

Warren C. SANDERSON

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Academic CV

A. Personal Information

Title: Ph.D.
Current Position: **Professor**, Department of Economics, Department of History, State University of New York at Stony Brook
Senior Research Scholar, World Population Program at the International Institute for Applied Systems Analysis (IIASA)
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B. Main Fields of Research

1. Demographic Economics
2. Demography
3. Economic Development

C. Academic history and positions

EDUCATION AND ACADEMIC DEGREES AND POSITIONS

Since 1997	Professor, Department of History, State University of New York at Stony Brook
1993-1994	Visiting Professor of Domestic and International Relations, Woodrow Wilson School, Princeton University
Since 1992	Senior Research Scholar, World Population Program at the International Institute for Applied Systems Analysis (IIASA)
1990-1991	Visiting Research Scholar, The World Bank
Since 1989	Professor, Department of Economics, Department of History, State University of New York at Stony Brook
1981-1989	Associate Professor, Department of Economics, State University of New York at Stony Brook
1980-1981	Research Scholar, Task Leader, International Institute for Applied Systems Analysis
1980	Visiting Assistant Professor, Department of Economics, University of Utah
1974	Ph.D., Economics, University of Illinois
1971-1980	Assistant Professor, Department of Economics, Stanford University
1971-1975	National Bureau of Economic Research, Inc., Stanford
1969-1971	National Bureau of Economic Research, Inc., New York
1964	B.S., Economics, University of Illinois, Urbana-Champaign

D. Books

Population in Asia, [with Jee-Peng Tan], Regional and Sectoral Studies Series, The World Bank, 1995.

Economic-Demographic Simulation Models: A Review of Their Usefulness for Policy Analysis, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1980.

E. Books Edited

The End of World Population Growth in the 21st Century: New Challenges for Human Capital Formation and Sustainable Development [with Wolfgang Lutz and Sergei Scherbov], London, Earthscan, 2004.

Population and Environment: Methods of Analysis [with Wolfgang Lutz and Alexia Prskawetz], A Supplement to Vol. 28, 2002, *Population and Development Review*, New York, The Population Council, 2002.

Population, Development, and Environment on the Yucatan Peninsula: From Ancient Maya to 2030 [with Wolfgang Lutz and Leonel Prieto], International Institute of Applied Systems Analysis, Laxenburg, 2000.
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Modeling Growing Economies in Equilibrium and Disequilibrium, [with A. Kelley and J. Williamson], Durham, N.C., Duke University Press, 1983.

F. Refereed Articles

“The Fertility of American Women Since 1920,” Journal of Economic History, vol. XXX, no. 1, March, 1970.

“Economic Models of Fertility: Some Examples and Implications,” [with R. J. Willis], New Directions in Economic Research, 51st Annual Report, National Bureau of Economic Research, Inc., New York, September, 1971.

“Does the Theory of Demand Need the Maximum Principle?” in P. A. David and M. W. Reder, eds., Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz, Academic Press, New York, 1974.

“On Two Schools of the Economics of Fertility,” Population and Development Review, vol. 2, nos. 3 and 4, September/December, 1976.

“The Effectiveness of Nineteenth-Century Contraceptive Practices: An Application of Microdemographic Modelling Approaches,” [with P. A. David], International Economic History Association, Seventh International Economic History Conference: Edinburgh, 1978, Papers on “B” Themes, Edinburgh: University of Edinburgh Press, 1978, pp. 60-70.

“Quantitative Aspects of Marriage, Fertility and Family Limitation in Nineteenth Century America: Another Application of the Coale Specifications,” Demography, vol. 16, no. 3, August, 1979, pp. 339-358.

“Herbert Gutman’s The Black Family in Slavery and Freedom, 1750-1925: A Cliometric Reconsideration,” Social Science History, vol. 3, nos. 3 and 4, October, 1979, pp. 66-85.

“A Nonutilitarian Economic Model of Fertility and Labor Force Behavior,” Revue Economique, vol. 31, no. 6, November, 1980.

“A Two-Sex General Equilibrium Marriage Model,” in A. Kelley, W. Sanderson, and J. Williamson, eds., Modeling Growing Economies in Equilibrium and Disequilibrium, Durham, N.C., Duke University Press, 1983, pp. 301-316.

“The Problems of Planning for the Expected: Demographic Shocks and Policy Paralysis,” in C. Reynolds and C. Tello, eds., Social and Economic Aspects of Relations Between the U.S. and Mexico, Stanford, Stanford University Press, 1983, pp. 277-298.

(Spanish language version: “Los Problemas De la Planecion Para Lo Esperodo: Los Choques Demograficos y la Paralisis De La Politica,” in C. Tello and C. Reynolds, La Relaciones Mexico, 1981, pp. 305-333.)

“A Behavioral Model of the Adoption of Protective Activities,” [with Howard Kunreuther and Rudolf Vetschera], Journal of Economic Behavior and Organization, vol. 6, 1985, pp. 1-15.

“Rudimentary Contraceptive Methods and the American Transition to Marital Fertility Control, 1855-1915,” [with P. A. David] in S. L. Engerman and R. E. Gallman, eds., Long-Term Factors in American Economic Growth, National Bureau of Economic Growth, Studies in Income and Wealth, Chicago, University of Chicago Press, 1986, pp. 307-390.

“The Emergence of a Two-Child Norm among American Birth Controllers,” [with P. A. David], Population and Development Review, vol. 13, no. 1, March, 1987, pp. 1-41.

“Below-Replacement Fertility in Nineteenth Century America,” Population and Development Review, vol. 13, no. 2, June, 1987, pp. 305-313.

“Are User Fees Regressive: The Welfare Implications of Health Care Financing Proposals in Peru,” [with P. Gertler and L. Locay], Journal of Econometrics, vol. 36, October, 1987, pp. 67-88.

“Cuotas A Los Usuarios De Los Servicios De Salud. Analisis Sus Efectos Potenciales En El Peru,” [with P. Gertler and L. Locay] Bol. of Sanit. Panam., vol. 103, no. 6, December, 1987, pp. 635-655.

“Cohort Parity Analysis: Statistical Estimates of the Extent of Fertility Control,” [with P. David, T. Mroz, D. Weir, and K. Wachter]. Demography, vol. 25, no. 2, May, 1988, pp. 163-188.

“Measuring Marital Fertility Control With CPA,” [with P. David]. Population Index, vol. 54, no. 4, Winter, 1988, pp. 691-713.

“Cohort Parity Analysis and Fertility Transition Dynamics: What Can Be Discovered About the Diffusion of Fertility Control from a Single Fertility Census?” [with P. David], Population Studies, November, 1990, pp. 421-445.

“Simulation Models of Demographic, Economic, and Environmental Interactions” in Wolfgang Lutz *et al.* eds. Population, Development, Environment: Understanding Their Interactions in Mauritius. Berlin: Springer-Verlag, 1994,. pp. 33-71.

“Predictability, Complexity, and Catastrophe in a Collapsible Model of Population, Development, and Environmental Interactions,” Mathematical Population Studies,. vol. 5, no. 3, 1995, pp. 259-279.

“Slow-Fast Dynamics in Wonderland,” [with A. Milik, A. Prskawetz, and G. Feichtinger], Environmental Modelling and Assessment, vol. 1,2, 1996, pp. 3-17.

“Pollution Control Policies and Natural Resource Dynamics: A Theoretical Analysis,” [with S. Rinaldi and A. Gragnani], Journal of Environmental Management, vol. 48, no. 4, December, 1996, pp. 357-373.

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“World Population Scenarios for the 21st Century,” [with W. Lutz, S. Scherbov, and Anne Goujon], in W. Lutz, ed. The Future Population of the World: What Can We Assume Today?, 2nd edition, Earthscan Publications Ltd.: London, 1996, pp. 361-396

“Probabilistic Population Projections Based on Expert Opinion,” [with W. Lutz and S. Scherbov], in W. Lutz, ed. The Future Population of the World: What Can We Assume Today?, 2nd edition, Earthscan Publications Ltd.: London, 1996, pp. 397-428.

“Making Use of Treacherous Advice: Cognitive Progress, Bayesian Adaptation, and the Tenacity of Unreliable Knowledge,” [with Paul A. David], in John Drobak and John V.C. Nye, eds., The Frontiers of the New Institutional Economics, Academic Press: New York, 1997. pp. 305-366.

“Doubling of World Population Unlikely” [with W. Lutz, and S. Scherbov], Nature, vol. 387 no. 19, June, 1997, pp. 803-805.

“Persistent Unstable Equilibria and the Grace Period in Dynamic Models of Environmental Change” [with A. Gragnani, A. Milik and A. Prskawetz], Dynamics and Stability of Systems, vol. 13, no 1, 1998, pp. 3-25.

“Knowledge Can Improve Forecasts! A Review of Selected Socio-Economic Population Projection Models” in W. Lutz, J. Vaupel, and D. Ahlburg. Frontiers of Population Forecasting. New York: The Population Council, 1999, pp. 88-117.

“Expert-Based Probabilistic Population Projections” [with W. Lutz and S. Scherbov]. in W. Lutz, J. Vaupel, and D. Ahlburg. Frontiers of Population Forecasting. New York: The Population Council, 1999, pp. 139-155.

“The Mixed Blessing of Antiretroviral Treatment in Botswana”, AIDS Analysis Africa, vol. 11. 2001.

“The End of World Population Growth” [with W. Lutz and S. Scherbov]. *Nature*. vol. 412, Aug. 2, 2001, pp. 543-545 {plus supplementary information on the web}.

“How Many Batswana Will Be Alive in 2021?”, APC-EU Courier, No. 188, September-October, 2001, pp. 42-43.

“HIV and Water Scarcity in Botswana” [with Molly Hellmuth], APC-EU Courier, No. 189, November-December, 2001, pp. 41-42.

“Introduction” [with Wolfgang Lutz and Alexia Prskawetz] in Wolfgang Lutz, Alexia Prskawetz, and Warren Sanderson, eds. Population and Environment: Methods of Analysis, New York: The Population Council, 2002, pp. 1-21.

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“Applications of Probabilistic Population Forecasting” [with Sergei Scherbov, Wolfgang Lutz, and Brian O’Neill] in Wolfgang Lutz, Warren Sanderson, and Sergei Scherbov, eds. The End of World Population Growth in the 21st Century: New Challenges for Human Capital Formation and Sustainable Development, London, Earthscan, 2004, pp. 85-120.

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“Conceptualizing Population in Sustainable Development: From “Population Stabilization to “Population Balance” [with Wolfgang Lutz and Brian O’Neill] in Wolfgang Lutz, Warren Sanderson, and Sergei Scherbov, eds. The End of World Population Growth in the 21st Century: New Challenges for Human Capital Formation and Sustainable Development, London, Earthscan, 2004, pp. 315-334..

“Conditional probabilistic population forecasting” [with Sergei Scherbov, Brian O’Neill, and Wolfgang Lutz]. *International Statistical Review*. 2004. 72(2): 157-166.

“Toward a concept of population balance considering age-structure, human capital, and intergenerational equity” [with Wolfgang Lutz]. Pages in S. Tuljapurkar, I. Pool, V. Prachubmoah, eds., *Riding the Age Waves: Population, Resources and Development*. Springer (May 2005, 3 volumes).

“Average remaining lifetimes can increase as human populations age” [with Sergei Scherbov] *Nature*. 435. June 9, 2005. 811-813.

“An Integrated Population, Economic and Water Resource Model to Address Sustainable Development Questions for Botswana” [with Molly Hellmuth, David Yates and Kenneth Strzepek]. *Water International*. 31(2). June, 2006.

“A New Perspective on Population Aging” [with Sergei Scherbov] *Demographic Research* 2007 16(2), 27:58.

“Prevention and Medication of HIV/AIDS: the case of Botswana”: [with Christian Almeder, Gustav Feichtinger, Vladimir Veliov] *Central European Journal of Operations Research* published online January, 2007.

“A Near Electoral Majority of Pensioners: Prospects and Policies” [with Sergei Scherbov] *Population and Development Review* September, 2007: 543-554.

“The Effect of Age Structure on Economic Growth: An Application of Probabilistic Forecasting in India” [with Alexia Prskawetz, Thomas Koegel, and Sergei Scherbov] *International Journal of Forecasting* October-December, 2007: 587-602..

“The Coming Acceleration of Global Population Ageing” [with Wolfgang Lutz and Sergei Scherbov] *Nature*, 451 (7179) February 7, 2008: 716-719.

“The Demography of Educational Attainment and Economic Growth” [with Wolfgang Lutz and Jesus Crespo Cuaresma] *Science* 319 February 22, 2008: 1047-1048.

“Are Individuals’ Family Size Preferences Stable? Evidence from West German Panel Data” [with Frank Heiland and Alexia Prskawetz] *European Journal of Population Economics*. 24(2) June, 2008: 129-156.

“Population, Uncertainty, and Learning in Climate Change Analysis” [with Brian O’Neill] *Climatic Change*. 89(1-2) July, 2008: 87-123.

“Rethinking Age and Aging” [with Sergei Scherbov] *Population Bulletin* 63(4) December, 2008: 3-16.

“An Explicitly Expectation-Based Approach to the Study of Intercity Migration” [with Dae Soo Lee] *Southwestern Economic Review* 36(1) Spring, 2009: 77-94.

“Global and Regional Population Ageing: How Certain are we of its Dimensions” [with Wolfgang Lutz and Sergei Scherbov] *Journal of Population Ageing* 1(1) March, 2009: 75-97.

“Demographic and Human Capital Trends in Eastern Europe and Sub-Saharan Africa” [with Wolfgang Lutz, Sergei Scherbov, and Samir KC] in Bertelsmann Stiftung and Migration Policy Institute, eds. *Talent, Competitiveness, and Migration*. 2009. Verlag Bertelsmann Stiftung: 163-192.

“Projections of Populations by Level of Educational Attainment, Age and Sex for 120 Countries for 2005-2050” [with Samir KC, Bilal Barakat, Anne Goujon, Vegard Skirbekk, and Wolfgang Lutz], *Demographic Research*, 22(15) March, 2010 383-472.

“Capital vs Education: Assessment of Economic Growth from Two Perspectives” [with Alexander Tarasyev and Anastasya Usova]. *8th IFAC Symposium on Nonlinear Control Systems*. 1110-1115.

“Remeasuring Aging” [with Sergei Scherbov] *Science*. 329 (5997). September 10, 2010: 1287-1288.

“The Uncertain Timing of Reaching 8 Billion, Peak Population and other Demographic Milestones” [with Sergei Scherbov and Wolfgang Lutz] *Population and Development Review* 37 (3) September, 2011: 571-578.

“Low Fertility and Population Aging in Germany and Japan: Prospects and Policies”.2011. in N. Takayama and M. Werding (Eds.), *Fertility and Public Policy: How to Reduce the Trend in Declining Birth Rates*. Cambridge Mass: MIT Press. Pp. 51–80.

"Young Adult Failure to Thrive Syndrome". 2013 [with V. Skirbekk, M. Stonawski]. *Finnish Yearbook of Population Research 2013*. Pp. 169-187.

“The characteristics approach to the measurement of population aging”. 2013. [with Sergei Scherbov]. *Population and Development Review*, 39 (4): 673–685. DOI:10.1111/j.1728-4457.2013.00633.x.

“Effects on well-being of investing in cleaner air in India”.2013. [with E. Striessnig, W. Schoepp, M. Amann] *Environmental Science & Technology*, 47 (23): 13222–13229. DOI:10.1021/es402867r.

“Is the demographic dividend an education dividend?”.2014. [with J. Crespo Cuaresma, W. Lutz] *Demography*, 51 (1): 299–315. DOI:10.1007/s13524-013-0245-x

“Quantifying policy tradeoffs to support aging populations” 2014. [with S. Scherbov, M. Mamolo] *Demographic Research*, 30 (20): 579–608. DOI:10.4054/DemRes.2014.30.20

“Measuring the speed of aging across population subgroups.” 2014. [with S. Scherbov] *PLoS ONE*, 9 (5): e96289. DOI:10.1371/journal.pone.0096289

“Re-measuring Twenty-first Century Population Ageing”. 2014. [with S. Scherbov, Samir KC, and W Lutz] in W. Lutz, W.P. Butz, Samir KC (Eds.), *World Population and Human Capital in the 21st Century*. Oxford: Oxford University Press. Pp. 563–590.

“Appendix I: Forecasting Mortality Convergence to 2100” 2014 [with A. Garbero] in W. Lutz, W.P. Butz, Samir KC (Eds.), *World Population and Human Capital in the 21st Century*. Oxford: Oxford University Press. Pp. 650-665.

G. Articles Accepted and Articles Under Review

“Remeasuring Ageing in South-East Asia.” [with S. Basten, S. Scherbov], forthcoming *Asian Population Studies*.

“Faster Increases in Human Life Expectancy Will Lead to Slower Population Aging” [with S. Scherbov]. Revise and resubmit *PLOS ONE*.

“Prospective Ages, Education, Gender, and Life Expectancy in Europe”. [with S. Scherbov], under review at *Journal of Population Ageing*.

H. Recent Working Papers

“An Easily Understood and Intergenerationally Equitable Normal Pension Age” [with Sergei Scherbov]. *IIASA Interim Report*. IR-14-020. December, 2014.