Econ 710
Population Economics
Course Outline

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Winter 2020

Monday 10:30am to 12:00pm and Thursday 2:00pm to 3:30pm
Room: KTH 334.
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.

1 GENERAL READINGS AND RESOURCES

Selected web sites of interest:

1. QSEP (McMaster Research Institute for Quantitative Studies in Economics and Population) Research Program: [http://socserv.mcmaster.ca/qsep/](http://socserv.mcmaster.ca/qsep/) Working papers on various aspects of population changes in relation to economics, with a Canadian focus of interest (the program is hosted at McMaster).


4. NBER (National Bureau of Economic Research): [http://www.nber.org/](http://www.nber.org/) The US-based NBER supports various programs of research in economics, among which is a program on aging. They publish working papers (those on aging are available at [https://www.nber.org/papersbyprog/AG.html](https://www.nber.org/papersbyprog/AG.html)) News about the research program on aging can be found at: [https://www.nber.org/programs/age](https://www.nber.org/programs/age)

5. Population Reference Bureau. The PRB is a US based private not-profit organization funded by the WHO, the US Bureau of Census, Johns Hopkins School of Public Health, among others, to collect and analyze data on global and reproductive health as well as changes in

6. Gapminder: a great source of data and tools about population (among other topics), including presentations (Ted Talks) by Hans Rosling, the founder of Gapminder: [https://www.gapminder.org/](https://www.gapminder.org/)

7. Scott Manning, compendium of data on the world population since the apparition of homo sapiens: [https://scottmanning.com/content/year-by-year-world-population-estimates/](https://scottmanning.com/content/year-by-year-world-population-estimates/)

## 2 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.

## 3 COURSE READINGS

1. INTRODUCTION (week 1)
   


2. DEMOGRAPHIC BACKGROUND AND ANALYSES (weeks 2 and 3)
   
   (a) Life tables, some historical context, and projections:
      
      i. Statistics Canada, (Detailed) Life Tables, Canada, 2015-2017
ii. for a detailed reference document, see Statistics Canada, “Methods for Constructing Life Tables for Canada, Provinces and Territories”, 84538X.


(c) Frank T. Denton and Byron G. Spencer, “Some Demographic Consequences of Revising the Definition of Old to Reflect Future Changes in Life Table Probabilities”, Canadian Journal on Aging, Vol 21, No 3, 2002.


3. IMPLICATIONS OF POPULATION CHANGE FOR GOVERNMENT EXPENDITURES AND SUPPORT RATIOS (week 4)

(a) 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.


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


(c) Nicole Maestas, Kaitlin J. Mullin and David Powell, The effect of population aging on economic growth, the labor force and productivity, NBER 22452, July 2016.

5. AGING, SAVINGS 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

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

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


(d) Optional (complementary): A paper examining the hypothesis among population of hunter-gatherers, not by economists, but intriguing: Hillard Kaplan, Kim Hill, Jane Lancaster, and A. Mag-


7. The role of pension plans:


8. The determinants of retirement age and the political economy of pensions:


(c) Dora Costa, 1998, “The Problem of Old Age”, and “The Evolution of Retirement”, chapters 1 (pages 1 to 5) and 2 (pages 6 to 31)


(e) Optional: Michael Hurd, James Smith and Julie Zissimopoulos, 2004, “The effects of subjective survival on retirement and social security claiming”, Journal of Applied Econometrics 19: 761 775; An interesting contribution on models to explain retirement decisions (do individuals plan ahead?)


9. AGING AND HEALTH (weeks 9 and 10)

(a) Quantifying health at the population level


iii. Optional: 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


iii. Illustration 1: Thai T Dang, Pablo Antolin and Howard Oxley 2001 *Fiscal Implications of Ageing* OECD Economic Department WP 305 and OECD 2006 *Projecting OECD Health and Long-Term Care Expenditures*, OECD Economic Department WP 477

10. SPECIAL TOPICS AND PROJECT PRESENTATIONS (weeks 11 and 12)

(a) Fertility


(b) Migrations and the wage rate


IMPORTANT NOTICES

COURSE MODIFICATION NOTICE

The instructor 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 the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

FACULTY OF SOCIAL SCIENCES E-MAIL COMMUNICATION POLICY

In order to encourage participation outside of class, we will use the discussion tools of Avenue To Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure.
Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student’s own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student’s responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

**ALTERNATE/ACCESSIBLE FORMAT**

If you require this information in an alternate/accessible format, please contact the Department of Health, Aging & Society at 905.525.9140 ext. 27227 or hasdept@mcmaster.ca

**ACADEMIC INTEGRITY**

Academic Integrity: You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at http://www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.

2. Improper collaboration in group work.

3. Copying or using unauthorized aids in tests and examinations.
Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University’s Policy for Academic Accommodation of Students with Disabilities: [http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf](http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf)

Avenue to Learn

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