Alan B. Krueger, “Empirical Strategies in Labor Economics.” In Orley C. Ashenfelter and David Card, editors (1999). *Handbook of Labor Economics*, Volume 3A. Amsterdam: Elsevier North Holland. pp. 1277-1366.

John DiNardo and David S. Lee, “Program Evaluation and Research Designs.” In Orley C. Ashenfelter and David Card, editors (2011). *Handbook of Labor Economics*, Volume 4A. Amsterdam: Elsevier North Holland. pp. 463-536.

Ester Duflo (2017). “The Economist as Plumber.” *American Economic Review*. 107 No. 5, 1-26.

Angus Deaton and Nancy Cartwright (2018). “Understanding and misunderstanding randomized controlled trials.” *Social Science and Medicine*. 210, 2-21.

Christopher J. Ruhm (2018). “Shackling the Identification Police?” National Bureau of Economic Research, Working Paper 25320.

#### (b) Randomized Controlled Trials and a case study

Joshua D. Angrist and Jörn-Steffen Pischke (2009). *Mostly Harmless Econometrics: An Empiricist’s Companion*. Princeton: Princeton University Press. Chapter 2.

Gary Burtless (1995). “The Case for Randomized Field Trials in Economic and Policy Research.” *Journal of Economic Perspectives*. Vol. 9 No. 2 (Spring), pages 63-84.

James J. Heckman and Jeffrey A. Smith (1995). “Assessing the Case for Social Experiments.” *Journal of Economic Perspectives*. Vol. 9 No. 2 (Spring), pages 85-110.

Charles Michalopoulos, Doug Tattler, Cynthia Miller, Philip K. Robins, Pamela Morris, David Gyarmati, Cindy Redcross, Kelly Foley, Reuben Ford (2002). *Self-Sufficiency Project (SSP) – Making Work Pay: Final Report on the Self-Sufficiency Project for Long-Term Welfare Recipients*. Ottawa: Social Research and Demonstration Corporation. Executive Summary pages ES-1 to ES-26, and Chapter 1. Available at <http://www.srdc.org/media/11007/SSP54.pdf>

David Card and Dean R. Hyslop (2005). “Estimating the Effects of a Time-Limited Earnings Subsidy for Welfare-Leavers.” *Econometrica*. Vol. 73, No. 6 (Nov., 2005), pp. 1723-1770.

## 2. Labour Supply

### (a) The Neoclassical Model of Labour Supply

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 1.

Angus Deaton and John Muelbauer (1980). *Economics and Consumer Behaviour*. Cambridge: Cambridge University Press. Chapter 1, especially pages 3 to 14, and Chapter 4, especially pages 86 to 108.

Robert Moffitt (1990). "The Econometrics of Kinked Budget Constraints." *Journal of Economic Perspectives*. Vol. 4 No. 2 (Spring), pages 119-139.

J.R. Hicks (1946). *Value and Capital*, second edition. Oxford: Oxford University Press, pages 35-7 and the Mathematical Appendix, sections 1-12.

Y. Ben-Porath (1973). "Labor Force Participation Rates and the Supply of Labor." *Journal of Political Economy*. Vol. 81, pages 697-704.

### (b) Empirical Studies

Michael P. Keane (2011). "Labor Supply and Taxes: A Survey." *Journal of Economic Literature*. Vol. 49, No. 4, pages 961-1075.

Richard Blundell and Thomas Macurdy (1999). "Labor supply: A review of alternative approaches." Chapter 27 in Ashenfelter and Card editors, *Handbook of Labor Economics*, Volume 3A, pages 1560 to 1695.

James Heckman (1993). "What has been learned about labor supply in the past twenty years?" *American Economic Review*. Vol. 83 no.2, pages 116-21.

Orley Ashenfelter and James Heckman (1974). "Estimating labor supply functions." In G. Cain and H. W. Watts (editors). *Income Maintenance and Labor Supply: Econometric Studies*. Chicago: Rand McNally. Pages 265-78.

James Heckman (1974). "Shadow prices, Market Wages, and Labor Supply." *Econometrica*. Vol. 42 (July), pages 679-94.

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 12, pages 744-787.

### 3. Job Search and Unemployment

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapters 5 and 9.

John A. List and Imran Rasul, “Field Experiments in Labor Economics.” In Orley C. Ashenfelter and David Card, editors (2011). *Handbook of Labor Economics*, Volume 4A. Amsterdam: Elsevier North Holland. pp. 103-228.

Nicolas Kiefer (1988). “Economic duration data and hazard functions.” *Journal of Economic Literature*. Vol. 26, pages 646-79.

Stephen W. Salant (1977). “Search Theory and Duration Data: A Theory of Sorts.” *Quarterly Journal of Economics*. Vol. 91 no. 1, pp. 39-57.

Kory Kroft, Fabian Lange, and Matthew J. Notowidigdo (2013). “Duration Dependence and Labor Market Conditions: Evidence from a Field Experiment.” *Quarterly Journal of Economics*. Vol. 128 no. 3, pages 1123-1167.

### 4. Labor Demand and Minimum Wages

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 2 and Chapter 12 pages 786-811.

David Card and Alan Krueger (1994). “Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania.” *American Economic Review*. Vol. 84 No. 4, pages 772-793.

Doruk Cengiz, Arindrajit Dube, Attila Lindner, and Ben Zipperer (2019). “The Effect of Minimum Wages on Low-Wage Jobs: Evidence from the United States Using a Bunching Estimator.” NBER Working Paper No. 25434.

Sylvia Allegretto, Arindrajit Dube, Michael Reich and Ben Zipperer (2013). *Credible Research Designs for Minimum Wage Studies*. Institute for Research on Labor and Employment, Working Paper No. 148-13.

Arindrajit Dube (2017). *Minimum Wages and the Distribution of Family Incomes*. IZA Discussion Paper No. 10572.

Arindrajit Dube, Jeff Jacobs, Suresh Naidu, and Siddharth Suri (2018). *Monopsony in Online Labor Markets*. NBER Working Paper 24416.

José Azar, Ioana Marinescu, and Marshall I. Steinbaum (2017, Revised February 2019). *Labor Market Concentration*. NBER Working Paper No. 24147.

## 5. Human capital, schooling, and earnings

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 4 (Focus on sections 2, 4, and 5).

Gary S. Becker (1993). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. Third Edition. Chicago: University of Chicago Press. Chapter III, “Investment in Human Capital: Effect on Earnings” pages 29 to 58.

Morgan, Stephen and Christopher Winship (2015). *Counterfactuals and Causal Inference*. Second Edition. New York: Cambridge University Press. Chapter 7.

Guido W. Imbens and Joshua D. Angrist (1994). “Identification and Estimation of Local Average Treatment Effects.” *Econometrica*. Vol. 62 No.2, pages 467-475.

Joshua D. Angrist, Guido W. Imbens, and Donald B. Rubin (1996). “Identification of Causal Effects Using Instrumental Variables.” *Journal of the American Statistical Association*. Vol. No. 91434, pages 444-455.

Philip Oreopoulos (2006). “Estimating Average and Local Average Treatment Effects of Education When Compulsory Schooling Laws Really Matter.” *American Economic Review*. Vol. 96 No. 1, pages 152-175.

## 6. Technical change and inequality

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 10.

Lawrence Katz and Kevin Murphy (1992). “Changes in Relative Wages 1963-1987: Supply and Demand Factors.” *Quarterly Journal of Economics*. Vol. 107, No. 1, pages 35-78.

Daron Acemoglu (2002). “Technical change, inequality and the Labor Market.” *Journal of Economic Literature*. Vol. 40 No. 1, pages 7-72.

David Card and John DiNardo (2002). “Skill Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles.” *Journal of Labor Economics*. Vol. 20 No.4, pages 733-783.

Maarten Goos, Alan Manning and Anna Salomons (2014). “Explaining job polarization: routine-biased technological change and offshoring.” *American Economic Review*. Vol. 104 No. 8, pages 2509-2526.

Paul Beaudry, David Green and Benjamin Sand (2016). “The great reversal in the demand for Skill and Cognitive Tasks.” *Journal of Labor Economics*. Vol. 34 No. S1, pages 199-247.

## 7. Globalization and inequality

Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. Second Edition. Chapter 11.

David H. Autor, David Dorn, and Gordon H. Hanson (2013). “The China syndrome: Local labor market effects of import competition in the United States.” *American Economic Review*. Vol. 103 No. 6, pages 2121-68.

David H. Autor, David Dorn, Gordon H. Hanson, and Jae Song (2014). “Trade adjustment: Worker-level evidence.” *Quarterly Journal of Economics*. Vol. 129 No. 4, pages 1799-1860.

Daron Acemoglu, David H. Autor, David Dorn, Gordon H. Hanson, and Brendan Price (2016). “Import competition and the great US employment sag of the 2000s.” *Journal of Labor Economics*. Vol. 34 No. S1, pages S141-S198.

David H. Autor, David Dorn, and Gordon H. Hanson (2016). “The China Shock: Learning from labor-market adjustment to large changes in trade.” *Annual Review of Economics*. Vol 8, 205-240.

## 8. Human capital, post schooling investments

Jacob Mincer (1974). *Schooling, Experience and Earnings*. New York: Columbia University Press for the National Bureau of Economic Research.

Gary S. Becker (1993). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. Third Edition. Chicago: University of Chicago Press. Chapter III, “Investment in Human Capital: Effect on Earnings” pages 29 to 58, and Addendum to Chapter IV section 3 “Human Capital and the Personal Distribution of Income: An Analytical Approach” pages 108 to 130.

Thomas Lemieux (2006). “The “Mincer Equation” Thirty Years After Schooling, Experience, and Earnings.” In S. Grossbard (ed.) *Jacob Mincer A Pioneer of Modern Labor Economics*. Boston, Massachusetts: Springer.