



# Northeastern University

*Social Science Environmental Health  
Research Institute*

Northeastern University  
318 International Village  
Boston, Massachusetts  
02115



## 3<sup>rd</sup> Annual Report

SSEHRI Conference speakers and attendees pose in front of the Environmental Justice League of Rhode Island Eco-bus, May 2015. (Photo: Rey Leon)

### Our Mission

The mission of the Social Science Environmental Health Research Institute (SSEHRI) is to conduct social science-oriented research, teaching, community engagement, and policy work in the area of environmental health. SSEHRI continues the legacy of the Contested Illnesses Research Group at Brown University, which began in 2000, and has had a long history of social science-environmental health collaborations and extensive grant portfolio (including extensive collaborations with Silent Spring Institute). SSEHRI is a hub for collaborative environmental health learning and interest at NU.

The Institute trains graduate students and postdocs for community-based participatory research aimed at transforming and improving environmental health. At the same time, it provides faculty with a resource to further their existing efforts in those approaches. Integrating environmental health science, science, sociology, science and technology studies, and social movements, SSEHRI aims to develop novel approaches to studying environmental health questions, communication of environmental health data and conceptualization of environmental health socially, politically, and scientifically.

### An Excellent Third Year!

We're excited to share another successful year of the Social Science Environmental Health Research Institute! In three years we have grown rapidly to become a strong institute that now has 26 members, including faculty and graduate students. SSEHRI welcomes three new PhD students, an MA student and an MPH student starting in Fall 2015.

We are very excited to announce the addition of a new faculty member. Sharon L. Harlan is Professor of Sociology in the School of Human Evolution & Social Change and Senior Sustainability Scientist at Arizona State University. She will  
(Continued on p.2)

## SSEHRI Members

Len Albright (Assistant Professor of Sociology and Public Policy)  
 Phil Brown (Professor of Sociology and Health Sciences)  
 Stephanie Clark-Reyna (Sociology PhD Student)  
 Lauren Contorno (Sociology PhD Student)  
 Elicia Cousins (Sociology PhD Student)  
 Daniel Faber (Professor of Sociology)  
 Danielle Falzon (Sociology PhD Student)  
 Marina Goreau (Health Sciences MPH Student)  
 Bridget Hanna (Research Associate)  
 Sharon Harlan (Professor of Sociology and Health Sciences)  
 Matt Judge (Sociology PhD Student)  
 Stephanie Knutson (Administrative Assistant)  
 Rachael Lee (Sociology PhD Student)  
 Jacob Matz (Sociology PhD Student)  
 Mia Renaud (Sociology PhD Student)  
 Lauren Richter (Sociology PhD Student)  
 Jamie San Andres (Sociology MA Student)  
 Ron Sandler (Professor of Philosophy and Religious Studies)  
 Laura Senier (Assistant Professor of Sociology and Health Sciences)  
 Sara Shostak (Associate Professor of Sociology - Brandeis University)  
 Boris Templeton (Sociology PhD Student)  
 Nancy Toure (Sociology MA Student)  
 Christine Vatocec (Assistant Professor of Environment and Natural  
 Resources and Medicine - Univ. of Vermont)  
 Lourdes Vera (Sociology PhD Student)  
 Elisabeth Wilder (Sociology PhD Student)  
 Sara Wylie (Assistant Professor of Anthropology and Health Sciences)

After a successful year with SSEHRI, our postdocs have moved on to new positions. Jennifer Carrera is starting as an Assistant Professor of Sociology at Michigan State University this fall. Maryann Cairns has accepted a tenure-track position as Assistant Professor of Anthropology at Michigan Technological University. She will defer the position for one year for an AAAS Science and Technology Policy Fellowship with the EPA's Office of Research and Development in Washington, D.C. Bridget Hanna will continue her affiliation with SSEHRI as a Research Associate. Bindu Panikkar (2013-14) recently accepted a position as Assistant Professor in the Rubenstein School of Environment and Natural Resources at the University of Vermont. We wish them all the best of luck!

Numerous graduate and undergraduate research projects around fracking continue under the direction of Sara Wylie. Graduate student Jacob Matz is continuing his research collaboration with Southwest Pennsylvania Environmental Health Project, examining the use of citizen science air quality monitoring in Pennsylvania. Matz presented his work at the Society for Applied Anthropology in the spring of 2015 as part of a panel on Citizen Science and Fracking organized by Wylie. Elisabeth Wilder, graduate student, is researching natural gas pipeline development in collaboration with Toxics Action Center. Lourdes Vera, incoming sociology graduate student is working with Wylie to develop citizen science tools to map hydrogen sulfide and Lauren Richter, graduate student, is examining citizen reporting websites around fracking in California.

## An Excellent Third Year! (Continued)

join SSEHRI as a Northeastern faculty member in January 2016. Her research explores the human impacts of climate change that are dependent upon people's positions in social hierarchies, places in built environments of unequal quality, and policies that improve or impede human adaptive capabilities. Focusing on excessive heat as a significant and increasingly critical threat to human health and well-being in cities, she studies urban landscapes in arid environments that produce unequal risks for people in neighborhoods divided by social class and race/ethnicity. Her approach is interdisciplinary, integrating social theories about the historical production of environmental injustices with data and models from the ecological, geospatial, and health sciences. Dr. Harlan is a co-principal investigator of the National Science Foundation's Central Arizona-Phoenix Long-Term Ecological Research program at ASU, where she led the development of a longitudinal metropolitan area survey on environmental attitudes and behaviors. She is beginning new multi-university, collaborative and comparative projects on urban heat and water challenges.

## SSEHRI Initiatives and Connections Across Campus

Health and sustainability have been integrated into the mission and activities of SSEHRI, which is a unique synthesis of medical sociology, environmental sociology, science and technology studies, and environmental health science.



Katsi Cook of Running Strong for Native American Youth was the keynote speaker at the SSEHRI Conference in May (Photo: Rey Leon).

- Hosting speakers designed to integrate environmental health efforts across campus.
- Providing a campus-wide resource for teaching research ethics, cultural competence, and community-based participatory research.

### Ongoing Grants

***Northeast Ethics Education Partnership for Research Ethics/Cultural Competence Training (NSF)*** - Provides ethics training for Central New York (SUNY-ESF) and Southeastern New England (Brown and Northeastern), including student mentoring, faculty mentoring, summer workshop sessions, train-the-trainer modules at national society meetings and online training and study resources.

***New Directions in Environmental Ethics: Emerging Contaminants, Emerging Technologies, and Beyond (NSF)*** - Trains doctoral and postdoctoral students in Sociology, Environmental Health, and Science, Technology, and Society, in emerging contaminants and technologies, public participation in science, and reflexive research ethics.

***Ethical and Legal Challenges in Communicating Individual Biomonitoring and Personal Exposure Results to Study Participants: Guidance for Researchers and Institutional Review Boards (NIEHS)*** - Examines the experiences, values, and attitudes of participants in personal exposure assessment studies, as well as the perspectives of IRB members, researchers, clinicians, and legal experts.

***Virtual Consortium for Translational/Transdisciplinary Environmental Research - Ethical and Legal Challenges in Communicating Individual Biomonitoring and Personal Exposure Results to Study Participants: Guidance for Researchers and Institutional Review***

### SSEHRI Works On:

- Creating collaborations between life scientists and social scientists.
- Integrating comprehensive doctoral training in environmental sociology.
- Networking environmental health communities with faculty and students for research, collaborations, and internships.
- Collaborating with many local and national environmental justice and health groups including: Environmental Justice League of Rhode Island; Toxics Action Center; Alternatives for Community and Environment; Hospitals for a Healthy Environment in Rhode Island; Health Care Without Harm; The Endocrine Disruptor Exchange; Southwest PA Environmental Health Project; The Center on Race, Policy, and the Environment; Alaska Community Action on Toxics; and New England Environmental Justice Research Network.
- Developing and studying the use of low-cost tools for community-based environmental monitoring.

(Continued on p. 4)

## Ongoing Grants (Continued)

**Boards. (NIEHS)** – Extends the biomonitoring ethics project to include healthy homes interventions and to develop computerized approaches to report back data in large biomonitoring program.

**Data Sharing and Privacy Protection in Digital-Age Environmental Health Studies (NIH)** – Evaluates privacy risks and develops solutions for environmental health studies through optimizing procedures to redact or mask data to improve privacy while retaining scientific utility for data sharing.

**Puerto Rico Testsite for Exploring Contamination Threats (PROTECT) Program (NIEHS Superfund Research Program)** - Investigates preterm births in communities surrounding toxic waste and Superfund sites in Puerto Rico. Phil Brown is part of the Community Engagement Core and Research Translation Core of this multi-project, multi-institution collaboration.

**Barriers in Translating Genomic Research into State Public Health Programs (National Human Genome Research Institute)** – Identifies common elements that enhance capacity in public health genomics across states, and will clarify which elements may be unique or would work only in a particular state. This research will identify guidelines that will help states modernize public health genetics programs in ways that are ethical, equitable, and cost-effective.



Prof. Daniel Faber met with Gov. Deval Patrick at the signing of an environmental justice-related executive order in November 2014.

## Grants Awarded this Year

**Perfluorinated Chemicals: The Social Discovery of a Class of Emerging Contaminants (NSF)** - Investigates the discovery and re-discovery of per- and polyfluorinated chemicals, a class of carbon-fluorine-based chemicals widely used in industrial production and found in numerous consumer products.

**Transdisciplinary Training at the Intersection of Environmental Health and Social Science (NIEHS T32)** - This five-year training grant will provide support for six new doctoral students for three years each as well as three post-docs for two years each. Trainees will divide their time between SSEHRI and Silent Spring Institute, with additional time spent working with other Northeastern faculty and community organizations.

**Research Opportunities for Undergraduates: Training in Environmental Health Science (ROUTES)** - The ROUTES program is developed to increase the number of undergraduate underrepresented minority (URM) students participating in the environmental health (EH) research, training them in interdisciplinary settings and continuing onto graduate studies and lifelong EH research careers. ROUTES engages and prepares URM students for EH research careers through hands-on research experience, research community engagement, training, mentoring, and support.

**JPB Environmental Health Fellowship (Harvard School of Public Health)** – Develops low cost tools for communities to map hydrogen sulfide, a hazardous air pollutant associated with oil and gas development, develops and tests ways to visualize pollution in real time, continues work mapping pollution from Tar Sand refining in Southeast Chicago and develops websites to share data developed by citizen scientists.

**Preparing Crowdsourced Disaster Response to Fracking Emergencies (New World Foundation)** – Sara Wylie and Publiclab.org are developing a stable crowdsourcing tool to help with disaster response related to fracking.





Shobha Srinivasan, Akram Alshawabkeh, and Carmen Milagros Velez Vega participate in a panel discussion of PROTECT at the SSEHRI Conference, May 2015. (Photo: Stephanie Knutson)

## Highlights

On May 21-22, 2015 SSEHRI hosted its first conference. The Social Science-Environmental Health Collaborations - Research to Action Conference was attended by over 100 people from across the United States and around the world. Speakers and attendees came from a wide variety of backgrounds including academia, government agencies, and community organizations. Presentations and informal workshops covered everything from social science-environmental health case studies to training materials, collaborations with environmental justice organizations, and genetically modified mosquitos. The conference was funded by an NIEHS grant with support from the PROTECT Superfund Research Program and Northeastern's Humanities Center.

In November 2014 MA Governor Deval Patrick signed an executive order, drafted, in part, by Daniel Faber (SSEHRI member and director of the Northeastern Environmental Justice Research Collaborative) as part of the Massachusetts Environmental Justice Alliance. The order establishes an advisory council of community stakeholders and requires state agencies to take action on environmental justice, such as reducing exposure to toxics and increasing access to green spaces. Faber's research has played a large roll in drawing attention to the environmental health hazards faced by many low-income and high-minority communities. He described this order as an "historic act."

SSEHRI Director Phil Brown received the American Sociological Association's Environment and Technology Section's Practice and

(Continued on p. 6)

## Select SSEHRI Presentations

**Phil Brown** - *Community Science and Public Policy: Lessons from Biomonitoring and Household Exposure Studies*. Conference on "A Relational Model for Understanding the Use of Research in Public Policy," Arlington, VA: National Science Foundation. 2014

**Mia Renauld** - *Retrofitting Richmond: The Co-evolution of Corporate Social Responsibility and Community Organizing*. Urban Affairs Association Conference, Miami, FL. 2015

**Lauren Richter and Elisabeth Wilder** - *Academic-Community Partnerships: An Open Forum on Collaborative Environmental Health Research*. Toxics Action Center Annual Local Environmental Action Conference, Northeastern University. 2015

**Danielle Falzon** - *'The People Gonna Rise With the Water': The People's Climate March as a Public Sphere*. ASA Annual Meeting, Chicago, IL. 2015

**Daniel Faber** - *The Crisis of Environmentalism and Climate Justice: Building a New Curriculum*. Primary Source: Global Learning Matters, Regis College. 2015

**Laura Senier** - *The Socio-Exposome: Advancing Environmental Science in a Post-Genomic Era*. In the Section on Environment and Technology/Environmental Inequality, ASA, Chicago. 2015

**Jacob Matz** - *Speck: Low-Cost Air Monitoring for Individual and Community Action in the Marcellus Shale Region*. Society for Applied Anthropology Annual Meeting, Pittsburgh, Pennsylvania. 2015

**Sara Shostak** - *A Tale of Three Markets: Food Access and Food Justice in Somerville, MA*. Feeding Cities: Ethical and Policy Issues in Urban Food Systems. Northeastern University. 2015

**Jamie San Andres** - Panelist. *Indigenous Villagers v. Chevron: Insider perspectives on the historic battle and what it means for transnational corporate liability*. Harvard Law School, Boston, MA. 2015

**Christine Vatovec, Robin Dodson, and Jennifer Carrera** - *Developing and Evaluating Training Materials for Teaching Social Science-Environmental Health Collaboration: The "Curriculum Project"*. Social Science Environmental Health Research Conference. Northeastern University. 2015

## BREAKING NEWS

Phil Brown and his colleagues were awarded the “Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE).” This center, funded for \$5M over 4 years, is jointly supported by the NIEHS and the EPA. CRECE will study how pollutant exposure and psychosocial risk factors impact the health and development of children living on Puerto Rico’s heavily contaminated northern coast. The CRECE team will follow a cohort of 600 children, tracking them from birth to age 4. This is a huge success that stems from the Superfund Research Program (PROTECT), which examines environmental factors in preterm birth for a cohort of 1800 women, and was renewed by NIEHS last year with a five-year, \$13.5M award.

## Highlights (Continued)

Outreach Award in August 2015. This honor is awarded biennially to professionals in the field of Environmental Sociology. Dr. Brown is the third person to receive the award and the second SSEHRI member, following Dr. Daniel Faber in 2010.

SSEHRI was well represented at the 2015 American Sociological Society Annual Meeting in Chicago. Prof. Laura Senier was elected as Teaching Committee Chair of the Medical Sociology Section and Rachael Lee was elected as Student Representative for the same section.

In other election-related news, Prof. Sara Wylie has been elected to the Council of the Society of the Social Study of Science (4S), the world’s largest professional organization in science studies.

## Graduate Students

**Stephanie Clark-Reyna** is a 1<sup>st</sup> year PhD student from the University of Texas – El Paso interested in effects of environmental toxicants on children’s health, with a focus on racial and ethnic differences in exposure and outcomes, and with an environmental justice framework.

**Lauren Contorno** is a 2<sup>nd</sup> year PhD student interested in the environmental justice implications of the modern food system and its impact on the health of vulnerable communities and labor-environment activism on climate change.

**Elicia Cousins** is a 1<sup>st</sup> year PhD student from Carleton College

interested in human health and environmental chemicals, as well as food activism and knowledge production about nutrition and illness.

**Danielle Falzon** is a 2<sup>nd</sup> year PhD student interested in globalization, inequality, capitalism’s impact on environmental justice and environmental health and social movements.

**Marina Goreau** is a 1<sup>st</sup> year MPH student from Brandeis University interested in issues of environmental health and justice, especially with regard to reproductive and urban health.

**J. Matthew Judge** is a Ph.D. candidate whose dissertation explores how biomonitoring studies and socio-economic factors influence local understanding of an emerging contaminant (PFOA) in an Appalachian community.

**Rachael Lee** is a 3<sup>rd</sup> year PhD student with research interests surrounding medical sociology and quantitative methodology. Her current research investigates the role of genomic research in state public health programs.

**Jacob Matz** is a 3<sup>rd</sup> year PhD student interested in environmental sociology and environmental justice with a focus on rural areas of resource extraction. His current research focuses on community environmental monitoring of the unconventional natural gas industry in the Marcellus shale region.

**Mia Renaud** is a 3<sup>rd</sup> year PhD student whose current research focuses on California’s cumulative impacts and environmental policies, and investigates the oil complex’s influence the daily life of fence line communities of the largest oil refinery west of the Mississippi in California.

**Lauren Richter** is a 3<sup>rd</sup> year PhD student focused on environmental sociology, inequality and environmental justice. Her current research investigates the social and scientific discovery of per- and polyfluorinated chemicals. She is on the board of directors at Alternatives for Community and Environment in Roxbury.

**Jamie San Andres** is a 2<sup>nd</sup> year MA student focusing on the ways in which extractive development projects impact Indigenous communities.

**Boris Templeton** is a 2<sup>nd</sup> year PhD student interested in environmental sociology, climate justice and social movements.

**Nancy Toure** is a 1<sup>st</sup> year MA student interested in racial and class differences in exposure and health outcomes.

**Lourdes Vera** is a 1<sup>st</sup> year PhD student from Brooklyn College interested in how changes in land-use affect oppressed groups seeking social and geographic mobility.

**Elisabeth Wilder** is a 3<sup>rd</sup> year PhD student whose areas of interest include environmental sociology, political economy, and globalization. Her current research explores citizen monitoring of the oil and gas industry in the American West.

## Articles and Books Published this Year

1. Bachrach, C. and S. Robert, with contributions from T. Green, **Sara Shostak**, and Y. Thomas. 2015 *Training in Interdisciplinary Health Science: Current Successes and Future Needs*. A paper commissioned by the Institute of Medicine Roundtable on Population Health Improvement. Washington, DC.
2. Bandini, J., **Shostak, Sara**, Cadge, W. and D. Cunningham. 2015 "Assessing Learning in a Sociology Department: What Do Students Say That They Learn?" *Assessment and Evaluation in Higher Education*. Available online, in advance of publication.
3. Berkman, Amy, Amy Trentham-Dietz, Kim Dittus, Vicki Hart, **Christine Vatovec**, Ted A. James, Susan G. Lakoski, Brian L. Sprague. 2015. Health Behavior Change Following a DCIS Diagnosis: An Opportune Teachable Moment to Improve Outcomes. *Preventive Medicine* S0091-7435(15)00098-5.
4. Cordner, Alissa and **Phil Brown**, 2015 "Flame Retardants as a Prompt to Chemical Reform in the United States: A Multi-Sector Alliance," *Environmental Sociology*, 1:69-79.
5. Cordner, Alissa, **Phil Brown**, and Rachel Morello-Frosch, 2015 "Health" In David Pellow, Joni Adamson, and William Gleason, (eds.) *Keywords in the Study of Environment and Culture*. In press.
6. Cordner, Alissa, **Phil Brown**, and Margaret Mulcahy 2015 "Playing with Fire: The World of Flame Retardant Activism and Policy" In Jan Willem Duyvendak and James M. Jasper (eds.) *Players and Arenas: The Interactive Dynamics of Protest*, Amsterdam University Press.
7. **Faber, Daniel**, Amy Lubitow, and Madeleine Brambilla, 2015 (forthcoming) "What About the Cause: The Campaign for Safe Cosmetics and the Pinkwashing of Breast Cancer Activism," in Joseph Tohill (ed.), *Shopping for Change: Consumer Activism in North American History* Toronto: Between the Lines Press.
8. **Hoover, Elizabeth, Mia Renauld**, Michael Edelstein, **Phil Brown**. 2015. "Painting the Whole Picture: Social Science Collaboration with Environmental." *Environmental Health Perspectives*. (Advance Publication, May 12, 2015).
9. Morello-Frosch, Rachel, Julia Varshavsky, Max Liboiron, **Phil Brown**, and Julia Green Brody, 2015 "Communicating Results in Post-Belmont Era Biomonitoring Studies: Lessons from Genetics and Neuroimaging Research," *Environmental Research*, 136:363-372.
10. Quigley, Dianne, David Sonnenfield, **Phil Brown**, Linlang He, and Quing Tian, 2015 "Research Ethics and Cultural Competence Training for Place-based Communities and Cultural Groups: Reflections from a Collaborative University Partnership," *Journal of Environmental Studies and Science*, 2015. On-line ahead of publication.
11. **Richter, Lauren**. 2015. Why Community-Based Research Matters to Science and People. Union of Concerned Scientists, *The Equation*.
12. **Senier, Laura**, Matthew Kearney, and Jason Orne. 2015. Using Public-Private Partnerships to Mitigate Disparities in Access to Genetic Services: Lessons from Wisconsin. *Advances in Medical Sociology* 16: 269-305.
13. **Senier, Laura**. 2015. Review of *Exposed Science: Genes, the Environment, and the Politics of Population Health*, by Sara Shostak. *Contemporary Sociology*; 44(1): 117-119.
14. **Shostak, Sara** and J. Beckfield. 2015 "Making a Case for Genetics: Interdisciplinary Visions and Practices in the Contemporary Social Sciences." *Advances in Medical Sociology: Genetics, Health, and Society*. Edited by Brea Perry. London: Emerald Press.
15. **Shostak, Sara** and M. Moinester. 2015 "Beyond Geneticization: Regimes of Perceptibility and the Social Determinants of Health." In *Reimagining Biomedicalization, Pharmaceuticals, and Genetics: Old Critiques and New Engagements*. Edited by Susan Bell and Anne Figert. New York: Routledge.
16. **Shostak, Sara**, and M. Moinester. 2015 "The Missing Piece of the Puzzle?: Measuring the Environment in the Postgenomic Moment." In *Postgenomics: Perspectives on Biology After the Genome*. Edited by Sarah Richardson and Hallam Stevens. Durham, N.C.: Duke University Press.
17. **Vatovec, Christine**. Accepted. Making Biodiversity Stewardship Tangible using a Place-based Approach. In: Byrne L (ed.) *Learner-centered Teaching Activities for Environmental and Sustainability Studies*. Springer.
18. Woods, Joshua, Jason Manning, and **Jacob Matz** 2015. The Impression Management Tactics of an Immigration Group. *Sociological Focus*, 48(4): 354-372.
19. Zarate, Oscar, Julia Green Brody, **Phil Brown**, Monica Ramirez-Andreotta, Laura Perovich, and **Jacob Matz**, 2015 "Balancing Benefits and Risks of Immortal Data: Participants' Views of Open Consent in the Personal Genome Project, *Hastings Center Report*. In press.



# Northeastern University

*Social Science Environmental Health  
Research Institute*

To find out more about SSEHRI, visit our website at

[www.northeastern.edu/environmentalhealth](http://www.northeastern.edu/environmentalhealth)

**Social Science Environmental Health Research Institute**  
Northeastern University  
360 Huntington Avenue, 318INV  
Boston, MA 02115