# UNIVERSITY OF NOTRE DAME Department of Economics Spring 2015

Kasey Buckles Office: Flanner 436, 1-6210 E-mail: <u>kbuckles@nd.edu</u> Web Page: <u>www.nd.edu/~kbuckles</u> Monday 2:00-4:45 Flanner 725 Office Hours: Thursday 9:30-11:00 or by appointment

### ECON 70601: Labor Economics I

This graduate course employs both theoretical and econometric analysis to examine the literature in labor economics. We will focus on studies of wage determination and the effects of public policy on labor market outcomes. Topics will include the determinants of labor supply and labor demand, human capital and the returns to education and experience, labor market equilibrium, and the economics of gender and families. Emphasis will be placed on econometric techniques common in this literature. Students will have the opportunity to present to the class, and will have research assignments that are complementary with dissertation work. The course assumes a solid background in economic theory, a familiarity with calculus, and a basic understanding of regression analysis and empirical methods.

#### Evaluation

Grades will be determined accordingly:

<u>Research Project</u>: (35%) Each student is required to submit a proposal for an original empirical research project. For most students, the proposal will be structured like an NIH grant proposal, though other alternatives are possible if you discuss them with me. The hope is that the project will lead to dissertation research, the second year paper, and/or a publishable paper. The proposal will include a clear statement of the research question, a review of the related literature, a description of any relevant institutions or policies, any theoretical background, a description of the data to be used and descriptive statistics using this data, and a plan for any regression analysis. The project is due on **April 27**.

<u>Final Exam</u>: (25%) The final exam is a take-home exam that will be due at **4:15 p.m. on Monday, May 4**. This is the scheduled meeting time for our class exam.

<u>Lecture</u>: (15%) Each of you will be assigned a day to teach the class for about 75 minutes. You will present the most important theoretical concepts and empirical work that are relevant to your dissertation work (ideally the job market paper). You should begin with any seminal work or models, and then discuss developments that are particularly relevant to your work. You will assign readings for the class for that day.

<u>Referee Report</u>: (15%) You will write a referee report evaluating a paper related to the class (likely from a working paper series). In this report, you will summarize the paper, discuss the paper's contribution to the literature, provide critical evaluation, and suggest improvements. **Due March 16**.

<u>Research Presentations/Peer Review</u>: (10%) On **April 20**, you will give a 10 minute presentation of your research proposal to the class. We will also do in-class peer review of drafts of our research proposals, and I will assess the quality of your review.

Finally, I reserve the right to alter a students' grade (including giving a grade of failure) in response to serious episodes of low class attendance or poor class participation.

### **Honor Code Information**

In signing the university's honor code, you agreed not to participate in or tolerate academic dishonesty. I expect you to adhere to this strictly, and any violations will be reported to the Associate Provost.

### References

There is no required text for this course. However, the following books may prove to be useful as references, both for this course and for your future studies and work:

- Cahuc and Zylberberg, <u>Labor Economics</u>. 2004. A graduate labor economics textbook, a good resource to have.
- Ehrenberg and Smith, Modern Labor Economics, 9th ed. 2006.
- Borjas, <u>Labor Economics</u>. 2004. These two are good undergraduate labor economics texts.
- Wooldridge, <u>Introductory Econometrics</u>, any edition. An undergraduate econometrics textbook, I find it to be a fantastic resource.
- Wooldridge, <u>Econometric Analysis of Cross Section and Panel Data</u>. 2002. A graduate-level econometrics textbook, specializing in many of the tools and techniques we will be using in this class.

### **Course Schedule (Subject to Change)**

1/14	Introduction to U.S. Labor Market
1/19	I abor Supply
1/1/	Labor Supply
1/20	Labor Supply, Student Lecture
2/2	Labor Demand, Market Equilibrium
2/9	Returns to Education, Student Lecture
2/16	Returns to School Quality, Experience
2/23	Seniority, Student Lecture
3/2	Roy Models, Student Lecture
3/9	Spring Break, no class
<b>3/9</b> 3/16	Spring Break, no class Efficiency Wage Models, Student Lecture
<b>3/9</b> 3/16 3/23	<b>Spring Break, no class</b> Efficiency Wage Models, <i>Student Lecture</i> Women and Work
<b>3/9</b> 3/16 3/23 3/30	<b>Spring Break, no class</b> Efficiency Wage Models, <i>Student Lecture</i> Women and Work Fertility and Family, <i>Student Lecture</i>
<b>3/9</b> 3/16 3/23 3/30 <b>4/6</b>	Spring Break, no class Efficiency Wage Models, <i>Student Lecture</i> Women and Work Fertility and Family, <i>Student Lecture</i> Easter Monday, no class
<b>3/9</b> 3/16 3/23 3/30 <b>4/6</b> 4/13	Spring Break, no class Efficiency Wage Models, <i>Student Lecture</i> Women and Work Fertility and Family, <i>Student Lecture</i> Easter Monday, no class "Non-Cognitive Skills", <i>Student Lecture</i>
<b>3/9</b> 3/16 3/23 3/30 <b>4/6</b> 4/13 4/20	<ul> <li>Spring Break, no class</li> <li>Efficiency Wage Models, <i>Student Lecture</i></li> <li>Women and Work</li> <li>Fertility and Family, <i>Student Lecture</i></li> <li>Easter Monday, no class</li> <li>"Non-Cognitive Skills", <i>Student Lecture</i></li> <li>Presentations of Research Proposals, Peer Review</li> </ul>

### **Reading List**

The reading list is designed to serve as a resource. As I begin each section, I will give you guidance about which papers to read. You can download many of the papers from <u>www.jstor.org</u>, from resources within the Notre Dame library webpage, or from the worldwide web.

\*: denotes papers we will likely read for class

### I. Labor Supply

Blundell, Richard and MaCurdy, Thomas. "Labor Supply: A Review of Alternative Approaches," in <u>Handbook</u> of Labor Economics, Vol 3A. 1999.

\*Becker, Gary. "A Theory of the Allocation of Time," *Economic Journal*, 75.299 (Septermber 1965): 493-517.

\*Biddle, Jeff E.and Hamermesh, Daniel S. "Sleep and the Allocation of Time," *Journal of Political Economy*; 98 (October 1990): 922-43.

\*Gronau, R. "Leisure, Home Production, and Work—The Theory of the Allocation of Time Revisited," *Journal of Political Economy* 85 (Dec 1977).

\*Imbens, Guido W., Rubin, Donald B., Sacerdote, Bruce. "Estimating the Effect of Unearned Income on Labor Earnings, Savings, and Consumption: Evidence from a Survey of Lottery Players," *American Economic Review*, 91 (September 2001): 778-94.

\*Meyer, Bruce and Rosenbaum, Dan. "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers," *Quarterly Journal of Economics*, 116 (August 2001): 1063-1114.

Killingsworth. Labor Supply, Chapters 3 & 4.

MaCurdy, Thomas. "An Empirical Model of Labor Supply in a Life-Cycle Setting," *Journal of Political Economy*, 89 (December 1981).

Pencavel, John. "Labor Supply of Men: A Survey," in Handbook of Labor Economics, Vol 1. 1986.

Goldin, Claudia and Claudia Olivetti. "Shocking Labor Supply: A Reassessment of the Role of World War II on U.S. Women's Labor Supply," NBER WP 18676, Jan. 2013.

Krueger, Alan B. and Pischke, Jorn-Steffen. "The Effect of Social Security on Labor Supply: A Cohort Analysis of the Notch Generation," *Journal of Labor Economics*, 10 (October 1992): 412-37.

Hotz, Joseph P., Mullin Charles and Scholz, John Karl. "The Earned Income Tax Credit and Labor Market Participation of Families on Welfare", in Bruce Meyer and Greg Duncan, eds., *The Incentives of Government Programs and the Welfare of Families*, <u>http://www.jcpr.org/book/pdf/IncentivesHotzChap3.pdf</u>.

Angrist, Joshua and Evans, William N. "Children and Their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size," *American Economic Review*, 88 (June 1998): 450-77.

Blundell, Richard, Alan Duncan and Costas Meghir. "Estimating Labor Supply Responses Using Tax Reforms," *Econometrica*, July 1998.

Crepon, B. and Kramarz. Francis. "Employed 40 Hours or Not Employed 39? Lessons from the 1982 Mandatory Reduction of the Workweek,". *Journal of Political Economy* 110 (December 2002): 1355-1389.

Farber, Henry S. "Is Tomorrow Another Day? The Labor Supply of New York City Cabdrivers," *Journal of Political Economy*, 113 (February 2005).

Oettinger, Gerald. "An Emprical Analysis of the Daily Labor Supply of Stadium Vendors," *Journal of Political Economy*, 1999.

Chetty, Raj and Emmanuel Saez. "Teaching the Tax Code: Earnings Responses to an Experiment with EITC Recipients." NBER WP #14836. 2009.

#### **II. Labor Demand**

Hamermesh. Labor Demand, Ch. 2 & 3 (1993).

Hamermesh. "The Demand for Labor in the Long Run," in Handbook of Labor Economics, Vol 1. 1986.

Cahuc and Zylberberg. Labor Economics, Ch. 4 (2004).

\*Card, David. "The Impact of the Mariel Boatlift on the Miami Labor Market," *Industrial and Labor Relations Review*, 43 (January 1990): 245-57.

\*Acemoglu, Daron, Autor, David and Lyle, David. "Women, War and Wages: The Effect of Female Labor Supply on the Wage Structure at Midcentury," *Journal of Political Economy*, June 2004.

Angrist, Joshua and Kugler, Adriana. "Productive or Counter-Productive? Labour Market Institutions and the Effect of Immigration on EU Natives," *Economic Journal*, June 2003.

Borjas, G. "The Labor Demand Curve *is* Downward Sloping?" *Quarterly Journal of Economics*, 116 (November 2003): 1335-74.

Abowd, John and Kramarz, Francis. "The Costs of Hiring and Separations," Labour Economics, October 2003.

Hamermesh. "Labor Demand and the Structure of Adjustment Costs," *American Economic Review*, 79(4), pp 674-89.

#### **III. Minimum Wages**

Brown, Charles. "Minimum Wages, Employment, and the Distribution of Income," in <u>Handbook of Labor</u> <u>Economics, Vol 3B</u>. 1999.

Card, D. "Using Regional Variation to Estimate the Effects of the Federal Minimum Wage," *Industrial and Labor Relations Review*, (October 1992) 22-37.

Card, D. and A. Krueger. Myth and Measurement, Princeton: Princeton University Press, 1995, chapters 2-4.

Brown, Charles. "Myth and Measurement: The New Economics of the Minimum Wage: Review Symposium," *Industrial and Labor Relations Review*, "48 (July 1995): 828-49.

Kennan, John. "The Elusive Effects of Minimum Wages," Journal of Economic Literature 33, Dec. 1995.

Simon, K. and R. Kaestner. "Do Minimum Wages Affect Non-Wage Job Attributes? Evidence on Fringe Benefits and Working Conditions," NBER WP 9688, May 2003.

\*Card, D. and A. Krueger. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *The American Economic Review*, 84 (1994): 772.

\*Neumark, D. and W. Wascher. "Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws," *Industrial and Labor Relations Review*. 46(1); Oct. 1992. 55-81.

Neumark, D. and W. Wascher. "Does a Higher Minimum Wage Enhance the Effectiveness of the Earned Income Tax Credit?" NBER WP # 12915. 2007.

## IV. Human Capital

Becker, Gary S. Human Capital, 2nd ed., Chicago: Chicago University Press, 1975, chapter 3.

Mincer, J. Schooling, Experience, and Earnings. NBER 1974.

Lemieux, T. "The Mincer Equation Thirty Years After Schooling, Experience, and Earnings," http://www.econ.ubc.ca/lemieux/papers/mincer.pdf

Mincer, J. "The production of Human Capital and the Life Cycle of Earnings: Variations on a Theme," *Journal of Labor Economics*, 15 (Jan 1997): S26-S47.

Murphy, K. and F. Welch. "Empirical Age-Earnings Profiles," *Journal of Labor Economcis*, 8 (April 1990): 202-229.

### A. Education

1. The Return to Education

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

Card, D. "The Causal Effect of Education on Earnings," in Handbook of Labor Economics, Vol 3A. 1999.

\*Buckles, Kasey, Andreas Hagemann, Ofer Malamud, Melinda Morrill, and Abigail Wozniak. "The Effect of College Education on Health," IZA Working Paper 6659, 2012.

Angrist, Joshua D. and Krueger, Alan. "Does Compulsory Schooling Affect Schooling and Earnings?" *Quarterly Journal of Economics*, 106 (Nov. 1991): 979-1014.

Eckstein, Zvi and Kenneth I. Wolpin. "Duration to First Job and the Return to Schooling: Estimates from a Search-Matching Model," *Review of Economic Studies* 62 (2), April 1995, 263-286.

Carneiro, Pedro, and James J. Heckman. "The Evidence on Credit Constraints in Post-Secondary Schooling," *Economic Journal* (October 2002): 705-734.

2. Sorting

Spence, M. "Job Market Signaling," Quarterly Journal of Economics, 87 (1973): 355-74.

Lang, K. and D. Kropp. "Human Capital vs. Sorting: The Effects of Compulsory Attendance Laws," *Quarterly Journal of Economics*, 101 (August 1986): 609-24.

Lang, K. "Does the Human Capital/Sorting Debate Matter for Development Policy?" *American Economics Review*, 84 (March 1994).

Tyler, J., R Murnane, and J. Willett. "Estimating the Labor Market Signaling Value of the GED," *Quarterly Journal of Economics*, 115 (May 2000): 431-68.

3. The Return to School Quality

Jackson, C. Kirabo. "Non-Cognitive Ability, Test Scores, and Teacher Quality: Evidence from 9th Grade Teachers in North Carolina," NBER WP 18624, Dec. 2012.

Card, D. and A. Krueger. "Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States," *Journal of Political Economy*, 100 (February 1992): 1-40.

Heckman, J. A. Layne-Farrar, P. Todd. "Human Capital Pricing equations with an Application to Estimating the Effect of Schooling Quality on Earnings," *Review of Economics and Statistics*, 78 (November 1996): 562-610.

Angrist, J. and V. Lavy. "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics*, 114 (May 1999): 533-75.

Krueger, A. "Experimental Estimates of Education Production Functions," *Quarterly Journal of Economics*, 114 (May 1999): 497-532.

Altonji, J., T. Elder, and C. Taber. "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools" *Journal of Political Economy*, 113 (February 2005).

Rouse, Cecilia. "Private School Vouchers and Student Achievement: An Evaluation of the Milwaukee Parental Choice Program," *The Quarterly Journal of Economics*. 113(2); May 1998. 553-602.

Banerjee, A., S. Cole, E. Duflo, L. Linden. "Remedying Education: Evidence from Two Randomized Experiments in India," MIT, unpublished paper, 2006.

Sacerdote, B. "Peer Effects With Random Assignment: Results for Dartmouth Roommates," *Quarterly Journal of Economics*, 116 (2001).

### **B.** Experience & Tenure

1. Experience

Ben-Porath, Yoram. "The Production of Human Capital and the Life Cycle of Earnings," *Journal of Political Economy*, 75 (Aug. 1967): 352-365.

\*Farber, Henry, and Gibbons, Robert, "Learning and Wage Dynamics," *Quarterly Journal of Economics*, 111 (Nov. 1996): 1007-48.

Acemoglu, Daron and Steve Pischke (1999). "The Structure of Wages and Investment in General Training," *Journal of Political Economy*, vol 107, June 1999, pp. 539-572.

Acemoglu, Daron and Steve Pischke (1999). "Beyond Becker: Training in Imperfect Labor Markets," *Economic Journal*, 109 (February 1999): F112-142.

2. Tenure

Cahuc and Zylberberg, 341-53.

Altonjii, J. and R. Shakotko, "Do wages Rise with Job Seniority?" Review of Economic Studies, July 1987.

Hashimoto, Masanori. "Firm-Specific Capital as a Shared Investment," *American Economic Review*, 71 (June 1981): 475-82.

Lazear, Edward. "Why Is There Mandatory Retirement?" *Journal of Political Economy*, 87 (Dec. 1979): 1261-84.

Kahn, Shulamit and Lang, Kevin, "The Sources of Hours Constraints: Evidence from Canada," *Canadian Journal of Economics*, 28 (November 1995): 914-28.

Lynch, Lisa M., "Private Sector Training and the Earnings of Young Workers," *American Economic Review*, 82 (March 1992): 299-312.

Kletzer, Lori, "Returns to Seniority After Permanent Job Loss," *American Economic Review*, 79 (April 1989): 536-543.

Medoff, James L. and Katharine G. Abraham. "Experience, Performance, and Earnings," *Quarterly Journal of Economics*, 95 (Dec. 1980): 703-36.

Guasch, J. Luis and Andrew Weiss. "Self-Selection in the Labor Market," *American Economic Review*, 71 (June 1981): 275-284.

#### V. The Roy Model, Efficiency Wages, and Compensating Differentials

#### A. Efficiency Wages

Katz, Lawrence F. "Efficiency Wage Theories: A Partial Evaluation," NBER Macro Annual.

Katz, Lawrence F. and Lawrence Summers, "Industry Rents: Eveidence and Implications," <u>Brookings Papers</u> 1989.

Gibbons, R. and L. Katz. "Does Unmeasured Ability Explain Inter-Industry Wage Differences," *Review of Economic Studies*, 59 (July 1992): 515-35.

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

Holzer, H., L. Katz, A. Krueger. "Job Queues and Wages," *Quarterly Journal of Economics*, 106 (August 1991): 739-68.

\*Capelli, P. and K. Chauvin. "An Interplant Test of the Efficiency Wage Hypothesis," *Quarterly Journal of Economics*, 106 (August 1991): 739-68.

Kahn, Shulamit. "Evidence of Nominal Wage Stickiness from Microdata," *American Economic Review*, 87 (December 1997): 993-1008.

#### B. Equilibrium with Heterogeneous Labor: Roy Model, Hedonics, Compensating Differentials

1. Roy Model

Roy, A. "Some Thoughts on the Distribution of Earnings," Oxford Economics Papers, 1951: 235-46.

\*Borjas, George. "Self-Selection and the Earnings of Immigrants," *American Economic Review*, 77 (September 1987): 531-53.

Heckman, James and Bo Honore. "The Empirical Content of the Roy Model," *Econometrica*, 58.5 (September 1990): 1121-49.

2. Hedonic Wage Models & Compensating Differentials

Rosen, Sherwin. "The Theory of Equalizing Differences," in Handbook of Labor Economics, Vol 1. 1986.

Willis, R.J. "Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Functions," in <u>Handbook of Labor Economics, Vol 1</u>. 1986.

Ekeland, I., J. Heckman, L. Nesheim. "Identification and Estimation of Hedonic Models," *Journal of Political Economy*, 112 (Feb. 2004): S60-S109.

Gruber, Jonathan. "The Incidence of Mandated Maternity Benefits," *American Economic Review*, 84 (June 1994): 622-41.

Boyd, D., H. Lankford, S. Loeb, and J. Wyckoff. "Analyzing the Determinants of the Matching of Public School Teachers to Jobs: Estimating Compensating Differentials in Imperfect Labor Markets," 2006. http://www.teacherpolicyresearch.org/portals/1/pdfs/ Matching of Public School Teachers to Jobs.pdf

\* Albuoy, David. "Are Big Cities Really Bad Places to Live? Improving Quality-of-Life Estimates across Cities." NBER WP #14472. 2008.

#### VI. Women (Mothers) at Work

#### A. The Gender Gap

Goldin, C. <u>Understanding the Gender Gap</u>. Oxford University Press, 1990.

O'Neill, J., and S. Polachek. "Why the Gender Gap in Wages Narrowed in the 1980s," *Journal of Labor Economics*, 11 (1993): 205-228.

\*Blau, F., and L. Kahn. "Swimming Upstream: Trends in the Gender Wage Differential in the 1980s," *Journal of Labor Economics* 15 (1997): 1-42.

\*Blau, F., and L. Kahn. "The US Gender Pay Gap in the 1990s: Slowing Convergence," *Industrial and Labor Relations Review* (October 2006).

Blau, F., and L. Kahn. "Gender Differences in Pay," Journal of Economic Perspectives (Fall 2000), pp. 75-99.

Blau, F., and L. Kahn. "The Gender Pay Gap: Have Women Gone as Far as They Can?" *Academy of Management Perspectives* (forthcoming).

Blau, F., and L. Kahn. "Female Labor Supply: Why is the U.S. Falling Behind?" NBER WP 18702, Jan. 2013.

Goldin, C., L. Katz, and I. Kuziemko. "The Homecoming of American College Women: The Reversal of the College Gender Gap," NBER Working Paper 12139, 2006.

CSWEP Annual Reports, available at http://www.aeaweb.org/committees/cswep/annual\_reports.php.

\*Stevenson, Betsy and Justin Wolfers. "The Paradox of Declining Female Happiness." *American Economic Journal: Economic Policy* 1 (2009): 190-225.

#### **B.** Fertility and Women's Work

Goldin, Claudia. "The Long Road to the Fast Track: Career and Family," *Annals of the American Academy of Political and Social Science*, 596 (Nov. 2004), pp. 20-35.

Goldin, C., and L. Katz. "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions," *Journal of Political Economy*, 110 (2002): 730–770.

Waldfogel, J. "Understanding the 'Family Gap' in Pay for Women with Children," *Journal of Economic Perspectives*, 12 (1998): 137-156.

Blau, F., and L. Kahn. "Changes in the Labor Supply Behavior of Married Women: 1980-2000", *Journal of Labor Economics*, 25 (2007): 393–438.

Blackburn, McKinley, David Bloom, and David Neumark. "Fertility Timing, Wages, and Human Capital," *Journal of Population Economics*. 1993; 6(1): 1-30.

\*Caucutt, Elizabeth, Nezih Guner, and John Knowles. "Why Do Women Wait? Matching, Wage Inequality, and the Incentives for Fertility Delay," *Review of Economic Dynamics*. 2002; 5(4): 815-855.

Hotz, Joseph, Charles Mullin, and Seth Sanders. "Bounding Causal Effects Using Data From a Contaminated Natural Experiment: Analysing the Effects of Teenage Childbearing," *The Review of Economic Studies*. 1997; 64(4): 575-603.

Erosa, Andres, Luisa Fuster, Diego Restuccia. "Fertility Decisions and Gender Differences in Labor Turnover, Employment, and Wages," *Review of Economic Dynamic*. 2002; 5(4): 856-891.

\*Albanesi, Stafania and Claudia Olivetti. "Gender Roles and Medical Progress." NBER WP #14873. 2009.

### VII. The Family

Becker, G. <u>A Treatise on the Family</u>. Cambridge, Mass: Harvard University Press, 1991.

Buckles, Kasey, Melanie Guldi and Joseph Price. "Changing the Price of Marriage: Evidence from Blood Test Requirements." NBER WP #15161. 2009.

Ribar, David. "What Do Social Scientists Know About the Benefits of Marriage? A Review of Quantitative Methodologies." IZA Discussion Paper No. 998. 2004.

Stevenson, Betsey and Justin Wolfers. "Marriage and Divorce: Changes and Their Driving Forces." *Journal of Economic Perspectives*, 21(2), Spring 2007.

Stevenson, Betsey and Justin Wolfers. "Bargaining in the Shadow of the Law: Divorce Laws and Family Distress." *Quarterly Journal of Economics*, 121 (1): 267-288, February 2006.

Bailey, Martha. "'Momma's Got the Pill': How Comstock and *Griswold v. Connecticut* Shaped U.S. Childbearing" NBER WP #14675, 2009.

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

Black, Sandra, Paul Devereux, and Kjell Salvanes. "Small Family, Smart Family? Family Size and the IQ Scores of Young Men, NBER WP # 13336, forthcoming in the *Journal of Human Resources*.

Buckles, Kasey and Dan Hungerman. "Season of Birth and Later Outcomes: Old Questions, New Answers." NBER WP #14573.

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

### VIII. Early-Life Inputs

\*Almond, Douglas, Kenneth Chay and David Lee. "The Costs of Low Birth Weight," *Quarterly Journal of Economics*. 2005: 1031-1083.

Walters, Christopher. "Inputs in the Production of Early Childhood Human Capital: Evidence from Head Start." NBER WP 20639. Oct. 2014.

Weikart, D.P., J.T. Bond, J.T. McNeil. *The Ypsilanti Perry Preschool Project: Preschool Years and Longitudinal Results Through Fourth Grade.* 1978. High/Scope Educational Research Foundation: Ypsilanti, MI.

Schweinhart, L.J. and D.P. Weikart. Young Children Grow Up: The Effects of the Perry Preschool Program on Youths Through Age 15. 1980. High/Scope Educational Research Foundation: Ypsilanti, MI.

Heckman, James, Rodrigo Pinto, and Peter Savelyev. "Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes." NBER WP 18581, Nov. 2012.

\*Conti, Gabriella and James Heckman. "The Economics of Child Well-Being." NBER WP 18466, Oct. 2012.

Slide Show on the Heckman Equation, at http://www.heckmanequation.org/content/resource/presenting-heckman-equation.

Currie, Janet and Duncan Thomas. "Does Head Start Make a Difference?" *The American Economic Review*, 85 (1995): 341-364.

Belfield, Clive and Inas Kelly. "The Benefits of Breastfeeding Across the Early Years of Childhood." NBER WP 16496, Oct. 2010.

### IX. "Non-Cognitive" Skills

Jacob, Brian A. "Where the boys aren't: Non-cognitive skills, returns to school and the gender gap in higher education." *Economics of Education review* 21.6 (2002): 589-598.

Heckman, James J., Jora Stixrud, and Sergio Urzua. "The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior." *Journal of Labor Economics* 24.3 (2006): 411-482.

\*Heckman, James J., and Yona Rubinstein. "The importance of noncognitive skills: Lessons from the GED testing program." *American Economic Review*(2001): 145-149.

Heckman, James J., and Tim Kautz. "Hard evidence on soft skills." Labour economics 19.4 (2012): 451-464.

Cook, Philip J., et al. "The (Surprising) Efficacy of Academic and Behavioral Intervention with Disadvantaged Youth: Results from a Randomized Experiment in Chicago." NBER WP 19862. January, 2014.

Datta Gupta, Nabanita, and Marianne Simonsen. "Non-cognitive child outcomes and universal high quality child care." *Journal of Public Economics* 94.1 (2010): 30-43.