

SOC/DEMOG 634: Population Processes II: Fertility and the Family

Spring Semester 2006

Hans-Peter Kohler*

1 Course Description

This course is the second part of the *Population Processes* sequence in the Demography graduate program. The first part of the course addresses mainly issues related to fertility—including the fertility transition, low fertility and biodemographic perspectives on fertility—and the second half of the course discusses marriage, family, and family change.

This is a required course in the doctoral program in Demography, and all other students with an interest in fertility and the family are encouraged to enroll.

2 Class Administration

- The course meets Fridays 9–12 AM in 103 McNeil Building. The class format consists of lectures about important concepts followed by discussion of examples from both developed and developing countries. Students are expected to read the assigned readings prior to the class.
- Contact info: Hans-Peter Kohler
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- Office hours: Wednesdays, 2–4 PM
- The course website is available via the U Penn Blackboard system at <http://courseweb.library.upenn.edu>
- Course Requirements:
 - Midterm exam (in class), March 3, 9–10:30 AM
 - Empirical research paper (see below); due April 21 (preferred format: hard-copy & electronically as a single pdf file).
 - Final exam (take home, cumulative); handed out on April 21 in class; due April 24, 9 AM in PSC Office.

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- Grade composition: midterm (20%), term paper (35%), final exam (35%), class participation (10%)
- Empirical research paper: students are expected to write an empirical research paper on a topic covered in class. The paper can use either micro- or macro data. The challenge of this paper is to conduct and present the analyses with an theoretical motivation, explicit hypotheses and solid empirical investigation. Examples of possible papers will be discussed in class.
- There are no classes on March 10 March 9 (Spring break), and the classes on February 7, March 21 and April 4 are on Tuesday instead of Friday (location to be announced).

3 Course Outline and Reading list

Readings are available on reserve in the Demography Library. In most cases, pdf/html copies of the paper are available through links in the html/pdf version of this document. The power point presentations used in class will usually be available shortly afterwards on blackboard under “course documents”.

Lecture 1. (Friday, January 13, 2006) – Introduction

- Review Chapter 5 in Preston, S. H., P. Heuveline, and M. Guillot (2001). *Demography: Measuring and Modeling Population Processes*. Oxford: Blackwell Publishers
- Explore websites and questionnaires on vital statistics and data resources, including
 - NCHS website on Vital statistics: http://www.cdc.gov/nchs/vital_certs_rev.htm
 - U.S. Birth Certificate: <http://www.cdc.gov/nchs/data/dvs/birth11-03final-ACC.pdf>
 - NCHS Birth data: <http://www.cdc.gov/nchs/births.htm>; take a look at the “Preliminary data for 2004” and “Births: Final Data for 2003” publications
 - DHS: <http://www.measuredhs.com>
 - DHS questionnaire: <http://www.measuredhs.com/pubs/pdf/FR128/AppendixE.pdf>
 - National Survey of Family Growth (NSFG): <http://www.cdc.gov/nchs/nsfg.htm>

Lecture 2. (Friday, January 20, 2006) – Measuring Fertility

- Ryder, N. B. (1980). Components of temporal variations in American fertility. In R. W. Hiorns (Ed.), *Demographic Patterns in Developed Societies*, pp. 15–54. London: Taylor & Francis [PDF]
- Ní Bhrolcháin, M. (1992). Period paramount? A critique of the cohort approach to fertility. *Population and Development Review* 18(4), 599–629 [PDF]
- Feeney, G. and W. Feng (1993). Parity progression and birth intervals in China: The influence of policy in hastening fertility decline. *Population and Development Review* 19(1), 61–101 [PDF]
- Bongaarts, J. and G. Feeney (1998). On the quantum and tempo of fertility. *Population and Development Review* 24(2), 271–291 [PDF]

- Kohler, H.-P. and J. A. Ortega (2004). Old insights and new approaches: Fertility analysis and tempo adjustment in the age-parity model. *Vienna Yearbook of Population Research 2004* 2, 57–89. (online available at <http://www.oeaw.ac.at/vid/>) [PDF]
- Frejka, T. and G. Calot (2001). Cohort reproductive patterns in low-fertility countries. *Population and Development Review* 27(1), 103–132 [PDF]
- Schoen, R. (2004). Timing effects and the interpretation of period fertility. *Demography* 41(4), 801–819 [PDF]

Lecture 3. (Friday, January 27, 2006) – Natural Fertility, Proximate Determinants, and Reproductive Biology

- Pages 17–49 (“Surviving the first cut”), 51–80 (“A time to be born”) and 165–214 (“Balancing act”) in Ellison, P. T. (2001). *On Fertile Ground: A Natural History of Human Reproduction*. Cambridge: Cambridge University Press [PDF]
- Chahnazarian, A. (1988). Determinants of the sex ratio at birth: Review of recent literature. *Social Biology* 35(3–4), 214–235 [PDF]
- Henry, L. (1961). Some data on natural fertility. *Eugenics Quarterly* 8(2), 81–91 [PDF]
- Chapters 1–5 in Bongaarts, J. and R. G. Potter (1983). *Fertility, biology, and behavior: an analysis of the proximate determinants*. New York: Academic Press [PDF]
- Bledsoe, C., A. G. Hill, U. D’Alessandro, and P. Langerock (1994). Constructing natural fertility: The use of western contraceptive technologies in Rural Gambia. *Population and Development Review* 20(1), 81–113 [PDF]
- Johnson-Hanks, J. (2006). Natural intentions: Fertility decline in the African Demographic and Health Surveys. *American Journal of Sociology*, forthcoming [PDF]

Lecture 4. (Friday, February 03, 2006) – Explaining the Global Fertility Transition I

Background

- Population Reference Bureau Staff (2004). Transitions in world population. *Population Bulletin* 59(1), 3–40 [PDF]
- Chapters 1–4 (pages 1–127) in Livi-Bacci, M. (2003). *A Concise History of World Population*. Oxford: Blackwell Publishers [PDF]

Homeostatic theory and fertility response to crises

- Chapters 1 & 2 in Malthus, T. R. (1798). *An Essay on the Principles of Population (First Edition)* [PDF]
- Lee, R. D. (1987). Population dynamics of humans and other animals. *Demography* 24(4), 443–466 [PDF]
- Rodgers, J. L., C. A. St. John, and R. 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 [PDF] (*skim*)

Fertility transition theories

- Notestein, F. W. (1953). Economic problems of population change. In *Proceedings of the Eighth International Conference of Agricultural Economists*, pp. 13–31. London: Oxford

University Press [PDF]

- Caldwell, J. C. (1976). Toward a restatement of the demographic transition theory. *Population and Development Review* 2(3–4), 321–366 [PDF]
- Freedman, R. (1979). Theories of fertility decline: A reappraisal. *Social Forces* 58(1), 1–17 [PDF]
- Hirschman, C. (1994). Why fertility changes. *Annual Review of Sociology* 20, 203–233 [PDF]
- Mason, K. O. (1997). Explaining fertility transitions. *Demography* 34(4), 443–454 [PDF]
- Casterline, J. B. (2001). The pace of fertility transition: National patterns in the second half of the 20th century. In R. A. Bulatao and J. Casterline (Eds.), *Global Fertility Transition*, pp. 17–52. New York: *Population and Development Review*, Supplement to Volume 27 [PDF]
- Bongaarts, J. (2002). The end of the fertility transition in the developed world. *Population and Development Review* 28(3), 419–444 [PDF]

Lecture 5. (Tuesday, February 07, 2006) – Explaining the Global Fertility Transition II

Note: Class meets in 114 EDUC

Economic perspectives

- Lee, R. D. (2003). The demographic transition: Three centuries of fundamental change. *Journal of Economic Perspectives* 17(4), 167–190 [PDF]
- Easterlin, R. A. and E. Crimmins (1985). *The Fertility Revolution*. Chicago: University of Chicago Press [PDF], Chapter 2 “Theoretical Framework” read pages 12–31 [PDF];
- Demeny, P. (1986). Population and the invisible hand. *Demography* 23(4), 473–487 [PDF]
- Pritchett, L. H. (1994). Desired fertility and the impact of population policy. *Population and Development Review* 20(1), 1–55 [PDF]

Gender Perspectives

- Mason, K. O. (2001). Gender and family systems in the fertility transition. In R. A. Bulatao and J. B. Casterline (Eds.), *Global Fertility Transition*, pp. 160–176. New York: Supplement to *Population and Development Review*, Vol. 27 [PDF]
- England, P. and N. Folbre (1999). Who should pay for the kids? *Annals of the American Academy of Political and Social Science* 563, 194–202 [PDF]
- McDonald, P. (2000). Gender equity in theories of fertility transition. *Population and Development Review* 26(3), 427–440 [PDF]

Evolutionary Perspectives

- Kaplan, H. and J. Lancaster (2003). An evolutionary and ecological analysis of human fertility, mating patterns, and parental investment. In K. W. Wachter and R. A. Bulatao (Eds.), *Offspring: Human Fertility Behavior in Biodemographic Perspective*, pp. 170–223. Washington, D.C.: The National Academies Press [PDF]

Institutional Perspectives

- McNicoll, G. (1980). Institutional determinants of fertility change. *Population and Development Review* 6(3), 441–462 [PDF]

- Rindfuss, R. R., K. B. Guzzo, and S. P. Morgan (2003). The changing institutional context of low fertility. *Population Research and Policy Review* 22(5-6), 411–438 [PDF]

Policies

- Tsui, A. O. (2001). Population policies, family planning programs, and fertility: The record. In R. A. Bulatao and J. B. Casterline (Eds.), *Global Fertility Transition*, pp. 184–204. New York: Supplement to *Population and Development Review*, Vol. 27 [PDF]

Lecture 6. (Friday, February 17, 2006) – Explaining the Global Fertility Transition III

Diffusion, social networks and fertility

- Bongaarts, J. and S. C. Watkins (1996). Social interactions and contemporary fertility transitions. *Population and Development Review* 22(4), 639–682 [PDF]
- Chapters 2–4 in Kohler, H.-P. (2001). *Fertility and Social Interactions: An Economic Perspective*. Oxford: Oxford University Press [PDF];
- Rindfuss, R. R., M. K. Choe, L. L. Bumpass, and N. O. Tsuya (2004). Social networks and family change in Japan. *American Sociological Review* 69(6), 838–861 [PDF]

Relative cohort size

- Read “Overview: The Birth Quake and its Aftershocks” and skim Chapters 1–5 and 11 in Macunovich, D. J. (2002). *Birth Quake: The Baby Boom and Its Aftershocks*. Chicago: University of Chicago Press [PDF]

Integrative theories

- Hammel, E. A. (1990). A theory of culture for demography. *Population and Development Review* 16(3), 455–485 [PDF]
- Pollak, R. A. and S. C. Watkins (1993). Cultural and economic approaches to fertility: Proper marriage or mesalliance? *Population and Development Review* 19(3), 467–496 [PDF]
- Johnson-Hanks, J., C. Bachrach, H.-P. Kohler, and S. P. Morgan (2005). Social structure, social history, and the american family. Unpublished working paper [PDF]

Lecture 7. (Friday, February 24, 2006) – Low and Late Fertility

- Billari, F. C. and H.-P. Kohler (2004). Patterns of low and lowest-low fertility in Europe. *Population Studies* 58(2), 161–176 [PDF]
- Kohler, H.-P., F. C. Billari, and J. A. Ortega (2006). Low fertility in Europe: Causes, implications and policy options. In F. R. Harris (Ed.), *The Baby Bust: Who will do the Work? Who Will Pay the Taxes?*, pp. 48–109. Lanham, MD: Rowman & Littlefield Publishers [PDF]
- Caldwell, J. C. and T. Schindlmayr (2003). Explanations of the fertility crisis in modern societies: A search for commonalities. *Population Studies* 57(3), 241–263 [PDF]; see also comments [PDF]
- Morgan, S. P. (2003). Is low fertility a 21st century demographic crisis? *Demography* 40(4), 589–603 [PDF]

- Chapter 5 “Childless Societies” in Sobotka, T. (2004). *Postponement of Childbearing in Europe*. Amsterdam, The Netherlands: Dutch University Press, Population Studies Series [PDF]
- Quesnel-Vallée, A. and P. S. Morgan (2003). Missing the target? Correspondence of fertility intentions and behavior in the U.S. *Population Research and Policy Review* 22(5-6), 557–574 [PDF]
- Kohler, H.-P., J. R. Behrman, and A. Skyttke (2005). Partner + children = happiness? An assessment of the effect of fertility and partnerships on subjective well-being in Danish twins. *Population and Development Review* 31(3), 407–445 [PDF]
- Chapters 3–5 (pages 121–252) in Hewlett, S. A. (2002). *Creating a Life: Professional Women and the Quest for Children*. New York: Talk Miramax Books [PDF] (*skim*)
- Goldin, C. (2004). The long road to the fast track: Career and family. *The Annals of the American Academy of Political and Social Science* 596(1), 20–35 [PDF]
- Leridon, H. (2004). Can assisted reproduction technology compensate for the natural decline in fertility with age? A model assessment. *Human Reproduction* 19(7), 1549–1554 [PDF]

Lecture 8. (Friday, March 03, 2006) – Midterm (in class); Fertility, the Family and Religion in Developed Countries

Note: Midterm is 9–10:20 am; after the break, we discuss the below readings.

- McQuillan, K. (2004). When does religion influence fertility? *Population and Development Review* 30(1), 25–56 [PDF]
- Lesthaeghe, R. (1983). A century of demographic and cultural change in Western Europe: An exploration of underlying dimensions. *Population and Development Review* 9(3), 411–435 [PDF]
- Berman, E., L. R. Iannaccone, and G. Ragusa (2005). From empty pews to empty cradles: Fertility decline among European catholics. Unpublished working paper, University of California at San Diego [PDF]
- Lesthaeghe, R. J. and L. Neidert (2006). The “second demographic transition” in the US: Spatial patterns and correlates. Unpublished working paper, University of Michigan [PDF]

(Friday, March 10, 2006) – No Class: Spring break

Lecture 9. (Friday, March 17, 2006) – Biodemography of Fertility and the Family

- Morgan, S. P. and R. B. King (2001). Why have children in the 21st century? Biological predispositions, social coercion, rational choice. *European Journal of Population* 17(1), 3–20 [PDF]
- Schmitt, D. P. (2005). Fundamentals of human mating strategies. In D. M. Buss (Ed.), *The Handbook of Evolutionary Psychology*, pp. 258–291. New York: Wiley & Sons [PDF]

- Gangestad, S. W., R. Thornhill, and C. E. Garver-Apgar (2005). Adaptations to ovulation. In D. M. Buss (Ed.), *The Handbook of Evolutionary Psychology*, pp. 344–371. New York: Wiley & Sons [PDF]
- Young, L. J. (2003). The neural basis of pair bonding in a monogamous species: A model for understanding the biological basis of human behavior. In K. W. Wachter and R. A. Bulatao (Eds.), *Offspring: Human Fertility Behavior in Biodemographic Perspective*, pp. 91–103. National Research Council, Committee on Population, Division on Behavioral and Social Sciences and Education. Washington, D.C.: The National Academies Press [PDF]
- Kaplan, H. and J. Lancaster (2003). An evolutionary and ecological analysis of human fertility, mating patterns, and parental investment. In K. W. Wachter and R. A. Bulatao (Eds.), *Offspring: Human Fertility Behavior in Biodemographic Perspective*, pp. 170–223. Washington, D.C.: The National Academies Press [PDF] (we discuss part of this paper also in Lecture 5)
- Kohler, H.-P., J. L. Rodgers, and K. Christensen (2002). Between nurture and nature: The shifting determinants of female fertility in Danish twin cohorts 1870–1968. *Social Biology* 49(3–4), 218–248 [PDF]
- Daly, M. and M. I. Wilson (2000). The evolutionary psychology of marriage and divorce. In L. J. Waite, C. Bachrach, M. Hindin, E. Thomson, and A. Thornton (Eds.), *Ties that Bind: Perspectives on Marriage and Cohabitation*, pp. 91–110. New York: Aldine de Gruyter [PDF]
- Kanazawa, S. (2003). Can evolutionary psychology explain reproductive behavior in the contemporary United States? *Sociological Quarterly* 44(2), 291–302 [PDF]

Lecture 10. (Tuesday, March 21, 2006) – Reproductive Technologies, the Politics of Reproduction and Fertility Policies

Note: Class meets in 114 EDUC

- Hodgson, D. (1988). Orthodoxy and revisionism in American demography. *Population and Development Review* 14(4), 541–569 [PDF]
- Demeny, P. (2003). Population policy: A concise summary. Population Council Working Paper No. 173 [PDF]

Lecture 11. (Tuesday, April 04, 2006) – Measuring Family Change and the Evolution of the Family

Note: Class meets in 114 EDUC

- Bianchi, S. M. and L. M. Casper (2000). American families. *Population Bulletin* 55(4), 1–44 [PDF]
- Hajnal, J. (1953). Age at marriage and proportions marrying. *Population Studies* 7(2), 111–136 [PDF]
- Coale, A. J. and D. R. McNeil (1972). The distribution by age of the frequency of first marriage in female cohorts. *Journal of the American Statistical Association* 67, 743–749 [PDF]

- Becker, G. S., E. Landes, and R. Michae (1977). An economic analysis of marital instability. *Journal of Political Economy* 85(6), 1141–1188 [PDF]
- Chapter 11 “The Evolution of the Family” in Becker, G. S. (1981). *A Treatise on the Family* (Second ed.). Cambridge, MA: Harvard University Press [PDF]
- Chapters 4, 6, 7, 8, 15 in Waite, L. J., C. Bachrach, M. Hindin, E. Thomson, and A. Thornton, editors (2000). *Ties that Bind: Perspectives on Marriage and Cohabitation*, New York. Aldine de Gruyter [PDF]
- Oppenheimer, V. (1988). A theory of marriage timing. *American Journal of Sociology* 94(3), 563–591 [PDF]
- Lee, R. D. and J. R. Goldstein (2003). Rescaling the life cycle: Longevity and proportionality. In J. R. Carey and S. Tuljapurkar (Eds.), *Life Span: Evolutionary, Ecological, and Demographic Perspectives*, pp. 183–207. Supplement to *Population and Development Review*, Vol. 29. Population Council, New York [PDF]
- Heuveline, P., J. Timberlake, and F. Furstenberg (2003). Shifting childrearing to single mothers: Results from 17 western countries. *Population and Development Review* 29(1), 47–71 [PDF]

Lecture 12. (Friday, April 07, 2006) – Intergenerational Relations; Fertility, Family and Aging

- Readings TBA

Lecture 13. (Friday, April 14, 2006) – Marriage and Family: Marriage Markets and Assortative Mating (Kristen Hawknnett)

- **Assortative Mating:**
- Kalmijn, M. (1998). Inter-marriage and homogamy: Causes, patterns, trends. *Annual Review of Sociology* 24, 395–421 [PDF]
- Rosenfeld, M. J. (2005). A critique of exchange theory in mate selection. *American Journal of Sociology* 110, 1284–1325 [PDF]
- Sweeney, M. and M. Cancian (2004). The changing importance of white women’s economic prospects for assortative mating. *Journal of Marriage and the Family* 66, 1015–1028 [PDF]
- Blackwell, D. L. and D. T. Lichter (2004). Homogamy among dating, cohabiting, and married couples. *Sociological Quarterly* 45, 719–737 [PDF]
- **Mate Availability:**
- Schoen, R. (1983). Measuring the tightness of a marriage squeeze. *Demography* 20(1), 61–78 [PDF]
- Goldman, N., C. F. Westoff, and C. Hammerslough (1984). Demography of the marriage market in the United States. *Population Index* 50(1), 5–25 [PDF]
- Ní Bhrolcháin, M. (2001). Flexibility in the marriage market. *Population: An English Selection* 13(2), 9–48 [PDF]
- Goldstein, J. R. and C. T. Kenney (2001). Marriage delayed or marriage forgone? New cohort forecasts of first marriage for US women. *American Sociological Review* 66, 506–519

[PDF]

- Lichter, D., G. Kephart, D. K. McLaughlin, and D. Landry (1992). Race and the retreat from marriage: A shortage of marriageable men. *American Sociological Review* 57, 781–799 [PDF]
- Lichter, D., R. Anderson, and M. Hayward (1995). Marriage markets and marital choice. *Journal of Family Issues* 16(4), 412–431 [PDF]

Lecture 14. (Friday, April 21, 2006) – Marriage and Family: (Kathy Edin)

***Note:* Term paper is due**

- “Conclusions: Making Sense of Single Motherhood” (pp. 187–220) in Edin, K. and M. Kefalas (2005). *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Berkeley and Los Angeles, CA: University of California Press
- Edin, K. and P. England (2006). Forming fragile families. In P. England and K. Edin (Eds.), *Unmarried Couples with Children*, pp. forthcoming. New York: Russell Sage Foundation