

Heather Fawn Randell

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ACADEMIC APPOINTMENTS

- 2019-present Assistant Professor of Rural Sociology and Demography
Department of Agricultural Economics, Sociology, and Education, Penn State
Cofunded Faculty, Social Science Research Institute
Faculty Associate, Population Research Institute
- 2018-2019 Postdoctoral Research Associate, Maryland Institute for Applied Environmental Health
University of Maryland School of Public Health
Faculty Affiliate, Maryland Population Research Center
- 2016-2018 Postdoctoral Fellow, National Socio-Environmental Synthesis Center (SESYNC)

EDUCATION

- 2016 PhD, Sociology, Brown University
Demography Trainee, Population Studies & Training Center
- 2008 MEM, Nicholas School of the Environment, Duke University
Certificate in Global Health, Duke Global Health Institute
- 2005 BS, Biology, Cornell University, *cum laude*

RESEARCH INTERESTS

Health and well-being impacts of climate change; dam building and displacement; environmental change and sustainable development; food security and nutrition; migration; rural livelihoods.

PEER-REVIEWED ARTICLES (‡ Graduate student at time of submission)

Lindstrom, David, **Heather Randell**, and Tefera Belachew. (2022) The migration response to food insecurity and household shocks in southwestern Ethiopia. Published online ahead of print in *International Migration Review*.

Randell, Heather, Clark Gray, & Elizabeth Shayo. (2022) Climatic conditions and household food security: Evidence from Tanzania. *Food Policy*. 112: Article 102362.

Thiede, Brian, **Heather Randell**, & Clark Gray. (2022) The childhood origins of climate-induced mobility and immobility. *Population and Development Review*. 48(3): 767-793.

Southard, Emily‡ & **Heather Randell**. (2022) Climate change, agrarian distress, and the feminization of agriculture in South Asia. *Rural Sociology*. 87(3): 873-900.

- Randell, Heather** & Peter Klein. (2021) Hydropower development, collective action, and environmental justice in the Brazilian Amazon. *Society & Natural Resources*. 34(9): 1232-1249.
- Randell, Heather**, Chengsheng Jiang, Xin-Zhong Liang, Raghu Murtugudde, & Amir Sapkota. (2021) Food insecurity and compound environmental shocks in Nepal: Implications for a changing climate. *World Development*. 145: Article 105511.
- Randell, Heather**, Kathryn Grace, & Maryia Bakhtsiyarava#. (2021) Climatic conditions and infant care: Implications for child nutrition in rural Ethiopia. *Population and Environment*. 42(4): 524-552.
- Randell, Heather**, Clark Gray, & Kathryn Grace. (2020) Stunted from the start: Early life weather and child undernutrition in Ethiopia. *Social Science & Medicine*. 261: Article 113234.
- Alexander, S, K Jones, N Bennett, A Budden, M Cox, M Crosas, E Game, J Geary, RD Hardy, J Johnson, S Karcher, N Motzer, J Pittman, **Heather Randell**, J Silva, P da Silva, C Strasser, C Strawhacker, A Stuhl, & N Weber. (2020) Qualitative data sharing and synthesis for sustainability science. *Nature Sustainability*. 3: 81-88.
- Randell, Heather** & Clark Gray. (2019) Climate change and educational attainment in the global tropics. *Proceedings of the National Academy of Sciences*. 116(18): 8840-8845.
- Randell, Heather**. (2018) The strength of near and distant ties: Social capital, environmental change, and migration in the Brazilian Amazon. *Sociology of Development*. 4(4): 394-416.
- Randell, Heather**. (2017) Forced migration and changing livelihoods in the Brazilian Amazon. *Rural Sociology*. 82 (3): 548-573.
- Randell, Heather** & Clark Gray. (2016) Climate variability and educational attainment: Evidence from rural Ethiopia. *Global Environmental Change*. 41: 111-123.
- Randell, Heather**. (2016) The short-term impacts of development-induced displacement on wealth and subjective well-being in the Brazilian Amazon. *World Development*. 87: 385-400.
- Randell, Heather**. (2016) Structure and agency in development-induced forced migration: The case of Brazil's Belo Monte Dam. *Population and Environment*. 37 (3): 265-287.
- Randell, Heather** & Leah VanWey. (2014) Networks versus need: Drivers of urban out-migration in the Brazilian Amazon. *Population Research and Policy Review*. 33 (6): 915-936.
- Dickinson, Kathryn, **Heather Randell**, Randall Kramer, & Elizabeth Shayo. (2012) Socioeconomic status and malaria-related outcomes in Mvomero District, Tanzania. *Global Public Health*. 7 (4): 384-399.
- Le Menach, Arnaud, Andrew Tatem, Justin Cohen, Simon Hay, **Heather Randell**, Anand Patil, & David Smith. (2011) Travel risk, malaria importation and malaria transmission in Zanzibar. *Scientific Reports*. 1(93).

Randell, Heather, Kathryn Dickinson, Elizabeth Shayo, Leonard Mboera & Randall Kramer. (2010) Environmental management for malaria control: Knowledge and practices in Mvomero, Tanzania. *EcoHealth*. 7 (4): 507-516.

Pimentel, D, S Cooperstein, **Heather Randell**, D Filiberto, S Sorrentino, B Kaye, C Nicklin, J Yagi, J Brian, J O'Hern, A Habas, & C Weinstein. (2007) The ecology of increasing diseases: Population growth and environmental degradation. *Human Ecology*. 35 (6): 653-668.

UNDER REVIEW

Reyes, Carolyn[‡] & **Heather Randell**. Household shocks and adolescent well-being in Peru. Revise and resubmit in *Population Research and Policy Review*.

Randell, Heather & Andrew Curley. Dams and tribal land loss in the United States. Under review.

MANUSCRIPTS IN PREPARATION

Randell, Heather, Kathryn Grace, Thais Tartalha, Shrad Shukla, & Andrew Verdin. Prenatal heat exposure and adverse birth outcomes in Brazil.

Ghebremicael, Sara[‡], Clark Gray, & **Heather Randell**. Climate change and food security in Ethiopia.

Joshi, Supriya[‡] & **Heather Randell**. Climate change and intimate partner violence in Nepal.

Southard, Emily[‡] & **Heather Randell**. Food security and women's mental health in Nepal.

OTHER PUBLICATIONS

Randell, Heather. (2022) The challenges of dam-induced displacement: Reducing risks and rethinking hydropower. *One Earth*. 5(8): 849-852.

Randell, Heather. (2022) Heat, mortality, and health. *International Handbook of Population and Environment*. Cham: Springer Nature Switzerland.

EXTERNAL GRANTS

2022-2024 NIH/NICHD. R21: Development-Induced Displacement and Women and Children's Well-Being. (\$426,250 total costs).
Role: Principal Investigator.

2022-2024 NIH/NICHD. R03: The Resilience of Food Security to Climate Shocks. (\$170,721 total costs)
Role: Co-Investigator (Principal Investigator Clark Gray, UNC).

2021-2023 NSF. EAGER: SAI: Collaborative Research: Bridging the Arctic: Community-Driven Innovation for Resilient Bridges in Remote Communities. (\$259,112 total costs).
Role: Co-Principal Investigator (Principal Investigator Guangqing Chi, Penn State)

2021-2024 NSF OISE-2107275. IRES Track I: Manifestations of Climate Change in Extreme Events. (\$379,004 total costs).
Role: Co-Principal Investigator (Principal Investigator Julio Urbina, Penn State)

- 2020-2023 NSF ICER-1927827. NNA Track 1: Pursuing Opportunities for Long-term Arctic Resilience for Infrastructure and Society (POLARIS). (\$3,000,000 total costs).
Role: Senior Personnel (Principal Investigator Guangqing Chi, Penn State)
- 2017-2022 NSF OISE-1658251. IRES: People, Power, and Rivers: Social-ecological Dynamics of Hydroelectric Development in Northern Mongolia. (\$249,971 total costs).
Role: Collaborator (Principal Investigator Olaf Jensen, University of Wisconsin)
- 2014-2015 NSF Sociology SBE-1434020. Doctoral Dissertation Research: Forced Migration and Economic Development. (\$10,792 total costs).
Role: Co-Principal Investigator (Principal Investigator Leah VanWey, Brown University)

AWARDS AND FELLOWSHIPS

- 2019 Roy C. Buck Faculty Award, College of Agricultural Sciences, Penn State
- 2015-2016 Institute at Brown for Environment & Society (IBES) Graduate Fellowship
- 2014-2015 Department of Sociology Dissertation Fellowship
- 2014 Center for Latin American & Caribbean Studies Brazil Research Grant
- 2011-2013 NICHD Population Studies and Training Center Fellowship
- 2011 National Science Foundation Graduate Research Fellowship Honorable Mention

INVITED PRESENTATIONS

- 2022 The Wilson Center
Federal University of Minas Gerais (Brazil)
- 2021 Penn State, Department of Geography
- 2020 Penn State, Department of Meteorology and Atmospheric Science
UC Santa Barbara, Broom Center for Demography
- 2018 University of Maryland, Maryland Institute for Applied Environmental Health
UMBC, Department of Geography & Environmental Systems
- 2017 University of North Carolina at Chapel Hill, Department of Geography
Duke University, Nicholas School of the Environment
- 2016 Brown University, Watson Institute for International and Public Affairs
University of Maryland, Program for Society and the Environment

CONFERENCE PRESENTATIONS (SINCE 2016)

- 2022 Randell, H, K Grace, & T Tartalha. Extreme weather events and adverse birth outcomes in Brazil. Paper presented at the Population Association of America Annual Meeting, Atlanta, GA, April 6-9.
- Randell, H, C Gray, & E Shayo. Climatic conditions and household food security: Evidence from Tanzania. Paper presented at the Population Association of America Annual Meeting, Atlanta, GA, April 6-9.
- 2020 Randell, H, C Gray, & E Shayo. Climate variability, food security, and resilience in Tanzania. Paper presented at the Association for Public Policy and Management (APPAM) Fall Research Conference. Virtual, November 11-13.

- 2019 Randell, H. Impactos socioeconômicos de curto prazo dos deslocamentos de populações rurais afetadas por Belo Monte. Paper presented at Seminário Sobre os Impactos de Longo Prazo na Amazônia, Unicamp, Limeira, SP, Brazil, November 25-27.
- Randell, H, K Grace, & M Bakhtsiyarava. Climate, infant care, and child undernutrition: Evidence from rural Ethiopia. Paper presented at Demographic Responses to Changes in the Natural Environment, University of Wisconsin, October 24-25.
- Randell, H & A Sapkota. The cumulative effects of climate change and natural disasters on food security: A natural experiment using the 2015 Nepal earthquake. Paper presented at the Population Association of America Annual Meeting, Austin, TX, April 10-13.
- Klein, P & H Randell. Countering internal colonialism: Hydropower development, collective action, and environmental justice in the Brazilian Amazon. Paper presented at the American Association of Geographers Annual Meeting, Washington, DC, April 3-7.
- 2018 Randell, H. Invited panelist for session on Temporality, Agency, and Migration in the Context of Climate Change. American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14.
- 2017 Randell, H & C Gray. Climate change and educational attainment in the global tropics. Paper presented at the Population Association of America Annual Meeting, Chicago, IL, April 27-29.
- Randell, H & C Gray. Livelihood adaptation to climate change in rural Ethiopia. Paper presented at the American Association of Geographers Annual Meeting, Boston, MA, April 5-9.
- 2016 Randell, H & P Klein. Countering internal colonialism: Hydropower development, collective action, and environmental justice in the Brazilian Amazon. Paper presented at the International Conference on Development in Question, Cornell University, Ithaca, NY, October 6-8.
- Randell, H. Development-induced displacement, productive investments, and income diversification in the Brazilian Amazon. Paper presented at the Annual Meeting of the American Sociological Association, Seattle, WA, August 20-23.
- Randell, H & C Gray. Climate shocks and educational investments in rural Ethiopia. Paper presented at the Population Association of America Annual Meeting, Washington, DC, March 31- April 2.
- Randell, H. The impacts of development-induced displacement on wealth, inequality, and subjective well-being in the Brazilian Amazon. Paper presented at the Population Association of America Annual Meeting, Washington, DC, March 31-April 2.

TEACHING EXPERIENCE

Instructor of Record

Penn State

CED 230 Development Issues in the Global Context (Spring 2020, Fall 2020, 2021)

RSOC 573 Multivariate Statistics for the Social Sciences (Fall 2019, Spring 2021, 2022, 2023)

University of Maryland, College Park

PHSC 426 Climate Change and Health (Fall 2017, Spring 2019)

Teaching Assistant

Brown University

Multivariate Statistical Methods II, graduate level (Spring 2014)

Multivariate Statistical Methods I, graduate level (Fall 2013)

Climate and Climate Change (Fall 2012)

GRADUATE STUDENT ADVISING

PhD committee co-chair: Carolyn Reyes (RSOC) (graduated 2022)

PhD committee member: Sara Bonilla (RSOC), Yining Feng (RSOC), Kaitlin Fischer (RSOC), Michaela Hoffmeyer (RSOC), Jordan Jackson (RSOC), Supriya Joshi (RSOC), Jessica Miller (RSOC), Shuai Zhou (RSOC), Lilly Zeitler (GEOG)

Masters committee member: Abbie Robinson (RSOC), Sara Ghebremicael (UNC GEOG)

PROFESSIONAL SERVICE ACTIVITIES

Service to the Department

M.E. John Seminar Committee (2019–2022)

Rural Sociology Graduate Program Committee (2021–present)

Service to the University

Internal Advisory Board member, Population Research Institute (PRI) (2022-present)

Founder and Organizer, Population Research Institute (PRI) Working Group on Environmental Demography (2020–2022)

Search Committee Member, Institute for Energy and the Environment and Department of Biobehavioral Health co-funded faculty position in Water and Health (2022)

Service to the Profession

Contributing Author, Intergovernmental Panel on Climate Change (IPCC) WGII Sixth Assessment Report, Chapter 9: Africa

Associate Editor, *Frontiers in Ecology and the Environment* (2017–present)

Manuscript Reviewer: *Ambio*, *Applied Geography*, *BMJ Global Health*, *The Cambridge Handbook of Environmental Sociology*, *Demography*, *EcoHealth*, *Environmental Development*, *Global Environmental Change*, *Health and Place*, *Journal of Development Studies*, *Journal of Latin American Geography*, *Nature Climate Change*, *PLOS Climate*, *Population and Environment*, *Population and Development Review*, *Population Research and Policy Review*, *Proceedings of*

the National Academy of Sciences, Rural Sociology, Scientific Data, Sociology of Development, Social Science & Medicine, Springer Nature Social Sciences, World Development, World Development Perspectives

Population Association of America
Session Organizer (2020, 2022)
Discussant (2019, 2021)
Session Chair (2016)
Program Committee (2022)
Poster Judge (2022)

Grant Reviewer
Ministry of Foreign Affairs of Denmark (Danida Fellowship Centre)
Maryland Sea Grant Coastal Resilience and Sustainability Fellowship

MEDIA COVERAGE

Worland, Justin (2020). The Debate About Reopening Schools Is a Preview of Climate-Related Disruption to Come. *Time Magazine*. Available at: <https://time.com/5880680/climate-change-reopening-schools/>.

Palmer, Lisa. (2016). Could Climate Change Keep Kids Out of School? Q&A With Environmental Sociologist Heather Randell. *New Security Beat*. The Wilson Center. November 2, 2016. <https://www.newsecuritybeat.org/2016/11/climate-change-kids-school-qa-environmental-sociologist-demographer-heather-randell/>.

PUBLIC SCHOLARSHIP (PODCASTS, BLOG POSTS, ONLINE ARTICLES)

Southard, Emily & Heather Randell. (2022). Intensifying heat waves threaten South Asia's struggling farmers – many of them women. *The Conversation*. <https://theconversation.com/intensifying-heat-waves-threaten-south-asias-struggling-farmers-many-of-them-women-184378>

Randell, Heather & Jonathan Van Ness. (2021). Are Dams Cute...Or Not So Cute? [Podcast] *Getting Curious with Jonathan Van Ness*. <https://www.jonathanvanness.com/gettingcurious/episode/1c378a02/are-dams-cute-or-not-so-cute-with-heather-randell>.

Chi, Guangqing, Davin Holen, Heather Randell, Megan Mucioki, and Rebecca Napolitano. (2021) Rural Alaska needs new bridges as permafrost thaws and crossing river ice gets riskier – the infrastructure bill is only a start. *The Conversation*. <https://theconversation.com/rural-alaska-needs-new-bridges-as-permafrost-thaws-and-crossing-river-ice-gets-riskier-the-infrastructure-bill-is-only-a-start-169345>.

Randell, Heather. (2019) Social capital and environmental migration: Insights from the Brazilian Amazon and implications for climate change. *Sociological Insights for Development Policy*. Vol 4, No. 4. https://sociologyofdevelopment.files.wordpress.com/2019/12/4_4_randell_dec_2019.pdf.

Randell, Heather. (2019) Climate change may weaken children's education in the tropics. *New Security Beat*. The Wilson Center. May 7, 2019. www.newsecuritybeat.org/2019/05/climate-change-weaken-childrens-education-tropics/.