

University of Cincinnati Sustainability Literacy and Culture Surveys

Beginning in 2017, the University of Cincinnati began tracking student and employee knowledge, perceptions, attitudes and behaviors related to sustainability via surveys. The first of what are expected to be biennial follow-up assessments was administered in 2019. The goal of this longitudinal effort is to be able to gauge the visibility and effectiveness of UC's sustainability education and engagement efforts, in order to refine and improve upon them. What follows is an overview and comparison of the 2017 and 2019 lessons learned.

Survey Instrument and Distribution

A combined survey instrument to assess sustainability "literacy" and sustainability "culture" on the UC campus was developed in 2017. The Office of sustainability collected examples of survey instruments being used by other schools used for these purposes, including the Ohio state University and the University of Maryland, with their Assessing Sustainability Knowledge (ASK) instrument; the annual survey American University conducts, and others. These instruments were adapted by UC's Office of Sustainability, in cooperation with the UC Institutional Research office.

Of a total of fifteen content-directed questions, six were designed to evaluate respondents' knowledge and "literacy" regarding sustainability issues, with multiple choice and true/false questions that include the following:

- "Sustainable development" can be described as (multiple choice)?
- Which of the following is a greenhouse gas (multiple choice)?
- Approximately what is the world's population (multiple choice)?
- Fossil fuels (coal, oil, natural gas) contribute to climate change (true or false)?
- Environmental Justice deals with how people of color and minority groups are often disproportionately burdened by negative environmental externalities (side effects or unintended consequences) (true or false)?
- In the US, approximately how much food is wasted?

Another nine questions seek to provide insight into the ways that respondents experience sustainability as part of UC's culture, as well as the ways in which their own attitudes, values, and behaviors shape that culture. Those questions include:

- How do you feel about sustainability efforts on campus (they are great/fine/terrible; don't care; not aware)?
- How would you rate your feelings on environmental issues (they are very/somewhat/ not important)?
- Climate change is something I feel (very/somewhat/not) concerned about?
- What is your main mode of transport to campus (SOV/walk/bus/shuttle/carpool /bike/scooter/other)?

- Do you recycle (at home/on campus/neither/both)?
- Rank campus sustainability issues in order of importance to you (plastics reduction/green space/local organic food/edible landscaping/expand bikeshare)?
- Level of support for campus plastic bag ban
- Level of support for campus plastic bottle ban
- Level of support for more local and/or organic food in dining halls

In both 2017 and 2019, the survey was distributed, vis Qualtrics, to all students, staff and faculty. However, the 2017 version garnered only 155 responses. This limited sample did not seem likely to offer an accurate representation of the UC Campus community; therefore in 2019 the Office of Sustainability worked with the University’s departments of Institutional Research and Communications to determine more effective options for sharing the survey, with the goal of increasing response rates. Ultimately, a unique listerv group that included all full-time students, staff, and faculty on the Uptown campus was created, and in 2019 the survey was disseminated to 26,000 students and 8,700 faculty and staff. This altered approach resulted in 1,533 responses – a tenfold increase in response rate. Slightly more than half of the respondents were students (51%); a third were staff (34%); the rest (15%) were faculty.

Findings and Trends: Sustainability Literacy

In general, both sets of the survey results (i.e. 2017 and 2019 results) paint a picture of a campus community at UC that is fairly knowledgeable about sustainability. All of the knowledge-based questions were answered accurately by high percentages of respondents. The questions that seemed the most challenging were about the definition of environmental justice and food waste volumes; those focused on sustainable development, climate change and population had very high rates of accurate responses.

The percentage of correct answers for the environmental literacy questions went down slightly in the second survey.

<u>Question</u>	<u>2017</u>	<u>2019</u>
Sustainable development can be described as...	87.3%	84.8%
Which of the following is a GHG?	96.1%	94.8%
Approximately what is the world’s population?	85.3%	80.9%
Fossil fuels contribute to climate change (True or false)	95.5%	95.6%
In the U.S. approximately how much food is wasted?	83.1%	59.7%

While this variation *could* reflect an actual, if slight, reduction in the sustainability literacy of UC’s students (and/or staff and faculty) in the period between 2017 and 2019, it seems equally likely that the explanation is simply the larger number of responses. If in 2017 a self-selection phenomenon was occurring which caused the survey results to be reflective of a highly select group on campus who cared deeply about sustainability issues (thus making them more motivated to respond to a survey on the subject), the larger sample size in 2019 might be a more accurate “baseline” assessment of the sustainability literacy of UC’s general population.

Findings and Trends: sustainability Culture

Both iterations of the campus sustainability culture survey demonstrate that UC students, staff and faculty are deeply aware of and concerned about sustainability issues. For example, the vast majority of respondents to the survey, when asked “How would you rate your feelings about environmental issues and sustainability?”, responded “They are critical issues that we must face”. However, there was a bit of a gap between that sentiment and the level of awareness or investment in campus sustainability: in response to the question “How do you feel about sustainability efforts n campus”, 46% choose the response “They are fine”, 27.5% chose “I’m not aware” and 20% chose “They are terrible”. It is unclear whether these responses are indicative of a desire for more sustainability programming or expressing ambivalence regarding the value of these programs.

There was little evidence of a change in the level of sustainability interest and concern in the two years between surveys. The only of these questions that received meaningful different response was “What is your main mode of transportation to campus?” In 2017 the highest response was “walk”, while in 2019 the highest response was “drive your car alone”. Again, this could be attributed to a shift in the number and proportion of survey responders, instead of an actual shift in commuting patterns. Mostly student walk to campus while more faculty and staff drive, thus it may be that more students took the survey in 2017 than in 2019.

Survey Limitations & Next Steps

The question about respondents’ feelings regarding sustainability efforts at UC was potentially the most telling, but also the most confusing. Future iterations of the survey will likely revise the wording of that question to enhance clarity. As encouraging as the increase in response rate between the 2017 and 2019 surveys was, the 2019 response data still only represents fewer than 5% of UC’s full-time staff members, faculty members and students; this does not constitute an ideal or actionable response rate. For UC’s Sustainability Office, continuing to find ways to increase the response rate for the next survey in 2021 will be a priority.

Furthermore, 2017 the survey did not ask respondents to indicate their role (i.e. staff, faculty or student) and neither asked them about their length of time at UC—making it difficult to glean insight into changes over time regarding students’ sustainability literacy level or trends, which is requested by the AASHE STARS program of which UC is a participant. Future iterations of the survey will therefore have an added question asking respondents not only to state their primary role on campus, and how long they have been at UC, to help the Sustainability Office better track its success, and develop further programs and resources for specific stakeholder groups to improve sustainability outcomes on campus.