

Mapping Food Security Resources- Increasing Access and Building Connection

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MAPPING FOOD SECURITY AT UBC:

INCREASING ACCESS AND BUILDING CONNECTIONS

FOOD INSECURITY IS A GROWING ISSUE AMONG CANADIAN STUDENTS.

At UBC, 37% of undergraduates face food insecurity — often due to high tuition, housing costs, and systemic inequities. Despite multiple on-campus food programs, many students remain unaware or uncertain about how to access them.

METHODS:

- ✓ 210 STUDENT SURVEY RESULTS
- ✓ 6 STAKEHOLDER INTERVIEWS
- ✓ REVIEW OF UBC'S FOOD ASSET MAP AND VIRTUAL FOOD HUB
- ✓ ANALYSIS OF POLICY AND ACADEMIC LITERATURE



PROJECT GOALS



Evaluate the effectiveness of current resources



Highlight barriers faced by students



Offer recommendations for improving coordination and outreach

KEY FINDINGS:



AWARENESS ≠ ACCESS:

Most students know about food programs, but face stigma, confusion, or uncertainty about eligibility



NAVIGATION CHALLENGES:

UBC's Food Asset Map is difficult to find and use; key programs are missing



STUDENT-LED EFFORTS DOMINATE:

60% of food resources are student-run, yet only 38.5% are officially recognized in university listings

RECOMMENDATIONS

1. SIMPLIFY & IMPROVE DIGITAL ACCESS

- Separate "Learn" vs "Get Help Now" content in the Virtual Food Hub
- Add "Affordable Food" filters to the Food Asset Map
- Include all student-run initiatives in listings

2. COLLABORATE WITH STUDENT LEADERS

- Hold semesterly check-ins with student-run food groups
- Support them with visibility, funding, and institutional partnerships

3. CLARIFY ELIGIBILITY

- Many students avoid resources due to confusion about who qualifies
- Highlight that most food programs are open to all UBC students — no sign-up, no income proof required
- Share this info in residence handbooks, class slides & orientation materials

Executive Summary

Food insecurity among university students is a critical issue, with 76.9% of UBC Vancouver students reporting having experienced food insecurity or anxiety of varying degrees and 71.6% of those students unaware of using “financial aid [or] using institutional resources such as the Food Hub Market” (Rector et al., 2024). The purpose of this project is to address this gap (76.9% of food insecurity and 71.6% of unawareness) by improving the accuracy and depth of the content of the mapping of UBC’s food security initiatives and its targeted outreach strategies to raise awareness of these resources. The objective of this project is to understand barriers and limitations to food accessibility on campus, improve food asset resources, analyze needs, and promote quality interventions. Community-Based Action Research (CBAR) principles, which situates research in a defined community to study issues and implement interventions, combined with mixed methods, including both primary and secondary data collection with relevant data analysis, uncover barriers such as operational limitations, geographic disparities, and cultural mismatches while centering stakeholder voices (Gullion & Tilton, 2020). Findings inform co-designed project efficiency improvements, deliver recommendations on how to improve existing Food Asset Map, and advocate for informed institutional reforms to bridge gaps between existing services and student needs. Ultimately, seeking to increase awareness of resources, improve physical and cultural accessibility, and foster a campus culture where food support is accessible, equitable, and constructive.

With the support of our client, UBC Health Manager and our SEEDS representative, this project covers data from 17 food security programs on campus in order to provide a comprehensive overview. This wide sampling allows us to capture a variety of challenges, from program operational difficulties to whether students can directly access and understand these measures. It is combined with quantitative surveys using tools such as Qualtrics. The use of these methods aims to confirm the prevalence of food security issues on campus, explore students' awareness and utilization levels of existing food security measures, and ensure that the questionnaire survey strictly complies with CBAR regulations. The total number of questionnaires is $n=255$, of which approximately 210 are valid responses. Among the valid responses, we found that less than 10% of the sample population indicated that they were completely unaware of food security measures, and 32% of respondents indicated that they were unsure whether they were eligible to use existing food security resources. This gap in eligibility awareness shows that even if students are aware of the existence of these measures, uncertainty about how to access them remains a barrier, which is also an important direction in which we believe that food security measures on campus need to change, that is, how to improve students' awareness of the eligibility of these measures, rather than just letting students have a general understanding of these programs. Although food insecurity may motivate students to seek out these resources, it ultimately comes at the expense of students.

Therefore, the final project deliverables include recommendations on how to improve the interactive food security map and improve utilization strategies. These tools will ensure students have up-to-date access to all food security initiatives provided by the UBC Vancouver campus while fostering a more supportive campus environment. The collected data survey and further analysis could be used to improve food security initiatives and address the major barrier to access or utilization of food security resources for students. By doing so, our research aims to establish how to enable better or improve student access to food security initiatives, thereby providing practical insights to strengthen support for students to have access to enough food in sufficient quantities and consistent with their cultural values.

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Abbreviations and Key Terms

Key Terms/Groups:

CBPR: Community-Based Participatory Research. A collaborative approach to research where community members, researchers, and other stakeholders work together in all phases of the research process. This approach aims to address community concerns, empower local communities, and promote health equity.

Food Insecurity: (noun)

the condition of not having access to sufficient food, or food of an adequate quality, to meet one's basic needs.

FSI: Food Security Initiative, co-founded by UBC Wellbeing, SEEDS Sustainability Program and Faculty of Land and Food Systems, is a cross-disciplinary initiative operating in both Vancouver and Okanagan campuses, that strives towards a holistic, university-wide, and systems-based approach to harness scalable solutions in alleviating household food insecurity and promoting community food security.

SEEDS: (Social Ecological Economic Development Studies) Sustainability Program. SEEDS creates applied research and interdisciplinary partnerships between students, faculty, staff and community partners to advance sustainability ideas, policies, and practices and create societal impacts by using the Campus as a Living Laboratory. Managed by UBC's Campus + Community Planning.

Stakeholders: one who is involved in or affected by a course of action, we define stakeholders of UBC food systems as those involved in the UBC system as participants, recipients, providers, or stakeholders. Some examples include students, faculty, researchers, student-leaders, those involved in food and beverage industry, food companies, food security initiatives, etc.

Abbreviations:

AMS: The Alma Mater Society, The Alma Mater Society (AMS) is your student union.

AMS AES: AMS Academic Experience Survey

AUS: Arts Undergraduate Society

CBAR: Collaborative-Based Research Approach

CSFS: The Centre for Sustainable Food Systems

FS: Food Security

FPC: Food Policy for Canada's

FSR: Food Security Resources

GSS: Graduate Student Society

KUS: Kinesiology Undergraduate Society

LFS: Land and Food Systems

LFS 450: A course at UBC: Land, Food and Community (LFC) III: Leadership in Campus Food System Sustainability

Qualtrics: a cloud-based platform for conducting online surveys and managing customer, employee, and product experiences

ROTR: Roots on the Roof, student-led high density farm located on the roof of the UBC student union building, the Nest.

SUS: Science Undergraduate Society

UBC: University of British Columbia

Introduction

Research Topic

This research explores the challenges and opportunities related to expanding access to and awareness of food security resources among students at the University of British Columbia (UBC). The consequences of food insecurity among university students are serious and wide-ranging, imposing negative physical, spiritual, and emotional outcomes (Hamilton et al., 2020). It also significantly hinders academic success and the overall student experience, increasing the risk of withdrawal due to financial strain (Laban, 2020).

In this way, striving for food security is both a food justice issue and a matter of student wellbeing (Lang, 2018). This underscores the urgency of improving how food systems on campus are understood, navigated, and supported. Despite UBC having a range of food secure resources and initiatives, many students continue to experience food insecurity due to limited awareness of available services and structural barriers within the food system, including high tuition costs, high housing costs, and even expensive course materials (AMS AES, 2024). Many students who could benefit from these services are unaware of them, especially those being food insecure. There is also a lack of awareness among the actual staff and student groups who are leading and managing these services. This is illustrated as one study found that most campus food programs had less than 40% visibility among students, particularly first-year and international students (Rector, 2024).

Additionally, there remains a lack of comprehensive data and full breadth in scope for understanding of the barriers students face when navigating and accessing these resources. To address this gap, this research aims to undertake a campus-wide mapping and analysis by mapping out the full breadth of food security on campus to highlight key food resources (Soma et al., 2022). It also provides the opportunity to explore student's experiences navigating these resources in order to identify mechanisms and recommendations to bridge gaps and awareness. Ultimately, this research seeks to map and evaluate the current food support systems available to UBC students and develop tailored recommendations to improve food literacy and outreach.

Rather than creating entirely new initiatives, the goal is to strengthen existing ones by bridging communication gaps between students and existing services. By fostering collaboration between students, staff, and campus organizations, this project aims to build a more resilient and inclusive support network. Ensuring that all students can access adequate food is fundamental to creating a thriving and connected campus community.

Research Relevance

1.2.1 Societal Issues

Despite the world producing enough food to feed everyone, for example, in Latin American and the Caribbean (LAC), hunger affects 34.3 million individuals (Espinal et al., 2021). Key actors in food systems and contributors to food security are not exempt from this problem. More specifically, small farmers providing more than 50% of the world's food supply are highly food insecure (Katre et al., 2022). However, hunger is not only limited to the Global South. In developed countries, hunger also persists (Webb et al., 2018). In the national context, food insecurity remains a prevalent problem, with 22.9% of people being food-insecure. In other words, about 8.7 million Canadians suffered some level of food insecurity at the house-hold level (PROOF, 2024). Food insecurity is a complex and growing challenge in post-secondary institutions (Government of Canada, 2020). Similarly to the national level, post-secondary students are disproportionately affected compared to the national level. In 2023, close to 29% of Canadian students experienced food insecurity, with those from marginalized backgrounds being more vulnerable to this condition (Current State of Food Insecurity in Canada - Students, 2024; Hamilton et al., 2020). Systemic barriers contributing to this large-scale problem have been most commonly identified as high living costs, expensive housing, unemployment and low wages, health disparities, racism and discrimination (Engelhard & Hake, 2024).

1.2.2 Sustainability Issues, Policies, and Practices

Within Canada, students are often left out of national policies and discussions on food security (Hamilton et al., 2020). Similarly, in British Columbia, there's no unified policy addressing food insecurity (Cheng et al, 2021). Moreover, groups with higher food insecurity rates such as Indigenous students and international students are often overlooked in UBC food system initiatives (Silverthorn, 2016, Lang, 2018).

This shows the need for involving further participation of stakeholders at the national policy level as the government lacks a measure to assess the Food Policy for Canada's (FPC's) goal of food security (Deaton & Scholz, 2022). This gap in policy making shows the need for more direct action at the institutional level, highlighting the importance of institution-level projects, such as this research initiative. By focusing on food insecurity at UBC, we aim to bridge the disconnect between student needs and national food security efforts, ensuring that students have better access to food resources on campus. Understanding students' variation in food insecurity experiences and access to food secure resources can broaden impact at the national level by improving the effectiveness of food security programs and policies (Deaton & Scholz, 2022).

1.2.3 Community benefits

Food asset mapping is an innovative tool to highlight key food resources and inform strategic planning interventions by identifying what is valuable to the community (Soma et al., 2022; Lang, 2018). Focusing on policies at UBC, the AMS Sustainable Action Plan 2026 sets goals that incorporate food security including: Goal 3, Continue to advocate for student priorities on housing, food, and sustainability; Goal 11, reduce food waste and increase overall accessibility of food services; and Goal 19, Collaborate with campus partners in advancing

sustainability (Alma Mater Society of UBC Vancouver, 2023). Additionally, the Centre for Sustainable Food Systems (CSFS) strategic plan 2024-2025, aims to target systems and policy change within UBC's food system by helping to facilitate the immediate and widespread adoption of agroecological, sustainable farming practices and pushing for policy changes to support its food-security goals (Smukler et al., 2024). These interventions offer an opportunity for students to increase the access to food secure resources, and ultimately, improve food security. Leveraging from the existing food secure resources and initiatives on campus, we aim to update the UBC's food asset map to highlight key food security resources (FSRs). This will allow us to identify gaps in food access and UBC's food system, and provide tailored interventions advancing the goal of increasing food security in UBC's Wellbeing Strategic Plan, while improving the reach of food secure resources among stakeholders. Ultimately, we aim to increase resilience among our community and UBC's food system. University campuses have a key role in supporting the sustainability of local and regional food systems (Barlett, 2011). For this reason, UBC campus has a main leading role in contributing to food security across its community. As a place of experimentation and research, universities like UBC can serve as incubators for sustainable food projects that can expand access to food security. Increasing the sustainability of food systems structures, is a way to resist and challenge traditional structures, which may affect policy change at local, regional and national level (Barlett, 2011). In this way, pushing for sustainable food systems on campus can have an impact at broader levels while promoting long-term interventions to food security.

1.2.4 Conclusion

Food insecurity is connected across local, national, and global levels, showing the need to address power imbalances embedded within food systems (Robin et al., 2020). This is important because food insecurity is not an isolated issue it affects communities at all levels, including university students. This shows the need for local efforts, like this research initiative, to tackle food insecurity at UBC from an inclusive Collaborative-Based Research Approach (CBAR) (Gullion & Tilton, 2020). By incorporating this approach, we seek to promote food agency among participants in relation to decision-making in the food system and promote sustainable solutions for the future. Inclusive food security initiatives that support students in accessing culturally relevant, nutritious, affordable foods, and food-specific financial assistance (Lang, 2018), is a key step for fostering a just food system on our campus.

Project Context

There's an extensive list of food secure resources and initiatives provided by UBC Vancouver's Campus. The Food Security Initiative (FSI) is a governing cross-disciplinary network of students, staff, and faculty across UBC campuses with the aim of promoting community food security through guided interventions ("Food Security Initiative," n.d.). These interventions are based in a holistic and systems-based approach. FSI's main goal relies on modeling a sustainable and integrated food system with a multifactorial approach considering the environmental, social, and economic outcomes ("Food Security Initiative," n.d.). Additionally, the UBC Community FoodHub project leads the way in terms of education, research, and food security programs and services through a community-led development approach, with a priority for campus community's food needs (*Community Food Hub / Campus as a Living Lab*, n.d.) Moreover, the Social Economic Ecological Development Studies (SEEDS) at UBC implements research from an interdisciplinary and collaborative approach between students, faculty, staff

and community towards contributing to UBC sustainability goals. Previous SEEDS studies reveal information on campus food insecurity, gaps and areas of opportunity. We identified this project as a need, as food insecurity is a problem at the societal and local level. Nationally, post-secondary students are often overlooked in food security policies and initiatives, with around, nearly 29% of Canadian students experiencing food insecurity in 2023. This rate being, higher than the national average (Hamilton et al., 2020; *Current State of Food Insecurity in Canada - Students*, 2024). Moreover, previous SEEDS research from a small sample-size survey from 2024, estimates that 76.9% of UBC students experience food insecurity (Rector et al., 2024). Despite the existing resources, many students on campus who could benefit from food security (FS) services are unaware of existing programs or don't know how to navigate them. Looking into food insecurity trends at UBC Vancouver campus, food insecurity has remained a persistent problem compared to the pre-Covid and post-Covid baseline. Student food insecurity levels have consistently been part of students' academic experience, with around 38.5% of students on campus being food insecure before Covid-19 (Ono et al., 2019). Moreover, after the pandemic, in 2022, about 40% of UBC Vancouver undergraduates and 50% of graduate students expressed concerns that they would run out of food in the past year (Turdy et al., 2022). In 2023, according to the AMS Academic Experience Survey (AMS AES, 2023) based on 3,413 responses, 38% of students worried about "running out of food" (p.12). More recently, in 2024, "51 per cent of respondents reported feeling worried they wouldn't be able to afford groceries" (AMS AES, 2024, pg.18).

Based on discussions with our SEEDS representative, main gaps were identified, highlighting the need for updating the UBC's food asset map. Food asset mapping is a unique tool in food system work and can help us inform strategic planning interventions (Lang, 2018). Plenty of food assets are available and we identified the need to better understand students' experiences and awareness of these to optimize its use. Based on previous relevant work many gaps within these assets have been identified through students' responses, including changes to wording, precise asset locations, and adding several new assets (Lang, 2018). Feedback including improving its usability, such as improved guiding instructions around its use and analyzing software limitations which might impact this use (Lang, 2018). We identified the need to improve communication among the UBC community to reach our target audience regarding food resources and food map use. Our main client, UBC Health Manager, also identified improving the UBC food asset map and the Food Hub - Digital Resource Page to expand their reach between students. Given the existing gap between the existing initiatives and the prevalent food insecurity at both, the societal and local context, this led to our research question, how can we expand awareness and improve the outreach of food secure resources on campus? Moreover, given the disproportionate food insecurity rates between vulnerable groups, we identified this also impacts the reach of food security resources. As Lang suggests, these gaps exist around food programming for international and Indigenous students in UBC (2018). For this reason, we aimed to understand students' experiences navigating and accessing these resources being students from all backgrounds in our target demographic. We aim to capture data from students across different faculties, domestic or international students, and students who self-identify as historically, persistently, or systematically marginalized (HPSM) groups (University of British Columbia Equity & Inclusion Office, n.d.). Ultimately with the goal of approaching food security from an equity approach and identifying future areas of consideration for improving food security through improvement of the existing initiatives.

Purpose

The purpose of this research is to increase student usage of food security initiatives at UBC.

Goals

1. Evaluate the visibility, accessibility, and effectiveness of current food security programs on campus.
2. Strengthen collaboration among food-related student groups and service providers, to consistently update and expand the comprehensiveness of resources.
3. Promote student engagement with food security resources, ensuring that food initiatives are more visible and utilized by students.

Objectives

1. Understanding student experiences navigating accessing UBC food security resources, through surveying, and interviewing students and stakeholders.
2. Investigating and comparing existing food security resources with University resource mapping, communication and institutional goals/support systems, through primary data interviews and investigation of secondary data including the virtual Food Hub, existing asset map, previous research projects, and UBC policies.
3. Present three actionable recommendations to stakeholder to improve efficiency, communication, and utilization in UBC food systems among students and faculty to improve sustainability, organization, and collaboration.

Background

Food security is an outcome of the food system and is central to conversations around sustainable food systems (Toth, Rendall & Reitsma, 2016). Food insecurity remains a persisting global inequity. According to the High Level Panel of Experts (HPLE), food security exists when “all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (HPLPE, 2020, p. 10). As a matter of justice and survival, food justice is discussed in the context of the human right to food, and is often seen as a key indicator of a failed state to respond to the local needs of its community (Ng’endo & Connor, 2022; Mayer & Anderson, 2020). In 2023, food insecurity affected 8.7 million Canadians, including over one in four children (Feed Opportunity, 2024). Food insecurity has negative implications at the individual and societal level. Chronic malnutrition due to prolonged inadequate dietary intake can lead to negative physical and mental health outcomes such as an increased risk for chronic diseases, and lifelong consequences (Black et al., 2013). Furthermore, food insecurity can also lead to social isolation. At the societal level food insecurity negatively impacts social participation and productivity (Canadian Mental Health Association, 2021; Gundersen & Ziliak, 2015). In this way, we need to consider the dimension of sustainability when discussing food security in our food systems, to “one that provides food security and nutrition in a way that does not compromise the economic social and environmental bases that generate food security and nutrition for future generations” (HPLPE, 2020, p. 9). Given the importance of this issue, this report investigates food secure initiatives to combat food insecurity on UBC Vancouver campus.

Food Insecurity at UBC

At UBC, food insecurity is shaped by national issues and the unique challenges within the university environment. Students from low-income backgrounds, underrepresented communities, and international students are particularly vulnerable due to Vancouver’s high cost of living, rising tuition fees, and many students’ financial pressures (Silverthorn, 2016; Lang, 2018).

Previous research across BC campuses, including UBC, assessed a volunteer sample of 3490 students. In this research, they found that from these responses, 42.3% of students were food insecure (Bottorff et al., 2020). This was statistically higher above the national average of 12.7% as recorded from Statistics Canada’s Canadian Community Health Survey (Tarasuk & Mitchell, 2017-2018). This reflects the existing problem of students’ food insecurity at the local level.

UBC Approach to Food Insecurity:

As a campus serving over 60,000 students in Vancouver, UBC has created its own complex food systems, to provide students, staff, and community members with a variety of food options. UBC has also attempted to address the issue of food insecurity, through the creation of university policies, student-run initiatives, and university-supported initiatives.

UBC Food Options:

UBC has a variety of food secure initiatives and food secure resources. UBC has attempted to compile information about these resources online at the virtual food hub and the food asset map. However, the

utilization, access, awareness and promotion of affordable food options are lacking, especially in high traffic areas on campus. For example, the Grocery Checkout is one of the most convenient food locations in the AMS Nest, however, many students are unaware that it is the least affordable option. Furthermore, it was found that Grocery Checkout is nearly 92% higher than the Food Hub Market. With almost all affordable food options being student-led initiatives, these affordable food options include but are not limited to, the FoodHub Market, Sprouts Cafe, Agora Cafe, and Acadia FoodHub. However, a major downside is that many of these initiatives require students to volunteer their own time, forcing them to carry the burden of helping their classmates. Overall, while there are multiple food initiatives aimed at providing a variety of food types to students, affordable food options and resources to combat food insecurity are limited.

UBC Food Security Policies:

UBC has recognized food insecurity as an issue facing students. In doing so it has taken some action to create policies and goals to improve food security on campus. These policies are mostly contained within the UBC AMS Sustainable Action Plan 2026 and the UBC Climate Action Plan 2030. These policies complement adjacent programs and groups working to quantify and respond to food security issues. The AMS Sustainable Action 2026 sets goals that incorporate food security (Master Society, 2023). These goals plan to work with AMS food and beverage services, and existing AMS affiliated food initiatives to increase access, sustainability, and decrease waste regarding food. Under these general goals, the action plan has set more specific short-term and long-term goals to achieve said targets. The UBC Climate Action Plan 2030, has set the ambitious goal of “a 50% GHG emission reduction of food systems, by 2030,” (CAP 2030, 2023), with more specific goals to reduce food waste, and improve research regarding sustainable food practices. Overall, UBC has enacted a plethora of food security focused goals, incorporating the community, sharing information, performing research, and addressing sustainable food production/distribution practices.

UBC Programs and Initiatives:

A majority of UBC’s approaches to food insecurity take the form of programs and local initiatives to provide and support research and resources surrounding food insecurity. This includes but is not limited to supporting volunteer-run initiatives such as Sprouts, the Food Pantry, Agora, Acadia Food Hub, Roots on the Roof, and individual clubs/student group events. These initiatives are generally supported through UBC grants and financial support. However, it is important to note that these are still student-run and managed initiatives separate from UBC operations. Beyond sporadic financial grants and support to student initiatives, UBC has also created programs and groups such as SEEDs and UBC Farm to investigate food security, and communicate with the student population to increase awareness around food resources. To support these groups the UBC has created a Sustainable Food Access Fund (SFAF) that provides financial assistance to students, and supports student-led initiative to help improve access to nutritious and sustainable food options at campus outlets such as Agora Café, UBC Sprouts, Roots on the Roof, and UBC Farm. By subsidizing food prices, the fund makes healthy and environmentally friendly food more affordable, contributing to students' health and UBC's sustainability goals (Lin et al., 2021).

Sprouts manages a series of programs including the Sprouts Community Fridge, Freezer, and Pantry, by-donation produce market, free lunch on Fridays and low cost daily meals. This guarantees that food is consistently available, especially for those experiencing temporary hardships, particularly given that 30-

40% of students at UBC face food insecurity (Food Hub, 2021). Sprouts also operates a by-donation produce market, supported by the Food Security Initiative, which provides students with fresh, BC-grown organic produce at affordable prices or no cost. Aimed at supporting seasonal and local food systems, the market encourages donations to sustain future initiatives (Sprouts, 2025). Like Sprouts, Agora, also provides low-cost meals during the day, and provides free meals called community dinners twice a week. The Food Hub market offers at cost-groceries mostly plant-based for the UBC community, increasing accessibility to a nutritious and healthy diet (*Community Food Hub / Campus as a Living Lab, n.d.*). Roots on the Roof, the student-led club managing the rooftop garden, raises awareness about food origins and encourages community participation through sustainable processes (Roots on the Roof, 2024).

Beyond individual student-led initiatives, UBC also created research groups such as the UBC SEEDS Program. The SEEDS (Social Ecological Economic Development Studies) Sustainability Program is a globally recognized initiative that uses UBC's campus as a "Living Laboratory" for sustainability (The University of British Columbia, 2025). The SEEDs program, specifically does research to investigate, consolidate, and create resources to increase student access and awareness surrounding food systems and resources at UBC. These programs and initiatives promote research, sustainable agriculture, community engagement, and food security by partnering with students, staff, and local communities to enhance food production and environmental stewardship.

Conclusion

Food insecurity remains a pressing issue across Canada, disproportionately impacting post-secondary students, particularly those from marginalized and underrepresented communities (Hamilton et al., 2020). At UBC, nearly half of surveyed students report experiencing some level of food insecurity. While UBC has taken commendable steps to address this issue through policies, student-led initiatives, financial support programs, and sustainability-focused research, major gaps remain around communication, awareness and accessibility of these programs. Despite the existence of these resources, broader institutional accountability and systemic changes are essential to ensuring that all students have reliable access to affordable and nutritious food. As such, this report highlights the importance of integrating food security by increasing the access of food secure resources among students, while also recognizing and scaling up the efforts already underway at UBC.

Research Methodology and Methods

Research Methodology

This research adopted a mixed methods approach, combining both qualitative and quantitative data collection and analysis to gain a comprehensive understanding of food insecurity at UBC. The complexity of food access issues necessitated this approach, as it allowed for a broad exploration of student experiences and stakeholder perspectives. The study was also grounded in a Community-Based Participatory Research (CBPR) framework, centering collaboration with community members and food service stakeholders to identify the key issues related to the main topic and come up with the best solution possible. This decolonial methodology emphasized equity, agency, and mutual learning for everyone involved throughout the research process.

CBPR principles informed the development of both interview and survey tools. By involving UBC students and food program representatives as active contributors rather than passive subjects, the research honored their knowledge, experiences, and roles within the campus food ecosystem. Ethical considerations including informed consent, data confidentiality, and the inclusion of diverse perspectives were incorporated throughout the methods to collect a wide variety of responses. The team aimed to not only assess food insecurity but to co-create insights and recommendations that could directly support policy improvement and program coordination on campus.

Research Methods

Secondary Data Collection Research Methods

For secondary data collection, the team reviewed a variety of institutional and scholarly sources. These included UBC policy documents like the Action Framework for a Nutritionally Sound Campus and the 20-Year Sustainability Strategy, which guided the alignment of the research with broader campus goals. Reports such as Lang's (2018) SEEDS report informed the structure and focus of primary data tools by identifying existing gaps in food security initiatives. The research also analyzed platforms like the UBC Food Asset Map and the UBC Food Hub website to evaluate communication effectiveness, service visibility, and geographical accessibility of food resources to the users. These platforms were compared to get insights about how navigable and user friendly they are especially for new users, and this helped refine survey questions and interview prompts ensuring they were responsive to both institutional contexts and user experiences.

Primary Data Collection Research Methods

Stakeholder Interviews:

Two main tools were used to collect the primary data. These were interviews and a student survey. Semi-structured interviews were conducted with six key stakeholders involved in UBC food security initiatives,

including representatives from Sprouts, Agora, Roots on the Roof, the FoodHub Market, and UBC Food Services. We initially reached out to stakeholders including Sprouts, Acadia Food Hub, UBC farm, the graduate student society, and UBC meal share program and did not reach out to the food pantry as they are at maximum capacity. To schedule interviews we reached out primarily through emails found on initiative's websites in our secondary source research, and conducted the interviews in person with the exception of the Food Hub and Wednesday Night dinner interviews which were conducted over Zoom. We asked for recorded consent prior to conducting interviews. These interviews aimed to gather qualitative insights on current challenges, programming goals, operations, and areas needing improvement. Interviewees included some key figures such as Colin Moore (Director of UBC Food Services) and Rayda Shaik (Manager of Health Promotion), whose perspectives provided crucial context on institutional priorities and operational dynamics. When interviewing student leaders we gained insights on operations and advice on other food security projects and initiatives, as well as, student experience, and connection/support actually received from UBC administration and institutions. Our interview questions and consent form are attached in appendix A.

Student Surveying

Complementing the interviews, an online survey via Qualtrics was distributed to target UBC students. It collected both quantitative data to identify trends in awareness and usage and qualitative responses to capture nuanced student experiences of food insecurity. The survey included questions about engagement with food resources, perceived barriers to access, and demographic details to identify patterns across different student groups. The objective was to broaden the scope of the study and include diverse student voices allowing researchers to identify systemic gaps in accessibility and awareness. Our survey questions are found in appendix C.

Student surveys were distributed using Qualtrics to students on campus by directly approaching them via focused groups and putting up posts on social media. Our survey was distributed from March 19th, 2025 to April 9th, 2025. We chose to administer the survey online using Qualtrics to maximize accessibility and reach across UBC's diverse student population. The digital format allowed students to participate anonymously and at their own pace—crucial for encouraging honest responses on a sensitive topic like food insecurity. It also made it possible to reach students from a wide range of faculties, years of study, and backgrounds, supporting our goal of collecting a more representative and inclusive sample. To further expand our outreach beyond personal networks and social media, we supplemented the online survey with physical posters placed in high-traffic areas across campus, including the UBC bus loop, the Nest, libraries, and residence dining halls. This strategy helped engage students who might not be reached through digital channels, such as commuter students or those less connected to student clubs or initiatives. Together, these methods allowed us to reach a broader cross-section of the student body and ensure greater diversity in survey participation. We were able to achieve our goal of receiving 250 responses of those, 222 complete and valid responses, to create a statistically representative sample of UBC students. Our poster for the survey is found in appendix B.

Results

Secondary Data Results

Literature Review

Table 1: Current Research on Food Insecurity in Post-Secondary Institutions

Around 39% of Canadian post-graduate students experience food insecurity, particularly those from marginalized backgrounds.	(Silverthorn, 2016)
76.9% of UBC Vancouver students reported food insecurity or anxiety in 2024	(Rector et al., 2024)
In 2021, 56.8% of students across 13 Canadian campuses reported food insecurity; higher rates for marginalized groups	(Maguire et al., 2021)
A 2023 report found that 38% of UBC students had concerns about running out of food in the past year a dramatic increase compared to pre-pandemic levels	(Turdy et al., 2022)
In 2019, around 38.5 % of UBC students were identified with some level of food insecurity	(Ono et al., 2019)
In 2023, according to the AMS Academic Experience Survey (AMS AES) based on 3,413 responses, 38% of students worried about “running out of food”	(AMS AES, 2023, p.12)
One small sample-size survey found that most campus food programs had less than 40% visibility among students, particularly first-year and international students	(Rector et al., 2024)

In 2024 “51 per cent of respondents reported feeling worried they wouldn't be able to afford groceries”	(AMS AES, 2024, pg.18).
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Table 2: Key Concepts and Challenges in Food Asset Mapping

Many student-led and culturally relevant food resources are absent from institutional food maps	Miewald & McCann, 2014; Lepofsky et al., 2017
Official food asset maps are often static and outdated, lacking regular updates to reflect changing programs and services	Soma et al., 2021; Lang, 2018
Participatory food mapping where students and community members contribute to the mapping process improves accuracy and relevance	Jakes et al., 2015; Soma et al., 2021
Food system tools lack user-friendliness and accessibility, making it hard for students (especially newcomers) to navigate support options	Currie & Springer, 2021; Sparrow, 2023

Table 3: Research on Improving Student Use of Food Security Resources

Food security messaging must address stigma and eligibility confusion, not just awareness	Silverthorn, 2016; Soma et al., 2022
User-friendly, centralized digital tools (e.g., interactive food maps) improve access	Currie & Springer, 2021; Lang, 2018
Peer-based, student-run initiatives reduce barriers and promote comfort	Harper Johnston in The Source Forum of Diversity, 2023; SEEDS, 2021
Inclusion of culturally appropriate food improves program engagement for racialized and international students	Silverthorn, 2016; Lang, 2018
Collaboration between institutions and students ensures more responsive programming	Soma et al., 2021; SEEDS, 2022

Strengths Gaps in the Food Asset Map

<p>Comprehensive Range of Resources covers a wide range of categories from campus food outlets and community kitchens to waste management and academic hubs. This shows a strong effort to centralize and visualize diverse food-related services.</p>	<p>Missing Key Initiatives</p> <p>Our research shows that only 9 out of 17 identified initiatives appeared on the map. That means almost half of valuable student-run or grassroots programs like free community dinners, club-run fridges, or food distribution events are invisible on the platform.</p> <p>Resources like discounts at UBC Farm or Roots on the Roof are not mentioned. These are relevant to food-insecure students but omitted from the map and virtual Food Hub site.</p>
<p>Visual Clarity of Clustered Assets The icons and color-coding system make it easy to distinguish between different resource types. It's visually rich and dense with data, especially in the main UBC campus zone, which shows the effort to map out assets thoroughly.</p>	<p>Lack of Detailed Descriptions</p> <p>Important operational details are missing. For example, the Agora Café page doesn't mention the free Monday/Thursday dinners, a key food access initiative. Many entries lack clarity on who is eligible , how to access the service , and what the offering actually includes</p>
<p>Integration of Sustainability and Education Inclusion of waste management, garden programs, and academic courses shows a commitment to both food access and long-term food system sustainability beyond just immediate hunger relief.</p>	<p>Poor Usability and Interface Design Too many overlapping icons in a dense layout create cognitive overload. Lack of filtering (e.g., by urgency, proximity, or student eligibility) limits practical use. Not optimized for mobile even though most students browse via phone. Language is technical or institutional, alienating newer or international students.</p>
<p>Emerging Assets and Programs Highlighted Including newer or less formal initiatives (like disaster relief food providers or informal funding</p>	<p>Limited Awareness & Promotion survey data reinforces that many students:</p> <p>Don't know the map or Food Hub exists.</p>

programs) shows that the map attempts to keep pace with evolving community efforts.	Don't think they qualify for support. Don't know how to access resources even if they've heard of them .
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Table 4 : This highlights a gap between existence and accessibility.

Primary Data Results Online Survey

An online survey was conducted to explore student experiences with food security at UBC. A total of 255 responses were collected. After removing incomplete responses that were missing important demographic or food-related information, 210 valid responses were analyzed. The final dataset included students from a variety of programs and academic years. Most respondents were domestic students, with many living off campus, while a smaller but notable group lived in on-campus housing. The sample also included strong representation from students who identified as racialized, 2SLGBTQIA+, and members of historically marginalized groups.

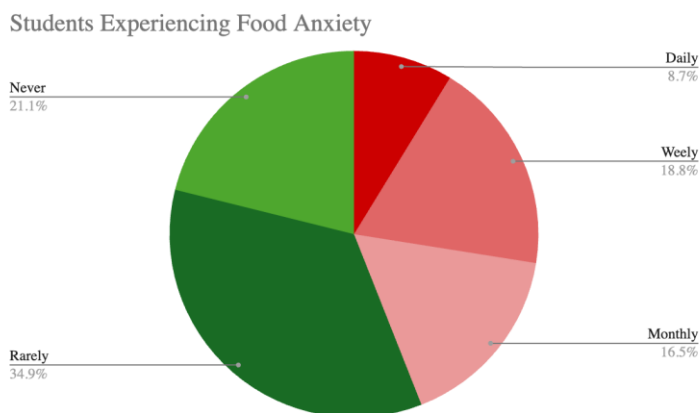


Figure 1 illustrates how often UBC students experience food-related anxiety, specifically in response to the question, “How often do you worry about affording food?” Among the 210 valid survey responses, 8.7% of students reported feeling this anxiety daily, 18.8% weekly, and 16.5% monthly. In contrast, 33.9% said they rarely worry about affording food, while 21.1% reported never experiencing this concern.

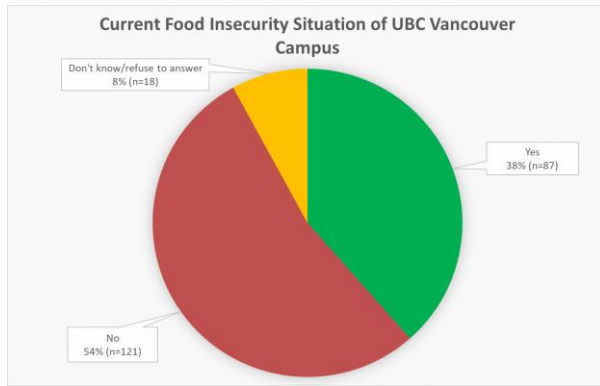


Figure 2 illustrates the current food insecurity situation among students at UBC Vancouver. Of the total respondents, 38% reported experiencing food insecurity within the past 12 months, while 54% indicated they had not. An additional 8% were either unsure or chose not to respond. These findings highlight that food insecurity is a significant issue on campus, affecting over one-third of surveyed students.

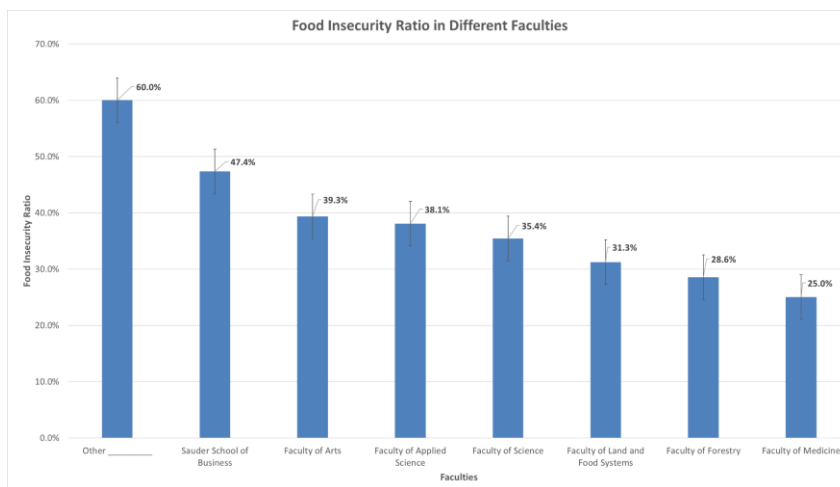


Figure 3 illustrates the proportion of students who reported experiencing food insecurity in the past 12 months across various faculties at UBC Vancouver. The food insecurity rate is calculated as the percentage of students within each faculty who indicated having experienced food insecurity, relative to the total number of respondents from that faculty. The rates vary by discipline, with faculties such as Arts and Applied Science reporting higher levels of food insecurity (both near 40%), while others, such as Forestry (28.6%) and Land and Food Systems (31.3%), reported comparatively lower rates. Notably, the Sauder School of Business (Commerce) exhibited a food insecurity rate of 47.4%, the highest among the faculties surveyed. These findings suggest that students' experiences with food insecurity may differ based on their academic program or faculty.

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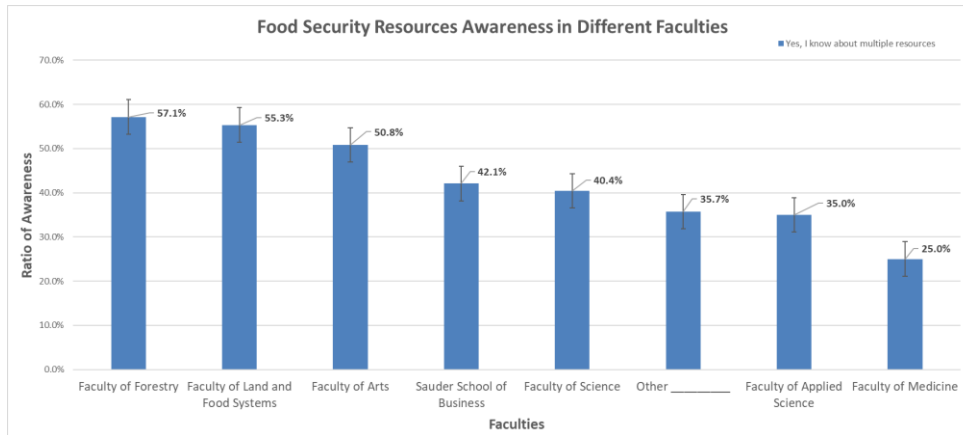


Figure 4 illustrates the current level of awareness of food security resources among students across different faculties at UBC Vancouver. Awareness is defined as the proportion of students within each faculty who reported knowing about multiple food resources available on campus. The highest levels of awareness were reported by students in the Faculty of Forestry (57.1%), Land and Food Systems (55.3%), and Arts (50.8%). In contrast, students from the Faculty of Medicine (25.0%), Applied Science (35.0%), and “Other” faculties (35.7%) reported the lowest awareness levels. These findings suggest significant variation in food resource knowledge across faculties.

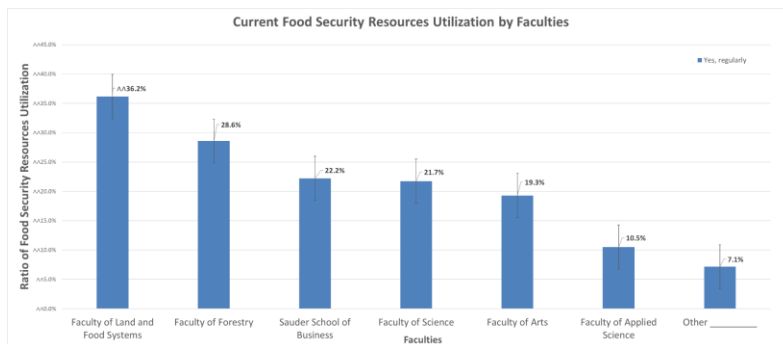


Figure 5 illustrates the utilization of food security resources, measured by the percentage of students in each faculty who regularly use them. The Faculty of Land and Food Systems reported the highest accessibility (36.2%), followed by Forestry (28.6%). Sauder (22.2%) and Science (21.7%) fell in the mid-range, while Arts (19.3%), Applied Science (10.5%), and “Other” (7.1%) had the lowest regular usage rates. These findings suggest that while some faculties are more aware of food resources, that doesn't always mean students are regularly using them highlighting a potential gap between awareness and accessibility.

Students Aware of Food Support Programs at UBC

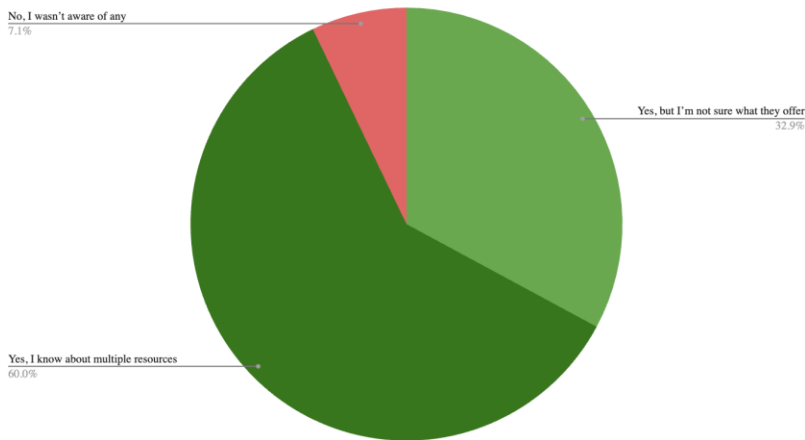


Figure 6 shows the current level of student awareness of food security resources on the UBC Vancouver campus. A total of 60% of students reported that they are aware of multiple food resources. Another 32.9% indicated they have background knowledge or basic information about several food resources. The remaining 7.1% of students reported a lack of awareness of any food security resources on campus.

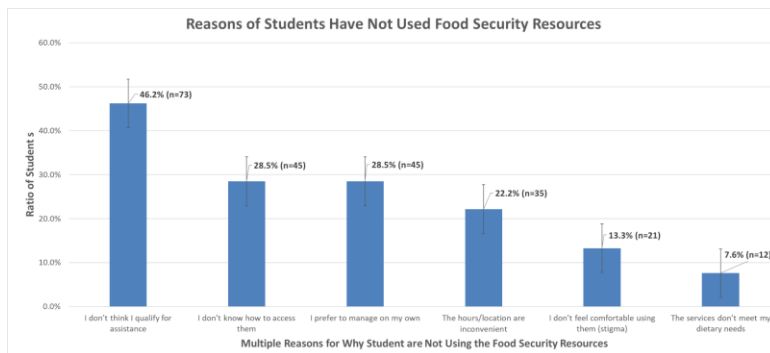


Figure 7 suggests that the most common barrier to using food security resources is a perceived lack of eligibility, reported by 46.2% of students ($n = 73$). This is followed by not knowing how to access them (28.5%, $n = 45$) and a preference to manage independently (28.5%, $n = 45$). Other barriers include inconvenient hours or locations (22.2%, $n = 35$), discomfort or stigma (13.3%, $n = 21$), and dietary mismatches (7.6%, $n = 12$), highlighting both communication and accessibility challenges.

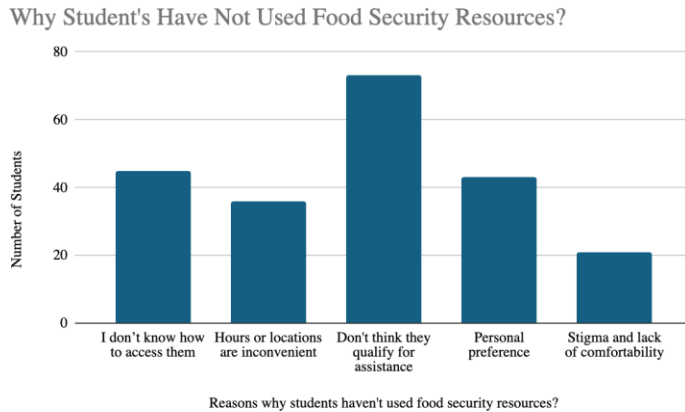


Figure 8. Reasons why students have not used food security resources at UBC.

This figure presents a bar graph showing student responses to the question, “If you haven’t used these services, what are the main reasons?” (Multiple selections allowed). The most frequently reported reason was “Don’t think they qualify for assistance,” followed by “I don’t know how to access them.” Other reasons included personal preference, inconvenient hours or locations, and stigma or lack of comfortability. The graph displays the number of students who selected each option, highlighting the range of factors that influence students’ decisions not to access available food security resources.

Primary Data Results Interview

This section presents the findings from six semi-structured interviews conducted with key stakeholders involved in UBC’s campus food security initiatives. Participants represented a range of programs, including student-led initiatives and institutionally supported services. Interviews focused on accessibility, visibility, institutional support, and integration with the official Food Asset Map. Responses were analyzed and organized into a resource matrix (Table 1) and summarized visually through a series of charts (Figure 9).

Available to all	Barriers	Directly supported by UBC	Sufficiently supported by UBC	Student lead	Included on Food Map
Collegia	yes	yes	yes	no	yes
Food pantry	no	yes	yes	no	yes
UBC meal share	no	yes	yes	no	no
Sprouts	no	yes	no	yes	yes
Agora	no	no	no	yes	yes
Farm to plate	no	no	no	yes	no
Acadia Foodhub	no	yes	yes	yes	yes
Hillel House	no	no	no	yes	yes
Skih Dinner	no	no	no	yes	no
Hewe Eats (Sauder)	yes	no	no	yes	no
KUS office snacks	yes	no	no	yes	no
SUS pantry	yes	no	no	yes	no
AUS community Pantry	yes	no	no	yes	no
Foodhub	no	yes	yes	yes	yes
Roots on the Roof	no	yes	yes	yes	yes
Wednesday night Dinner	no	no	no	yes	no
GSS GradsEatWell Food Security Program	yes	unsure	unsure	yes	no

Table 5. Interview finding summaries. Summarizes interview findings on the characteristics, accessibility, and support structures of various food resources available on the UBC Vancouver campus. Resources were evaluated based on five key criteria: whether they are available to all students, whether there are any reported barriers to access, whether they receive direct and sufficient support from UBC,

whether they are student-led, and whether they are included on the official Food Asset Map. The results indicate that while some programs such as Collegia, the Food Pantry, and UBC Meal Share benefit from consistent institutional support and strong visibility, others operate under more decentralized models. Several student-led initiatives, including Roots on the Roof, Agora, and Hewe Eats (Sauder), play a valuable role in addressing food insecurity but are not always formally integrated into UBC systems. While these programs demonstrate innovation and strong student engagement, interview responses suggest that some student leaders do not always feel fully supported or connected to institutional frameworks. Additionally, certain resources such as SUS Pantry, KUS Office Snacks, and the GSS GradsEatWell Program were identified as facing access-related barriers, such as limited availability, communication gaps, or inconsistent inclusion on the Food Asset Map. These findings suggest opportunities for improved coordination, clearer communication channels, and increased recognition of the efforts already underway across campus. Overall, the data highlights the strength and diversity of food initiatives at UBC, while also pointing to areas where stronger alignment and expanded institutional support could further enhance campus-wide food security efforts.

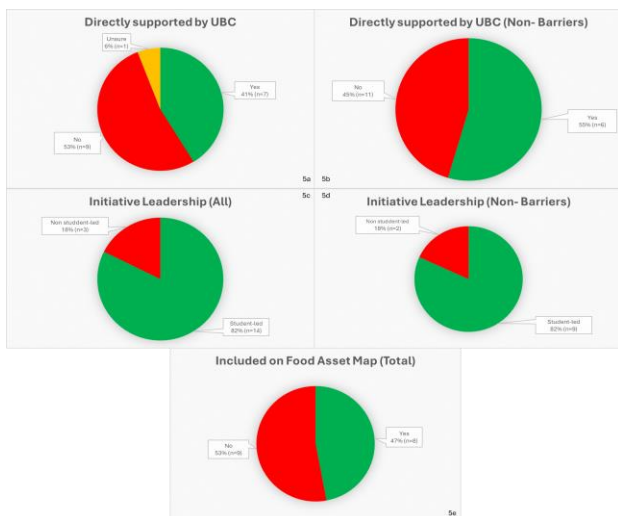


Figure 9 summarizes key characteristics of food security resources on the UBC Vancouver campus, based on data from Table 1. Each subfigure provides a breakdown of resource features across several categories:

- Figure 9a shows that 41% of food security initiatives are directly supported by UBC, while 53% are not, and 6% of responses were unsure.
- Figure 9b focuses specifically on resources that do not face access barriers, revealing that 55% of these are directly supported by UBC.
- Figure 9c highlights that a large majority (82%) of all food security initiatives are student-led.
- Figure 9d shows that among the resources without reported barriers, 82% are also student-led, indicating strong student leadership even in well-functioning programs.
- Figure 9e illustrates that just under half (47%) of all food security resources are included on the official Food Asset Map, while 53% are not.

These figures reflect the important role student-led initiatives play in supporting campus food security, while also suggesting that increased institutional integration through direct support or improved visibility could help strengthen the impact and accessibility of these resources.

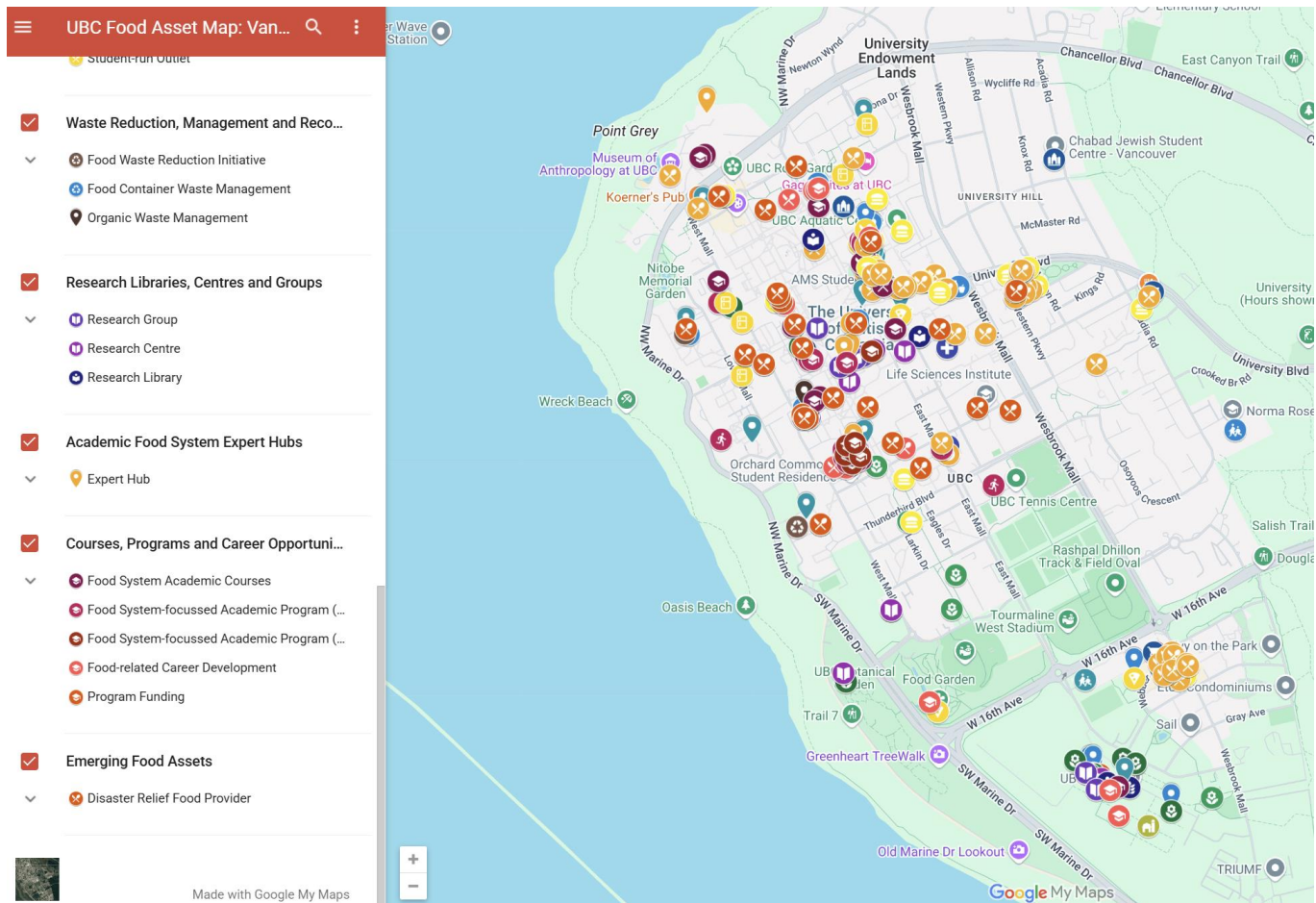


Figure 10. Snapshot of the Food Asset Map that was provided by Virtual Food Hub of UBC (2025).

Summary of Survey Results

Our survey captured a diverse range of student experiences related to food security at UBC with a total sampling number of 255. After cleaning the data to remove incomplete responses ($n=220$)—many of which lacked key demographic or food security information such as year of study, residency status, income source, or food spending we analyzed a well-rounded set of responses that reflected strong participation from students in various years and programs. Most respondents were domestic students, with a notable proportion living off-campus. A significant portion also resided in on-campus housing, which suggests proximity to university resources but may also signal limited access to broader, off-campus food options. The survey included substantial representation from students who identified as racialized, 2SLGBTQIA+, and members of historically, persistently, and systemically marginalized (HPSM) groups, highlighting the importance of designing food security initiatives through an equity-oriented lens.

Food insecurity was a consistent theme throughout the responses. Many students reported struggling to afford nutritious meals, experiencing hunger, skipping meals, or feeling unsure about when or how they would next access food. For some, the issue was not a complete lack of food, but rather an inability to consistently afford healthy, balanced meals. Mental health challenges and academic performance

concerns were frequently linked to these experiences, underscoring the broader implications of food insecurity on student well-being and success.

In analyzing patterns of food insecurity across different student groups, one notable finding from our survey was the inverse relationship between daily and monthly food insecurity among international and domestic students. International students were more likely to experience food insecurity on a daily basis, whereas domestic students tended to report food insecurity on a monthly scale. This disparity raises important questions about the unique structural and social challenges each group faces. For international students, limited access to culturally familiar foods, lack of family or community support for daily meal preparation, and unfamiliarity with local food systems may intensify daily struggles. Additionally, visa-related work restrictions and financial limitations may further constrain their ability to secure consistent, nutritious meals. In contrast, domestic students may have more stable access to support networks or local food sources but still experience periodic financial strain that impacts their ability to afford food throughout the month. These findings emphasize the need for food security initiatives that are not only accessible and inclusive, but also responsive to the distinct needs and lived experiences of diverse student populations.

While most students reported being aware of UBC's food support services, far fewer had actually used them. Among those who had not accessed support, reasons mentioned were due to not knowing how to access services, concerns about stigma or embarrassment, and a perception that the services were "not meant for them." These findings emphasize the need to improve not only awareness but also the accessibility, transparency, and inclusivity of food security programs. Students also expressed a strong interest in learning more about affordable and nutritious eating, and many were enthusiastic about student-led initiatives aimed at tackling food insecurity. Suggestions for improving food access at UBC included expanding affordable food options on campus, offering more culturally relevant choices, increasing funding for food programs, and ensuring that access is easy and private. There was widespread agreement that current on-campus food options are perceived as unaffordable and lacking in variety.

Overall, the survey results reinforce the importance of understanding food insecurity as a multifaceted issue one shaped by economic, social, and structural factors. The feedback points to clear opportunities for UBC to improve communication around food support services, address barriers related to eligibility and stigma, and design more inclusive, student-centered solutions. One of the key findings from our research challenges a commonly held assumption in campus food security efforts: that lack of awareness is the primary barrier preventing students from accessing food support services. During our stakeholder interview, this belief was reaffirmed, with specific reference to plans to increase resource visibility through boothing and outreach in the upcoming winter session. While we recognize the value of these efforts, our quantitative data suggests that awareness may not be the central issue for most students. The majority of respondents indicated they were already aware of food support services offered at UBC, yet many still reported not accessing them. This disconnect points to a different set of barriers—most notably, uncertainty about eligibility. Students frequently reported believing they did not qualify for support or being unsure whether the services were intended for people like them. This issue was

particularly pronounced among racialized and marginalized students, who also cited discomfort, stigma, or fear of judgment as reasons for avoiding these resources.

Alongside these internal barriers, our research and stakeholder conversations highlighted a range of broader systemic challenges. Students can feel overwhelmed by the number of available options, unsure where to start, or unsure which services are “for them.” Many prioritize immediate food access—meeting basic needs day-to-day over longer-term food literacy programming that focuses on upstream solutions like skill-building or nutrition education. This disconnect between student priorities and program design may reduce the perceived relevance of certain resources, even when they’re accessible. Given UBC’s dynamic and diverse student population, the health promotion team also emphasized the importance of frequent, targeted data collection to stay aligned with evolving student needs.

These findings reveal an important insight: awareness does not necessarily translate into access. Students may know that food programs exist, but internalized stigma and unclear eligibility criteria can prevent them from seeking help. This challenges dominant narratives in food security programming and underscores the need to shift communication strategies away from general visibility campaigns toward inclusive, affirming, and targeted messaging that explicitly addresses eligibility misconceptions and normalizes the use of support systems. In comparison to the existing literature, much of which emphasizes structural and economic barriers to food access, our findings contribute a valuable perspective on the social and psychological dimensions of food insecurity on campus. Notably, we were unable to find substantial academic literature that explicitly identifies perceived ineligibility as a primary barrier to accessing food support, highlighting a potential research gap. This suggests that our findings may be a stepping stone for broader institutional research or future student-led projects. We recommend that subsequent LFS 450 cohorts consider exploring this issue in greater depth, potentially through focus groups or interviews that unpack students’ personal narratives around food access and self-perception.

Discussion

Understanding Food Insecurity on UBC Campus: 2025

We began our survey with questions to understand general aspects of food insecurity on UBC campus in the Spring of 2025. We specifically focused on question 9 which was: “In the past 12 months, did you (personally) ever eat less, felt hungry or skipped meals because you couldn’t afford food, or felt there wasn’t enough money to buy food?” to identify students who experienced food insecurity in the past 12 months. From this we found that 39% of students who completed this survey have experienced direct impacts on their food consumption, due to affordability or personal concerns. Considering our definition of food insecurity as not having access to sufficient food, or food of an adequate quality, to meet one’s basic needs, we considered this 39% as self-identifying food insecure. (Figure 1) Moreover, we also surveyed to identify students who experienced Food security anxiety referring to feelings of stress and worry experienced by individuals or households due to concerns about having sufficient access to food. Our survey question 8 asked: “How often do you worry about affording food?” From this we received 217 responses and we found that only 21.1% of students never experienced anxiety around food security. Additionally, 45.2% of students experienced food security anxiety daily, weekly or monthly. Of this, 8.7% of students worry about their access to food daily, 18.8% of students worry weekly, and 16.5% monthly. These findings aligned with information we found in our secondary data collection which reported in 2019, 38.5% of UBC students experienced food insecurity (UBC 2019). Additionally, this information also aligns with recent findings illustrating that “76.9% of UBC Vancouver students report having experienced food insecurity or anxiety of varying degrees” (Rector et al., 2024). Ultimately, it becomes apparent that food insecurity has been and still is a significant issue facing students at UBC.

Awareness, Access, and the Role of Institutional Support

One of the key goals of this project was to assess how effectively food security resources are communicated and accessed by students at UBC. While our survey showed that 92.9% of students are aware of at least one food support program on campus, actual usage remains significantly lower. This points to a critical disconnect between awareness and access. Students often reported that they did not know how to access services, felt unsure whether they were eligible, or believed the programs were not meant for them. These findings challenge the assumption that simply increasing visibility will lead to greater student engagement.

Interviews with UBC Food Services and the Health Promotion team offered insight into institutional efforts. According to the UBC Food Systems Director, their mandate does not include providing subsidized meals; rather, they contribute to food security through indirect means operating value-focused outlets like Presto and Tim Hortons, offering dietary accommodations in residence meal plans, and supporting cultural and allergy-specific needs. While the meal plan is not financially accessible to all students, it aims to meet broader food security standards in terms of nutrition, inclusion, and consistency.

UBC Food Services also supports student-led programs operationally by providing space, financial donations, and volunteer help to initiatives like the Food Hub Market, Agora Cafe, and Acadia Food Hamper. The Manager of Health Promotion emphasized ongoing support for food-related programming and a commitment to staying involved where possible.

However, interviews with student leaders from food security programs revealed a deeper issue. Despite receiving some resources, these initiatives operate almost entirely independently. There are no formal or recurring structures in place for student groups to meet with UBC administration, coordinate efforts, or align messaging. Students noted that communication is informal, irregular, and often one-sided, placing the burden of running essential food programs entirely on student volunteers. As one student leader described it, the relationship is "supportive in theory, but disconnected in practice." This lack of coordination highlights a gap not in effort, but in structure. While UBC departments contribute resources, the absence of a collaborative framework limits the impact of those efforts. Without regular communication, shared planning, or institutional integration, food initiatives remain fragmented making it harder for students to know what exists, trust that it's for them, and access it effectively. Addressing this disconnect is critical to ensuring that food security resources are not only available, but also visible, approachable, and widely used.

To further investigate this, we conducted more research in our initial survey. Question 14 asked: "Are you aware of food support programs available at UBC?" providing three options: Yes, I know about multiple resources; Yes, but I'm not sure what they offer; No, I wasn't aware of any. We were able to code this information and compare it with respondents' faculty which was disclosed earlier in the survey to identify trends in awareness of existing resources. In doing this we found that the faculties of Land and Food Systems, Forestry, and Arts had the highest Awareness rates of food security resources (above 50%), with the remaining faculties having awareness rates below 50% (Figure 6). We also identified in interviews that a significant number of students involved in student-led food security were in these faculties, and or that these faculties had strong ties to food security initiatives. For example Forestry partners with Roots on the Roof to facilitate farm to plate, and initiatives with UBC farm; Agora Cafe is located in the LFS building, the MacMillan building; and sprouts has historically had ties to the faculty of Arts. This would explain the high levels of awareness of resources for these students. We saw lower levels of awareness among faculty of science, medicine, applied science, and other, indicating that further awareness efforts could be made to target these groups. With this in mind we recognize that there is much work to be done to improve awareness of food resources, but overall, in response to whether students are aware of food support programs, only 7.1% of total responses were unaware that such resources existed. This demonstrates that students do know that UBC has resources available to students, and there must be some greater disconnection resulting in the 92.9% of students who are aware such resources exist, and either do not utilize them, or these resources not have their needs met resulting in 38% of the total students being surveyed experiencing food insecurity. To further examine this we considered other aspects of food systems including information, access, demographics, capacity, and communication described in later parts of our implications.

Gaps in Resource Information

Our Primary and Secondary research and data collection allowed us to compare information understood, advertized, and considered by various stakeholders. By using a mixed methods approach and interviewing student-leaders who are deeply involved in student-led initiatives and UBC food systems, we were able to learn about a lot of different events across faculties, and related to the more known food security initiatives (Agora, Sprouts, ROTR, Food Hub). Some examples of these projects were those run by undergraduate societies, clubs, community fridges, and free food events. In total we documented 17 initiatives. Once documenting and investigating these resources, we were then able to cross compare with information provided on the virtual Food Hub website, and UBC resources. In doing this we observed missing information and gaps in information, such as events, and community fridges, or food security offerings missing on the food asset map. We found that of the 17 initiatives we were able to locate in our research, only 9 were on the food asset map. Additionally, upon further investigation, we found that descriptions of student-led food security initiatives were also frequently missing information. For example, the virtual food hub page on Agora cafe, did not mention the operations of free community dinners on Mondays and Thursdays –one of the key projects and goals of Agora Cafe, as well as, an excellent resource for food insecure students. The virtual Foodhub, also lacked information on how students can get involved or access food security initiatives, or food discounts that are subsidized with intention to support food-insecure students. One example is the discount at UBC farm, farm-to-plate, or even roots on the roof, all UBC initiatives to combat food insecurity that is omitted from the virtual food hub site. Overall, it became clear that gaps in the information known by developers, administration, and managers of UBC food security are reflected in the resources created, and communication among stakeholders involved in food security efforts.

Our survey results regarding why students don't utilize existing resources also supported our findings that gaps in information are a critical issue for food security at UBC. In our survey, question 17 asked "If you haven't used these services, what are the main reasons? (Select all that apply) - Selected Choice." From this we found that of the 156 respondents, the primary reason students did not utilize food-security resources is because "they don't think they qualify for assistance," with 72/156 citing this reason. The second most common reason students reported not using food security resources is because they "don't know how to access them," although being aware of their existence, 45/156 citing this reason. These survey findings demonstrate a gap in information about who is eligible to access resources, and how to access resources.

Ultimately it is clear that there are gaps in information surrounding information about the operation of various initiatives, publishing of this information, and comprehensiveness of the information regarding eligibility and access. These gaps in information cause critical gaps in food systems for UBC students. These gaps must be addressed in order to further address food security as an overall issue facing students.

Interface and User-friendliness of existing resources

The research identified significant gaps in the user experience of digital food security platforms at UBC, particularly the UBC Food Hub and the UBC Food Asset Map. While both tools are intended to serve as centralized information hubs, many students either do not know they exist or find them difficult to use. Interview and survey data revealed that navigational challenges, outdated information, and unclear resource categorization often hinder students from accessing the help they need. For instance, students found the Food Asset Map overwhelming due to its dense layout and lack of filtering tools, which made it difficult to locate relevant services based on proximity, type of resource, or urgency (e.g., emergency food access vs. educational programs). Additionally, the language and terminology used across these platforms often assumes a level of prior knowledge, which can exclude students new to the university or unfamiliar with institutional jargon. The digital platforms also lack mobile-friendly design, which is a major drawback considering that students typically search for information on their phones. These issues collectively reduce the platforms' effectiveness, even though the infrastructure and intent can be seen. The survey responses also highlighted a disconnect between how students want to engage with services and how services are presented. Many students suggested that having integrated calendar functions, visual maps, or personalized recommendations (e.g., "You may be eligible for...") would significantly improve its usability. Students also emphasized the importance of consistent promotion of these tools across campus spaces both digital and physical so that awareness does not depend solely on word-of-mouth or chance encounters. Improving these platforms' interfaces through more intuitive layouts, real-time updates, and inclusive of student-centered design is essential for reducing barriers to access and increasing the reach of campus food programs. Making these tools more interactive, accessible, and visible would empower students to better navigate available supports, promoting greater food agency and equity across the UBC community.

Research and Data Limitations

The limitation of data acquisition for this study was primarily time-based. Although the questionnaire's design was completed early in the timeline, collecting responses proved more challenging than anticipated, with fewer than 100 submissions received over two weeks. Subsequent efforts, such as distributing the survey through personal networks, classmates, and official campus social media channels which allowed us to complete data collection before the final presentation (n=257). While the sample is classified as random, these additional distribution methods likely introduced bias by over-representing certain groups, potentially affecting the overall representativeness of the results. Nonetheless, the data still provides valuable insights into campus food security measures. Data processing revealed further challenges. When comparing items using the Chi-Squared Test provided by Qualtrics, many comparisons did not reach statistical significance. It is evidenced by the overlap of error bars in various tables, which suggests that differences among categories are statistically similar. The limited sample size potentially has reduced the statistical power of the test, which masks differences that might be present in a larger dataset. Despite the lack of significant statistical differences, observable trends emerged in the data. Notably, variations in awareness of food security resources across different colleges were apparent, with some institutions showing higher awareness levels. These differences in awareness seemed to align with variations in resource utilization rates. In conclusion, while time constraints and small sample size have introduced bias and limited statistical significance, the emerging trends in resource awareness and usage provide useful directions for future research and improvement of campus food security measures. Further studies with larger, more representative samples and additional analytical methods are recommended to validate these findings. These observations emphasize the need for further research with enhanced methodology. Expanding the sample size and diversifying participant sources will likely yield more robust statistical findings, ensuring that future conclusions on campus food security practices are even more reliable.

Recommendations for Action

Short Term

Short-Term Recommendation 1: Simplifying, Updating, and Consolidating Food Security Resources

Our research showed that students face multiple barriers when trying to access food security information on campus. These include unclear website navigation, missing or outdated content, and a lack of integration between institutional and student-led resources. To address these issues, we recommend the following actions:

a. Simplify the Virtual Food Hub by clearly separating educational content from access-based resources. Students frequently reported that the Virtual Food Hub was difficult to navigate and that it was hard to tell the difference between general educational content (like nutrition tips or research articles) and actual food access services (like where to get free or low-cost meals).

We recommend redesigning the homepage or menu using two clear pathways:

- “Learn About Food” (educational workshops, articles, sustainability info)
- “Get Help Now” (food programs, where to access support, eligibility info)

This simple change would reduce confusion and help students find the support they need more quickly, especially those in urgent need.

b. Make the Food Asset Map easier to find and more user-friendly

Currently, the Food Asset Map is buried within the Virtual Food Hub and its design can be difficult to navigate, especially for mobile users. Students' responses illustrate not knowing about the existence of these tools, or simply not knowing how to use them.

Recommendation for improvement:

Embedding a clearly visible link or button to the map on the main Virtual Food Hub page

Adding filter functions such as:

- ◆ “Affordable Food”
- ◆ “Free Meals”
- ◆ “Emergency Food Access”
- ◆ “Student-run Initiatives”

Optimizing the map for mobile devices, as most students access campus resources on their phone. These changes will make it easier for students to locate the support that matches their immediate needs.

c. Expand and regularly update listings on the Food Asset Map and Virtual Food Hub

In our research, we identified 17 campus food initiatives, yet only 9 were represented on the Food Asset Map. Missing entries included free community meals, club-run fridges, and events hosted by

undergraduate societies.

We recommend that the Virtual Food Hub team develop a submission form or shared update calendar that allows student groups (AMS clubs, undergraduate societies, and other grassroots organizers) to easily submit updates or new listings. Updates should be reviewed and added at least once per semester to keep the platforms current, inclusive, and useful.

d. Build stronger, consistent communication channels between UBC and student-led food initiatives. Many student leaders shared that, while UBC expresses support for their efforts, communication is often informal, inconsistent, and one-directional.

We recommend formalizing communication through:

- A central point of contact within the Health Promotion Team who can liaise directly with student food program leaders.
- A shared contact list and collaboration guide to streamline updates, event promotion, and align messaging across campus groups.

This structure would reduce duplication, strengthen collaboration, and ensure student voices are consistently included in planning and decision-making.

e. Host semesterly roundtable meetings with student food initiative leaders

To build stronger relationships and ensure that UBC's digital food resources remain aligned with real-time student needs, we recommend UBC host one roundtable per semester with key food initiative leaders (e.g., Sprouts, Agora Café, Roots on the Roof, Acadia Food Hub, and others).

These roundtables would:

- Create space for student feedback on resources and communication
 - Surface operational needs or changes (e.g., hours, menu updates, new programs)
 - Encourage joint planning and knowledge-sharing between groups
- This would help UBC better understand the evolving food security landscape and strengthen recognition and support for student-led work.

f. Improve the visibility of the Food Asset Map and Virtual Food Hub across campus

Even when students are aware that food support exists, they often don't know where to find up-to-date information. Our survey and interviews highlighted that many students had never heard of the UBC Food Asset Map or only found it by chance.

To improve visibility, we recommend:

- Posting QR-code posters or digital slides that link directly to the Food Asset Map and "Get Help Now" page of the Virtual Food Hub
- Placing these in high-traffic locations such as the MacMillan Building, The Nest, Irving K. Barber Library, and residence lobbies
- Including a food resource handout or directory during tabling and boothing activities (e.g., as part of orientation or AMS events)

These tailored recommendations are built on existing efforts by our client to expand outreach through booting and can be implemented quickly and affordably. Increased visibility will ensure students can easily access information in spaces they already frequent, bridging the gap between awareness and action.

Short-Term Recommendation 2 : Increase Communication and Awareness of Food Support Resources

Student responses show lack of knowledge in accessing food support at UBC, even if they've heard about it. In our survey, 28.5% of respondents said a key reason they hadn't used food programs was simply because they didn't know how to access them. Similarly, during interviews, student leaders shared that they rely heavily on word-of-mouth to promote their initiatives, a strategy that unintentionally limits outreach to smaller, more connected circles. This highlights a major gap in how food support information is currently shared. Students need not only to know that food resources exist, but also to understand how, when, and who they're for.

UBC should use a variety of communication tools already available across campus to regularly share clear, visible information about food resources. These efforts should include:

1. In-class announcements, especially during the first week of each term, with a focus on reaching faculties with lower awareness, such as Applied Science.
2. Posters and digital screens in high-traffic areas like residence buildings, dining halls, libraries, and the AMS Nest.
3. Canvas messages or banners linking directly to the Food Hub and Food Asset Map.
4. Residence Life integration, including RAs mentioning food supports during meetings, adding info to welcome packages, and posting in common areas.
5. Continued support for UBC Health Promotion's food literacy workshops, which already link nutrition and affordability. To boost attendance, we suggest these workshops be promoted using the channels listed above, alongside basic social media promotion to increase visibility.

Why it's realistic:

This recommendation is highly achievable. UBC already has the systems needed for Canvas, digital signage, residence programming, and instructor networks. What's needed is a coordinated and consistent communication strategy developed in collaboration with key groups involved in food security work at UBC including the UBC Health Promotion team and student-led initiatives like Sprouts, Agora Café, Roots on the Roof, Acadia Food Hub, and others. These groups already have strong connections to the student community and play a major role in running food programs. By working together to create a shared outreach plan with consistent messaging, regular updates, and clear responsibilities, UBC can use its existing platforms (like Canvas, residence life, and digital signage) to better reach students. This doesn't require building anything new just better coordination and ongoing communication between institutional support teams and student-led food programs

What to avoid:

Don't rely solely on social media, such as Instagram or club-run pages. These often only reach students already involved in specific communities or faculties, and may miss first-years, commuter students,

international students, or students who aren't already connected to UBC's food system. Instead, the university should prioritize official communication channels that reach all students, ensuring equal access to information for everyone, not just those who know where to look.

RECOMMENDATIONS FOR FUTURE RESEARCH

Theme #1 User experience and digital accessibility

While student feedback indicated usability issues, further research should use structured testing to identify specific design flaws and accessibility barriers, especially for students with disabilities or who are not too tech-savvy. Additional research should explore whether students from different socio-economic or cultural backgrounds have equal access to online food security tools and platforms.

Theme #2 Program effectiveness and impact

Research should be conducted to draw comparisons with other universities to identify best measures for food security programs. The impact of food groups initiatives like Agora, Roots on the roof, and Sprouts about how they affect student well-being and spread food literacy. And we do not have enough time to study whether the use of campus food security measures is strongly correlated with solving campus food insecurity, that is, whether the 60% of the sample population who used these programs actually solved their problems of obtaining sufficient, nutritious and culturally meaningful food. Since only 21% of the population has never faced food insecurity, this raises questions about whether the measures are effective. A comprehensive assessment of food security measures on campus is needed, that is, whether the measures help students solve their food insecurity problems under the same circumstances (or treatment, such as whether they received support from UBC) and compare to students' utilization or accessibility proportion, which may be related to the proportion of the total food insecure population on campus. This assessment may be helpful and can help leadership better plan how to use limited funds to support relatively more mature initiatives.

Theme #3 Policy integration

A policy analysis on a regular basis could be conducted to understand how well UBC's commitments are put into practice and whether the measurable food security outcomes have followed. This would also help reveal any gaps in understanding and a more cohesive working structure between student food groups and the university administration.

Conclusion

The Food Security Initiative (FSI) at the UBC Vancouver Campus is an interdisciplinary, multi-stakeholder platform that seeks innovative methods to address and reduce food insecurity on campus (UBC Wellbeing, 2024; SEEDS Sustainability Program, 2024; UBC Food Systems Program, 2024). Co-founded by UBC Wellbeing, the SEEDS Sustainability Program, and the UBC Food Systems Program, FSI aims to transform campus food systems by integrating student-led applied research with operational programs and advocacy efforts (UBC Wellbeing, 2024). Its mission is to foster an environment where every community member, from students to faculty, has equitable access to affordable, culturally appropriate, and nutritious food (UBC Food Systems Program, 2024). In our study, we set out to assess both the knowledge and the usage of food security measures among current students. We employed a mixed-methods approach that incorporated quantitative surveys via tools such as Qualtrics and qualitative interviews (Creswell & Plano Clark, 2017). The survey was designed to determine the prevalence of food insecurity problems on campus, explore the awareness and utilization levels of available food security initiatives among students, and ensure the questions strictly comply with CBAR regulations (Government of Canada, 2020). In addition, we sought to understand the challenges that underrepresented groups may encounter when attempting to access these resources. To add depth to our findings, we also interviewed leaders from various campus food programs. The study included data from 17 food security programs running on campus to achieve a comprehensive overview. This wide sampling enabled us to capture a broad spectrum of challenges, ranging from program operational difficulties to issues related to students' direct accessibility and awareness of these measures.

According to our survey results, the proportion of students who are currently experiencing or have experienced food insecurity is similar to the levels observed at the beginning of the COVID-19 pandemic in 2020 (4, 2021). This finding suggests that the initial impact of the pandemic may have driven the rapid development of food security measures on campus. However, the sustained levels indicate that while many programs have matured, persistent challenges still need to be addressed. One striking outcome of the survey was that students' awareness of food security measures is generally high; less than 10% of the sample population reported having no knowledge of these initiatives. However, there is a significant issue regarding clarity in eligibility; approximately 32% of respondents stated they were unsure if they qualified to use the available food security resources. This gap in eligibility awareness suggests that even when students are knowledgeable about the existence of these measures, uncertainty about accessing them remains a barrier.

Moreover, interviews with program leaders revealed that most food security measures are operated and managed by students. There is little to no direct financial or administrative support provided by UBC, and regular institutional meetings that could facilitate better coordination are lacking (AMS, 2024). A major accessibility issue highlighted in the interviews is that several food security measures are not marked on the Food Asset Map—a tool intended to help students locate resources quickly and easily (UBC Food Hub Market, 2024). The omission of these measures from the map significantly hinders students' ability to access or use the following resources that may support their food insecurity problems. Based on the

study's findings, it is clear that improving the accessibility of food security resources should be a priority for future initiatives. Some specific measures that we recommend include clear communication regarding eligibility criteria, which should be part of all promotional materials. This will help reduce the 32% of students who are uncertain about accessing services. Providing targeted assistance, whether through financial support, workshops, or personalized guidance, could further help those facing barriers to food security measures. It is crucial to list all food security resources on the Food Asset Map and to improve its search functionality. This update will make locating and utilizing available measures easier for students. Although our short-term survey data indicate general trends, some aspects were not statistically significant. We recommend an ongoing campus census and longitudinal studies to track changes in accessibility and evaluate the long-term effectiveness of these interventions.

In summary, the FSI at UBC Vancouver is playing a critical role in addressing food insecurity through a holistic, research-driven, and community-based approach. While student awareness is high, significant challenges in terms of eligibility uncertainty and accessibility, especially due to gaps in resource mapping, remain. Strengthening communication, updating resource directories like the Food Asset Map, and ensuring continuous data collection will help improve the overall effectiveness of food security measures on campus. With these steps, FSI can continue to build on its successes and pave the way for a more food-secure future at UBC (UBC Wellbeing, 2024; AMS, 2024).

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Appendices

Appendix A: Interview Questions and Consent form

Consent Form

UBC Food Systems Asset Map Student Survey

Your voice matters! The following is to inform your consent in participating in this survey:

STUDY TEAM:

Student Research Group – UBC Food Asset Map

Principal Investigator: Liska Richter, Instructor, Land and Food Systems 450 class, Faculty of Land and Food Systems.

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Tel: 604.822.3270

INVITATION AND STUDY PURPOSE:

You are being invited to take part in this research study because you are affiliated with the UBC food system. We want to learn more about the sustainability of the campus food system. This study will help us advance our knowledge and learn more about ways to enhance the sustainability of the campus food system.

STUDY PROCEDURES:

How is the study done? This study is being carried out by students within their course in *Land, Food, and Community III* (LFS 450) in the Faculty of Land and Food Systems. If you agree to participate, you will be asked to participate in an electronic questionnaire. It is estimated that your time commitment will be minimal (approximately 15 minutes), depending on when you are participating in it. You will be given an electronic form to answer.

STUDY RESULTS:

The results of this study will be reported in course-based student reports and will be published in the UBC Sustainability Library and will cite official study objectives.

CONFIDENTIALITY:

Your answers will remain anonymous unless you give written consent to the UBC student conducting surveys to include your name, working position, or any other identifying factors. By revealing your identity, for future contact you may be identified by code number and kept on a filing cabinet or secure data storage. Anonymous data will not be identified by name in any completed study.

POTENTIAL RISK OF STUDY:

There are no anticipated questions, many having an emotional response. Participants do not have to answer questions that feel personal or uncomfortable, and they are free to tell the study staff at any time.

POTENTIAL BENEFITS OF THE STUDY:

This study may benefit participants by contributing to the advancement of a more ecological, economic, and social sustainable food system.

PAYMENT:

Participants have not volunteered to take part in this study for a fee. You may refuse to participate in this study. If you choose to take part, you may choose to opt out at any time without giving a reason and without negative impact on your employment or standing. If the questionnaire is completed, it will be assumed that consent has been given to participate in this study.

CONTACT INFO:

If you have questions or need more information about what we are doing, please contact the Principal Investigator.

If you contact UBC for ethical concerns, please contact the names and numbers listed at the top of the first completed study.

If you have concerns about your rights as a research subject or your experience with the study, contact the Research Participation Line in the UBC Office of Research Ethics at **1-877-822-8598**.

Do you consent? If not, please exit the survey now.

☐ **Yes, I consent**

FoodHub Market: COMPLETE

Interviewer: Sasha

Interviewee: Student manager/work-learn student

Interview Date: Monday April 1st, 2pm

Interview location: online

Thank you ___ for taking the time to meet with us, we are a group from LFS 450 investigating food security systems and initiatives on UBC campus. We recognize that the FoodHub market is an important food resource for many students and wanted to interview you to learn more about the initiative, its goals, operations, and your role.

1. Could you please explain your role or affiliation to the FoodHub market?
2. Could you expand on your short term (the next six months and this year) and long term goals of your initiative?
3. What actions are being taken to achieve them in support of student food security at UBC? Any policy changes limiting or facilitating this process?
4. What affordable food resources does your initiative offer? How can students access them? Are there any eligibility criteria or barriers they might face?
5. We understand that you are strongly affiliated with UBC and it is a joint initiative by UBC Wellbeing, UBC Food Services, and the UBC Sustainability Hub, started in 2022. Do you feel UBC adequately supports your initiative? In what ways could the university better support your program's efforts to enhance student food security?
6. Do you follow an evaluation plan to measure your community impact and objective completion? If yes, please elaborate. Would you be interested in sharing these findings?
7. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?
8. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?
9. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?
10. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?
11. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?
 - Additional surveying
 - Focus group participation
 - Distributing surveys to your audience, and the beneficiaries
 - Additional interview(s)
 - Posting information/resources on social media
 - Sharing information for your network
 - Working with another food organization

Agora: COMPLETE

Interviewer: Sasha

Interviewee: (2025 co-general manager)

Interview Date: 03/27/2024 @5pm

Interview location: Agora Space

Thank you ____ for taking the time to meet with us, we are a group from LFS 450 investigating food security systems and initiatives on UBC campus. We recognize that Agora Cafe is an important food resource for many students and wanted to interview you to learn more about the initiative, its goals, operations, and your role.

1. Could you please explain your role or affiliation with Agora Cafe?
2. Could you expand on your short term (the next six months and this year) and long term goals of your initiative?
3. What actions are being taken to achieve them in support of student food security at UBC? Any policy changes limiting or facilitating this process?
4. What affordable food resources does your initiative offer? How can students access them? Are there any eligibility criteria or barriers they might face?
5. We understand that you are not affiliated or reliant on AMS or UBC specific programs. What is your relationship like with UBC administration? How do you operate without direct support from UBC? In what ways could the university better support your program's efforts to enhance student food security?
6. Do you follow an evaluation plan to measure your community impact and objective completion? If yes, please elaborate. Would you be interested in sharing these findings?
7. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?
8. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?
9. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?
10. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?
11. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?
 - Additional surveying
 - Focus group participation
 - Distributing surveys to your audience, and the beneficiaries
 - Additional interview(s)
 - Posting information/resources on social media
 - Sharing information for your network
 - Working with another food organization

Sprouts: NOT COMPLETE

Interviewer: Sasha

Interviewee: DID NOT OCCUR

Interview Date:

Interview location:

Thank you ___ for taking the time to meet with us, we are a group from LFS 450 investigating food security systems and initiatives on UBC campus. We recognize that Sprouts is an important food resource for many students and wanted to interview you to learn more about the initiative, its goals, operations, and your role.

1. Could you please explain your role or affiliation with Sprouts Cafe?
2. Could you expand on your short term (the next six months and this year) and long term goals of your initiative?
3. What actions are being taken to achieve them in support of student food security at UBC? Any policy changes limiting or facilitating this process?
4. What affordable food resources does your initiative offer? How can students access them? Are there any eligibility criteria or barriers they might face?
5. We understand that you are located in the Nest, and somewhat affiliated with UBC administration and/or the AMS. Could you elaborate on your relationship with the UBC administration? In what ways could the university better support your program's efforts to enhance student food security?
6. Do you follow an evaluation plan to measure your community impact and objective completion? If yes, please elaborate. Would you be interested in sharing these findings?
7. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?
8. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?
9. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?
10. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?
11. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?
 - i. Additional surveying
 - ii. Focus group participation
 - iii. Distributing surveys to your audience, and the beneficiaries
 - iv. Additional interview(s)
 - v. Posting information/resources on social media
 - vi. Sharing information for your network
 - vii. Working with another food organization

Roots on the Roof: COMPLETE

Interviewer: Sasha

Interviewee: President of Roots on the Roof

Interview Date: Tuesday April 1st, 2025 @1pm

Interview location: Rotr club room

Thank you ___ for taking the time to meet with us, we are a group from LFS 450 investigating food security systems and initiatives on UBC campus. We recognize that Roots on the Roof is an important food resource for many students and wanted to interview you to learn more about the initiative, its goals, operations, and your role.

1. Could you please explain your role or affiliation with Roots on the roof Cafe?
2. Could you expand on your short term (the next six months and this year) and long-term goals of your initiative?
3. What actions are being taken to achieve them in support of student food security at UBC? Any policy changes limiting or facilitating this process?
4. What affordable food resources does your initiative offer? How can students access them? Are there any eligibility criteria or barriers they might face?
5. We understand that you are located in the Nest, and somewhat affiliated with UBC administration and/or the AMS. Could you elaborate on your relationship with the UBC administration? In what ways could the university better support your program's efforts to enhance student food security?
6. Do you follow an evaluation plan to measure your community impact and objective completion? If yes, please elaborate. Would you be interested in sharing these findings?
7. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?
8. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?
9. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?
10. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?
11. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?
 - i. Additional surveying
 - ii. Focus group participation
 - iii. Distributing surveys to your audience, and the beneficiaries
 - iv. Additional interview(s)
 - v. Posting information/resources on social media
 - vi. Sharing information for your network
 - vii. Working with another food organization

Wednesday Night Dinner: COMPLETE

Interviewer: Sasha

Interviewee: Student manager

Interview Date: Thursday 03/27: 1pm

Interview location: Zoom

Thank you ___ for taking the time to meet with us, we are a group from LFS 450 investigating food security systems and initiatives on UBC campus. We recognize that Wednesday night dinner is an important food resource for many LFS and all UBC students. We wanted to interview you to learn more about the initiative, its goals, operations, and your role.

1. Could you please explain your role or affiliation with Wednesday Night Dinner and LFSUS?
2. Could you expand on your short term (the next six months and this year) and long term goals of your initiative?
3. What actions are being taken to achieve them in support of student food security at UBC? Any policy changes limiting or facilitating this process?
4. What affordable food resources does your initiative offer? How can students access them? Are there any eligibility criteria or barriers they might face?
5. We understand that you are not affiliated or reliant on AMS or direct UBC administration. What is your relationship like with UBC administration? What is your relationship with the LFS Faculty and LFSUS? How do you operate without direct support from UBC? In what ways could the university better support your program's efforts to enhance student food security?
6. Do you follow an evaluation plan to measure your community impact and objective completion? If yes, please elaborate. Would you be interested in sharing these findings?
7. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?
8. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?
9. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?
10. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?
11. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?
 - i. Additional surveying
 - ii. Focus group participation
 - iii. Distributing surveys to your audience, and the beneficiaries
 - iv. Additional interview(s)
 - v. Posting information/resources on social media
 - vi. Sharing information for your network
 - vii. Working with another food organization

UBC Health Promotion Manager

Interviewer: Melanie/ Zhong

Interviewee: UBC Health Manager

Interview Date: March 22 2025 @ 2:30 pm

Interview location: In person, at her office

Hello, thank you for taking the time to meet with us. We're LFS 450 students collaborating with the SEEDS project to improve food security resources at UBC. Our goal is to enhance awareness and equitable access to food security initiatives, especially for food-insecure students. During this one hour interview, we'll ask open-ended questions to gather qualitative data. We'll be recording the interview for the transcription purposes, and we've provided a consent form for your approval. Feel free to ask for any clarifications if needed.

Part 1 Core Questions (Most Relevant):

1. Can you describe your role in Health Promotion, Health Equity, and Education at UBC, and how it contributes to food security among students?
2. What are your short-term and long-term goals for improving food security at UBC?
3. Are you involved in food policy at UBC? What are the main barriers or enablers from a policy perspective?
4. What programs or resources does Student Health and Wellbeing offer to support food security at UBC? How do you ensure equitable access to food resources, especially for vulnerable or underrepresented communities? Do you have a mechanism in place for this?
5. How do you measure food insecurity among students at UBC, and what trends or risk factors have you identified?
6. How do you track student engagement with food security resources, and what outreach strategies have been most effective? How many students typically use these resources, and could your initiatives serve more students if needed?
7. How can students access food resources, and are there any barriers to access?
8. Are there any plans to reduce food costs on campus, such as affordability initiatives in dining halls or food vendors?
9. What impact have initiatives like UBC Meal Share had on food security, and are there any plans to expand or modify them?
10. What challenges exist in reaching students who may not be aware of or able to access food resources? How can students get involved in supporting food security initiatives at UBC?
11. Do you collaborate with other food security initiatives at UBC? How do you differentiate your efforts?
12. How do students learn about food security initiatives, and how can awareness be improved?
13. What improvements would you suggest for the Food Hub website/platform? The same question for the UBC Food Asset Map?
14. What additional resources or institutional support would help expand the impact of food security programs at UBC?
15. Do you think UBC provides adequate support for food security? How can the university improve in this area?

Part 2: Additional Questions (If Time Allows)

16. Do you use metrics to measure the sustainability and impact of Food Services?
17. Do you follow an evaluation plan to track community impact, such as an annual report?
18. What barriers make it hard to reach students, and how do you plan to overcome them?
19. Are there any other important challenges or opportunities to improve food security at UBC?
20. Would you be interested in further involvement in initiatives to enhance food security at UBC?

21. How do you address challenges like climate change and inflation in food services planning ?

Conclude interview:

Thank you for assigning the time to meet with us. We value your insights and are incredibly valuable to our research. We appreciate your contributions to promoting food secure resources between students at UBC and we are looking forward to using this information to enhance awareness and accessibility to enhance awareness and accessibility of these resources on campus. Please let us know if you'd like us to share any of our findings with you in the future.

UBC Food Services Director:

Interviewer: Kavya/Melanie

Interviewee: UBC Food Services Director

Interview Date/time: Wednesday, March 26th @3.30-4.15pm

Interview location: UBC Food Services Director Office

Intro:

Hello, thank you for assigning this time to meeting with us. We're LFS 450 students working in collaboration with the SEEDS project to address food secure resources at UBC. Our purpose is to support food-insecure students at UBC Vancouver campus, by improving the mapping and outreach of food security initiatives that can enhance awareness and equitable access to food secure resources. Through this 45 minute in person-interview, we hope to assess key areas that will contribute to our research outcomes. We have developed the questions to be open-ended, so feel free to expand as much as you want. We're conducting interviews as our primary source of data collection, and to capture the qualitative data of this interview, we will use audio recording and transcription. We have provided a consent form. If you agree to it, we'll proceed with the interview and recording. Alternatively, if you agree, we will have a note taker. Feel free to ask any questions or ask for clarification if needed.

Interview Q's:

1. As the Food Services director at UBC, you're responsible for strategic planning and successful operation of all brands and restaurants locations on campus. Could you explain more in detail what this looks like?
2. Could you expand how these brands and restaurant locations operate and what's their reach? What impact does it have on UBC food systems, do you collaborate with other projects that are food related?

3. What are the main considerations for an efficient strategic planning and successful operation to achieve a broad impact among the UBC community, but more specifically among UBC food insecure students?
4. We found in the UBC Food Services page a quote of yours “Our values around wellbeing, sustainability, inclusion, and Indigeneity guide how we do business. And in many aspects, we lead the university in those values and strategies – through food.” Could you expand more about:
 - a) how do you put these values into practice?
 - b) in what other ‘many aspects’ you lead the university in those values and strategies through food?
5. Could you expand on your short term goals (within the next six months or this year) and long term goals of your initiative?
6. What actions are being taken to achieve them in support of student food security at UBC?
7. Do you have any role in food policy? What are the main barriers/facilitators from a UBC policy perspective?
8. The pandemic was a challenging time but also an opportunity to innovate and expand food secure initiatives to support the UBC community. What have you learned from this and how could you keep improving these initiatives to increase more students knowing and using these initiatives?
9. Do you also consider other factors impacting price volatility in these operations such as climate change and inflation? How do you strategically plan to promote resilient strategies to these factors?
10. In what ways UBC food services can inform or have an impact at a broader scale? For example, in other universities across Canada?
11. How do students get informed of these initiatives? Any areas of opportunity for improving awareness and a wider reach of these initiatives? For example, a food map on campus showing all the different food resources
12. Some of the food initiatives/resources offered by UBC food services include: UBC eats, Avenue C Market, and *Food*. What have been the main challenges of running these programs and could you expand on other services offered? Do you collaborate with other food services initiatives?
13. How can students access them? Are there any eligibility criteria or barriers they might face? Is it limited to UBC students or does it include other people from the UBC community? (professors, staff, etc)
14. How can students get involved with your initiative, whether through volunteer opportunities, advocacy, or other forms of participation?

15. What are the main challenges for students in accessing these resources and what are the main challenges for effective implementation and distribution of these resources among UBC students?

16. What's the usual number of students getting access to these services on a term basis? Would your initiative have the capacity to serve more students? If not, what resources, partnerships, or support would be required to increase your reach?

17. Do you feel UBC adequately supports your initiative? In what ways could the university better support your program's efforts to enhance student food security?

*Do you have specific metrics to measure the sustainability of UBC food services?

18. Do you follow an evaluation plan to measure your community impact and objective completion? For example, through an annual report. If yes, please elaborate. Would you be interested in sharing these findings?

19. Have you achieved your goal in the past year? If not, what changes or strategies are you implementing this year to ensure greater success?

20. What are the specific barriers that make it difficult to reach students? How have you addressed these challenges, or how do you plan to do so moving forward?

21. Are there specific periods throughout the year when your initiative experiences higher demand? How does your program adjust to meet the increased need during these times?

22. Are you aware of other food security initiatives at UBC, whether on a larger or smaller scale, that complement or overlap with your program? How do you collaborate with or differentiate from these other efforts?

23. Are there any challenges, opportunities, or insights we haven't covered that you consider important for improving access to food secure resources at UBC?

24. Would you be interested in further involvement in a collaborative project or research initiative to enhance food security at UBC?

- Additional surveying
- Focus group participation
- Distributing surveys to your audience, and the beneficiaries
- Additional interview(s)
- Posting information/resources on social media
- Sharing information for your network
- Working with another food organization

Conclude interview.

Thank you for assigning the time to meet with us. We value your insights and are incredibly valuable to our research. We appreciate your contributions to promoting food secure resources between students at UBC and we are looking forward to using this information to enhance awareness and accessibility to enhance awareness and accessibility of these resources on campus. Please let us know if you'd like us to share any of our findings with you in the future.

Students From LFS 450 Request Your Feedback

Win a \$25 Gift Card!

Share Your Thoughts on Food Security
at UBC!

We're collecting responses to identify barriers affecting students' access to food security resources. Your input will help improve food access for all UBC students.

This survey takes only 5 minutes!



Scan the QR code or visit
<https://tinyurl.com/5am7h9ns>
to take the survey!



Thank You for Helping Improve Food Security at UBC!

Appendix C: Survey Questions

1. What year of study are you in?

- First year
- Second year
- Third year
- Fourth year
- Fifth year or beyond
- Graduate student

2. Are you an international or Domestic student?

- Domestic
- International

3. What faculty are you part of?

- Faculty of Arts
- Faculty of Applied Science
- Faculty of Forestry
- Faculty of Land and Food Systems
- Sauder School of Business
- Faculty of Medicine
- Faculty of Science
- Other(s), please specify: _____

4. Where do you currently live?

- On-campus residence
- Off-campus with family
- Off-campus, renting alone
- Off-campus, renting with roommates

5. What is your primary source of income? (Select all that apply)

- Family support
- Scholarships/bursaries
- Student loans
- Part-time job
- Full-time job
- Government assistance

Food Security Questions:

6. On average, how much do you spend on food each month? This includes groceries, eating on-campus..

- Less than \$300
- \$300-\$400
- \$400-\$600
- \$600-\$800
- More than \$800
- Prefer not to answer

7. How would you describe your current food security situation?

- I can afford enough nutritious food without financial stress
- I can afford food, but sometimes it is not enough or not nutritious
- I struggle to afford food regularly
- I often cannot afford enough food and rely on support services

8. How often do you worry about affording food?

- Daily
- Weekly
- Monthly
- Rarely
- Never

9. In the past 12 months, did you (personally) ever eat less, felt hungry or skipped meals because you couldn't afford food, or felt there wasn't enough money to buy food?

- Yes
- No
- Don't know/refuse to answer

10. Do you experience any of the following due to food insecurity?

- Negative impacts on your mental health
- Impacts on your academic engagement
- Health implications: dizziness, fatigue
- Reduced performance/ability on daily tasks
- Other(s), please specify: _____
- N/A

Food System Access and Interactions:

11. Where do you primarily get your food from? (Select all that apply)

- Grocery stores
- UBC dining halls
- Restaurants/takeout
- Campus food security programs (e.g., Food Bank, Sprouts, Food Hub)

- Meal prepping at home
- Free food events on campus
- Friends or family provide my meals

12. How often do you purchase food on campus each week?

- 0-2
- 3-5
- 6-9
- 10-14
- 14+

13. Do you feel there's food options on-campus that are affordable and culturally appropriate for you?

- Yes
- No
- Optional: please explain main limitations if any:

14. Are you aware of food support programs available at UBC?

- Yes, I know about multiple resources
- Yes, but I'm not sure what they offer
- No, I wasn't aware of any

15. Which of the following UBC food resources have you heard of? (Select all that apply)

- UBC AMS Food Bank
- Food Hub Market
- Sprouts Community Kitchen
- Agora Cafe
- None of the above
- Other(s), please specify: _____

16. Have you ever used any of these food support services at UBC?

- Yes, regularly
- Yes, a few times
- No, but I would consider using them
- No, and I would not use them

17. If you haven't used these services, what are the main reasons? (Select all that apply)

- I don't know how to access them

- I don't feel comfortable using them (stigma)
- The services don't meet my dietary needs
- The hours/location are inconvenient
- I don't think I qualify for assistance
- I prefer to manage on my own
- Other(s), please specify: _____

18. What would help improve your access to food support at UBC? (Select all that apply)

- More awareness and promotion of available resources
- Expanded food support options (e.g., more affordable meal plans, grocery vouchers)
- Increased funding for food programs
- More culturally inclusive food options
- Less stigma around using food security services
- Other(s), please specify: _____

19. Would you be interested in learning more about affordable and nutritious eating as a student?

- Yes, through workshops or events
- Yes, through online guides or social media
- No, I am not interested
- Other(s), please specify: _____

20. Would you participate in a student-led initiative to address food insecurity at UBC?

- Yes, as a volunteer
- Yes, if I received financial incentives (e.g., meal vouchers)
- No, but I support these initiatives
- No, I'm not interested

Demographic Information

To better understand systemic barriers to food-secure resources at UBC, we aim to collect demographic data. This will help us analyze inequities in access. Your responses are voluntary and confidential.

21. Do you identify as part of a historically, persistently, or systematically marginalized (HPSM) and/or underrepresented group?

(HPSM groups include Indigenous Peoples, women, racialized people, disabled people, members of the 2SLGBTQIA+ communities, and transgender/non-binary individuals); Underrepresented refers to Individuals or groups with insufficient or inadequate representation in various aspects of university life, often determined when compared to their proportional representation in Canadian society.

- Yes
- No
- Other(s), please specify: _____
- Prefer not to answer

22. Please select all the identities that you self-identify with:

- Woman
- Disabled person/person with disabilities
- Member of the 2SLGBTQIA+community (Two-Spirit, lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, asexual, plus countless ways people choose to identify)
- Transgender or non-binary (TGNB)
- Other(s), please specify: _____
- Prefer not to answer

23. Do you identify as part of a racialized community?

(Racialized people, refer to people who do not identify as primarily white in race, ethnicity, origin, and/or colour, regardless of their birthplace or citizenship.)

- Yes
- No
- Other(s), please specify: _____
- Prefer not to answer

24. If you identify as a racialized person, (please select one or more):

- Indigenous (First Nations, Métis, Inuit)
- Black
- Hispanic
- Asian
- Other(s), please specify: _____
- Prefer not to answer

Optional

1. Do you have any additional thoughts, suggestions, or personal experiences regarding food insecurity at UBC that you would like to share?
2. "What do you think UBC could do to better support students facing food insecurity?"
3. Is there anything else you would like to see included in UBC's food security initiatives?
4. How important is social connection or community in addressing food insecurity?