

Audrey M. Dorélien

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EMPLOYMENT

- 2014-present University of Minnesota
Assistant Professor, Humphrey School of Public Affairs
Co-Director of Population Training Program (*July 2022 start*), and
Faculty Member of Minnesota Population Center
Faculty Affiliate, Applied Economics Department
Faculty Affiliate, School of Public Health
Faculty Affiliate, Interdisciplinary Center for the Study of Global Change
Faculty Associate, Institute on the Environment
- 2012-2014 University of Michigan
Robert Wood Johnson Foundation Health & Society Scholar
Postdoctoral Fellow Affiliate in the Population Studies Center
- 2008 Bixby Intern in the Population-Health-Environment Program at the
Population Reference Bureau, Washington DC
- 2007 Fellow, Community Enterprise Solutions, Antigua, Guatemala
- 2004-2006 Senior Consultant, CompassLexecon an FTI Company, Cambridge, MA

EDUCATION

- 2012 **Princeton University**, Princeton NJ
Ph.D., Public Affairs, Office of Population Research and School of Public and
International Affairs
Dissertation Title: Birth Seasonality in Sub-Saharan Africa: Its Determinants and
Implications for Child Health.
Committee: Bryan Grenfell (chair), German Rodriguez, Deborah Balk, and Adel
Mahmoud
Examinations:
Demographic Theory and Methods (Thomas Espenshade and German Rodriguez);
Infectious Disease and Ecosystem System Structure (Burton Singer and Adel
Mahmoud)
- 2004 **Swarthmore College**, Swarthmore PA
B.A. Economics and Biology, Honors

2002 Study abroad, Internship in Francophone Europe, Paris, France

ADDITIONAL TRAINING

- 2013 Responsible Conduct of Research Training, University of Michigan School of Public Health
- 2012 Population Health Course, University of Michigan School of Public Health
- 2011 Global Assessment and Monitoring Using Remote Sensing Course, Columbia University
- 2011 Genetics and Disease Control Workshop, DIMACS/MBI US-African Biomathematics Initiative
- 2011 Ecology of Infectious Disease Modeling and Data Analysis Workshop Sponsored by Department of Biology, Colorado State University
- 2008 Environmental Demography Summer Short Course, University of Colorado, Population Center

SCHOLARLY ARTICLES AND BOOK CHAPTERS

Published and Forthcoming

(*indicates student co-authors)

Audrey M. Dorélien, Aparna Ramen*, Isabella Swanson*, and Rachele Hill. 2021. “Analyzing the demographic, spatial, and temporal factors influencing social contact patterns in US and implications for infectious disease spread.” *BMC Infect Dis* 21 (1): 1009.

doi.org/10.1186/s12879-021-06610-w

Kathryn Grace, Andrew Verdin, Audrey Dorélien, Frank Davenport, Chris Funk, Greg Husak. 2021. Exploring strategies for investigating the mechanisms linking climate and individual-level child health outcomes: an analysis of birth weight in Mali. *Demography* 58 (2):499-526.

doi.org/10.1215/00703370-8977484

Audrey M. Dorélien and Hongwei Xu. 2020. “Estimating rural urban disparities in self-rated health in China: Impact of choice of urban definition.” *Demographic Research* 43(49):1429-1460. doi.org/10.4054/DemRes.2020.43.49

Audrey M. Dorélien, Alisha Simon, Sarah Hagge, Kathleen Thiede Call, Eva Enns, and Shalini Kulasingam. 2020. “Minnesota Social Contacts and Mixing Patterns Survey with Implications for Modelling of Infectious Disease Transmission and Control.” *Survey Practice* 13 (1).

<https://doi.org/10.29115/SP-2020-0007>.

Frank Davenport, Audrey M. Dorélien, Kathryn Grace. 2020. “Investigating the linkages between pregnancy outcomes and climate in sub-Saharan Africa.” *Population and Environment* 41:397–421 <https://doi.org/10.1007/s11111-020-00342-w> (**co-first authors**)

Olga Tymejczyk, Vanessa Rivera, Mireille Peck, Audrey Dorélien, Jacky Petion, Grace Seo, Kathleen F Walsh, Jean W. Pape, Margaret McNairy, Daniel W. Fitzgerald, Denis Nash, Angela Parcesepe. 2020. “Psychological distress among a population-representative sample of residents of four slum neighborhoods in Port-au-Prince, Haiti.” *Journal of Affective Disorders* 263:241-245 <https://doi.org/10.1016/j.jad.2019.11.103>

Margaret McNairy, Olga Tymejczyk, Vanessa Rivera, Grace Seo, Audrey Dorélien, Mireille Peck, Jacky Petion, Kathleen Walsh, Anna Bolgrien*, Denis Nash, Jean Pape, Daniel Fitzgerald. 2019. “High burden of non-communicable disease among a young slum population in Haiti.” *Journal of Urban Health*. <https://doi.org/10.1007/s11524-019-00368-y>

Audrey M. Dorélien. 2019. “The effect of in utero exposure to influenza on birth and infant outcomes in the US.” *Population and Development Review* 45(3): 489–523 <https://doi.org/10.1111/padr.12232>

Olga Tymejczyk, Margaret McNairy, Jacky Petion, Vanessa Rivera, Audrey Dorélien, Mireille Peck, Grace Seo, Kathleen Walsh, Daniel Fitzgerald, Robert Peck, Ashish Joshi, Jean Pape, Dennis Nash. 2019. “Hypertension prevalence and risk factors among residents of four slum communities: population-representative findings from Port-au-Prince, Haiti.” *Journal of Hypertension* 37(4), 685-695. <https://doi.org/10.1097/HJH.0000000000001966>

Audrey M. Dorélien. 2016. “Birth seasonality in sub-Saharan Africa.” *Demographic Research* 34(27), 761-796. doi.org/10.4054/DemRes.2016.34.27.

Audrey M. Dorélien. 2015. “Effect of birth month on child health and survival in sub-Saharan Africa.” *Biodemography and Social Biology* 61(2), 209-230. doi.org/10.1080/19485565.2015.1032399.

Audrey M. Dorélien, Sebastian Ballesteros, Bryan T. Grenfell. 2013. “Impact of birth seasonality on dynamics of acute immunizing infections in sub-Saharan Africa.” *PLoS ONE* 8(10): e75806. doi.org/10.1371/journal.pone.0075806.

Audrey Dorélien, Deborah Balk, and Megan Todd. 2013. “What is urban? Comparing a satellite view with the Demographic & Health Surveys.” *Population Development Review*, 39 (3): 413-439. doi.org/10.1111/j.1728-4457.2013.00610.x.

Andrew J Tatem, Susana Adamo, Nita Bharti, Clara R Burgert, Marcia Castro, Audrey Dorelien, Gunther Fink, Catherine Linard, John Mendelsohn, Livia Montana, Mark R Montgomery, Andrew Nelson, Abdisalan M Noor, Deepa Pindolia, Greg Yetman and Deborah Balk. 2012. “Mapping the denominator: Improving spatial demographic data for disease modeling and deriving health metrics.” *Population Health Metrics* 10(8) doi.org/10.1186/1478-7954-10-8.

Balk, D., Montgomery, M. R., McGranahan, G., Kim, D., Todd, M., Buettner, T., and Dorélien, A. 2009. Mapping Urban Settlements and the Risks of Climate Change in Africa, Asia, and South America. In G. Martine, J.-M. Guzman, G. McGranahan, D. Schensul, & C. Tacoli (Eds.),

Population Dynamics and Climate Change (pp. 80-103). New York: United Nations Population Fund and International Institute for the Environment and Development

Audrey Dorélien. 2008. “Population’s Role in the Current Food Crisis: Focus on East Africa.” Population Reference Bureau web article

Jason Bremner, and Audrey Dorélien. 2008. “Forest Conservation and Population Growth among Indigenous Peoples of the Amazon.” Population Reference Bureau web article

Work Under Review and In Progress

Audrey Dorélien and Katherine Grace. 2022. “Climate change-related demographic and health research: Data and Approaches.” Book chapter in: Ortiz, S. C., McHale, S. M., King, V., & Glick, J. E. (Eds.). (2022). *Environmental impacts on families: Change, challenge, and adaptation*. [Manuscript in preparation]. Social Science Research Institute, Penn State. (**co-first authors**)

Audrey Dorélien, Narmada Venkateswaran*, Jiuchen Deng*, Kelly Searle, Eva Enns, Shalini Kulasingam. 2021. “Quantifying social contact patterns in Minnesota during Stay-at-Home physical distancing order.” Earlier version is available as a medRxiv preprint: doi.org/10.1101/2021.07.12.21260216. *Under Review*

Jiuchen Deng*, Audrey Dorélien. “Don’t Tell Me What to Do: Partisanship and Masking Behavior.” *Working Paper Available*

Audrey Dorélien, Ashwini Shridhar*. “Racial/Ethnic Differences in Social Contact Patterns and Implications for COVID-19.” *In Progress*

Audrey Dorélien, Ashwini Shridhar*. “The Impact of COVID Pandemic on Social Contact Patterns by Gender and Household type.” *In Progress*

Audrey Dorélien, Kathryn Grace, and Frank Davenport. “Malaria exposure and pregnancy outcomes in Sub-Saharan Africa.” *In Progress*

Audrey Dorélien. “Seasonal birth patterns differ by socio-demographic characteristics in sub-Saharan Africa.” *Working Paper Available*

GRANTS

2023-2028	R01AI170611-01 NIH/NIAID “Quantifying interpersonal contact in the United States and implications for transmission of SARS-CoV-2 and other respiratory pathogens.” Principal Investigator . (\$3,258,301) [<i>resubmitting July 5, 2022</i>]
2022-2027	R01HD069471, NIH/NICHD “Integrated Demographic and Health Survey Data for Population Health Research (Renewal).” Co-Investigator . (\$3,780,405) [<i>pending NOGA</i>]

- 2021 Human Rights Research Fund award for “COVID-19 racial & ethnic disparities: Analyzing the role of social contacts in MN and US”, University of Minnesota. **Principal Investigator.** (\$45,051)
- 2020-2025 R01HD099182, NIH/NICHD Integrated Global Data on Child Health and Development (IPUMS-MICS). **Co-Investigator.** (\$1,313,413)
- 2020 Minnesota Social Contact and Modelling Study. Funded by Minnesota Department of Health. **Co-Investigator.**
- Minnesota Population Center Pilot Grant to support additional data collection for MN Social Contact and Modelling Study, University of Minnesota. (\$9,600)
- 2019-2020 University of Minnesota Grant-In-Aid. “Social contact structures and the spread of close-contact infectious diseases in the US and Twin Cities.” **Principal Investigator.** (\$31,895)
- 2015-2016 NIH Fogarty 3D43TW009606-03S1, Demography and Population Health Training and Research Project Supplement Grant. **Co-Investigator.** (\$50,000)
- 2013-2014 Robert Wood Johnson Foundation Health and Society Scholars Program Research Seed Grant for project on “Impact of infectious diseases on population health.” **Principal Investigator.** (\$15,000)
- 2011-2012 Grant to hold interdisciplinary seminar series, Global Health Program, Office of Population Research, Ecology and Evolutionary Biology, Princeton University (\$6,000)
- 2011 Travel Grant to Genetics and Disease Control Workshop, NSF
- Travel Grant to Ecology of Infectious Disease Modeling and Data Analysis Workshop
- 2007-2012 Travel Grant, Office of Population Research and Graduate School, Princeton University (various years)

AWARDS & FELLOWSHIPS

- 2022 2021 IPUMS Time Use Research Award for best published paper, “Analyzing the demographic, spatial, and temporal factors influencing social contact patterns in the U.S. and implications for infectious disease spread.”
- 2020 Minnesota Population Center Outstanding Research Award for “Exploring strategies for investigating the mechanisms linking climate and individual-level child health outcomes: an analysis of birth weight in Mali”
- 2019 Minnesota Population Center Diversity Fellowship Program Mentor (summer support for an undergraduate and graduate research assistant) for “Social Contact Structures and Time Use Patterns in US.”

- 2018 Minnesota Population Center Outstanding Research Award for “The effect of in utero exposure to influenza on birth and infant outcomes in the US” accepted in journal *Population and Development Review*
- 2012-2014 Robert Wood Johnson Foundation Health and Society Scholar, University of Michigan (\$192,100 for salary, travel, relocation, computing, and research)
- 2011 Best Poster Prize, Population Association of America Annual Meeting
- 2010 Patrice Y. Johnson Memorial Service Award, Assoc. of Black Princeton Alumni
- 2008 National Science Foundation Pre-Doctoral Fellowship Honorable Mention
- 2007-2012 Princeton University Graduate Fellowship

CONFERENCES & INVITED PRESENTATIONS

- 2022 FSU Center for Demography and Population Health Brown Bag Series, (invited talk)
 McGill Center on Population Dynamics 10th Anniversary Conference, (invited talk and panelist)
 Network for Data-Intensive Research on Aging (NDIRA) 2022 Data-Intensive Research Conference (scheduled for July 2022), (presenter)
- 2021 IUSSP 29th International Conference (presenter and panelist)
 Human Rights Program 20th Anniversary Symposium, UMN (panelist)
 Alliance Française, MN Chapter (panelist)
 National Symposium on Family Issues, Penn State (panelist)
 Population Reference Bureau, Training Workshop (invited talk)
 Berkeley Formal Demography Workshop (invited talk)
 CUNY Institute for Demographic Research (CIDR) (invited talk)
- 2020 Interdisciplinary Association for Population Health Science (IAPHS) Annual Conference (presenter)
 Remote Sensing Interdisciplinary Graduate Education Program at Virginia Tech (invited talk)
- 2019 Institute for Population Research at the Ohio State University (invited talk)
- 2018 University of Maryland Population Research Center (invited talk)
- 2017 Population Association of America (PAA) 2017 Annual Conference (presenter)
 Institute of Behavioral Science, University of Colorado Boulder (invited talk)
 IUSSP 28th International Population Conference (presenter)
- 2016 Freeman Seminar, University of Minnesota (invited talk)
 Department of Demography, University of California, Berkeley (invited talk)
 MPC Seminar Series, University of Minnesota (invited talk)

- 2015 Center for the Study of Demography and Ecology (CSDE), University of Washington (invited talk)
Sociology Department, the Ohio State University (invited talk)
- 2014 Robert Wood Johnson Foundation (RWJF) Health and Society Program Meeting (presenter)
- 2013 Sociology Department, University of California, Irvine (invited talk)
Health and Behavior Sciences, University of Colorado, Denver (invited talk)
Humphrey School of Public Affairs, University of Minnesota (invited talk)
RWJF Health and Society Program Meeting (presenter)
PAA Annual Conference (presenter)
IUSSP 27th International Population Conference (presenter)
- 2012 Notestein Seminar Series, OPR, Princeton University (invited talk)
PAA Annual Conference (presenter)
- 2011 Union for African Population Studies (UAPS) (presenter)
DIMACS Center for Discrete Mathematics & Theoretical Computer Science (presenter)
PAA Annual Conference (presenter)
- 2010 PAA Annual Conference (presenter)
Symposium in Honor of Black History Month, Princeton University

TEACHING EXPERIENCE

University of Minnesota

- PA 5929 Data Visualization: Telling Stories with Numbers
PA 5490 Politics and Policy of Demographic Change (@PoliDemog)
PA 8461 Global & US Perspectives on Health & Mortality
PA 5021 Microeconomics for Policy Analysis

Guest lectures

- SOC 4246 Sociology of Health and Illness
PUBH 3365 Modeling and Mapping for Infectious Disease Epidemiology
PA 8006 Current Research in Public Affairs
OLLI 20449 Data Visualization in Logical and Radical Innovations
JSI Junior Summer Institute
APEC 3001 Intermediate Microeconomics
GEOG 5900 Special Topics: Quantitative Methods for Survey Data
GEOG 8980 Global Health Data Analysis

Princeton University Assistant in Instruction

- ENV 309 Disease Ecology, Economics, and Public Policy (Professors Ramanan Laxminarayan and Bryan Grenfell)

POP 508 Epidemiology (Professor Anne Andermann)
 GHP 350 Epidemiology (Professor Anne Andermann)

Volunteer Tutor/Instructor

2007 Assistant English teacher, Escuela Javier Alonso Sayles Vargas,
 Ahome, Mexico

ADVISING AND MENTORING

Former PhD Students

2021 Anna Bolgrien (Humphrey School, committee member, research scientist at ISDRI)
 2021 Natalia Ordaz Reynoso (Applied Economics, committee member, placed at Facebook)
 2021 Man Xu (Humphrey School, committee member, postdoc at NYU Abu Dhabi)
 2020 Maryia Bakhtsiyarava (Geography, committee member, postdoc at UC Berkeley)

Current PhD Students

Anna Bokun, (Sociology, committee member)
 Xiaowan Han., (Sociology, population training program mentor)
 Yi Wang (Humphrey School, committee member)
 Berenger Djoumessi Tiague (Applied Economics, committee member)
 Divya Pandey (Applied Economics, committee member)
 Ashwini Shridhar (Humphrey School, chair)

Master's Student's Professional Papers

2021 Sarah Kesler (MPA)
 2019 Andrew Butts (MPP)
 2017 Jennifer Higano (MPP)
 2015 Nicole Kessler (MPP/MPH)

Master's Student Advisees (22 students)

SERVICE

Professional

2021 IAPHS Student Committee Webinar “Interdisciplinarity and the Job Market”
 panelist
 2020-2021 Session organizer and chair for 2021 PAA conference
 2019 Session organizer for 2020 PAA conference
 2016-2020 Member of NASA Socioeconomic Data and Applications Center (SEDAC) User
 Working Group (UWG)
 2017 Discussant at 2017 PAA conference; Discussant at 2017 IUSSP conference
 2016-2017 Session organizer for 2017 PAA Annual conference
 2016 Co-coordinator of Population Association of America pre-conference Data
 Visualization Workshop
 2015 Discussant at 2015 PAA Annual conference
 2014-2015 PAA Conference Program Committee: Population, Development, and the
 Environment topic chair.
 2014 Discussant for PAA Annual Conference
 2009 Discussant, IUSSP

University of Minnesota

- 2022-present MPC Co-Training Director (*starting July 1*)
- 2019-present Humphrey School PhD Committee
- 2019-present Minnesota Population Center Advisory Board
- 2019-2021 ISDRI Population Training Program Advisory Board
- 2017-2019 Humphrey School Admissions Committee
- 2016-present IPUMS Demographic Health Surveys advisory board member
- 2015-2017 Co-coordinator of Minnesota Population Center’s Inequality & Methods Workshop
- 2015-2016 Member of Women Gender and Public Policy Center Director Search Committee

Princeton University

- 2012 Co-convenor of seminar series “Research at the Interface of Economics, Ecology, and Health.” Princeton University
- 2011-2012 Residential Graduate Student, Butler College, Princeton University
- 2009-2010 Diversity Fellow, Office of Associate Dean of Academic Affairs and Diversity, Princeton University
- 2010 Global Crisis Committee (formerly Haiti Earthquake Response Committee), Princeton University
- 2008-2010 President of the Black Graduate Caucus, Princeton University
- 2007-2008 Black Graduate Caucus Representative to Graduate Student Council, Princeton University
- 2008 PhD Representative to the Woodrow Wilson School Action Committee, Princeton University

Invited Peer Reviewer

- *Annals of Epidemiology; Biodemography and Social Biology; Cahiers Québécois de Démographie; Demographic Research; Demography; ELife; Environmental Practice; Global and Environmental Change; Journal of Biosocial Science; Journal of Water and Health; Maternal and Child Health; Nature Scientific Reports; PLOS One; Population and Development Review; Population & Environment; Population Health Metrics; Population Studies; Proceedings of the Royal Society B: Biological Sciences; Scientific Reports; World Development*

Professional Memberships

- Interdisciplinary Association for Population Health Science (IAPHS)
- Population Association of America (PAA)
- Association for Public Policy Analysis and Management (APPAM)
- Models of Infectious Disease Agent Study Network (MIDAS)
- International Union for the Scientific Study of Population (IUSSP)
- Population Environment Research Network (PERN),
- Union for African Population Studies (UAPS)