

STEVEN MICHAEL GOODREAU

Curriculum vitae

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1. PERSONAL DATA

Citizenship: United States
Birth: 17 May 1972, Providence RI

2. EDUCATION

Ph.D.	Anthropology	2001	The Pennsylvania State University, University Park, PA
M.A.	Anthropology	1998	The Pennsylvania State University, University Park, PA
A.B.	Anthropology	1994	Harvard University, Cambridge, MA

3. RESEARCH INTERESTS

Biological anthropology: Human infectious disease dynamics, HIV, sexual behavior, signatures of social structure.

Quantitative methodology for biological anthropology: Social network analysis, population genetics and phylogenetics, statistical demography, microsimulation.

4. POSITIONS

2004- Assistant Professor, Department of Anthropology, University of Washington, Seattle.

2001-2004 Post-Doctoral Fellow, Center for Studies in Demography and Ecology, Center for AIDS Research, and Center for Statistics and the Social Sciences, University of Washington, Seattle.

5. RESEARCH AND TRAINING AFFILIATIONS

Center for Studies in Demography and Ecology, University of Washington.
Center for AIDS Research, University of Washington.
Center for Statistics and the Social Sciences, University of Washington.
Quantitative Ecology and Resource Management, University of Washington.
IGERT Program in Evolutionary Modeling, University of Washington and Washington State University.

6. RESEARCH EXPERIENCE AND TRAINING

Invited participant. Wenner-Gren Foundation Symposium 138: Plagues: models and metaphors in the human struggle with disease. Tucson, 2007.

Participant. Santa Fe Institute Complex Systems Summer School, Santa Fe, NM. Intensive one-month course in complexity theory and agent-based modeling. 2002.

Research Assistant, Department of Anthropology and Program in Genetics, Pennsylvania State University, 1998. *Modeling DNA diversity in cardiovascular health/disease.* NIH Grant 1R01HL58239-01A1.

Research Assistant, Burden of Disease Unit, Harvard Center for Population and Development Studies, 1994-1996. *Global burden of disease and injury project.* Funded by the World Health Organization and the World Bank.

7. PUBLICATIONS

Peer-review:

Koehly L, **Goodreau SM**, and Morris M. 2004. Exponential family models for sampled and census network data. *Sociological Methodology.* 34(1):241-270.

Goodreau SM, Goicochea LP and Sanchez J. 2005. Sexual role and transmission of HIV Type 1 among men who have sex with men, in Peru. *Journal of Infectious Disease.* 191:S147-S158.

Goodreau SM. 2006. Assessing the effects of human mixing patterns on HIV-1 interhost phylogenetics through social network simulation. *Genetics.* 142(4):2033-2045.

Goodreau SM. 2007. Advances in exponential random graph (p^*) models applied to a large social network. *Social Networks.* 29(2):231-248.

Peinado J, **Goodreau SM**, et al. 2007. Role versatility among men who have sex with men in urban Peru. *Journal of Sex Research.* 44(3):233-239.

Goodreau SM and Golden MR. 2007. Biological and demographic causes of high HIV and STD prevalence in men who have sex with men. *Sexually Transmitted Infections.* 83(6):458-62.

Hunter DR, **Goodreau SM**, and Handcock MS. 2008. Goodness-of-fit of social network models. *Journal of the American Statistical Association.* 103(481): 248-258.

Goodreau SM, Handcock MS, Hunter DR, Butts CT and Morris M. 2008. A statnet tutorial. *Journal of Statistical Software,* 24(9): 1-26.

Handcock MS, Hunter DR, Butts CT, **Goodreau SM** and Morris M. 2008. Statnet: software tools for the representation, visualization, analysis and simulation of social network data. *Journal of Statistical Software,* 24(1): 1-11.

Hunter DR, Handcock MS, Butts CT, **Goodreau SM** and Morris M. 2008. Ergm: a package to fit, simulate and diagnose exponential-family models for networks. *Journal of Statistical Software,* 24(3): 1-29.

Goodreau SM, Kitts JA, and Morris M. In press. Birds of a feather, or friend of a friend? Using exponential random graph models to investigate adolescent social networks. *Demography.*

White E, Goldbaum G, **Goodreau SM**, Hawes S, Lumley T. Under review. Inter-population differences in HIV testing promptness introduce bias in HIV incidence estimates using STARHS. *Epidemiology*.

Chapters, reviews, commentaries:

Goodreau SM and Weiss KM 2001. Review of "Evolution of HIV," Keith Crandall, ed. *Genetic Epidemiology*.

Goodreau SM. 2007. Commentary on Handcock et al., "Model-based clustering for social networks," *Journal of the Royal Statistical Society Series A*. 170(2):337-8.

Morris M, **Goodreau SM** and Moody J. 2007. "Sexual networks, concurrency, and STD/HIV." Chapter 7 in *Sexually Transmitted Diseases (4th edition)*, eds. Holmes KK et al. New York, McGraw-Hill.

Software:

Handcock MS, Hunter DR, Butts CT, **Goodreau SM**, and Morris M. 2008. ergm: a package to fit, simulate and diagnose exponential-family models for networks. Version 2.0-6, URL <http://statnetproject.org>.

Conference presentations/abstracts:

"Birds of a Feather, or Friend of a Friend? Statistical Models for Social Network Structure," Add Health Users Conference, Plenary session, Bethesda, July 2008.

"Assessing the Population-Level Impact of the Acute Stage of HIV in Zimbabwe through Network Modeling." 17th ISSTD Meeting. Seattle, July 2007 (lead author, SL Cassels).

"Using exponential random graph modeling to assess the population-level impact of the acute stage of HIV." Sunbelt XXVII. Corfu, May 2007 (lead author, SL Cassels).

"Introduction to Statnet," Half-day tutorial. Sunbelt XXVII. Corfu, May 2007.

"Sexual role versatility among MSM in Latin America: its correlates and epidemic effects." XVI International AIDS Conference, Toronto, August 2006.

"Introduction to Statnet," Half-day tutorial. Sunbelt XXVI. Vancouver, April 2006.

"Birds of a Feather or Friend of a Friend? The Joint Effects of Homophily and Transitivity on Adolescent Social Networks" Sunbelt XXVI. Vancouver, April 2006.

"Epidemic impacts of a changing cultural practice: role segregation among Peruvian men who have sex with men," American Association of Physical Anthropologists, Anchorage, March 2006.

"Statistical modeling of social networks: practical advances and results," Population Association of America, Philadelphia, April 2005.

"Recent developments in exponential random graph (p*) models: ERG models and AddHealth," Sunbelt XXV, Redondo Beach, CA, February 2005.

"Social network structure and human/HIV co-evolution," American Association of Physical Anthropologists, Tampa, April 2004.

"Statistical Models for Complete and Incomplete Network Data," Population Association of America, Boston, April 2004.

"Behavioral, Biological and Structural Components of MSM STI Morbidity," National STD Prevention Conference, Philadelphia, March 2004.

"Linking random graph and loglinear models of networks," Joint Statistical Meetings, San Francisco, August 2003. Invited session.

"HIV population genetics in structured human populations – an exponential random graph model approach," HIV Dynamics and Evolution Conference, Lake Arrowhead CA, April 2003.

"HIV-1 population genetics in human populations with structured mixing," XIV International AIDS Conference, Barcelona, July 2002.

"HIV microevolution in sexual/IVDU networks," Sunbelt XXII, New Orleans, LA, February 2002.

"Simulation to aid model selection in random graph models," American Sociological Association Methodology Section, Minneapolis, MN, May 2001.

"Social networks and the evolution of HIV-1," Sunbelt XIX, Charleston, SC, February 1999.

8. INVITED TALKS (OUTSIDE HOME INSTITUTION)

"Birds of a Feather, or Friend of a Friend? Statistical models of network structure in the Add Health study," Center for Statistical Sciences, Brown University. April 2008.

"Birds of a Feather, or Friend of a Friend? Statistical models of network structure in the Add Health study," Center for Demography and Ecology, University of Wisconsin. February 2008.

"Biological and Demographic Causes of High HIV Prevalence Among Gay Men," Stanford University. Co-sponsored by Applera Charitable Foundation. February 2007.

"Social Network Analysis: An Introduction for Demographers," Stanford Course in Formal Demography, August 2005, 2006.

"Men's sexual role and HIV transmission in Urban Peru," Dept. of Anthropology, Binghamton University – SUNY, March 2004.

"Social networks and HIV transmission," Working Group on Complex Networked Social Systems, University of Melbourne, February 2004.

"Modeling HIV transmission and evolution in an urban social network," Dept. of Anthropology, University of Massachusetts - Boston, February 2003.

"Network measures for HIV/STD epidemiology," CDC special meeting on network epidemiology, Washington DC, April 2002.

"Dependency graphs and contact graphs," Erasmus University Dept. of Public Health, Rotterdam, Netherlands, October 1999.

“Generating standardized epidemiological estimates using DisMod and BDAP,” Workshop on the Burden of Disease in Hungary, Budapest, October 1995.

9. TEACHING EXPERIENCE

Upper-level undergraduate courses

Human Genetics, Culture and Disease
Human Population Genetics
Human Population Biology

Graduate-level courses

Graduate Readings in Social Network Analysis
Methods and Modeling in Biocultural Anthropology

10. CURRENT GRANTS

Transmission Behavior in Partnerships of Newly HIV Infected Southern Californians. NIDA, R01 - DA02211UW,. University of Washington Subcontract PI (Overall PI: PM Gorbach), 6/10/2007 – 5/31/2012. UW annual direct costs: \$82,382.

A Kenya Free of AIDS: Harnessing interdisciplinary science for HIV prevention. NICHD, R24 - HD056799. Key Personnel (PI: WM Morris), 09/30/2007 – 07/31/2012.

HIV serosorting among men who have sex with men: Modeling HIV transmission dynamics. UW Center for AIDS Research Emerging Opportunity Grant. Key Personnel (PI: S Cassels), 09/01/2007 – 05/31/2008. \$15,500.

11. RECENT GRANTS (PI)

Assessing the population-level impact of recency on the African HIV epidemic. Puget Sound Partners for Global Health, Principal Investigator, 10/01/05 – 09/30/06. \$42,717.

Evaluating the role of circular migration on population-level HIV prevalence. University of Washington Royalty Research Fund, Principal Investigator, 3/16/2007-3/15/2008. \$26,572.

12. AWARDS

The Population Council: Graduate Fellowship

The Social Science Research Council: Graduate Fellowship (awarded)

The National Science Foundation: Graduate Fellowship

The Pennsylvania State University: University Fellowship

Harvard University: The Thomas Temple Hoopes Prize for excellence in research

Harvard University: The W.W. Howells Prize for excellence in anthropological research

13. PROFESSIONAL AFFILIATIONS

American Association of Physical Anthropologists
International Network for Social Network Analysis
Population Association of America