

CFAES

School of Environment and Natural Resources

THE ENVIRONMENTAL AND
SOCIAL SUSTAINABILITY LAB
FY18 ANNUAL REPORT

In partnership with The Sustainable and Resilient Economy (SRE) Discovery Theme, and The Office of Energy and the Environment (OEE)



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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The Environmental and Social Sustainability Lab

FY18 Report

LAB MISSION AND GOALS

The Environmental and Social Sustainability (ESS) lab is a collaborative community of scholars working to build scientific understanding of environmental and social sustainability in an interdisciplinary context. Our mission is to support a viable socio-ecological future through applied social science research.

In an effort to promote the ESS Lab as a hub of sustainability research at Ohio State, the goals of the lab are the following:

1. Promote the development, generation, and dissemination of academic research in the field of sustainable behavior
2. Initiate and develop research partnerships with OSU-internal and external collaborators
3. Develop and share research tools and materials for scholars in the sustainability domain and the broader OSU community
4. Mentor students and early career researchers in behavioral methods and theories in sustainability
5. Communicate opportunities for sustainable-behavior research, training, and employment

The following sections delineate progress achieved by the ESS Lab on these goals in FY18, as well as plans to further promote the lab's accomplishment of these goals in the future. The majority of this work would not have been possible without the dedicated time of the new graduate lab manager and shared SRE/SENR post-doctoral researcher.

FY18 OUTCOMES AND IMPACTS

Goal 1. Promote the development, generation, and dissemination of academic research in the field of sustainable behavior

Research project development: Several new research projects were developed in FY18 with Ohio State campus partners and external organizations (see Goal 2 for details). Many of these projects are field-based, leveraging the campus as a ‘living laboratory’. These projects cover a wide range of sustainability-related topics and behaviors (e.g., recycling, energy conservation, electric-vehicle adoption, climate-change adaptation) and utilize a wide range of methodological approaches (e.g., surveys, interventions, experiments). Notably in this area, an invited review paper on behavioral climate adaptation was written collaboratively by four ESS Lab members and will be submitted for publication in FY19. These projects would not have been possible without the leadership of the SRE/SENR post-doc.

Future Development: The majority of these research projects will be implemented during FY19. Executive reports as well as academic output is expected to be disseminated in FY19 – 20.

Sustainable Behavior (SuB) working group formation: In the summer of 2018 the ESS Lab introduced the Sustainable Behavior working group (SuB): a collaborative virtual space for facilitating sustainability research across Ohio State. The group aims to share and pursue collaborative research opportunities among a diverse team; current members include over 30 OSU faculty, graduate students, and full-time researchers across various disciplines (e.g., Psychology, Marketing, Economics, Sociology, Anthropology, and Public Policy). Two research projects with the ENGIE-Axiom energy partners at OSU are currently being pursued through SuB group collaborations, led by the SRE/SENR post-doc, with many more in development.

Future Development: Beginning Fall 2018, the group will meet bi-monthly to share research opportunities, give feedback on existing projects, and foster

mentorship for junior SuB members. Additionally, research opportunities and associated resources will be consolidated through the ESS Lab and made visible through a monthly newsletter and the ESS Lab website.

Goal 2. Initiate and maintain research partnerships with OSU-internal and external collaborators

Research partnership development: During FY18 the ESS Lab initiated several partnerships with OSU-internal and external partners in an effort to promote sponsored research projects and secure future funding for lab operations. Notably, research partnerships have been developed with the ENGIE-Axium energy partners, OSU Facilities, Operations, and Development (FOD), the Alliance for the American Dream, and Smart Columbus. Joint research meetings have been conducted, and future working sessions are planned on several ambitious projects. With campus partners, as well as fellow faculty members, the ESS Lab is beginning to position itself as a hub for sustainability research in the behavioral sciences.

Future Development: In FY19 the ESS Lab plans to continue actively enlisting new partnerships as well as developing current ones. Several research projects are planned to move into pre-testing and pilot phases (ENGIE) as well as full studies (FOD, Smart Columbus) in FY19. New, funded research opportunities will be further pursued in FY19.

Partner Manual development: During FY18, ESS lab staff met SENR Sponsored Program Officers as well as the SRE Proposal Development Specialist to define a process of engaging potential research sponsors (i.e., partners), and developing a partner manual for that purpose. An initial draft has been created and sent to key stakeholders for feedback.

Future development: The finalized partner manual will be published on the ESS website in early FY 2019. The manual will additionally be used to structure initial meetings with potential partners, and shared with other stakeholders at OSU.

SENR Administrative partnership: The ESS Lab is in the process of developing administrative surveys in partnership with SENR staff to collect and analyze undergraduate end-of-year satisfaction and needs data. Anticipated outcomes are helping to identify the numerous strengths of the Department, as well as inform student academic and professional development needs.

Future development: We plan to administer this survey to all SENR undergraduates in the Spring semester, followed by a technical report. Pending initial results, we anticipate this will become an annual ESS Lab output.

Goal 3. Develop and share research tools and materials for scholars in the sustainability domain and the broader University community

Lab space: The ESS Lab made great strides in the acquisition and management of new, collective resources that will improve research opportunities within the lab. First, with the generous allocation of departmental start-up funds a new ESS lab space has been created. The room contains five computer workstations with access to numerous analytic software, video-conferencing and audio-recording capabilities, as well as survey processing and storage spaces, which will be managed by the graduate student lab manager. The Lab space is currently being utilized by 7 survey and data analysis projects associated with 5 different ESS faculty PIs. These projects include 5 graduate students, 3 research staff members, and over 10 undergraduate RAs who make regular use of the space. For more information, please see: [link](#).

Future development: In the next fiscal year efforts will be made to update ESS workstations throughout Kottman Hall to provide more research opportunities, particularly focused on Undergraduate RAs and Honors student needs.

Student Research Experience (ESSREP) Subject Pool: Following a period of testing and development in the fall of 2018, the ESS Lab now offers an SENR-based student subject pool using SONA software. Similar to subject pools being operated in the Psychology and Communication departments, undergraduate students in participating classes have to opportunity to participate in research in exchange for class credit. This resource provides a source of easy-to-access and free participants for researchers affiliated with the ESS Lab. The subject pool ran 7 studies in total in FY18, contributing to 1 Faculty research project, 4 Graduate research projects, 1 Undergraduate Honors project, and a pilot test of the Campus Sustainability Survey, while providing extra credit to approximately 300 undergraduate students. ESSREP was developed and is managed by the graduate student lab manager.

Future development: The ESS Lab plans to expand the number of student participants in the subject pool to provide even more opportunities for ESS and SuB-affiliated research. Expansion into SENR's GE classes may also be explored as a means of providing a more representative student population sample.

Campus Sustainability Survey: Following up on similar efforts in 2010-14, we developed a longitudinal, campus-wide sustainability survey. This survey will provide valuable panel data on student's sustainability perceptions, values, and behaviors, as well as inform campus efforts through sections collaboratively developed with The Sustainable and Resilient Economy (SRE) Discovery Theme, the Office of Energy and the Environment (OEE), the ENGIE-Axium energy partnership, The Office of Student Life, and Facilities, Operations, and Development (FOD). A pilot of the survey was conducted in the Spring semester; this data was made available to lab affiliates and was used to write SENR's contributions to OSU's FY17 campus STARS report ([the Sustainability Tracking, Assessment & Rating System by AASHE](#)).

Future development: Following data collection in the fall of 2018 the ESS Lab team will create and share a summary report of results and make data available to lab affiliates. In future versions of the survey we plan to contribute further to OSU's STARS score and provide data for multiple academic and administrative needs.

Goal 4. Mentor students and early career researchers in behavioral methods and theories in sustainability

Undergraduate Research Assistant (RA) Support: The ESS Lab is committed to providing Undergraduate students with the tools, resources, and guidance needed to develop their social scientific skills. In addition to the lab space provided to Undergraduate RAs (see Goal 3) the SuB group is providing guidance to Undergraduate-driven projects at ENGIE: ENGIE's Undergraduate interns are working with SuB members to learn how to design experimental and intervention research projects in energy conservation, thus promoting both the interns' knowledge and ENGIE's business needs.

Future development: SuB members will continue to collaborate with ENGIE, providing mentorship opportunities for their interns on behavioral research in energy-conservation. Additional mentor/mentee opportunities will become available in the coming FY.

Graduate Student Recruitment: The ESS Lab is also invested in attracting the highest level of Graduate talent to SENR. To this end, in FY18 the ESS Lab manager organized multi-day campus visits for 9 prospective students, 8 of which were Fellowship winners. Of these, 6 students (all Fellowship winners) have accepted admission. Based on informal feedback, prospective students had very positive experiences with their visits and the reception that they received in SENR. This duty additionally saved the time of numerous faculty members (as advisers have historically organized the visits of potential students).

Future development: In FY19 the ESS Lab plans to circulate a group Graduate student position announcement, as well as coordinate three group recruitment events in the Spring semester. We will continue to keep records of admission rates and make efforts to improve recruitment events, particularly aimed towards attracting Fellowship nominees.

Development of Lab Staff: In FY18 the ESS Lab hired two Post-Docs (funded by SENR and SRE) as well as a Graduate Research Assistant to act as lab manager (funded by SENR). Through these positions, the ESS Lab has provided funding and valuable training to Junior Scholars in topics such as project management, promotion, and branding.

Future development: To further the development of lab staff, the hired personnel will continue pursuing on-the-job training opportunities with senior researchers, as well as formal trainings provided through OSU resources (e.g., Research Commons, the Post-Doctoral Association, and the Office of Postdoctoral Affairs).

Goal 5. Communicate opportunities for sustainable-behavior research, training, and employment

ESSL website and promotional materials: As part of the effort to improve the visibility of our group, in FY18 the ESS Lab developed a new mission statement and focus goals which were communicated via new promotional materials, including a banner and 2-page brochure. We are also currently engaged in a redesign of the ESSL.osu.edu website intended to make information more accessible, both for current members and prospective students or research partners. Notably, our collaborative efforts have already been mentioned elsewhere, namely in an OEE Research News article highlighting an opinion piece in the Journal Nature Sustainability by Dr. Elena Irwin: [link](#).

Future development: In FY19 the ESS Lab plans to continue improving our website, including posting summaries related to the abovementioned research efforts. We also plan to publish new promotional materials to better communicate the strengths and goals of the lab to potential partners and students.

Lab Communications: In FY18 the ESS Lab was largely focused on developing its resources and affiliate network. During that time, the SENR-based ESS Lab community was regularly updated on the resources being developed under Goals 1, 3, and 4, and as well as data available through certain efforts such as the Campus Sustainability Survey pilot study.

Future development: As mentioned under Goal 1, in FY19 the ESS Lab will begin distributing a monthly newsletter to the SuB working group sharing sustainability-related research opportunities with our affiliates. In addition, the lab manager will continue to share regular lab manager notes regarding the resources described under Goal 3.



For more information, please contact: ESSI@osu.edu

The ESS Lab is led by the ESS lab steering committee: [Robyn Wilson](#) (faculty director), [Jeremy Brooks](#) and [Nicole Sintov](#) (lab PIs), [Atar Herziger](#) and [Lee White](#) (lab postdocs), and [Emily Walpole](#) (lab manager). Please contact Atar Herziger with any questions or concerns regarding SuB.

APPENDIX A: Lab Manager Time Allocation FY18 (12mo; 20hr/wk GAA)

<i>Goal and task</i>	<i>Percent Time (appx.)</i>
Management of ESS Lab space (rm. 231) and equipment	25%
ESSREP Student Subject Pool development and administration	25%
Campus Sustainability Survey development	25%
Graduate Student Recruitment; outreach and events	15%
ESSL website and promotional material development	5%
Lab messages and announcements	4%
SENR undergraduate survey	1%
Annual total:	100%

APPENDIX B: SENR/SRE Post-Doc Time Allocation FY18 (5mo; FT)

<i>Goal and task</i>	<i>Percent Time (appx.)</i>
Internal research projects (SENR)	40%
Partnered research projects (ENGIE, FOD, Smart Columbus)	30%
Campus Sustainability Survey development	10%
ESS Lab development	10%
Conferences and training	10%
Annual total:	100%