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 research on immigration issues emphasizing the economic consequences of immigration for receiving and sending countries. (Why people migrate is a topic taken up in labor economics courses.) The final section of the course will consider the application of economic models to demographic events, e.g., childbearing, mortality, marriage, divorce, and living arrangements.

Grades will be based on the following elements:

- Two mid-term examinations
- Class paper due November 19 and presented at class mini-conference on the morning of December 1. Paper should be double-spaced and twenty pages or less plus references. Please submit a printed version and an electronic version. Mini-conference counts as two class sessions; two regular sessions will be cancelled at dates to be determined.
- Each student will lead one seminar session devoted to a reading selected by the student from an approved list. Student leader should make a presentation not to exceed thirty minutes and then lead the discussion. Student should come up with ways to encourage discussion in advance, e.g., requiring each of the other students to discuss a shortcoming in the paper.
- Final examination on material covered after the second mid-term examination.

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

<table>
<thead>
<tr>
<th>Weights for grading:</th>
<th>First mid-term exam</th>
<th>15%</th>
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<tbody>
<tr>
<td>Second mid-term exam</td>
<td>25%</td>
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<tr>
<td>Paper/presentation</td>
<td>25%</td>
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<tr>
<td>Final exam</td>
<td>25%</td>
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<tr>
<td>Class participation</td>
<td>10%</td>
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Student Learning Objectives

Demographic transition and demographic fundamentals

- Compute and interpret standard demographic measures, e.g., the total fertility rate, the life table, population growth rates, and others.
- Master fundamental theoretical relationships between mortality, fertility, and age structure.
- Understand the demographic transition and global trends in fertility, mortality, and age structure.
- Determinants of fertility, mortality, and migration in developing and industrialized countries.

Population and Macroeconomics

- Standard growth models and important extensions that incorporate demographic detail.
- Alternative analytic approaches to studying the macroeconomic effects of population.
- The current state of knowledge about the impact of population on economic growth.
- Effects of population on key sectors of the economy, e.g., housing, financial markets, international capital flows, etc.
- Use of macroeconomic models to study important public policy and the implications for intergenerational equity.

Immigration

- Who immigrates and why is treated very briefly; covered much more extensively in labor economics.
- Effects of immigration on the destination country
- Effects of immigration on the sending country

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 8/20 &amp; 22</td>
<td>I. Introduction and overview</td>
<td>II. Demographic transition and demographic fundamentals: Mortality I</td>
</tr>
<tr>
<td>2 8/27 &amp; 29</td>
<td>Mortality II</td>
<td>Fertility</td>
</tr>
<tr>
<td>3 9/3 &amp; 5</td>
<td>Holiday: Labor Day</td>
<td>Age Structure, Pop Projections, and Steady State</td>
</tr>
<tr>
<td>4 9/10 &amp; 12</td>
<td>III. Population and Macroeconomics: Malthus to Solow</td>
<td>Solow to Samuelson to Becker</td>
</tr>
<tr>
<td>5 9/17 &amp; 19</td>
<td>Examination</td>
<td>No class</td>
</tr>
<tr>
<td>6 9/24 &amp; 26</td>
<td>Steady state, golden rule, continuous age</td>
<td>Demographic dividends</td>
</tr>
<tr>
<td>7 10/1 &amp; 3</td>
<td>Empirical: Kelley and Schmidt◆</td>
<td>Empirical: Acemoglu and Johnson◆</td>
</tr>
<tr>
<td>8 10/8 &amp; 10</td>
<td>Financial markets (include international capital flows)</td>
<td>Aging and Generational Equity</td>
</tr>
<tr>
<td>9 10/15 &amp; 17</td>
<td>Aging and Pension Reform</td>
<td>IV. Immigration – overview, effect on the destination economy</td>
</tr>
<tr>
<td>10 10/22 &amp; 24</td>
<td>Immigration – effects on the destination economy</td>
<td>Immigration – effects on the sending economy</td>
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<tr>
<td>11 10/29 &amp; 31</td>
<td>Examination</td>
<td></td>
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<tr>
<td>12 11/5 &amp; 7</td>
<td>V. Economics of the Family</td>
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<td>13 11/12 &amp; 14</td>
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<tr>
<td>15 11/26 &amp; 28</td>
<td>◆Duflo</td>
<td>◆Donahue and Levitt</td>
</tr>
<tr>
<td>16 12/3 &amp; 5</td>
<td>Marriage</td>
<td>◆Lillard and Willis</td>
</tr>
<tr>
<td>17 12/6 &amp; 8</td>
<td>IG Transfers ◆Becker and Murphy</td>
<td>No class</td>
</tr>
<tr>
<td>12/14</td>
<td>Final Exam: Friday, December 14, 9:45-11:45 am</td>
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◆ Student led class in seminar format.
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 in a seminar session).

I. Overview
Background reading: *The Future of Population in Asia (East-West Center 2002):
http://www2.eastwestcenter.org/pop/pop59000.htm

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 2003; 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)

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

http://books.nap.edu/html/beyond_six_billion/
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: Individual Perspectives on the Economics of Aging
This lecture uses the tools of demography and economics to discuss how consumption varies over the lifecycle and the support systems available to provide for old age.

III. Population and Macroeconomics

A. Population and Economic Growth
   1. From Malthus to Solow
      *Lee (1973) on Malthus;
      Hayami and Ruttan (1987); Hayami (2001); Boserup (1965; 1981) on induced innovation.
   2. From Solow to Samuelson
      Becker and Barro (1988)
   3. Growth models with continuous age structure
   4. Demographic dividends
      *Mason and Lee (2007)

B. Other Macroeconomic Topics


4. Aging and Pension Reform: *Diamond (2004); *Lindbeck and Persson (2003); Kotlikoff, Smetters et al. (2001); Gruber and Wise (1999); Feldstein.

IV. Immigration


2. Effects on sending countries: *Bodvarsson and Van den Berg, Chapter 8: 183-219

V. 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)

REFERENCES


