

Northeastern University

Social Science Environmental Health Research Institute

SSEHRI 5th Annual Report

Director's Message

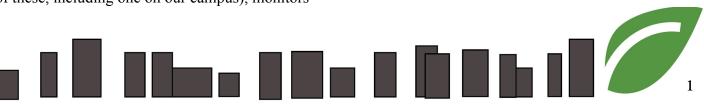
It's been a wonderful year for us with new members, extensive publications, important conferences, continually expanding outreach, and growing policy influence. Throughout this Annual Report you'll see the many projects SSEHRI members are engaged in.

In an effort to improve our functioning, we have created two new positions. Sara Wylie is now Associate Director of SSEHRI for Community Group Engagement and Laura Senier is Associate Director of SSEHRI for Student Progress. From all our experience with their dedication in these sectors of our work, we know this will bring new strength and focus to our overall efforts.

We're especially thrilled at SSEHRI's role in forming and working with EDGI, the Environmental Data and Governance Initiative, directly after the 2016 election. Sara Wylie, Phil Brown, Stephanie Knutson, Lourdes Vera, Lauren Richter, Jennie Ohayon, and Vanessa De La Rosa have been working hard on this project that runs data rescue events to save federal environmental data (dozens of these, including one on our campus), monitors



government websites for changes and deletions, interviews current and past EPA and other federal staff, and develops models for future democratic governance. We've had great attention in the press and with other groups concerned with these issues: Union of Concerned Scientists, library and data groups, and the Environmental Protection Network (ex-EPA staff). We won an award from the Society of American Archivists and a Making and Doing Distinguished Achievement Award from 4S, made a presentation to over 100 people at the Local Environmental Action conference here in March, and held a day-long session at the Society for Social Studies of Science conference in August. Our report on the first hundred days of the Trump administration



5th Annual Report

has been widely circulated, we've published several op-eds, and have several articles under review in academic journals. Please visit EDGI's website at envirodatagov.org.



Our June 14-15 conference on "Highly Fluorinated Compounds - Social and Scientific Discovery" on the social, scientific, political, economic, and environmental health issues raised by per- and polyfluoroalkyl substances (PFASs) was a triumph. bringing together over 180 scientists, community advocates, state and local officials and legislators, journalists, environmental advocates, lawyers, and students. A national coalition of affected community groups has developed out of the conference and plans are underway for future gatherings. Prior to the conference, we launched our interactive PFAS contamination map in collaboration with the Environmental Working Group, which received much press attention. Please visit the website at pfasproject.com.

Our March symposium on "Teaching Climate, Inspiring Action" co-sponsored with Boston Civic Media at Northeastern University brought together 80 people to work on approaches for teaching students to communicate and take action on climate change.

We've just started a new program to bring in

SSEHRI Members

Marina Atlas (Health Sciences MPH Student) Elizabeth Boxer (Environmental Studies BA Student) **Taylor Braswell** (Sociology PhD Student) **Phil Brown (**Professor of Sociology and Health Sciences) Stephanie Clark (Sociology PhD Student) Lauren Contorno (Sociology PhD Student) Alissa Cordner (Assistant Professor of Sociology - Whitman College) Elicia Cousins (Sociology PhD Student) **Tibrine Da Fonseca** (Sociology PhD Student) Vanessa De La Rosa (Postdoctoral Research Associate) Sokona Diallo (Human Services and Communications BA Student) **Rachel Domond** (Sociology BA Student, ROUTES Co-op) Nickolas Faynshteyn (Sociology MA Student) Loretta Fernandez (Assistant Professor of Civil and Environmental Engineering) **Bridget Hanna** (Postdoctoral Research Associate) **Sharon Harlan** (Professor of Health Sciences and Sociology) **Stephanie Knutson** (Grants Administrator) Rachael Lee (Sociology PhD Student) Clare Malone (Sociology and Cultural Anthropology BA Student) Susan Mello (Assistant Professor of Communication Studies) Yvette Niwa (Environmental Studies and International Affairs BA Student) **Dietmar Offenhuber** (Assitant Professor of Art + Design) Jennifer Ohayon (Postdoctoral Research Associate) Mia Renauld (Sociology PhD Student) **Lauren Richter** (Sociology PhD Student) Ron Sandler (Professor of Philosophy and Religious Studies) Mariana Sarango (Population Health PhD Student) **Steven Scyphers** (Assistant Professor of Marine and **Environmental Sciences**) Laura Senier (Assistant Professor of Sociology and Health Sciences) Sara Shostak (Associate Professor of Sociology - Brandeis University) Jennie Stephens (Dean's Professor of Sustainability Science and Policy) **Boris Templeton** (Sociology PhD Student) Christine Vatovec (Assistant Professor of Environment and Natural Resources and Medicine - University of Vermont) Lourdes Vera (Sociology PhD Student) Elisabeth Wilder (Sociology PhD Student) Sara Wylie (Assistant Professor of Sociology/ Anthropology and Health Sciences) Emily Zimmerman (Assistant Professor of Communication Sciences & Disorders

affiliate members who will broaden SSEHRI beyond our four core faculty. Aimed at helping broaden environmental health work on campus. our new affiliates are people who, for the most part, are already collaborating or involved with SSEHRI core faculty and students and/or have made presentations at SSEHRI meetings. Affiliates will make presentations, attend as many meetings as they can, be available to consult with students and postdocs, and participate in an end-of-year Research Symposium. We welcome long-time collaborator and co-director of the PFAS lab Alissa Cordner (Whitman College), and Northeastern faculty members Loretta Fernandez, Susan Mello, Dietmar Offenhuber, Steven Scyphers, Jennie Stephens, and Emily Zimmerman. You can read about the new affiliates on our website

It's always exciting to highlight members' grants, honors, and awards. Lauren Richter won an NSF Dissertation Fellowship and was selected as a Switzer Environmental Fellow. Elicia Cousins received the 2016 Jeanne X. Kasperson Student Paper Award from the Hazards, Risks, and Disasters specialty group of the Association of American Geographers. Jennie Ohayon is a PI and co-PI, respectively, on two recently awarded grants from the Massachusetts Toxics Use Reduction Institute and the California Breast Cancer Research Program. Sharon Harlan was chosen as the new Associate Chair for the Health Sciences Department here at Northeastern and received the 2016 Outstanding Article Award from the International Association of Landscape Ecology for her co-authored paper "Micro Scale Urban Surface Temperatures Are Related to Land Cover Features and Residential Heat-Related Health Impacts in Phoenix, AZ USA." Elisabeth Wilder received the Outstanding Service to the Department Award from the Northeastern Department of Sociology. Sara Wylie was selected as a finalist for the Collaborative on Health and the Environment (CHE)'s Pioneers under 40 in Environmental Public Health webinar series.

Our Special Issue on "Social Science-Environmental Health Collaborations" was published by *New Solutions*, highlighting excellent work from our 2015 conference on social science/environmental health collaborations.

I am so glad to have such a great team to work with, and invite you to read about our work.

Phil Brown SSEHRI Director

SSEHRI's Primary Projects

Barriers in Translating Genomic Research into State Public Health Programs (National Human Genome Research Institute, PI – Laura Senier) – Following rapid advances in genomic research, expectations that genomic medicine will improve population health have been growing over the last two decades. These expectations however have been tempered in recent years, as a significant gap remains between scientific knowledge and its application in medical and public health settings. Dr. Senier's NHGRI supported research specifically examines the role that state public health agencies play in translating genomic discoveries into public health and policy applications that effectively and equitably promote population health. Dr. Senier's research began in 2012 and is a multisited ethnography of the integration of genomics programming into four state public health agencies. Over the past year, Dr. Senier and her team of graduate students and a postdoctoral researcher published an article in Social Science & Medicine based on their findings from two states. They also continued to conduct interviews with stakeholders and policy experts and observe state public health agency activities. The team recently wrapped up their data collection efforts and will analyze data

across the four states included in the study to identify common facilitating factors and barriers the agencies faced in integrating genomics in public health programming over the next year.



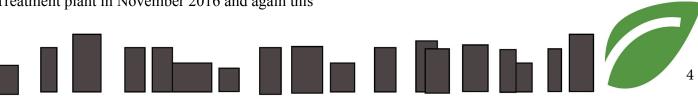
The Wylie lab presented their report "Hazards in the Air" at a town hall through a floor map with physical Duplo bar charts to represent emissions of volatile organic chemicals.

Development of Low Cost Approaches to Measuring Emissions from Oil and Gas Operations (JPB Foundation Fellowship/Harvard School of Public Health (HSPH), PI – Sara Wylie) - The Wylie Research Lab continues using and developing community-friendly, low cost materials and methods to monitor hydrogen sulfide (H,S), sulfur dioxide (SO₂), and volatile organic compounds (VOC) emissions near oil and gas facilities. This past year, the interdisciplinary team included Lourdes Vera (PhD student, Sociology), Dr. Drew Michanowicz (exposure scientist and post-doc at HSPH), Northeastern undergraduates Viktoriya Abakumova (Computer Science), Christine Luong (Health Sciences), and John Syzonenko (Environmental Science), in collaboration with Sharon Wilson and Priscilla Villa from the organization Earthworks. The year began with validation tests for an inexpensive, Do-it-Yourself tool consisting of a photopaper strip coated with silver gelatin that corrodes when exposed to toxic sulfuric gases such as H₂S or sulfur dioxide SO₂, which are emitted during oil and gas development. These tests were conducted at Boston's Deer Island Sewage Treatment plant in November 2016 and again this

past July.

The team also published the report "Hazards in the Air" with Earthworks on results from VOC sampling and interviews conducted in Texas during the summer of 2015. The preliminary results were reported back to Texas community members in January, when the team performed further VOC monitoring with low-cost VOC passive samplers developed by Dr. Chunrong Jia at the University of Memphis. They then released the report and presented another Town Hall in May with an interactive, large scale map display of the results. Lourdes Vera presented another data report back in Washington state, in early August, based on the H₂S and VOC data she and community members collected in August 2016.

Perflourinated Chemicals: The Social Discovery of a Class of Emerging Contaminants (NSF, PI -Phil Brown) - The PFAS (per- and polyfluoroalkyl substances) lab group has had a busy year working on a global (re-)emerging class of contaminants. From hosting a national conference to attending community meetings in Vermont, our lab members have been engaged in a wide range of research projects pertaining to the social and scientific discovery of PFASs. Members of this lab group include Northeastern undergraduate co-op students (Yvette Niwa, Sokona Diallo, Liz Boxer, and Clare Malone), graduate students (Elicia Cousins, Marina Atlas, Tibrine Da Fonseca, and Lauren Richter), SSEHRI-Silent Spring post-docs (Jennie Ohayon and Vanessa De La Rosa), and a faculty member at Whitman College, Alissa Cordner. With funding from the an NSF STS grant (co-PIs – Phil Brown and Alissa Cordner) students have continued to study New England-area discoveries of PFAS water contamination from both industrial and military sources. Tibrine Da Fonseca presented a paper at the American Sociological Association Annual Meeting based on her research into the litigation strategies of communities in Alabama and



Minnesota against water contamination related to 3M manufacturing and disposal sites. Lauren Richter won an NSF Doctoral Dissertation Improvement grant to support further qualitative research towards her dissertation: "Unseen Science: The Social Re-Discovery of Per- and Polyfluorinated Compounds".

In June of 2017, our lab released a joint interactive map with the Environmental Working Group, featuring U.S. EPA data on PFAS exposure in water alongside our own comprehensive data set of water contamination sites tracking old and new sites of discovery. To our knowledge, our "contamination tracker" is the only database of its kind, capturing information on the sources and levels of PFAS contamination, dates of discovery, and state and local government responses, among other variables. This received attention, not only from other academics and affected communities, but also in the mainstream press, with articles in USA Today and HuffPost among others. Lab members are pursuing a range of projects and articles on topics that include: retailer and manufacturer response to PFAS consumer pressure, community litigation strategies, PFAS-related local activism, the history of the PFAS chemical class, and the social and scientific discovery of PFASs as a ubiquitous contaminant.

Research Experience for Undergraduates:
Perfluorinated Chemicals: The Social Discovery of a Class of Emerging Contaminants (NSF, PI - Phil Brown) - This NSF supplement provides funding for two full-time undergradute co-ops per year to work with the PFAS lab group.

Social Equity and Environmental Justice in Urban Water Systems (Supplement to Sustainability Research Network, Urban Water Innovation Network (UWIN): Transitioning Toward Sustainable Urban Water Systems) (NSF, Northeastern PI – Sharon Harlan) - The Urban Water Innovation Network (UWIN) is a collaborative partnership among 18 institutions, led by Colorado

State University, that is investigating pressures on water systems in nine urban centers in the United States; engaging stakeholders in assessing the broad impacts and tradeoffs associated with sustainable solutions for future water; and developing indicators to measure change and improvements in water management.

Sharon Harlan co-directs the UWIN Social Equity and Environmental Justice (SEEJ) team with Elizabeth Mack at Michigan State University. Several SSEHRI students are collaborating on the SEEJ project: Sociology PhD students Stephanie Clark, Elisabeth Wilder, Lauren Contorno: Population Health PhD student Mariana Sarango; Sociology MA student Nickolas Faynshteyn; and Northeastern ROUTES co-op Sociology major, Rachel Domond. In summer 2017, UWIN-SEEJ hosted David Ortiz from Beloit College, who was funded by the NSF Research Experience for Undergraduates training program. David was mentored by Sharon Harlan and assisted Sara Wylie on her water pollution project with GreenRoots in Chelsea.



Sara Wylie, David Ortiz and the co-Crew, an environmental justice high school program run by Greenroots in Chelsea, MA

The UWIN-SEEJ team is working on three main projects. The lab group, which includes SSEHRI students and collaborators from Florida International

University, is gathering community insights on urban water-related problems in order to identify the most critical injustices to be addressed in UWIN's blueprint for sustainable water solutions. The lab developed an interview protocol and conducted over 30 in-depth interviews with leaders of community and environmental justice organizations. Mariana Sarango presented preliminary findings from interviews in the Detroit region at the August 2017 UWIN annual meeting in Fort Collins, CO. In AY 2017-2018, the group will continue to conduct interviews and analyses, and develop articles for submission to peer-reviewed journals.



The SEEJ team has also developed and piloted the Survey of Water Indicators and Socioeconomic Status of Households (SWISSH), which is designed to gather public opinion data from residents in UWIN regions on water-related problems such as affordability, floods, and drinking water contamination. The survey will be launched in AY 2017-2018. Finally, Sharon Harlan and Stephanie Clark, are working in collaboration with Elizabeth Mack on a systematic literature review of environmental justice and urban water pressures that will outline a framework for a just transition to a sustainable urban water future. Stephanie Clark presented preliminary findings of this work at the 2017 American Association of Geographers Conference in Boston, MA, and Mariana Sarango also presented her research on exposure to flood hazards by race and ethnicity in Boston.

Transdisciplinary Training at the Intersection of Environmental Health and Social Science (NIEHS T32, Northeastern PI – Phil Brown) – The T32 Training Grant currently funds 4 pre-doc and 2 postdoc trainees. In addition to working with our various lab groups and participating in training sessions, these trainees also have the opportunity to work on their own independent projects. Post-doc trainees Vanessa De La Rosa and Jennie Ohayon have joint appointments with SSEHRI and Silent Spring Institute. At Silent Spring they have worked on a variety of projects relating to endocrine disrupting chemicals (EDCs) and breast cancer. In the spring they traveled to Chile to develop a plan to report back to a cohort of study participants about their exposures to EDCs (the first project of its kind in Latin America). Vanessa and Jennie are both involved with EDGI and are listed as co-authors on several EDGI publications. They serve as mentors to the four pre-doc trainees: Stephanie Clark, Lauren Contorno, Elicia Cousins, and Lourdes Vera.

Stephanie Clark worked on a project pertaining to Speech Language Pathologists' perceptions of environmental determinants of health. She also began working with Phil Brown, Emily Zimmerman, and collaborators from Physicians for Social Responsibility on a book chapter on medical professionals and environmental determinants of health for an Environmental Health Literacy textbook. Lauren Contorno worked with the UWIN group and also spent time researching "transition towns" (communities experiencing fossil fuel plant closures), and started pilot research in Somerset, MA that will turn into her dissertation research. She also built relationships with Dr. Jennie Stephens in the School of Public Policy and Urban Affairs, and another faculty member at Salem State, Noel Healy, and they will work on a collaborative project concerning energy justice and the transition to a renewable energy economy. Elicia Cousins collaborated with faculty and researchers at Northeastern and Silent Spring Institute on two

papers relating to report-back. She also continues her work in Japan with outdoor evacuation retreats for mothers and children from Fukushima. Lourdes Vera spent most of her time working with Sara Wylie's lab group. That work will eventually lead to her dissertation. This year she learned the programming language R, which she then used to create data visualizations of the group's H₂S, SO₂, and VOC monitoring results.

Other SSEHRI Grants

Center for Research on Early Childhood Exposure and Development in Puerto Rico (NIEHS and EPA) - This multi project program builds on the PROTECT cohort, following 600 children born to PROTECT mothers, examining environmental chemicals and neurological outcomes, as well as asthma and other respiratory conditions resulting from air pollution. Phil Brown is Co-Director of the Community Outreach and Translation Core.

Combating Everyday Chemical Exposures through Hands-on Environmental Health Curriculum, a Mobile App, and Peer-to-Peer Mentoring (Toxics Use Reduction Institute, PI - Jennifer Liss Ohavon) -In partnership with the Massachusetts Breast Cancer Coalition and Ljiljana Rajic at Northeastern's PROTECT, Jennifer Liss Ohayon will lead a new project to reduce high school students' exposures to common endocrine-disrupting and asthma-associated chemicals. The project team will go into classrooms at high schools across MA to help students conduct and analyze projects to assess common chemical exposures in their homes and adopt strategies to reduce these exposures. In collaboration with UC Berkeley's Center for Environmental Research and Children's Health, the project will also create a peer-to-peer mentoring program that connects high school students to youth who have participated in significant human biomonitoring research (research that measures chemical levels in the body) and successfully reduced their harmful exposures.

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. With 4 core faculty, 10 affiliated faculty at Northeastern University and other area universities, 3 post-docs, 14 graduate students, and 5 undergraduates, 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, sociology, science and technology and community organizations, studies, 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. SSEHRI has multiple grants from NIEHS, EPA, NIH, NSF, and the IPB Foundation.

Data Sharing and Privacy Protection in Digital-Age Environmental Health Studies (NIH, Co-PI – Phil Brown) – 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.

Hazards SEES Enhancing Emergency
Preparedness for Critical Infrastructure Failure
During Extreme Heat Events (NSF, Co-I – Sharon
Harlan) - This project is assessing the human,
environmental, and technological impacts of

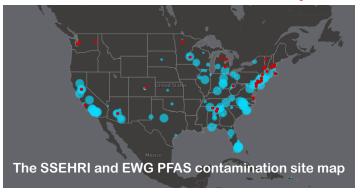
concurrent heat wave and electrical grid failure (blackout) events in Atlanta, GA, Detroit, MI, and Phoenix, AZ.

The Impact of Proposition 65 on Chemical Exposures Relevant to Breast Cancer (California Breast Cancer Research Program, Co-I - Jennifer Liss Ohayon) - In partnership with collaborators from UC-Berkeley and Silent Spring Institute, Jennifer Liss Ohayon will help lead a new grant to evaluate the effectiveness of California's Safe Drinking Water and Toxic Enforcement Act of 1986 (commonly known as Proposition 65) in reducing exposure to breast carcinogens and endocrine disrupting chemicals. This project will assess how Proposition 65 has changed industrial releases of chemicals and product formulations, public knowledge, and the chemical body burdens of Californians.

Puerto Rico Testsite for Exploring Contamination Threats (PROTECT) Program (NIEHS Superfund Research Program) (NIEHS) - 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.

Research Opportunities for Undergraduates:
Training in Environmental Health Science
(ROUTES) (NIEHS) - The ROUTES program is
designed to increase the number of undergraduate
underrepresented minority (URM) students
participating in 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. Phil
Brown is a Faculty Mentor.

Highly Fluorinated Compounds - Social and Scientific Discovery



On June 14th and 15th SSEHRI hosted Highly Fluorinated Compounds - Social and Scientific Discovery, a two-day conference addressing the social, scientific, political, economic, and environmental health issues raised by per- and polyfluoroalkyl substances (PFASs). Scientists, community advocates, government officials, state legislators, journalists, environmental advocates, lawyers, and students convened in Boston to share their experiences addressing PFAS contamination throughout the country. The Organizing Committee (SSEHRI, Testing for Pease, Silent Spring Institute, and Toxics Action Center) worked for a year and a half to connect with a wide range of people and organizations to develop this unique conference. The nearly 180 attendees represented groups and organizations such as the US Environmental Protection Agency, the Agency for Toxic Substances and Disease Registry, New Hampshire Public Radio, The Intelligencer, Keep Your Promises DuPont, Green Science Policy Institute, and the National Institute of Environmental Health Sciences. Community members and activists from Connecticut, Massachusetts, Michigan, New Hampshire, New York, Ohio, and Pennsylvania attended

Despite many obstacles, advocates, scientists, and community members continue to work to make

PFASs visible. The multi-stakeholder attendance at our conference is a testament to the power of organizing and sharing information. In just two days, scientists shared data with colleagues and community representatives; journalists heard numerous stories of contamination and discovery; and attendees participated in coalition building and strategizing. Jenny Wagner (Bucks County Courier Times) led a workshop advising community members how to engage with the media. She highlighted the importance of this partnership, stating that one working without the other can be ineffective and inefficient. Ohio State University graduate student Jason Galloway detailed his kayak journey down the Ohio and Little Hocking Rivers, in which he collected samples that contributed to mapping PFOA and GenX contamination via water and air deposition into soil as far as 20 miles away from the source: DuPont's Parkersburg, WV facility. Rob Bilott recounted his decades of legal work exposing DuPont's knowledge of PFASs' health dangers and bringing redress to plaintiffs. Through further scientific testing and community building, PFASs will continue to re-emerge and become visible to the public, communities, and other interested stakeholders.

SSEHRI would like to thank Dr. Linda Birnbaum. Director of the National Institute of Environmental Health Sciences (NIEHS), for delivering the keynote address, and our esteemed speakers and panelists who shared their stories and experiences with our community. In addition, we would like to express our sincere gratitude to the Silent Spring Institute (Newton, MA), Testing for Pease (Portsmouth, NH), and Toxics Action Center (Boston, MA) for cosponsoring the conference and providing critical day-of assistance. Funding came from an NIEHS R-13 Conference Grant, with additional funding from PROTECT, the Puerto Rico Test Site to Explore Contamination Threats (Northeastern's Superfund Research Program) and the Northeastern Humanities Center.

Select SSEHRI Presentations

- Stephanie Clark-Reyna. Systematic review of peer-reviewed literature on urban water pressures and environmental justice in the United States, 1976-2016. American Association of Geographers Annual Meeting, Boston, Massachusetts. April 2017.
- Lauren Contorno, Laura Senier, and Boris Templeton. Integrating the Just Sustainabilities Framework and Theories of Justice to Understand Variations in Community Engagement. American Sociological Association Annual Meeting, Montreal, QC, Canada. August 2017.
- Elicia Cousins. Hidden Sites of Resistance, Resilience, and Mobility: Nature-focused Evacuation Retreats for Children and Mothers from Fukushima, Japan. American Association of Geographers conference. April 2017.
- Tibrine da Fonseca, Lauren Richter, Alissa Cordner, Phil Brown, Marina Atlas. From Community to Courtroom: Litigation, and Environmental Justice in the Case of PFAS Contamination. American Sociological Association Annual Meeting, Montreal, QC, Canada. August 2017.
- Sharon Harlan. Pathways to Climate Justice in a Desert Metropolis. People and Climate Change: Vulnerability, Adaptation, Social Justice, International Symposium, St. Louis, MO. November 2016.
- **Jennifer Liss Ohayon**. Community-Scientist Partnerships: Bridging the Gap Between Communities and Science. American Association for the Advancement of Science, Boston, MA. February 2017.
- Mia Renauld. Shaped by Chevron: Evolving Entanglements from a Company Town towards a Just Transition. American Association of Geographers Conference, Boston, MA. April 2017.
- Lauren Richter. Constructing Insignificance? Racial Contract Theory and Institutional Failure in Nonwhite Contaminated Communities. American Association of Geographers Annual Meeting, Boston, MA. April 2017.
- **Mariana Sarango**. Exposure to Flood Hazards by Race & Ethnicity in Boston, MA. Association of American Geographers Conference, Boston, MA. April 2017.
- **Sara Shostak**. "Grounded in the Neighborhood": Social Capital and Health in Community Gardens. Global Health Summit, Brandeis University. 2017.
- Elisabeth Wilder. Environmentalism at a Crossroads: Critical Scholarship, Justice, and Transformation. SSSP Annual Conference, Montreal, QC, Canada. August 2017.
- Sara Wylie and Lourdes Vera. Materializing Exposure: Developing methods for engaged STS research to visualize health hazards related to fossil fuel extraction. STS Underground Network workshop and conference, Colorado School of Mines. Feburary 2017.

SSEHRI Publications 2016-2017

• Bandini, J., **Shostak, S**., Cadge, W. and D. Cunningham. 2016. "Assessing Learning in a Sociology Department: What Do Students Say That They Learn?" *Assessment and Evaluation in Higher Education* 1(3): 414-426.

- Boronow, Katherine E., Herbert P. Susmann, Krzysztof Z. Gajos, Ruthann A. Rudel, Kenneth C. Arnold, **Phil Brown**, Rachel Morello-Frosch, Laurie Havas, and Julia Green Brody. In press. "DERBI: A Digital Method to Help Researchers Offer "Right-to-Know" Personal Exposure Results" *Environmental Health Perspectives*.
- Caminiti, C.B., Hesdorffer, D.C., **Shostak, S**., Goldsmith, J., Sorge, S.T., Winawer, M.R., Phelan, J.C., Chung, W.K., and R. Ottman. 2016. "Parents' Interest in Genetic Testing of Their Offspring in Multiplex Epilepsy Families." *Epilepsia* 57(2): 279–287.
- Cordner, Alissa, Lauren Richter, and Phil Brown. 2016. "Can chemical-class based approaches replace chemical-by-chemical strategies?: Lessons from recent FDA regulatory action on perfluorinated compounds." *Environmental Science & Technology* 50 (23), pp 12584–12591.
- Crandall, S.G, **J.L. Ohayon**, L.A. de Wit, J.E. Hammond, K.L. Melanson, M.M. Moritsch, R Davenport, P Quadri, D Ruiz, B Keitt, N Holmes, H.G. Packard, J Bury, G.S. Gilbert, I.M. Parker. In press. "Best Practices: Social Research Methods to Inform Biological Conservation." In *Wildlife Conservation on Inhabited Islands*. Ed. J. Russell. Commonwealth Scientific and Industrial Research Organization (CSIRO).
- **De La Rosa, Vanessa Y**, Jonathan Asfaha, Michael Fasullo, Alex Loguinov, Peng Li, Lee E. Moore, Nathaniel Rothman, Jun Nakamura, James Swenberg, Ghislaine Scelo, Luoping Zhang, Martyn T. Smith, Chris D. Vulpe. In press. "High throughput functional genomics identifies modulators of TCE metabolite genotoxicity and candidate susceptibility genes." *Toxicological Sciences*.
- Joyce, Kelly, and Laura Senier. 2017. "Why Environmental Exposures?" *Environmental Sociology* 3: 101-106.
- Lu, Huijie and **Christine Vatovec**. 2017. "Preventing the Spread of Antibiotic Resistance in Lake Champlain and Urban Water Systems." Lake Champlain Basin Program Final Report.
- Mascarenhas, Michael, **Lauren Richter**, **Elisabeth Wilder** and Jennifer Carrera. 2017. "Diversity in Sociology and Environmental Sociology: What We Know About Our Discipline." American Sociological Association, Section on Environment and Technology. Spring Newsletter.
- Matz, Jacob, **Phil Brown**, and Julia Brody. 2016. "Social Science-Environmental Health Collaborations: An Exciting New Direction" *New Solutions* 26:349-358.
- Morello-Frosch, Rachel, **Phil Brown**, and Julia Green Brody. 2017. "Democratizing Ethical Oversight of Research through CBPR." In Nina Wallerstein, Bonnie Duran, John Oetzel, and Meredith Minkler, eds. *Community-Based Participatory Research for Health: Advancing Social and Health Equity, 3rd Edition*. New York: Wiley.
- **Ohayon, J.L**, **E. Cousins**, **P. Brown**, R. Morello-Frosch, and J.G Brody. 2017. "Researcher and institutional review board perspectives on the benefits and challenges of reporting back biomonitoring and environmental exposure results." *Environmental Research* 153: 140-149.
- Paris, Britt S., Lindsey Dillon, Jennifer Pierre, Irene V. Pasquetto, Emily Marquez, **Sara Wylie**, Michelle Murphy, **Phil Brown**, Rebecca Lave, Chris Sellers, Becky Mansfield, Lief Fredrickson, Nicholas Shapiro, EDGI. 2017. "Pursuing a Toxic Agenda: Environmental Injustice in the Early Trump Administration." In The First 100 Days and Counting. Rebecca Lave and **Sara Wylie** (eds.).
- Ramirez-Andreotta, Monica, Julia Green Brody, Nathan Lothrop, Miranda Loh, Paloma I Beamer, and **Phil Brown**. 2016. "Building Informal Science Education and Environmental Health Literacy through Reporting Back Environmental Exposure Data." *Environmental Health*. 15:2.
- Sellers, Christopher, Lindsey Dillon, **Jennifer Liss Ohayon**, Nick Shapiro, Marianne Sullivan, Chris Amoss, Stephen Bocking, **Phil Brown**, **Vanessa De La Rosa**, Jill Harrison, Sara Johns, Katherine Kulik, Rebecca Lave, Michelle Murphy, Liza Piper, **Lauren Richter**, **Sara Wylie**. 2017. "The EPA Under Siege: Trump's Assault in History and Testimony." In The First 100 Days and Counting. Rebecca Lave and **Sara Wylie** (eds.).
- Senier, Laura, Phil Brown, Sara Shostak, and Bridget Hanna. 2016. "The Socio-Exposome: Advancing

Environmental Science in a Post-Genomic Era." Environmental Sociology.

• Senier, Laura, Rachael Lee, and Lauren Nicoll. In press. "The strategic defense of physician autonomy: state public health agencies as countervailing powers." *Social Science & Medicine*.

- Shostak, S. 2017. "Introduction: Towards a Sociology of Food Systems and Population Health." *Food Systems and Health*. Advances in Medical Sociology Series. London: Emerald Group Publishing Ltd.
- Shostak, S., Blum, J., Mancini, C., Oliviera, L., Robinson, L., and E. Satin-Hernandez. 2017. "From Food Access to Food Justice: A Case Study of the Somerville Mobile Farmers' Market." In *Feeding Cities: Improving Local Food Access, Security, and Sovereignty*. Edited by Christopher Bosso. New York: Routledge.
- Shostak, S., & N. Guscott. 2017. "Grounded in the Neighborhood, Grounded in Community': Social Capital and Health in Community Gardens." *Advances in Medical Sociology: Food Systems and Health*. London: Emerald Group Publishing Ltd.
- Smith, M.E., B.L. Stark, W. Chuang, T.J. Dennehy, **S.L. Harlan**, A. Kamp-Whittaker, B.W. Stanley, A.M. York. 2016. "Comparative Methods for Premodern Cities: Coding for Governance and Class Mobility." *Cross Cultural Research* 50(5): 415-451.
- Smith, V.K., **S.L. Harlan**, M. McLaen, J. Fishman, C. Valcarcel, M.L. Nation. 2017. "Does Reputation Enhance Response Rates?" *Applied Economic Letters* 24:17: 1228-1231.
- Sorge, S.T., Hesdorffer, D.C., Phelan, J.C., Winawer, M.R., **Shostak, S.**, Goldsmith, J., Chung, W.K., and R. Ottman. 2016. "Depression and Genetic Causal Attribution of Epilepsy in Multiplex Epilepsy Families." *Epilepsia* 57(10): 1643-1650.
- Sweeney, Latanya, Ji Su Yoo, Laura Perovich, Katherine E. Boronow, Julia Green Brody, and **Phil Brown**. In press. "Re-identification Risks in HIPAA Safe Harbor Data: A Study of Data from One Environmental Health Study" *Technology Science*.
- Timmermans, S., and **S. Shostak**. 2016. "Gene Worlds." *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* 20(1): 33-48.
- **Vatovec, Christine**, Corey Evans, Emily Van Wagoner. 2017. "Investigating sources of pharmaceutical pollution: Survey of over-the-counter and prescription medication purchasing, use, and disposal practices among university students." *Journal of Environmental Management* (198): 348-352.
- Vatovec, Christine, Patrick Phillips, Emily Van Wagoner, Tia-Marie Scott, and Edward Furlong. 2016. "Investigating dynamic sources of pharmaceuticals: Demographic and seasonal use are more important than down-the-drain disposal in wastewater effluent in a University City setting." *Science of The Total Environment* (572) 906-914.
- Vélez Vega, Carmen Milagros, **Phil Brown**, Colleen Murphy, Abigail Figueroa, Jóse Cordero, and Akram Alshawabkeh, 2016. "Community Engagement and Research Translation in Puerto Rico's Northern Karst Region: The PROTECT Superfund Research Program." *New Solutions* 26:475-495.
- Villa, Priscilla, **Lourdes Vera**, **Sara Wylie**, Sharon Wilson, Alan Septoff, Chunrong Jia, Ngee Sing Chong, **Christine Luong**. 2017. *Hazards in the Air: Rleating reported illnesses to air pollutants detected near oil and gas operations in and around Karnes County, Texas*. Washington, D.C.: Earthworks.
- Wylie, Sara. 2017. "The Cloud and the Crowd." PBS mini-series.
- **Wylie, Sara**, Kim Schultz, Deborah Thomas, Chris Kassotis and Susan Nagel. 2016. "Inspiring Collaboration: The Legacy of Theo Colborn's Trans-disciplinary Research on Fracking." *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy* 26(3): 360-388.
- Wylie, Sara, Elisabeth Wilder, Deborah Thomas and Lourdes Vera. In press. "Developing an indexical method to visualize health hazards related to fossil fuel extraction." *Engaging Science, Technology and Society.*
- York, A.M., K.Kane, C.M. Clark, L.E. Gentile, A. Wutich, **S.L. Harlan**. In press. "What Determines Public Support for Graduated Development Impact Fees?" *State and Local Government Review*.



Northeastern University

Social Science Environmental Health Research Institute



To find out more about SSEHRI, visit our website at

www.northeastern.edu/environmentalhealth

Special thanks to Rachael Lee, Yvette Niwa, Lauren Richter, Mariana Sarango, and Lourdes Vera for their contributions to this report.

