Course Calendar with Readings
Economic Demography Econ/Demog c175
Spring 2023

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Notes:

- This document is subject to change.
  (See http://courses.demog.berkeley.edu/goldstein175 for the latest version.)
- All readings with links are accessible from within campus network or using proxy.
- Lab numbers may be out of order. We will try to fix this, but just in case, please check the keyword in the lab title.
- Labs are due on the Monday after they are assigned by 10 p.m. (unless otherwise announced).
- "TBA" ("to be announced") items are not yet available.

Types of reading:

- Readings that are classic texts are marked with classical music notation  . You should make sure to read all of the assigned pages carefully. Material in these readings may be on the exams, even if we did not discuss it in lecture. There are only a few such readings.
- Readings that cover lecture material in a text-book or expository way (marked with regular reading  symbol) will help reinforce and back-up material we cover in class. If you don't understand something in lecture, these sources can be very helpful.
- More difficult readings are marked with the warning  symbol. These are often the first publication of an idea by its author. For these, you should not worry about the whole article, and instead focus only on the pages assigned. (Don't get discouraged if

you don't understand these. Focus on how the author frames the issue to get insight into his or her thinking. We will explain the technical part in class.)

Week 1 (Jan 17, 19): Introduction

Lecture A: Course Introduction and World Population Growth

Lab: No lab in 1st week

- No reading

Lecture B: A Short History of the Last Million Years Brothers and sisters and population growth

-  Ansley J. Coale (1974) "The History of Human Population," *Scientific American* 321(3):40-51. https://www.jstor.org/stable/24950164
  Why were the first million years or so characterized by near zero growth? Has anything about Coale's view from 50 years ago proven wrong? Details: Try reproducing the doubling-time calculations on p. 43. Are the birth and death rates correctly or incorrectly labeled in the Neolithic Revolution figure on p. 48.

Week 2 (Jan 24, 26): Optimum population theory: Not too much, not too little, but just right

Lab: lab_01_world.Rmd

Lecture A: Optimal Population Theory

-  Alfred Sauvy (1966) *General Theory of Population.* *Pages 36-41 for an overview, pages 42-48 on the economic optimum, and pages 51-52 on the power optimum.* [available at bCourses]

Lecture B: Hands-on start to lab in class We will finish up optimal population theory and then get started on the first lab in class. Please bring laptops. If you forget, can work with person next to you.

Week 3 (Jan 31, Feb 2): The Impossibility of Progress, According to Malthus

Lab: lab_02_malthus.Rmd

Lecture A. Population Feedbacks and the Malthusian Model

- ( To be read *before* lecture.) Thomas Malthus (1798) An Essay on the Principle of Population (1st edition) ("Preface" pages vii-viii; "Chapter 1," pp 1-5, and "Chapter 2," pages 6-11. http://www.esp.org/books/malthus/population/malthus.pdf *What does he mean by 'vice'? What does he mean by 'oscillations'? How can a population improve its standard of living?*

Lecture B. Dismal Implications

-  Ronald Lee (1980) "An Historical Perspective on Economic Aspects of the Population Explosion: the Case of Pre-industrial England," in Richard Easterlin, ed., *Population and Economic Change in Developing Countries* (University of Chicago Press). http://www.nber.org/chapters/c9671.pdf *A modern presentation of Malthusian dynamics, with the diagrams we cover in lecture. Read only pages 517-520 and 541-546. This reading is not required but is a good back-up for lecture.*

Week 4 (Feb 7, 9): Capital to the Rescue?

Lab: lab_03_solow.Rmd

Lecture A. Solow's Growth Model, Production Functions, and Equilibrium

-  Rudiger Dornbusch and Stanley Fisher (1987) *Macroeconomics, 4th Ed.*, "Growth Theory", pages 726-737. *A textbook presentation of Solow model, using population growth rates as part of the motivation. The notation is similar to what we will use in class, except they denote "output per head" as x, but we will use y. If you have taken macro, please feel free to use your own textbook instead.*[available on bCourses]

Lecture B. Does slower growth create more inequality? A Solow application

-  () Thomas Piketty and Emmanuel Saez (2014) "Inequality in the long run," Science 344(6186):838-843. http://science.sciencemag.org/content/sci/344/6186/838.full.pdf *Overview of the history of inequality and Piketty's model of $r > g$. Note the Solow equilibrium on page 840 and the role of population growth. Ask yourselves what role population growth might have played in Figures 1,2,3, and 4.*

  ([optional]  For derivation of Piketty's 2nd law, http://aida.wss.yale.edu/smith/piketty1.pdf, page 729)

Week 5 (Feb 14, 16): Endogenous Growth and Resource Constraints

Lab: lab_04_thebet.Rmd

Lecture A. Boserup, Technological Change, and When is A Digging Stick Better than a Plow?

-  Ester Boserup (1976) "Environment, Population, and Technology in Primitive Societies", *Population and Development Review* 2(1):21-36 https://www.jstor.org/stable/pdf/1971529.pdf *Note how agricultural technology responds to population and the effect of population density on nonagricultural technology*

-  David Malakoff (2011) "Are More People Necessarily A Problem?" *Science* (July 29) pp. 544-546. http://www.sciencemag.org/content/333/6042/544 *Applying Boserup's logic to the contemporary world*

Lecture B. Are We Doomed?

-  David Lam (2011) "How the World Survived the Population Bomb: Lessons From 50 Years of Extraordinary Demographic History," *Demography* 48(4): 1231-1262. http://www.jstor.org/stable/41408189 *The "reasonable" economic discussion of population growth and resources*

-  Stan Becker (2013). "Has the 'World' Really Survived the Population Bomb?" *Demography* 50(6), 2173-2181. http://www.jstor.org/stable/42919975 *Brief criticism*

-  David Lam (2013). "Reply to Stan Becker . . . " the Population Bomb? *Demography*, 50(6), 2183-2186. http://www.jstor.org/stable/42919976 *Briefer reply*

Week 6 (Feb 21, 23): Tragedy of the Commons and Global Warming Population Pyramids

Lab: lab_05_pyramids.Rmd

Lecture A. Tragedy of the Commons and Global Warming

-  Garrett Hardin (1968) "The Tragedy of the Commons," *Science* 162(3859): 1243-1248. http://science.sciencemag.org/content/162/3859/1243.full.pdf *Classic article arguing that coersion is justified when markets fail. Good to read before class.*

-  Tim Dyson (2005) "On Development, Demography and Climate Change: The End of the World as We Know It?" *Population and Environment* 27(2):117-149 http://www.jstor.org/stable/27503954 (An overview with an emphasis on the inevitability of climate change because of the continuing transition from to fossil fuels. Ask yourselves, is this paper from 2005 already out of date?)

-  William Nordhaus (2015) "Climate Clubs to Overcome Free-Riding" *Issues in Science and Technology* 31(4):27-34. http://www.jstor.org/stable/24726920 (An approach to solving the challenges of the "commons".)

- Video: Nordhaus Nobel Lecture https://www.youtube.com/watch?v=h1RkSuAs03Q

Lecture B. Age-structured population dynamics and Age Pyramids

- No reading

- In-class lab.

Week 7: (Feb 28, Mar 2) Mid-terms

Lab: No lab

Lecture A: No class

Lecture B: In-Class Exam

Week 8: (Mar 7, Mar 9) The Challenges of Population Aging

Lab: lab_06_aging.Rmd

Lecture A: Age-structure and PAYGO pension systems

- *2018 Social Security Trustees Report* Overview, pages 2-24 https://www.ssa.gov/OACT/TR/2018/tr2018.pdf

Lecture B. Dependency, Age-structure, and the Demographic Transition

- ()Ronald Lee et al. (2014) "Is low fertility really a problem? Population aging, dependency, and consumption," *Science* 346(6206):229-233. http://science.sciencemag.org/content/sci/346/6206/229.full.pdf *Asks what age-structure is economically optimal using schedules of consumption and production (and the Solow model)*

Week 9 (March 14, 16): How Do Economists Think We Decide How Many Children To Have?

Lab: lab_08_fertility.Rmd

Lecture A. Time is Money: Children as Opportunity Costs

- Review income and substitution effects in whatever text you used for microeconomics. The wikipedia entry "Consumer Choice" may also be helpful, particularly the discussion of labor and leisure at the end. https://en.wikipedia.org/wiki/Consumer_choice

Lecture B. Quantity-Quality Tradeoff: When Less Is More

-  Gary Becker (1991) "The Demand for Children," Chapter 5 of *A Treatise On The Family*. Harvard University Press (1991) pp. 135-154. [available on bCourses]

Week 10 (March 21, 23): Fertility: Applications in China and the United States

Lab: lab_09_china.Rmd

Lecture A. Did China's 1-Child Policy Reduce Fertility?

-  Hesketh et al. (2005) "The Effect of China's One-Child Family Policy after 25 Years" *New England Journal of Medicine* 353:1171-1176. *Overview of details and consequences of the one-child policy.* PDF available for download at http://www.nejm.org/doi/full/10.1056/NEJMhpr051833

-  Junsen Zhang (2017) "The Evolution of China's One-Child Policy and Its Effects on Family Outcomes" Journal of Economic Perspectives 31(1), 141-159. http://www.jstor.org/stable/44133954

Lecture B. Recent issues in U.S. fertility

Opportunity or Expense? Babies and the Great Recession

-  Gretchen Livingston (2011) "In a Down Economy, Fewer Births," *Social & Demographic Trends* Pew Reserach Center, Washington, D.C. http://www.pewresearch.org/wp-content/uploads/sites/3/2011/10/REVISITING-FERTILITY-AND-THE-RECESSION-FINAL.pdf

Measuring the effect of abortion bans and fertility

-  Claudia Goldin (2006). The Quiet Revolution That Transformed Women's Employment, Education, and Family. The American Economic Review, 96(2), 1–21. http://www.jstor.org/stable/30034606

-  Economists' amicus brief in Dobbs v. Jackson Women's Health, the Supreme Court case that ultimately overturned Roe v. Wade. https://www.supremecourt.gov/DocketPDF/19/19-1392/193084/20210920175559884_19-1392bsacEconomists.pdf

-  Phillip B. Levine et al. (1999) "*Roe v Wade* and American Fertility" American Journal of Public Health 89(2):199-203. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1508542/pdf/amjph00002-0057.pdf

Spring Break (March 27-31)

Week 11 (Apr 4, 6): Migration: Should Natives Fear for their Paychecks?

Lab: lab_12_mariel.Rmd

Lecture A. Does Immigration Raise or Lower Taxes? (Guest Lecture by Dr. Donehower)

-  National Research Council (1997) *The New Americans: Economic, Demography and Fiscal Effects of Immigration* (National Academy Press) James Smith and Barry Edmonston, eds. *The chapter on "The Future Fiscal Impacts of Current Immigrants" is long, so focus on the introduction (pages 297-305), the age profiles of taxes and benefits (309-318), the results (pages 326-337), and the concluding discussion (pages 344-354).*[available on bCourses]

-  National Research Council (2016) "Report Highlights: The Economic and Fiscal Consequences of Immigration" http://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_174349.pdf *Executive summary of new report, which updates* The New Americans

- *"Let's Do the Numbers" (2017)*
  https://www.thisamericanlife.org/632/our-town-part-two
  Fiscal costs of immigrants to the town of Albertville, discussion of the National Academy of Sciences report, with a cameo by Dr. Donehower. (You may need to search the audio for the right section.). Question: what do you think of the discussion of social security taxes and benefits for the undocumented?

Lecture B. Labor Market Effects of Immigration

-  National Research Council (1997) *The New Americans: Economic, Demography and Fiscal Effects of Immigration* (National Academy Press) James Smith and Barry Edmonston, eds. *Read pages 135-142 on "Immigration's Effects on Jobs and Wages: First Principles" and pages 228-239 on "Immigration's Effects on Jobs and Wages: Empirical Evidence"* [available on bCourses]

Week 12 (April 11, 13) No Class: Population Association Meetings

Lab: No lab

- 𝄞 Ronald Lee (2003) "The Demographic Transition: Three Centuries of Fundamental Change," *Journal of Economic Perspectives*, 17(4):167-190. http://www.jstor.org/stable/3216936 *An excellent overview of many themes in this course. Very good preparation for the final exam. I recommend doing this reading during this empty week. If not, should do during R-R week to prepare for the final. Please take advantage of on-line forum to discuss.*

Week 13 (April 18, 20): Marriage and Divorce

Lab: lab_10_marriage.Rmd

Lecture A. What is there besides love?

-  Betsey Stevenson and Justin Wolfers (2007) "Marriage and Divorce: Changes and their Driving Forces," *Journal of Economic Perspectives* 21(2) 27-52. http://www.jstor.org/stable/30033716 *More recent changes*

-  Gary Becker (1991) "The Evolution of the Family," Chapter 11 of *A Treatise On The Family*. Harvard University Press (1991) pp. 342-361. [available on bCourses] *An overview from the perspective of 1990, with a particular emphasis on the welfare state.*

Lecture B. Who marries whom?

-  Gary Becker (1973) "A Theory of Marriage: Part 1" *Journal of Political Economy* 81(4):813-846.http://www.jstor.org/stable/pdf/1831130.pdf *Read only Sections 1, 2, and 5. Don't worry about the math. Instead read to understand how Becker conceptualizes the decision to marry. It may be best to read the conclusion first.*

Week 14 (April 25, 27): Mortality, the Last Chapter

Lab: lab_14_mortality.Rmd

Lecture A. Choosing Your Own Date of Death? Micro-economic Models of Mortality

-  Jay Bhattacharya et al. (2013) Health Economics. New York: Palgrave. *Read Chapter 3: "Demand for Health: The Grossman Model" pages 28-50 and Chapter 4: "Socioeconomic Disparities in Health", pages 51-75.*[available on bCourses]

Lecture B. Student Presentations

Final Exam: May 11, 2023, 3-6 p.m. (to be confirmed)