

## **ECON406: Paper Aim and Objectives**

This course will introduce students to the basic economic models and empirical strategies used in applied microeconomics. It includes theoretical and empirical literature on human capital, labor supply, economics of household, and selected topics on the structure of wages. This will build upon what they have previously learned in more theoretically based econometrics classes and show them how empirical methods can be applied to learn about and estimate (causal) relationships in the world around us.

A course goal is to equip you with the skills needed to conduct empirical research in labor and population economics broadly defined by investigating the use of a variety of econometric tools and practicing their implementation. Students will develop critical analysis and academic discourse skills through in-depth discussions of papers, presentations, and writing assignments.

ECON 371 (Microeconomic Theory) and ECON 375 (Econometrics) are both prerequisites for this course

### **Schedule**

Tuesday 1:00-3:00pm

Wednesday 3:00-4:00pm

**Instructor:** Dr Neha Agarwal

**Email:** [neha.agarwal@otago.ac.nz](mailto:neha.agarwal@otago.ac.nz)

**Office hours:** By email (or drop by if the door is open)

### **Assessment**

**A. Reaction to assigned readings (70%)** By 11:59pm on the day before each class, you will submit two to three “thought questions” related to the assigned reading(s). Your grade will reflect the quality of your thought questions and your preparedness in the class to discuss them. Details to be provided in the first lecture.

You may skip three **readings/papers** during the course without penalty.

#### **B. In-class paper presentation (30%)**

You will be assigned 3-4 papers to present to the class over the semester (1 paper per presentation). Roughly, the first 20 minutes should be a summary of the paper, with a format similar to a conference presentation. The last 30 minutes should be a discussion informed by your classmates’ submitted “thought questions” that critiques the paper and/or proposes directions for future research. Instruction and guidance on how to structure and present applied micro-econometric research will be provided early in the semester, before student presentations begin.

## Detailed Reading List

\*\* indicates primary reading and you must read the paper before class

### Intro to the course/Omitted Variable Bias and Variable Inclusion

Freedman, David A. (1991), "Statistical Models and Shoe Leather." *Sociological Methodology*, vol. 21, pp. 291–313. JSTOR, [www.jstor.org/stable/270939](http://www.jstor.org/stable/270939).

McCloskey, Deirdre N., and Stephen Ziliak. 1996. "The Standard Error of Regression." *Journal of Economic Literature* 34 (March): 97-114

J. Bradford DeLong and Kevin Lang (1992), "[Are All Economic Hypotheses False?](#)" *Journal of Political Economy* 100:6 (December), pp. 1257-72.

A. Krueger, "How Computers Have Changed the Wage Structure," *Quarterly Journal of Economics* 108 (February 1993).

J. DiNardo and J.S. Pischke, "The Returns to Computer Use Revisited: Have Pencils Changed the Wage Structure Too?," *Quarterly Journal of Economics*, 112, February 1997, pp. 291-303.

Joseph G. Altonji & Todd E. Elder & Christopher R. Taber, 2005. "[Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools](#)," *Journal of Political Economy*, University of Chicago Press, vol. 113(1), pages 151-184, February.

Oster, Emily "Unobservable Selection and Coefficient Stability: Theory and Evidence" *Journal of Business and Economics Statistics* pages 187-204. Stata code available on her website

Some useful online resources for methods:

<https://blogs.worldbank.org/impactevaluations/curated-list-our-postings-technical-topics-your-one-stop-shop-methodology-0>

<https://mixtape.scunning.com/index.html>

### Human Capital Theory/Models

Mincer, Jacob (1973), *Schooling, Experience and Earnings* (New York: Columbia University Press) Chapters 1-2

Murphy and Welch. "Empirical Age-Earnings Profiles." *Journal of Labor Economics* 1990.

Willis, Robert and Sherwin Rosen, "Education and Self-Selection," *Journal of Political Economy*, 87[5] Part 2, October 1979: S7-S36..

Card, David (1999), "The Causal Effect of Education on Earnings," in Orley A. Ashenfelter and David Card, eds., *Handbook of Labor Economics*, Vol. 3A (Amsterdam: North Holland).

Ben-Porath, Yoram (1967), "The Production of Human Capital and the Life Cycle of Earnings," *Journal of Political Economy* 75(3): 352–65.<sup>[1]</sup><sub>SEP</sub>

Heckman. "A Life-Cycle Model of Earnings, Learning and Consumption." *Journal of Political Economy* 1976.

Dynarski, Susan, "Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion," *American Economic Review*, 2003

### **Estimates of Returns to Education (IV- Weak & Imperfect Instruments/Twins/Sibling):**

David Card "Using Geographic Variation in College Proximity to Estimate the Return to Schooling." In L.N. Christofides, E.K. Grant, and R. Swidinsky, editors, *Aspects of Labor Market Behaviour: Essays in Honour of John Vanderkamp* Toronto: University of Toronto Press, 1995

\*\*Angrist, J.D. and A. Krueger, "Does Compulsory Schooling Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics*, 106[4], November 1991, 979-1014.

\*\*Ashenfelter, Orley C., and Alan B. Krueger (1994), "Estimates of the Economic Return to Schooling from a New Sample of Twins," *American Economic Review* 84(4): 1157–73.

Bound, John, David A. Jaeger, and Regina Baker (1995), "Problems with Instrumental Variables Estimation When the Correlation between the Instruments and the Endogenous Explanatory Variable Is Weak," *Journal of the American Statistical Association* 90(3): 442–50.

Bedard, Kelly and Elizabeth Dhuey. 2006. "The Persistence of early childhood maturity: International evidence of long-run age effects" *Quarterly Journal of Economics* <sup>[L]</sup><sub>[SEP]</sub> 21(4), 1437-1472.

\*\*Duflo, Esther (2001), "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review* 91(4): 795–813. (Classic DID paper)

### **Grossman Model/Non-Cognitive Skills/Human Capital before Age 5:**

Michael Grossman, *The Demand for Health: A Theoretical and Empirical Investigation*. New York: Columbia University Press for the National Bureau of Economic Research, 1972

Deming, Daniel (2017) "The Growing Importance of Social Skills in the Labor Market" *Quarterly Journal of Economics*

\*\*Dahl, Gordon and Lance Lochner. 2012. "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit" *American Economic Review* 102(5) 1927-1956.

\*\*H. Hoynes, D. Schanzenbach and D. Almond, "Long Run Impacts of Childhood Access to the Safety Net" *American Economic Review* 106(4) 903-934.

\*\*Douglas Almond "Is the 1918 Influenza Pandemic Over? Long-Term Effects of In Utero Influenza Exposure in the Post-1940 U.S. Population" *Journal of Political Economy* Vol. 114, No. 4 (August 2006), pp. 672-712.

Raj Chetty, Nathan Hendren, Patrick Kline, and Emmanuel Saez "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States", *Quarterly Journal of Economics* 129(3), 2014, 1553-1623

Demand for Schooling:

\*\*Shah, Manisha, and Bryce Millett Steinberg (2017). "Drought of opportunities: Contemporaneous and long-term impacts of rainfall shocks on human capital." *Journal of Political Economy* 125.2: 527-561.

Jensen, Robert (2010). "The (Perceived) Returns to Education and the Demand for Schooling." *Quarterly Journal of Economics* 125 (2): 515-548

### **Education Quality/ Education Production Function**

Altonji, J, "The Effects of High School Curriculum on Education and Labor Market Outcomes", *Journal of Human Resources*, 1995

\*Card, David and Alan Krueger "Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States," *Journal of Political Economy*, 100, 1992, 1-40.

Heckman, James, Anne Layne-Farrar, and Petra Todd (1996), "Does School Quality Really Matter," in Gary Burtless, ed., *Does Money Matter? The Effect of School Resources on Student Achievement and Adult Success* (Washington, DC: The Brookings Institution).

Krueger, Alan "Experimental Estimates of Education Production Functions," *Quarterly Journal of Economics*, 114[2], May 1999, 497-532.

\* Altonji, Taber and Elder, "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools" *Journal of Political Economy*, 113(1): 151-184.

Hoxby, Caroline, "How Teachers' Unions Affect Education Production," *Quarterly Journal of Economics*, 111, 671-718.

Loeb, Susanna and Marianne E. Page, "Examining the Link Between Wages and Quality in the Teacher Workforce: The Role of Alternative Labor Market Opportunities and Non-Pecuniary Variation," *The Review of Economics and Statistics*, August 2000.

\* Sacerdote, Bruce (2001), "Peer Effects with Random Assignment: Results for Dartmouth Roommates," *Quarterly Journal of Economics* 116(2): 681-704.

Chetty, Raj, John N. Friedman, and Jonah E. Rockoff. 2014. "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood." *American Economic Review*, 104(9): 2633-79.

\*\*Black, Sandra E. 1999. "Do Better Schools Matter?: Parental Valuation of Elementary Education." *Quarterly Journal of Economics*. 114: 577-599.

\*\*Angrist, Joshua D., and Victor Lavy. "Using Maimonides' rule to estimate the effect of class size on scholastic achievement." *The Quarterly journal of economics* 114.2 (1999): 533-575.

\*\*Abdulkadiroğlu, Atila, Joshua Angrist, and Parag Pathak. "The elite illusion: Achievement effects at Boston and New York exam schools." *Econometrica* 82.1 (2014): 137-196.

### **Fertility, Family, and Women's Labor Market Outcomes**

Goldin, Claudia and Lawrence Katz. 2002. "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions." *Journal of Political Economy*, 110(4).

\*\*Bailey, Martha. 2010. "'Momma's Got the Pill': How Comstock and Griswold v. Connecticut Shaped U.S. Childbearing," *American Economic Review*, 100(1): 98-129.

\*\*Lundborg, P., Plug, E., and Rasumssen, A. W. 2017. "Can Women Have Children and a Career? IV Evidence from IVF Treatments." *American Economic Review*, 107(6), 1611-37.

Aguero, J. M. and Marks, M. S. (2011). "Motherhood and female labor supply in the developing world evidence from infertility shocks." *Journal of Human Resources*, 46(4):800–826

\*\*Bana, S., Bedard, K., & Rossin-Slater, M. 2018. "The Impacts of Paid Family Leave Benefits: Regression Kink Evidence from California Administrative Data." (No. w24438). National Bureau of Economic Research.

\*\*Buckles, Kasey and Elizabeth Munnich. 2012. "Birth Spacing and Child Outcomes." *Journal of Human Resources*, 47(3): 613-642

\*\*Black, Sandra, Paul Devereux, and Kjell Salvanes. 2005. "The More the Merrier? The Effect of Family Size and Birth Order on Children's Education." *Quarterly Journal of Economics*, 120(2): 669.

Kearney, M. S., & Levine, P. B. 2014. "Media Influences on Social Outcomes: The Impact of MTV's 16 and Pregnant on Teen Childbearing" (No. w19795). National Bureau of Economic Research.

Albanesi, Stefania and Claudia Olivetti. 2016. "Gender Roles and Medical Progress." *Journal of Political Economy*, 124(3), pp.650-695.

Bailey, Martha, & William Collins. 2011. "Did Improvements in Household Technology Cause the Baby Boom? Evidence from Electrification, Appliance Diffusion, and the Amish." *American Economic Journal: Macroeconomics*, 3(2): 189-217

Berman, Eli, Laurence Iannaccone, and Giuseppe Ragusa. 2012. "From Empty Pews to Empty Cradles: Fertility Decline Among European Catholics." *NBER Working Paper #18350*.

\*\*Jensen, Robert (2012). "Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India." *Quarterly Journal of Economics* 127 (2): 753-792.

\*\*Alesina Alesina, Giuliano P, Nunn Nathan. (2013). "On the Origins of Gender Roles: Women and the Plough," *Quarterly Journal of Economics*, 128(2):469-530.

\*\*Qian, Nancy. (2008). "Missing Women and the Price of Tea in China: The effect of sex-specific income on sex imbalance," *Quarterly Journal of Economics*, 123(3), 1251-1285.

\*\*Elizabeth Brainerd "The Lasting Effect Of Sex Ratio Imbalance On Marriage And Family: Evidence From World War II In Russia" *The Review of Economics and Statistics*, May 2017, 99(2): 229–242

### **Discrimination and Wage gaps**

\* Becker, Gary, *The Economics of Discrimination* (2nd Edition), University of Chicago Press, 1971.

\* Altonji, J., and R. Blank, *Survey Handbook of Labor Economics* 1998.

\*Sandra Black and Philip Strahan "The Division of Spoils: Rent Sharing and Discrimination in a Regulated Industry", *American Economic Review*, 91(4), 814-31, September 2001.

Borjas, George and Stephen G. Bronars, "Consumer Discrimination and Self-Employment", *JPE* 97 no. 3 (June 1989): 581-605.

Felipe Goncalves and Steven Mello "A Few Bad Apples? Racial Bias in Policing" Working Paper <http://www.princeton.edu/~fmg/JMP>

### **Statistical Discrimination**

K. Arrow, "Models of Discrimination," and "Some Mathematical Models of Race in the Labor Market," in A.H. Pascal (ed.), *Racial Discrimination in Economic Life*.

\*G. Cain and D. Aigner, "Statistical Theories of Discrimination", *Industrial and Labor Relations Review*, January 1977.

G. Gain, "The Economics of Discrimination: A Survey", in *Handbook of Labor Economics*.

\*Stephen Coate and Glenn Loury, "Will Affirmative-Action Policies Eliminate Negative Stereotypes?" *American Economic Review* 83(5): 1220-1240.

\*Lundberg, Shelly and Richard Startz, "Private Discrimination and Social Intervention in Competitive Labor Markets," *American Economic Review*, June 1983; 73(3): 340-47.

Amanda Agan and Sonja Starr "Ban the Box, Criminal Records, and Statistical Discrimination: A Field Experiment" *Quarterly Journal of Economics*, February 2018

### **Wage Gaps**

\*\*Bertrand, Marianne and Sendhil Mullainathan, "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination," *American Economic Review*, 94[4], September 2004; 991-1013

James Heckman "Detecting Discrimination" *The Journal of Economic Perspectives*, Vol. 12, No. 2, (Spring, 1998), pp. 101-116

\*Goldin, Claudia, *Understanding the Gender Gap* Oxford University Press, New York (1990)

\*Derek Neal. (2004) "Is the Measured Black-White Gap Among Women Too Small?" *Journal of Political Economy*, v112 (2,Part2), S1-S28.

\*\*Marianne Bertrand, Claudia Goldin, and Lawrence F. Katz "Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors" *American Economic Journal: Applied Economics* (July 2010): 228–255.

\*\*Heather Sarsons (2021) "Interpreting Signals in the Labor Market: Evidence from Medical Referrals" . Working Paper, University of Chicago

\*\*Burszty, Leonardo, Thomas Fujiwara, and Amanda Pallais. 2017. "'Acting Wife': Marriage Market Incentives and Labor Market Investments." *American Economic Review*, 107 (11): 3288-3319.

\*\*Breaking the Glass Ceiling? The Effect of Board Quotas on Female Labour Market Outcomes in Norway Marianne Bertrand, Sandra E Black, Sissel Jensen, Adriana Lleras-Muney

### **Minimum wage**

\*Stigler, George. "The Economics of Minimum Wage Legislation," *American Economic Review*, v. 36, 1946.

\*Lester, "Marginalism, Minimum Wages, and Labor Markets," *American Economic Review*, v. 36, 1947.

\*Card and Krueger, Myth and Measurement: The New Economics of the Minimum Wage. Princeton University Press, 1995.

\*\*Card and Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review* 84(4), Sept. 1994.

Neumark, David, and William Wascher (2000), "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment," *American Economic Review* 90(4): 1362–96.

Card, David, and Alan Krueger (2000), "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply," *American Economic Review* 90(4): 1397–420.

Neumark and Wascher, "Minimum Wages and Employment: A Review of Evidence from the New Minimum Wage Research," NBER Working Paper No. 12663. 2006

\*Dube, Lester, and Reich. "Minimum Wage Effects Across State Border: Estimates Using Contiguous Counties," *Review of Economics and Statistics*, 92(4), 2010.

\*\* Giuliano, Laura. "Minimum Wage Effects on Employment, Substitution, and the Teenage Labor Supply: Evidence from Personnel Data," *Journal of Labor Economics*, Vol. 31, No. 1 (January 2013), pp. 155-194

Allegretto, Sylvia, Arindrajit Dube, Michael Reich, and Ben Zipperer. 2017. "Credible research designs for minimum wage studies: A response to Neumark, Salas, and Wascher," *Industrial and Labor Relations Review*, 70 (3): 559–592.

**Labour Markets in Developing Countries and Active Labour Market Policies (under construction, if time permits)**

**Population, Health, and Mortality (under construction, if time permits)**