

Fertility and Mortality

SOC 431 (Spring 2009)
Instructor: William Lavelly
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Meeting: T-Th 1:30-2:50 in Condon 141
Office hours: M 3:30-5:00 in Condon 312

Course description: This course will take up a range of topics relating to the demographic study of fertility and mortality. It is mainly concerned with the determinants of fertility and mortality, rather than the consequences. For example, the course might address the effect of economic development on fertility, but not the influence of fertility change on economic development. The course will describe broad global and regional trends, discuss major theories, and introduce analytic concepts and basic measures. It will focus on recent literature and take up a few specialized topics that illustrate current work in the field. The course will largely be conducted through discussions and presentations, and lecturing will be kept to a minimum. A substantial part of the course will be devoted to student presentations of the demographic literature. This is not a course on demographic methods, however, to comprehend the readings, an understanding of basic demographic measures and life table concepts is necessary. Students with no prior experience with demographic measures should read Palmore and Gardner (listed below); others should review as necessary. Depending on the need, some time will be allocated to review of basic measures.

Course readings: Most readings are available through the libraries website under electronic journals. Others are available on the course website at <http://courses.washington.edu/soc431>. One text is available for purchase at the University Bookstore: James A. Palmore and Robert W. Gardner, *Measuring Mortality, Fertility and Natural Increase. A Self-Teaching Guide to Elementary Measures* (Honolulu: East-West Center, Fifth Edition 1994).

Course requirements: The course requirements consist of (1) an in-class midterm, (2) two short papers, and (3) two oral presentations. There will be no final examination. The midterm is scheduled for **Thursday May 21**. The first paper is due Thursday May 7; the second paper is due Thursday June 4. The midterm will count 30%, the papers 25% each, and the oral presentations 10% each.

Papers. Each paper should review the demographic literature on a specific topic, one about fertility and one about mortality. Examples of acceptable topics will be provided, but if there is any doubt about the appropriateness of a topic, please consult the instructor. Each paper should be approximately 6 pages in length (double-spaced, 11- or 12-point type), not including references, figures, and tables.

Oral presentations. Two oral presentations will be scheduled in advance, one related to fertility, and one to mortality. The presentations should briefly summarize and contrast the findings of two or three articles on a specific topic. The presentations may be on the same subjects as your short papers, but that is not necessary. The presentation should be about 10-15 minutes long. The presenter will then lead a discussion and answer questions for an additional 10 minutes. The presenter may use Powerpoint or overhead slides. Each presentation should also be accompanied by a one-page handout. The handout would consist of a brief (one or two paragraph) summary, citations of the works reviewed, and may contain illustrative tables or figures.

Sociology 431 Spring 2009
Fertility and Mortality Class Schedule, v.1

*Denotes recommended reading

Week 1

3/31 *Instructor absent*

4/2 Demographic trends over the long run

John C. Caldwell. 2004. "Demographic Theory: A long view." *Population and Development Review* 30(2): 297-316.

Chris Wilson. 2001. "On the Scale of Demographic Convergence 1950-2000." *Population and Development Review* 27(1): 155-171.

Week 2

4/7 Update on Transition Theory

John Bryant. 2007. Theories of Fertility Decline and Evidence from Economic Indicators. *Population and Development Review* 33(1): 101-127.

Geoffrey McNichol. 2006. Policy Lessons of the East Asian Demographic Transition. *Population and Development Review* 32(1): 1-25.

4/9 The "Second Demographic Transition" and its Discontents

Ron J. Lesthaeghe and Lisa Neidert. 2006. "The Second Demographic Transition in the United States: Exception or Textbook Example?" *Population and Development Review* 32(4): 669-698.

David Coleman. 2006. "Immigration and Ethnic Change in Low Fertility Countries: A Third Demographic Transition." *Population and Development Review* 32(3): 401-446.

*Samuel Preston and Haidong Wang. 2007. Intrinsic Growth Rates and Net Reproduction Rates in the Presence of Migration. *PDR* 33(4): 657-666.

Week 3

4/14 Infant mortality: breast feeding, birth intervals, maternal nutrition

Sara R. Millman and Elizabeth C. Cooksey. 1987. Birth Weight and the Effects of Birth Spacing and Breastfeeding on Infant Mortality. *Studies in Family Planning* 18(4): 202-212.

Julie DaVanzo, Lauren Holt, Abdur Razzaque and Mizanur Rahman. 2008. The effects of spacing on infant and child mortality in Matlab, Bangladesh: How they vary by the type of pregnancy outcome that began the interval. *Population Studies* 62(2): 131-154.

*WHO. 2000. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. *The Lancet* 355: 451-455.

*SUMMIT. 2008. Effect of maternal multiple micronutrient supplementation on fetal loss and infant death in Indonesia: a double-blind cluster-randomised trial. *The Lancet* 371: 215-227.

*Rachel Y. Moon. 2007. Sudden Infant Death Syndrome. *The Lancet* 370: 1578-1587.

*Gordon C.C. Smith and Ruth C. Fretts. 2007. Stillbirth. *The Lancet* 370: 1715-1725.

4/16 Child mortality: Mother's education and status; death clustering and frailty

Amy: Maternal education and infant mortality.

J.C. Caldwell. 1979. Education as a factor in mortality decline: An examination of Nigerian data. *Population Studies* 33(3): 395-413.

John G. Cleland and Jerome K. van Ginneken. 1997. Maternal Education and Child Survival in Developing Countries: The Search for Pathways of Influence. Chapter 2 in Leela Visaria, John Simons, and Peter Berman (eds.), *Maternal Education and Child Survival: Pathways and Evidence* (Delhi: Vikas Publishing House).

Monica das Gupta. 1990. Death Clustering, Mother's Education, and the Determinants of Child Mortality in Rural Punjab, India. *Population Studies* 44 (3):489-505.

*Steven A. Esery and Jean-Pierre Habicht. 1988. Maternal Literacy modifies the effect of toilets and piped water on infant survival in Malaysia. *Am. J. of Epidemiology* 127(5):1079-1087.

*Narayan Sastry. 1997. Family-level clustering of childhood mortality risk in northeast Brazil. *Population Studies* 51(3): 245-261.

Week 4

4/21 Proximate determinants of fertility in natural fertility populations

Sabrina: Race/ethnic differentials in fertility.

John Bongaarts and Robert G. Potter. 1983. Chapter 2: Natural Fertility and Its Proximate Determinants. Pp. 21-51 in *Fertility, Biology, and Behavior: An Analysis of the Proximate Determinants* (New York: Academic Press).

John Knodel. 1977. Fertility Limitation and the Fertility Transition: Evidence from the Age Patterns of Fertility in Europe and Asia. *Population Studies* 31(2): 219-249.

Gigi Santow. 1987. Reassessing the Contraceptive Effects of Breastfeeding. *Population Studies* 41: 147-160.

*John Bongaarts. 1980. Does Malnutrition Affect Fecundity? A Summary of Evidence. *Science*, New Series, 208(4444): 564-569.

*William Lavelly. 2007. Sex, Breastfeeding, and Marital Fertility in Pretransition China. *PDR* 33: 289-320.

4/23 Fertility responses to famine and shocks

Gail: Flu pandemics and mortality.

Patrick Heuveline and Bunnak Poch. 2007. The Phoenix Population: Demographic Crisis and Rebound in Cambodia. *Demography* 44(2): 405-426.

Yong Cai and Wang Feng. 2005. Famine, Social Disruption, and Involuntary Fetal Loss: Evidence from Chinese Survey Data. *Demography* 42(2): 301-322.

*Diane S. Lauderdale. 2006. Birth Outcomes for Arabic-Named Women in California Before and After September 11. *Demography* 43(1): 185-201.

*Joseph Lee Rodgers, Craig A. St. John, and Ronnie Coleman. 2005. Did Fertility Go Up after the Oklahoma City Bombing? An Analysis of Births in Metropolitan Counties in Oklahoma, 1990-1999. *Demography* 42(4): 675-692.

*Dorthe Hanson, Hans C. Lou, and Jørn Olsen. 2000. Serious life events and congenital malformations: a national study with complete follow-up. *The Lancet* 356: 875-880.

Week 5

4/28 Childhood exposures, stature, and mortality

Amy: *SES and mortality.*

Sabrina: *Race/ethnic differentials in mortality.*

I.T. Elo and S. H. Preston. 1992. Effects of early life conditions on adult mortality: A review. *Population Index* 58: 186-212.

Cheng Huang and Irma T. Elo. 2009. Mortality of the oldest old Chinese: The role of early life nutritional status, socio-economic conditions, and sibling sex-composition. *Population Studies* 63(1): 7-20.

*Roderick Floud; Kenneth W Wachter; Annabel Gregory. 1990. *Height, health, and history: Nutritional status in the United Kingdom, 1750-1980*. New York: Cambridge U.P.

4/30 Sex differences in mortality [PAA Meeting]

Kendra: *Deaths associated with nuclear radiation.*

Anne Case and Christina Paxon. 2005. Sex Differences in Morbidity and Mortality. *Demography* 42(2): 189-214.

Samuel H. Preston and Haidong Wang. 2006. Sex Mortality Differences in the United States: The Role of Cohort Smoking Patterns. *Demography* 43(4): 631-646.

*Ingrid Waldron. 1981. The Role of Genetic and Biological Factors in Sex Differences in Mortality. Pp. 141-164 in Alan D. Lopez and Lado T. Ruzicka (eds.), *Sex Differentials in Mortality: Trends, Determinants, and Consequences* (Canberra: Department of Demography, Australian National University).

Week 6

5/5 Migration, fertility, and mortality

Ly Phan: Migration and fertility.

Emilio A. Parrado and S. Philip Morgan. 2008. Intergenerational Fertility Among Hispanic Women: New Evidence of Immigrant Assimilation. *Demography* 45(3): 651-671.

Alberto Palloni and Elizabeth Arias. 2004. Paradox Lost: Explaining the Hispanic Adult Mortality Advantage. *Demography* 41,3: 385-415.

5/7 Fertility-mortality interactions **PAPER #1 DUE**

Liz: Racial/ethnic differentials in mortality.

George Alter, Martin Dribe, and Frans van Poppel. 2007. Widowhood, Family Size, and Post-Reproductive Mortality: A Comparative Analysis of Three Populations in Nineteenth Century Europe. *Demography* 44(4): 785-806.

Mian Bazle Hossain, James F. Phillips, and Thomas K. LeGrand. 2007. The Impact of Childhood Mortality on Fertility in Six Rural Thanas of Bangladesh. *Demography* 44(4): 771-784.

*John Sandberg. 2006. Infant Mortality, Social Networks, and Subsequent Fertility. *American Sociological Review* 71,2: 288-309.

Week 7

5/12 Marital status, lifestyle, and mortality

Ranran: Health practice and mortality.

Ly Phan: Marriage and mortality.

Felix Elwert and Nicholas A. Christakis. 2008. Wives and Ex-Wives: A New Test for Homogamy Bias in the Widowhood Effect. *Demography* 45(4): 851-973.

Michael Murphey, Emily Grundy, Stamatis Kalogirou. 2007. The increase in marital status differences in mortality up to the oldest age in seven European countries, 1990-1999. *Population Studies* 61(3): 287-298.

5/14 No class: *Instructor absent*

Week 8

5/19 Understanding very low fertility

Amy: *Below-replacement fertility.*

Liz: *Lowest low fertility in Europe.*

Maria Letizia Tanturri. 2008. Childless or Child Free? Paths to Voluntary Childlessness in Italy. *PDR* 34(1): 51-77.

Patricia Boling. 2008. Demography, Culture, and Policy. Understanding Japan's Low Fertility. *PDR* 34(2): 307-326.

5/21 **Midterm Examination**

Week 9

5/26 Sex preference, fertility, and mortality

Jenn: *SES and attitudes towards fertility.*

P.N. Mari Baht and A. J. Francis Xavier. 2003. Fertility Decline and Gender Bias in Northern India. *Demography* 40(4): 637-657.

Pradip K. Muhuri and Samuel H. Preston. 1991. Effects of Family Composition on Mortality Differentials by Sex Among Children in Matlab, Bangladesh. *PDR* 17(3): 415-434.

Zhuochun Wu, Kirsi Viisainen, Ying Wang, Elina Hemminki. 2003. Perinatal mortality in rural China: retrospective cohort study. *British Medical Journal* 327:1319.

*Gunnar Andersson, Karsten Hank, Marit Rønsen, and Andres Vikat. 2006. Gendering Family Composition: Sex Preferences for Children and Childrearing Behavior in the Nordic Countries. *Demography* 43(2): 255-267.

*G. William Skinner. 1997. Family systems and demographic processes. Pp. 53-95 in *Anthropological Demography: Toward a New Synthesis*, edited by David I. Kertzer and Tom Fricke. Chicago: The University of Chicago Press.

5/28 Chinese Fertility and birth planning TBA

Kerry: *Unmet need for family planning.*

Ranran: *China's one-child policy.*

Week 10

6/2 Genetics, frailty, and mortality

Jenn: *SES and mortality.*

Luis Rosero-Bixby. 2008. The Exceptionally High Life Expectancy of Costa Rican Nonagenarians. *Demography* 45(3): 673-691.

Alan Bittles. 1994. The Role and Significance of Consanguinity as a Demographic Variable. *PDR* 20(3): 561-582.

*James W. Vaupel, Kenneth G. Manton, and Eric Stallard. 1979. The Impact of Heterogeneity in Individual Frailty on the Dynamics of Mortality. *Demography* 16(3): 439-454.

6/4 Biosocial and evolutionary theories of fertility and mortality **PAPER #2 DUE**

Gail: *Women's status and fertility.*

Kendra: *Gay couple fertility.*

J. Richard Udry. 1996. Biosocial models of low fertility societies. *PDR* 22: Supplement: Fertility in the United States, New Patterns, New Theories: 325-336.

Lonnie W. Aarssen. 2005. Why is fertility lower in wealthier countries? The role of relaxed fertility-selection. *PDR* 31(1): 113-126.