



2021 Campus Race to Zero Waste Case Study Competition

Ohio State University

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2. Focus of Case study

Ohio State implemented a Zero Waste Drop-Off Station to provide students living off-campus with access to free recycling and composting.

3. Detailed description of campaign or effort:

Life as a college student looked very different during the COVID-19 pandemic, resulting in many students spending more time in their residences than on campus. For upper-level students living off-campus, this meant losing the ability to participate in sustainability initiatives like recycling and composting that are conducted at The Ohio State University, because these services typically are not available to residents in off-campus multi-family housing units.

Two student organizations (Sustainability in Medicine (SIM) and the College of Food, Agricultural, and Environmental Sciences (CFAES)) presented ideas to Ohio State's Facilities Operations and Development (FOD) for improving how the university could support waste minimization for students living off-campus.

FOD assisted the organizations with launching a Zero Waste Drop-Off Station so students living off-campus could have access to recycling and composting. Five-gallon buckets were provided to students who opted in to the program for free.

Approximately 150 households (110 from SIM, 40 from CFAES) participate in the program which launched in January 2021. The program collects approximately 500 pounds of recycling and 1 ton of composting weekly.

For purposes of this case study, only SIM's planning steps will be outlined, but there were two similar pilot programs developed concurrently with SIM and CFAES which both use the same drop-off site.

SIM promoted and managed recruitment for the pilot program, as well as developed and presented an educational kick-off training webinar and a quiz which participants were required to complete before picking up their bucket.

As a university, our goal is to foster a campus-to-community, students-to-alumni culture of sustainability-oriented practices and educational and research experiences that students and alumni transfer into local and global communities. The Zero Waste Drop-Off Station is a program that bridges the sustainability practices students learn on campus with their lives in the local community outside of Ohio State.

4. Planning steps & timeline to implement:

- **October 2020:**

- Sustainability in Medicine (SIM) contacted FOD to relay that through an organizational poll, approximately 100 members indicated interest in participating in a composting program and that 95% of the interested members had a personal vehicle to transport compost generated at their off-campus residences to a drop-off site. SIM requested a conference call to discuss ideas to make composting accessible to their members.

- **November 2020:**

- A conference call was held with representatives from SIM, FOD, The Ohio State Wexner Medical Center (OSUWMC), and the Sustainability Institute to discuss SIM's vision for the program and options for how the university could support them.
- SIM's original plans were to use a private company to provide composting services to students; the original request to FOD was only to provide space for the private company to set up a collection site. Using this model, students would have been required to pay approximately \$5 per month to participate. Additionally, the original plan was to host a compost drop-off, which later evolved to also include a recycling drop-off.
- FOD already had trucks and labor to collect compost as well as a contract for compost processing services, so FOD offered to support the students by purchasing the organics collection buckets, finding an appropriate location for the site, assisting with bucket distribution, and providing the compost service at no charge to students.
- FOD requested that SIM reach out to their membership base and conduct an official program sign-up to obtain a final participant headcount.

- **December 2020:**

- SIM enlisted the help of another student organization to help promote the opportunity and gather additional sign-ups from students in similar fields of study who may not be a SIM member. The organization that assisted SIM is the Inter-Professional Council, or IPC, which is the official student government of the six Professional Colleges of Dentistry, Law, Medicine, Optometry, Pharmacy, and Veterinary Medicine.
- IPC sent an email to its student members announcing the free program and providing a link to sign up. The sign-up forms were created using Google Forms.

- Using the headcount from SIM's and IPC's sign-up forms, FOD ordered 5-gallon buckets and lids for all participants, plus approximately 50 extra buckets in case more students decided to opt-in to the program at a later date.
 - A strategy for distributing buckets to program participants was discussed. Since many student meeting locations were closed due to COVID-19, SIM did not have a place to store the buckets. FOD offered to store and distribute buckets to students from their office.
 - SIM students designed sticker labels for compost buckets and placed an order for the stickers to be produced.
 - FOD selected a site to place the drop-off and obtained approval from university leadership to operate a drop-off at the site. The site selected is adjacent to the dock of an unused university building. Because the building is not in use, there is no traffic congestion in this area and it is safe for students to access.
- **January 2021:**
 - SIM representatives inquired whether the compost drop-off site could also include access to recycling. FOD thought this was a fantastic idea, as many students living off-campus in multi-family housing units do not have access to curbside recycling, which is typically only available to residents in single-family housing units in the City of Columbus and its suburbs.
 - A kick-off training webinar was held by SIM to educate participants on which materials are acceptable and which materials are not acceptable in the compost and recycling containers. A post webinar "knowledge check" quiz was sent to each student. Before picking up their buckets, students were required to attend the training and complete the knowledge check.
 - Sticker labels were delivered to SIM. Labels were dropped off to FOD where they were affixed to buckets.
 - Prior to the first day of bucket distribution, FOD set up the Zero Waste Drop-Off, which included a 45-gallon cart for composting and a 96-gallon cart for recycling. Carts were labeled "Recycling" or "Composting".
 - FOD added the recycling cart to the weekly rear load recycling collection route and the compost cart to the weekly compost collection route.
 - Bucket distribution was scheduled for two weeks following the training webinar. During the two-week period, students were able to pick up a bucket, lid, and informational welcome guide during business hours at FOD's office.
 - Halfway through the bucket pick-up period, SIM sent a reminder to those who signed up to pick-up their buckets before the deadline.
 - When students arrived to pick-up their buckets, they were asked to sign the pick-up log so SIM could keep track of how many students received their buckets.
 - Bucket pick-ups were scheduled to end a few days before the Campus Race to Zero Waste Competition was set to begin, so all participants had the tools and information needed to participate in the Zero Waste Drop-Off program beginning January 31, 2021.
 - During the first week of operation, FOD performed frequent checks of the contents of the containers to assess contamination levels. FOD also checked the fullness of the containers to determine whether the site's capacity was adequate to support the number of users.
 - Additional carts were added weekly to keep up with the growing volume of composting and recycling brought to the site.

- **February 2021:**
 - The volume of recyclables collected at the site exceeded FOD's estimates, and the decision was made to replace several 96-gallon recycling carts with one 10-yard recycling dumpster.
 - By February, the Zero Waste Drop-Off consisted of five 45-gallon composting carts and one 10-cubic yard recycling dumpster.

- **February 2021 - Present:**
 - FOD continues to service this site weekly.

5. Resources and stakeholders involved

SIM's project idea was supported by Ohio State's Sustainability Institute, the Ohio State University Wexner Medical Center (OSUWMC), and Facilities Operations and Development (FOD) which participated in planning calls. IPC assisted SIM by creating a sign-up form and promoting the opportunity to participate with their members.

SIM representatives volunteered time to design and conduct membership polls, promote the program, gather sign-ups, develop and present a training webinar, and communicate with participants. A SIM member designed the sticker label for the buckets and used approximately \$194 of organizational funding to produce the stickers.

FOD purchased one hundred-fifty buckets and lids for a total of \$696 using grant funding provided by the President and Provost's Council on Sustainability (PPCS). FOD provided in-kind services, which included assistance distributing buckets to students, weekly exchange of compost carts, transportation of full compost carts to a centralized location where they are collected by a private company, weekly collection of recycling from the drop-off site, and labor/hauling costs to transport recycling to the Material Recovery Facility (MRF). Ohio State owns the 96-gallon carts originally used for recycling and the 10-cubic yard recycling dumpster that eventually replaced the 96-gallon carts. The composting carts used at the drop-off are loaned to the university for no charge by the compost processing company.

The operational fees that FOD cover include the MRF's recycling processing fees of \$35 per ton and the hauler/Registered Compost Facility operator's compost processing fees of approximately \$20 per cart. Each month, the Zero Waste Drop-Off costs approximately \$435 to operate, excluding staff labor.

6. Describe the Results of this campaign component

- a. General results (*ex: attracted attention of campus president, campus paper did a news story on the event, etc.*)

The success of the Zero Waste Drop-Off Station has gained the attention of staff sustainability advocates at the OSUWMC. OSUWMC has expressed interest in piloting a similar program at its East Hospital as a perk for staff. The placement of compost bins would provide a pathway for the hospital's Nutrition Services to begin composting in back-of-house kitchen operations. As of May 2021, a kick-off planning call was held with FOD and OSUWMC. The planning team is currently in the process of identifying viable locations to operate the drop-off.

FOD leadership, also pleased with the success of the site, communicated willingness to support an expansion of the program to serve more students living off-campus. FOD established a working committee with internal partners from Student Life as well as external partners from a local government agency that aims to reduce reliance on landfills to begin planning for two additional Zero Waste Drop-Offs. The government agency assisted FOD by

providing guidance and best practices for operating community recycling and organics drop-offs. Ohio State's internal partners have identified several potential sites. As of May 2021, the group is working to obtain permission to use the various sites identified and anticipates that the two additional drop-offs will be ready to operate by Fall Semester (August 2021) when students return to school.

- b. Specific measurable impact figures, if applicable (*Ex: Reduced contamination rate 13%, Gathered 316 pledges to recycle more, etc., 250 people engaged, etc.*)

The Zero Waste Drop-Off Station provides approximately 150 student households with access to recycling and composting for no charge. The site collects approximately 500 pounds of recycling and 1 ton of composting each week, or approximately 1 ton of recycling and 4 tons of composting each month. If the site continues to collect this volume of materials for the remainder of the year, the site will be on track to collect approximately 65 tons annually.

7. What would you do differently in the future?

This program was originally intended to be a pilot program, but because of the consistently high volume of materials collected and negligible contamination, FOD made a decision to continue hosting the site. Since this program was a pilot when planning was initially conducted, a succession plan was not developed. As students in the original pilot group graduate and move away from the campus area, the number of participants will dwindle. Ohio State needs to continue its work with SIM and IPC to maintain this program. Ongoing efforts will likely involve conducting a sign-up period and providing access to an educational webinar and knowledge check each semester for new participants.

8. What advice would you give to another college that wanted to do a similar effort?

Many students prefer working with and learning from their peers versus staff at the university. Students' voices were very central to the success of this project. While FOD staff made sure SIM representatives had the tools necessary to make the program a success, staff gave the students the space they needed to make this project "theirs." If another school is interested in implementing this model, finding a student organization to be the champion of the program and present the trainings will likely result in more engagement and participation than if the figure head is a member of staff. This program is an excellent opportunity to create a partnership with a student organization.

Ensure that students who sign-up for the program provide a valid e-mail address. Creating an email list of program participants will give the program manager the ability to easily send updates, address issues regarding contamination, or share other important information.

Most students did not mind periodically rinsing their buckets, but other students were interested in using compostable liners to keep buckets mess-free. Provide participants with information on where to purchase compostable liners locally and online.

Based on the location of a Zero Waste Drop-Off, there may be additional factors that need consideration. For example, if the drop-off is located in a high-traffic area where passersby may use the bins to discard trash, or in an

area with a high presence of wildlife, it may be necessary to install lid locks on the carts to detour unauthorized use.

Educational signage at the drop-off, on the collection containers, and on the buckets serve as helpful reminders to participants about what is and is not accepted in the compost and recycling containers.

Five-gallon buckets were the least costly option to provide during the pilot program. However, different style compost collection buckets with a hinge-style lid may provide a more user-friendly experience. Ohio State is investigating alternative styles of collection containers to provide next semester.

9. Photos and Graphics

The following photos show an example of the buckets and labels distributed to students who opted in to the program.



The following photos show the bucket distribution system, where students signed out a welcome package, which included a 5-gallon bucket, label, lid, and welcome guide.



The following photos show the Zero Waste Drop-Off Station:

