SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

2018 Campus Sustainability Survey: Results and Trends

A Report from the Environmental and Social Sustainability Lab (2019)





About the Environmental and Social Sustainability Lab

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. Housed within the School of Environmental and Natural Resources within The College of Food, Agriculture, and Environmental Sciences, we are staffed by a core group of affiliated faculty members, students, and research staff representing a broad range of social science expertise. Our mission is to support a viable socio-ecological future through applied social science research, and to serve as a hub of sustainability research at Ohio State.

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Suggested Citation

Walpole, E.H., Herziger, A., and Wilson, R.S. 2019. 2018 Campus Sustainability Survey: Results and Trends. A Report by the Environmental and Social Sustainability Lab. The Ohio State University, School of Environment and Natural Resources.

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Executive Summary

The Ohio State Campus Sustainability Survey represents a joint effort on the parts of numerous campus partners to measure current and longitudinal trends in undergraduate behaviors, beliefs, values, attitudes, and knowledge regarding sustainability at The Ohio State University. This report explores the results of that effort in 2018, through online survey responses from 3,293 Undergraduate students from the Columbus campus (out of 20,500 randomly selected students originally contacted; a response rate of approximately 16%).

Engagement in sustainable behaviors:

In total, undergraduate student engagement in sustainability-related behaviors such as carrying a reusable water bottle, turning off the lights in an empty room, recycling, and utilizing public transportation are quite high. Furthermore, by comparing these results to a similar survey conducted in 2014¹ it can be estimated that **engagement in pro-environmental behaviors has increased by a substantial margin in the past 4 years**. However, opportunities to further promote campus sustainability goals may present themselves in emphasizing lower-engagement, low-cost behaviors, such water conservation and turning personal electronics off or into low-power mode when not in use, **which could also inform Ohio State sustainability goals 7a, 7b, and 7c** (For more on these results, please see Section 1).

Sustainability knowledge:

Similarly, when assessed through quiz-type questions, **student knowledge of sustainability-related topics has increased by approximately 10% since 2014.** However, some misconceptions remain on the causes of pollution and environmental degradation (please see Section 2).

¹ The sustainability survey conducted in the Spring of 2014 followed-up on similar surveys distributed in 2012 and 2013 by the ESS Lab, and was part of a 10-year longitudinal investigation of sustainability-related topics and behavior that resulted in several publications. (Following a lag of 4 years, we are now reinitiating this effort in 2018). The 2014 survey was sent to 20,000 Columbus-campus Ohio State students and shared some elements of the behavior and knowledge scales used in the 2018 survey.

Plans are in place to continue measuring changes in sustainability knowledge, engagement in sustainable behaviors, and sustainability attitudes and values among a panel of Undergraduate students annually. This data are intended to help broadly inform and assess sustainability efforts taking place at Ohio State.

Student awareness and support for campus initiatives:

In addition to including items for longitudinal assessment, the 2018 survey also contained several items developed in collaboration with the Sustainability Institute (formerly the Sustainable and Resilient Economy Discovery Theme and Office of Energy and Environment, which have since merged together), the ENGIE campus energy partnership, the Office of Student Life, and Facilities Operations and Development. Together, these collaborative items inform student support for on-campus initiatives, engagement in sustainability-related activities such as student organizations, volunteer activities, and events. Finally, we collected data to inform the development of a sustainability curriculum at Ohio State in partnership with the Sustainability Education and Learning Committee, as well as data related to Ohio State sustainability goal #1.

While the items contained in these sections are diverse, some key takeaways include that there is a great deal of variation between students regarding how much they know about, or are engaged in, various sustainability initiatives and opportunities on and off-campus (please see Section 4 for more details). However, **students seemed to be consistently interested in becoming more involved in academic, research, and professional opportunities related to sustainability,** particularly those including skills-based content. In one specific finding related to Ohio State's sustainability goals (#7f), while student engagement in **recycling** is very high (see page 17) and students often believe they recycle properly, we identified several common misunderstandings regarding what materials can be recycled or not on campus (please see page 19).

There was also a moderate amount of interest for a variety of sustainability course types, including general education courses, and major-specific courses. (Please see Section 5). Potential areas to explore more in the future could include **increasing student awareness of sustainability initiatives and resources on campus**, as well as **providing more easily accessible academic and professional opportunities** for students related to sustainability at Ohio State.

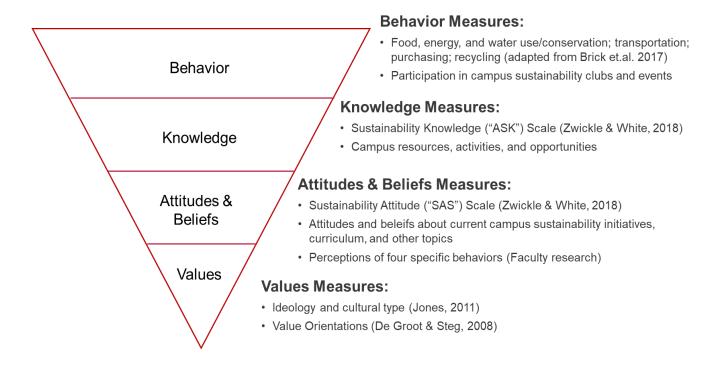
Please see the following sections for more details on our survey methods and student sample, as well as survey results in each of five major areas.

Methodology and Design

The 2018 Campus Sustainability Survey was organized and administered by members of the Environmental and Social Sustainability (ESS) Lab in the School of Environment and Natural Resources, in collaboration with the Ohio State Sustainability Institute, Facilities Operations and Development, the Office of Student Life, the Center for the Study of Student Life, and the ENGIE Ohio State Energy Partners.

Survey Design:

Items were based on established scales where possible and were designed to capture a full suite of sustainability-related constructs including values, attitudes, beliefs, knowledge, and behaviors. The figure below provides a summary of this approach and the types of scales used. If not otherwise noted, items were self-generated with input from ESS Faculty members and/or our campus partners. (For the citations noted in the figure please see the "References" section at the end of the report).



Overall, survey items were developed and administered to students in three main areas:

- Longitudinal (i.e. annually recurring) items intended to track changes in sustainability behaviors (adapted from Brick et.al. 2017), sustainability knowledge ("ASK" scale, Zwickle and Jones 2018), and sustainability values ("SAS" scale, Zwickle and Jones 2018) over time. Some of these items can be compared to similar survey efforts conducted in 2010 - 2014.
- One-time items in areas of interest to our campus partners, such as support for current and future sustainability initiatives, and development of a sustainability curriculum.
- 3) Faculty research sections in 2018 consisted of in-depth investigations into motivations and perceptions focused on four sustainable behaviors, conducted by Drs. Sintov, Brooks, and Herziger of SENR. (Faculty research results will be developed into scholarly publications and are not included in this report).

Survey Implementation:

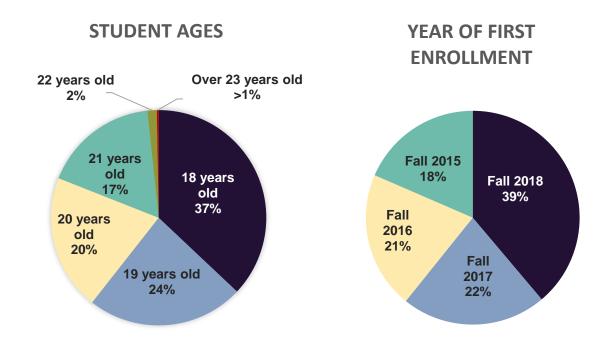
In October of 2018 survey invitations were emailed to a random sample of 20,500 non-transfer Undergraduate students from the Columbus Ohio State campus via Qualtrics. The sample was further stratified by student year, such that there were 5,000 individuals who were in their 2^{nd} , 3^{rd} , and 4^{th} years respectively, and 5,500 individuals who had just enrolled in their first year at Ohio State. (The slight oversampling in first-years was to compensate for anticipated panel attrition in years 2-4). In addition to an invitation, after one-week, participants were emailed a reminder. As a third and final reminder, a non-response follow-up was sent to students who had not completed the full survey after two weeks, in the form of a shortened version of certain longitudinal scales (i.e. a sub-section of behaviors, the ASK sustainability knowledge assessment, the SAS sustainability attitudes assessment, and basic demographic questions).

In total, of the 20,500 students contacted, 2,491 started the full survey and 2,077 completed it (10.0% completion rate). A further 802 students started the non-response survey, and 678 completed it. The final sample size used for this report (i.e. students who began either the full or non-response survey) was 3,293 students, for a final response rate of approximately 16%. Excluding outliers², the average completion time for the full survey was approximately 18 minutes (with a mode of 16 minutes), and the average completion time for the non-response survey was approximately 8 minutes (with a mode of 7 minutes).

² Outliers were identified using the box and whisker plot function in SPSS.

Sample Characteristics

Our sample consisted of 3,293 undergraduate students who began the full or non-response versions of the survey. This population was more female than male (65.7% female), with an average age of 19 years old (SD = 1.33). Participants were also skewed slightly towards newer students at Ohio State, with 1279 (38.8%) being first-year Freshmen, 722 (21.9%) being second years, 683 (20.7%) being third-years, and 609 (18.5%) were in their fourth year since first enrolling. Additionally, the average (non-zero) GPA of our participants was a 3.49 (SD = 0.44).



In terms of race and ethnicity, the majority of students in our sample identified as white (72.6%), with a minority of students identifying themselves as Asian (6.3%), Hispanic (4.7%), black or African American (3.2%), or two or more races (4.1%). In addition, 5.2% of our sample were international students studying at Ohio State.

In terms of living situation and financial independence, our participants most commonly live in student residence halls (55.5%), although a substantial minority live in a house or apartment with other students (32.8%), and a minority live on their own (6.4%) or with family (4.7%). Students reported that, on average, 39.2% of their living expenses came from personal earnings or savings (with a standard deviation of 32.3%), meaning that for the average student in our sample had roughly 60% of their living expenses financed by others. In terms of where students grew up and their political affiliations, the majority of our sample report growing up in a suburban setting (63.7%), 12.1% in an urban setting, 11.4% in a small town, and 9.2% in a rural or agricultural environment. In addition, 43.3% described themselves as Democrats, 16.9% as Republicans, 31.4% as independents, and 8.4% as other political affiliations.

Lastly, in terms of academic programs and exposure to sustainability coursework, students most commonly reported that they had taken no classes related to sustainability or the environment at Ohio State (72.1%), while 21.6% reported taking just one or two; only 6.3% of our sample had taken three or more such classes. Please see the table below for a breakdown of programs of study (in major categories):

Program	Frequency	Percent
Arts and Sciences	1273	38.7
Engineering	640	19.4
Business	435	13.2
Education and Human Ecology	154	4.7
Exploration Program (no declared major)	144	4.4
Health and Rehabilitation Sciences	131	4
Agriculture	114	3.5
Environment and Natural Resources	102	3.1
Nursing, Dental, and Medical	102	3.1
Pharmacy	48	1.5
Public Health	45	1.4
Architecture	34	1
John Glenn Public Affairs	34	1
Social Work	28	0.9
Total	3293	100

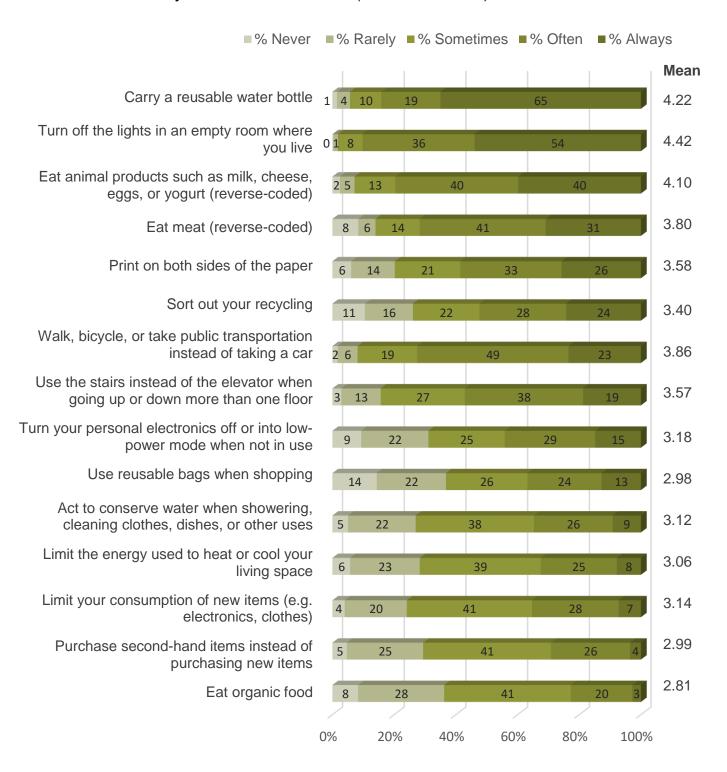
Section 1: Sustainable Behaviors

In the first section of the survey we asked students about their engagement in 24 proenvironmental and sustainability-related behaviors, including those that take place on and off-campus. Students were asked how often they engaged in these behaviors on a 1-5 "never" to "always" scale. The first set of 15 behaviors were adapted from Brick et.al. (2017), and others were based on past surveys or were self-generated.

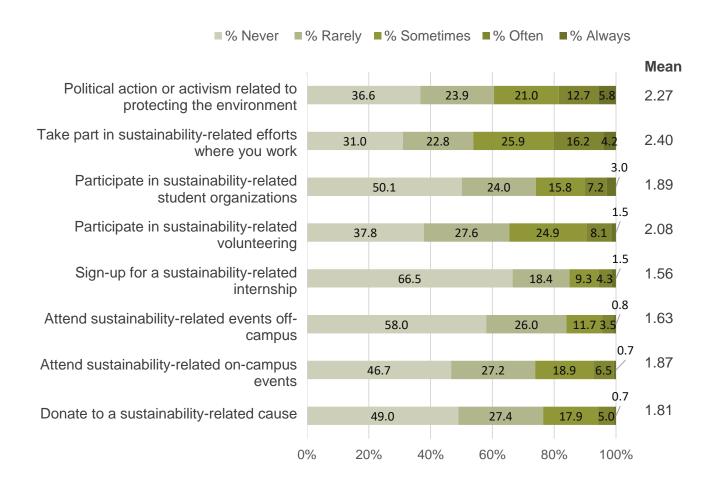
We find that while some behaviors are quite common among undergraduate students at Ohio State, others are much less frequently engaged in. For example, more than half of students say they "often" or "always" carry a reusable water bottle (M = 4.22 SD = 0.94), turn off the lights in an empty room (M = 4.42; SD = 0.73), sort out recycling (M = 3.40, SD = 1.29), or walk, bicycle, or utilize public transportation instead of a car (M = 3.86, SD = 0.91). Meanwhile, behaviors such as engagement in sustainabilityrelated student organizations (M = 1.89, SD = 1.10) and attending on-campus sustainability events (M = 1.87, SD = 0.98) was rarer. Some observations from these patterns is that, understandably, lower-cost and easier behaviors are more common than longer-term or higher-investment ones. In addition, there are several behaviors with lower engagement that students may have limited control over, such as limiting HVAC use (M = 3.06, SD = 1.01) and eating organic food on campus (M = 2.81, SD =0.94). However, there were several low-cost and relatively easy behaviors that may merit further emphasis to promote campus sustainability goals. Namely, having students conserve water (M = 3.12, SD = 1.01), and turn personal electronics off or into low-power mode when not in use (M = 3.18, SD = 1.20). Additionally, it may be possible to highlight engagement opportunities through existing frameworks (such as through a class, or while using campus resources), which alleviates some of the responsibility of finding them.

We estimated changes in sustainability behaviors by comparing eight items shared between the 2014 and 2018 versions of the survey. While comparisons are imperfect due to scale changes, if the 100-point engagement scale used in 2014 ("what percent of the time you engage in the behavior") was converted to a 5-point "never" to "always" scale, the average score from 2014 would be 2.86 (SD = 0.83), compared to 2018's 3.67 average (SD = 0.50): almost a full scale point's increase between 2014 and 2018. In future years, longitudinal assessment will more precisely determine if this score is increasing over time, and if so, by how much per year.

Main behaviors: "Below is a list of behaviors you may or may not do. Please indicate how often you do these behaviors." (N = 3275 to 3281)



Out of Classroom Behaviors: "When you have the opportunity, how often do you engage in the following out-of-classroom sustainability activities?" (N = 2452 to 2458)



Section 2: Sustainability Knowledge Assessment

We assessed student knowledge of sustainability topics and issues using the 12-item "ASK" (Assessment of Sustainability Knowledge) scale developed by Zwickle and Jones (2018), which measures knowledge related to ecological, economic, and social aspects of sustainability. Students were asked to answer multiple-choice quiz questions to the best of their ability. (Note that we did not include a "do not know" option, so scores may be slightly inflated due to additional guessing. Seen but skipped questions were still counted as 'incorrect', however).

Overall, **student knowledge of sustainability and environmentally-related topics were quite high**, with an average of 8 items correct out of 12 (SD = 2.59), or 67% correct. We observe that students were often correct on more technical questions such as the purpose of ozone (87.3% correct), the biggest global emitter of greenhouse gasses (86.5% correct) and describing changes in the wealth gap in America (85.0% correct). **However, some major misconceptions remain among students**, often in relation to **causes of pollution and environmental degradation**. For example, 45.1% of students incorrectly answered that pollution is the main cause of Atlantic fish stock depletion (only 29.0% gave the correct answer, overfishing). In addition, 33.0% of students thought that leaving a cell phone charger plugged in for 12 hours has a larger environmental impact than producing a hamburger, which is incorrect. These and other lower-score items could point to potential gaps in student understanding where education or interventions could be targeted in the future.

It is also possible to estimate changes in sustainability knowledge by comparing answers between the 2014 and 2018 versions of this survey. The average student score in 2014 was 6.93 out of 12 items (SD = 3.05), or 58% correct. Taking into consideration some scale changes, this result suggests that **student sustainability knowledge has increased over the last 4 years at Ohio State by approximately 10%.** (This result was also reported in Ohio State's 2018 AASHE STARS report). In future years, this survey will continue to track student sustainability knowledge, and possible causes behind these positive increases.

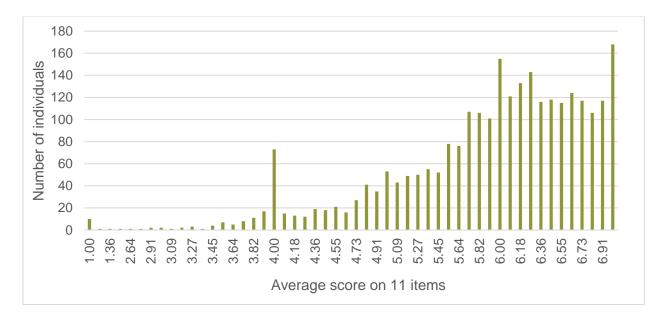
ASK Question (page 1)	Correct Answer And most common incorrect answer, 2018	% Correct 2018 (N = 2872) (% incorrect)	% Correct 2014 (N = 1416)
What is the most common cause of pollution of streams and rivers?	"Surface water running off yards, city streets, paved lots, and farm fields" "Waste dumped by factories"	50.8% (24.1%)	42.2%
Ozone forms a protective layer in the earths upper atmosphere. What does ozone protect us from?	"Harmful UV rays" "Climate change"	87.3% (5.4%)	84.1%
3) Which of the following is an example of sustainable forest management?	Never harvesting more than what the forest produces in new growth "Setting aside forests to be off limits to the public"	76.1% (15.1%)	66.7%
4) Of the following, which would be considered living in the most environmentally sustainable way?	"Reducing consumption of all products" "Recycling all recyclable packaging"	65.6% (20.8%)	48.1%
5) Which of the following is the most commonly used definition of sustainable development?	"Meeting the needs of the present without compromising the ability of future generations to meet their own needs" "Setting aside resources for	80.7%	67.8%
	preservation, never to be used"	(8.0%)	
6) Over the past 3 decades, what has happened to the difference between the wealth of the richest and poorest Americans?	"The difference has increased"	85.0%	80.1%
	"The difference has stayed about the same"	(9.9%)	
7) Many economists argue that electricity prices in the U.S. are too low because	They do not reflect the costs of pollution from generating the electricity	68.1%	51.8%
	"Electric companies have a monopoly in their service area"	(19.9%)	

ASK Question (page 2)	Correct Answer And most common incorrect answer, 2018	% Correct 2018 (N = 2872) (% incorrect)	% Correct 2014 (N = 1416)
8) Which of the following is	"Long term profitability"	56.6%	49.8%
the most commonly used definition of economic sustainability?	"When costs equal revenue"	(26.9%)	
9) Which of the following	"China"	86.5%	73.1%
countries passed the U.S. to become the largest emitter of the greenhouse gas carbon dioxide?	"Japan"	(5.2%)	
10) Which of the following is a leading cause of the	"Fishermen seeking to maximize their catch"	29.0%	34.9%
depletion of fish stocks in the Atlantic Ocean?	"Ocean pollution"	45.1%	
11) Which of the following is the best example of environmental justice?	"All stakeholders from an indigenous community are involved in setting a quota for the amount of wood they can take from a protected forest next to their village"	75.2%	62.4%
	"The government dams a river, flooding Native American tribal lands to create hydro-power for large cities"	(9.6%)	
12) Put the following list in order of the activities with the largest environmental impact to those with the smallest environmental impact:	"Flying in a commercial airplane from Washington D.C. to China" > "Producing one McDonald's quarter-pound hamburger" > "Producing one McDonald's chicken sandwich" > "Keeping a cell phone charger plugged into an electrical outlet for 12 hours"	45.2%	28.3%
	"Flying in a commercial airplane from Washington D.C. to China" > "Keeping a cell phone charger plugged into an electrical outlet for 12 hours" > "Producing one McDonald's quarter-pound hamburger" > "Producing one McDonald's chicken sandwich"	(33.0%)	

Section 3: Sustainability Attitudes and Values

We measured student sustainability values and attitudes using the 11-item "SAS" (Sustainable Attitudes) scale developed by Zwickle and Jones (2018). Students were asked to respond with how much they agreed or disagreed with a number of proenvironmental attitudes and values such as "Biological diversity in itself is good", and "I am willing to put forth a little more effort in my daily life to reduce my environmental impact" on a scale of 1-7 ("strongly disagree" to "strongly agree"). Individual's scores on this scale were calculated by averaging all responses together.

Overall, scores on this scale were fairly high, with the average score being a 5.90 out of 7 (SD = 0.90, N = 2671), and the great majority of scores were clustered towards the "agree" end of the scale (please see graph below for a histogram of scores). To assess potential impacts of sustainability efforts at Ohio State, we will continue to use this scale on future versions of the survey to measure changes over time in the Undergraduate student population. This scale will also be used in AASHE STARS reporting on campus sustainability values.

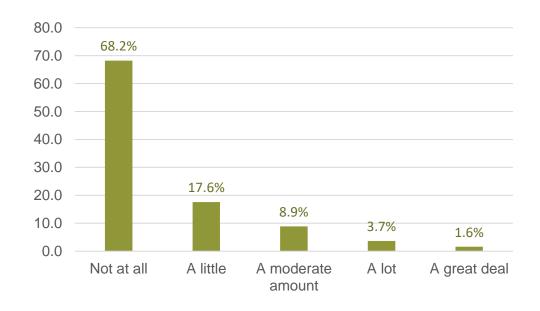


Section 4: Attitudes Towards Campus Initiatives

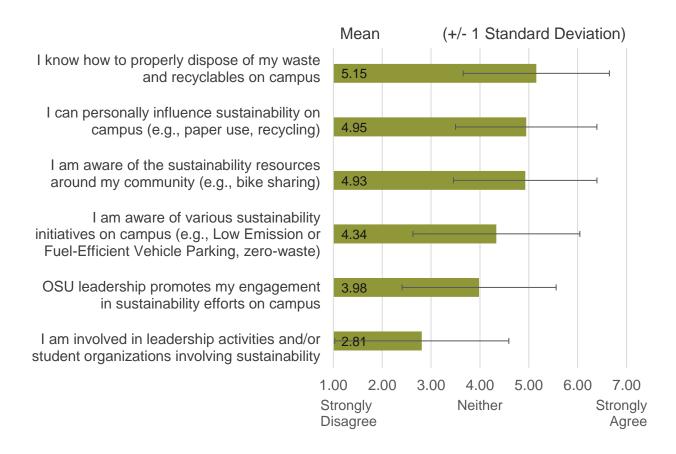
In addition to the above longitudinal scales, the survey also included items of interest to our collaborators in Student Life, the ENGIE energy partners, and Facilities Operations and Development to gauge support for current or possible sustainability initiatives at Ohio State. These items were largely self-generated, and we will review them section-by-section in the following pages.

To begin, students were asked: "When deciding to come to Ohio State, were you influenced by the university's sustainability programming? (For example, on-campus recycling initiatives, sustainability-related student organizations, involvement in community and state environmental programs, or funding and investment)". See graph below for a breakdown of responses on a 1-5 scale of "not at all" to "a great deal".

Response scores to this question were generally quite low, with an average of 1.53 (SD = 0.92, N = 2153). This could potentially be an area for improvement: as Ohio State continues to build on its reputation for being a sustainable and innovative campus, these responses may become higher in the future.



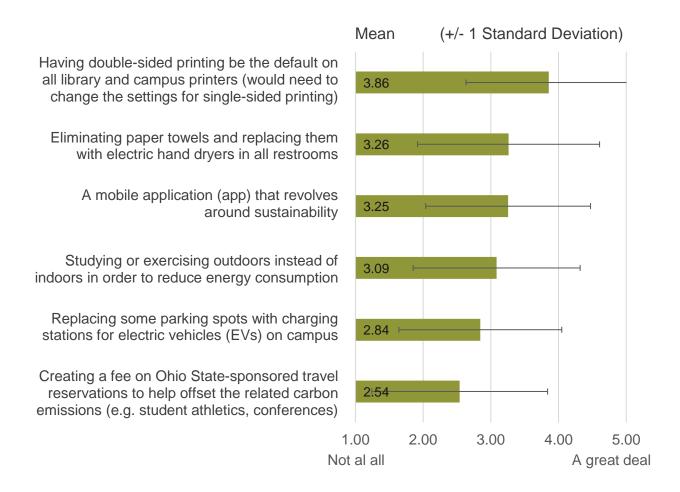
Students were then asked to rate their agreement with seven statements related to campus sustainability initiatives and engagement on a 1-7 "strongly disagree" to "strongly agree" scale. See the graph below for average scores per item (including means, within bars, and standard deviations):



One observation from these findings is that there **is a great deal of variation between students** regarding how much they agree or disagree with these statements. In particular, how involved students are in sustainability-related student organizations and leadership activities, and awareness of current campus sustainability initiatives. Although positively, the majority of students agreed with statements such as "I know how to properly dispose of my waste and recyclables on campus", and, "I can personally influence sustainability on campus".

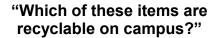
One potential area to explore in the future may be **increasing student** awareness of sustainability initiatives and resources on campus (which was lower on average than awareness of community resources), potentially through targeted communication and information campaigns.

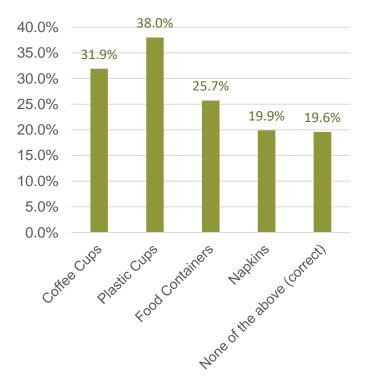
Students were also asked to rate their support for six hypothetical actions that Ohio State could take to improve sustainability on a 1-5 scale of "not at all" to "a great deal. See the graph below for average scores per item (including means, within bars, and standard deviations):



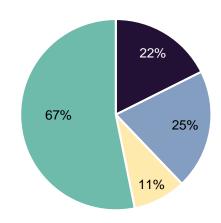
Average student support for the policy "have double-sided printing be the default on all library and campus printers" was somewhat high, while in other initiatives reactions were more mixed. In particular, there was markedly less support for the actions "replacing some parking spots with charging stations for electric vehicles", and "creating a fee on Ohio State-sponsored travel reservations to help offset the related carbon emissions". This result is somewhat expected, given that these actions require a clear tradeoff or cost (e.g. fewer parking spaces for non-electric vehicles, and higher costs for travel).

Lastly, we asked students two questions related to recycling knowledge. Specifically, students were asked to select which items were recyclable at Ohio State (select all that apply, N = 2648), and also what criteria plastic needs to meet to be recyclable on campus (N = 2190). See the graphs below for the percent of respondents that selected each option.





"To recycle a plastic item on campus, does the item need to meet any criteria?"



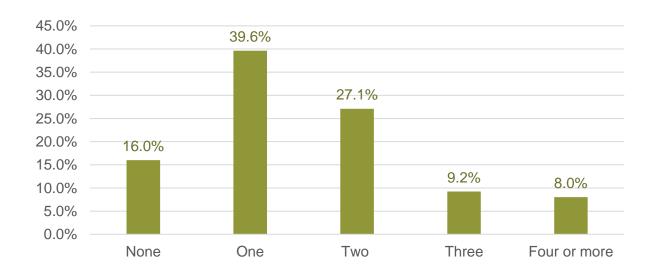
- No, all plastic items are recyclable on campus
- Yes, the item should be shaped like a bottle (correct)
- It depends on the type of plastic the item is made of
- I don't know

Misconceptions regarding what can be recycled on campus seem fairly common: roughly a third of students incorrectly guessed that cups including coffee cups (31.9%) and plastic cups (38.0%) are recyclable. However, there appears to be greater awareness that food containers (25.7%) and napkins (19.9%) are not recyclable. Only 19.6% of students answered correctly, that none of those items are recyclable on campus. Also, the majority of students say they weren't sure which plastics on campus were recyclable (67%). Note that these results are in contrast to responses to question 1 on page 17, where students largely agreed with the statement: "I know how to properly dispose of my waste on campus". So, while students think they know how to recycle properly, these quiz items indicate they often lack specific knowledge or hold incorrect views.

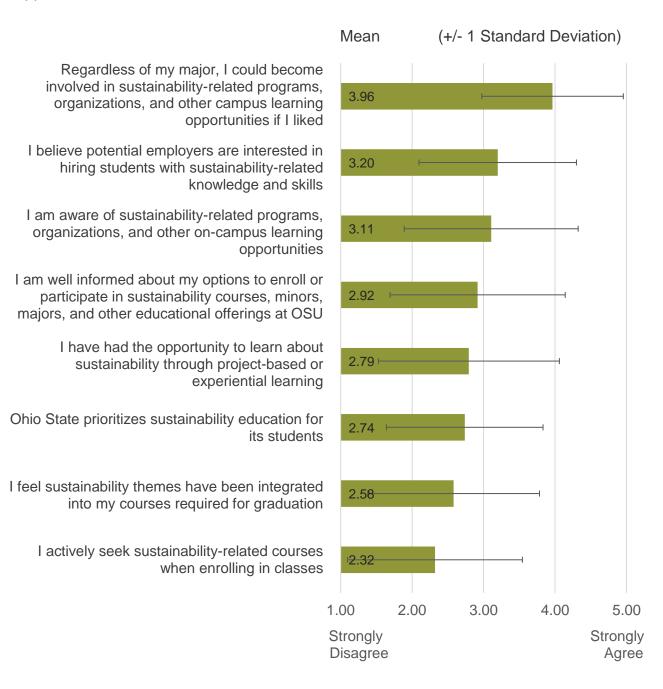
Section 5: Sustainability Curriculum Development

Lastly, the survey included items designed to inform sustainability curriculum development at Ohio State. These items included having students rate their interest in different kinds of sustainability courses, their current and desired involvement in sustainability-related learning opportunities, and how many sustainability-related classes they would want to complete as part of their undergraduate education. These items were largely self-generated, and we will review them section-by-section in the next pages. (Full results, including several qualitative items not reported here, were given to the Sustainability Education and Learning Committee for their decision-making process in expanding sustainability-related programs and modules at Ohio State).

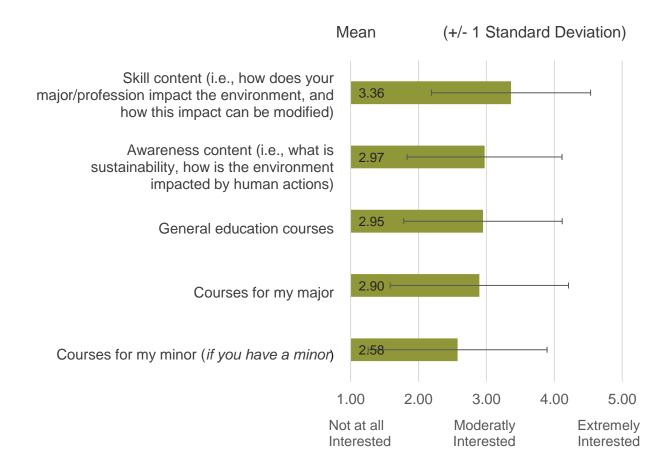
To begin, students were asked: "<u>How many sustainability-related courses would</u> <u>you want to complete as a part of your undergraduate studies?</u>" The most common responses to this question was "One" (39.6%) or "Two" courses (27.1%). (N = 2147).



Students were then asked to rate their agreement with eight different items related to sustainability education on a 1-5 "strongly disagree" to "strongly agree" scale. See the graph below for average scores per item (including means, within bars, and standard deviations). Some notable trends in this data are how highly students agree that sustainability opportunities are available on campus, although they generally do not feel as well-informed about specific programs, courses, and professional opportunities.

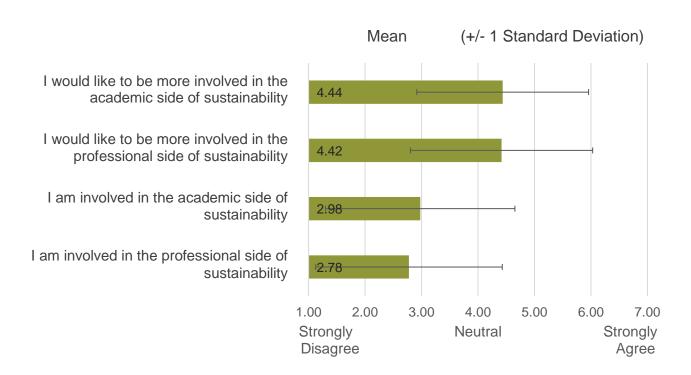


Students were also asked to rate their interest with five different kinds of sustainability courses or content at Ohio State on a 1-5 "not at all interested" to "extremely interested" scale. See the graph below for average scores per item (including means – within bars, and standard deviations):



What can be observed in this data is that there seems to be a moderate amount of interest for a variety of sustainability classes, including those with skills or awareness-type content, general education courses, and major-based courses. Of these, there seems to be a slightly higher demand for skills-type sustainability content compared to awareness-based content, and less interest for minor-based courses compared to courses for majors or general education requirements.

Lastly, students were asked to rate their agreement with four items related to their amount of current and desired involvement in the academic (i.e. through taking sustainability courses and pursuing sustainability-related research opportunities) and professional sides of sustainability (i.e. pursuing sustainability-related internships, volunteer opportunities, and student organization involvement or leadership) on a 7-point scale of "strongly disagree" to "strongly agree". See the graph below for average scores per item (including means, within bars, and standard deviations):



On average, students seem to particularly agree with the statement that they would like to become more involved in the academic and research side of sustainability, and were equally as interested in becoming more involved in the professional side of sustainability. Meanwhile, the majority of students disagreed that they were currently involved in academic or personally-related sustainability opportunities, pointing to a potential gap and opportunity area: providing more numerous and easily available academic and professional opportunities for students related to sustainability at Ohio State.

Section 6: Next Steps and Acknowledgements

Next steps: Currently plans are in place repeat the campus sustainability survey in 2019 and proceeding years; replicating longitudinal items with a panel sample of Undergraduate students and adapting new sections for Faculty research and data-collection for campus partners. Discussions are also underway to potentially expand this data-collection effort to faculty and staff to improve Ohio State's AASHE STARS scoring, and/or other Ohio State campuses to improve the reach of our findings.

In future years the Environmental and Social Sustainability Lab will continue working with diverse campus partners to inform progress towards sustainability and the results of related efforts on campus. Our goal is that this survey will provide high-quality social scientific data of use to both academic researchers and the broader campus sustainability community for years to come.

Acknowledgements: We would like to thank the Sustainability Institute and the Office of Student Life for helping to fund this initiative through staff resources and survey incentives. We would also like to thank these and our other campus partners in Facilities Operations and Development, the Center for the Study of Student Life, and the ENGIE Ohio State Energy Partners for their consultation and participation in this survey effort.

Contact us: If you are interested in becoming involved in this effort at Ohio State, or are interested in using our data for educational or research purposes please contact us at ESSL@osu.edu. A report on these findings, as well as a codebook of the items used, can be found on our website at https://ess.osu.edu/campus-sustainability-survey.

References

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