

**CFAES**

School of Environment and Natural Resources

**THE ENVIRONMENTAL AND**  
**SOCIAL SUSTAINABILITY LAB**  
**FY19 ANNUAL REPORT**

In partnership with The Sustainability Institute (SI)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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# The Environmental and Social Sustainability Lab

## FY19 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 Ohio State 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 FY19, 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 graduate lab manager and shared SI/SENR post-doctoral researcher.

## FY19 OUTCOMES AND IMPACTS

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

**Research project development:** Several research projects were advanced and funded in FY19 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., energy conservation, electric-vehicle adoption, smart-city assessment) and utilize a wide range of methodological approaches (e.g., surveys, interventions, experiments). Notably in this area, the ESS lab’s SuB group (see below) was awarded \$308,117 to fund the Behavioral Energy Conservation (BEC) living lab. These projects would not have been possible without the leadership of the SRE/SENR post-doc.

**Future Development:** Additional projects with the City of Columbus are currently being reviewed (i.e., Smart Columbus Assessment). Funding for these projects is expected to be approved by the end of FY 2019.

**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). ESSL engagement with the SuB group resulted in a large-scale funded project: a campus living lab for research on residential energy conservation (see BEC lab, above).

**Future Development:** Members of the SuB group are working with SI to develop a close working relationship with Student Life, and to initiate the BEC lab in Fall 2020. Research opportunities and associated resources are continuously being shared with SuB members via listserv.

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

**Research partnership development:** During FY18-19 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, close research partnerships have been developed with Smart Columbus; the ESS Lab will be leading surveying efforts in FY 2020 to assess the impacts of the Smart Columbus program as it relates to sustainable behavior and well-being.

**Future Development:** Several research projects are planned to move into data collection phases (ENGIE, FOD, Smart Columbus) in FY20.

**Partner Manual development:** A sponsored-project partner manual has been created and is publicly available on the ESS website.

**SENR Administrative partnership:** In the Spring of 2019 the ESS Lab manager worked with SENR staff to develop an administrative end-of-year satisfaction and needs survey for SENR undergraduates. Following data collection, qualitative data and a description of quantitative results was shared with staff, which identified the numerous strengths of the Department and informed student academic and professional development needs.

**Future development:** We plan to stay in touch with SENR administrators to see if they would like to repeat this survey in FY20, repeat it bi-annually, or any other data needs we can assist the administration with.

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

**Lab space:** The graduate student lab manager continues to manage the five computer workstations in room 231, as well as a workstation in room 316, which provide shared

access to numerous analytic software, video-conferencing and audio-recording capabilities, as well as survey processing and storage spaces. In FY19, the Lab space was utilized by over a dozen survey and data analysis projects associated with 8 different ESS faculty PIs (i.e., Wilson, Sintov, Berardo, Toman, Lobao, Dietsch, Brooks, and Bruskotter). The space is also regularly utilized by numerous graduate students, research staff members, and undergraduate RAs associated with said projects. This is a considerable shared resource considering that faculty members and graduate students would have to find alternative locations and resources to call participants, analyze data, process and store paper surveys, and provide training, meeting, and work space for their undergraduate RAs. For more information, please see: [link](#).

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

**Student Research Experience (ESSREP) Subject Pool:** The ESS Lab continues to offer and improve upon the new SENR-based student subject pool, where undergraduate students have to opportunity to participate in research in exchange for class credit. In the Spring of 2019, ENR 2100 was successfully included in the pool, almost doubling its size and the number of studies which can be run in a semester. The subject pool ran a total of 14 studies in FY19, contributing to 8 Faculty or research staff projects associated with scholarly publications and 6 Graduate research projects, while providing extra credit to approximately 600 undergraduate students. This resource provides a source of easy-to-access and free participants for researchers affiliated with the ESS Lab and is managed by the graduate student lab manager.

**Future development:** The ESS Lab plans to continue to expand the number of student participants in the subject pool to provide even more opportunities for ESS and SuB-affiliated research, while also streamlining our process.

**Campus Sustainability Survey:** Following up on similar efforts in 2010-14, we developed a longitudinal, campus-wide sustainability survey in partnership with The

Sustainability Institute (SI), the ENGIE-Axiom energy partnership, The Office of Student Life, Facilities, Operations, and Development (FOD), and ESS researchers. Following distribution to 20,500 Undergraduates by the graduate lab manager, survey results were shared with campus partners and lab affiliates in a descriptive report, and were also used in SENR's contributions to OSU's FY18 campus STARS report ([the Sustainability Tracking, Assessment & Rating System by AASHE](#)), which helped the University to retain its Gold accreditation status. In Spring of 2019, development then began on the Fall 2019 installment of the annual survey. This survey has and will continue to provide valuable panel data on student's sustainability perceptions, values, and behaviors, as well as inform campus sustainability activities and numerous research efforts.

**Future development:** Following data collection in the fall of 2019 the ESS Lab team will again 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. This is the one opportunity in the lab where partner funding from the University could be sought to offset the expense of the lab manager.

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#### *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 has provided guidance to Undergraduate-driven projects at ENGIE. Specifically, ENGIE's Undergraduate interns have worked 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.

**Graduate Student Recruitment:** The ESS Lab is also invested in attracting the highest level of Graduate talent to SENR. To this end, in FY19 the ESS Lab manager organized two, multi-day group campus visits for 10 prospective students. 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 FY20 the ESS Lab plans to again coordinate group recruitment events for 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 continuing to fund 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:** As the partnership between SENR and SI ends, there will no longer be post-docs associated with the Lab to lead additional research opportunities. It is unclear to what extent the current lab manager (and SENR post-doc) will have the capacity to engage in University level projects outside of the annual survey.

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### *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 FY19 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](http://ESSL.osu.edu) website intended to make information more accessible, both for current members and prospective students or research partners.

**Future development:** In FY20 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 FY19 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 FY20 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](mailto:ESSI@osu.edu)

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



**APPENDIX A: Lab Manager Time Allocation FY19 (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%
Annual Campus Sustainability Survey development	25%
Graduate Student Recruitment; outreach and events	15%
ESSL website and promotional material development	5%
SENR undergraduate survey	5%
Annual total:	100%

**APPENDIX B: SENR/SI Post-Doc Time Allocation FY19 (12mo; FT)**

<i>Goal and task</i>	<i>Percent Time (appx.)</i>
Internal research projects (SENR)	35%
Partnered research projects (ENGIE, FOD, Smart Columbus)	50%
Campus Sustainability Survey development	5%
Conferences and training	10%
Annual total:	100%