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January 23, 2013  
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**Preliminary – will be modified as we go along.**

## **ECONOMICS c275A/DEMOGRAPHY c275 ECONOMICS OF POPULATION**

The class meets **Wednesday 4:10-6**, at **2232 Piedmont Ave in the seminar room**. 2232 Piedmont is located opposite the stadium on Piedmont, between Haas School of Business and Bancroft.

**Ronald Lee's office hours** are held in room 202 of 2232 Piedmont Ave, Tuesday, 3:40-5:00, and Thursday, 3:40-5:00 (except on the first Thursday of each month, when OH ends at 4:10). You can sign up on-line at <http://www.wejoinin.com/sheets/lucip>. You are also welcome to catch me after class for brief consultations or email me to set up an appointment at another time.

**Diversity of Student Backgrounds:** Students in this class typically come from many different departments and sometimes do not have much background in economics or demography. To accommodate the range of backgrounds, I sometimes suggest different readings for those with less or more economic background. I also emphasize substance, and informal presentations of theory. The term paper can be written satisfactorily in different ways using different methods. In short, I facilitate and encourage the participation of students who do not have extensive backgrounds in economics or demography.

**Reading List:** The reading list for this course and a list of class topics are included in this syllabus. The readings themselves can mostly be downloaded by you from JSTOR.

**Formal Requirements for Course:** There are no exams in this class. Grades are a fact of life and must be assigned. The grade will be based 80% on the term paper and 20% on class participation. Class participation includes brief critical reports on outside papers (about 500 words, probably a couple per student over the term), and occasionally brief emailed responses (generally just a paragraph or two) to questions or exercises I may pose in class. My experience has been that despite there being no exams, students do the readings, if anything more regularly than in the past when I gave exams.

It is important that you do the readings. This does not mean that you have to read every word of every paper, but that you should read them carefully enough to understand the issues, the research design, the methods, and the findings, and form a critical opinion of the paper, and be able to participate in a class discussion about it. It will be useful for you to think about how you might apply methodological or theoretical lessons from the paper to other substantive topics.

**Term Paper:** The topic of the research paper is chosen by you, subject to my approval. My strong preference is that you do original research, either empirical or (occasionally) theoretical, rather than a literature review. Otherwise, there is wide latitude in choice of topic. It is usually possible for **work on the dissertation or prospectus to satisfy the paper requirement** for this course. For students also taking Econ/Demog c175, you

should write a single paper to satisfy the requirement for both courses, but it should conform to the paper description for this course, not 175. If you are writing a paper for some other course, you can talk to me and the other professor about the possibility of doing a joint paper. I much prefer that you be adventurous with this paper and take chances with new topics and new approaches, rather than choosing a safe topic. Often this paper ends up contributing to a later dissertation, either ending up as a chapter, or negatively, by revealing that some topic is not viable. **The papers are due by the end of RRR week, that is by Friday, May 10.**

**We will have a four hour end-of-term conference on Saturday, May 11, 9-1, unless this conflicts with exams.** If this time doesn't work for all, we can reschedule. Students will present their term papers, with about 15 minutes for each, including discussion.

**Critical Summaries of Optional Readings:** Most weeks I will ask two or three students to prepare brief critical summaries of one of the optional readings. These should be 500 words or less, and should present the material in a non-technical and intuitive style. They should also include the student's views about the strengths and weaknesses of the article. Students should attach one or two figures or tables that will provoke our interest and lead to discussion. The report should be emailed to the entire class by 9:00 p.m. **the evening before class** and **all** students should read these reports before coming to class. We will briefly discuss the summarized articles in class. Each student will do two or three of these summaries during the term.

**Field Requirements in Economics:** For a Ph.D. student in Economics, the field requirement for Economic Demography consists of this course, Economics c275A/Demography c275 (same course), plus Demography 210, which covers demographic analysis and basic mathematical demography. Econ/Demog c275 is offered each year in the spring term. Demography 210 is offered every fall term. In some departments besides Economics it may be possible to make special arrangements for a field in demography (e.g. in Public Policy or Public Health). On bSpace you will find a folder (under Resources) containing past field exams for Economic Demography. If you are planning to take the field you should practice using these exams.

**Web Site:** There is a bSpace class web site. If you are officially enrolled in this course and appear on the Registrar's official class list then you will automatically see this class web site when you log on to bSpace. If you encounter any problems, please contact Ellen Langer at [erlanger@demog.berkeley.edu](mailto:erlanger@demog.berkeley.edu). If you are not officially enrolled but would like access to the web site as a guest, contact Ellen Langer ([erlanger@demog.berkeley.edu](mailto:erlanger@demog.berkeley.edu)).

**Topics in Formal Demography:** During some lectures I plan to spend 10 or 15 minutes presenting some basic mathematical models in demography in relation to the economy, with the idea that by the end of term, these will add up to a basic foundation. Most of these models are of macro demographic processes, and I will develop the interface with macroeconomic models. Some students may find this material heavy going, others may find it elementary. My presentations of this formal material will be informal and, I hope, intuitive.

### **Outline of topics**

- 1) Economics of the Family: Marriage and Fertility
  - a. Economics of Marriage and Divorce
  - b. Economics of Fertility

- 2) Causality
  - a. Principles of causal inference
  - b. Examples from economic demography
- 3) Health and Mortality
  - a. Socioeconomic differentials in mortality, and direction of causation
  - b. Theoretical Models and their Estimation
  - c. Early life effects on later life outcomes
- 4) Demographic Aspects of Life Cycle and Household
  - a. Demographic Composition and Household Behavior
  - b. Intergenerational Transfers at the Family Level
- 5) Economic Consequences of Immigration
  - a. Theory of impacts
  - b. Immigration, wages of natives, employment
  - c. Fiscal impact of immigration.
- 6) Population and the Macro Economy
  - a. Population Aging and Intergenerational Transfers
  - b. The Demographic Transition, Savings, and Economic Growth
  - c. Looking for a natural experiment. Cross-national studies.
  - d. Population Growth, Human Capital, and Economic Development
  - e. Unified growth theory (time permitting)
- 7) End of Term Conference: Presentation of Term Papers

### Schedule of Classes (approximate)

|                 |   |
|-----------------|---|
| January 23      | Introduction, Economics of Marriage and Divorce (1) |
| January 30      | Marriage and Divorce (2)                            |
| February 6      | Economics of Fertility (1)                          |
| February 13     | Fertility (2)                                       |
| February 20     | Causal analysis in economic demography              |
| February 27     | Health and Mortality (1)                            |
| March 6         | Health and Mortality (2)                            |
| March 13        | Dependency, Household and Economy                   |
| March 20        | Economic consequences of immigration (1)            |
| <b>March 27</b> | <b>SPRING BREAK</b>                                 |
| April 3         | Economic consequences of immigration (2)            |
| <b>April 10</b> | <b>Population Meetings(PAA) – No Class Meeting</b>  |
| April 17        | Population and Economic Development (1)             |
| April 24        | Population and Economic Development (2)             |
| May 1           | Unified Growth Theory                               |
| <b>May 10</b>   | <b>Term papers due</b>                              |
| May 11          | END OF TERM CONFERENCE: PAPER PRESENTATIONS         |

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## **ECONOMICS 275A/DEMOGRAPHY 275: ECONOMICS OF POPULATION**

### **I. Background**

Ronald Lee (2003) "The Demographic Transition: Three Centuries of Fundamental Change," *Journal of Economic Perspectives* v. 17, n. 4, Fall 2003, pp.167-190.

### **II. Economics of the Family: Marriage (3 readings; 10 abstracts; 1.5 classes)**

Dan Slater (2013) "Darwin Was Wrong About Dating" (OpEd in Sunday Review Jan 13, 2013, pp.1, 6-7) [http://www.nytimes.com/2013/01/13/opinion/sunday/darwin-was-wrong-about-dating.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/01/13/opinion/sunday/darwin-was-wrong-about-dating.html?pagewanted=all&_r=0).

Becker, Gary, Elizabeth Landes, and Robert Michael (1977) "An Economic Analysis of Marital Instability" *Journal of Political Economy* 85(6): 1141-1187. Focus on the theory in the first part of the article, then *skim lightly over the empirical part*.

Stevenson, Betsey and Justin Wolfers (2007) "Marriage and Divorce: Changes and Their Driving Forces." *Journal of Economic Perspectives* v.21 n.2 Spring pp.27-52.

### **III. Economics of the Family: Fertility and Investment in Offspring (5 readings; 2 classes)**

#### ***Theory***

Cox, Donald (2007) "Biological Basics and the Economics of the Family" *Journal of Economic Perspectives* v.21 n.2 Spring pp.91-108.

Richard Easterlin and Eileen Crimmins (1985) *The Fertility Revolution: A Supply-Demand Analysis* (University of Chicago Press) Chapter 2 "Theoretical Framework", pp.12-31.

Gary S. Becker (1992) "Fertility and the Economy," *Journal of Population Economics* v.5 n.3 (August) pp.185-201.

#### ***Empirics***

Claudia Goldin (2006) "The 'Quiet Revolution' That Transformed Women's Employment, Education, and Family," *American Economic Review, Papers and Proceedings*, (Ely Lecture), 96 (May), pp. 1-21.

Martha Bailey (2006) "More Power to the Pill: The impact of contraceptive freedom on women's life cycle labor supply" *Quarterly Journal of Economics*

## IV. Causal Analysis in Demography and Applied Studies in Fertility and Family (1 careful reading + 4 to skim; 1.5 classes).

### *Methodological/Conceptual Background*

Robert A. Moffitt (2009) “Issues in the Estimation of Causal Effects in Population Research, with an Application to the Effects of Teenage Childbearing” Chapter 2 in H. Engelhardt et al. (eds.), *Causal Analysis in Population Studies*, The Springer Series on Demographic Methods and Population Analysis 23, DOI 10.1007/978-1-4020-9967-0\_2, C Springer Science+Business Media B.V. 2009 . Update of an influential article he published in *Demography* in 2005. **Read whole article carefully.**

Máire Ní Bhrolcháin and Tim Dyson (2007) “On Causation in Demography: Issues and Illustrations” *Population and Development Review*, Vol. 33, No. 1 (Mar.), pp. 1-36. **READ PAGES 1-7.**

## V. Biology, Genetics, and Economic Demography

Cox, Donald (2007) “Biological Basics and the Economics of the Family” *Journal of Economic Perspectives* v.21 n.2 Spring pp.91-108.

### FOR STUDENT REPORTS

Jonatha Beauchamp et al “Molecular genetics and economics” (2011) *Journal of Economic Perspectives* v.25, n.4 (Fall) pp.57-82.

Charles Manski (2011) “Genes, eyeglasses, and social policy” *Journal of Economic Perspectives* v.25, n.4 (Fall) pp.83-94.

## VI. Health and Mortality

### 1) Background: Formal, Theoretical, Descriptive

- a. Biodemography of health and longevity (brief lecture: optimality, mutation accumulation)
- b. Some formal and statistical issues (my short essay)
- c. Descriptive background on trends and forecasts

### 2) Structural economic models and interpretations of trends

Julie DaVanzo and Paul Gertler (1991) “Household Production of Health: a Micro-Economic Perspective on Health Transitions” Chapter 6 in John Cleland and Allan G. Hill, eds., *The Health Transition: Methods and Measures*, Australian National University Printing Service, pp. 85-101.

### 3) Special topics

- a. Fetal programming and early life effects

Janet Currie (2011) “Inequality at Birth: Some Causes and Consequences” *American Economic Review: Papers & Proceedings* RICHARD T. ELY LECTURE 101:3, 1–22

### 4) Broad interpretations

James Smith (2005) “Unraveling the SES-Health Connection”, *Population and Development Review*, Special Issue (February).

Crimmins, Preston and Cohen (2011) “Introduction and Overview” in National Research Council International Differences in Mortality at Older Ages, National Academies Press, pp.1-13.

Banks, Marmot, Oldfield and Smith “Disease and Disadvantage in the United States and in England”, JAMA. 2006;295(17):2037-2045 (doi:10.1001/jama.295.17.2037)

## **VII. Demographic Aspects of Life Cycle and Household**

### ***Demographic Composition and Household Behavior***

A.V. Chayanov, *The Theory of Peasant Economy*, Daniel Thorner et al translators, (University of Wisconsin Press, 1986; originally 1925); pp. 53-81.

Ronald Lee and Karen Kramer (2002) “Children’s Economic Roles in the Context of the Maya Family Life Cycle: Cain, Caldwell, and Chayanov Revisited,” *Population and Development Review*, 28 (3):475-499 (September 2002).

Ronald Lee, “PopEconMath” on bSpace – a few pages of notes tying stable population theory to the macroeconomy.

### ***Intergenerational transfers and markets as alternate ways of smoothing consumption over the Life Cycle***

Andrew Mason and Ronald Lee (2011) “Population Aging and the Generational Economy: Key Findings”, Chapter 1 in Lee and Mason, *Population Aging and the Generational Economy: A Global Perspective*, Edward Elgar pp.3-31

Gary S. Becker and Kevin M. Murphy (1988), “The Family and the State,” Supplement to Chapter 11 in *A Treatise on the Family (Enlarged Edition)*, Harvard University Press, reprinted from Gary S. Becker and Kevin M. Murphy (1988), *Journal of Law and Economics*, April, pp. 1-18. . (Read up to section on divorce on page 12, and past this only if interested).

### ***Population Aging and Intergenerational Transfers***

David Cutler, James Poterba, Louise Sheiner, and Lawrence Summers (1990) "An Aging Society: Opportunity or Challenge?" *Brookings Papers on Economic Activity* v.1, pp.1-56 and 71-73. (Read pp.1-16 carefully, and skim the rest.

Ronald Lee “A note on Samuelson and the stable population model” on bSpace as “MorePopEconMath”. (4 pages).

Committee on the Long-Run Macroeconomic Effects of the Aging U.S. Population (2012) *AGING AND THE MACROECONOMY: LONG-TERM IMPLICATIONS OF AN OLDER POPULATION* (National Academies Press). Read:  
Chapter 3 on the demographic background on population aging, pp.32-61.  
Chapter 4 on health and disability, pp.62-74.  
Chapter 5 on labor force participation and retirement, pp.73-105, except for pp.mid-86-mid-90.

## VIII. Economic Consequences of Immigration

- Orn B. Bodvarsson and Hendrik Van den Berg (2009) *The Economics of Immigration: Theory and Policy* Springer. Chapter 5. “The Effects of Immigration on the Destination Economy: the Theory”, pp.107-132.
- Orn B. Bodvarsson and Hendrik Van den Berg (2009) *The Economics of Immigration: Theory and Policy* Springer. Chapter 6. “How Immigration Impacts the Destination Economy: The Evidence”, pp.133-157.
- George Borjas (2003) “The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market”, *Quarterly Journal of Economics* (November), pp.1335-74.
- David Card “How Immigration Affects U.S. Cities.” In Robert P. Inman, editor, *Making Cities Work: Prospects and Policies for Urban America*. Princeton NJ: Princeton University Press, 2009
- James Smith and Barry Edmonston, eds, *The New Americans*, Chapter 7: “The Life Time Fiscal Impacts of Immigrants and Their Descendants”, National Academy Press, 1997 (pp.297-362). (Chapter drafted by Ronald Lee and Timothy Miller).

## IX. Population and Economic Development

### *The Demographic Transition, Savings, and Economic Growth*

- National Research Council Working Group on Population and Economic Development (1986) *Population and Economic growth Development: Policy Questions* (National Academy Press, Washington D.C.) Read the “Introduction” pp.1-10 (ignoring the description of the world population and economic trends of that day), and the “Conclusion”, pp.85-93.
- Allen C. Kelley, Robert M. Schmidt (2005) “Evolution of recent economic-demographic modeling: A synthesis” *Journal of Population Economics* 18:275–300.

### *Population Growth, Human Capital, and Economic Development*

#### *Looking for a natural experiment. Cross-national studies.*

- Daron Acemoglu and Simon Johnson (2007) “Disease and Development: the Effect of Life Expectancy on Economic Growth”, *Journal of Political Economy*, (December) volume 115, pp. 925-985.
- David E. Bloom, David Canning, Günther Fink and Jocelyn E. Finlay (2009) “Fertility, female labor force participation, and the demographic dividend” *Journal of Economic Growth* Volume 14, Number 2, 79-101, DOI: 10.1007/s10887-009-9039-9Open Access
- Grant Miller (2010) “Contraception as Development? New Evidence from Family Planning in Colombia,” *Economic Journal*. Volume 120, Issue 545, pages 709–736.

#### *Looking for a Natural Experiment: Micro studies*

T. Paul Schultz (2010) "Direct and Indirect Effects of a Health and Family Planning Quasi Experiment in Matlab, Bangladesh: Gender and Generational Consequences" paper presented at the 2010 meetings of the Population Association of America, Dallas.

***Unified Growth Theory***

"Towards a Unified Theory of Economic Growth Oded Galor on the transition from Malthusian stagnation to modern economic growth An interview with introduction by Brian Snowdon", *WORLD ECONOMICS* • Vol. 9 • No. 2 • April–June 2008.

Lee, Ronald (2012) "Intergenerational transfers, the biological life cycle and human society." *Population and Development Review* 38 (Supplement): 3–15.

To consider:

Early childhood investment and later life development.

New NAS report on health and mort at younger ages <50