

SOC/DEMOG 796: Demographic, Economic and Social Interrelations

Fall Semester 2006

Hans-Peter Kohler*

1 Course Description

The course investigates economic and social determinants of fertility, mortality, and migration and it discusses the effects of population variables on economic and social conditions, including economic and social development. Topics discussed in the course include: How do economic changes affect marriage, divorce, and child bearing decisions? How do households make decisions about transfers and bequests? How can economic and sociological approaches be combined in explanatory models of demographic change? What causes the aging of populations, and how will population aging affect the economies of industrial nations, including pension programs like Social Security? What accounts for the rise in women's participation in the wage labor force over the past century? How are family composition and poverty interrelated? Does rapid population growth slow economic development in Third World countries? In addition to these topics, the course also covers selected methods not included in Dem/Soc 535/536 and 609.

This is a required course in the doctoral program in Demography, and all other students with an interest in the interrelations between demographic, economic and social aspects of society are encouraged to enroll. A special emphasis is given to economics approaches and their relevance for understanding demographic behaviors and demographic change, since many students in the demography program have the least familiarity with this area. A background in demography and economics is useful for this course, but it not essential.

2 Class Administration

- The course meets Mondays 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.
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- Office hours: Monday, 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), October 16, 9–10:30 AM
 - Empirical research paper (see below); due November 27, 5 PM in 272 McNeil Bldg.
 - Final exam (take home, cumulative); handed out on December 4 in class; due December 5, 5 PM in 272 McNeil Bldg.
- 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 and an “economic perspective”. You can criticize this perspective if it is not suitable to explain the phenomenon under investigation, but it is important that (a) to present and discuss relevant economic perspective/approaches in your paper and (b) your empirical approach is sensitive to the implication of the economic approach to demographic behaviors/phenomena. Examples of possible papers will be discussed in class. *Notes:* No formal treatment of economic models is required for this paper; a well-presented verbal/graphical reasoning is sufficient. For students in the Demography Ph.D. program it is also often possible to combine this empirical research paper with the research on the required first or second year paper—please discuss this with me.
- There are no classes on October 23 (Fall Break); we may also potentially reschedule the October 16 class due to the Population Council conference.

3 Course Outline and Reading list

The first two weeks of the class will review some main economic approaches. The textbook for this part is: Frank, R. H. (2002). *Microeconomics and Behavior*. Irwin: McGraw-Hill (This textbook is available on amazon.com, and you may also order used copies of the 4th edition, published in 1999, that are quite inexpensive). This book can also be used as a reference for economic concepts throughout the course. At various places the syllabus assigns “background readings” that provide information about relevant demographic trends that provide the background/motivation for class discussions. These readings are not directly relevant for the exams.

Some of the readings contain very technical parts, and you are not expected to understand these in detail. We will discuss the articles in class, and for articles that use complicated formal economic models we will use simplified approaches and derive the main insights using intuitive and graphical approaches.

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. (Monday, September 11, 2006)

Introduction to issues at the intersection of demography and economics; review of key micro-economic concepts

- Lee, R. D. (2003). The demographic transition: Three centuries of fundamental change. *Journal of Economic Perspectives* 17(4), 167–190 [PDF]
- Frank, Chapters 1 “Thinking like an economist” (quick reading is ok), Chapter 2 “Supply and Demand”, Chapters 3 “Rational Consumer Choice” and 4 “Individual and Market Demand”;

Lecture 2. (Monday, September 18, 2006)

Economics of fertility; value of time models; quality/quantity trade-off.

- As a background reading about recent fertility and related trends: on U.S. fertility: Morgan, S. P. (1996). Characteristic features of modern American fertility. *Population and Development Review* 22(Suppl.), 19–63 [PDF]; on recent European trends: Kohler, H.-P., F. C. Billari, and J. A. Ortega (2002). The emergence of lowest-low fertility in Europe during the 1990s. *Population and Development Review* 28(4), 641–681 [PDF] (read only pages 641–648); on fertility transition: 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]; on female labor force participation: Costa, D. (2000). From mill town to board room: The rise of women’s paid labor. *Journal of Economic Perspectives* 14(4), 101–122 [PDF];
- Easterlin, R. A. and E. Crimmins (1985). *The Fertility Revolution*. Chicago: University of Chicago Press, Chapter 2 “Theoretical Framework”, read pages 12–31 [PDF];
- Becker, G. S. (1991). *A Treatise on the Family* (Second ed.). Cambridge, MA: Harvard University Press, Chapter 5 “The Demand for Children” [PDF];
- Brewster, K. L. and R. R. Rindfuss (2000). Fertility and women’s employment in industrialized nations. *Annual Review of Sociology* 26, 271–296 [PDF];
- Lino, M. (2004). Expenditures on children by families, 2003. *Family Economics and Nutrition Review* 16(1), 31–38 [PDF];
- Diprete, T. A., S. P. Morgan, H. Engelhardt, and H. Pacalova (2003). Do cross-national differences in the costs of children generate cross-national differences in fertility rates? *Population Research and Policy Review* 22(5-6), 439–477 [PDF];
- Sayer, L. C., S. M. Bianchi, and J. P. Robinson (2004). Are parents investing less in children? Trends in mothers’ and fathers’ time with children. *American Journal of Sociology* 110(1), 1–43 [PDF];
- Fernández, R. and A. Fogli (2005). Culture: An empirical investigation of beliefs, work and fertility. CEPR Discussion Paper No. 5089. Available at SSRN: <http://ssrn.com/abstract=776764> [PDF]

- Tertilt, M. (2005). Polygyny, fertility and savings. *Journal of Political Economy* 113(6), 1341–1371 [PDF];

Lecture 3. (Monday, September 25, 2006)

Empirical estimate of the quality quantity trade-off; the timing of fertility; micro-macro interactions; fertility, human capital investments and economic development; externalities.

- Hanushek, E. A. (1992). The trade-off between child quantity and quality. *Journal of Political Economy* 100(1), 84–117 [PDF]
- Angrist, J. D., V. Lavy, and A. Schlosser (2006). New evidence on the causal link between the quantity and quality of children. IZA Discussion Paper No. 2075 Available at SSRN: <http://ssrn.com/abstract=898570> [PDF]
- Frank, Chapter 5, Section “The intertemporal choice problem”;
- Happel, S. K., J. K. Hill, and S. A. Low (1984). An economic analysis of the timing of childbirth. *Population Studies* 38, 299–311 [PDF];
- Skirbekk, V., K. Hans-Peter, and A. Prskawetz (2004). Birth month, school graduation and the timing of births and marriages. *Demography* 41(3), 547–568 [PDF];
- Goldin, C. and L. F. Katz (2002). The power of the pill: Oral contraceptives and women’s career and marriage decisions. *Journal of Political Economy* 110(4), 730–770 [PDF];
- Galor, O. and D. N. Weil (1996). The gender gap, fertility and growth. *American Economic Review* 86(3), 374–387 [PDF];
- Greenwood, J., A. Seshadri, and G. Vandenbroucke (2005). The baby boom and baby bust. *American Economic Review* 95(1), 183–207 [PDF];
- Frank, Chapter 17 (focus on “The tragedy of the commons” and thereafter);
- Dasgupta, P. (2000). Population and resources: An exploration of reproductive and environmental externalities. *Population and Development Review* 26(4), 643–690 [PDF] (read complete article, but focus on pages 663–674);
- Lee, R. D. and T. Miller (1991). Population growth, externalities to childbearing, and fertility policy in developing countries. In S. Fischer, D. deTray, and S. Shah (Eds.), *Proceedings of the World Bank Annual Conference on Development Economics*, pp. S275–S304. New York: World Bank [PDF];
- Lee, R. D. (2001). Childbearing, externalities of. In N. J. Smelser and P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences*, pp. 1686–1689. Amsterdam: Elsevier Science [PDF].

Lecture 4. (Monday, October 02, 2006)

Marriage and household behavior

- As a background reading on recent family trends in the U.S., see Bianchi, S. M. and L. M. Casper (2000). American families. *Population Bulletin* 55(4), 1–44 [PDF].
- Becker, G. S. (1981). *A Treatise on the Family*. Cambridge, MA: Harvard University Press, Chapters 11 “The Evolution of the Family” [PDF];

- Lundberg, S. and R. A. Pollak (1996). Bargaining and distribution in marriage. *Journal of Economic Perspectives* 10(4), 139–158 [PDF];
- England, P. and N. Folbre (2002). Involving dads: Parental bargaining and family well-being. In C. S. Tamis-LeMonda and N. Cabrera (Eds.), *Handbook of Father Involvement: Multidisciplinary Perspectives*, pp. 387–408. Mahwah, NJ: Erlbaum Associates [PDF];
- Akerlof, G. A., J. L. Yellen, and M. L. Katz (1996). An analysis of out-of-wedlock childbearing in the United States. *Quarterly Journal of Economics* 111(2), 277–317 [PDF];
- Lundberg, S. (2005). Sons, daughters, and parental behavior. Oxford Review of Economic Policy [PDF];
- Knowles, J. (2005). Why are married men working so much? PIER Working Paper 05-031 Online available at <http://ssrn.com/abstract=868472> [PDF];
- Light, A. and K. McGarry (2004). Why parents play favorites: Explanations for unequal bequests. *American Economic Review* 94(5), 1669–1681 [PDF].

Lecture 5. (Monday, October 09, 2006)

Issues in empirical analyses of demographic behaviors

- Moffitt, R. (2005). Remarks on the analysis of causal relationships in population research. *Demography* 42(1), 91–108 [PDF];
- Rosenzweig, M. R. and K. I. Wolpin (2000). Natural “natural” experiments in economics. *Journal of Economic Literature* 38(4), 827–874 [PDF];
- Angrist, J. D. and W. N. Evans (1998). Children and their parent’s labor supply: Evidence from exogenous variations in family size. *American Economic Review* 88(3), 450–477 [PDF];
- Schultz, T. P. (1985). Changing world prices, women’s wages and the fertility transition: Sweden, 1860-1910. *Journal of Political Economy* 93(6), 1126–1154 [PDF];
- Behrman, J. R., M. R. Rosenzweig, and P. Taubman (1994). Endowments and the allocation of schooling in the family and in the marriage market: The twins experiment. *Journal of Political Economy* 102(6), 1131–1173 [PDF];
- Kohler, H.-P., J. R. Behrman, and S. C. Watkins (2006). Social networks and HIV/AIDS risk perceptions. *Demography*, forthcoming (pending revisions) [PDF];
- Geronimus, A. T. and S. Korenman (1992). The socioeconomic consequences of teen childbearing reconsidered. *Quarterly Journal of Economics* 107, 1187–1214 [PDF];
- Hotz, J. V., S. W. McElroy, and S. G. Sanders (1999). Teenage childbearing and its life cycle consequences: exploiting a natural experiment. NBER Working Paper No. 7397 [PDF]
- If necessary, consult any introductory econometrics textbook on the classic regression model and violation of its underlying assumptions.

Lecture 6. (Monday, October 16, 2006)

Midterm, 9–10:30 am; happiness and demographic behaviors

- Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences of the United States of America* 100(19), 11176–11183 [PDF];
- Kohler, H.-P., J. R. Behrman, and A. Skytthe (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];
- Aassve, A., S. Mazzucco, and L. Mencarini (2005). Childbearing and well-being: A comparative analysis of European welfare regimes. *Journal of European Social Policy* 15(4), 283–299 [PDF];
- Chapters 1 & 5 (pp. 1–12, 65–77) in Waite, L. J. and M. Gallagher (2000). *The Case for Marriage: Why Married People are Happier, Healthier, and Better off Financially*. New York: Doubleday [PDF];

Monday, October 23, 2006 — No Class (Fall Break)

Lecture 7. (Monday, October 30, 2006)

Economic perspectives on health and HIV/AIDS

- Heuveline, P. (2004). Impact of the hiv epidemic on population and household structure: The dynamics and evidence to date. *AIDS* 18(Supplement 2), S45–S53 [PDF];
- Philipson, T. J. and R. A. Posner (1993). *Private Choices and Public Health: The AIDS Epidemic in an Economic Perspective*. Cambridge: Harvard University Press [PDF], read pages 31–56;
- Gertler, P., M. Shah, and S. M. Bertozzi (2005). Risky business: The market for unprotected commercial sex. *Journal of Political Economy* 113(3), 518–550 [PDF];
- Thornton, R. (2005). The demand for learning hiv status and the impact on sexual behavior: Evidence from a field experiment. Unpublished working paper, Harvard University, Center for International Development, Kennedy School of Government [PDF];
- Lakdawalla, D., N. Sood, and D. Goldman (2005). HIV breakthroughs and risky sexual behavior. *Quarterly Journal of Economics* 121(3), 1063–1102 [PDF];
- Thirumurthy, H., J. Graff Zivin, and M. Goldstein (2005). The economic impact of AIDS treatment: Labor supply in western Kenya. NBER Working Paper No. 11871 [PDF];
- Young, A. (2005). The gift of the dying: The tragedy of aids and the welfare of future African generations. *Quarterly Journal of Economics* 120(2), 423–466 [PDF];
- Kalemli-Ozcan, S. (2006). AIDS, reversal of the demographic transition and economic development: Evidence from Africa. NBER Working Paper No. W12181 Available at <http://www.nber.org> [PDF].

Lecture 8. (Monday, November 06, 2006)

Investments in health; the relation between health and wealth; life-cycle behavior, aging and retirement;

- Cebu Study Team (1991). Underlying and proximate determinants of child health: The Cebu Longitudinal Health and Nutrition Study. *American Journal of Epidemiology* 133(2), 185–201

- Smith, J. P. (1999). Healthy bodies and thick wallets: The dual relation between health and economic status. *Journal of Economic Perspectives* 13(2), 145–166 [PDF]
- Cutler, D. M. and E. L. Glaeser (2005). What explains differences in smoking, drinking and other health-related behaviors? Harvard Institute of Economic Research Discussion Paper No. 2060. <http://ssrn.com/abstract=658302> [PDF]
- Miguel, E. and M. Kremer (2004). Worms: Identifying impacts on education and health in the presence of treatment externalities. *Econometrica* 72(1), 159–217 [PDF]
- Behrman, J. R., H. Alderman, and J. Hoddinott (2004). Hunger and malnutrition. In B. Lomborg (Ed.), *Global Crises, Global Solutions*, pp. 363–420. Cambridge: Cambridge University Press. (see also <http://www.copenhagenconsensus.com>) [PDF]
- Chapter 2 “Our Aging World” in National Research Council (2001). *Preparing for an Aging World: The Case for Cross-National Research*. Washington, D.C.: National Academy Press [PDF];
- Hurd, M. D. (1997). The economics of individual aging. In M. R. Rosenzweig and O. Stark (Eds.), *Handbook of Population and Family Economics*, pp. 125–188. Amsterdam: North Holland (read pages 891–948)
- Hurd, M. D. (1990). Research on the elderly: Economic status, retirement, and consumption and saving. *Journal of Economic Literature* 28, 565–637 [PDF] (page restriction to be added)
- Gruber, J. and D. Wise (2000). Social security, retirement incentives, and retirement behavior: An international perspective. In A. Auerbach and R. D. Lee (Eds.), *Demographic Change and Fiscal Policy*, pp. 159–190. Cambridge: Cambridge University Press

Lecture 9. (Monday, November 13, 2006)

The economic life cycle; intergenerational relations; transfers;

- Lee, R. D., S.-H. Lee, and A. Mason (2006). Charting the economic life cycle. NBER Working Paper No. 12379 [PDF]
- Lillard, L. A. and R. J. Willis (1997). Motives for intergenerational transfers: Evidence from Malaysia. *Demography* 34(1), 115–134 [PDF]
- Lee, Y.-J., W. L. Parish, and R. J. Willis (1994). Sons, daughters, and intergenerational support in Taiwan. *American Journal of Sociology* 99(4), 1010–1041 [PDF]
- Wachter, K. W. (1997). Kinship resources for the elderly. *Philosophical Transactions of The Royal Society of London Series B – Biological Sciences* 352(1363), 1811–1817 [PDF]
- Folbre, N. and J. A. Nelson (2000). For love or money—Or both? *Journal of Economic Perspectives* 14(4), 123–140 [PDF]
- Lee, R. D. (1994). The formal demography of population aging, transfers, and the economic life cycle. In L. Martin and S. Preston (Eds.), *The Demography of Aging*, pp. 8–49. Washington, D.C.: National Academy Press [PDF]
- Lee, R. D. (2003). Rethinking the evolutionary theory of aging: Transfers, not births, shape senescence in social species. *Proceedings of the National Academy of Sciences of the United States of America* 100(16), 9637–9642 [PDF]

Lecture 10. (Monday, November 20, 2006)

Implications of population growth and changes in age structure

- Boserup, E. (1981). *Population and Technological Change: A Study of Long Term Trends*. Chicago: University of Chicago Press (read pages 3–21);
- Kelley, A. C. (1988). Economic consequences of population change in the Third World. *Journal of Economic Literature* 26, 1685–1728 [PDF];
- Easterlin, R. A. (1978). What will 1984 be like? *Demography* 15(4), 397–421 [PDF]; (for an updated discussion, see Macunovich, D. J. (2002). *Birth Quake: The Baby Boom and Its Aftershocks*. Chicago: University of Chicago Press);
- MacKellar, F. L. (2000). The predicament of population aging: A review essay. *Population and Development Review* 26(2), 365–397 [PDF];
- Lee, R. D. and S. Tuljapurkar (1997). Death and taxes: Longer life, consumption and social security. *Demography* 34(1), 67–81 [PDF];
- Bloom, D. E., D. Canning, and J. Sevilla (2002). *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: RAND Corporation, Chapter 2 “Demographic Transitions and the Demographic Dividend” [PDF];

Lecture 11. (Monday, November 27, 2006)

Policy issues for fertility and the family

- Birdsall, N. (1994). Government, population and poverty: A ‘win–win’ tale. In K. Lindahl Kiessling and H. Landberg (Eds.), *Population, Economic Development and the Environment*, pp. 173–198. Oxford: Oxford University Press
- Behrman, J. R. and J. C. Knowles (1998). Population and reproductive health: An economic framework for policy evaluation. *Population and Development Review* 24(4), 697–737 [PDF]
- Gertler, P. J. and J. W. Molyneaux (1994). How economic development and family planning programs combined to reduce Indonesian fertility. *Demography* 31(1), 33–63 [PDF]
- Moffitt, R. (1992). Incentive effects of the U.S. welfare system: A review. *Journal of Economic Literature* 30(1), 1–61 [PDF]
- Skim outcome of the Copenhagen Consensus at <http://www.copenhagenconsensus.com/Default.aspx?ID=699>

Lecture 12. (Monday, December 04, 2006)

Review/discussion:

- Selected discussion/presentation of students’ research papers;
- Critical discussion on economic approaches to demographic behaviors; limitations of economic approaches;

- Outlook on aspects at the intersection of economics, demography and society that were not covered in class;
- Exam review.