ECONOMICS 710
TOPICS IN THE ECONOMICS OF POPULATION

Fall 2016
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COURSE OBJECTIVES
The course will introduce students to the analysis of the economic consequences of demographic change; emphasis will be placed on analytical techniques drawn from demography as well as economics.

GENERAL READINGS AND REFERENCES
Selected web sites of interest; each one has extensive links --
- QSEP Research Program -- http://socserv.mcmaster.ca/qsep/
- SEDAP Research Program -- http://socserv.mcmaster.ca/sedap/
- NBER – http://www.nber.org/
- Population Reference Bureau – explore this site for up-to-date population estimates and analysis, including the “[latest] World Population Data Sheet” – http://www.prb.org/
- Statistics Canada – http://www.statcan.ca/start.html

Note: Most QSEP, SEDAP, and NBER papers on the reading list can be downloaded from the above websites.

COURSE EVALUATION
There will be up to four assignments and a major paper on an agreed topic. The major paper will count for half of the final grade, the assignments and class participation for the other half. The first two assignments will be due at the end of weeks 3 and 6; the major paper will be due July 15.

ACADEMIC INTEGRITY POLICY
The University states unequivocally that it demands scholarly integrity from all of its members. Academic dishonesty, in whatever form, is ultimately destructive to the values of the University; furthermore, it is unfair and discouraging to those students who pursue their studies honestly. See http://www.mcmaster.ca/univsec/policy/AcademicIntegrity.pdf

Reading List and References
1. INTRODUCTION (week 1)

2. DEMOGRAPHIC BACKGROUND AND ANALYSES (weeks 2, 3)
   (i) Life tables, some historical context, and projections
Statistics Canada, (Detailed) Life Tables, Canada, 2009-2011; for a detailed reference document, see Statistics Canada, "Methods for Constructing Life Tables for Canada, Provinces and Territories", 84-538-X.


**Complementary readings:**

Frank T Denton and Byron G Spencer, "A Dynamic Extension of the Period Life Table", *Demographic Research*, June 2011.


(iii) **Definition of ‘Old’**

**Complementary readings:**


3. **IMPLICATIONS OF POPULATION CHANGE FOR GOVERNMENT EXPENDITURES AND SUPPORT RATIOS (week 4)**
Frank T Denton and Byron G Spencer, "Prospective Changes in Population and Their Implications for Government Expenditures," in Courchene, Conklin, and Cook, eds., *Ottawa and the Provinces: The Distribution of Money and Power* (Toronto, Ontario Economic Council, 1985); Appendix material only.


**Complementary readings:**


4. **DEMOGRAPHIC CHANGE AND THE MACROECONOMY (Weeks 5, 6)**


**Complementary readings:**


5. Aging, saving and retirement (weeks 7 and 8)

(a) Aging and optimal public saving in a neo-classical economy (Ramsey framework)

David M Cutler, James M Poterba, Louise M Sheiner, and Lawrence H Summers, An Aging Society: Opportunity or Challenge?, Brookings Papers on Economic Activity, 1990(1). This is a long paper (73 pages) and we will focus our discussion on sections 2 (pages 16 to 28) and 5 (pages 45-53) as well as the discussions by George Akerlof (pages 57-62) and Martin Baily (pages 63-67).

Section 2: 1st model, ratio of capital to worker kept constant. Discuss the main equations describing such an economy, describe the simulation (mostly the Solow effect) in words (intuition). Use our spreadsheet to find the consumption per capita path that would keep this ratio (capital per worker) constant in an economy going through the boom-bust sequence.

Section 2: 2nd model, optimal saving rate (through fiscal policy). Comment on the social planner utility function and the constraint (intuitions and realism). Search how to solve the social planner problem and whether you agree with their solution (this is a Ramsey framework). Comment on their main finding regarding saving and fiscal policy. Using the spreadsheet, try to find an optimal saving rate (maximize consumption per capita). Discuss the basic intuition behind the Ramsey framework: infinite horizon with a time discount rate. Do you think it is realistic? (Requires you research the meaning of the TDR – the optional, recommended paper by Martin Feldstein below might help).

Section 5: discuss their comment on inter-generational transfers (pages 54-55). Also discuss their discussion of further development pages 55, particularly #1 and #3 (we will discuss #2 and 4 extensively in our next session). For point 1, the optional reading by Paul Beaudry et al. 2005 will be most helpful.

Optional, recommended readings:

Paul Beaudry, Fabrice Collard and David Green, 2005, “Explaining productivity growth: the role of demographics”, International Productivity Monitor, 10: 45-58


(b) Aging and private saving: Overlapping Generations (OLG) and the Life-Cycle Hypothesis (LCH)


Complementary readings:

A paper examining the hypothesis among population of hunter-gatherers, not by economists, but intriguing:


(c) The role of pension plans:


Complementary readings:


(d) The determinants of retirement age and the political economy of pensions:


Theodore C. Bergstrom and John L. Hartman, 2005 Demographics and the Political Sustainability of Pay-as-you-go Social Security, Working Paper, University of California Santa Barbara (published as chapter 5 of
Complementary readings:

An interesting contribution on models to explain retirement decisions (do individuals plan ahead?):


6. Aging and health (weeks 9 and 10)

(a) Quantifying health at the population level


Complementary reading:

Luis Prieto & José A. Sacristan, 2003 “Problems and solutions in calculating quality-adjusted life years (QALYs)”, *Health and Quality of Life Outcomes*, 1:80


(b) Age as time to death rather than time from birth: the Red Herring


Complementary readings:
Thai T Dang, Pablo Antolin and Howard Oxley 2001 "Fiscal Implications of Ageing" OECD Economic Department WP 305

OECD 2006 “Projecting OECD Health and Long-Term Care Expenditures”, OECD Economic Department WP 477
7. Special topics and project presentations (weeks 11 & 12)

(i) Fertility


(ii) Migrations and the wage rate


Complementary readings:


Course Modification Warning

The instructor(s) and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.