

Sociology 674

Elementary Demographic Techniques

Time: Tues/Thurs 9:30-10:45
Classroom: 122 Ingraham Hall
Instructor: Christine Schwartz
Office: 4458 Social Science Building
Tel: 262-5791
Email: cschwart@ssc.wisc.edu
Office hours: Mondays 12-2pm, or by appointment

Course objectives:

Sociology 674 is an introductory course in demographic research methods. The primary objective of the course is to learn how demographers (1) describe the characteristics of populations; (2) measure mortality, fertility, marriage, and migration; (3) use life tables to estimate population quantities; and (4) project population characteristics into the future. By the end of the semester, you will be able to calculate and correctly interpret standard demographic indices such as expectation of life at birth and total fertility rates. Non-demographic applications of the methods are also stressed where appropriate. This course is a prerequisite for the advanced demographic methods course (Sociology 756) and a key component of preparation for the demography prelim.

Course requirements:

Students are expected to do the assigned readings and to attend class - lectures will address, but will not duplicate, the reading materials. Classes will be interactive lectures and students should come prepared to participate.

There will be three types of graded assignments:

1. 8 problem sets
These are assigned to give you practice calculating and interpreting measures as well as applying your knowledge of concepts. These are short assignments that will be due at regular intervals. See the schedule below for due dates.
2. 3 reports
While the problems sets consist of calculations and short-answer questions, the reports give you an opportunity to apply your knowledge as a practitioner. You will be given a problem to address using the methods learned in class and will write a 2-3 page report outlining the problem, findings, and conclusions for a general audience.
3. 2 quizzes
The majority of the assignments consist of problem sets and short reports, but there will be 2 quizzes designed to assess your understanding of the material. These are meant to help you internalize important measures and concepts.

Grades will be determined as follows:

- 1) Problem sets (35%)
- 2) Reports (30%)
- 3) 2 quizzes (30%)
- 4) Class participation and attendance (5%)

Problem Set Grading:

You are welcome to work together on homework assignments but everyone should write up their own assignments. You should answer all of the problems yourself if you hope to do well on the tests. Problem sets are due the *beginning* of class on the due date. Homework will be graded on a “+,” “✓,” “-“ system. Exemplary assignments will be given “+”s (those that are virtually entirely correct and well-documented), “✓”s will be given for good assignments, but which have significant deviations from the “+” standard, and “-”s will be given for poor or incomplete assignments. You may also receive a “✓+” or “✓-” as an intermediary grade. If you miss an assignment or turn in an exceptionally poor assignment, you will receive a “0.”

Homework turned in after the due date but by the beginning of the following class will receive a maximum score of a “✓.” If the assignment would have received a “✓” if turned in on time, it will receive a “-.” Homework will not be accepted after the beginning of the class following the due date.

Other relevant information:

I will communicate by email regarding any scheduling changes or additional readings. I will post lecture outlines and materials on the course website at learn@uw.

Readings:

Required text: *Demographic Methods and Concepts* by Donald T. Rowland (2003, Oxford University Press). This book is available at UBS. The book comes with a CD-ROM that we will be using occasionally. Make sure that you have both the book and the CD.

Other readings: We will also read several sections from *Demography: Measuring and Modeling Population Processes* by Preston, Heuveline, and Guillot, 2001, Blackwell (referred to as PHG in the syllabus). This is the main text for the advanced demographic techniques course (Soc. 756) so I would recommend that graduate students buy this book. We will also read several articles from other sources. These readings are all available on learn@uw (indicated by *).

	Date	Topic and Assignment
T	4-Sep	<i>Introduction, syllabus</i>
		I. Population Composition & Growth
R	6-Sep	<i>Basic concepts: Rates and probabilities</i> Read: Rowland section 1.4-1.6 PHG sections 1.1 - 1.5, 1.9*

- T 11-Sep *Population growth*
Problem set 1 due
 Read:
 Rowland Chapter 2
- R 13-Sep *Age & sex composition*
 Read:
 Rowland Chapter 3
- T 18-Sep *Population composition in the news & using Excel*
Problem set 2 due
 Read:
 “For Women Under 30, Most Births Occur Outside Marriage” *NYTimes**
 “A Gap in College Graduates Leaves Some Cities Behind” *NYTimes**
 “Whites Account for Under Half of Births in the U.S.” *NYTimes**
- R 20-Sep *Basic concepts: Age, period, and cohort*
 Read:
 Rowland section 4.4
 PHG section 2.4-2.5*
 Ryder "The Cohort as a Concept in the Study of Social Change"
- T 25-Sep *Population comparisons, standardization*
Report #1 due: Age & sex composition
 Read:
 Rowland 120-134,
 PHG section 2.1-2.2*
 Kitagawa “Standardized Comparisons in Population Research”*
- R 27-Sep *Standardization, continued*
- T 2-Oct *Decomposition of differences between rates & means*
Problem set 3 due
 Read:
 PHG pp. 28-30*
 Kitagawa “Components of a Difference Between Two Rates”*
- R 4-Oct *Demographic data: Census, vital statistics, and other sources of data*
 Read:
 Rowland 24-29

II. Measures of mortality, fertility, reproduction, & marriage

- T 9-Oct *Measures of mortality*
Problem set 4 due
 Read:
 Rowland sections 6.3-6.5

R	11-Oct	<i>Measures of fertility</i> Read: Rowland 7.3-7.3
T	16-Oct	<i>Measures of reproduction: NRR, GRR, TFR</i> <u>Problem set 5 due</u> Read: Rowland sections 7.5-7.6
R	18-Oct	<i>Measures of marriage & divorce</i> Read: Rowland sections 7.7-7.8
T	23-Oct	Quiz 1
		III. Life tables
R	25-Oct	<i>Life tables</i> Read: Rowland Chapter 8 Pollard et al. Chapter 3 "The Life Table"*
T	30-Oct	<i>More on life tables</i> Read: PHG chapter 3 (skip sections 3.7-3.9)*
R	1-Nov	<i>Guest lecture – Professor Jenna Nobles</i> <u>Problem set 6 due</u> Migration and children's family experiences in Mexico
T	6-Nov	<i>Life tables for other events</i> Read: Pollard et al. Chapter 4 "Applications of Stationary Population Models"*
R	8-Nov	<i>Life tables: Applications I</i> <u>Problem set 7 due</u>
T	13-Nov	<i>Life tables: Applications II</i>
R	15-Nov	<i>Review/catch-up</i> <u>Report #2 due: Life tables</u>
T	20-Nov	Quiz 2
R	22-Nov	Thanksgiving!

IV. Migration and Population projections

T	27-Nov	<i>Migration: concepts, data, rates</i> Read: Rowland Chapter 11
R	29-Nov	<i>Population projections</i> Read: Rowland Chapter 12
T	4-Dec	<i>Guest lecture – Katherine Curtis</i> <u>Problem set 8 due</u> Demography and climate change research
R	6-Dec	<i>More on population projections</i>
T	11-Dec	<i>Socioeconomic projections</i>
R	13-Dec	<i>Review and discussion</i> <u>Report #3 due: Population projections</u>