

SOC 293: America by the Numbers: An Introduction to Demography

Professor Virginia Adams O'Connell

PPHAC 315

Phone: 610-625-7756

Email: voconne1@moravian.edu

W 11:45 AM-2:20 PM Main Street Campus, Priscilla Payne Hurd Academic Complex, 116

Abstract:

Demography is the statistical study of human populations and of the effects of population composition. It encompasses the study of the size, structure, and distribution of populations in response to birth, migration, aging and death. How, for example, do the different relative proportions of old people and young people, of workers and dependents, of men and women, affect the human experience and the structure and function of a society? Why are societies interested in tracking the fertility behavior of their population and what preparations do they have to make for a growing population? Why are some European countries now failing to reproduce themselves and how will this impact the survival of these societies and of their cultures? Why is the United States currently "at replacement" and how does it continue to avoid the fertility decline pitfalls of their European cousins? We will explore these concepts and more in the context of this class, with a special focus on the demographic composition of the US population.

Although demography departments are often housed in sociology departments at academic institutions, the study of population composition extends beyond the field of sociology. It is a vital component of the social sciences in general (including psychology, political science and economics). It is also a vital component of other fields, including education, public health/healthcare and epidemiology, and business/marketing. So students in many different majors can benefit from learning demographic concepts.

The main goals of this course are to:

- 1) Introduce students to the major conceptual frameworks of demographic analysis.
- 2) To have students see the interconnectedness of the social processes of birth, migration and death.
- 3) To explore both the biological and social components that affect population composition. For example, we know that there is an ideal window for childbearing, for both the female and for the male. But we are also in a society where more and more people are delaying childbearing in order to pursue higher education and employment. How do we recognize and reconcile these competing forces?
- 4) To have students become increasingly comfortable with interpreting and analyzing demographic data, to develop a "feel" for the structure of the world population, and to understand the United States population's relationship to the global community.
- 5) To have students become acquainted/better acquainted with Power Point, and with presenting data/an academic argument to an audience of their peers.

Although advanced demographic analysis can require some very advanced mathematics, many of the basic analyses require only very basic (but important) mathematical concepts. In fact, one of the main demographic formulas reads as follows: $\Delta P = B - D + IM - OM$

Where: ΔP = change in population

B = births

D = deaths

IM = in-migration

OM = out-migration

So fundamental thinking about changing population compositions requires addition and subtraction! So even students who do not think of themselves as strong math students can enjoy demography and benefit from this analytical system.

We will spend a significant part of the course reviewing demographic data from such sources as the US Census, the United Nations, the C.I.A. and the World Health Organization. Students will get ample opportunities to explore different ways of presenting data (including population pyramids), and have multiple opportunities to “read” data, both in tabular and in graphical forms.

There will be a series of handouts that will both be posted on Blackboard and handed out in class. These readings/articles should be kept in a binder and organized by topic. They will be useful to use for class activities, assignments and for the final essay.

Class attendance/participation is mandatory. If you are going to miss a class, I expect that you will contact me prior to class to let me know, either by phone or email. Although I understand that people might occasionally miss class due to illness or personal emergencies, patterned absences will result in a lowering of your class attendance/participation grade and I will contact your advisor/the dean’s office. Regular attendance will yield a class attendance grade of a 3.0 (B). Participation will increase that grade upwards, and patterned absences will decrease that grade. Basically, everyone will start out with a B.

Cheating/plagiarizing: If any student is caught plagiarizing, you will automatically fail the class. If there are any questions about what constitutes plagiarism, please review drafts of your assignments with me. Please also see Moravian College’s Academic Honesty policy (on the website) to review the institution’s definitions of cheating and plagiarism.

Assignments:

I expect **assignments to be handed in on time**, on the day that they are due. Late assignments will be docked one full grade for each day that they are late. So an “A-quality” assignment that was due on Tuesday that is handed in on Wednesday will drop to a “B.” If handed in on Thursday, the grade will drop to a “C.” I know students occasionally run into computer/printer problems, and if you are in this situation, email me as soon as possible. If you are having a printer problem, you can send me your assignment as an attachment so that you can still get full credit for handing the assignment in on time. I do not have much sympathy for students who wait until a few minutes before class begins to print up their assignment and then discover that they are having trouble. So try to make it part of your schedule that you will finish and print up your assignments at least the night before the assignment is due. This way, you will have time to either solve your problem or contact me.

I also expect assignments to follow whatever **formatting and page instructions** given when the assignment is assigned. For example, if I assign an essay question that I suspect will take at least two pages to answer, I expect a full two pages of writing will constitute your response. This is two pages, word processed, double-space, one inch margins, Times New Roman, 12-point font, without additional

spaces between your name and date at the top of the page, and between the title of your essay. Assignments that fall short of the page requirement will automatically lose points.

We will have a number of **in-class activities/quizzes** throughout the semester—this is another reason why regular class attendance is so important. These activities will help to solidify the concepts of the course. There will also be **sporadic short out-of-class activities**. These two kinds of assignments will constitute the short assignment/quizzes grade. I expect people to keep up with the readings for the class, otherwise you will not be able to successfully complete the in-class activities.

Mid-term: There will also be an in-class mid-term exam which will consist of short answers/essays. This exam will help me make sure that everyone is up-to-speed on the concepts of the class before we move ahead with the material in the second half of the semester.

Power Point Presentation: early in the semester, I will ask students to choose a demography topic of their choice to explore over the course of the semester in greater detail than we will cover collectively in class. You will then put together a Power Point presentation on this topic to share with the class. I want everyone to have fun with this project, and to learn about putting together presentations. The range of topics can be pretty broad and include everything from the changing fertility patterns in developed nations, Europe's declining population, the lost boys in Japan, to the effect of the baby boomers on manufacturing trends in the US. We can talk about the possibility of students working in pairs on this project.

"Final Exam": Within the first four weeks of the semester, you will be given the final exam. For your final exam, I will ask you to draft a population policy statement for the Obama administration. As we review the population projections for the next fifty years (fertility, mortality and immigration trends), what steps do you think the administration should take to either increase or decrease any of the factors as we think about the future? I think giving you the final so early in the semester helps students focus on the major concepts of the course and helps you focus on the linkages between concepts over the course of the semester. The final exam is a take home final, but since you will have it at the beginning of the semester, you can work on it throughout the semester. I am also willing to review drafts of the final exam and provide feedback. I encourage everyone to complete the relevant section of the final at the end of each unit. The final exam will be due on the final day of class.

Breakdown of grade:

Class attendance and participation: 20%

Short assignments/quizzes: 20%

Mid-term exam: 20%

Take home final exam: 20%

Power point presentation: 20%

Students with Disabilities:

"Students who wish to request accommodations in this class for a disability should contact Ms. Elaine Mara, Assistant Director of Academic & Disability Support, located on the first floor of Monocacy Hall (extension 1401). Accommodations cannot be provided until authorization is received from the Academic & Disability Support office."

Online documents:

Demographic Trends in the 20th Century: Census 2000 Special Reports

<http://www.census.gov/prod/2002pubs/censr-4.pdf>

The Changing Demographic Profile of the United States

<https://www.fas.org/sgp/crs/misc/RL32701.pdf>

Week by week outline of coursework:
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Week 1: Introduction to the field of demography and review of course outline.

Ways of studying populations: demographic factors predicting non-demographic trends or non-demographic trends affecting demographic factors? Biology, economic factors, geography, political institutions/policies, sociological and psychological factors can all either increase or decrease births, deaths and migrations.

Joel Cohen: An Introduction to Demography (Malthus Miffed: Are People the Problem?)

https://www.youtube.com/watch?v=2vr44C_G0-o

Week 2: Snapshot of the World

Hans Rosling's 200 Countries, 200 Years, 4 Minutes - The Joy of Stats - BBC Four

<https://www.youtube.com/watch?v=jbkSRLYSojo>

Coursework:

The Changing Demographic Profile of the United States: Summary

<https://www.fas.org/sgp/crs/misc/RL32701.pdf>

A Tale of Three Islands:

<http://www.economist.com/node/21533364>

The World at 7 Billion:

<http://video.nationalgeographic.com/video/news/7-billion/ngm-7billion>

The Typical Person:

<http://video.nationalgeographic.com/video/news/7-billion/ngm-7billion-typical?source=relatedvideo>

Week 3: Population Growth and Change

Topics:

- The basic demographic equation
- Rate of natural increase
- Rate of population growth
- Major periods of population growth
- Ethics of population control

- Population dynamics and the world of business

Coursework:

The Changing Demographic Profile of the United States:

- Population Size and Growth—Fertility, Mortality and Net Immigration.

Week 4: Population Data

Topics:

- Challenges associated with measuring age
- Types of records
- Brief history of census taking
- Vital registration

Week 5: Population Distribution and Composition

Population Pyramid Graph - Custom Region - United States

<http://www.census.gov/population/international/data/idb/region.php?N=%20Results%20&T=12&A=separate&RT=0&Y=2015&R=-1&C=US>

International Data Base

<http://www.census.gov/population/international/data/idb/informationGateway.php>

Assignment: students will submit a short one-page description of their Power Point presentation topic.

Topics:

- Global distribution patterns
- Population density
- Sex and age structure
- Sex ratios
- Population pyramids
- Dependency ratio
- Baby boomers and the elderly in the US
- Race and ethnicity in the US

Coursework:

The Changing Demographic Profile of the United States:

- The Changing Age Profile

Mitigating the Impacts of Low Fertility in a World of 7 Billion People

<http://www.unfpa.org/video/mitigating-impacts-low-fertility-world-7-billion-people-0>

One County Provides Preview Of China's Looming Aging Crisis

http://www.npr.org/blogs/parallels/2015/01/14/377190697/one-county-provides-preview-of-chinas-looming-aging-crisis?utm_source=facebook.com&utm_medium=social&utm_campaign=npr&utm_term=nprnews&utm_content=20150114

Week 6: Theories of Population Change

Malthus, population growth and the resource base
<https://www.youtube.com/watch?v=4V09jI5WlVw>

Population Theories Part 2—Esther Boserup
https://www.youtube.com/watch?v=OqOa_ga1tAs

- Early population theories
- Malthus and Boserup
- The demographic transition, morality and fertility changes
- Zero population growth

Week 7: Mortality: Patterns and Trends

- What are the major causes of mortality?
- Age-specific death rates
- Infant mortality rate (and why this is such a sensitive measure of population health)
- The epidemiological transition
- Causes of death
- Sex differentials
- Pattern of world mortality

Articles:

“Where you live affects your lifespan.”

“Low position on social status ladder linked to faster ageing.”

“Medical Measures and the Decline of Mortality.”

The top 10 causes of death

<http://www.who.int/mediacentre/factsheets/fs310/en/>

Top 20 Causes of Mortality Throughout the World

<http://www.infoplease.com/ipa/A0779147.html>

Week 8: The Life Table

This week you will learn how to construct and interpret a life table.

Week 9: Mid-term exam

This week we will have an in-class mid-term exam.

Week 10: Fertility: Patterns and Trends

- General fertility rate, age-specific birth rate and total fertility rate
- The biological determinants of fertility
- The social determinants of fertility
- Economic determinants of fertility
- The high cost of children and resource distribution

Articles:

“Some facts about reproduction.”

Week 11: Fertility: Family Planning Programs

Starting this week, we will begin the student presentations. I will hand out an outline and provide some examples about how the Power Point presentation should be organized. Your presentation should be no more than 10 minutes.

- Different population policies—what works and what does not to either increase or decrease fertility rates? What policies are generally seen as ethical and which are not?

Articles:

“Busted by the baby boom.”

Week 12: Migration and Mobility

- What are the factors that increase or decrease the likelihood of migrating? The push-pull model.
- Consequences of migration
- Legal and illegal border immigration—the current debates
- Within country immigration
- Urbanization and economies of scale

Week 13: Population and the Environment

- Environmental degradation and population growth—how many people can the earth sustain?
- Pollution, crowding, violence, disease, deforestation, ozone, and global warming.

Article:

“The End of Ingenuity.”

Week 14: Population and the Food Supply

<http://video.nationalgeographic.com/video/news/7-billion/ngm-7billion-typical?source=relatedvideo>

- Current trends in food production
- Increasing production
- Genetically modified foods