



FRIDGIE: Reducing Waste at McMaster University



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PROBLEM

How might we reduce food and packaging waste generated by off-campus students at McMaster University?

- There are **no fridges**¹ for the **27,000** off-campus students² to store their food, so thousands of meals are bought on campus each day
- As a result, **organics, mixed containers, and plastic packaging** made up approximately **1/3** of the McMaster garbage stream in 2023³
- We conducted a survey to collect experiences from the McMaster student body, and **85%** of respondents found it **somewhat, quite, or very inconvenient** to carry around their food during the day

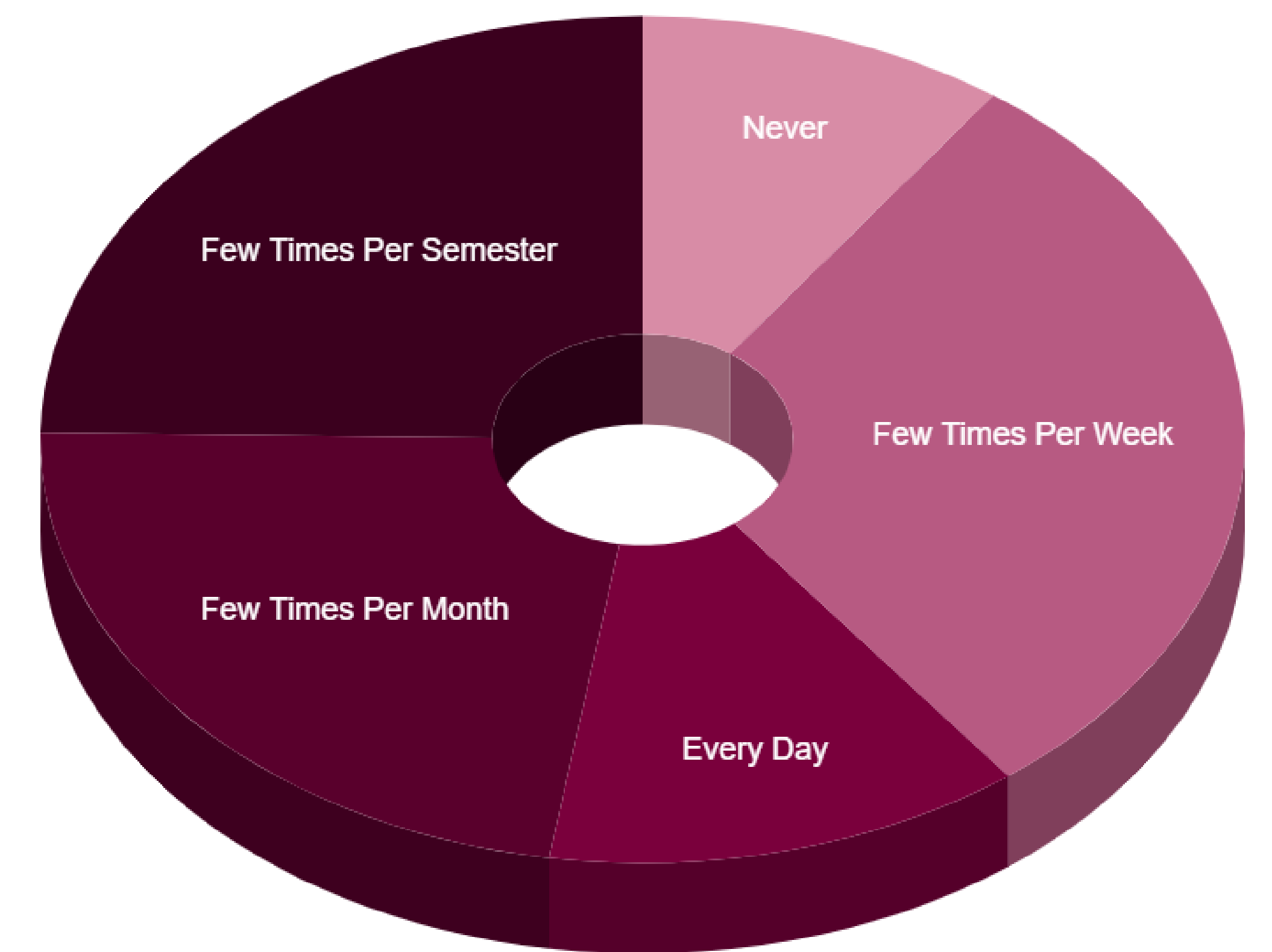


There are no spaces¹ for the

27,000

off-campus students² to store their food

How often would you use Fridgie?



Our survey results

SOLUTION

Fridgie: an on-campus fridge with personal lockable compartments where students can store their food during the day, paired with a webpage or app.

- Compartments can be reserved for the day, week, month, or semester
- Fridge can be accessed up to 30 minutes before the building closes
- Fridge will be cleaned daily
- Fines for leaving food in the fridge, after the second occurrence



Fridgie in The Hub (student life building), next to microwaves

Technical Functionality:

- To begin a session, scan the QR code on the compartment to select it
- Add food to the compartment
- To reopen the compartment, use a code (emailed and shared on Fridgie platform)
- To end a session, scan the QR code again

- ☒ Provides a safe space to store food
- ☒ Reduces food and packaging waste
- ☒ Saves money from buying on-campus food

NEXT STEPS

1. Conduct a more extensive student survey
 - a. Gauge reasonable pricing
 - b. Gather interest in volunteering
2. Secure resources and funding to implement Fridgie
3. Build partnerships with the McMaster Student Union, the McMaster Sustainable Future Program, and the Student Wellness Centre
4. Expand to libraries, the McMaster University Student Centre, and other buildings at McMaster



Sustainability Minor



REFERENCES

1. Housing & Conference Services. (2025). *Living at Home and Commuting*. <https://housing.mcmaster.ca/off-campus/commuting/>
 2. Housing & Conference Services. (2025). *Buildings*. <https://housing.mcmaster.ca/future-residents/buildings/>
 3. Waste Reduction Group. (2023). *2023 Waste Audit*. <https://facilities.mcmaster.ca/app/uploads/2024/10/P1423-McMaster-University-2023-Waste-Audit-Report.pdf>
- [Logo of McMaster Students Union]. (n.d.). Retrieved March 2, 2025, from <https://msumcmaster.ca/app/themes/msu-child/images/MSU.png>
- [Logo of Student Wellness Centre McMaster]. (n.d.). Retrieved March 2, 2025, from <https://mentalhealth.mcmaster.ca/app/uploads/2023/12/Screen-Shot-2023-12-13-at-4.11.16-PM.png>
- m24-sm_left-col [Logo]. (n.d.). Retrieved March 2, 2025, from https://www.bglrieber.co.uk/wp-content/uploads/bgl_rieber_multipolar_2024.pdf