The University of Texas at Austin, Department of Sociology  
General Comprehensive Examination in Demography  
October 2010

Section A. Health and Mortality  
Please answer one (1) of A1 and A2.

A1. One of the most common generalizations in the demography of health is the inverse relationship between socioeconomic status and mortality. Regardless of the time period, nation, or unit of analysis, higher socioeconomic status is almost invariably linked to lower mortality. While this differential is well established, attempts to explain why the relationship exists have been less successful. What do you think accounts for the inverse relationship between these two variables? What theories, concepts, and mechanisms have been employed to explain this generalization?

A2. Substantial debate in epidemiology and demography has grown up around the Hispanic epidemiological paradox. Much of the debate centers on the nature of the relationship between migration and health. What is the Hispanic epidemiological paradox and what are its core explanations? Discuss the evidence in support of these explanations, and identify current gaps in knowledge.

Section B. Migration and Spatial Distribution  
Please answer one (1) of B1 and B2.

B1. Migration theorists argue that Social Capital is an important independent factor that influences the likelihood that an individual migrates. What is meant in this literature by "social capital" at the individual and community level? Explain how social capital is theorized to influence migration. Describe the evidence available regarding the importance of social capital in shaping migrant flows.

B2. Many previous studies have investigated the social processes that contribute to neighborhood residential segregation by race, ethnicity, and/or immigration status. What are these social processes? Additionally, explain how these processes might or might not contribute to the fact that minorities typically live in neighborhoods with less desirable characteristics (e.g. lower median income) than native born non-Hispanic whites.

Section C. Fertility and Family  
Please answer one (1) of C1 and C2

C1. Describe the relationship between women’s educational attainment and fertility within the contemporary United States. In your answer you might describe variation by education in women’s completed fertility, in changes over the life course in fertility expectations, in levels of nonmarital fertility, in fertility timing, and/or levels of unintended fertility. After describing the variability by educational attainment, consider potential explanations for this variability and describe evidence supporting or contradicting these explanations.
C2. Referring to the fertility transitions that are taking place, or have recently taken place in developing countries, usually increasing contraceptive use has been the main proximate determinant of the decline in the TFR. What are some of the factors driving the increase in contraceptive use in settings with which you may be familiar? How does actual use tend to compare with the level of contraceptive use that would prevail if every fecund woman who wants no more pregnancies were actually using contraception (sometimes called the demand for contraception)? How does the difference between the two tend to vary over the course of the transition? How might that pattern be explained?

Section D. Methods
Please answer one (1) of D1 and D2

D1. Suppose that, beginning at the end of 2010, the population of Argentina was suddenly closed to migration from Paraguay, Bolivia, and all other countries, was subject to a constant level of mortality (with an expectation of life of 75 years for both sexes) from that point forward, and had varying fertility rates at just the level needed to maintain 730,000 births (the same number of births as in 2010) for the rest of time. In 2010 at about mid-year, the size of the population was 40,500,000, the Crude Birth Rate was 18 per thousand, the Crude Death Rate was 8 per thousand, and the TFR was 2.3.

a) What would happen to the age distribution of the population, and over what time frame? Give as complete a description as you can.

b) What would be the approximate size of the population in the year 2100?

c) What, approximately, would be the Crude Birth Rate and the Crude Death Rate at the turn of the next century in 2100?

D2. Describe as completely as you can how you would go about projecting a female population forward into the future five years. The data at your disposal is the starting or initial population divided into five year age groups, age specific fertility rates, and the full 5x5 life table corresponding to the mortality rates that were expected to prevail at the mid-point of the projection period.