Campus Food Security: Building Food Skills and Food Knowledge with Enrolment Services
Kimia Nozadi, Antoni Hozar, Ashley Viljoen, Gisele Umuhoza
University of British Columbia
LFS 450
Themes: Food, Finance, Wellbeing
April 12, 2019

Disclaimer: “UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student research project/report and is not an official document of UBC. Furthermore, readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Sustainability Program representative about the current status of the subject matter of a project/report”.
**EXECUTIVE SUMMARY**

**Scientific Justification:** University Students are at significant risk of food insecurity, partly due to inadequate income-support (Hughes et al, 2011). Therefore, students are forced to develop coping mechanisms. Some of these include income generation, austerity measures including working longer hours or living with parents and borrowing money for food. While Hughes et al. (2011) identified low income, government assistance, and sharing or renting accommodation as significant risk factors in food insecurity, enrolment services have identified four at-risk groups within UBC: students on meal plans (particularly first-year students); graduate students; international students; and indigenous students. Food insecurity has been linked to higher body mass index (BMI), overeating, hunger, fatigue, illness, and stress, among others (Olson, 1990; Hamelin, Habicht, & Beaudry, 1999). However, it has been shown that nutrition education, particularly regarding the systems that those who are insecure are living within, can significantly improve outcomes (Eicher-Miller et al, 2009).

**Overall goals:** The overall goal was to help address food insecurity and hunger in the largest possible cross-section of UBC students by creating a readily available and easily accessible document - “The Food Preparedness Guide”. This guide will contain resources requested/informed by students, possibly including but not limited to budgeting tips, and information regarding further assistance such as the AMS Food Bank or community programs.

**Specific Objectives:**
- Consult with students from each of the outlined at-risk groups to determine what kinds of resources would be most beneficial to them. This includes determining what they would like to see included in the guide, the format of its availability, and when it will be distributed.
- Present our findings to Enrolment Services and provide them an evidence approach to remodeling their existing guide. The aim of this is to integrate all relevant food resources and information into one comprehensive document, which is both effective and easy to use.

**Methods:** This study applies the concept of intersectionality to study food insecurity on UBC campus and analyzes the efficacy of ESA’s Food Preparedness Guide both quantitatively and qualitatively. We recruited individuals of four identified at-risk student-groups: Graduate students; international students; incoming first years, and indigenous students. In the first phase of the study, we conducted in-depth analysis of existing studies to inform us and Enrolment Services on best policies being used both in Canada and other tertiary institutions. Moreover, the second phase of the study consisted of Researcher-led focus groups to elicit students’ perceptions of food insecurity and its impact on their social, emotional and physical well-being. The surveys distributed, at both the focus groups and stands, included a series of guided questions to ensure respondents directly address the topic. Additionally, the surveys also consisted of open-ended question so as to allow students to provide further context/depth. The questions were mainly centered around respondent’s own state of food security, how they - if at all - addressed it, what they would have liked to have known, and – after having been shown the Preparedness Guide - what changes they would make etc.

**Conclusion:** In examining the interlocking domains of the student’s experiences, we found that food insecurity is the outcome of immediate issues around food availability, accessibility and utilisation - it can and does on occasion spiral into less costly lower quality food among university students. That said, we expect a reduction in food insecurity in both the identified at-risk groups and the general student body, due to a strengthened ability to support oneself via the use of relevant and up-to-date resources, as well as heightened knowledge of additional resources available.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Figures</td>
<td>iii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>iv</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>0</td>
</tr>
<tr>
<td>2. Project Context</td>
<td>0</td>
</tr>
<tr>
<td>2.1 Projects Goals and Objectives</td>
<td>1</td>
</tr>
<tr>
<td>2.2 Relevance to Sustainability</td>
<td>1</td>
</tr>
<tr>
<td>3. Literature Review/ Background</td>
<td>2</td>
</tr>
<tr>
<td>3.1 National Food Insecurity</td>
<td>2</td>
</tr>
<tr>
<td>3.2 Student Food Insecurity</td>
<td>3</td>
</tr>
<tr>
<td>4. Research Approach/Methodology</td>
<td>3</td>
</tr>
<tr>
<td>4.1 Primary Data Collection</td>
<td>3</td>
</tr>
<tr>
<td>4.2 Secondary Data Collection</td>
<td>3</td>
</tr>
<tr>
<td>4.3 Mode of Administration</td>
<td>4</td>
</tr>
<tr>
<td>5. Results/Findings</td>
<td>5</td>
</tr>
<tr>
<td>6. Discussion</td>
<td>5</td>
</tr>
<tr>
<td>7. Conclusion</td>
<td>8</td>
</tr>
<tr>
<td>8. Recommendations</td>
<td>9</td>
</tr>
<tr>
<td>8.1 Regarding Campus Food Security</td>
<td>9</td>
</tr>
<tr>
<td>8.2 Revamping the Preparedness Guide</td>
<td>9</td>
</tr>
<tr>
<td>9. References</td>
<td>9</td>
</tr>
<tr>
<td>10. Appendices</td>
<td>11</td>
</tr>
<tr>
<td>10.1 Transcription of Graduate Student Focus Groups</td>
<td>11</td>
</tr>
<tr>
<td>10.2 Transcription of International Focus Groups</td>
<td>15</td>
</tr>
<tr>
<td>10.3 Food Security Survey 2019 (Condensed)</td>
<td>23</td>
</tr>
<tr>
<td>10.4 Food Security Survey 2019 (Focus Group)</td>
<td>24</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Percentage of Students Who Thought Their Demographic Faced Unique Issues

Figure 1. Survey Question #1: Students perception on Food Insecurity.

Self-Reported Food Insecurity

Figure 2. Survey Question #2: Food Insecurity on Campus – have you experienced it?

Preferred Guide Format

Figure 3. Survey Question #6: Most useful format for the ESA Food Preparedness Guide

Most Useful Content For Meal-Planning Guide

Figure 4. Survey Question #7: Most useful sections within the ESA Food Preparedness Guide

Meal-Planning Guide Method of Distribution

Figure 5. Survey Question #8: Students preference in the distribution of the ESA Food Preparedness Guide

Proportion of Students That Would Read the Meal-Planning Guide on Day 1

Figure 6. Survey Question #9: Likelihood of students utilizing the Meal-Planning Guide if they were emailed the Preparedness Guide on Day 1.
Table 1. Survey Question Results - Number of Yes/No Responses

<table>
<thead>
<tr>
<th>Question</th>
<th>First Year</th>
<th>International</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>YES</td>
<td>6</td>
<td>NO</td>
</tr>
<tr>
<td>Question 2</td>
<td>YES</td>
<td>1</td>
<td>NO</td>
</tr>
<tr>
<td>Question 3</td>
<td>YES</td>
<td>7</td>
<td>NO</td>
</tr>
<tr>
<td>Question 5</td>
<td>YES</td>
<td>8</td>
<td>NO</td>
</tr>
<tr>
<td>Question 9</td>
<td>YES</td>
<td>6</td>
<td>NO</td>
</tr>
</tbody>
</table>

Table 2. Survey Question Results - Number of Yes/No Responses

NOTE: This table highlights questions 10 through 14 - only posed to focus groups (therefore the total number of students in each of the respondent groups is less than that of the table above)

<table>
<thead>
<tr>
<th>Question 11</th>
<th>First Year</th>
<th>International</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>7</td>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

British Columbia is an exceptional province to live, work and raise a family. Our educated, innovative and forward-thinking population, paired with our stability and wealth of natural resources, make us the envy of much of the world. However, our remarkable standard of living is far from ubiquitous. A growing body of research has documented a surge in the significance of food insecurity in Canada, and a widening of characteristics of households experiencing. Food insecurity currently affects over 4 million Canadian households, including 1.15 million children nationwide (PROOF, 2018).

For the privileged, food insecurity is often a foreign concept – one they immediately associate with developing countries, misfortunate people and television ads. What they fail to envision, however, is the college student working part-time to make tuition, the elderly neighbour with little to no savings or the parent who has been juggling statements (World Health Organization, 2018). Canadian University students experience food insecurity at alarming rates, according to Meal Exchange - a non-profit organization that supports student’s food security initiatives - around two in five Canadian students suffer from food insecurity (Nguyen, 2018). Similarly, research by the Social Ecological Economic Development Studies Program at the University of British Columbia, found that roughly 30.7% of the student body population experienced food insecurity, to varying degrees.

Given the various expenses that come with being a student, the financial challenges students face reportedly feel unsurmountable - especially when they are expected to strictly adhere to their respective budgets. As a result, UBC Enrolment Services launched an initiative to promote, link and support UBC students with local, sustainable and fair-minded food systems (Campus Food Security, n.d.). In addition to the role of administration in providing financial advising, the program was launched based on the rationale that social awareness and cultural acceptance are essential for the mental and physical health of students, faculty and staff. Studies have also shown that community programs like the Campus Food Security pilot project, can provide an important source of social support and result in less stress. These impacts are felt both when programs are offered in a structured context, as well as when offered in community-based organizational settings (Kingsley et al., 2008; Wakefield et al, 2007).

Although the Guide offered cost-effective meal suggestions that work within residence meal-plan budgets. They failed to take into account dietary restrictions, food allergens and cultural context. As volunteers, we primarily focused on documenting, formulating and compiling personal narratives to aid Enrolment Services Advisors with the reformulation of the Food Preparedness Guide and Recipe Manual and further the ESA’s desire to develop, expand and cater a wider and more inclusive audience, including, but not limited to graduate, first year and international students.

2. PROJECT CONTEXT

2.1 PROJECT GOALS AND OBJECTIVES

The primary objective of this project was to obtain student feedback on existing Enrolment Service resources that support student food security. Furthermore, our secondary objective was to provide Enrolment Services with our findings, in their mission to curate a readily available and easily accessible document students could rely on in the pursuit to access nutritious and sustainable foods, whilst being conscientious of their budgets.

As student volunteers, we strove to do the following:

- To identify ways students would like Enrolment Services (ES) to support them, what types of resources should be integrated, and how they should be integrated to foster useful student food skills and food-knowledge;
- To make recommendations for specific changes on the Enrolment Services Food Preparedness Guide; and
- To raise awareness of the prevalence of food insecurity at both UBC and throughout the lower mainland.

That having been said, our vision was to help UBC in its mission to deliver a more student-centred approach to the provision of resources, and to pinpoint which existing campus resources should be included in the food preparedness guide. Important criteria for such resources, are those that have been shown to be effective, efficient, and eliminate redundancy.
2.2 RELEVANCE TO SUSTAINABILITY

The research will address sustainability issues on campus, primarily in the context of social sustainability, which has been defined as "a process for creating sustainable, successful places that promote wellbeing, by understanding what people need from the places they live and work" (Who We Are, 2019). Economic sustainability can be described as a system with a preferred (low) percentage of individuals being below its ideal standard of living (Economic Sustainability, 2014), and will also be affected. This research aims to improve campus economic sustainability by improving the standard of living for students by reducing food insecurity amongst the student population, with special focus on vulnerable groups.

By improving food security, this research aims to not only improve the quality of students' time while studying but also to increase their chances of successfully completing their degree. This is because food insecurity has been associated with greater rates of attrition by university students (Berg, & Raubenheimer, 2015).

The Social Sustainability Assessment Framework identifies five dimensions of social sustainability (Nicole, nd), each of which will be addressed by our research. By including the groups who are most at-risk for food insecurity, it will create more equitable opportunities and outcomes for those students, and so improve equality. Diversity will be increased by creating a more welcoming environment for students, such as international and indigenous students, as well as students from lower socioeconomic backgrounds. This will in turn improve social cohesion by allowing students who may have had to withdraw from campus-life due to issues caused by food insecurity, such as long working hours, illness or fatigue, etc., to engage in campus-living by way of clubs, events, and other activities. Student quality of life will be improved by helping to alleviate some of the negative outcomes associated with food insecurity such as stress and fatigue. This will help students to focus on their learning, and will also improve social democracy and government by allowing students who may otherwise have been preoccupied to engage in democratic proceedings, such as running for AMS executive positions or taking part in on-campus clubs.

Finally, UBC has an Action Framework for a Nutritionally Sound Campus (AFNSC) (UBC Wellbeing, 2017), which details goals in its vision for a nutritionally sound campus. The Food Preparedness Guide will assist in achieving the fourth goal, that no member of the UBC community experiences hunger due to severe food insecurity. Severe food insecurity is defined as reporting disrupted eating patterns or reduced food intake. The Food Preparedness Guide aims to alleviate the negative effects of food insecurity by connecting students to support services and food resources on and off-campus, helping UBC AFNSC progress to completion.

3. LITERATURE REVIEW/ BACKGROUND

3.1 NATIONAL FOOD INSECURITY

The United Nations defines food security as the state in which all people have physical, social and economic access to safe and nutritious food at all times, and that the food meets their dietary needs and food preferences for a healthy and active life (International Food Policy Research Institute, 2019). Food insecurity arises when either of the above conditions are not met. The three main aspects of food security are availability, access and utilisation. A country's ability to produce enough food to feed and sustain its population is its food availability; an individual's access is their monetary ability to purchase food; and utilisation is the ability to prepare food, including knowledge, time, and access to cooking utensils. Food insecurity means different things to different people, depending on how they are affected by it. Canada uses policy outlined by Health Canada, and people are classified as food secure, moderately food insecure, or severely food insecure (Berg, & Raubenheimer, 2015). Individuals or families are classified as food secure if they have few or no economic limitations to access or utilisation; inadequate quality and quantity of food consumed are demonstrated by those who are moderately food insecure; severely insecure individuals experience reduced food intake or distorted eating patterns (Roshanafshar, & Hawkins, 2015). This is demonstrated by the Household Food Insecurity Survey in Canada: of those who are food insecure, 34% face marginal food insecurity, while 46% experience moderate food insecurity and 20% were severely food insecure (Collins, et.al., 2016).

Food insecurity is an important indicator of mental and physical health outcomes amongst both adults and children, such as poor cognitive function among Puerto Rican adults (Gao, et al., 2009). Because of this, it is important
to make every effort to reduce campus food insecurity. Though Canada produces enough food for the entire population, the main driver of food insecurity is an individual or family’s economic access to food (Tarasuk et al., 2014). Most adequate solutions to food insecurity would address the issue of inadequate income earnings for those that experience food insecurity. However, this is not the case: rather, temporarily solutions such as food banks and other food redistribution initiatives are instead the norm. These are troubling, as they are short term, and once removed food insecurity will return.

3.1.1 STUDENT FOOD INSECURITY

University students are not immune from the difficulties of food insecurity. Food insecurity rates are often higher than those of the general population, suggesting that university students are more vulnerable (Chaparro et al., 2009; Freudenberg et al, 2011; Olauzon et al., 2018). The University of Manitoba found in 2017 that roughly 39.5% of the student body population experienced varying degrees of food insecurity. Some individuals were worried about running out of money for food, while some indicated that they would skip meals entirely, or in some extreme cases a day of eating. In less severe situations, many students compromised quality for cheaper options (Sheridan, 2017).

A range of negative effects on students health outcomes and academic performance are associated with student food insecurity. At a midsize university in rural Oregon, students were more likely to be food insecure if they reported poor or fair health (Patton-López et al, 2014). 1 in 4 food insecure students reported facing negative health impacts from food insecurity at the UBC Vancouver campus (Rideout, & James, 2017). Additionally, food insecure students show poor class performance, discontinued studies, and low GPA unlike their food secure counterparts (Moroto, et al., 2014; Silva, et al., 2017).

Food insecurity continues to be an issue at UBC despite $1.5 million dollars in donor money has been awarded to UBC and to be allocated to incoming UBC students who have demonstrated strong leadership skills and attained competitive grades (UBC News, 2017). 45% of LFS students interviewed by a group of students in a Human Nutrition course (HUNU 547) in 2017 had experienced food insecurity while at UBC. Respondents that The HUNU students suggested that UBC students were made aware of and connected to resources available to them by student advisors (Rideout, & James, 2017).

Four student population groups who are at risk of becoming food insecure have been identified by Enrolment Services Advisors (ESA). These groups are international students, first-year students living in residence, indigenous students and graduate students. In the autumn of 2018, ESA proposed developing a Food Preparedness Guide, to aid both vulnerable students as well as those in the general population in avoiding or reducing food insecurity. At present, Enrolment Services have two draft guides, one aimed towards first year students in residence, and the other at the general student population.

Figure 8. Kara, a graduate student at UBC expressing her concern for challenges accesses necessities.

Students often have limited budgets, which must be balanced between housing, tuition, and food. The meal-planning guide put together and proposed by Enrolment Services (ES) aims to provide cost-effective meal options that adhere to residence meal-plan budgets. However, many students have mentioned that the Preparedness Guide does not adequately take into consideration things like dietary restrictions or food allergies. Further, it has been criticised for not being culturally appropriate for International students. In future, ES aims to redraft the Food Preparedness Guide to make it more inclusive to diverse audiences such as first year, indigenous and graduate students.

3.2 FINANCIAL RESOURCES

There are significant benefits to utilising financial guides or budgets. Evidence shows that, when effectively integrated together, the
essential components of a budgeting program can contribute to positive mental and physical health outcomes. Additionally, financial planning and budgeting is a well-established practice that is used in combination with other programs to help people living with food insecurity (Bellows et al., 2003; Husted, 2012; Mind, 2007).

Studies have shown that community programs like the Campus Food Security pilot project can provide an important source of social support and result in less stress. These impacts are felt both when programs are offered in a structured context, as well as when offered in community-based organizational settings (Kingsley et al., 2008; Wakefield et al, 2007). The initiative to promote, link and support UBC students with local, sustainable and fair-minded food systems was launched by Enrolment Services (Campus Food Security, n.d.). The program was launched based on the rationale that social awareness and cultural acceptance are essential for the mental and physical health of students, faculty, and staff, in addition to Enrolment Services role in financial planning.

Enrollment Services is seeking feedback on its existing draft guide with the aim of developing, expanding and integrating food security amongst its student body. Our focus will be on student experiences, UBC statistics, and relevant programs that will aid in the creation of the guide, and we will document, formulate and compile personal narratives to aid Enrolment Services Advisors with the execution of the Food Preparedness Guide. As a group, we aim to contribute to the discussion and minimize any and all misunderstandings; we will do this by documenting effectively and gathering both quantitative and qualitative data.

4. RESEARCH APPROACH/METHODOLOGY

4.1 PRIMARY DATA COLLECTION

ESA proposed collecting student inputs by conducting focus groups of about 8-12 students from each at-risk student groups (first-year students in residence, international students, indigenous students, and graduate students). However, we due to unplanned difficulty in getting enough students to show up to focus groups we adopted a mixed method research approach to our data collection by means of focus groups and surveys. Unfortunately, we were not successful in gathering inputs from indigenous students.

We conducted two focus group. One on March 6th, 2019 from 5-6:30 PM in the Center for Interactive Research in Sustainability, room 3336 with six international students, and another one on March 13th from 5-6:30 PM with 3 graduate students in the same place. We recruited participants by hanging posters, doing classroom announcements and word of mouth. We hang posters in common places like announcement boards in the science building, McMillan building, in first-year residence commons blocks, in the Graduate Student Society, and in Acadia residence. we also made announcements in first year BIO 121 class and SCIE 420. These classes were selected randomly depending on the availability of recruiters and the students in the class: we needed first years and international students.

Moreover, we collected data from surveys. We established one booth on March 20th in totem park commons block. Totem Park is one of the three first-year student residences on campus, one with the widest range of accommodation type for different prices including: shared rooms, single connected rooms, and single room. We chose totem because it hosts student from diverse income backgrounds including both domestic and international students. We also set up two booths on March 22nd and March 26th in the Graduate Student Society (GSS) building. GSS is the center for graduate student life on campus and a place where a diverse range of graduate students could gather for different events, and meetings.

4.2 SECONDARY DATA COLLECTION

We began our research with a literature review using peer-review articles, university news article publications, and policy reviews to gather data on student food insecurity in post-secondary education. Our literature review had 3 main objectives. 1) To understand the incidence of insecurity among college students and its significance; 2) To identify which student demographics were most likely to experience food insecurity, and 3) To understand bigger policy implications pertaining to student food insecurity in Canada.

From our literature review, we realized levels of food insecurity among students were higher than national averages throughout literature; four groups of students were most likely to experience food insecurity (international, indigenous, first-years and graduate students) at
UBC in particular; and income constraint was the most highly rated route cause of food insecurity. Thereafter, we took decided to target first-year, international and indigenous students in our research and data collection.

4.3 MODE OF ADMINISTRATION

Due to the sensitive nature of the topic of food insecurity, we designed our focus groups to be a combination of discussion questions and written questions. Discussion questions included questions that could not relate to an individual; for example, “do you think international students face unique challenges with regards to food insecurity?” On the other hand, written questions included personal questions; for example, “have you experienced food insecurity during your time at UBC?” and multiple choice questions such as “how would you like the meal planning guide distributed to students a) Downloadable PDF, b) website, c)An android/iPhone App.

We began our focus groups by defining food insecurity and laying out terms of participation and had participants sign consent forms before the discussion. The focus groups were conducted in 2 section. We started by asking questions pertaining to student experience with food insecurity and their knowledge of Enrollment services. Thereafter, we took a snack break and distributed the Meal Planning Guide (MPG) and Recipes for Student (RS) manual to our participants to look through then followed by a discussion.

Figure 9. Ashley Viljoen (left) and Antoni Hozar (right) recruiting first-year

Our booths were passive, we were not allowed to actively seek people’s attention. However, we had light snacks (timbits, apples and Sprouts brownies) as incentives to fill out the surveys. The surveys contained both qualitative and quantitative questions in order to gather detailed information from our participant responses. Respondents were explained the purpose of our study and asked to consent to the terms of participation, did not sign consent form (our mistake). Then, respondents were presented with a paper copy of the survey and the two guides MPG & RS. Participants were free to take surveys with them and bring them back or fill them out on spot; they were also encouraged to ask for clarification if any question was unclear. Moreover, at the top of each survey there was a clear definition of food security. Using surveys, we were able to gather input from 9 first-years, 12 graduate students and 16 international students. In total, we had a sample size of 37 participants in our study from both focus groups and surveys.

After collecting data, we entered all the survey results in an excel spreadsheet detailing every participant’s response on each question. For qualitative data, we used thematic analysis to identify emerging themes for each question on the surveys and put them in categories. The categories that received most responses were focused on to draw recommendations and actions to consider going forward. We also transcribed audios from the focus groups detailing participant responses on each questions coding for emerging themes which were also placed in categories. Since our survey and focus group questions were similar with only different wording to suite each data collection method, we added participant response from focus groups and surveys in the same excel spreadsheet. Quantitative data was also inserted in the same excel spreadsheet and charts were made to displace the numbers and compare the results were applicable.

5. RESULTS/FINDINGS

We collected data from a total of 37 UBC students, including 20 international students, 9 first year students, and 12 graduate level students. It should be noted, however, that 4 of the respondents identified as first year and international students. Therefore, our data consists of 37 individual responses, not 41. Because first year students are subject to student meal plans at UBC, we considered these individuals to be first-year students as opposed to internationals. Responses were gathered via the administration of the food security survey, a copy of which can be found in the appendices.

Survey Question #1
Of the 9 first year students surveyed, 66% of them, in response to survey question 1, responded “yes,” indicating that they believed their student demographic faced unique issues with regard to food insecurity. Of the 16 international students, 81.25% of them answered “yes” to the same question regarding their demographic. Finally, 92% of the graduate students surveyed (or 11/12 respondents) answered “yes” to this question as well.

Survey Question #2
Question 2 of the survey asked student respondents if they had personally experienced food insecurity in their time as students on campus. Of the first-year cohort of 9 individuals, 1 responded “yes” (11%). Of the international students, 9 of the 16, or 56.25%, indicated that they had experienced food insecurity. With graduate students, it was found that 9 out of the 12, or 75% of them had personally experienced food insecurity.

Survey Question #5
Question 5 asked students (after having been shown the meal planning guide) whether the document would be a useful resource to them. 25 out of the total 37 respondents, or 67.6%, indicated that, “yes,” it would be helpful. Of the 25 who noted that the meal-planning guide would be helpful to them, 8 of them were first year students. Thus, 8 of the 9 first year respondents, or 88.9% of them noted the document as being helpful. Of the international cohort, 11 of the 16, or 68.8% responded “yes.” Lastly, exactly 50% of graduate students (6 of 12) responded “yes.”

Survey Question #8
Question 8 of the survey asked students how they would prefer the meal planning guide to be made available to them. 24 of the 37, or 64.9% of respondents indicated that they would be most receptive to the guide being emailed to them with a link to the resource provided.

Survey Question #9
Question 9 of the survey asks respondents whether they would read the meal planning guide if it had been emailed on the first day of class. Of our 37 respondents, only 21, or 56.75% indicated that they would read the document on the first day of class.

6. DISCUSSION

This research shows what was already suspected by enrolment services and suggested by our literature review: that the rates of food insecurity amongst international, graduate and first year students is higher than that of the general UBC population (UBC News, 2017). 81.1% of students felt those within their student-demographic faced unique challenges regarding food insecurity, demonstrating the importance of working with students from these groups specifically, and not just the general student population. Our research found that while there was overlap in the causes of food insecurity in students among these groups, there were also significant differences between them that impact what resources they turn to and what resources they need.

Figure 10. UBC student carrying groceries up Main Mall. (Photo Credits: Darryl Dyck)

All student groups reported time as a major barrier to food security. Some first-year students struggled with returning to campus dining halls for meals during the day, as they tend to be far from classes, while graduate and international students reported difficulty in finding time to purchase and prepare food. Beyond this, the main source of food insecurity for both first year and international students was the campus dining hall system: upper year international students regularly referenced it when describing food insecurity on campus, despite no longer being on meal plan. This is concerning, because the system was designed and implemented in order to reduce food insecurity amongst students by providing them access to meals, they may not be able to cook themselves. It may be that without the campus dining hall system, students would have suffered from food insecurity in other ways. But it shows the need for accessible information to be provided to students on meal
plan. It may also be that in future years a different form of meal plan system is implemented; alternatives used at other universities include combining a meal plan with access to a space for students to cook food for themselves (as many upper year students do when purchasing a limited meal plan) or having a meal plan system that grants you access to the dining hall, with buffet style eating. An example of a college using this method is Pollock college at Edinburgh university, where student meal plans provide fourteen meals a week at a self-serve buffet. (University of Edinburgh, 2016).

![Figure 11. Vegetarian plate at Gather, UBC (Photo Credit: UBC Food Services)](image)

Other issues raised by first years were generally due to the cost of the meal plan and the distance from class, although students with dietary restrictions such as vegans or those with allergies, struggled with limited choice. Both within and beyond residence there are many places on campus that carry gluten free, vegan or Halal options, amongst others. We would suggest that in addition to the weekly sample meal plan for each residence, that a section is added listing these locations, as many students find it through trial and error. Consultation with student groups such as the Muslim Students Association and Vegans of UBC could be helpful in this regard. Other concerns raised were supporting families and partners, as well as a lack of food literacy amongst graduate students. To help combat food insecurity amongst graduate students we would recommend that, in addition to distributing the updated guide, resources are presented to graduate students as they enter the university - either through the graduate student union or when they go through orientation. Many graduate students will be arriving from other universities or may have been away from university life for several years, and so may be unfamiliar with how the system is set up at UBC.

When shown the draft Residence Meal Planning Guide, 67.6% of students believed that it would have been helpful to them, with a comprehensive list of on and off-campus resources believed to be the most valuable information it could contain. Additionally, although a “link provided via email” was the most chosen option for disseminating the food guide (64.9%), there was a wide variety of answers. This suggests that it may be beneficial for ES to make the guide available in a number of different ways: by providing a downloadable PDF or link, as well as placing physical copies in frequently used spaces or distributing them to incoming first years. This is especially true as the desired method for dissemination varied between the Residence Meal Plan guide and the document ‘Recipes for Students’, suggesting that different students would find the information useful at different times. Interestingly, very few students felt that it would be best distributed as an app; this may be due to concerns about data usage, phone memory, or not owning a smartphone. It was noted, however, that if it is distributed via a
website link, then the website must be mobile friendly, as many students would access it using smartphones or tablets.

Regarding the meal planning guide, the overall response was positive. The most common positive response was how comprehensive it was: students appreciated having a full week’s eating on the mock meal plans, having a budget breakdown, and having meal plans for each of the residence dining halls. They also appreciated meal cycling, and that a variety of foods were incorporated. One of the main issues raised was that there was no vegan or vegetarian section, and many students expressed a desire to see a specific plant-based section. Additionally, other issues raised were that it required students to be able to return to the dining halls for each meal, and that some of the meals were very small: for instance, a single piece of fruit or two pastries. Some of the language was considered uncommon, which could be a concern for students who don’t have English as their first language. Additionally, some students found the many pages of tables unengaging: if distributed as a hardcover document, we believe this could be helped by creating a booklet, rather than a stapled sheath of papers, for easier handling.

If ES chooses to distribute this guide as a PDF, a website or an interactive app, having easy navigation through clear titles and page numbers will likely alleviate some of these issues.

Regarding the document ‘Recipes for students’, there was less overall enthusiasm, likely due to the fact that many first-year students do not have access to a kitchen and so did not believe the document would be helpful to them. This said, many appreciated the no-cook section: it was popular amongst first years as it showed them meals that they could prepare themselves, while international and graduate students appreciated the quickness and simplicity of the recipes. In conversation, many first-year students described how they would stretch their meal dollars further by preparing their own breakfast (such as milk and cereal) for cheaper than it could be purchased at the dining hall. This allowed them to spend more money on other meals. Recommended improvements included adding a plant-based section (same as for the Residence meal plan guide), estimated cost for each recipe, and visuals to accompany recipes. However, some students felt that the recipes weren’t the sorts of foods they would normally cook, or that they could find recipes online, and many students also wanted a comprehensive list of resources available on and around campus.

Knowledge on where to access resources varied between the different demographics. When surveyed, first year students were more likely to say they would speak to a Residence Advisor or Residence Coordinator, while several international students mentioned International Student Services. However, in our focus group with international students, many of them raised issues of embarrassment or shame, with one professing “I don’t think I could ever talk to someone about that.” To better connect students with resources by avoiding what may be seen as a shameful discussion, it was suggested that posters with information about the AMS Food Bank, in addition to other food security resources, be put up in central locations on campus. These include student residences, the bus loop, and buildings such as the AMS Nest and the Life Building. The posters for the UBC Sexual Assault Support Centre are a good example for raising awareness across campus. International students and first year students were also likely to know of the AMS Food Bank already, though many students in the international focus group were unaware of it. The AMS Food Bank was also the only resource known to graduate students, and only a quarter knew of it. Other graduate students didn’t know of any resources. Some international students were also aware of initiatives such as Sprouts, Agora and peer mentorship around cooking, and both international and first year students mentioned UBC websites to find resources. However, none of the students interviewed or surveyed mentioned Enrolment Services as a resource.

In addition to interviewing students regarding campus food insecurity, we also asked them what they knew of Enrolment Services (ES), as we believe this may affect how the future guide should be distributed. Though most knew of ES, many students didn’t have a clear idea of what the organization does; many knew aspects that they had interacted with, but not the full gamut, while many others did not know at all. This is significant because it suggests that, in order to ensure the maximum distribution of the food guide on campus, Enrolment Services should either increase their profile and awareness on
campus or should distribute through other organisations within the university. Since Enrolment Services and Enrolment Service Advisors work with students on other matters that also pertain to food insecurity, such as budgeting, we’d recommend that ES do both. Options for raising awareness on campus include boothing in common, high-traffic locations such as the student Nest or the Life Building, and announcements in first year residences during floor meetings. We suggest these because despite receiving emails from ES, many students reported feeling overwhelmed by the number of emails UBC as a whole send, and so only reading those that seem important. We believe that speaking to students face to face may be a better way to connect with them.

**Figure 11. Moving Forward: Auditing the ESA Food Preparedness Guide to ensure inclusivity.**

Despite 67.6% of students believing the document would be useful, only 56.75% reported that they would have read it if it were emailed to them on the first day of class. Reasons for not reading it include only reading emails that they feel are important, being overwhelmed with new information when starting university, or only reading emails related to work. This is similar to the reasons students gave for not knowing of or engaging with emails from Enrolment Services, and so similar solutions may be helpful. One option would be for Enrolment Services to hand out the document while working to raise their profile on campus. Another approach would be to make the document available to students for if and when they feel they need it, but this would require students knowing of it as an accessible resource. Raising awareness of the meal planning guide would therefore be critical in order for the guide to have the desired impact. However, once students have access to it, we believe that it will be able to meet the needs expressed in the course of our research.

7. CONCLUSION

Food insecurity among students at UBC can take many forms. At a national level, food insecurity is directly correlated to poverty, and cannot be alleviated without policy level changes. However, lack of funding isn’t the only cause of food insecurity, and many students experience milder, more nuanced forms throughout their time at UBC. For these students, food insecurity isn’t the choice between paying rent and buying groceries; it’s the stress of choosing between finishing a paper or preparing food for the next day; the frustration of wanting to save money, but not knowing where to get a cheap meal on campus; and the fear that what you’ve purchased may contain something that for religious, ethical or health reasons, you are unable to eat. Because of this, we believe that the development and distribution of the Food Preparedness Guide will empower students to make changes to reduce their food insecurity. The goal for the guide is to provide UBC students with practical advice including budgeting and grocery shopping skills, as well as resources such as the AMS Food Bank for when they are unable to manage alone. By including links to other resources, students will be better able to utilize what’s available to them on campus, hopefully guaranteeing their continuation for the coming years.

We spoke with students about how food insecurity may have affected them or students in their demographic, as well as what they would want to see in a future food guide, and what they liked and disliked about the current guide. While responses varied, many times it boiled down to a common issue regarding lack of knowledge; this includes lack of knowledge on where to purchase groceries, where to find foods appropriate for dietary restrictions, or how to budget meal plan dollars. By educating students on these matters, as well as by increasing knowledge of available resources, we hope to mitigate or reduce the food insecurity faced by students on campus. Additionally, we have learnt of the variations in food insecurity faced by different demographics of students: first year students were most likely to have food insecurity related to the campus dining halls; international students due to difficulty in accessing culturally appropriate food, and graduate students due
to a lack of finances. By knowing of these difficulties, the Food Preparedness Guide can tailor the information provided to ensure that it’s relevant to its recipients. While the financial issues faced by graduate students are beyond issues of knowledge, graduate students were also the least likely to know of resources available to them. Because of this, a Food Preparedness Guide that includes those resources can be of help to graduate students as well.

Finally, we believe that by introducing the Food Preparedness Guide and increasing awareness of resources on campus, we can help to destigmatize food insecurity by bringing the issues students face into the open. By having discussions about it and demonstrating to students that they are not alone in what they’re going through, we can hopefully further reduce food insecurity by empowering students to reach out and ask for help if and when they need to.

8. RECOMMENDATIONS

8.1 REGARDING CAMPUS FOOD SECURITY

• Increase student’s awareness of Enrolment Services as a resource for students through face to face interactions
  o Set up information booths in busy areas such as the Life Building or the AMS Nest
  o Find ways to engage with all incoming students so that they enter the university knowing of Enrolment Services; this could include sending representatives to floor meetings in first year residence, and at orientations for graduate students, transfer students, and first years who commute
• Increase awareness of the resources available to students who are food insecure
  o Partner with other organisations such as the AMS food bank to create a campus-wide poster campaign with information on resources for students
  o Request that information be presented to students in residence through residence advisors at floor meetings, and that a resource list (or the new guide) be included in the orientation package provided to incoming students
  o Other ways to raise awareness could be targeted ads on social media, or working with Dive into UBC to create a video explaining the process of going to the food bank

8.2 REVAMPING THE PREPAREDNESS GUIDE

• Add a designated Vegan/Vegetarian section: students in all groups interviewed expressed a desire to see more plant-based options, which also aligns with the campus food sustainability initiatives.
• Focus on information specific to UBC and the surrounding area, including locations to buy groceries and budget meals out that are still healthy.
• Create clearly demarcated sections: A section on mock meal plans; A section on where to purchase food for students with dietary restrictions, etc. and make it easy for students to navigate between these sections
  o Consider having the mock meal plans for dining halls as separate documents distributed to each specific residence, as even for first years in residence only one is applicable to them
• Include a budget for any recipes provided, and an explanation of which no-cook meals can be made for cheaper than it can be purchased at the dining hall

REFERENCES


Who we are. (2019). Retrieved from Social-life.co: http://www.social-life.co/page/who-we-are/
Participant 1: So, enrolment services are like... if you... I’ll probably answer it wrong, but if you fear your financial stability in any way... your financial security at all, you can go to them and say... hey I don’t think I can pay my rent this month – I’m really scared, what do I do. And theoretically they’re supposed to be like OK, let’s figure out your budgeting and they’re supposed to help you out with budgeting, which is really great, but I was also told “come back to us when you haven’t paid your rent in two months.”

Participant 2: In Vancouver, you’re not going to last that long.

Participant 1: So from my experience it was more like, ok great. You’re more of the... you’re not helping me prevent getting to that place where I can’t pay my rent. You said you’ll help me. As an international student, it feels like there was more available for Canadian students.

Participant 2: Yeah I’ve gotta say that I’ve never dealt with enrolment services in any meaningful way. And I also did my undergrad here.

Participant 3: I’ve had a transcript printed. That’s about it.

Participant 3: In your first question you say “unique challenges.” What does that mean? And do you mean unique from each other?”

Facilitator 1: From the perspective of graduate students, because the idea here is that you all, as either graduate students, first years, international students – you all have your own... I guess unique issues with respect to this issue of food insecurity. For first years, you know, it’s often income or the lack-thereof. Having to budget and things like that. Of course, we recognize that there are differences between first years and graduate students in terms of their income, other things... having families.

Participant 2: I think it’s a good point that you mention... yeah there are some graduate students that are also working... also have families on the side... are extremely busy. Ummm... not making a lot of money, neither.

Participant 1: Or we get paid... I would say the biggest things as graduate students is... depending on what our financial situation is, and funding situation, we might just get paid in one big lump-sum. And so, it’s not taxed as well. So often times when we don’t have those taxes taken out, when we go to file taxes, it will cause issues and we have to pay taxes later on... if that makes sense.

Participant 3: Or maybe two to four times a year, max.

Facilitator 2: Ok, so you think you have more money, and it turns out that you have to pay tax.

Participant 3: Yeah the government is like “you owe us $3,000.00.”

Participant 1: Because it’s income, but it’s a scholarship – so they don’t take taxes out of those, but you still have to pay taxes on your income.

Participant 1: Graduate students get paid in really weird ways – they might just get one big lump-sum at the beginning at the academic year, or get paid three times, or they may also make a bi-weekly pay-check.

Facilitator 2: And so, the financial literacy of a grad-student could impact their food security just because it’s such a confusing system.

Facilitator 1: Budgeting, I’d imagine is a huge one – if you’re getting paid in a lump-sum.

Participant 2: Yeah.

Participant 1: If you get paid $3,000.00, you’re just like – Great! I just got paid $3,000.00. Cool. I’m gonna go buy my sleeping bag, and pay off my car...

Facilitator 1: For sure.

Participant 1: The other thing graduate students often have to face that a lot of undergrads I think don’t, is that we often take on the expenses of our research. And so, which we will eventually be reimbursed... but for example, I just spent $2,000.00 or so of my own money for work-shop purposes for LFS250. I’m now waiting to get reimbursed...
Participant 3: Through a very long system of about 20 people that have to check through it.

Participant 1: It took me nine hours to navigate the system to go through reimbursement processes. And now I’m hoping I get my money.

Facilitator 2: And how long do the reimbursements usually take?

Participant 1: Uhhh... once they get approved by everyone, it should be in my bank account in a few days.

Participant 2: About two weeks in total, probably.

Participant 1: Yes, but it’s also like....

Facilitator 1: Hey that two weeks can be a Visa statement, depending...

Participant 1: Yeah, or just like rent...

Facilitator 2: Or if it puts you into overdraft.

Participant 1: Yep, I have been like... ahh I hope I don’t do overdraft. I mean I have money in my savings account so I’m lucky that I’m ok, but not all grad students have that back-up really.

Facilitator 1: Hey that two weeks can be a Visa statement, depending...

Participant 2: And I think time is also an issue, as I was mentioning. For me, it’s... having time... I have a partner that cooks for me, but he’s been away for a month, so I’ve been eating brown rice and bok choy for like two weeks.

Participant 3: Yeah I haven’t had time to cook either so I’ve been just eating... fruit.

Participant 2: And sometimes popcorn for dinner....

Facilitator 1: Have you personally experienced food insecurity while on campus?

Participant 3: It depends on the temporality of this question... like... over the course of this year... No. But over the course of a day, a week, a month... perhaps yes. Like that would be a consideration.

Participant 3: Cause like yeah there are days, there are weeks where I don’t have enough time, I don’t have enough... you know... anything to get to the food that I need to be healthy.

Facilitator 2: For a period long enough that you feel it starts to affect you. That could just be a day if you find “I don’t have time to cook, I don’t have time to get anything healthy.” Everything on campus is really expensive, and you just find yourself stressing out over what you’re going to have for dinner... then that can count.

Participant 1: Or, if you are working in a lab, and you’re spending long hours in the lab itself, that require you to be there... you can’t consume any food while you’re in the lab. So, for your to stop your experiment and leave.... Just to eat, impacts your research. So, often times, I will say – Great. I’m just going to stay here. I haven’t had any food today yet, but I might as well just stay for another three hours to get my work done, than leave to go eat and come back and do more work.

Participant 2: So.... Residence meal planning guide. So this is a draft that hasn’t been published?

Facilitator 1: It hasn’t been published, no.

Participant 2: And there wasn’t one before that?

Facilitator 1: No.

Participant 2: So this is the first initiative?

Facilitator 1: Yeah. This is their attempt at trying to get something tangible together.

Participant 3: I was just gonna say that these sample meals aren’t meals... unless they’re... like salmon... $6.99 is not a meal.

Participant 2: What are you looking at?

Participant 3: I’m looking at these mock one week meal plans. If you look at the different... I’m not sure what salmon, as a meal, includes – so maybe it has a lot of other things. But if it’s just salmon, that’s...
Facilitator 1: That’s right.

Facilitator 2: And another part of the draft is recipes for students.

Participant 2: What is the price in brackets?

Facilitator 3: That’s for the students who are on meal plan – they get a discount.

Participant 2: That’s really great! That’s really not bad isn’t it?

Participant 3: Not terrible.

Participant 3: So this is somebody going to the residence hall, for example, for breakfast, lunch and dinner.

Facilitator 1: That’s right.

Participant 3: Ok.

Participant 2: What are residence dollars?

Facilitator 2: Meal plan dollars.

Participant 3: So they just pay out of their bank?

Facilitator 2: So you buy a meal-plan and...

Participant 1: So you kind of swipe your UBC card. You swipe your ID card.

Participant 3: Yeah, we used a similar thing in my undergrad.

Facilitator 2: And so they have to buy a fixed meal plan at the start of the year with a certain amount of money on it.

Participant 2: Is this going to be online? Because, nobody is going to look at that.

Facilitator 1: That’s part of what they’re sort of hoping to gauge from people like yourselves, whether or not this is a medium that would be well-suited to students.

Participant 2: Yeah, so I don’t think that this format would really work – as a PDF or whatever. But if it was a user interface where you could select orchard commons and see all of your options.

Facilitator 2: Like an app almost?

Participant 2: Yeah, like an app.

Participant 1: Like we had it in my undergrad as a calendar, where you go into orchard commons and you’re like great – on Monday they’re serving this. This is what I can eat this week. And you can like switch over to totem and be like, ok great, they’re serving this here.

Participant 1: It was very similar to what you have here... like breakfast, lunch, dinner.

Participant 2: I like the photos as well... the kimchi with the fried sausages...

Participant: Oh UBC farm... that’s good!

Participant 1: But that’s expensive to eat.

Participant 3: And the sprouts box is also nice, but it says – " can be split between two and three people"... that’s a stretch if you’re trying to get a healthy vegetable-based diet out of that.

Participant 1: I will say that the UBC farm CSA in the summer is worth it if you do the CSA. But that’s really hard to get on that waitlist.

Participant 3: And again, that’s kind of one big bulk payment, so you have to be able to afford the what is it? $600.00 payment?

Participant 1: But, if you’re doing a residence meal-plan, you’re paying up-front anyway.

Participant 3: That’s true. Over $4,000.00 is what it looks like.

Participant 3: So some of these do... I guess there are “cook” and “no-cook” options. I’m just looking at the recipes guide. Of course, the “cook” ones assume you have an oven, which a lot of these residences don’t.

Participant 1: I mean, I made it work.

Participant 3: I don’t know if I would have used a resource like this personally. I would have felt condescended to. I would have said, “I understand how to build cheese and crackers.”

Participant 3: But if you are in a category of students who doesn’t know how to eat or this is your first time out, I understand that being a helpful resource.
Facilitator 2: Would you have wanted there to have been some more complex but still on the simpler side, recipes? Like more intermediate levels but nothing more advanced?

Participant 2: Aren’t there enough recipes on the web?

Participant 3: Are people really going to look at this?

Participant 2: I don’t know about the value of this. But I think this [meal planning guide] is really great. It’s cute, but it looks like it took five staff members to make.

Participant 1: Things like having a workshop... face to face... a salad making workshop or a bread-making workshop, where you learn valuable skills...

Participant 3: Like hands-on.

Participant 1: People aren’t going to look at this [recipes for students] unless they have those basic skills.

Participant 3: There are... I dunno. A billion blogs about like... “broke at school; cooking at school...”

Participant 2: You need an app. For example, you go to totem or whatever, and you open the app, and then the app senses where you are, and all these options pop up.

Participant 3: There is something like that on campus... feed-me-now. It tells you where everything is and what’s open.

Facilitator 2: Would you almost prefer like a one-paged resource that just has these websites... have recipes geared towards students... stuff like “lazy-students.com”?

Participant 3: Perhaps, yeah. Or... yeah. I don’t know.

Participant 1: I think it’s the skills that are lacking. Like these recipes are great, but they’re not really... like they don’t tell you how to use a knife to cut those things. Or, like in general, how to microwave.

Facilitator 3: So, in the context of a graduate student, do you think that food literacy is, like, an important issue. That they should learn how to cook before actually having the recipes?

Participant 1: Yeah. I think in the context of all of these... food literacy is just in general... lacking.

Participant 3: Right. I mean it’s definitely a component of the “security” aspect that we’re getting at in this discussion. Like you may have access to a pamphlet, you may have access to some place to buy your food, you may even have the money to buy it. But do you have the knowledge to utilize any of that? No.

Participant 3: So that comes into the utilization aspect of food security. You can’t use that resource unless you’ve been trained to cut.

Facilitator 2: Do you think like for grad-students, a modified version of the residence meal-planning guide would be more useful? Like with a list of places, all the grocery stores, stuff like that?

Participant 2: I actually totally think grad students could use this. I’m excited to use this.

Participant 1: If I knew I could go to one of the residence places on campus and get a meal there, for less than ten bucks, I feel like I would be willing to do it.

Facilitator 1: Would this meal planning guide be useful to you?

Participant 2: Personally, I would say yes.

Facilitator 1: How would you like these materials to be distributed?

Participant 3: None of those are great options.

Participant 1: No. You need to have it provided in like a newsletter that gets sent out multiple times...

Participant 3: Every week. It should stay in there.

Participant 2: Yeah... not just one.

Participant 1: You can’t just inform people at the beginning of the year, you have to constantly remind them.
Facilitator 2: Like in the same way that a lot of people... the bottom of their email... they have “Ashley... LFS student... email this... phone number, this.” Would you suggest enrolment services email almost have a group of links at the bottom that are like “our food guide here... our this... here... make an appointment here...

Participant 2: Yes, but also, I think that for those who hold these meal plans from residence... how about send them a deal... you know... every week a different place. So, they start discovering those places.

Participant 3: That’s a great idea!

Participant 2: We are bombarded by too many emails...

10.2 TRANSCRIPTION OF INTERNATIONAL STUDENT FOCUS GROUPS

Facilitator 1: …...Difficulty making ends meet, affording groceries and or setting aside the time required to do that. That being said, the aim of the study and or this guy is will help taco food security and the student population as a whole, we need certain degrees. In order to do this, we're seeking feedback from students regarding their experiences with how they have dealt with it, should it occur, the resources they know of, and or would like to see more of the upcoming guide.

Some groups of students that we thought of have unique experiences and barriers regarding food insecurity, which is why we intend on hosting for different focus groups and interviews with diverse background that being international students which is why we're all here today, we have Indigenous students first year students involved graduate students, and they will all be participating in this study at some point. I'd also like to stress that everything is confidential and will not require your name being written, and we will only be taking audio for development purposes of the preparedness by the audio recordings, like I said will clearly be for transcription purposes; only I and other group members will listen to the audio.

We've prepared a survey that is right on to help us gather information on the fake numbers right if you don't, if you don't need to put on any identifying information on them. You also don't need to answer every question. Please follow the questions in fashion and will be distributing gift cards and food compensate you for your time. I apologize in advance; the food is not what we expected, but we will work with what we have.

So, I would go through the questions, and you might want to also think about how food insecurity not only affect you but also your friends, colleagues, peers. And so, at this time, I'd like to put the floor up to you guys and see if you have any questions, you'd like us to address before you delve into the questions.

I'd also like to mention Liska is the principal investigator, she is also the professor for the class we are involved in for this project.

If could just do a quick lancer, and then we’ll go through answer questions in both a group setting, or if you'd like you can just drop down your paper.

Participant 1: Could you repeat again the definition of food insecurity?

Facilitator 1: The UN define any other condition in which all people at all times have physical, social and economic access to sufficient, safe and nutritious foods that meet their dietary needs and preferences for active and healthy lifestyle. So, it can vary from the ability to cook, having the time to prepare food, or having the ingredients that you would like, at a reasonable price point.

Participant 1: So, we will be focusing on ingredients or prepared food? Or both?

Facilitator 1: You can take it as either or both. We did some literature reviews earlier on the effect of vast majority people in different ways. Although the conventional sense is that you don't have the economic access. It can also be social, and or in terms of timeliness: whether you have time to go out and get culturally relevant food, and what not.

Participant 2: So, what do you mean by on campus? I did not stay on campus in my first year.
Facilitator 1: So, I guess we should work on the wording. On campus being your duration, of your undergraduate degree you physically living on campus, it can be interpreted whichever way.

Facilitator 2: Just a quick note, you can actually answer up to question 4 and then from question 5, we will change the structure of the study and we’ll have a short discussion before we delve into questions 5 as well.

Facilitator 1: Yes, thank you for that.

Now, that everyone has looked up to question 4, We love to hear what is that you have to say; that of course is contingent on the fact that you feel comfortable sharing what it is that you’ve written down.

First question, do you think international have unique challenges? If so, would you maybe elaborate on your answer or maybe what your peers have to say… and we’ll have a discussion.

Participant 1: I do think international students face unique challenges since they are not from here; we do not know where food is……..I didn’t even get a tour of UBC or anything…..I was just hoping for the best.

I think also, for people who are a little more international, who are not from the US. May face difficulties getting ingredients they would be using for their own, or even being able to cook since there’s no real cooking apparatuses in any of the dorms at all beyond a microwave.

Participant 2: That is only for First year though?

Participant 1: Yeah

Facilitator 2: Do you think that has been the case, has it been continuous even in your second and third year? Or has anything improved or ...

Participant 1: It has been a lot easier now that I am not living on campus, not living in the dorms any more. Because I have access to a kitchen I can just go out and cook, and where I can put the food. Whereas before, it was like here is this communal refrigerator which I cannot trust if it can be used without someone taking the food or something… or it is just being shared with way too many people or there is nothing to cook with since there is only a microwave; you can only cook so many things in a microwave (with a laughter).

Facilitator 1: Just going off of that, did you at any point have difficulty locating grocery stores perhaps that were for preferences, in terms of price point or cuisine or ingredient and what not? So, ethnic food perhaps? I myself I am Persian; I am a domestic student, but I have international background. So, I know if I were to live on campus or live on my own, I would have difficulty accessing ethnic food.

Participant 2: Going off of that, I think if I were in first year, they just created a Korean bar which is great. But if they did not have that, as Korean I would have like difficulty finding ethnic food. If, I also come from Korea, I would also have trouble finding which markets to go for ingredients or ingredient side dishes. Aaa Mmmhhh... but obviously like if you talk to one Korean you would find out later that there are grocery stores that sell ethnic food and that kind of stuff. But when first gave here you need find a balance between how far do, I have to go and find those resources and how much time do I have to go and get there, like Do I have the resources to make the things that I want to?

Participant 3: To my perspective, it is more of a preference concern because of availability. It is between preference and time constraints. So... for example in residence we have a communal dining and we have meals there, but sometimes they are not what I am allowed to eat. And also, breakfast, I often miss it, because it is always the same, it never changes that much. So... I end up missing it. If I do, I have a high energy cereal, so I make kind of a taste. But in my context, we call it a porridge and then get going with that

Facilitator 1: So, talking about dining food, you wanted more variety and that wasn’t available?

Participant 3: Yes

Facilitator 1: Just out of curiosity sake, did any of you also experience this on residence? The regular consistent meals?

Participant 4: I think for me...I also have some food restrictions; I only eat Halal food.
Aammmhh… when I first came here at UBC, I couldn’t cook…. I remember going through a lot of difficulty in the first few months… even finding what to cook was a problem…. finding culturally appropriate food was hard, but I didn’t call it food insecurity at the time…. But it is a challenge that many students would go through especially those with dietary restrictions…

**Participant 1:** …..UBC does a good job at labelling things as gluten free, vegetarian, or Halal, but there is not labeling for things as culture…. It could maybe due to the demographic thing of who attends UBC, but it is what I have noticed. It might be an issue for some people

**Participant 4:** Availability influenced kind of my dietary pattern. Now, I am fully vegetarian (it is available everywhere, wise choice, healthier choice...) I quite Halal food completely

**Facilitator 1:** Do you think lack of Halal food kind of geared you to a vegetarian diet?

**Participant 4:** Not really, I changed to vegetarian way after…. But potentially yes, the lack of Halal could have led to that change of preference; the beginning of everything, yeah.

**Facilitator 1:** … do you now know that places or restaurants that offer Halal food?

**Participant 4:** Lower Mainland, everywhere...

**Facilitator 1:** It took some time, maybe?

**Participant 4:** Yeah it took some time

**Participant 1:** Taking time is natural to moving somewhere new…. It is a natural process to figure out where things are and know who to get to them...

**Facilitator 1:** …. What is something at UBC that made you come to that realization of knowing where things are? Is it friends? Did you seek any help?

**Participant 1:** Only the help was, my friends would mention something, and I would be like I have never heard this before and they’ll tell me about it...

**Facilitator 1:** We will move on to question 2 (Have you experienced food insecurity during your time on campus?) and I will provide an anecdotal example and you can relate it to my story. Myself, ….. I also eat Halal so when I am here at school, I only eat Vegetarian food… so if you want to share your experience of your friends, peers, … the floor is yours.

If we feel uncomfortable, it is ok, we will pass. We will just move to question number 3

**Participant 5:** I think the dining hall timings were a bit weird in first year…. people were having dinner at 5PM which I am not used to. So, I would miss dinner or have lunch at dinner time, and I would go to bed on an empty stomach …...

**Participant 1:** In the dorms the only thing open after 10PM is the little convenient stores…. The grill is sometimes Open, and I know from living in dorms that the cost of food is expensive and living in the dorm is expensive… I know in the US colleges it is more like a buffet style in the dorms… whereas here you get a given amount of food on a place and you pay $10 just for that. Which made it very difficult to live in residence. I remember, I don’t know how true it is, but I remember seeing a UBC confession post where someone was trying to live off of UBC recommended meal plan, which is $12 a day and, in the confession, they said that they nearly died of starvation…. I know UBC changed its meal plan after then, but I don’t know to what extent....

….. expensive food in the cafeteria made me always consider taking a walk to the village, which is a 20 min walk, but for food that is cheaper, more nutritious and of a more mysterious origin...

**Participant 4:** Going off form the meal plan issue actually, I remember in my 1st year putting flex dollar in my meal plan for absolutely nothing…. I did not use it, because I was often eating from the village and the village doesn’t accept meal plan…. If enough options are not available, the meal plan does not work for some students

**Participant 1:** The village is a grey area in terms of UBC jurisdiction in a way…. I was thinking none of the places accepts meal plan and remembered Vera’s burger accepts them…. So,
I do not know how the village is related to UBC.

**Facilitator 1:** Question 3 have you heard of Enrollment Services (ES) and what do you know of them?

**Participant 1:** They help enrollment issues.... Yeah, they just exists

**Participant 3:** The help in terms of scholarships, if you receive any benefits from the institution, they help you with that.

**Facilitator 1:** Yeah, definitely. Scholarships are one of the things they do.

Do you guys know if you have an Enrollments Services Professional (ESP)??

**Participant 1,2,3,5:** Yes

**Participant 4:** Yeah, I always receive emails from them hhhhh...

**Participant 1:** Hhhhhh.... Every 3 months

**Participant 4:** But the information is really helpful, the last time I had one it contained a whole lot of information and they sent them annually? I think?

**Participant 1:** I think every few months...

**Participant 4:** And yeah, the information is really helpful.

**Facilitator 1:** Have you guys ever met with your ESP?

**Participant 1:** No

**Participant 4:** My first year only

**Facilitator 1:** What did you discuss with your ESP?

**Participant 4:** Well Financial planning........ we also talked about career planning.....but the most important thing was financial planning

**Facilitator 1:** Anybody else would like to contribute to what they discussed.

**Participant 1:** mmmmmhhhh... really the only interaction I have had with ESP apart from...... is I would email them to differ a payment and once they told me to it does not...... I stopped emailing them.

One of the reasons this came up is because they were being contacted by international students about budgeting...... and international students were meeting with ESP with for financial planning...... which gives us a sage way into the Meal Planning Guide. There are 2 sets MPG and Recipes for Students...... If you wanna glance at it and let us know what you think......

**Participant 2:** Did you make this?

**Facilitator 1:** No, ESP had a group of students who made this...... you are the 1 cohort of students to look at it, and the feedback you and other students provide will be incorporated in the new guide......

**Participant 1:** Will it be given to every student or available online?

**Facilitator 1:** That too is addressed in question 6, is whether you like it terms of a website, a downloadable PDG an application........ they are looking to distribute the guide to both current and incoming students...... one of the things that they were also interested in is the fact that grocery stores... a lot of new students coming in do not actually know where to purchase their food and we hope to pinpoint that in the FPG....

**Participant 2:** I think sth that will be beneficial is the breakdown of the nutritional aspects... how much vitamins am I getting from each meal. Just because as student we do not think about that enough, and giving them and amount of nutrients would give them an idea of how healthy they should eat..... I have heard people living in residence...... feeling like they are not hitting all their food groups or that they are not getting enough nutrients from what they eat

**Participant 1:** Going off of that, looking at these meal plans. It doesn't seem to fit well with
people who have some restrictions, or you are trying to go on a diet.

Also, this makes the assumption that you always come back to the dorms for lunch or dinner…… assumption that you are only eating in the residence hall, which is not very interesting…. And not very diverse… and not affordable

Participant 5: I don’t think If I were to live on res, I would follow this…… in 1st year they are many things to consider. I wanna go out with friends, I wanna skip a meal to study….. a lot of 1st year would not bother going online and type, whatever, residence MPG, you know, I have enough to worry about

Facilitator 1: In terms of the format… do you like that it a Monday- Sunday type of thing or would you like something like price points and preferences grouped? Like if you are a vegetarian, your list of items you could get at this price point? Would that……

Participant 4: I think, that would be more helpful

Facilitator 1: We have not necessary thought about that, how we are going to create the new one…… dietary restrictions are not included, but is there a particular way you would like that list?

Participant 3: I think we can slot in a page that is for restriction. And then if possible, you can maybe quote…… the different foods that they can work with……

Participant 4: There are 2 prices in every square? Is that the price from residence

Participant 1: Yes, if you are using a student card

Participant 4: So, this was meant to market the food on residence. Because it is making the food on residence look cheaper than the real market?

Facilitator 1: I think the parenthesis are the ones where you are purchasing off your meal plan, and the ones without parentheses are when I am paying with my credit card……

Participant 1: Sometimes that prices under your credit card can be ridiculous, I remember seeing a box of strawberries; under res dollars they were $10s while when you were not using your res dollars it was at least $15….

Even looking at these prices they are unfairish… looking at a muffin even at res price, I am sure Tim Horton’s has a cheaper muffin than that……

Participant 5: And a better muffin too… hhhhhhhhh (the room bursts in laughter)

Participant 1: I think the problem of quality comes after the one of actually having the food or being able to buy it hhhhhh…

I actually like the idea of having this be as a list of like here is food of this kind and under this price point and having that flexibility there because mmmh so sticking to a meal planning is not going to happen….. but having like hey here is….. where you can get vegetarian food… price points give people the ability to go out and explore new things….. and not feel like they have to stick to a meal plan…..

Participant 6: I think…. one of the most useful things would be the appendix. Seeing where flex dollars are useful would be helpful… because most first years are still figuring things out and do not know where to use the flex dollars

Participant 1: Yeah, and I think that was frustrating. If you run out of meal dollars. If starts charging the flex dollars but that other way around does not happen….. Hence having that type of information would be useful I think for most people.

Participant 5: I think for most students spend their flex dollars by ordering Dominos…huhhh

Participant 1: We need more pizza places that accept student cards…..huhhhhh

Participant 3: So, if we have a number of students ordering dominos, can’t we come up with a plan with dominos so that they can
subsidize? Imagine if I walk into dominoes as an individual I would …… but if I have 100 consumers and I would say I have 100 consumer and I know your item is $7 how about $6 and the seller would think…. Uuu Mmmhhh 100 people, if the walk out what do I lose? And he would be like ok, come, you know?

We can quantify how many people order this dominoes and then we push for something like that and we would be like hey we have a bunch of UBC students they would like to order dominoes, but we need it at a discount…..So, it is like collective bargaining.

Participant 1: That reminds me of something I mentioned before of where student cards work, and the jurisdiction think. Dominos is not on campus, so it is clear that were student cards work is not determined by their actual location on campus but something else...

Participant 5: But they only accept flex dollars and you can add them on your UBCcard using your credit card any time. You don’t need a meal plan for that.

Participant 4: That is true

Participant 3: Maybe that can be one of the recommendations that we could make

Facilitator 1: Just going off of that…. what is the recommended meal plan beneficial?

Participant 6: I run out of meal dollars in my first term, mid-November. And the second term by the end of February I was out, and I had to add like $600 in the second term....

Participant 1: Yeah, I remember in my second term, I was adding several $100s every few weeks or so..... it is just so expensive....

Participant 6: They give you most of your money during JumpStart and you get even more at the end of JumpStart, but that last installment you receive is a lot smaller and you think that you are going to get the same amount of money...... so, you are a bit fouled there as well.

Participant 2: I have had a lot of friends tell me they run out of money earlier in the term and unable to gage how much money they are actually spending because it is so expensive

Facilitator 1: Are you at any point warned that you are running out of dollars........?

Participant 1: Sometimes that cashier will tell you, you are running out of dollars.... Other times nothing. And you can go check it yourself…… on SSC, but if you are not actively thinking about it you will not check it

Participant 4: I think you should ask for the receipt when you purchase something...... the receipt shows that balance.

Participant 1: I only ever met one person, who took all their receipts and actually properly tried to budget by going through all those receipts, every month, to see how much he would spend....

Participant 3: …..I am assuming you can feed this information into one application somewhere so that someone knows that if you eat today, you get a warning at the end of the day that this is how much you have spent bellow or above your expected expenditure...... you know someone goes out to get food they are not thinking about the budget that much...... this would help them make informed decision...... so we can develop and application to tell them what they are spending and a summary at the end of the week....

Facilitator 1: …. That sounds very amazing...... So, in what type of format would you like this?....... is it same across that board? Are you guys interested in an app?

Participant 6: No, I don’t think that would help me personally, because it would just be one more thing to stress about

Participant 2: But, I think that if I was a PDF, I would not have opened it, it is huge, and it is like another thing that I have to read.....

Participant 1: I understand that, but I also do not like the idea of an app. The idea of here is one little app that does this one thing and I would get a clutter in my phone......I don’t like getting a lot of notification about things...Probably the app would be more helpful..... and interactive.
But I personally would not even get the app in the first place.....

**Participant 2:** Having an app for those who use our phone more often and having that reminder..... but also having a website where.... It directs you to recipes and like no-cook, you go to no-cook because you live in residence that doesn't have a kitchen, that would be easier to follow

For the varsity team they have a website linked to their athlete's website.....having that resource there and the communication that it exists would be nice and easier to find....

**Participant 3:** ..... the app being a bit versatile it has a like a place where you can see the location of food where you live..... Depending on your preferences it can lead you to what is more cost effective..... At the same time giving you the nutrition, you need in it.

**Facilitator 1:** ... so, like an app that is geographically feasible... like snapchat where it gives you like a map and pinpoint ..... so, you filter out like I am halal, vegetarian, so that it filters what is available at what price point.

Also..... I know that AMS has an app.... Would you rather be on the same app or an individual app? Maybe have everything in one cohesive package perhaps?

**Participant 1:** Yeah, I just wanna say, on your description of an app of put a filter.... That is google maps.... Literally google maps... hhhhhh....

Because in google maps you can filter out prices..... What kind of food you want....? you can search for the area...... everyone should just use google maps hhhhhh.

**Facilitator 1:** So, a google map sort of thing but indicates which ones accept flex dollars...... You can circle your answers for number 7...... please feel free to add additional point.... And list what you would like on the app, website or a PDF.

...... The consent forms are for you to accept that you know what this was about...... your information was confidential, information collected here will be compiled and collected into a SEEDS final report and will be presented to ESP as well as the SEEDS program.

**Participant 1:** So, what are these recipes for....

**Facilitator 2:** ......The Meal Planning Guide was geared to 1- year students who have no access to a kitchen while the Recipes are for upper year students who have access to a kitchen or just live off campus and do not necessarily rely on the meal plan.

**Participant 1:** I really think first year students need ovens...... Even just one per a dorm building would help a lot....

**Participant 2:** I think if you put one in the common area downstairs...

**Participant 1:** That is what I was thinking, but you don't know how many people are actually going to cook....? They kind of should do a survey of how many people would use it and determine where to put it....

But I think having at least one full kitchen in each of the dorm buildings would be significant improvements in diet.... Gives people the opportunity to do it themselves.... And life skills involved in cooking, care for your own diets better, and eat close to what is ethnically your own and portion yourself out more.......

The only thing students can make it cup noodles or pizza pops.....being able to cook whatever you want, whenever you want it...... and also would save money for people.

**Facilitator 1:** ..... what are your thoughts on having small appliance like grill cheese sandwich maker, toaster, ....? Anything to help facilitate.

**Participant 1:** Literally, anything would be better than just a microwave.

**Participant 6:** ......My friend in the first term had a rice cooker......

**Participant 1:** ......there is also an oven in the dorm but it is locked by residence coordinators....

**Participant 6:** I think that is dumb...
Participant 3: Fire hazard my dear…

Participant 1: They have an electric stove, so it is not a fire hazard

Facilitator 1: Closing remarks: ……I would like to take the time to thank you all for showing up….
UBC Seeds: Food Security in 2019 Survey

1. Do you think [International/first-year/graduate/Indigenous] students have unique challenges when facing food insecurity? If “yes”, please elaborate

   Yes          No

2. Have you personally experienced food insecurity in your time on campus?

   Yes          No

   If “yes”, what form did this take? What resources did you access as a result, and how did you access these resources?

   If “no”, what resources do you know of to deal with food insecurity? How would you access or find resources if you needed to?

3. Have you heard of Enrolment Services? What do you know of them?

   Yes          No

4. What do you like about the proposed Residence Meal Planning Guide document? What do you dislike about it?

5. Would this Planning Guide be useful to you?

   Yes          No

6. Which of the following regarding the Guide’s FORMAT do you think would be most useful? Please Circle one of the following

   a. Website      b. Downloadable PDF       c. An Android/iPhone APP

7. Which of the following regarding the Guide’s CONTENT do you think would be most useful? Please Circle one of the following

   a. Recipes    b. Student Budgeting Tips  c. A comprehensive list of on and off campus resources available to students facing food insecurity

8. Which of the following regarding the Guide’s DISTRIBUTION do you think would be most useful? Please Circle one of the following

   a. Handed out to students’         b. In Enrolment Service offices       c. Link provided Via email on first day of class

9. If this guide had been emailed to you at the beginning of your first year, would you have read it?

   Yes          No
UBC Seeds: Food Security in 2019 Survey

1. Do you think [International/first-year/graduate/Indigenous] students have unique challenges when facing food insecurity? If “yes”, please elaborate
   Yes  No

2. Have you personally experienced food insecurity in your time on campus?
   Yes  No
If “yes”, what form did this take? What resources did you access as a result, and how did you access these resources?
If “no”, what resources do you know of to deal with food insecurity? How would you access or find resources if you needed to?

3. Have you heard of Enrolment Services? What do you know of them?
   Yes  No

4. What do you like about the proposed Residence Meal Planning Guide document? What do you dislike about it?

5. Would this Planning Guide be useful to you?
   Yes  No

6. Which of the following regarding the Guide’s FORMAT do you think would be most useful? Please Circle one of the following
   a. Website  b. Downloadable PDF  c. An Android/iPhone APP

7. Which of the following regarding the Guide’s CONTENT do you think would be most useful? Please Circle one of the following
   a. Recipes  b. Student Budgeting Tips  c. A comprehensive list of on and off campus resources available to students facing food insecurity

8. Which of the following regarding the Guide’s DISTRIBUTION do you think would be most useful? Please Circle one of the following
   a. Handed out to students’  b. In Enrolment Service offices  c. Link provided
   Via email on first day of class  d. Other (Please explain):
9. If this guide had been emailed to you at the beginning of your first year, would you have read it?
   Yes  No

10. What do you think about the proposed Recipes for Students document? What do you dislike about it?
   
11. Would Recipes for students be useful to you?
   Yes  No

12. Which of the following regarding Recipes for Students’ FORMAT do you think would be most useful? Please Circle one of the following
   a. Website  
   b. Downloadable PDF  
   c. Android/iPhone App

13. Which of the following regarding Recipes for Students’ CONTENT do you think would be most useful? Please Circle one of the following
   a. Recipes
   b. Student Budgeting Tips
   c. A Comprehensive list of on and off campus resources available to students facing food insecurity
   d. Other (Please explain): ________________________________

14. Which of the following regarding Recipes for Students’ DISTRIBUTION do you think would be most useful? Please Circle one of the following
   a. Handed out to students
   b. In enrolment services offices
   c. Link provided via email on the first day of class
   d. Other (Please explain): ________________________________