

Sociology 291 - Population and Society

MIDTERM REVIEW SHEET

The format of the midterm exam will be as follows:

- 15 multiple choice questions (2 points each)
- 10 true-false questions (2 points each)
- 10 short-answer questions (to be answered in one word or sentence) (3 points each)
- 1 extra-credit question on the life table (10 points)

To study for the exam:

1. The exam will emphasize **major** points and concepts that are reviewed in lectures and the readings (it will not focus on minute detail)
2. You should focus on the material that has been covered in lectures.
3. Be familiar with the main points of the assigned chapters from the textbook that are listed at the end of each chapter.
4. There will be less focus on the course packet readings. Know very basic point of course packet readings (I don't expect you to know the details of the readings but I may include questions that will be very easy to answer if you have simply read the articles)

Topics to review for the exam:

Elements of population growth

- You should know **major** facts about world population size and distribution. These are facts that **any** educated person should really know but certainly someone who has taken a course in population studies should know. The quiz that was given in class gives some examples of what I expect you to know. Given that you live in the U.S., you should know basic demographic facts about this country. You should also know the largest countries in the world and their *approximate* size.
- You should memorize the *demographic balancing equation* and understand the components that explain how a population can grow and decrease.
- You should know how to calculate a crude birth rate and crude death rate. Based on the discussions and readings of fertility and mortality, you should be able to name a country with a high/low birth rate and a high/low death rate.
- You should be familiar with the historical trends in population size and growth and know the major factors that have contributed to the recent rapid population growth.

Thomas Malthus

- You should be able to describe Malthusian theory (the two postulates, checks to population growth that he mentioned and the problems with his theory). You should know how Malthusian thought differed from previous beliefs on population growth and appreciate the impact that it still has today.

The Census

- the purpose of the census, originally and today
- how the census is collected (long vs. short form, who gets counted, etc)
- problems with the census: coverage error and content error
- the issue of scientific sampling to correct for the undercount

Mortality

- History of mortality
 - sources of information on mortality

- major causes of death at different time periods (historically and today) and underlying causes of death
- Reasons for mortality decline
 - three primary explanations – which explanations are most important and where/when
- Mortality differentials in the United States today (by race, age, sex, socioeconomic status)
- Mortality in less developed countries (routes to low mortality, major issues still facing LDCs)
- Measures of mortality
 - crude death rate vs life expectancy (know the advantages and disadvantages of each)
 - life table – understand the logic behind the table. I don't expect you to memorize the different notation but you should understand in words what each component of the life table is and how they relate to one another.

Fertility

- Measures of fertility (crude birth rate, total fertility rate)
- Natural fertility populations – what they are and examples of them
- Biological components of fertility (know the basic components, how they differ across different countries and can explain different levels of fertility across different countries)
- Social components of fertility (social and economic factors that explain why fertility differs across different countries – particularly differences between less developed and more developed countries)
- Major theories of fertility decline
- Coale's three preconditions
- Maragoli – be familiar with the arguments presented in the documentary
- Know general history of fertility decline (for example, which countries experienced a decline first and why)

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MIDTERM

FORMULAS:

- (1) You should know how to use the formula
- (2) You should know how to interpret the elements of the formula.
- (3) You should memorize several of the formulas.

MEMORIZE

$$(1) \text{CDR}(0 \text{ to } T) = \frac{D(0 \text{ to } T)}{PY(0 \text{ to } T)} = \frac{D(0 \text{ to } T)}{\bar{N} \cdot T}$$

T is expressed in years.

mean population
between 0 & T.

$$(2) \text{CBR}(0 \text{ to } T) = \frac{B(0 \text{ to } T)}{PY(0 \text{ to } T)}$$

$$(3) \text{CRNI}(0 \text{ to } T) = \text{CBR}(0 \text{ to } T) - \text{CDR}(0 \text{ to } T)$$

$$(4) P(t) = P(0) (1+r)^t$$

$$(5) r(0 \text{ to } T) = \text{CBR}(0-T) - \text{CDR}(0-T) + \underbrace{\text{CRIM}(0-T) - \text{CROM}(0-T)}_{\text{CRNM}(0 \text{ to } T)}$$

$$(6) {}_nM_x(0 \text{ to } T) = \frac{nD_x(0 \text{ to } T)}{nPY_x(0 \text{ to } T)} = \frac{nD_x(0 \text{ to } T)}{n\bar{N}_x \cdot T}$$