

# Population and Society

## Sociology 331 - Spring 2015

**Instructor:** Emilio Zagheni      **Lecture:** MW 1:30-2:50pm in Sieg Hall 134  
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Many of today's critical challenges, from climate change and human rights violations, to health inequality and the sustainability of social security systems, are related to population processes. A large number of social problems are intimately connected to changes in population size, age structure, composition, and spatial distribution. The main goal of this course is to provide you with a set of tools for understanding the causes of population dynamics and the consequences of population processes for our societies. This course will offer an introduction to measures and methods of demographic research and to important substantive areas of inquiry at the intersection of sociological and population research. It would help you integrate a demographic perspective into the study of social, political, environmental, and economic issues. At the end of the course you would have an expanded set of skills as a social scientist, and you would become a more informed consumer of news and political reports about issues related to population problems.

**Canvas and Top Hat** We will use Canvas and Top Hat to organize materials for this course. You will find the electronic version of assigned readings in Canvas, organized by week, under "Modules". You will be able to freely access these documents as students in this course. In order to respect copyright restrictions, the readings should not be duplicated or passed on to individuals not enrolled in this course. The Canvas course website is: <https://canvas.uw.edu/courses/968510>

We will use the Top Hat platform to improve your learning experience in this course. I will use Top Hat to present and annotate slides, to ask questions in class, to facilitate discussion and, more broadly, to make the course material more engaging. Teaching assistants may also use Top Hat in sections. You would have to subscribe to Top Hat. The subscription cost is currently \$20 per quarter or \$38 for 5 years. You would also need to bring an appropriate device (e.g., laptop, tablet or phone) to class. This would permit you to respond to questions asked in class. Your questions will be automatically recorded and combined with those of other students in charts displayed on the screen. Some of the questions will be about substantive topics discussed in class. Some others will be survey questions about your own demographic backgrounds. Some may ask basic questions about assigned readings. Responses to these questions will count towards the participation component of your grade. The Top Hat webpage for this course is: [www.tophat.com/e/965553](http://www.tophat.com/e/965553)

**Lectures** Lectures will be held on Mondays and Wednesdays from 1:30-2:50pm in Sieg Hall 134. The format of these lectures will vary in relation to the material that will be covered. Some lectures will consist mainly of presentation of substantive topics; others may be devoted to the discussion of various data sets or research designs; some may focus on the discussion of specific readings; some may include time for you to work on multiple-choice questions or on demographic problems that require a numeric answer. A number of lectures would have a combination of various formats. In order to make your time in lecture most productive, please make sure to i) read the assigned material before class; ii) bring an appropriate device to use the Top Hat platform (e.g., laptop, tablet or phone); iii) bring a simple electronic calculator.

**Sections** Sections will be held on Fridays at various times and locations (one hour of section per week). These sections are an essential component of this course: attendance and participation are expected. Sections will not only reinforce what you have learned in lectures, but also provide important skills needed to understand, analyze and visualize demographic data. The material covered in sections will be evaluated via homework assignments and is part of the examination material for the midterm and final exam.

## Course Requirements and Grading

<b>Participation and Contribution</b>	10%
<b>Homework assignments</b>	20%
<b>Midterm</b>	30%
<b>Final Exam</b>	40%
Total	100%

**Participation & Contribution** Participation is expected and will count towards your final grade. Please help create a constructive learning environment. Different people have different ways in which they participate best, all of which are valid: thoughtful preparation, sharing a well-formulated idea, helping a classmate understand a concept, sharing the results of an in-class exercise, coming to office hours, posting relevant news articles to the class website, contributing to the discussion forums on the class website, etc. I strongly encourage you to interact with the instructors and your fellow students. Listen to your peers, wait for your turn to speak, and refrain from using discriminatory language. If you are a talker, make sure that your quieter peers get a chance to speak. If you are shy, remember that if you have a question, most likely there is at least one other person with the same question who would be happy to listen to the answer in class or read it in the discussion forum on the course website.

In class and in sections we will ask questions using the Top Hat platform. Answering those questions will count towards your participation grade. We will record the number of questions to which you provide an answer. That will count towards your participation grade.

**Homework assignments** There will be four problem sets/homework assignments over the course of the quarter. Homework assignments will vary in scope and size and will help to reinforce what you have learned in lectures and sections. They would also be a good opportunity for you to strengthen your data analysis skills. You are welcome to discuss the problem sets in small groups, but you must write the final submission independently. Problem sets from different people containing identical material will not receive credit. Credit for late assignments will be reduced by one third if the assignment is

submitted within 24 hours from the deadline, by two thirds if submitted between 24 and 48 hours from the deadline. Assignments submitted more than two days after the deadline will not receive any credit.

**Exams** There will be 2 exams for this class: an in-class midterm and a final. The midterm will cover the material from the first part of the course. The final will be cumulative and cover the material for the entire course, although more emphasis will be given to the second half. Please bring your hand calculator and a pen or pencil to all exams.

## Class Conduct

The class atmosphere will be quite relaxed. These are just some guidelines:

- Arriving a few minutes late is tolerated as long as you make an effort to minimize the disturbance for other students.
- Eating and drinking in class is not forbidden, but please make sure that you are not disturbing others.
- Please put your cellphone ringer on silent mode.
- If you cannot make it to class for any reason, make sure that you know what happened during the lecture that you missed. It is your responsibility, and nobody else's.
- If you have trouble with the course material or have personal problems that are hindering your performance in the class, please come and talk to me so that we can solve the problem before it is too late. It is better to bring up any concerns as soon as they arise.
- Please always show respect to your fellow classmates.

## Students with Disabilities

Please inform me as soon as possible of special needs that you may have, like larger printouts of quizzes and exams, or extra time on an exam. The sooner you notify me, the better we will be able to accommodate you.

## Academic Integrity

A fundamental tenet of all educational institutions is academic honesty. Students must do all their work within the boundaries of acceptable academic norms. See the *Statement of Student Academic Responsibility*<sup>1</sup> regarding college policy on plagiarism and other forms of academic dishonesty. Students found guilty of plagiarism or academic dishonesty will be subject to appropriate disciplinary actions, which may include a failing grade, suspension or expulsion.

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<sup>1</sup><https://depts.washington.edu/grading/pdf/AcademicResponsibility.pdf>

## Course outline and schedule

Week	Date	Topics	Reading reference
I	Mon, March 30 Wed, April 1	Introduction Measures and Concepts	[1, 2]
II	Mon, April 6 Wed, April 8	The Demographic Transition Population Growth	[3, 4] [5, 6, 7]
III	Mon, April 13 Wed, April 15	Classic Perspectives on Population and Environment Population and Climate Change	[8, 9, 10, 11] [12, 13, 14]
IV	Mon, April 20 Wed, April 22	Human Longevity : Trends and Patterns Reshaping the Life Course for Longer Life	[15, 16, 17] [18]
V	Mon, April 27 Wed, April 29	Production, Consumption and Transfers over the Life Course <b>Midterm</b>	[19]
VI	Mon, May 4 Wed, May 6	Fiscal Consequences of Population Aging Fertility Change	[20, 21] [22, 23]
VII	Mon, May 11 Wed, May 13	Consequences of Fertility Change Demographic Change and Family Structure	[24, 25] [26, 27, 28, 29]
VIII	Mon, May 18 Wed, May 20	International Migration: Trends and patterns International Migration: Theories	[30, 31] [32]
IX	Mon, May 25 Wed, May 27	No class: Memorial Day Consequences of Migrations	[33, 34]
X	Mon, June 1 Wed, June 3 Monday, June 8	The '(Big) Data Revolution' in Demography The '(Big) Data Revolution' in Demography <b>Final exam</b>	[35, 36] [37, 38]

## References

### Week I

- [1] McFalls, J.A. Jr. (2007) Population: A Lively Introduction, 5th Edition, *Population Bulletin* 62, no.1 (Washington DC: Population Reference Bureau, 2007).
- [2] Wachter, K.W. (2014). *Essential Demographic Methods*. Harvard University Press. [Excerpts from Chapters 1&2]

### Week II

- [3] Lee, R. (2003). The Demographic Transition: Three Centuries of Fundamental Change. *The Journal of Economic Perspectives*, 17(4), 167-190.
- [4] Livi-Bacci, M. (2012). *A Concise History of World Population*. John Wiley & Sons. [Excerpts from Chapters 1&2]
- [5] Gerland, P., Raftery, A.E., Sevcikova, H., Li, N., Gu, D., et al. (2014). World Population Stabilization Unlikely this Century. *Science*, 346(6206), 234-237.
- [6] Lee, R. (2011). The Outlook for Population Growth. *Science*, 333(6042), 569-573.
- [7] Lutz, W., Butz, W.P., and Samir, K.C. (Eds.). (2014). *World Population and Human Capital in the Twenty-first Century*. [Executive summary] Oxford University Press.

### Week III

- [8] Boserup, E. (1987). Population and Technology in Preindustrial Europe. *Population and Development Review*, 13(4):691-701.
- [9] Hirschman, C. (2004). Population and Development - What Do We Really Know? In *Conference on 'Development Challenges for the Twenty-First Century'*.
- [10] Ehrlich, P.R and Holdren, J.P. (1971). Impact of Population Growth. *Science* 171(3977):1212-1217
- [11] Lam, D. (2011). How the World Survived the Population Bomb: Lessons from 50 Years of Extraordinary Demographic History. *Demography*, 48(4), 1231-1262.
- [12] O'Neill, B.C., Dalton, M., Fuchs, R., Jiang, L., Pachauri, S., and Zigova, K. (2010). Global Demographic Trends and Future Carbon Emissions. *Proceedings of the National Academy of Sciences*, 107(41), 17521-17526.
- [13] MacKellar, F.L., Lutz, W., Prinz, C., and Goujon, A. (1995). Population, Households, and CO<sub>2</sub> Emissions. *Population and Development Review*, 21(4):849-865.
- [14] Zagheni, E. (2011). The Leverage of Demographic Dynamics on Carbon Dioxide Emissions: Does Age Structure Matter? *Demography*, 48(1), 371-399.

### Week IV

- [15] Oeppen, J., and Vaupel, J.W. (2002). Broken Limits to Life Expectancy. *Science*, 296(5570), 1029-1031.
- [16] Wilmoth, J.R. (2011). Increase of Human Longevity: Past, Present and Future. *The Japanese Journal of Population*, 9(1), 155-161.

[17] United Nations, Department of Economic and Social Affairs, Population Division (2012). *Changing Levels and Trends in Mortality: the role of patterns of death by cause* (United Nations publication, ST/ESA/SER.A/318). [Executive Summary]

[18] Lee, R., and Goldstein, J.R. (2003). Rescaling the Life Cycle: Longevity and Proportionality. *Population and Development Review*, 29:183-207.

#### **Week V**

[19] Lee, R.D., and Mason, A. (Eds.). (2011). *Population Aging and the Generational Economy: A Global Perspective*. Edward Elgar Publishing. [Chapter 1]

#### **Week VI**

[20] Lee, R., and Edwards, R. (2002). The Fiscal Effects of Population Aging in the US: Assessing the Uncertainties. In *Tax Policy and the Economy*, Volume 16 (pp. 141-180). MIT Press.

[21] Gruber, J., and Wise, D. (1998). Social Security and Retirement: An International Comparison. *American Economic Review*, 88(2):158-163.

[22] Hirschman, C. (1994). Why Fertility Changes. *Annual Review of Sociology*, 20:203-233.

[23] Billari, F.C. (2008). Lowest-low Fertility in Europe: Exploring the Causes and Finding some Surprises. *The Japanese Journal of Population*, 6(1), 2-18.

#### **Week VII**

[24] Schmidt, L., Sobotka, T., Bentzen, J.G., and Andersen, A.N. (2012). Demographic and Medical Consequences of the Postponement of Parenthood. *Human Reproduction Update*, 18(1), 29-43.

[25] Lee, R., Mason, A., et al. (2014). Is low Fertility really a Problem? Population Aging, Dependency, and Consumption. *Science*, 346(6206), 229-234.

[26] Bianchi, S.M., and Casper, L. M. (2000). *American Families* (Vol. 55, No. 4). Population Reference Bureau.

[27] Watkins, S.C., Menken, J.A., and Bongaarts, J. (1987). Demographic Foundations of Family Change. *American Sociological Review*, 52:346-358.

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[29] Goldstein, J.R. (1999). Kinship Networks that Cross Racial Lines: the Exception or the Rule?. *Demography*, 36(3), 399-407.

#### **Week VIII**

[30] United Nations, Department of Economic and Social Affairs, Population Division (2013). *International Migration Report 2013*.

[31] Abel, G. and Sander, N. (2014). Quantifying Global International Migration Flows. *Science* 343:1520-1522.

- [32] Massey, D.S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., and Taylor, J.E. (1993). Theories of International Migration: A Review and Appraisal. *Population and Development Review*, 19(3) 431-466.

### **Week IX**

- [33] Hirschman, C. (2005). Immigration and the American Century. *Demography*, 42(4), 595-620.
- [34] Lee, R., and Miller, T. (2000). Immigration, Social Security, and Broader Fiscal Impacts. *American Economic Review*, 90(2):350-354.

### **Week X**

- [35] Zagheni, E., and Weber, I. (2012). You are Where you E-mail: Using E-mail Data to Estimate International Migration Rates. In *Proceedings of the 4th Annual ACM Web Science Conference*
- [36] Deville, P., Linard, C., Martin, S., et al. (2014). Dynamic Population Mapping Using Mobile Phone Data. *Proceedings of the National Academy of Sciences*, 111(45), 15888-15893.
- [37] Palmer, J.R., Espenshade, T.J., Bartumeus, F., Chung, C.Y., Ozgencil, N.E., and Li, K. (2013). New Approaches to Human Mobility: Using Mobile Phones for Demographic Research. *Demography*, 50(3), 1105-1128.
- [38] Lu, X., Bengtsson, L., and Holme, P. (2012). Predictability of Population Displacement after the 2010 Haiti Earthquake. *Proceedings of the National Academy of Sciences*, 109(29), 11576-11581.