

# GEOGRAPHY 360 POPULATION DYNAMICS AND DISTRIBUTION

Spring 2010

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Class meets MWF @ 12.30, (MW classes in JEB 121, Friday classes will meet in computer lab, McClure 214A)

## Objectives of Course:

This is an introduction to the study of population (demography) and an introduction to the use of demographic data, primarily from census sources. Students will learn the major trends in population dynamics, the factors associated with birth and death rates, and the importance of both demographic characteristics and migration on population distribution patterns. The lectures will present general concepts and models of demographic patterns. After a series of exercises on international comparisons by country, students will each do a series of projects for an assigned state and we will have short student presentations of project results so that we can see patterns among the states. Upon completion of the course, students will be comfortable with basic statistical comparisons of demographic data from census and vital statistics sources.

**Text:** Yaukey, David and D.L. Anderton, *Demography*, Third Edition. Waveland Press, 2007.

*Population Reference Bureau Bulletins (PRB)* available in library, or as PDF files at

<http://www.prb.org/Publications/PopulationBulletins.aspx>

(Read the following as assigned)

PRB 59:2 “China’s Population: New Trends and Challenges”

PRB 57:1 “International Migration: Facing the Challenge”

PRB 58:2 “Immigration: Shaping and Reshaping America”

PRB 60:1 “Global Aging: The Challenge of Success”

PRB 60:4 “Global Demographic Divide”

PRB 61:4 “Immigration: Shaping and Reshaping America”

PRB 61:3 “India’s Population Reality: Reconciling Change and Tradition”

## Plan for the semester:

**Exams**--two exams, short answer essay and identification of terms

**Term Project**--Each student will be given a state to study during the semester in a series of projects using data from census sources.

**Exercises** will introduce SPSS, using data file from Population Reference Bureau World Data Sheet, and ethnicity data, using the Macedonian census. Access to the data will be explained in the Friday lab classes.

## State Projects:

**Project 1** will begin with a description of crude birth and death rates for your state, using choropleth mapping techniques.

**Project 2** will analyze birth and death rates using scatter diagrams and correlation coefficients.

**Project 3-5** will study vital statistics, compute net migration, and analyze migration patterns within states.

You will receive project instructions for each during the semester beginning with instructions for data collection for counties within your state. The projects are designed to familiarize you with data sources, with basic

analytical procedures and with the use of statistical procedures within the SPSS system. Project reports will be written and presented to the class in short oral presentations with visuals.

## **TOPICS COVERED**

### **I. Introduction to the Geographic Study of Population**

- A. Spatial aspects of population
  - 1. Population size, structure, dynamics and impact
  - 2. Measurement of population
    - a. census data
    - b. vital statistics
    - c. estimates of population
  - 3. Spatial distribution of population
    - a. analysis techniques
    - b. geographic patterns
    - c. demographic research problems

**Reading: Yaukey and Anderton, Introduction and chapters 1 and 2.**

**PRB 60:4 “Global Demographic Divide”**

**PRB 61:3 “India’s Population Reality: Reconciling Change and Tradition”**

### **II. The World Population**

- A. Demographic perspectives on population dynamics
  - 1. Malthusian
  - 2. Marxist
  - 3. Demographic Transition

**Reading: Yaukey and Anderton, chapters 3 and 4.**

**PRB 57:1 “International Migration: Facing the Challenge”**

**PRB 59:2 “China’s Population: New Trends and Challenges”**

- B. Population Growth
  - 1. Historical trends
  - 2. Current patterns of growth
  - 3. Comparison between selected countries
  - 4. Application of the demographic transition stages

### **III. Population Processes**

- A. Mortality
  - 1. Factors affecting mortality
  - 2. Epidemiological transition
  - 3. Measuring mortality
  - 4. Patterns of mortality

**Reading: Yaukey and Anderton, chapters 5 and 6.**

## **EXAM I**

**Population Processes continued.**

- B. Fertility

1. Factors affecting fertility
2. Measuring fertility
3. Patterns of fertility
4. Baby boom

**Reading: Yaukey and Anderton, chapters 7 and 8.**

**PRB 58:2 “Immigration: Shaping and Reshaping America”**

C. Migration

1. Theories of migration
2. Measuring migration
3. Migration patterns
  - a. international
  - b. national
  - c. local

**Reading: Yaukey and Anderton, chapters 9 and 10.**

**PRB 61:4 “Immigration: Shaping and Reshaping America”**

**IV. Population Structure and Characteristics**

A. Age and sex structure

1. Factors affecting age structure
2. Patterns of age structure
3. Factors affecting sex distribution
4. Patterns of sex discrimination

**Reading: Yaukey and Anderton, chapter 11,**

**PRB 60:1 “Global Aging: The Challenge of Success”**

**V. Population, Urbanization and Economic Development**

A. Demographics and Business Planning

1. Techniques and data sources
2. Demographic trends and projections
3. Applications in business planning

**FINAL EXAM**