Economics of Population  
Fall 2008  
Economics 672  
Course Syllabus

Andrew Mason       BusAd C102  
Saundres 515C       MW 1:30-2:45  
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Office hours MW 3:00-4:00

The Economics of Population is concerned with important and pervasive demographic processes, their causes and their consequences. We will begin with a broad overview of demographic change and its relationship to economic growth drawing on historical experience. Next the course will focus on the macroeconomic consequences of population trends both in low- and high-income countries. Then, we will consider the application of economic models to demographic events, e.g., childbearing, mortality, marriage, divorce, and living arrangements. The course will conclude with research on immigration. Grades will be based on the following elements:

- Mid-term examination
- Class paper due November 28 and presented at class mini-conference on the morning of December 6. Mini-conference counts as two class sessions; two regular sessions will be cancelled at dates to be determined.
- Student-led discussion of a reading to be selected by the student.
- Final examination on material covered after the mid-term examination.

The weighting for grades will be determined by the class on the first day, but the following weights are suggested.

Weights for grading: 

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tr>
<td>Final</td>
<td>30%</td>
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<tr>
<td>Mid-term</td>
<td>30%</td>
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<td>Paper/presentation</td>
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<td>Class participation</td>
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Student Learning Objectives

Demographic transition and demographic fundamentals
• Students will be able to compute and interpret standard demographic measures, e.g., the total fertility rate, the life table, population growth rates, and others.
• Students will master fundamental theoretical relationships between mortality, fertility, and age structure.
• Students will understand the demographic transition and global trends in fertility, mortality, and age structure.
• Students will study the determinants of fertility, mortality, and migration in developing and industrialized countries.

Population and Macroeconomics
• Students will analyze standard growth models and important extensions that incorporate demographic detail.
• Students will understand alternative analytic approaches to studying the macroeconomic effects of population.
• Students will understand the current state of knowledge about the impact of population on economic growth.
• Students will study the affects of population on key sectors of the economy, e.g., housing, financial markets, international capital flows, etc.
• Students will be able to use macroeconomic models to study important public policy and the implications for intergenerational equity.

Economics of the Family
• Students will learn the “new home economic” theories of fertility.
• Students will learn cooperative models of family decision-making.
• Students will learn models of intergenerational transfers.

Other
• Students will present and critique a journal article in class.
• Students will write and present a paper at a “class conference” at the end of the semester.
<table>
<thead>
<tr>
<th>Dates</th>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>1</td>
<td>8/25 &amp; 27 I. Introduction and overview</td>
<td>II. Demographic transition and demographic fundamentals: Mortality I</td>
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<td>2</td>
<td>9/1 &amp; 3 Holiday: Labor Day</td>
<td>Mortality II</td>
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<td>3</td>
<td>9/8 &amp; 10 Fertility</td>
<td>Immigration</td>
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<td>4</td>
<td>9/15 &amp; 17 Age Structure, Pop Projections, and Steady State</td>
<td>A digression on lifecycle planning</td>
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<td>5</td>
<td>9/22 &amp; 24 III. Population and Macroeconomics</td>
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<td>6</td>
<td>9/29 &amp; 10/1 Fundamentals/Dividend</td>
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<td>7</td>
<td>10/6 &amp; 8 Demographic Dividend II</td>
<td>Empirical studies of saving</td>
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<td>8</td>
<td>10/13 &amp; 15 Financial markets (include international)</td>
<td>Fiscal effects</td>
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<td>9</td>
<td>10/20 &amp; 22 Fiscal effects</td>
<td>Fiscal effects</td>
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<td>10</td>
<td>10/27 &amp; 29 Review</td>
<td>Mid-term Examination (subject to change)</td>
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<td>11</td>
<td>10/30 &amp; 11/1 IV. Economics of the Family</td>
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<td>12</td>
<td>11/3 &amp; 5</td>
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<td>11/17 &amp; 19</td>
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<td>15</td>
<td>11/24 &amp; 26</td>
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<td>16</td>
<td>12/1 &amp; 3</td>
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<td>17</td>
<td>12/6 9:00 am Mini-Seminar, Miller Room, Saunders 515</td>
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<td>17</td>
<td>12/8 &amp; 10 V. Special Topics (time permitting)</td>
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<td>17</td>
<td>12/11 Final Exam 11:30 am</td>
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Economics 672  
Economics of Population  
Reading List (subject to revision)

Reading list is subject to revision. Required readings are indicated by * or ♣ (may be presented by a student).

I. Overview  
Background reading: *The Future of Population in Asia (East-West Center 2002) (Can be picked up at the Economics Department office.)

II. Demographic transition and demographic fundamentals  
The objective of this section is to provide an historical overview of broad demographic change and to learn some of the standard tools and methods used to study population.

A. Mortality (two lectures)  
   2. Determinants:  
      Mortality Determinants: *Cutler et al. (2006); *Fogel (1997); *Almond (2006)  
      How long will we live: (Lee 2001; Olshansky, Carnes et al. 2001; Oeppen and Vaupel 2002)  
      Evolution of aging: (Lee 2003b; Robson and Kaplan 2003)

B. Fertility (one lecture; more later)  
   2. Determinants:  
      Framework: (Montgomery 1987)  
      Supply of children: (Bongaarts and Menken 1983)  
      Demand for children: (Lee and Bulatao 1983; Schultz 1997)  
      Value of children: (Mueller 1976)  
      Child mortality: (Ben-Porath 1976; Say 1991)  
      Population policy: (Molyneaux and Gertler 2000; Tsui 2001)

C. Immigration (one lecture; fiscal impacts later)  

D. Age Structure, Population Projections, and Steady-state

   An illustration of the cohort component method and the Leslie matrix:  
   http://www.montana.edu/~wwwbi/staff/creel/bio480/leslie.html

   A simple program for projecting a closed population:  
   http://data.princeton.edu/eco572/project.html

Population projections, data: (United Nations 2000) Summary information and description available online at http://unpopulation.org

Additional Reading and Information Sources:
Mathematics of population: (Keyfitz 1968)
Demographic methods: (Shryock, Siegel et al. 1976)


Recent UN report on marriage and fertility in low-fertility countries: (United Nations Population Division 2003) can be downloaded from the Population Division web site http://unpopulation.org

Special Lecture: A Digression on Lifecycle Planning
This lecture uses the tools of demography and population to discuss lifecycle planning for individuals. We will use estimates of consumption and earning age profiles to construct estimates of saving and wealth age profiles.

III. Population and Macroeconomics


B. Contemporary Perspectives on Population and the Macroeconomy

   2. Demographic Dividends: ♣Bloom and Williamson (1998); Kelley and Schmidt (2001); Mason and Lee (2001); *Cutler et al. (1990).
6. International or Cross-border effects: Attanasio et al. (2006); *Borsch-Supan et al. (2006); Bryant (2004).
7. Fiscal effects of population aging and immigration; public policy (4-5 lectures)
   b. Simulation models of aging: Kotlikoff, Smetters et al. (2001).

IV. Economics of the family
This section of the course will rely heavily on a recently published textbook (Ermisch 2003) to provide a theoretical foundation for research on the family. Supplemental readings will be assigned to illustrate applied research on the economics of the family and alternative theoretical approaches. Two useful publications that address many aspects of the economics of the family are Becker (1991) and Rosenzweig and Stark (1997).


B. Altruism in the Family *Ermisch (2003), Chapter 3.

C. Home Production and Investment *Ermisch (2003), Chapter 4.

D. Investment in and Financial Transfers to Children *Ermisch (2003), Chapter 5, sections 5.1-5.3 only.

E. Economics of Fertility *Ermisch (2003), Chapter 6.
   Abortion and crime rates in the US: *Donahue and Levitt (2001)
   The US baby boom: Butz and Ward (1979)
   Research on fertility in developed countries: Hotz et al. (1997)
   Research on demand for children in developing countries: Schultz (1997: sections 1, 2, 5, and 6) Rosenzweig (1977)
F. Economics of Marriage *Ermisch (2003), Chapter 7.
Marriage: Manser and Brown (1980)
Recent analysis of dowry payments in India Anderson (2003)
Divorce: Weiss and Willis (1985) Becker et al. (1977)

H. Non-Altruistic Family Transfers *Ermisch (2003), Chapter 9.
Additional theoretical and empirical research on IG transfers:
Becker (1974; 1991); Becker and Tomes (1976); Becker and Murphy (1988); Barro (1974); Altonji et al. (2000); Cox (1987); Frankenberg et al. (2002); Kotlikoff and Spivak (1981); Lillard and Willis (1997); McGarry and Schoeni (1997).

Recent broad overview: Palloni (2001)
Analysis of US historical patterns: Costa (1998, Chapter 6)
Decision-making by young men: McElroy (1985)
Valuable contribution that provides a somewhat different and broader theoretical perspective: Ben-Porath (1980) Pollak (1985)

V. Special Topics

REFERENCES


Possibilities for special topics:

**Missing Women**


Oster, Emily Hepatitis B and the Case of the Missing Women JPE Dec 2005.

Comments and response in PDR; unpublished comment by Avi Ebenstein

**Population Policy**

De Lacroix, Tradeable Procreation Rights.

**Value of Life**

(Ashenfelter 2006)

**Age and Productivity**

Skirbeck
Refs from Lee Summer Seminar lecture
(Jones 2005)