AMERICAN SOCIETY OF ADAPTATION PROFESSIONALS

ASAP Climate Informed Demography Workshop

Resource Summary & Presenter Information

Day 1 Resources

Integrating Future Climate Conditions Into Population Models &
ASAP's Climate Migration Modeling Accelerator

Day 2 Resources

Climate, Economic and Demographic Characteristics of New York State

Joyce J. Chen, Ph.D.

The Ohio State University

Joyce Chen is an Associate Professor in Agricultural, Environmental, and Development Economics at The Ohio State University. Her interests are in development and labor economics, specifically migration, household bargaining and human capital. Her research focuses on the complex relationships between migration, climate change, economic development, and the intra-household allocation of resources.

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Recommended Resources

Chen, Joyce, and Valerie Mueller. "Climate-induced cross-border migration and change in demographic structure." *Population and Environment* 41.2 (2019): 98-125.

Chen, Joyce, and Valerie Mueller. "Coastal climate change, soil salinity and human migration in Bangladesh." *Nature Climate Change* 8.11 (2018): 981-985.

Alex M. de Sherbinin, Ph.D.

Columbia University

Alex de Sherbinin is the associate director for science applications and a senior research scientist at the Center for International Earth Science Information Network (CIESIN), an environmental data and analysis center within the Earth Institute at Columbia University. Dr. de Sherbinin is a geographer whose research interests focus on the human aspects of global environmental change and geospatial data applications, integration, and dissemination. He was principal investigator for the team that led the Groundswell climate-migration modeling work, and has articles on climate mobility in Science, Scientific American, Environmental Research Letters, Forced Migration Review, and Migration Information Source. Alex also serves as deputy manager of the NASA Socioeconomic Data and Applications Center (SEDAC), coordinator of the Population-Environment Research Network, chair of the International Science Council World Data System scientific committee, lecturer in the Earth Institute's Sustainability Science master's degree program, and an author of the biennial Yale/Columbia Environmental Performance Index. Prior to CIESIN he served as a program officer at the International Union for the Conservation of Nature (IUCN) and a population geographer at the Population Reference Bureau (PRB). He received his PhD from the Faculty of Geo-Information Science and Earth Observation (ITC).

Email: adesherbinin@ciesin.columbia.edu

Recommended Resources

McKee, Jacob J., et al. "Locally adaptive, spatially explicit projection of US population for 2030 and 2050." *Proceedings of the National Academy of Sciences* 112.5 (2015): 1344-1349.

de Sherbinin, Alex, et al. "Migration and risk: net migration in marginal ecosystems and hazardous areas." *Environmental Research Letters* 7.4 (2012): 045602.

Matt Hauer, Ph.D.

Florida State University

I'm an Assistant Professor of Sociology at Florida State University and a faculty affiliate in the Center for Demography and Population Health. My expertise is at the intersection of demography, migration, population projections, and climate change. My recent review article on Sea Level Rise and Human Migration describes one of the most costly and permanent consequences of climate change.

I have twice received the E. Walter Terrie Award for the best paper on Applied Demography, in 2015 Florida State University named me a Top 30 Under 30 Young Alumni, and the University of Georgia awarded me an Excellence-in-Research Award for my dissertation on sea level rise and human migration. More than 270 media outlets have covered my research including Time Magazine, the New York Times, the Guardian, the Washington Post, and National Geographic. My publications appear in a diverse set of journals including Nature Climate Change, Demography, Environmental Research Letters, Demographic Research, Population and Environment, Statistical Modelling, and Population Research and Policy Review, among others. Prior to arriving at FSU, I spent nearly a decade directing the Applied Demography Program at the University of Georgia.

Email: mehauer@fsu.edu

Recommended Resources

Hauer, Mathew E., et al. "Sea-level rise and human migration." *Nature Reviews Earth & Environment* 1.1 (2020): 28-39.

Hauer, Mathew E, Saunders, R. Kyle, and Daniel Shfob. "The Unfolding of Climate Injustice: Projections of Social Inequalities as a Result of Climate Change in the United States." *Consortium on Analytics for Data-Driven Decision-Making (CAnD3)* (2020).

Hauer, Mathew E. "Population projections for US counties by age, sex, and race controlled to shared socioeconomic pathway." *Scientific data* 6 (2019): 190005.

Hauer, Mathew E. "Migration induced by sea-level rise could reshape the US population landscape." *Nature Climate Change* 7.5 (2017): 321-325.

Rachel Jacobson, M.S., M.P.P.

American Society of Adaptation Professionals

Rachel Jacobson leads the development, implementation and continuous improvement of ASAP's programs. She facilitates peer learning through our Mentorship Program, advances effective adaptation practice by stewarding our professional guidance resources, and builds field cohesion by convening the Member Advisory Group on Professional Education and Regional Adaptation Forum Organizers. Internally, Rachel lead's ASAP's monitoring and evaluation efforts and ensures new activities align with member values and ASAP strategic priorities. Contact Rachel to learn about member programs, discuss ASAP strategic priorities, and brainstorm ways to leverage the ASAP Network to advance the adaptation field. Rachel holds B.A., M.P.P, and M.S. degrees from the University of Michigan, and a Certificate in Environmental Law and Regulation from the University of Washington.

Rachel coordinates ASAP's Climate Migration Modeling Accelerator Project and the Accelerator Teams.

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Recommended Resources

ASAP Project. **Preparing Communities to Receive Climate Migrants**

ASAP Blog Post. Announcing the New York State Climate Migration Modeling Accelerator. Applications due December 10.

Accelerator Team Applications. Download **here**.

- Email your team's completed application to AcceleratorApplications@adaptpros.org

Bryan Jones, Ph.D.

Baruch College, The City University of New York

Bryan Jones is an Assistant Professor at the Austin W. Marxe School of Public and International Affairs at Baruch College. Additionally, he is an affiliate of the City University of New York Institute for Demographic Research (CIDR), and consultant with the World Bank. Bryan has a Ph.D. in Geography from the University of Colorado-Boulder, and M.A. in Geography from the University of Connecticut. His research interests include population dynamics and migration, climate change impacts, risk/vulnerability assessment, and spatial statistics/GIS.

Bryan's current research explores the relationship between human population dynamics and climate change in driving human vulnerability to climate-related hazards with a focus on sustainability and climate-resilient policy. Much of his current work addresses climate-induced migration. Bryan served as lead modeler for the World Bank's 2018 flagship report *Groundswell: Preparing for Internal Climate Migration*, and remains engaged with the World Bank, the Center for International Earth Science Information Network at Columbia University (CIESIN), and the Potsdam Institute for Climate Impact Research (PIK) in preparing a series of follow-up reports. In addition to this work, over the past decade he has developed novel methods for producing spatially explicit, high-resolution population scenarios, a crucial input to the assessment of potential climate impacts. Data products developed as a function of this research are currently in use across the global change community, and have informed research cited in the Intergovernmental Panel on Climate Change (IPCC) Assessment Reports and the US National Climate Assessment.

Email: bryan.jones@baruch.cuny.edu

Recommended Resources

Rigaud, Kanta Kumari, et al. "Groundswell: Preparing for Internal Climate Migration." *International Bank for Reconstruction and Development / The World Bank* (2018).

Jones, Bryan. "Modeling Climate Change-Induced Migration in Central America & Mexico Methodological Report." *The New York Times Magazine, ProPublica*, & *the Pulitzer Center* (2020).

Jones, Bryan. "Modeling and Projecting Climate-Induced Migration." *(presentation)* (2020).

Vivek Shandas, Ph.D.

Portland State University

Dr. Shandas serves as the research director for PSU's Institute for Sustainable Solutions, where he supports cross-disciplinary efforts to address pressing challenges facing communities around the world. As the Founder and Director of the Sustaining Urban Places Research (SUPR), he brings a policy-relevant approach to research, including the evaluation of environmental stressors on human health, developing of indicators and tools to improve decision making, and the construction of frameworks to guide the growth of urban regions. Over the past several years, research from the SUPR Lab has appeared in the Smithsonian Magazine, National Public Radio, Washington Post, Minnesota Public Broadcasting, NY Times, Qatar Times, and several other national and international media.

On the Executive Committee and Portland co-lead for the National Science Foundation-sponsored, Urban Resilience to Climate Extremes (UREx), he conducts research to understand how cities can transition into more sustainable futures. As a researcher on the UREx project he addresses urban heat as it impacts society, technology, and ecosystems, by examining how different cities and communities cope with extreme heat stress. As the Principle Investigator for the Canopy Continuum project, Dr. Shandas works with the U.S. Forest Service, and State and County health departments to research how trees improve birth outcomes by mediating urban heat and air quality. Dr. Shandas has written articles on water quality and use, climate justice, air quality, and interdisciplinary education for diverse publications including Urban Geography, Journal of the American Planning Association, Landscape and Urban Planning, BioScience, International Journal of Environmental Research and Public Health, Urban Climate, Journal of Environmental Management, and several other international journals.

Email: vshandas@pdx.edu

Recommended Resources

Beckwith, Julia. "Modeling Climate Driven Urban Migration in the United States." (2019).

The Climate Explorer, for the U.S. Climate Resilience Toolkit

Climate-Induced Migration: Assessing the role of extreme events on human movement. ASAP Climate Migration Webinar Series with Vivek Shandas.

Robin Blakely-Armitage

Cornell University

Robin Blakely-Armitage is a faculty member and the Extension Leader in the Department of Global Development at Cornell University. Her area of expertise is community development and the use of demographic data for strategic planning and informed decision-making. She serves as managing editor for various applied research and outreach publications focused on development issues in New York State. Robin's applied research interests extend to the programmatic and community implications of social, economic, and environmental change in New York State. Since 2017, in partnership with the Cornell Water Resources Institute and with federal funding (NIFA), she has been examining perceptions of flood risk and associated displacement and migration implications in New York State, focusing in the Hudson and Mohawk Watersheds.

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Recommended Resources

Cornell Program on Applied Demographics

- Total Population Trends: Variation across New York State regions
- Age Structure of New York State, Current & Projected
- NYS County population projections, components of change
- Email padinfo@cornell.edu with questions or comments on the PAD website or PAD activities

"New Climate Maps Show a Transformed United States", from ProPublica

Kathy Bunting-Howarth

New York Sea Grant & Cornell Cooperative Extension

Katherine (Kathy) Bunting-Howarth is Associate Director of New York Sea Grant and Assistant Director of Cornell Cooperative Extension. Her expertise is in coastal management and policy, community engagement, and using social science to inform extension programming. She serves on multiple boards and committees including the Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS), Executive Council of the Science and Resilience Institute at Jamaica Bay, New York Water Resource Institute, Great Lakes Basin Advisory Council, Cornell Biological Field Station and the Chesapeake Bay Program Science and Technical Advisory Committee. She enjoys working with diverse groups of people to address wicked problems-from changing lake ecosystems to estuarine eutrophication to equitable climate adaptation. The former Director of Water Resources for the state of Delaware, Kathy served in leadership roles for two National Estuary Programs as well as the Chesapeake Bay Program and the Delaware River Basin Program. Bunting-Howarth holds a Ph.D. in Marine Studies (concentration in Marine Policy) (University of Delaware, 2001) and a JD with a certificate in Environment and Natural Resource Law (University of Oregon, 1995).

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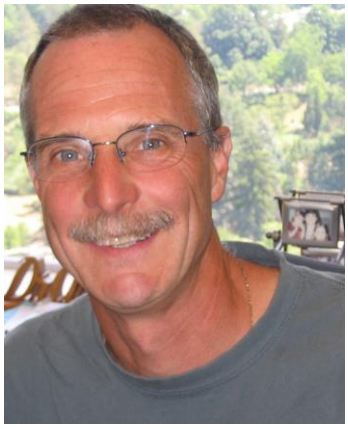
Recommended Resources

Campbell et al. “Flood Watch Social Impacts Research Brief.” Supported by NYC Mayor’s Office of Resiliency, New York Sea Grant, Science and Resilience Institute at Jamaica Bay, & USDA Forest Service (2200).

Bunting-Howarth et al. “Using Future Scenarios to Identify Potential LAMP and Watershed Planning Measure for Climate Change Adaptation Along Lake Ontario: Stakeholder Generated Recommendations.” Supported by GLISA, New York Sea Grant, Cornell University, & USGS (2015).

The 2017 Lake Ontario Flood Story Map



Art DeGaetano

Cornell University

Art DeGaetano received an interdisciplinary Ph.D. focusing on Climatology and Horticulture from Rutgers University in 1989. He was an assistant professor in the Department of Meteorology at the South Dakota School of Mines and Technology in Rapid City, South Dakota until 2001. Art began his career at Cornell in 2001 as a research climatologist in the federally-supported Northeast Regional Climate Center (NRCC) on Cornell's main campus. He is currently a professor in the Department of Earth and Atmospheric Sciences and Director of the NRCC. The mission of the NRCC is to enhance the use and dissemination of climate information to a wide variety of sectors in the Northeast. Art serves as an editor for the American Meteorological Society Journal of Applied Meteorology and Climatology.

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Recommended Resources

DeGaetano, Arthur T., and Christopher M. Castellano. "Future projections of extreme precipitation intensity-duration-frequency curves for climate adaptation planning in New York State." Climate Services 5 (2017): 23-35.

The Climate Explorer

SC-ACIS (Applied Climate Information System)

Neighborhoods at Risk Tool, from Headwaters Economics

Fourth National Climate Assessment

State Climate Summaries, from NOAA

Radley Horton

Columbia University

Radley Horton is a Research Professor at Columbia University's Lamont-Doherty Earth Observatory. His research focuses on climate extremes, tail risks, climate impacts, and adaptation. Radley was a Convening Lead Author for the Third National Climate Assessment, and served on the Sea Level Rise and Climate Scenarios Task Forces for the Fourth National Climate Assessment. He is the Lead Principal Investigator for the NOAA-Regional Integrated Sciences and Assessments-funded Consortium for Climate Risk in the Urban Northeast. Radley also teaches in Columbia University's Sustainable Development department. Radley is a leading climate science communicator, appearing regularly on television, radio, and in print.

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Recommended Resources

Raymond, Colin, Tom Matthews, and Radley M. Horton. "The emergence of heat and humidity too severe for human tolerance." *Science Advances* 6.19 (2020): eaaw1838.

Raymond, Colin, et al. "Understanding and managing connected extreme events." *Nature climate change* 10.7 (2020): 611-621.

At What Point Managed Retreat? Conference

- Accepting abstracts until January 15, 2021

Kristin Marcell

Climigration Network at the Consensus Building Institute

Kristin Marcell is the Director of the Climigration Network. The Climigration Network is a network of community leaders, organizations and practitioners dedicated to co-creating new models for community-led assisted relocation from areas at highest risk of flooding, fire and drought in ways that center the rights of humans and nature. The Network is hosted by the Consensus Building Institute, a nonprofit organization that helps stakeholders generate breakthrough results on tough social, environmental, and economic issues. Kristin has more than 14 years of experience managing partner networks that build collaborative approaches and innovative technical, funding, outreach, design, marketing, and decision-support assistance to communities and governments to create global models for climate resilience.

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Recommended Resources

Equitable Retreat: The Need for Fairness in Relocating Coastal Communities
By Katherine Bagley

Climate Justice in Frontline Communities: Here's How to Really Help
By Katherine Egland and Hilton Kelly

Climigration Learning Session with Katherine Egland and Harriet Festing