



WPI's 2023 CR2ZW Case Study

Food Waste Reduction Education & Awareness Campaign

Contact info:

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Focus of Case study:

Project Zero Waste is a campaign meant to raise awareness of food waste in WPI's main dining hall as well as catalog the waste produced.

Detailed description of campaign or effort:

The *Project Zero Waste* initiative at WPI began several years ago under a different name - *Project Clean Plate*. The initiative was put on hold during covid-19, and was brought back last year under its new name. This change in name was an attempt to remove the idea that students need to finish all of their food, but rather encourage students to consider the waste before taking excess. Volunteers from the Green Team, a university student group focused on advancing sustainability, set up a table in the exit area from the dining hall every Wednesday from 11am until 2pm. This initiative is a collaboration with WPI Dining Services (Chartwells), who also participates in their own waste reduction initiatives, *Waste Not* and *Stop Food Waste*. The Green Team and Dining Services both post about the event on social media during its launch, and occasionally throughout the year. For the tabling event, Dining Services provides a scale and several buckets, and the Green Team volunteers at the table to take measurements. The normal disposal areas for food waste are blocked and the students' waste is redirected to the buckets at the table. When a bucket is full, it is weighed and then handed off to dining crews for disposal of the contents. All of our food waste goes to collection bins that are then picked up by a local farm for animal feed. As the day goes on, the measurements are tallied and added and the number of takeout containers is noted. After three hours, the blockages on the disposal were removed and the table setup was dismantled. The data collected was used to measure larger trends in student food waste over time, both to measure waste produced and to measure whether or not the campaign's efforts were making an impact on the total amount of food waste. This year, the campaign started in the fall of 2022 and continued on until the end of the school year in the spring of 2023, including several of the weeks of Campus Race to Zero Waste event. The concept of this program is to raise awareness about the quantity of food waste that is produced and encourage students to waste less when possible.

Planning steps & timeline to implement:

- The Green Team appointed a member to be head of the Waste Management (WM) subcommittee in the spring of 2022 (**elections are held annually**)
 - The Green Team WM rep is the liaison between students and WPI Dining Services (Chartwells)
- A planning meeting with Green Team and Dining Services occurred in spring semester of 2022 (**03/22**)
- In the first week of the fall semester, WM rep coordinated dates and times for sessions with Dining Services and prepped materials (**08/24/22 - 8/31/22**)

- Decided on Wednesdays during lunch every week of the semester (excluding finals weeks and break weeks)
- Green Team PR Chair created marketing materials and posted on Green Team Instagram and other socials
- Dining Services rep posted on the WPI Eats Instagram page
- Office of Sustainability re-posts and shared social media on its own page
- GT and Dining Services posted flyers in and around the Morgan Dining Hall
- GT gathered materials - bucket and scale - from Dining Services
- The GT was ready to begin the program in the 3rd week of the fall semester (**9/7/22**) and again at the start of the spring semester (**1/18/23**)
- During Campus Race to Zero Waste, Green Team teamed up with **WasteWorks**, a student group that creates art out of waste, to provide “swag” for any students that exited the dining hall with no food waste (**2/8/22 & 2/15/22**)

Resources and stakeholders involved:

- **Green Team** - primary group organizing and volunteering their time for this effort
- **WPI Dining Services (Chartwells)** - provides support and coordination with the Green Team, as well as materials
- **Office of Sustainability** - provides support and shares information about the initiative
- **Budget:** minimal funds required to run event, materials sourced in-house
- **Resources:** scale, food waste bucket, table/chairs, signage

General results:

The results of this initiative are mixed, and it is hard to draw conclusive evidence from the food waste tracked. In the fall semester, there were significant changes in food waste per student in week 2, but the numbers afterwards remained relatively consistent, bouncing up and down from week-to-week. It can be speculated that there may have been some initial response from students after the first week of the event, but that the food waste generated was more likely related to the types of foods that were cooked each week and the level to which the students enjoyed them.

In the spring semester, there was no correlation or reduction in food waste at all. It is possible that students were no longer engaged in this initiative and had grown tired of seeing the Green Team waste table in the dining hall each week. On the contrary, it may have nothing to do with those efforts and was purely a result of the types of foods that were cooked on a given day.

This initiative also resulted in mixed feedback from the student body. Although many students are in support of the general idea of food waste reduction, many didn't love the Wednesday lunches when they had to get their food waste weighed. There are several valid concerns for why students were opposed to this idea, which has been taken into consideration in the ***“What advice would you give to another college that wanted to do a similar effort?”*** section.

A final consideration is that this event exclusively took place on Wednesdays during the lunch service, which is a small window into the food waste habits of students across campus.

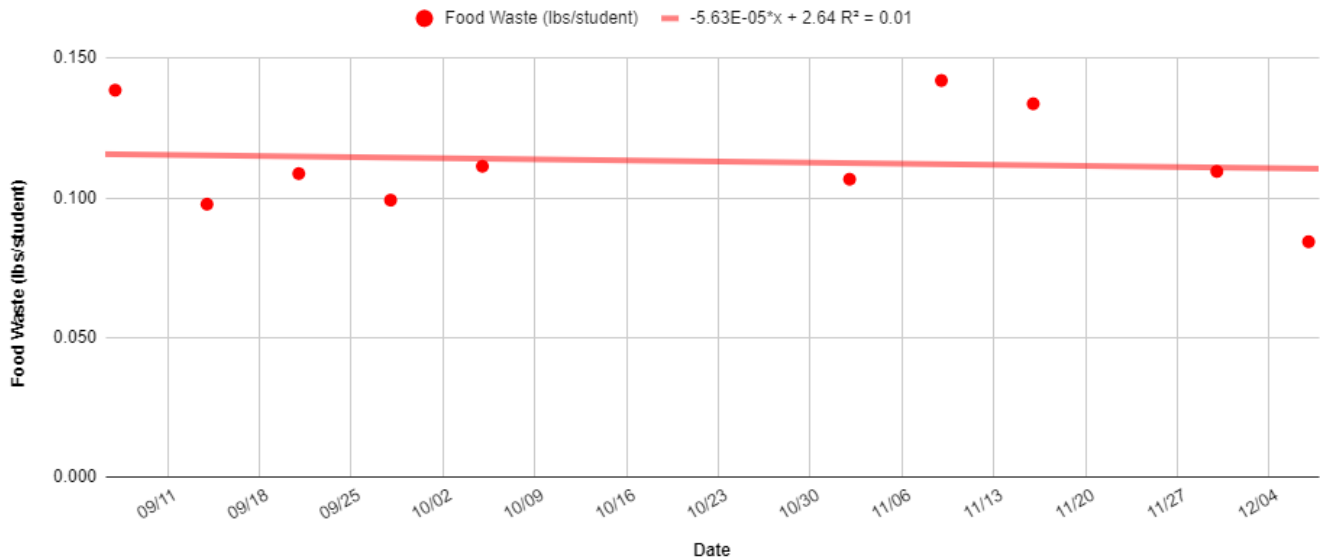
See the following pages for the Quantitative Results of our campaign.

Quantitative results:

Morgan Dining Hall - A term 2022							
Day	Hours	Total Swipes	To-go Containers	Participating Students	Food Waste (lbs)	Waste Per Student (lbs)	Percent Change from Week 1
09/07	11am-2pm	736	22	714	98.9	0.139	-
09/14	11am-2pm	717	10	707	69.1	0.098	-29.44
09/21	11am-2pm	625	14	611	66.4	0.109	-21.54
09/28	11am-2pm	624	9	615	61	0.099	-28.39
10/05	11am-2pm	604	11	593	66	0.111	-19.65

Morgan Dining Hall - B term 2022							
Day	Hours	Total Swipes	To-go Containers	Participating Students	Food Waste (lbs)	Waste Per Student (lbs)	Percent Change from Week 1
11/02	11am-2pm	578	7	571	60.9	0.107	-23.00
11/09	11am-2pm	510	3	507	71.98	0.142	2.50
11/16	11am-2pm	440	2	438	58.54	0.134	-3.51
11/30	11am-2pm	560	6	554	60.64	0.109	-20.98
12/07	11am-2pm	522	3	519	43.75	0.084	-39.14

Food Waste Per Student vs. Time (Fall 2022)



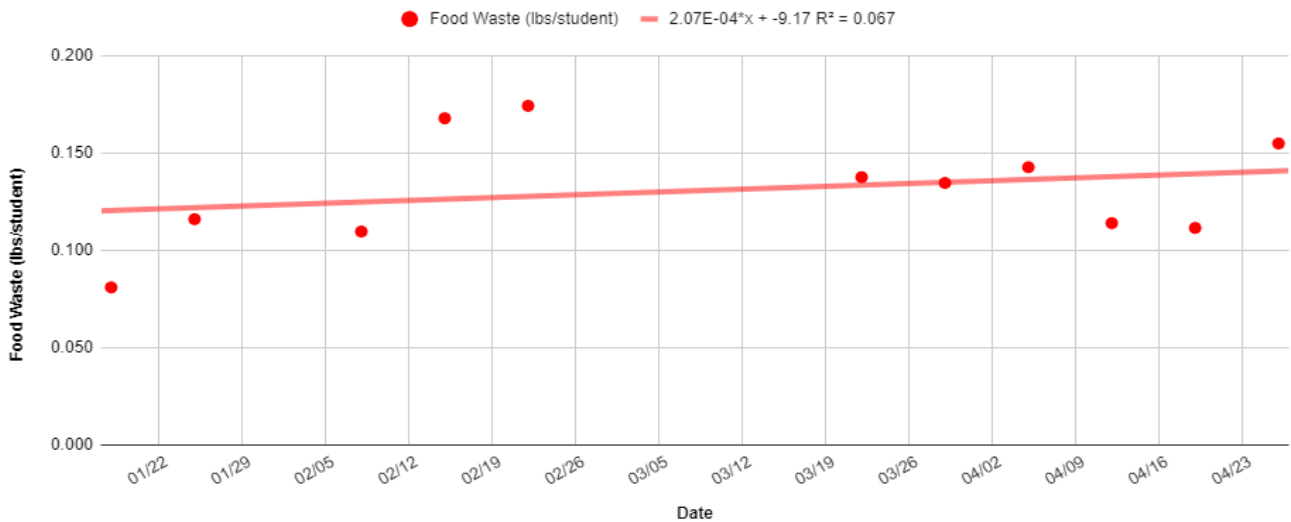
Morgan Dining Hall - C term 2023

Day	Hours	Total Swipes	To-go Containers	Participating Students	Food Waste (lbs)	Waste Per Student (lbs)	Percent Change from Week 1
01/18	11am-2pm	448	1	447	36.3	0.081	-
01/25	11am-2pm	525	0	525	61	0.116	43.08
02/08	11am-2pm	502	0	502	55.15	0.110	35.28
02/15	11am-2pm	616	0	616	103.5	0.168	106.90
02/22	11am-2pm	402	7	402	70.1	0.174	114.73

Morgan Dining Hall - D term 2023

Day	Hours	Total Swipes	To-go Containers	Participating Students	Food Waste (lbs)	Waste Per Student (lbs)	Percent Change from Week 1
03/22	11am-2pm	497	7	490	67.5	0.138	69.63
03/29	11am-2pm	596	4	592	79.8	0.135	65.99
04/05	11am-2pm	437	3	434	62.01	0.143	75.94
04/12	11am-2pm	545	5	540	61.65	0.114	40.59
04/19	11am-1pm	408	3	405	45.25	0.112	37.58
04/26	11am-2pm	550	1	549	85.12	0.155	90.92

Food Waste Per Student vs. Time (Spring 2023)



What would you do differently in the future?

In the future, the Green Team hopes to consider more communicative and impactful visualization measures, potentially including an animated display that would be more visually pleasing than a physical bucket of food waste. Additionally, data collection would benefit from being more automated so that it could be collected at all meals during the week and be less disruptive to the students. This would provide a more accurate idea of the food waste collected that could be used for tracking and reporting purposes. Also, the Green Team could put more efforts on the education and awareness side of the campaign if we removed the need for multiple volunteers to be stationed at the dining hall for 3 hours each week.

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

We would recommend that careful consideration is made as to how the message is communicated to the student body. It is important to consider the sensitive topics surrounding food insecurity and mental health struggles related to eating. It is imperative that students do not feel ashamed for having food waste and are not encouraged to eat more or eat less than what is typical for them.



Green Team Presents Project Zero Waste

Goal: To Reduce Campus
food waste by 5%

**Significance: In the U.S.,
food waste is estimated to
be 30-40% of food supply.**

How to help reduce food waste:

- Go back for seconds, instead of grabbing larger servings that you may not finish.
 - Sample foods you haven't tried before.
-

See us: Wednesdays @Morgan Dining Hall





credit: Green Team Public Relations Chair

Social media posts:



Liked by [wpi.greenteam](#) and 47 others
[wasteworks_wpi](#) Come out to support our first event in partnership with the [@wpi.greenteam](#) !!

Leave Morgan dining with zero food waste and receive some epic eco-friendly swag! 🍀🍀

#wpi #wpitechtube #gogreen #wpi greenteam #wasteworkswpi #ecofriendly



Chartwells will donate food to a local Worcester Pantry for pounds of waste reduced.

credit: (left) WasteWorks WPI student group and (right) Chartwells, WPI Dining Services

Photos from event:



credit: WPI Green Team member