



2023 Campus Race to Zero Waste Case Study Cal Poly Humboldt

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Focus of Case study:

Weigh the Waste is an educational program that focuses on achieving food waste reductions in Cal Poly Humboldt campus dining halls.

Detailed description of campaign or effort:

Weigh the Waste is a campaign that aims to collect qualitative and quantitative data about consumer food waste behaviors and perspectives in the Cal Poly Humboldt J dining hall while also coaching participants on the broader theme of food waste. This initiative has been ongoing since 2018 at Cal Poly Humboldt and has gained considerable momentum this past academic year as new changes were implemented.

The way the program works is to engage diners on the theme of food waste near the exits to the Dining Hall. Green Campus (a student group composed of sustainability peer educators) sets up a table from which to approach diners in four main categories:

- a) gather *quantitative measurements* regarding the amount of uneaten food remaining on their plate and is destined to be 'wasted'; (food is measured by weight in oz with a food scale),
- b) garner insight as to *why* the diner had food remaining on their plate uneaten,
- c) *educate* diners about global food waste trends, processes, and ways to reduce it at the household level
- d) share perspectives and opinions on how *positive change could be made* to reduce food waste at an institutional level.

The team of student assistants then share findings from these events with Dining staff at the end of each semester, so that the team may collaboratively reflect on whether food waste trends are increasing or decreasing, and may consider changes, education, and incentives that would lower food waste rates among diners in future semesters.

In the 2022-2023 Academic year, Green Campus student assistants improved the existing Weigh the Waste program by implementing new changes. The main changes focused on incorporating more educational components rather than solely collecting data from diners. The Green Campus team created and printed infographics of food waste trends globally and within the campus for diners to read. The team also developed an educational game where participants could spin a wheel and answer food waste related questions for a prize.

Lastly, the team created a google form volunteer sign-up sheet with an accompanying flier, encouraging diners to assist with future Weigh the Waste events and gain agency in the process.

Planning steps & timeline to implement:

During AY 22-23, Weigh the Waste was planned on a monthly rotation, with one event hosted on the last Tuesday of every month during academic semesters.

- Discuss functions of upcoming Weigh the Waste (WTW) event at Green Campus Team Meeting in advance of the event
- Outreach about Weigh the Waste before and during event
 - Post flyers in dining hall prior to event; include volunteer sign up sheet
 - Post reminders about WTW on Instagram story prior to event
 - Post live photos on Instagram during event
- Collect materials from office an hour before the event
 - Materials include: food scale, spin the wheel device, Q&A sheet (factoids about food waste trends), prizes, table cloth, Weigh the Waste banner for table, two computers, two large salad bowls, printed infographics showing trends from past events, flyers for upcoming Green Campus events and activities
- Set up table 30 mins before start time; split table into halves such that weigh station takes up half the space and education/prizes take up half the space
- Collect materials from Dining team
 - Materials include: compost bucket, two serving spoons, nitrile gloves, table, chairs
- Students working event choose a role that they would like to fulfill
 - Roles include: greeting diners, weighing food waste with scale, recording quantitative data, recording qualitative data, keeping tallies of diners, and educating peers through games and infographics
- Students table for three hours from 5pm-8pm
 - Record qualitative data into a Google sheet; data points include:
 - Type of food left uneaten on each participants' plate
 - Feedback from participants on why they had food waste
 - Feedback from participants on institutional changes that could be implemented to reduce consumer food waste
 - Record quantitative data into a google sheet; data points include
 - Amount of uneaten food remaining on each participants plate (ounces)
 - Summative number of participants with food waste throughout the event
 - Number of diners taking home leftovers (with reusable containers/OZZI)
 - Number diners who declined to participate
 - Number of diners with no food waste
 - Educate participants on food waste reduction
 - Infographics with larger food waste trends and tips for reduction
 - Infographics with prior Weigh the Waste trends and patterns
 - Spin the wheel with food waste related Q & A to win a prize
- Clean up table after event is finished, return materials to office the next morning
- Analyze the quantitative and qualitative data recorded from the events
 - Compare data from all events
 - Note trends and changes
- Share findings with Dining in a team presentation, receive feedback and make iterative improvements
- Share findings with students at future WTW events through infographics

Resources and stakeholders involved:

In the 2022-2023 Academic Year, student assistants of the Sustainability Office (a.k.a. Green Campus) worked closely with the Cal Poly Humboldt Dining team to implement the Weigh the Waste events. The student assistants, composed of six individuals in the Spring 2023, tabled the event and gathered volunteers to assist in various roles when needed. Roughly half of the group were paid for their time, with the event being part of their job as students assistants to the Sustainability Office, and the other half served as volunteers who were either earning course credit, fulfilling internships, or simply garnering training and green jobs experience.

At Weigh the Waste events in the 22-23 Academic Year, student assistants and volunteers utilized two big salad bowls in which to scrape food waste and one food scale with which to weigh food material, all of which had been donated and collected in prior years of the program. Students working the event brought personal mobile devices to record quantitative and qualitative data. The Cal Poly Humboldt Dining Services team provided Green Campus with a location, tables, chairs, two serving spoons, gloves, and a bin for the food waste to be collected in. Food waste collected was gathered by Dining and transported to the 'BioBin' on campus before being sent to the Local Worm Guy for vermiculture processing. Green Campus, supported by the Sustainability Office, also printed infographics and posters to outreach on the importance of reducing food waste.

To increase participant engagement, the Sustainability office provided Green Campus with a spin-the-wheel that the assistants utilized to ask questions based on global food waste trends and individual behaviors. This was an item that the Sustainability Office already had on hand from prior year events and activities. When diners participated in the educational game, they would receive a prize provided by the Cal Poly Humboldt Dining team. Prizes included small items like reusable bags, reusable mugs, compostable pens, notepads, foldable frisbees, and hand sanitizers.

Describe the Results of this campaign component:

General results:

Green Campus has collected data for the Weigh the Waste events since 2018. Consistency in data collection seems to have improved over the years, with more effort being made in 2022-2023 to digitize findings and use consistent methodologies. Previous years used varying locations and times of day for the data collection, whereas the data since 2022 has been in the same location at the same time (last Tuesday of every month from 5pm to 8pm).

In Spring 2023, Green Campus focused on increasing engagement through educational opportunities. The addition of a spin-the-wheel game helped participants feel more inclined to participate in the event. One anecdotal finding was that toward the end of the Spring 2023 semester, more participants anticipated the process of food waste data collection and proudly declared they had no food waste.

Specific measurable impact:

In Spring 2022, Cal Poly Humboldt hired a new food vendor (Chartwells) and data from Weigh the Waste shows a continuous decrease in average food waste per individual (Spring 2022: average of 0.457 lbs. per participant, Fall

2022: average of 0.288 lbs. per participant, Spring 2023: average of 0.275 lbs. per participant).¹ Individuals with no food remaining increased over the year and by the end of Spring 2023, nearly half of all participants had zero food waste (Fall 2022: 44.6% of participants had zero food waste left on their plate, compared to Spring 2023, 47.3% had zero food waste left on their plate). During Spring 2023, there was one event where the food was solely self-serve, whereas in the other events, Dining employees served the students their portions. The event that was self-serve had less food waste on average compared to three other staff serve events (Self-serve: 0.261 pounds per participant, Staff-serve: 0.28 pounds per participant).

What would you do differently in the future?

In future years, Green Campus hopes to further improve communication and coordination with Dining. One example would be to work closer with the Dining team to implement frequent self-serve meals. The team noticed a trend of decreased food waste in the Spring 2023 semester with a singular self-serve event but would like to collect more data to confirm this result. In another example, the team would like to get the total number of meal swipes during any given WTW event from Dining, as the team could calculate more accurately the number of people who choose to not participate in the event with this information and could calculate average food waste per person more accurately. Green Campus would also like to have Dining collect and measure the total food waste that occurred during an event (at this time, Green Campus currently only measures the amount of food waste from diners who volunteer to participate; this misses the volume and weight of food waste from folks who choose not to participate). An overall improvement to communication and planning with Dining would be to have the WTW event plan transmitted to the full Dining staff team working on the day of the event in advance of implementation. The hope for continuing to improve communication with Dining would be to test the impact of iterative improvement.

In addition, Green Campus would like to add more engagement at the entrance of the Dining Hall so diners think about food waste before being served. They would also like to analyze how to further improve engagement in a way that encourages participation while minimizing feelings of shame in those who have food waste left on their plates.

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

- **Training:** Create a clear and consistent training guide for Weigh the Waste events, as it is helpful to show new assistants/volunteers how the events work and to clearly explain the function of each role in advance of arrival at the event. This way everyone is in agreement on how to correctly record data and engage with the diners.
- **Engagement:** It is important to approach the participants in a way that is fun and engaging for both parties. The point of the campaign is to educate the diners and encourage them to have agency in reducing food waste, so using strategic language to avoid making them feel shameful for having food waste is crucial. Implementing an educational game and infographics for the participants to read while waiting increased engagement.
- **Volunteer recruitment:** Create a volunteer sign up sheet if your team needs more assistance with running the event. This is a great way for participants to have first hand experience with educating and impacting

¹ The average weight of food waste per participant has been calculated by using information only from the people who volunteered to have their food waste measured. It is not normalized to include diners who declined to participate. If Dining were to provide the total number of card swipes and the total amount of food waste from the meal (i.e. add in data from diners who declined to participate in the program), averages would be different.

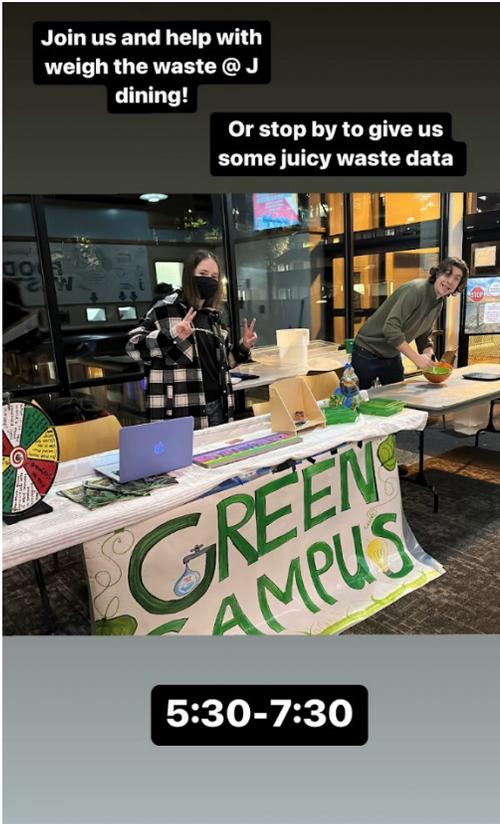
their peers. It is important to strike a balance between having too many people working the event (too large a group may intimidate some diners) versus having too few people working the event (too small a group makes it difficult to both collect data AND engage people in the education side of the campaign). Green Campus found that having a volunteer team of six people was the most effective.

- Prizes: It is helpful to have prizes to incentivize diners for taking part in the campaign whether that be by providing quantitative data, qualitative data, and/or learning about food waste through educational games and infographics. Instead of purchasing prizes, ask campus departments if they have any prizes to donate. The Sustainability Office, Dining team, and Dean of Students office donated all of the prizes that we used in the 22-23 academic year. The Sustainability Office also tries to encourage prizes that are zero waste, experiential or service based, and/or that do not further a culture of one-use consumerism. This is an effort to make all prizes useful and functional, select prizes that have a long life time, and demonstrate opportunities for circular and cradle-to-cradle systems.
- Data: Creating a digital Excel sheet template to record qualitative and quantitative data is useful for organization. Reusing the same template at each event allows for consistency of data and makes the analysis process simpler. It is also helpful for future assistants to locate all the data in one solidified place to make sure no data is lost.

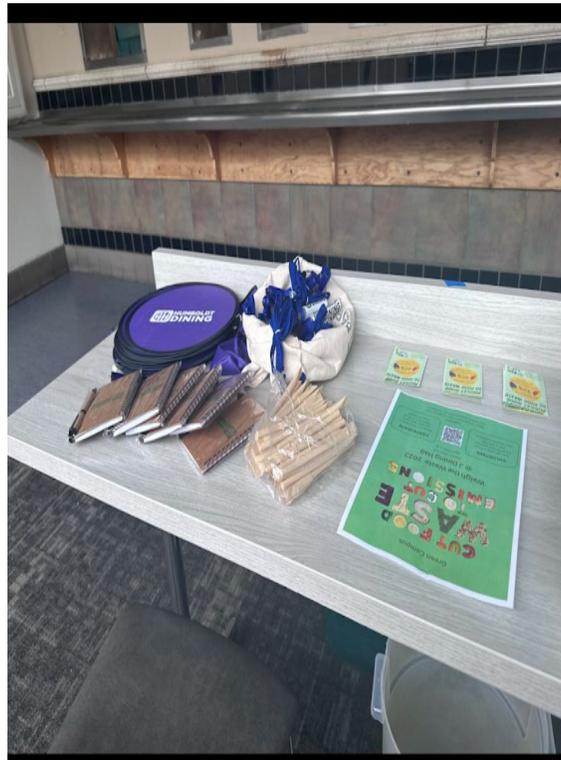
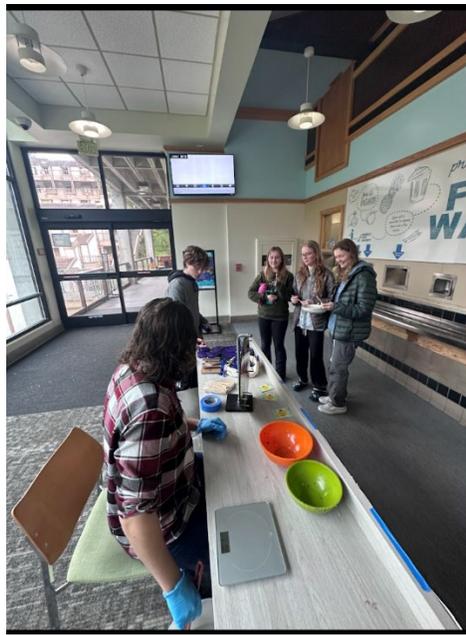
Photos and Graphics:

All photos and graphics were taken by and are the property of Green Campus student assistants.





Four photos above were used as live stories posted to the Green Campus Instagram, before WTW event



Photos above show various elements of the event in action, along with prize table (bottom right).



Figure 1. Photo depicts initial setup with emphasis on the weigh station, less so on education and spin-the-wheel activities



Figure 2. Photo depicts how setup was reworked for Spring 2023, with greater emphasis on education and conversation



Figure 3. Instagram post explaining Weigh the Waste



Figure 4. Created and printed flyer for more engagement