

PPHA 35120: ECONOMIC DEMOGRAPHY  
SPRING 2018

**Instructor:** Jesse Naidoo ([jnaidoo@uchicago.edu](mailto:jnaidoo@uchicago.edu))

Office Hours: Wednesday 11.00 - 11.50 AM, Room 217, or by appointment.

We will study various aspects of human populations. For example, some basic features of a given population are size, geographical distribution, and age structure; but we will also look at the distribution of other properties, such as education and health. The unifying perspective we will take is an economic one: we will be interested mainly in explaining social outcomes as the result of people's rational choices. Of course, theories need to explain facts, so we will spend much of our time reading work that documents the relationships between the above variables - both in the cross section and over time - and understanding how such evidence is constructed.

**Prerequisites:**

- calculus and microeconomics (up to solving constrained optimization problems, knowing the difference between income and substitution effects, etc)
- basic probability and linear algebra
- basic econometrics (so we can read regression output)

If you feel uncertain about your ability to handle these technicalities, email me.

**Lectures** are Wednesdays, 3.00 - 5.50 PM, in 140B.

**Assessment** will take the form of three problem sets, weighted at 25% each, and a class presentation (also 25%). For the presentations, you must choose one of the readings on the list (or suggest one to me) that we have not covered in class. Discuss with me which reading(s) you want to cover and when, and I will give you some guidance about what I expect to see. We may need to schedule additional class meetings to accommodate the presentations, depending on how many students we have.

SYLLABUS

**Economic Growth and the Demographic Transition (3 weeks)** The escape from the Malthusian trap and the onset of modern economic growth. Why did the demographic transition happen when it did? How are mortality, and fertility measured? Cohort and period measures; the ergodic theorems of demography.

**Population Health (2 weeks)** Malnutrition and infant mortality. The education-health gradient; the decline in contagious diseases in the developed world; the effects of nutrition and sanitation on mortality. Health as human capital. The value of health and longevity.

**Fertility (3 weeks)** Interest rates, economic growth and fertility. Facts: fertility in the cross-section; income-fertility gradients. Theories: human capital, the value of time and investment in children. Controversies about “missing women” in Asia.

**Urbanization (2 weeks)** Theories: income differences, skill prices, and moving costs. Krugman and Lucas on agglomeration economies and human capital as drivers of urbanization.

#### READING LIST

I will cover starred readings in class. Other readings will be covered in student presentations.

#### WEEK 1-3: ECONOMIC GROWTH AND THE DEMOGRAPHIC TRANSITION

[Galor, 2005]\* Galor, “From Stagnation to Growth: Unified Growth Theory”

[Ashraf & Galor, 2011]\* Ashraf and Galor, “Dynamics and Stagnation in the Malthusian Epoch”

[Galor, 2012]\* Galor, “The Demographic Transition: Causes and Consequences”

[Keyfitz & Caswell, 2005] Keyfitz and Caswell, “Applied Mathematical Demography”

- Ch 2: The Life Table\*
- Ch 3: The Matrix Model Framework\*
- Ch 5: Fixed Regime of Mortality and Fertility\*
- Ch 6: Birth and Population Increase from the Life Table\*
- Ch 7: Birth and Population Increase from Matrix Population Models\*

[Alho & Spencer, 2005] Alho and Spencer, “Statistical Demography and Forecasting”

- Ch 2: Sources of Demographic Data

[Guinnane, 2011]\* Guinnane, “The Historical Fertility Transition: A Guide for Economists”

[Ray, 1998] Ray, “Development Economics”

- Ch 2: Economic Development: an Overview
- Ch 9: Population Growth and Economic Development

#### WEEK 4-5: POPULATION HEALTH

[Becker, 2007]\* Becker, “Health as Human Capital: Synthesis and Extensions”

[Murphy & Topel, 2006]\* Murphy and Topel, “The Value of Health and Longevity”

- [**Deaton, 2015**] Deaton, “The Great Escape: Health, Wealth, and the Origins of Inequality”
- Ch 2: From Prehistory to 1945\*
  - Ch 3: Escaping Death in the Tropics\*
  - Ch 4: Health in the Modern World\*
- [**Fogel, 1997**]\* Fogel, “New Findings on Secular Trends in Nutrition and Mortality: Some Implications for Population Theory”
- [**Deaton, 2006**]\* Deaton, “The Great Escape: A Review of Robert Fogel’s ‘The Escape from Hunger and Premature Death, 1700-2100’ ”
- [**Young, 2005**] Young, “The Gift of the Dying: The Tragedy of Aids and the Welfare of Future African Generations”
- [**Philipson, 2000**] Philipson, “Economic Epidemiology and Infectious Diseases”
- [**Kremer & Glennerster, 2011**] Kremer and Glennerster, “Improving Health in Developing Countries. Evidence from Randomized Evaluations”
- [**Case & Deaton, 2005**] Case and Deaton, “Health and Wealth among the Poor: India and South Africa Compared”
- [**Cutler & Lleras-Muney, 2010**] Cutler and Lleras-Muney, “Understanding Differences in Health Behaviors by Education”
- [**Cutler & Lleras-Muney, 2006**] Cutler and Lleras-Muney, “Education and Health: Evaluating Theories and Evidence”
- [**Cutler & Miller, 2005**] Cutler and Miller, “The Role of Public Health Improvements in Health Advances: the Twentieth-Century United States”

#### WEEK 6-8: FERTILITY

- [**Becker, 1991**]\* Becker, “A Treatise on the Family”
- Ch 5: The Demand For Children
- [**Barro & Becker, 1989**]\* Becker and Barro, “Fertility Choice in a Model of Economic Growth”
- [**Becker et al. , 1990**]\* Becker, Murphy, and Tamura, “Human Capital, Fertility, and Economic Growth”
- [**Mookherjee et al. , 2012**]\* Mookherjee, Prina and Ray, “A Theory of Occupational Choice with Endogenous Fertility”

- [**Aaronson *et al.* , 2014**]\* Aaronson, Lange, and Mazumder, “Fertility Transitions Along the Extensive and Intensive Margins”
- [**Angrist *et al.* , 2010**]\* Angrist, Lavy and Schlosser, “Multiple Experiments for the Causal Link between the Quantity and Quality of Children”
- [**Rosenzweig & Wolpin, 1980**]\* Rosenzweig and Wolpin, “Testing the Quantity-Quality Model: The Use of Twins as a Natural Experiment”
- [**Rosenzweig & Zhang, 2009**]\* Rosenzweig and Zhang, “Do Population Control Policies Induce More Human Capital Investment? Twins, Birth Weight and China’s ‘One-Child’ Policy”
- [**Vogl, 2016**]\* Vogl, “Differential Fertility, Human Capital, and Development”
- [**Mogstad & Wiswall, 2016**]\* Mogstad and Wiswall, “Testing the Quantity-Quality Model of Fertility: Estimation using Unrestricted Family Size Models”
- [**Oster, 2005**] Oster, “Hepatitis B and the Case of the Missing Women”
- [**Lin & Luoh, 2008**] Lin and Luoh, “Can Hepatitis B Mothers Account for the Number of Missing Women? Evidence from Three Million Newborns in Taiwan”
- [**Anderson & Ray, 2010**] Anderson and Ray, “Missing Women: Age and Disease”
- [**Isen & Stevenson, 2013**] Isen and Stevenson, “Women’s Education and Family Behavior: Trends in Marriage, Divorce and Fertility”
- [**Jones *et al.* , 2008**] Jones, Schoonbroodt, and Tertilt, “Fertility Theories: Can They Explain the Negative Fertility-Income Relationship?”
- [**Robinson, 1997**] Robinson, “The Economic Theory of Fertility over Three Decades”
- [**Preston & Hartnett, 2008**] Preston and Hartnett, “The Future of American Fertility”

#### WEEK 9-10: URBANIZATION

- [**Ray, 1998**] D. Ray, Development Economics  
– Ch 10: Rural and Urban\*
- [**Lucas, 2004**]\* Lucas, “Life Earnings and Rural-Urban Migration”
- [**Krugman, 1991**]\* Krugman, “Increasing Returns and Economic Geography”
- [**Desmet & Henderson, 2015**] Desmet and Henderson, “The Geography of Development Within Countries”
- [**Brueckner & Lall, 2015**] Brueckner and Lall, “Cities in Developing Countries. Fueled by Rural-Urban Migration, Lacking in Tenure Security, and Short of Affordable Housing”

- [**Cheng *et al.* , 2014**] Cheng, Huang and Chen (Eds), “Urban China in the New Era: Market Reforms, Current State, and the Road Forward”
- [Huang, 2014] Ch 2: The Continuity and Changes of the Hukou System Since the 1990s: A Critical Review
  - [Chen, 2015] Ch 3: Land Reform, Urban Development and Migrant Housing
  - [Wang, 2015] Ch 4: The Urban Village of Huanggang: A Successful Communal Model?
  - [Mishra & Smyth, 2015] Ch 9: Returns to Education in China’s Urban Labour Market: Evidence From Matched Employer-Employee Data for Shanghai
- [**Buechler, 2014**] Buechler, “Labor in a Globalizing City: Economic Restructuring in Sao Paulo, Brazil”
- Ch 4: The History, Politics, and Economics of Three Communities and Their Inhabitants
  - Ch 5: Outsourcing Production and Commerce: A Close Examination of Unregistered Salaried Workers, Sweatshop Workers, Homeworkers, and Ambulant Vendors for Firms
  - Ch 6: The Increasingly Precarious Nature of Self-Employment
- [**Cohen, 2006**] Cohen, “Urbanization in Developing Countries: Current Trends, Future Projections, and Key Challenges for Sustainability”
- [**Marx *et al.* , 2013**] Marx, Stoker, and Suri, “The Economics of Slums in the Developing World”
- [**Hamer & Linn, 1987**] Hamer and Linn, “Urbanization in the Developing World: Patterns, Issues, and Policies”
- [**Rosenzweig, 1988**] Rosenzweig, “Labor Markets in Low-Income countries”
- [**Lucas, 1997**] Lucas, “Internal Migration in Developing Countries”

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