BIOGRAPHICAL SKETCH

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NAME: Goldman, Noreen

eRA COMMONS USER NAME (credential, e.g., agency login): ngoldman

POSITION TITLE: Hughes-Rogers Professor of Demography and Public Affairs; Faculty Associate, Office of Population Research

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
New York University	B.A.	06/1973	Mathematics
Harvard University	M.A.	02/1975	Statistics
Harvard University	M.Sc.	06/1976	Population Sciences
Harvard University	D.Sc.	09/1977	Population Sciences

A. Personal Statement

My research lies at the intersection of social epidemiology, demography and biostatistics. Much of my work has focused on exploring the linkages between the social environment and health in both low- and high-income settings. I have been the PI of large-scale NIH-funded surveys in Guatemala, Peru, and Taiwan. In Taiwan, I developed a national longitudinal health interview survey in 2000 that includes genetic, clinical and physiological data and inspired the development of other "biosocial" surveys. I am currently a leading researcher on two NIH-funded projects: one using a longitudinal survey of older adults to examine the relationship between occupational histories and health by ethnicity in the US and the second involving new data collection on cardiovascular health among a cohort of disadvantaged youth in 12 US cities that has been followed since birth. I am also working on several projects pertaining to racial disparities during the COVID pandemic. I have about 250 publications in a wide range of journals in population, epidemiology, sociology and statistics, as well as in book chapters and monographs. I have received university awards for mentoring and teaching, and I have mentored a large number of PhD students and postdoctoral fellows during my career. Most of the trainees I have mentored have collaborated on my projects: e.g., of my papers published in the past decade, about 90% had current or former students or postdocs as co-authors. Below are four recent papers co-authored with former students or postdocs:

1. Sohn, Heeju, Anne R. Pebley, Amanda Landria Gonzalez, and **Goldman, Noreen**. 2023. Deportations and Departures: Undocumented Mexican Immigrants' Return Migration During Three Presidential Administrations. *Proceedings of the National Academy of Sciences* (PNAS). 120(9) https://doi.org/10.1073/pnas.2212184120
2. Qin, Bo, Kate Kim, **Noreen Goldman**, Andrew G. Rundle, Dhanya Chanumolu, Nur Zeinomar, Baichen Xu, Karen S. Pawlish, Christine B. Ambrosone, Kitaw Demissie, Chi-Chen Hong, Gina S. Lovasi, and Elisa V. Bandera. 2022. Multilevel Factors for Adiposity Change in a Population-Based Prospective Study of Black Breast Cancer Survivors. *Journal of Clinical Oncology*. doi: 10.1200/JCO.21.02973
3. Pebley, Anne, **Noreen Goldman**, Theresa Andrasfay, and Boriana Pratt. 2021. Trajectories of Physical Functioning among Older Adults in the US by Race, Ethnicity and Nativity: Examining the Role of Working Conditions. *PLOS ONE,* Vol 16(3) e0247804. https://doi.org/10.1371/journal.pone.0247804
4. Andrasfay, Theresa and **Noreen Goldman**. 2021. Reductions in 2020 US Life Expectancy Due to COVID-19 and the Disproportionate Impact on the Black and Latino Populations. *Proceedings of the National Academy of Sciences*, 118(5) e2014746118. PMC7523145.

B. Positions, Scientific Appointments and Honors

Positions and Scientific Appointments

2020-present	Member, Cancer Prevention Control, Rutgers Cancer Institute of NJ
2019-present	Member, Scientific Advisory Board, BroadRiver Asset Management
2019-present	Member, NIH/CTSA-funded New Jersey Alliance for Clinical and Translational Science's Academy of Mentors
2019, 2020, 2023	Guest editor, Proceedings of the National Academy of Sciences
2017-2022	Chair, Scientific Advisory Board, Max Planck Institute for Demographic Research
2016-2018	Member, Network on Life Course Health Dynamics and Disparities
2014–2015	Visiting Professor, University of California, Los Angeles
2012-2016	Editorial Board of *Journal of Health and Social Behavior*
2010-2018	Editorial Board of *Demography*
2010-2014	Member, IUSSP Panel on Bio-indicators and Genetics of Demographic Behaviour
2008-2011	Panel on Understanding Divergent Trends in Longevity in High-Income Countries, National Academy of Sciences
2009, 2011, 2014, 2016	Visiting Professor, University of Fribourg, Switzerland
2008 – 2010	Member, Panel on Understanding Divergent Trends in Longevity in High-Income Countries, National Academy of Sciences
2007-08, 2015-16	Acting Director, Office of Population Research
2007 -	Hughes-Rogers Professor of Demography and Public Affairs, Princeton University
2005 – 2006	Visiting Professor, University of California, Los Angeles
2001 – 2005	Member, Population Research Subcommittee, NICHD Initial Review Group
1998 – 2007	Director of Graduate Studies, Office of Population Research
1997 – 2020	Member, NICHD and NIA Special Study Sections
1995 – 1998	Editorial Advisory Committee, *Demography*
1994 – 2005	Member, NIA Advisory Group
1994 – 1997	Member, Roundtable on Head Start Research, National Academy of Sciences
1991 – 1994	Member, Committee on National Statistics, National Academy of Sciences
1990 – 1996	Scientific Advisory Board, The Alan Guttmacher Institute
1990 – 1993	Editorial Advisory Committee, *International Family Planning Perspectives*
1988 – 1991	Director of Graduate Studies, Office of Population Research, Princeton University
1988 – 1990	Member, PAA Board of Directors
1987 – 2007	Professor of Demography and Public Affairs, Princeton University
1982 – 1987	Research Demographer, Office of Population Research, Princeton University
1982 – 1984	Visiting Professor, University of California, Berkeley
1981 – 1982	Assistant Professor, Stanford University, Food Research Institute
1980	Consultant, World Fertility Survey, International Statistical Institute
1977 – 1979	Research Associate, Office of Population Research, Princeton University

Honors

2019	Vice President, Population Association of America
2018-2019	Russell Sage Visiting Scholar
2017	Nathan & Beatrice Keyfitz Lectureship, Fields Institute, University of Toronto
2007	Endowed Professorship, Princeton University
2005	Graduate Mentoring Award, Princeton University
1991 – 1992	Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, CA.
1990	Woodrow Wilson School, Most Honorable Teaching Award

C. Contributions to Science

1. In the early stages of my career, I conducted research in mathematical and formal demography, with a focus on the use of innovative data to estimate demographic rates when such rates were unavailable from traditional demographic sources or were of poor quality. A related interest was the development of tools to evaluate the quality of data collected in household surveys. I developed mathematical models to examine the influence of demographic parameters on a broad range of outcomes, including kinship patterns, life expectancy, widowhood, polygyny and the marriage market. Subsequently, a colleague and I used simulation models to identify shortcomings in estimation procedures for random effects in binary models. This work has led researchers to explore the use of kinship data for estimation, adopt similar procedures for data quality evaluation in surveys, and develop better software for random effects models with binary data.

    a. **Goldman, Noreen**. 1978. Estimating the Intrinsic Rate of Increase from the Average Numbers of Younger and Older Sisters. *Demography*, 15(4): 499-507.
    b. **Goldman, Noreen**, Charles F. Westoff and *Charles Hammerslough*. 1984. Demography of the Marriage Market in the United States. *Population Index*, 50(1): 5-25.
    c. **Goldman, Noreen**. 1993. Marriage Selection and Mortality Patterns: Inferences and Fallacies. *Demography*, 30(2): 189-208.
    d. Rodríguez, Germán and **Noreen Goldman**. 2001. Improved Estimation Procedures for Multilevel Models with Binary Response: A Case Study. *Journal of the Royal Statistical Society. Series A* (Part 2), 164: 339-355.

2. An interest throughout my career has been the relationship between the social environment – particularly social connection and socioeconomic status – and the health and survival status of adults. My early work examined mortality differentials by marital status in an effort to understand the persistence of a survival advantage among married men and women. This research includes explorations of the relative roles of selection and causal mechanisms, analyses of the atypically large mortality disadvantage of single persons in Japan and an investigation of potential selection factors into and out of marriage in the US. More recently, I explored the mechanisms underlying the relatively weak education gradients in health among Mexicans in the US. My work in this area has prompted researchers to pay much more attention to selection mechanisms in the linkages between social factors and health, to recognize that the healthy migrant effect may not be as important as previously claimed for the Mexican longevity advantage, and to further explore the relevance of "imported gradients," a mechanism that my colleague and I identified during this research.

    a. *Hu, Yuanreng* and **Noreen Goldman**. 1990. Mortality Differentials by Marital Status: An International Comparison. *Demography*, 27(2): 233-250.
    b. *Fu, Haishan* and **Noreen Goldman**. 1996. Incorporating Health into Marriage Choice Models: Demographic and Sociological Perspectives. *Journal of Marriage and the Family*, 58: 740-758.
    c. Rubalcava, Luis, Graciela Teruel, Duncan Thomas and **Noreen Goldman**. 2008. The Healthy Migrant Effect: New Findings from the Mexican Family Life Survey. *American Journal of Public Health*, 98:78-84. PMCID: PMC2156065.
    d. *Ullmann, Silvia Heidi*, **Noreen Goldman**, and Douglas Massey. 2011. Healthier Before They Migrate, Less Healthy When They Return? The Health of Returned Migrants in Mexico. *Social Science & Medicine,* 73:421-428

3. In the mid-1990s, I designed and fielded a survey in rural Guatemala to examine illness and treatment behavior among mostly low-income women and children, a topic that had received little attention. Objectives of this project included estimation of the frequency of major childhood illnesses, a better understanding of causal beliefs about illness in this population, tensions and complementarity between formal and traditional health care, quality of care provided by midwives and reasons for low use of modern health care among the indigenous population. The survey provided an innovative design based on work by medical anthropologists and epidemiologists. The data, collected from women of reproductive age, community informants, and a wide range of providers, have been used by numerous researchers to further explore these and related topics.

   a. Pebley, Anne R., **Noreen Goldman** and Germán Rodríguez. 1996. Prenatal and Delivery Care and Childhood Immunization in Guatemala: Do Family and Community Matter? *Demography*, 33(2): 231-247.

   b. **Goldman, Noreen** and *Patrick Heuveline*. 2000. Treatment-Seeking Behavior and Child Illness in Guatemala. *Tropical Medicine and International Health*, 5(2): 145-55.

   c. *Glei, Dana* and **Noreen Goldman**. 2000. Understanding Ethnic Variation in Pregnancy-related Behaviors, Health Care and Birth Outcomes in Rural Guatemala. *Ethnicity and Health*, 5(1): 5-22.

   d. **Goldman, Noreen**, Anne Pebley and *Michele Gragnolati*. 2002. Choices about Treatment for ARI and Diarrhea in Rural Guatemala. *Social Science and Medicine*, 55(10): 1693-1712.

4. My research in Guatemala was one of several fieldwork experiences that allowed me to explore new survey designs that would provide more detailed information with a higher quality of reporting. In Peru and the Dominican Republic during the mid-1980s, a colleague and I fielded an "experimental survey" for the Demographic and Health Surveys. This experimental survey included a monthly 5-year calendar comprising contraceptive use and failure, as well as pregnancy, migration, marriage and work histories; after collection, we compared estimates with those obtained from the standard survey design at that time. As a result of our evaluations, the Demographic and Health Surveys instituted the calendar approach in subsequent fieldwork, which has now expanded to a huge number of surveys. In 2000, a colleague and I designed and fielded a biosocial survey, incorporating medical exams and biological specimen collection into a household survey of older adults for a national sample. This had rarely been done at the time, although, partly as a result of the success of this initiative in Taiwan, biosocial surveys have now been fielded in many countries.

   a. **Goldman, Noreen**, *Lorenzo Moreno* and Charles F. Westoff. 1989. Peru Experimental Study: An Evaluation of Fertility and Child Health Information. Columbia, MD: Demographic and Health Surveys, Institute for Resource Development/Macro Systems; and Office of Population Research, Princeton University.

   b. Westoff, Charles F., **Noreen Goldman**, and *Lorenzo Moreno*. 1990. Dominican Republic Experimental Study: An Evaluation of Fertility and Child Health Information. Columbia, MD: Demographic and Health Surveys, Institute for Resource Development/Macro Systems, Inc.; and Office of Population Research, Princeton University.

   c. **Goldman, Noreen**, Barbara Vaughan, and Anne R. Pebley. 1998. The Use of Calendars to Measure Child Illness in Health Interview Surveys. *International Journal of Epidemiology*, 27:505-512.

   d. *Cornman, Jennifer C.*, *Dana A. Glei*, **Noreen Goldman** and Maxine Weinstein. 2014. Cohort Profile: The Social Environment and Biomarkers of Aging Study (SEBAS) in Taiwan. *International Journal of Epidemiology*, 45(1):54-63. PMCID: PMC4795557.

5. In more recent work I have examined of the role of biomarkers in understanding linkages among the social environment, stressful experience and health. This work emanated from the Taiwan survey and extended to include comparative analyses in Costa Rica, Russia, England and the US. In addition to serving as a model for future data collection efforts, the Taiwan survey yielded a large number of findings, published by the research team in more than 80 papers. The project has identified weaknesses in the operationalization of allostatic load theory and has proposed alternative measures. Another analysis identified a very simple question (interviewer-assessed health) that provides better prediction of mortality than self-rated health. Other results underscore the utility of information on biomarkers for future health outcomes including survival, yet inflammatory markers have more prognostic power than conventional clinical markers of cardiovascular and metabolic function. Surprisingly, telomere length is a much weaker predictor of survival than conventional measures. Various self-reported measures, in addition to biomarkers, could easily be used to enhance existing prognostic indices. I have also written extensively on racial and ethnic inequalities in mortality from COVID-19.

   a. *Todd, Megan* and Noreen Goldman. 2013. Do Interviewer Health Ratings Predict Mortality?: A Comparison with Self-Rated Health. *Epidemiology*, 24(6):913-20. PMCID: PMC3968811.

b. *Glei, Dana* A., Noreen Goldman, Maxine Weinstein and Rosa Ana Risques. 2015. Shorter Ends, Faster End: Leukocyte Telomere Length and Mortality among Older Taiwanese. *Journals of Gerontology: Biological Sciences,* 70(12):1490-1498. PMCID: PMC4751225.

c. Castro, Marcia, Susie Gurzenda, *Cassio M. Turra*, Sun Kim, *Theresa Andrasfay*, and Noreen Goldman. 2021. Reduction in Life Expectancy in Brazil after COVID-19. *Nature Medicine*. https://doi.org/10.1038/s41591-021-01437-z

d. Goldman, Noreen and Theresa Andrasfay. 2022. Life Expectancy Loss Among Native Americans During the COVID-19 Pandemic. *Demographic Research*. Vol 47(9) pp. 233-246 doi: 10.4054/DemRes.2022.47.9

Complete List of Published Work in PubMed:
http://www.ncbi.nlm.nih.gov/pubmed/?term=goldman+noreen

D. Research Support