

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

UBC Food Vision and Values: Phase 3

Melody Fu, Natalie Manitius, Sonia Stewart, Francesca Tse

University of British Columbia

Course: LFS 450

Themes: Food, Procurement

Date: April 16, 2020

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".

2020 LFS 450 Final Report

UBC Food Vision and Values: Phase 3

Melody Fu, Natalie Manitiuis, Sonia Stewart, Francesca Tse

LFS 450 001 Land, Food, and Community III: Leadership in Campus Food System Sustainability

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EXECUTIVE SUMMARY

Globally, there is an urgent need for transitioning to a more sustainable food system, environmentally, socially and economically, to mitigate the effects of rapid population growth and movement and climate change. Transitioning to a more environmentally friendly diet, like a plant-based diet for instance, can reduce our carbon and water footprint resulting in improved environmental sustainability (Chai *et al.*, 2019). Efforts are also needed to further develop the inclusivity of our food system and can be accomplished by providing culturally appropriate foods. Cultural foods and practices embody our identities and a lack of culturally appropriate foods can lead to food insecurity in migrant populations (Fabio 2014; Vahabi and Damba 2013).

In order to contribute to the global transition to a more sustainable food system, a bottom-up approach involving local communities and stakeholders in creating and implementing decisions is critical (Rojas *et al.*, 2011). In this project, we worked collaboratively with UBC's largest food provider – UBC Food Services (UBCFS) to assess their progress towards food system sustainability using their Food Vision and Values as an evaluation framework. Our goal was to assess, improve, and support the implementation of UBC Food Vision and Values consistently throughout UBCFS providers, and to align UBCFS with sustainability policies. This includes the Okanagan Charter and UBC 20 Year Sustainability plan that encourage practices for healthy people and a healthy planet.

The Food Vision and Values highlights the promise to offer more plant-based options in an attempt to reduce environmental impact. Thus, we chose to audit the availability of plant-based options in first-year dining halls. In addition, UBCFS expresses the goal of offering Pacific Northwest cuisine, which does not necessarily accurately represent the needs of the diverse UBC community. According to David Speight, UBCFS is striving to provide foods that are more reflective of the diverse set of cultural identities. Thus, we worked to understand the definition of 'culturally appropriate' in the context of UBC, while auditing the extent of 'culturally appropriate' foods offered in the three first-year residence dining halls. Through conducting this project, we identified leading practices in the field, assessed the current efforts and progress of the Food Vision and Values through auditing, developed recommendations, and fostered implementation of practices in food values. This was done to evolve

Food Vision and Values through identifying, reframing, and expanding the values and definitions in partnership with UBCFS and other stakeholders.

We conducted primary and secondary data collection through completing menu audits at the three first-year residence dining halls, in-person surveys, focus groups targeting students of diverse backgrounds and culture groups, a landscape scan of other institutions who implement food values, and a demographic scan of UBC first-year residence students. These were done in order to evaluate UBCFS' progress in meeting their goals involving Food Vision and Values. After analysis of our primary and secondary data, we provided informed recommendations that better represent community values, and are suitable in achieving goals of food system sustainability at UBC.

There were multiple outcomes for this project. We compiled sufficient information in regard to food values of other institutions which allows UBCFS to strive to adapt and improve the UBC Vision and Values. We hope to improve the sustainability of the food system and cohesion of the UBC campus through our collected data on plant-based and culturally appropriate food options. Our report and analysis provides a better understanding of cultural diversity and needs of students, while examining how diversity is reflected in the dining halls. Finally, we created a cohesive set of recommendations from the collected and analysed data in order to improve the UBC Food Vision and Values and inform the next phase of Food Vision and Values.

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1. INTRODUCTION

1.1 RESEARCH TOPIC

Globally, university dining halls are one of the largest purchasers of food, thus playing a huge role in influencing producer and consumer behaviour. Combined passion for a healthy planet and people, with the research and development of a university, puts UBC in a strong position to lead change. In 2017, UBC Food Services introduced a set of Food Visions and Values that sets standards to be environmentally, socially and economically conscious while supporting the needs of students and the rest of the UBC community. As the third group to audit UBCFS, we aimed to continue to audit the amount of plant-based offerings in dining halls as UBCFS strives to provide more sustainable food options. Moreover, we audited the cultural offerings in the dining halls to assess how it aligns with the cultural needs and diversity of the students. As universities are continuously on the frontier of change, developing robust food service programs is key. Through using UBC as a real-world lab, this project aspires to address environmental and social sustainability by exploring knowledge gaps with plant-based and culturally appropriate food. On a larger scale, this project will help UBC continue being a leading institution in providing sustainable food services. We hope this project is a step in the right direction to encouraging more socially inclusive and environmentally friendly food options on campus and across other institutions globally.

1.2 RESEARCH RELEVANCE

Following broader initiatives to improve school and urban food systems, UBC Food Services is striving to push down the barriers to offer healthy, affordable and sustainable food (UBC Food Services, 2017). Initiatives such as the UBC Climate Action Plan 2020 and UBC's Strategic Plan encourage "creativity, resilience and shared risk-taking that catalyze new approaches within the university and beyond" (UBC, 2018). Meanwhile the Okanagan Charter, an International Charter for Health Promoting University and Colleges, calls for universities worldwide to embed health into all aspects of campus and lead action with both local and global collaboration (International Conference on Health Promoting Universities & Colleges, 2015). These key guiding frameworks recognize international calls to advance sustainability and well-being practices through supporting innovation, creativity and collaboration. Policies like these allow UBC Food Services to take bold actions and set strong targets as they can do so on the grounds of these broader initiatives. Taking decisive action sets an example for other

universities, creates a healthy campus environment and positions UBC as a leader in school food system sustainability.

This research project aims to address two food issues: the availability of plant-based entrées and the prevalence of culturally appropriate food within UBC's first-year residence dining halls. The relevance of offering more plant-based options has risen as a response to increased environmental degradation. With increased global populations and rising levels of wealth, the demand for animal products has also increased (Sabaté and Soret, 2014). These levels of animal product consumption and specifically red meat consumption, has resulted in high levels of intense land usage, greenhouse gas emissions and poor input-output efficiency especially compared to plant-based food options (Clonan *et al.*, 2015). Policies that encourage plant-based offerings are at the forefront because they improve global food supplies while enhancing health, environmental sustainability and social justice (Sabaté and Soret, 2014). Furthermore, Canada's new 2019 Dietary Guidelines recommends choosing more plant-based options when consuming protein foods (Government of Canada, 2020). This is supported by macro level policies such as the United Nations Sustainable Development Goals that include the following high level goals related to food system sustainability, ending world hunger, achieving food security, improving nutrition, and promoting sustainable agriculture; ensure healthy lives and promote well-being for all at all ages; take urgent action to combat climate change and its impacts (United Nations, 2015). Auditing plant-based offerings will allow UBCFS to improve the percentage of plant-based foods offered and contribute to campus environmental sustainability.

Research into culturally appropriate food offerings is highly relevant as there is a general lack of understanding and definitions on what culturally appropriate food is. However, the usage of phrases like 'cultural diversity', 'cultural sensitivity', 'cultural safety' and 'empowerment' has increased in literature (Williamson & Harrison, 2010). This increase in usage is a reflection of growing global diversity that has formed international communities, especially due to globalization and mass migration. In a city and university that has a large proportion of international migrants and students, it is important to promote the integration of cultures to address social sustainability (McKenzie, 2004). It is important to have a variety of food offerings that reflect different cultural needs as a community's identity is formed in part by history, production, traditions as expressed

through food (Rahn, 2006). Therefore, understanding how to create a food system that is highly diverse and inclusive is necessary in order to meet the needs of all residents and support a key theme of inclusion expressed in UBC's Strategic plan (UBC, 2018).

Through the research conducted in this project, we have the opportunity to not only influence UBCFS's Food Vision and Values but also advance campus, city, regional, national, and worldwide goals in implementing new food programming standards that address environmental and social sustainability. This research aims to contribute to broader societal issues, which help reconnect people with their food, support local food economies, tackle issues of accessibility, and promote positive environmental stewardship. Additionally, this research will strengthen the community by giving students an opportunity to voice their opinions, ensure cultural acknowledgement and inclusivity of individuals, and provide the opportunity to educate the community on choosing environmental and socially sustainable diets.

1.3 PROJECT CONTEXT

UBC Food Services (UBCFS) is responsible for providing food to UBC students, faculty, and staff. UBCFS operates three first-year residence dining halls and over 30 food retails on campus (UBC Food Services, n.d.). They aim to serve high quality and healthy foods in an environmentally, socially, and economically sustainable way aligning with their 16 ambitious Food Vision and Values attached as Appendix I (UBC Food Services, 2017).

A baseline audit was conducted in the previous two years to quantitatively measure how well UBCFS aligns with their Food Vision and Values. For this project, we chose to audit the 'vegetarian and vegan food' food value. Serving more plant-based options is an important strategy in developing sustainable food systems, as a diet with reduced meat consumption is shown to have lower land use, water use and greenhouse gas emissions (Chai *et al.*, 2019). The audit in 2018 discovered that 43% of entrées offered were plant-based (Foster *et al.*, 2018). The audit conducted in 2019 found that breakfast offered the least amount of plant-based options across the three dining halls and that there was a lack of plant-based protein in the meals (Blundon *et al.*, 2019). We decided to follow up on this food vision, because the UBCFS aims towards a menu that consists of 50% plant-based entrées by 2020 (David Speight, personal communications, 22nd January 2020). We were intrigued to learn how well the UBCFS is aligning with this strategy this year.

We also decided to audit the ‘culturally appropriate food’ food value. The term ‘culturally appropriate food’ has been referred to in the UBCFS food visions and values list, but the concept is still very ill-defined as there is no working definition and an overall lack of published research. Culture is fluid not static and constantly changing based on context, generation, and political and economic processes, setting a standard definition of culture is a challenge (Sampson & Wills, 2013). This makes defining culturally appropriate food very difficult. It is plausible that studies that looked into how indigenous people define their own foods are the most relevant to date. One study looked into how the Songhai people (one of the many Indigenous groups of Nigeria) define their own culturally appropriate foods found that the people used various criteria such as taste, cultural identity, and use in celebrations (Towns *et al.*, 2013). However, that criteria will not necessarily translate into our project’s context because the culture in Vancouver and at UBC will be very different from the Indigenous people’s culture.

Serving culturally appropriate food is necessary, because it helps people to feel at ease in new places and preserves their cultural identity due to globalization (Fabio, 2014). Also, a lack of culturally appropriate food can provoke food insecurity among immigrants (Vahabi and Damba, 2013). Because the term appears within UBCFS’s Food Vision and Values, but has never been previously audited, it is important that we try to understand the current state of this goal. As well, UBCFS acknowledges that they have room for improvement in this area (UBC Food Services, 2019). Although there are no official complaints or discussions about culturally appropriate foods at UBC, there was student backlash against the culturally insensitive foods provided at the dining hall at Oberlin College in Ohio (Friedorsdorf, 2015). This suggests that a lack of culturally appropriate food could be problematic for universities. With 50% of students living in first-year residences being international students (David Speight, 7th February 2020, personal communication), UBCFS should recognise the cultural diversity on campus and strive to reflect it in their menus to support students’ transition to the new environment. Therefore, we are determined to invite all UBC students to define what culturally appropriate food is to them, in order to come up with a definition that is tailored to UBC, in hopes of making the UBC food system more inclusive and socially sustainable.

Through this project, we hope to inform UBCFS of their progress in meeting their Food Vision and Values, provide recommendations for improving their services, and continue facilitating the transition of UBC food system to a more climate-friendly and context-appropriate community.

1.4 PROJECT PURPOSE, GOALS AND OBJECTIVES

1.4.1 PROJECT PURPOSE

To advance food system sustainability within UBC Food Services operations, by assessing progress and identifying areas of improvement as defined by their set of Food Vision and Values.

1.4.2 PROJECT GOALS

To assess and improve the implementation of UBC Food Vision and Values consistently throughout UBC Food Services operations.

To align UBC Food Services with broader sustainability policies that encourage practices for healthy people and a healthy planet.

1.4.3 PROJECT OBJECTIVES

1. Identify how other post-secondary institutions are leading in terms of adopting and implementing food values within their food services and learn best practices from those who are successfully meeting sustainability targets.
2. Assess how UBC Food Services (UBCFS) is currently aligning with their Food Vision and Values, specifically on their following two visions:
 - Encourage reduced meat consumption through increasing plant-based food offerings.
 - Offer local and globally inspired cuisines with culturally appropriate menu choices.
3. Develop recommendations for improving progress with respect to implementation of food values.
4. Work with UBCFS and other key stakeholders to evolve Food Vision and Values 2.0 by identifying new and emerging values for inclusion, reframing of existing values and expanding definitions.

2. METHODOLOGY AND METHODS

2.1 RESEARCH METHODOLOGY

The methodology used to conduct this research is Community Based Action Research (CBAR), a collaborative approach to inquiry or investigation that provides people with the means to take systematic action to resolve specific problems (Nasrollahi, 2015). CBAR aims to integrate the knowledge learned through research directly into the community through policy or program implementations. In this approach, the researchers, stakeholders and community members take on shared roles of knowledge holders, participants and decision makers. Some examples of how this was achieved are: conduct stakeholder and community interviews, share decision making responsibilities with our client, and recommend tangible solutions that are implementable on a range of time scales.

Our project team followed the ethics guidelines in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS). Thus, proper informed consent was required from any individual that participates in our in-person surveys and our focus group sessions.

2.2 RESEARCH METHODS

Our research methods consisted of primary and secondary data collection. Our secondary data collection included a landscape scan and a first-year residence demographic scan (further described in 2.2.1) Our primary data collection included two menu audits, a survey, and focus groups (further described in 2.2.2).

2.2.1 SECONDARY DATA COLLECTION RESEARCH METHODS

I. Landscape scan

Through literature research, we conducted a landscape scan and collected data on best practices of other North American university dining halls on their guiding values, cultural food, and sustainable food (including plant-based entrée) offerings. We prioritized researching other universities that have their own version of Food Vision and Values and that are leading in food sustainability practices. The institute name and keywords such as 'sustainable food' were searched.

II. First-year Residence Demographic Analysis

We were granted access to demographics of students living in residence from UBC Residence Life Staff (Appendix V). The data included a list of the number of students from different regions around the

world and each student's hometown. This data was used to determine how student diversity is reflected in both the cuisines offered from the cultural audit and the diversity of our survey respondents.

2.2.2 PRIMARY DATA COLLECTION RESEARCH METHODS

I. Menu audits

A. Plant-based entrées

The number of vegetarian and vegan entrées were counted for each dining hall respectively. The percentages of each dining hall were collected by comparing the number of plant-based entrées provided to the total number of entrées provided. We calculated the average proportion of vegetarian and vegan entrées per week for breakfast, lunch/dinner across a month (Appendix II-A).

B. Culturally appropriate foods

We characterized dishes by the cuisine type of select regions of the world (ie. Southeast Asian, East Asian) to simplify the amount of cuisine types as requested by our client. We counted the average frequency of cuisine types of entrées offered for breakfast, lunch, and dinner per week across a month (Appendix II-B).

II. In-person Electronic Survey

Our main audience was first-year residents living on campus, as they are the main customers at the three first-year residence dining halls: Open Kitchen, Feast and Gather. We used convenience sampling to directly encourage participation and our sample size was n=86. We accomplished reflecting international students in our sample population (35%, Appendix III-B) to the demographic population (37.7%, Appendix V). We designed and distributed an in-person electronic survey (Appendix III-A) to ask students to describe their definition of “culturally-appropriate” food and their experiences and opinions on plant-based and cultural foods offered by UBCFS. The UBCFS provided incentives (50 apples per location and a \$50 UBCFS gift card to host a draw) to promote traffic and participation.

III. Focus Groups

The electronic survey has limitations in fostering in-depth discussions, so we invited students to join our focus group discussions to hear more about their experiences with cultural foods on campus. We designed a script (Appendix IV-A) with open ended questions to allow for free discussions. One of the group members facilitated the discussion whilst the other member was the notetaker during the focus groups. We originally aimed to have 3 sessions with 5 participants (minimum) per session, and host both domestic and international students from various cultures to reflect the cultural diversity on campus. However due to a lack of participants, we ended up doing convenience sampling and snowball sampling. Our sample size consisted of n=7 total, with n=2 for Monday’s session and n=5 for Thursday’s session.

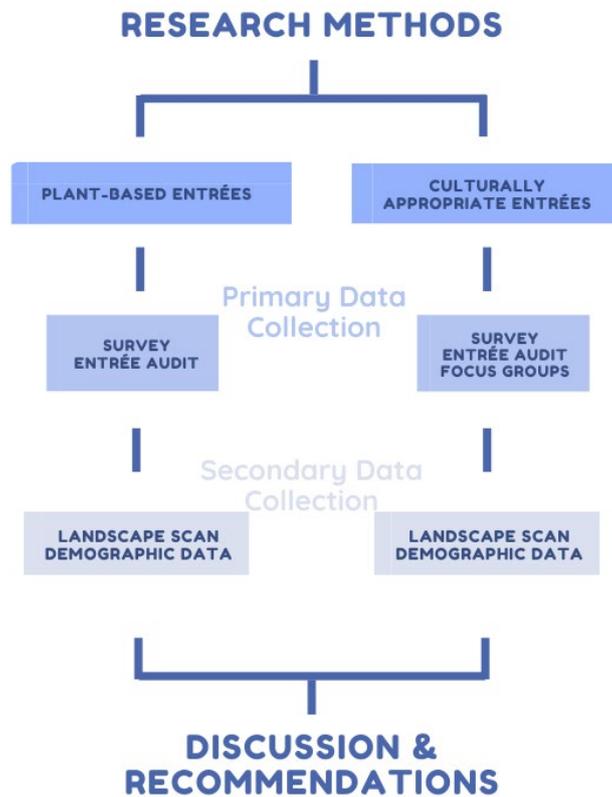


FIGURE 1: FLOW CHART OF RESEARCH METHODS

2.3 METHODS OF ADMINISTRATION

I. Menu Audits: Plant-based Entrées and Culturally Appropriate Foods

There was no recruitment required for our menu audit. We utilized the online platform Nutrislice because it included complete menus for all three first-year residence dining halls: Open Kitchen, Feast and Gather. Both menu audits were done during breakfast, lunch, and dinner every day (Sunday - Saturday) for one month (plant-based entrées audit: January 26, 2020 - February 29, 2020 and culturally appropriate foods audit: March 1-31, 2020). Only plant-based entrées were recorded and plant-based sides were not. Though it was sometimes difficult to differentiate, reference to the nutrition facts and using our client as a resource helped clarify whether the menu item qualified as an entrée. As for the cultural foods audit, we categorized entrées based on the specific region they attempted to reflect, despite some lack of authenticity or use of westernized ingredients (ie. dim sum from East Asia, tacos from Central America). Due to western nature, all bowls (ie. Thai Coconut Bowls) were categorized as North American. Lastly, sides were not considered for the culturally appropriate foods audit.

All data was collected onto an excel file that was shared amongst our group members through Google Drive. The use of online auditing through Nutrislice and Excel allowed for efficiency, quick calculations, and simple analysis of the data. These programs generated graphs efficiently and fostered universal accessibility. Digital files shared through Google Drive made documents for analysis more accessible to all group members.

II. Survey

We set up one booth at each dining hall location. As per recruitment, we directly approached individuals in each respective dining hall by reaching out to people in the dining hall and those passing the booth. No prior recruitment was used to distribute the survey. The survey was conducted on Tuesday, March 3, 2020 from 5-8pm in the three first-year residence dining halls: Open Kitchen, Feast and Gather. We used Qualtrics to administer the electronic aspect of the survey due to the length of the survey and convenience for data analysis post-survey. We administered the survey in-person to allow individuals to ask questions and clarify uncertainties upon completion of the survey.

III. Focus Group

As a result of the difficulties during recruitment, we had to encourage individuals to participate. Recruitment was extensive: Emails were sent to AMS clubs and for clubs without a contactable email, Facebook messages were in lieu. We made posts on LFS Facebook groups and announcements through UBC's Global Lounge Facebook. We made an entry that was sent to all to all LFS students via email in the LFS newsletter. We emailed professors (Dr. Andrew Riseman and Dr. Santokh Singh) to request advertising in their class. We asked our friends to participate and encouraged our friends to ask their friends.

Focus groups were held on Monday, March 9, 2020 at 1-2 pm and Thursday, March 12, 2020 at 11-12 pm in Irving K. Barber Library on campus. Free pizza and refreshments were offered as an incentive for participation. The script was created in a document and printed out for the facilitator (Appendix IV-A). Each session had notes taken on digital documents, which were shared amongst our members through Google Drive. Audio recordings were taken during both sessions and were used for transcription, clarification, and quotations. The app Descript was used to transcribe the focus groups. Our goal was to gain insights from international students with experience eating in first year dining halls. Due to the lack of participation from this demographic, one of our teammates, an international student, participated in the conversation. Face-to-face discussions added a humane perspective to the questions. We were better able to make a connection and let individuals share their opinions openly and honestly by creating a safe space to allow individuals to freely discuss our predetermined topics. We analyzed the data by finding common themes that appeared in the 2 sessions.

3. RESULTS

3.1 PRIMARY DATA

3.1.1 MENU AUDIT

Note: Raw data for the menu audits can be found in the attached zip file under file name “AppendixII-A1_Plant_Based” and “AppendixII-B2_Culturally_Appropriate”

I. Plant-based Foods

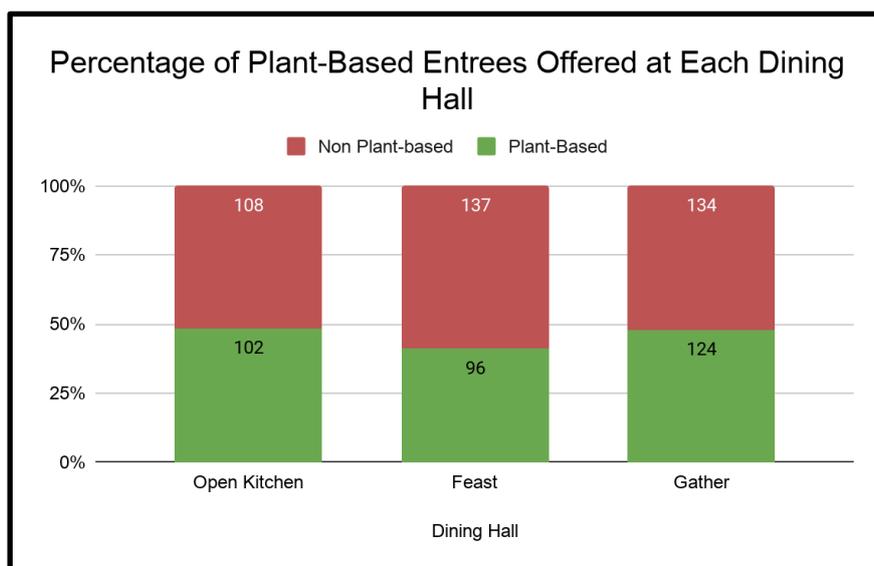


FIGURE 2: PERCENTAGE OF PLANT-BASED ENTRÉES IN EACH OF THE DINING HALLS

As seen in *Figure 2*, Open Kitchen, Feast, and Gather had 108, 137, 134 non plant-based entrées respectively and 102, 96, and 124 plant-based entrées respectively. Open Kitchen had the highest average with 102 plant-based entrées out of a total of 210 entrées (49%). Feast had the lowest average with 96 plant-based entrées out of a total of 233 entrées (41%). Gather also had almost 50% plant-based with 124 plant-based entrées out of a total of 258 entrées (48%). On average across the 3 dining halls, 46% of entrées were plant-based (Appendix II-A). In addition, of the breakfast options, 56% were plant-based across the three dining halls and 45% of lunch/dinner meals were plant-based meals (Appendix II-A).

II. Culturally Appropriate Foods

The results for the average percentage of cuisine types across the three dining halls were shown below, since the percentages were similar between the dining halls (Appendix II-B).

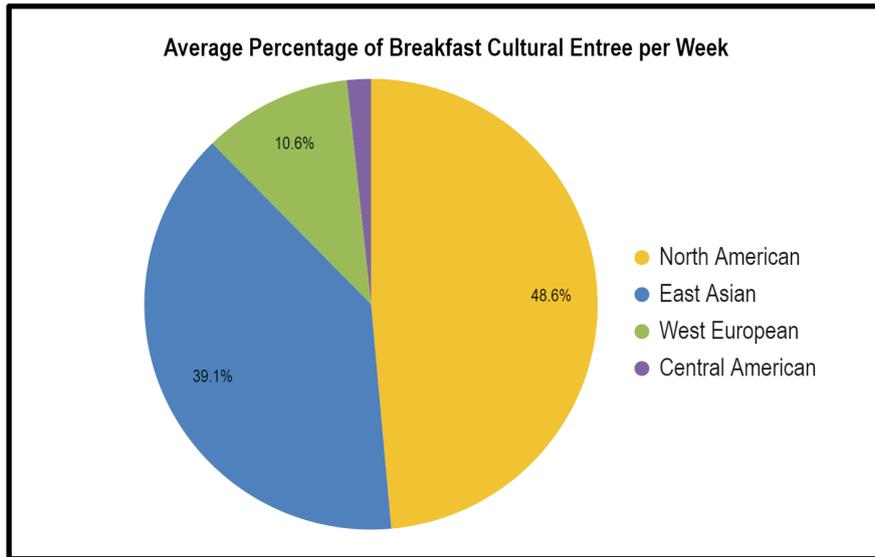


FIGURE 3: AVERAGE WEEKLY PERCENTAGE OF CUISINE TYPES OF BREAKFAST ENTRÉES ACROSS THE FIRST YEAR RESIDENCE DINING HALLS

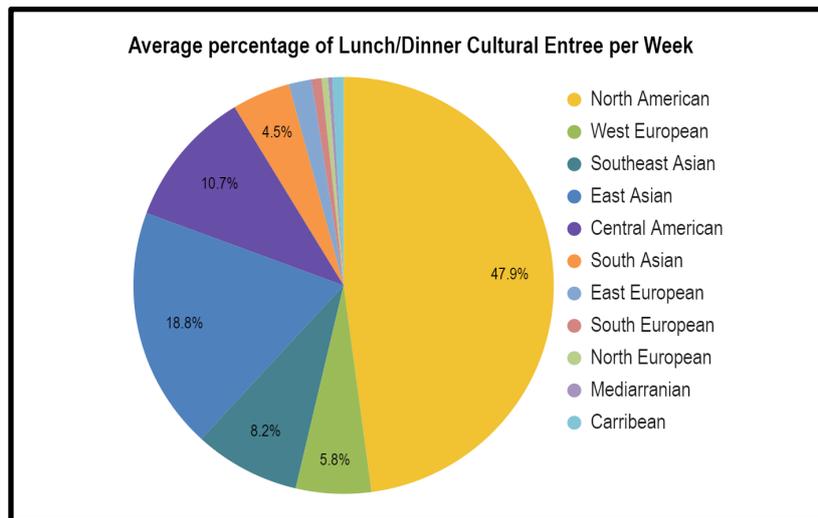


FIGURE 4: AVERAGE WEEKLY PERCENTAGE OF CUISINE TYPES OF LUNCH/DINNER ENTRÉES ACROSS THE FIRST YEAR RESIDENCE DINING HALLS

It was observed that there was a more culturally diverse selection of entrées for lunch/ dinner compared to breakfast (*Figure 3 & Figure 4*). For breakfast, almost half (48%) of the entrées were North American cuisine, followed by East Asian (39%) and Western Europe (11%) cuisines, per week (*Figure 3*). For lunch/dinner entrées, almost half (48%) were North American, followed by East Asian (19%) and Central American (11%) (*Figure 4*). However, we noted that the provision of 10 different dim sum entrées during breakfast or lunch on the weekends significantly increased the proportion of East Asian cuisines provided. If the dim sum entrées were eliminated from the audit, breakfast would consist of 82% of

North American cuisine, 12% Western Europe and 0% East Asian cuisine (Appendix II-B). For lunch/dinner, 52% would be North American, 15% East Asian and 10% Central American cuisines (Appendix II-B).

3.1.2 SURVEY

Note: Raw data for the survey can be found in the attached zip file under file name “AppendixIII-B1_SurveyResponses”

I. Plant-based entrée

Only major findings were shown. Refer to Appendix II-A for other graphs from the survey and Appendix III-C for student feedback from open answers of the survey.

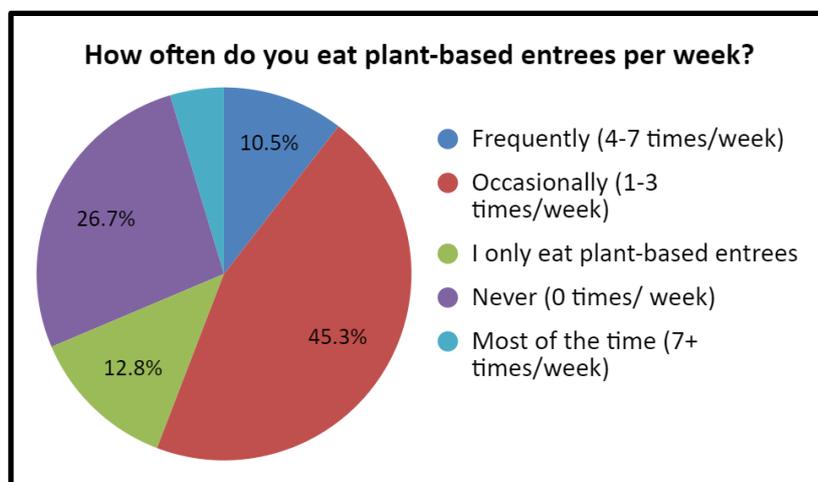


FIGURE 5: FREQUENCY OF PLANT-BASED ENTRÉE CONSUMPTION PER WEEK OF STUDENT RESPONDENTS

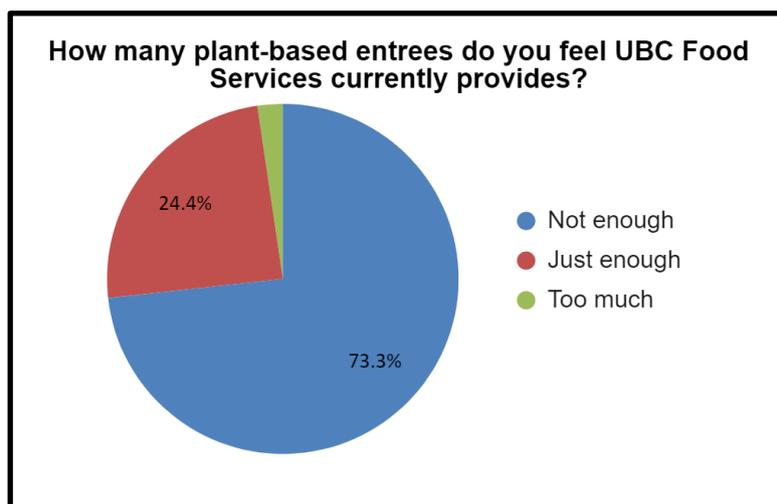


FIGURE 6: STUDENT RESPONDENTS PERCEPTION ON THE AMOUNT OF PLANT-BASED ENTRÉE UBCFS CURRENTLY PROVIDES

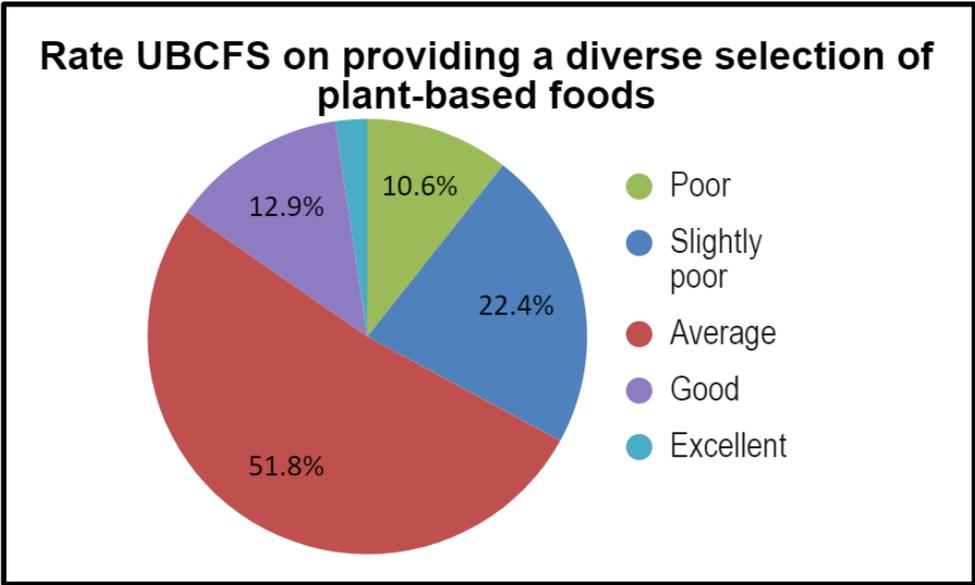


FIGURE 7: RESPONDENTS RATING OF THE DIVERSITY OF PLANT-BASED ENTRÉE OPTIONS PROVIDED

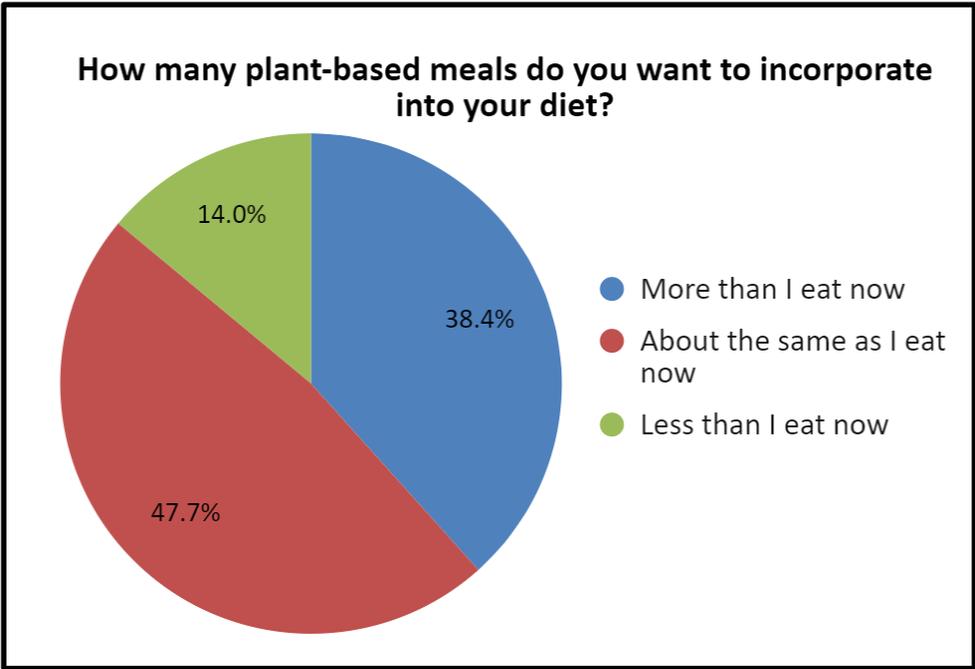


FIGURE 8: AMOUNT OF PLANT BASED ENTRÉE STUDENT RESPONDENTS WANT TO INCORPORATE IN THEIR DIET

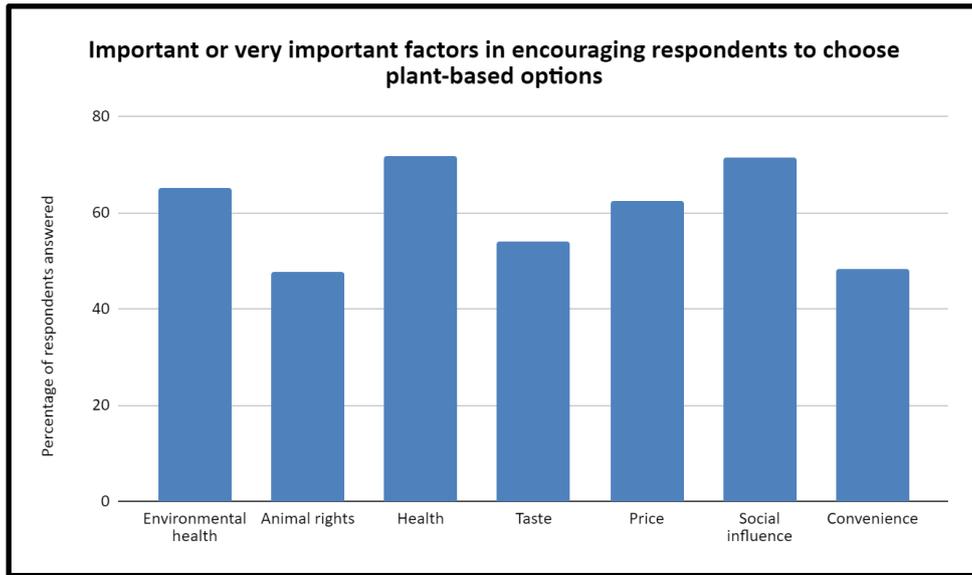


FIGURE 9: FACTORS THAT ENCOURAGE STUDENTS TO CHOOSE PLANT-BASED ENTRÉE. THE Y AXIS MEASURED THE PERCENTAGE OF RESPONDENTS THAT CHOSE THE FACTOR AS IMPORTANT OR VERY IMPORTANT IN INFLUENCING THEM TO PURSUE A PLANT-BASED DIET.

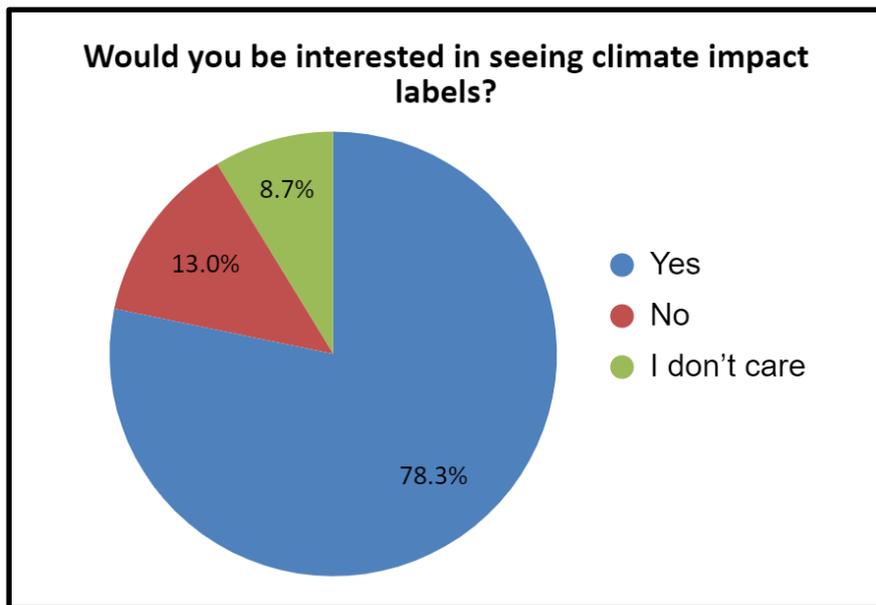


FIGURE 10: PERCENTAGE OF RESPONDENTS THAT ARE INTERESTED IN SEEING CLIMATE IMPACT LABELS IN FIRST YEAR RESIDENCE DINING HALLS.

The majority of respondents (72%) never or occasionally (1-3 times per week) intentionally ate plant-based entrées (Figure 5). The majority (73%) also felt that UBCFS was not providing enough plant-based entrées (Figure 6). Similarly, 84% of respondents also feel that the diversity of plant-based foods is not enough (Figure 7). About half of the respondents (48%) wanted to eat the same amount of plant-based entree as they were, while 38% wanted to incorporate more plant-based entrées in their diet

(Figure 8). The top 3 important or very important factors that could influence students in consuming more plant-based entrées were: health (72%), social influence (71%), and environmental health (65%), (Figure 9). Majority of the respondents (78%) also wanted to see food labels that indicate the environmental impact in the dining halls (Figure 10).

II. Culturally Appropriate Foods

Only major findings were shown. Refer to Appendix II-B for raw data and the other graphs and Appendix III-C for student feedback from open answers of the survey.

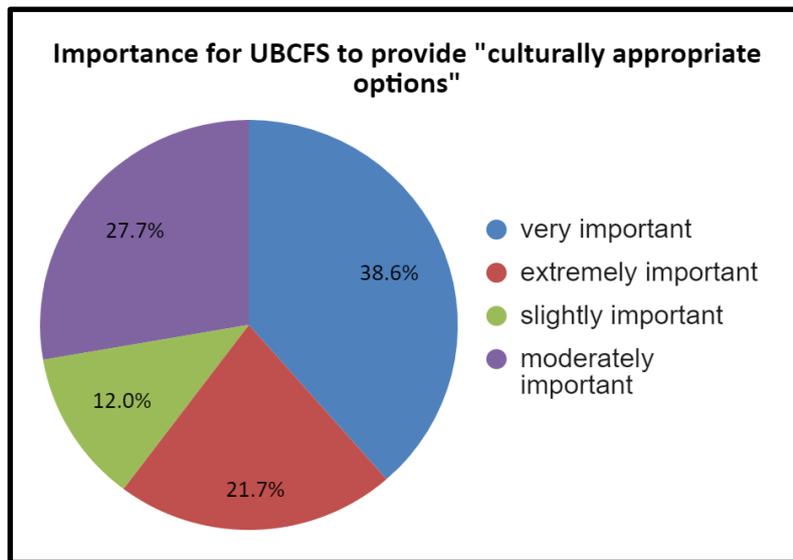


FIGURE 11: RESPONDENTS PERCEPTION ON THE IMPORTANCE FOR UBCFS TO PROVIDE CULTURALLY DIVERSE FOODS RESPONDENTS

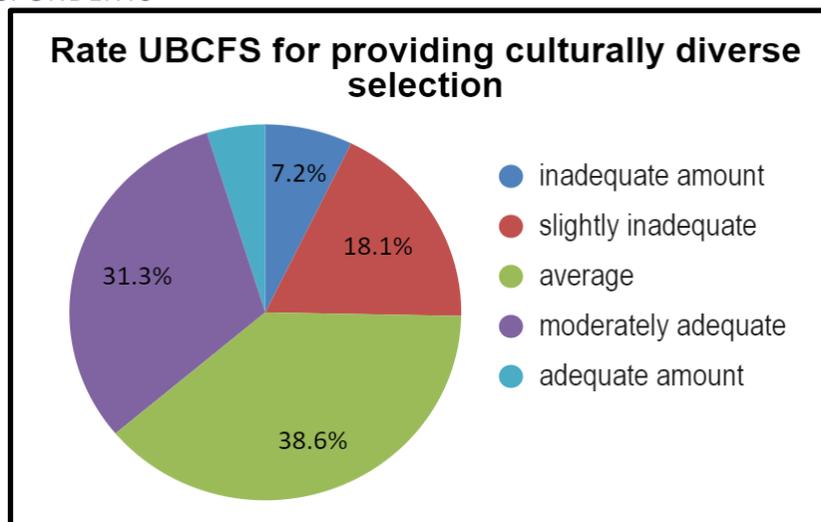


FIGURE 12: RESPONDENTS RATING OF THE DIVERSITY OF CULTURAL ENTRÉE OPTIONS PROVIDED

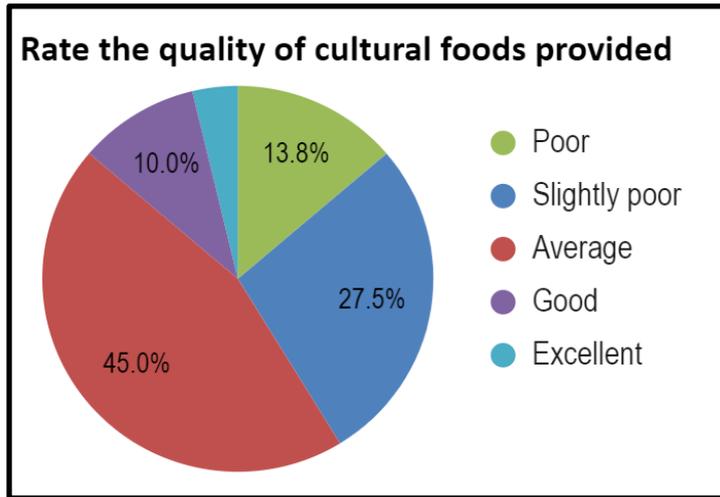


FIGURE 13: RESPONDENTS RATING OF THE QUALITY OF CULTURAL FOODS PROVIDED

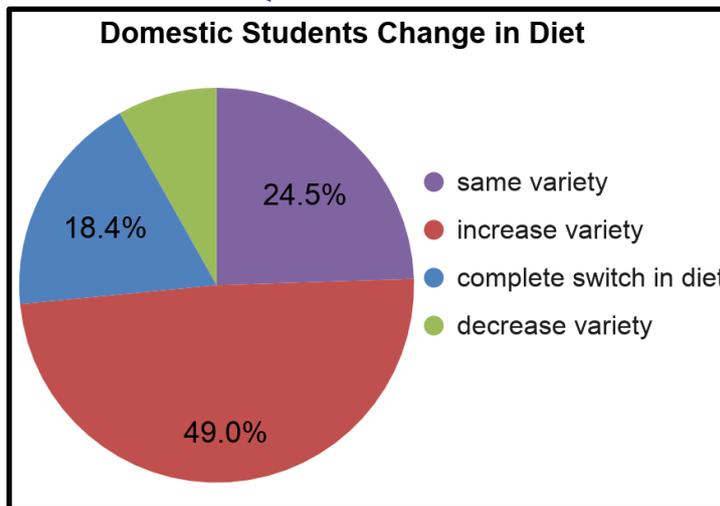


FIGURE 14: COMPARING THE VARIETY OF CULTURAL FOOD DOMESTIC STUDENTS GREW UP EATING TO THE VARIETY THEY EAT NOW. AN EXAMPLE OF HOW WE CHARACTERIZE THE CHANGE IN DIET (SEE APPENDIX III-B-2).

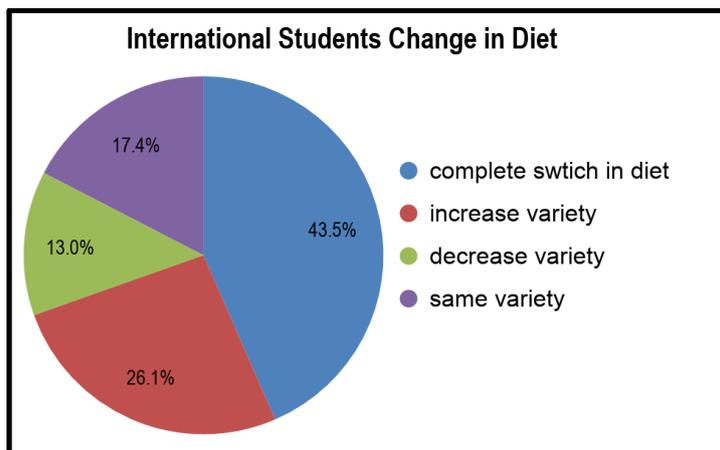


FIGURE 15: COMPARING THE VARIETY OF CULTURAL FOOD INTERNATIONAL STUDENTS GREW UP EATING TO THE VARIETY THEY EAT NOW. AN EXAMPLE OF HOW WE CHARACTERIZE THE CHANGE IN DIET IS SHOWN IN APPENDIX III-B2.

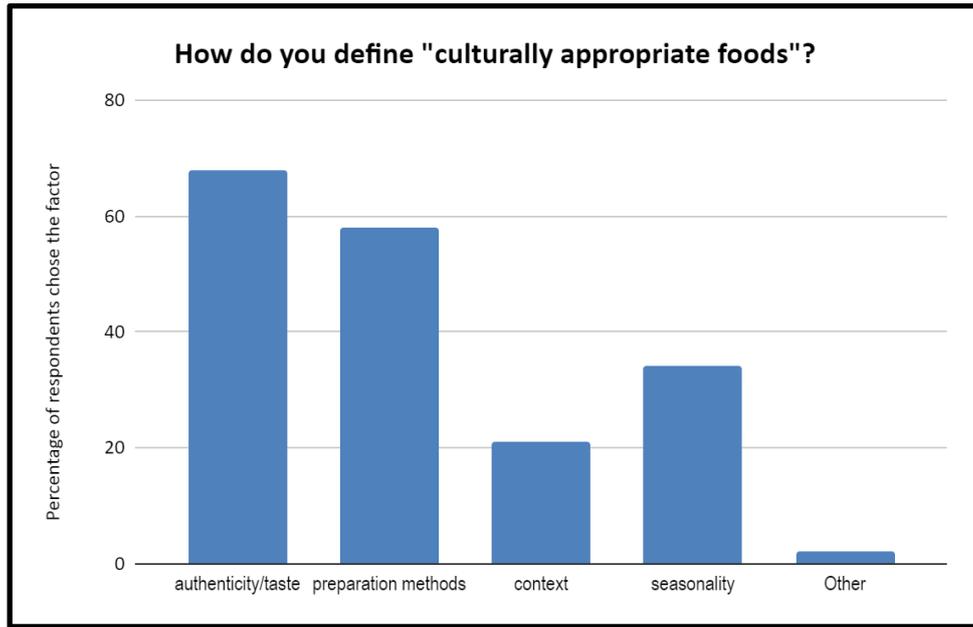


FIGURE 16: RESPONDENTS DEFINITION OF 'CULTURALLY APPROPRIATE FOODS'. THE Y AXIS MEASURED THE PERCENTAGE OF RESPONDENTS THAT CHOSE THE CRITERIA THAT CONSTITUTE THE DEFINITION.

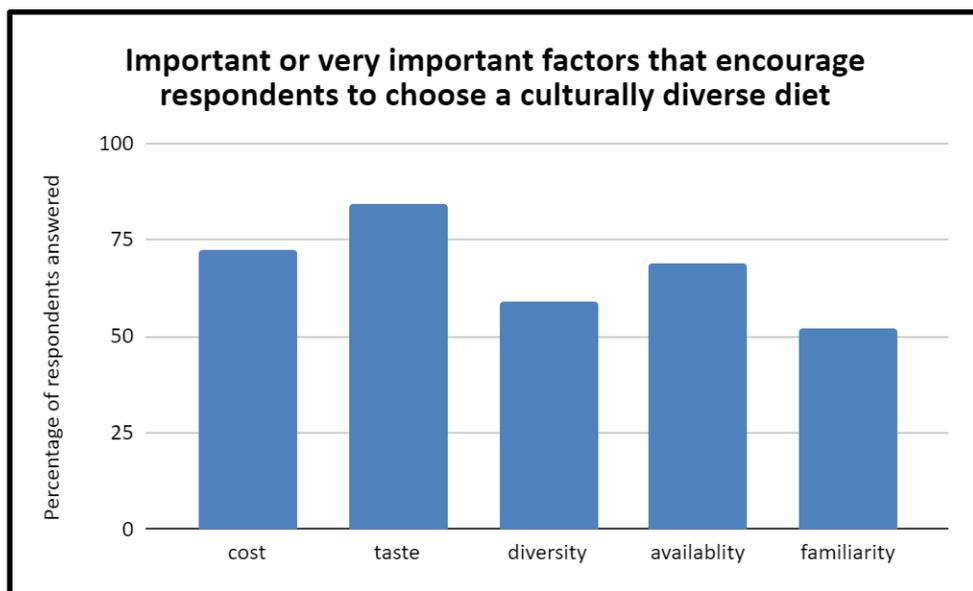


FIGURE 17: FACTORS THAT ENCOURAGE RESPONDENTS TO CHOOSE A CULTURALLY DIVERSE DIET. THE Y AXIS MEASURES THE PERCENTAGE OF RESPONDENTS THAT CHOSE THE FACTOR AS IMPORTANT OR VERY IMPORTANT.

Many respondents (60%) thought that the provision of culturally diverse entrées were important or very important (*Figure 11*). 36% of respondents thought that UBCFS was providing a diverse selection of cultural entrées, while 25% of respondents think that the selection was not enough (*Figure 12*). 41% of respondents rated the quality of cultural entrées to be poor and slightly poor, while 45% rated the quality

to be average (*Figure 13*). Upon attending UBC, 49% of domestic student respondents increased the variety of cultural food they consume, while 44% of international student respondents self-reported that they had completely switched the cuisine types they consume (*Figure 14 & Figure 15*). Further analysis showed that the switch was mostly to North American cuisines (Appendix II-B). 81% of respondents thought that authenticity needs to be included in the definition of ‘culturally appropriate foods’, followed by appropriate preparation methods and the seasonality of the dishes (*Figure 16*). Taste, cost, and availability were the top 3 factors that encourage students in choosing a culturally diverse diet, as 84%, 73%, 69% of respondents chose these factors to be important or very important respectively (*Figure 17*).

3.1.3 FOCUS GROUPS

Five key themes emerged from the focus groups conversations. Two of the themes were centred around the dining halls themselves while the remaining three were centred around the implications of using the term ‘culturally appropriate’ food. We have provided a summary of the focus group findings in lieu of the raw data in the form of transcriptions as they are not releasable due to confidentiality reasons (Appendix IV-C).

The first theme around the dining halls was ‘**improvement**’. This established the general perceived experience and expectations from the focus group participants. Most participants acknowledged the general improvement of the dining hall offerings over the past few years. As well, there was appreciation for the attempts made to offer culturally diverse foods, a diversity of options like plant-based foods, and sustainability initiatives undertaken by UBCFS.

The second theme was ‘**purpose**’ in which participants tended to describe the role of the UBC dining halls in serving students. As described by a participant, the dining halls were “not for experience but for nourishment”. The participants brought up that there are many diverse restaurants around the city and UBC campus that can provide new experiences in cultural foods and that while serving cultural foods is highly important, the dining halls are not the place people will choose to go for that cultural experience.

The following three themes were related to the term culturally appropriate. First, ‘**authenticity**’ came up repeatedly in the focus group as a key component of culturally appropriate foods. Participants identified many factors to authenticity including who is cooking the food, how the food is prepared, what ingredients are used,

where the ingredients are from and what recipes are used. To be authentic it must come from the source. Some examples were brought up including that authenticity for Canadian foods means purchasing local. Authenticity for Chinese foods means purchasing imported ingredients and authenticity for Indigenous foods means bringing in Indigenous chefs. Participants signalled that there is opportunity for UBCFS to provide authentic food by inviting outside knowledge. Speaking to the current authenticity of the food, we heard from one international student who said “I would avoid eating Asian foods in the dining halls just because I don’t want to get disappointed in eating it”. While the diversity may be present, participants suggested the quality and authenticity are not being achieved.

“I think, like four years ago at least, there was a visible attempt that they’re trying to move more culturally diverse options. But I think a lot of them were more westernized, so they weren’t authentic tastes that a lot of people were seeking.” - Focus Group Participant

Another theme was **‘communication’** which focuses on clearly labelling entrées and communicating UBCFS’ intentions in providing cultural foods. First, on the labelling, participants raised the importance of labelling foods properly as not to imply authenticity. For example, if a dish is highly westernized or a fusion dish, they suggested not labelling the entrée as a specific cuisine.

“I think it’s like how they label the food where it can be like “inspired by”, and not like, this is that dish. Cause it’s like people can be like, Oh I really craved that. And then it’s like they go there and it’s like, that’s not kind of what I thought it was.” - Focus Group Participant

As well, the point was raised that communication of intention will also help drive consumer experience. If they are claiming to offer authentic food and are not, that would be disappointing but, if their intent is to provide more fusion based dishes and communicate that through labelling, that would be okay.

The final theme was the **‘context’** in which UBCFS wants to provide culturally appropriate food for. Participants emphasized authenticity as a key factor of culturally appropriate food as well as providing foods that are familiar, diverse and respectful of various needs. The context in which the dining hall decides who/what they are striving to be culturally appropriate for will have their own other guidelines to the definition. Three main potential contexts were raised: UBC residents, Vancouver/Canada and Indigenous. In order for food to be

culturally appropriate for UBC residents eating in dining halls, participants suggested that the diversity of cuisines offered should reflect the diversity of the students. This would require importing necessary ingredients and striving for authenticity (which in itself is subjective to the consumer). In order to provide culturally appropriate food for Vancouver or Canada, participants suggested that food should more prominently reflect the local cuisines. This would possibly lead to an emphasis on buying local and maintaining cultural diversity. This also includes meeting the standards of sustainability that are adopted by the greater Vancouver community. Finally, in order to reflect what is appropriate to the land, food should reflect what is Indigenous to the land. Participants signalled that this would include incorporating Indigenous food systems, food knowledge and a heavier reliance on plants that are native to the land.

Participants found it important that UBC thinks through the different contexts in which they aim to provide culturally appropriate food for. Much of what they vocalized highlighted the importance of incorporating multiple stakeholders and knowledge holders to take the next steps forward in providing better cultural food.

3.2 SECONDARY DATA

3.2.1 FIRST-YEAR RESIDENCE DEMOGRAPHICS

The demographic data received from Student Housing and Hospitality Services (Appendix V) showed that 62% of students were domestic and 38% were international. Within international students, 37% came from China, 21% from India, 10% from the US.

3.2.2 LANDSCAPE SCAN

Overall, the results from the landscape scan showed that UBCFS is one of the leading post-secondary institutions in the field. While some other institutions have unique programming and policies related to plant-based and cultural foods, there are not many other universities that have a strategic document of guiding principles like UBCFS' Food Vision and Values. Many institutions list a short statement of their mission, vision and values on their website but lack to name specific indicators or practices. We chose to only include those universities with a more robust set of information listed on their visions or values in the landscape scan. The full landscape scan can be viewed in Appendix II-C.

Some key best practices in providing plant-based foods and cultural foods were discovered. In plant-based food, these generally fall within the categories of purchasing and supporting sustainable local growers, providing regular programming around plant-based foods and using labels to communicate environmental impacts around the food. For cultural foods, the best practices fall within the categories of collaboration with students, chefs and staff, sourcing 'authentic' or 'socially responsible' ingredients and ensuring the religious needs of students are met. These best practices were taken into account when developing our recommendations.

4. DISCUSSION

4.1 PLANT-BASED FOODS

Our audit shows that UBC Food Services offers around an average of 46% plant-based foods per week across the three dining halls (Appendix II-A), which is 4% away from the UBCFS' goals for providing 50% plant-based foods by 2020. It is encouraging to see the provision of plant-based foods is generally increasing as previous audits reported the percentage to be 43% in 2018, and 67% in 2019 (Foster *et al.*, 2018; Blundon *et al.*, 2019). The differences in methods of data collection for the audits may explain the differences in percentages, especially the significant drop from 67% to 47%. 2018's in-person audit was only conducted at Open Kitchen for one lunch period (Foster *et al.*, 2018), and in 2019 a total of 12 in-person audits were conducted over 5 days for breakfast, lunch and dinner in all three dining halls (Blundon *et al.*, 2019). 2019's audit reported a lower total number of plant-based entrées when compared to 2020's and labelled the entrées "unique (persistent) entrées". Unfortunately, we were unable to track what "unique (persistent) entrées" meant as it was not explained in their report and our follow-ups with our client and teaching team provided no additional clarity. Therefore, the previous audits had a significantly smaller sample size, smaller time period, and potentially a different method of entrée categorization. However, the previous audit could have been more 'accurate' as it was possible that Nutrislice might not accurately reflect the actual menus on the day (David Speight, personal communications, 7th February 2020).

It is extremely important that UBCFS provides more plant-based entrées because it caters to increasing consumer demand. Although more than half of the students only occasionally (1-3 times per week) or never eat plant-based entrées (Figure 5), students wanted to increase plant-based entrée consumption as around 40% reported that they want to increase their consumption of plant-based entrées (Figure 8). In addition, UBC's

student demand for plant-based entrées will presumably continue to grow, as a cross-Canada study in 2018 showed that 51.3% of Canadians are wanting to reduce their meat consumption, and British Columbia had the most people that were reducing or eliminating meat in their diet (Chalebois *et al.*, 2018). Interestingly, students felt that the dining halls are not currently providing enough plant-based entrées (*Figure 6*), even when UBCFS is only 4% away from their 50% by 2020 goal. This indicates that UBCFS might need to re-evaluate their goal to further increase plant-based offerings, in addition to asking for constant feedback to fit the needs of the student body. UBCFS also needs to improve the diversity of plant-based entrées, because most students rated the diversity to be poor to average (*Figure 7*), and also because this could be a reason for why students think that the amount of plant-based entrées provided are not enough (*Figure 6*). To improve the diversity of the plant-based entrées, students suggested that UBCFS incorporate a more diverse range of plant-based proteins (ie. tempeh or Beyond Meat) and cuisine types of plant-based entrées. Furthermore, students highlighted the desire for more affordable plant-based options and more customizable meals (ie. having the ability to choose whether the entrée includes animal products or not) (Appendix III-C).

Additionally, UBCFS should consider promoting plant-based entrées to aid the transition to a plant-based diet. Students reported that health, social influence, and environmental health were the top 3 factors that can encourage them to choose a plant-based diet (*Figure 9*). This matches with the results from the cross-Canada study in 2018, where they also found that health and environmental health were amongst the major factors that encouraged the transition (Charlebois *et al.*, 2018). For example, UBCFS can use the opportunity to implement the environmental impact food label, as environmental health was one of the top factors and most students expressed interest in having the label (*Figure 9 & Figure 10*). Several studies have shown that putting environmental impact labels on food products (ie. including green, yellow, red dots to reflect the total greenhouse gas emissions) led to a decrease in the purchase of less environmentally friendly food products and increased consumer's knowledge on the environmental impacts of food (Camilleri *et al.*, 2019; Muller *et al.*, 2019; Vlaeminck *et al.*, 2014). Upon our landscape scan (Appendix II- C), only Harvard University has implemented the environmental impact label in their dining halls in North America. The label is not applied worldwide, but Denmark has recently announced that they aim to implement it as a national food policy (Askew, 2018; Danish

Ministry of Climate, Energy and Utilities 2018). If UBCFS decides to implement this initiative, UBC would be the first Canadian university to implement an environmental impact label. This will allow UBC to promote environmental sustainability on-campus, by influencing student behaviours and choices whilst fostering leadership by setting an excellent example to other Canadian universities, local communities, and the national government.

4.2 CULTURALLY APPROPRIATE FOODS

Our results indicated that it is important to provide culturally diverse and appropriate foods in first year residence dining halls. Most survey respondents rated this value, to be important to very important (*Figure 11*), and participants in the survey and focus group also commented that it will help international students to adjust to the new environment (Appendix III-C & Appendix IV-C). This is reinforced by literature, as cultural foods comfort and retain the identity of migrants, and a lack of culturally appropriate food may lead to food insecurity (Fabio, 2014; Vahabi & Damba, 2013). Since almost 40% of residents in first year residences are international students (Appendix V), UBCFS needs to provide culturally appropriate foods to ease student's transition to a foreign place and university.

The term 'culturally appropriate foods' does not have any working definition. Upon our landscape scan, food services of other North American universities rarely mentioned the cultural aspect of food, and if they do, they usually use the term 'cultural diverse food' instead (Appendix II-C). When the term is discussed, it is usually in literature about food sovereignty, indigenous culture, and migrants (Adekunle & Filson, 2015; Coté, 2016; Towns *et al.*, 2013), therefore the meaning would not translate to the context of UBC. In a UBC context, student survey and focus group participants both agreed that authenticity and taste will be very important criteria to define 'culturally appropriate foods' (*Figure 16* and Appendix IV-C). Other criteria also mentioned are: appropriate preparation methods, seasonality of the dishes, respect of one's culture and religion (*Figure 16* and Appendix IV-C). Also, we noticed that students in focus groups defined the term by a diverse range of cultures: from UBC student culture, foreign cultures (cultures of international students), Vancouver and Canadian culture, to indigenous culture (Appendix IV-C). Therefore, UBCFS needs to clearly indicate 'who's culture' their use of the term is aiming at, because this will lead to different measures in the provision of cultural foods. As an example, if

UBCFS wants to target foreign cultures, they can serve more authentic food, and if UBCFS are targeting the UBC student culture, they should make the food more affordable and convenient (Appendix IV-C). It should be noted that these 'target cultures' do not necessarily contradict, and it is possible for UBCFS to serve both cultures at once. For example, UBCFS can make use of locally produced and processed cultural ingredients, such as locally produced miso, to incorporate both foreign culture (of international students) and the Vancouver/ Canadian culture.

Although students recognised the attempts and progress that UBCFS is making (Appendix IV-C), overall they are not satisfied with the current state of cultural food provided by UBCFS. Furthermore, almost half of international students completely switched their diet to mostly North American cuisine (*Figure 15* and Appendix IV-C), suggesting that there are barriers that prevent students from eating cultural cuisines they are familiar with. A major barrier would be the provision of non-authentic cultural entrées. Students were not satisfied with the quality of cultural foods, as most students rated it to be poor to average (*Figure 13*), in addition to expressing that the food was not authentic and westernized (Appendix III-C and Appendix IV-C). Another barrier might be the lack of diversity in cultural entrées. Most students felt that the diversity of cultural entries to be inadequate to average (*Figure 12* and Appendix III-C). This is consistent with the results of the cultural entrée audit, where we found that almost half of the foods served were North American (*Figure 3* and *Figure 4*). Finally, authenticity and availability of cultural foods were identified as two of the top three factors that encouraged students to choose a culturally diverse diet (*Figure 17*). Consequently the lack of authenticity and diversity of cultural entrées will likely deter students from eating cultural entrées.

This also provided UBCFS opportunities in improving the provision of culturally appropriate foods. Students wanted more authentic cultural entrées, and suggested a few ways to achieve this such as: reduce fusion dishes, invite chefs of various ethnic backgrounds to cook cultural foods, follow traditional and authentic recipes, utilize the diversity of cooks already in the kitchens, limit the substitution of ingredients, and listen to student feedback and involve students to develop recipes (Appendix III-C and Appendix IV-C). Students also noted that the labelling of food items can be improved, by using terms such as 'inspired by' instead of labelling it as a cultural dish as not to imply authenticity (Appendix IV-C). Additionally, students wanted to see a more diverse

selection of cultural entrées, for instance, more Filipino food and a rotation of different cultural food (Appendix III-C and Appendix IV-C). Both survey and focus group participants also agreed that the cultural diversity of entrées should reflect the diverse culture of the student body (Appendix III-C and Appendix IV-C). Students would like to see more cultural plant-based entrées (ie. Indian vegetarian cuisines), and called for a less westernized definition of plant-based entrées (for example in the Indian culture, vegetarianism means they can only eat meat, fish, eggs, and butter for certain days) (Appendix IV-C).

Even though students were not satisfied with the performance of UBCFS in providing cultural entrées, it is encouraging to see almost half of the domestic student survey respondents increased the variety of cuisine types they consume (*Figure 14*), suggesting that UBCFS had provided an opportunity to explore new cuisine types and experience different cultural foods for students.

As mentioned, the cultural aspects of food are rarely discussed in North American universities aside from providing diverse options. If UBCFS works towards determining the cultural needs of its students in order to provide culturally appropriate food, UBC will become a role model for other institutions and a leader in the field. Recognizing the cultural needs of students, especially on a campus so international and diverse as UBC, is a necessary step to be an equitable and inclusive university.

4.3 WEAKNESS AND LIMITATION

I. COVID-19

One of the most unexpected challenges was evidently the situation with COVID-19. We were able to complete our focus group audits and in-person surveys which were conducted before UBC suspension of in person meetings on March 17th. However, we have to consider how this pandemic could affect potential participant numbers, before official measures of shutdown procedures were taken. In addition, our partner David Speight understandably had to shift priorities to restructure the dining halls to safely prepare and provide meals to students. Therefore, during this time we had less communication with our client.

II. Plant-Based Audit

Some items were not clear on whether they were considered entrées or side dishes that made up an entrée. Furthermore, the nutritional value of entrées was not determined in this audit, meaning that recommended nutrient and protein amounts may not be met in every plant-based entrée. Finally, we did not distinguish between vegan and vegetarian dishes for this audit. While they were all considered plant-based, many of those dishes could still contain animal products.

III. Cultural Appropriate Food Audit

Many of the entrées were fusion or westernized, making it difficult to analyse and categorize into a cuisine subgroup. To facilitate this process and make the data more digestible, categorizations were generalized into 22 regions around the world. The entrées were categorized in the region it most heavily resembled however, it is important to keep in mind that many entrées are westernized or considered fusion and therefore not authentic to a single region.

In addition, the audit consisted of only a snapshot of the recipes offered of the course of a year, as this audit took recipes offered over the course of one month. One must take into consideration that the UBCFS changes recipes monthly, therefore variation of cuisines and quantity of dishes designated for each region could vary vastly between months.

IV. Focus Groups

In addition, our focus groups were relatively small. We struggled to find participants that were not part of a convenience sample despite many attempts to reach wide audiences. Almost all of the participants were also domestic students, thus providing experiences or opinions that could differ from international students. Additionally, not everyone who participated in the focus group had experience in the first year dining halls, and even if they did, some several years had passed since they had dined there on a regular basis.

5. RECOMMENDATIONS

5.1 RECOMMENDATIONS FOR ACTION AND IMPLEMENTATION

Following our analysis of our results, we are able to provide several recommendations for UBCFS. Our recommendations fall into three categories: Food Vision and Values, Plant-Based Food, and Cultural Foods. These intend to advance the overall food service guidelines as well as the two specific values that we audited. The recommendations within the categories fall into three time scales: immediate action, short term action and long term action. While we hope that UBCFS is able to implement our suggestions for immediate action in the immediate future, we strongly suggest that UBCFS takes the remainder of our recommendations into consideration when developing the next phase of their Food Vision and Values.

Recommendations for Food Vision & Values	
Goal: Strengthen UBCFS' guiding principles in their Food Visions & Values	
Immediate	
Post Values	Post current Food Vision and Values document on website and as a poster in dining halls. This will increase transparency and accountability.
Include Targets	Incorporate specific targets and objectives into Food Vision and Values. For example, include the target of 50% plant-based food by 2020 into the plant-based food value. By adding in targets it will increase transparency and accountability while providing tangible examples of UBCFS actions.
Short Term	
Change Language	Remove the term 'culturally appropriate' and replace it with 'culturally diverse'. Based on evidence provided in this report, the term is not properly used in this context or well defined.
Re-word	Given the recent declaration of a climate emergency at UBC, reword this value to incorporate more language around climate change. Change 'reduced meat consumption' to 'reduced animal products'. Especially since plant-based meals do not only reduce meat products but also potentially eliminate the use of animal products
Long Term	

Continuously Revise	Provide updates and revisions to the Food Visions & Values annually to continue advancing and striving to meet targets.
Transparency	Continuously strive to improve the availability of information and feedback forms.

Recommendations for Plant-Based Foods	
Goal: Increase diversity and availability of plant-based foods while encouraging consumption	
Immediate	
Marketing Campaign	Capitalize on using social influence to motivate students to eat plant-based foods. This includes more educational and promotional marketing on plant-based foods directed at students.
Consistency	Rework the menu schedule to ensure that plant-based entrées are consistently offered on a daily, weekly and monthly basis.
Short Term	
Plant-Based Alternatives	Offer multiple protein options for a dish. For example, a grain bowl that can be served with tofu or chicken given the student's preference.
Restructure Menu	When applicable, provide a list of proteins as an optional add-ons with associated costs. For example: Thai Stir Fry - \$6.99. Add-Ons: Tofu (+\$1.00), Chicken (+\$2.50), Shrimp (+\$3.00)
Long Term	
Climate Friendly Labels	Use green, yellow and red dots beside a menu item to indicate the environmental footprint of an entrée. Green indicates low footprint, yellow indicates moderate footprint and red indicates high footprint. This recommendation is based on the initiative VER-EAT!-AS at Harvard University (Harvard University Dining Services, n.d.) (Appendix II-C)
Surpass 50%	Strive to surpass 50% plant-based foods. Require a 1:1 (plant-based entrée to meat entrée) ratio to help meet this target.

Recommendations for Cultural Food	
Goal: Increase diversity of cultural foods offered on campus and strive for authenticity	
Immediate	
Consult	Consult with UBC Equity and Inclusion Office, student groups, and UBCFS staff which represent different ethnic backgrounds to further understand cultural needs of students including religious needs.
Re-label Foods	For entrées that are fusion, use terms like “inspired by” on the menu as not to imply authenticity. This will replace using cuisine or country names in fusion entrée titles.
Short Term	
Partner to Learn	Increase capacity to offer more ‘authentic’ foods by bringing in more local, diverse chefs for pop ups. UBCFS can reference the heritage days in Princeton university’s dining halls (Appendix II-C).
Plant-based Diversity	Increase the cultural diversity within plant-based food offerings.
Long Term	
Inclusion	Strive to continuously include diverse cultural foods on menu items across UBCFS locations.
Define Context	Determine context for cultural foods across UBCFS locations and campus to foster the leadership for this across North American universities.

5.2 RECOMMENDATIONS FOR FUTURE RESEARCH

Through our project we have found further areas to explore in future research. Given the complexities around defining culturally appropriate foods, further inquiries can be made to understand how to define the term, both in the larger context of food literature and in the context of UBC. Given we found that students determined authenticity to be a key factor of culturally appropriate food, more research can be done to understand what authenticity means and how it can be achieved in the dining halls. For instance, furthering our knowledge in ingredient sourcing can help unpack how it impacts the authenticity of food. Future research can be conducted to investigate the barriers encountered by UBCFS when attempting to provide authentic ethnic entrées. It would be advised to create a list of solutions or recommendations to counter/solve these barriers.

Additional research can be done within the value of plant-based foods, such as looking into sustainability practices with sourcing, understanding how much animal product is in vegetarian entrées, and determining the nutritional value of plant-based entrées. We also suggest exploring other targets that can align the UBCFS Food Vision and Values with UBC's next climate action plan. We strongly recommend UBCFS continues to audit their dining halls on plant-based foods in the years to come.

To promote more local, sustainable, and ethical sourcing, we suggest investigating how UBCFS's sourcing of ingredients aligns with their values. This can also identify what the barriers are to providing organic, fair-trade, environmentally and socially responsible products, humanely raised meats and local products. There are external organizations like Meal Exchange which bring in their own research, auditing, community input, and expertise. We recommend continuing to form relationships with these organizations to further the capacity to collect data and information. Outside of the realm of the values we audited, we have recommendations for future research related to other values. Specifically, more research can be done to understand if the dining halls are meeting the affordability needs of students. As seen in Appendix III-C, students indicated choosing North American fast food options due to lower associated costs. This research would allow further investigation of another value of the Food Vision and Values (Appendix I) and promote affordable foods targeted at UBC student culture. Because affordability is influenced by many stakeholders and factors, this research would have to look at larger scales of affordability within the context of UBC and Vancouver.

6. CONCLUSION

It is evident that UBC is at the forefront of implementing and improving its food service's practices to meet the needs of students while addressing climate change issues associated with food systems. This project highlighted that UBCFS is on track in meeting one of their environmental sustainability goals. Based on the plant-based audit, UBCFS is 4% away from their goal of ensuring that 50% of entrées offered by their food locations are plant-based by 2020. However, there is a plea to UBCFS from resident diners for UBCFS food locations to offer a more diverse variety of plant-based entrées including providing more customizability. While exploring how the term culturally appropriate is thought of in the context of UBC, we found that authenticity is a common criteria by students when asked to define "culturally appropriate food". Generally, students are dissatisfied with the current

selection and quality of cultural food provided and wanted to see a broader and more authentic selection.

As a recommendation, we suggest UBCFS to consistently re-evaluate their goals to fit new climate policies and instill clarity to their values that promise to uphold. We also recommend UBCFS to improve its selection and quality of cultural entrées, and perhaps, reframe the term 'culturally appropriate foods' to 'culturally diverse foods' to target the diverse cultures of the student body and ensure that value is obtainable. We are looking forward to seeing UBCFS improve their policies and practices in order to address the environmental and social sustainability issues on campus. It is clear through UBCFS's active participation in this project and leadership in this field that they have the desire to serve their community better.

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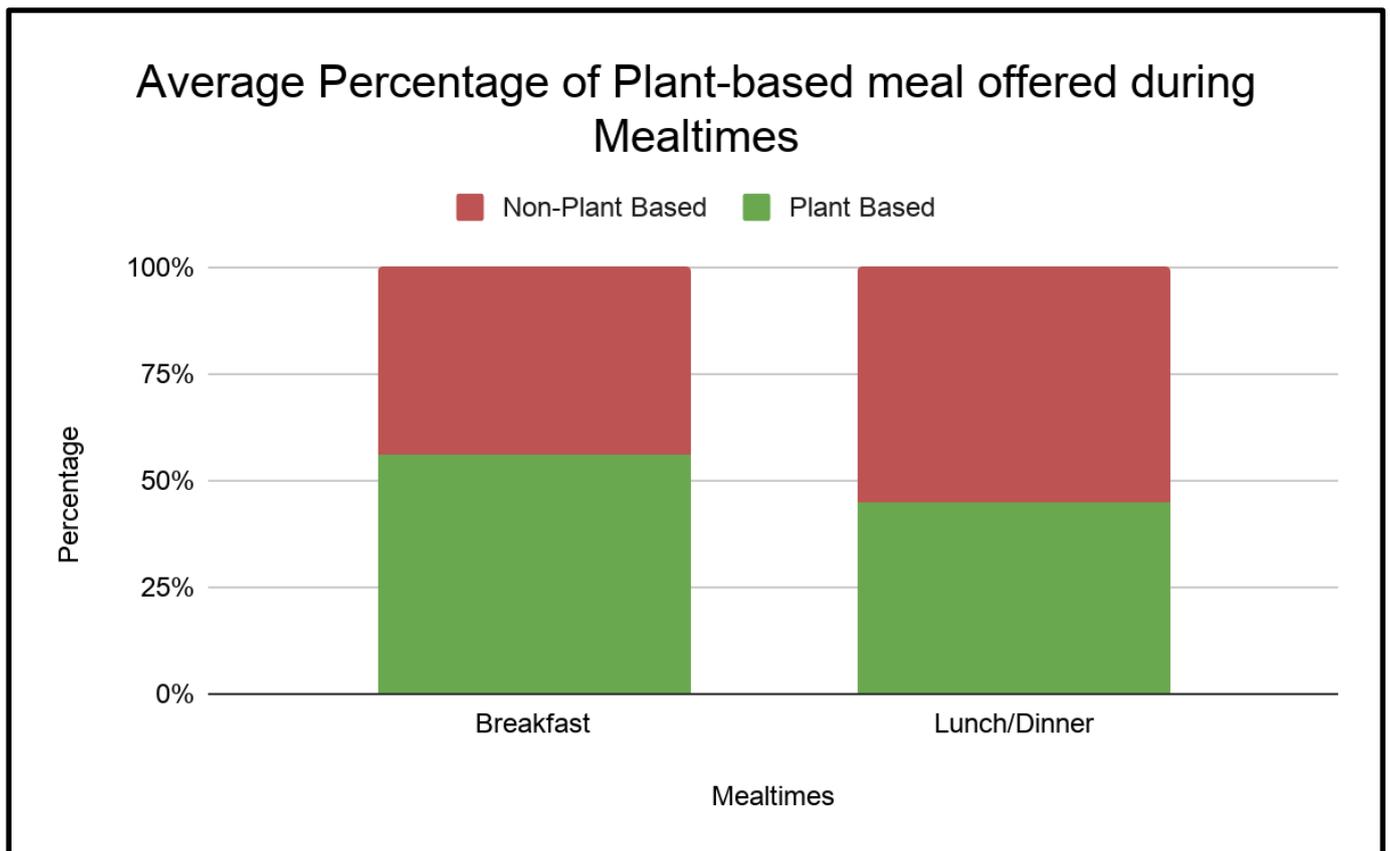
II. Audits

A. Menu Audit: Plant-based Entrées

1. Plant-based Entrées: Raw Data (Open Kitchen, Feast, Gather)

Please refer to the attached zip file for document data.

2. Plant-based Entrées: Supplemental Graphs



B. Menu Audit: Culturally Appropriate Foods

1. Culturally Appropriate Foods Audit: Cultural Entrée Characterization example

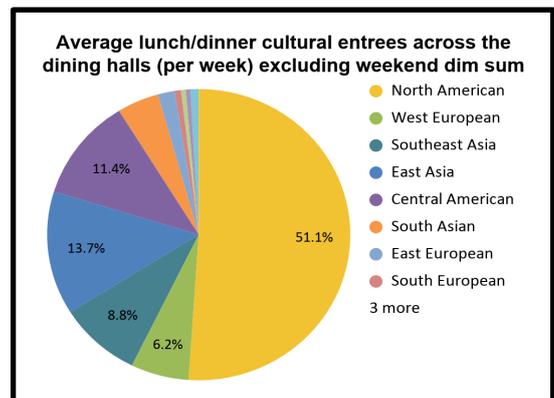
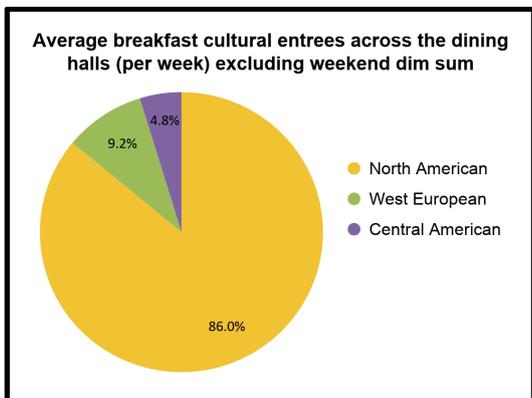
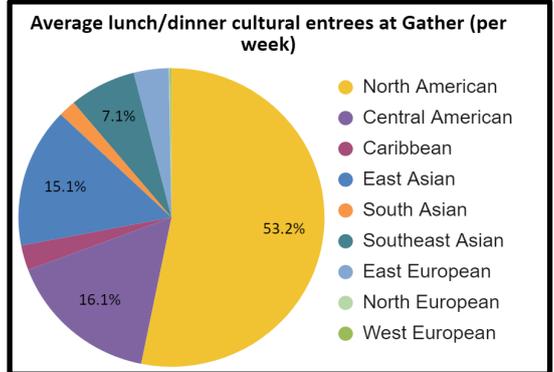
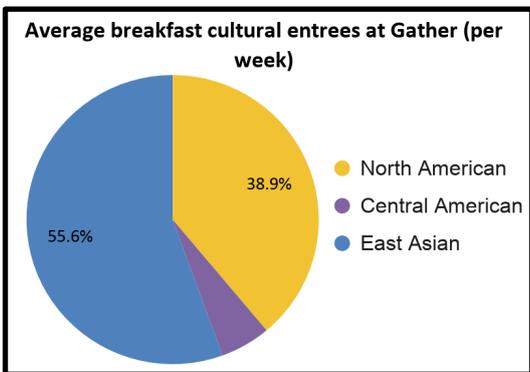
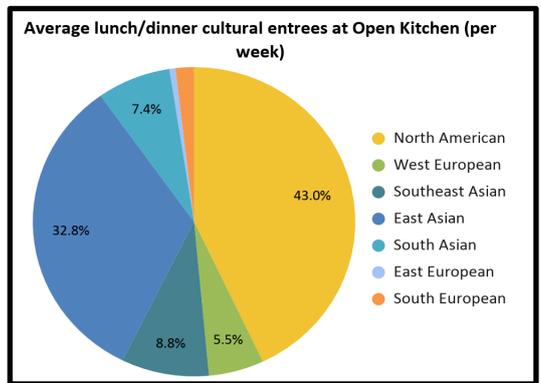
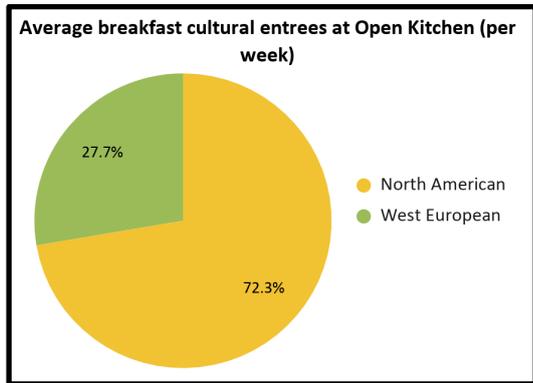
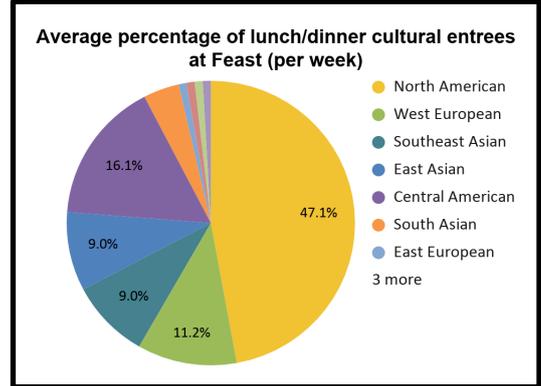
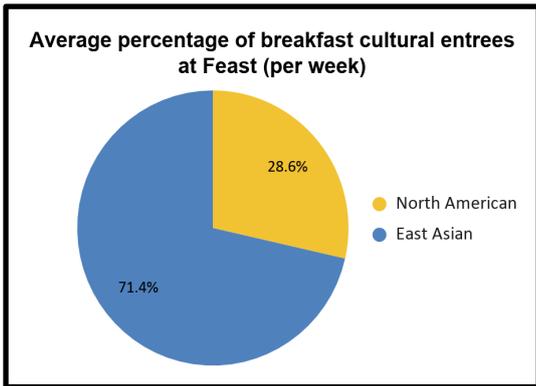
Feast Lunch/Dinner Week 1								
Station	Mercante		Campfire Grill		Sweet Greens		Bueno	
	Margherita	Weurope	Classic Burger	Namerican	Asian Chicken Salad	Namerican	Ancho Chicken Burrit	Camerica
	Pesto Pollo	Weurope	Classic Cheese Burger	Namerican	Spicy Kale Caesar	Namerican	Pulled Pork Burrito	Camerica
	Alla Salsiccia	Weurope	Signature Burger	Namerican	Supercrunch Salad	Namerican	White Bean Burrito	Camerica
	Proscuitto	Weurope	Signature Chicken Burger	Namerican	Roasted Vegetable	Namerican	Steak Burrito	Camerica
	Bianca	Weurope	Signature Veggie Burger	Namerican			Ancho Chicken Bowl	Namerican
	Italian Flatbread	Weurope	Fried Egg & Bacon Jam Burger	Namerican			Pulled Pork Bowl	Namerican
			Classic Grilled Cheese	Namerican			White Bean Bowl	Namerican
			Bacon Avocado Grilled Cheese	Namerican			Steak Bowl	Namerican
			Classic Poutine	Namerican				
			Bacon Poutine	Namerican				
			Queso Fiesta Burger	Namerican				
			Italian Grilled Cheese	Namerican				

Sticks and Spoons		Home Skillet		Street Food		Thai	
Hanoi Tofu Curry	SEAsian	Butter Chicken	Sasian	Seafood Pancake	EAsian	Pad Thai	SEAsian
Black Bean Tofu Chow Mein	EAsian	Chana Masala	Sasian	Tofu Teriyaki Stirfry	EAsian	Green Papaya Salad	SEAsian
Spicy Dan Dan Tofu	EAsian	Pasta Bar - No Meat	Weurope				
Spicy Dan Dan Pork Plate	EAsian	Pasta bar - Meat	Weurope				
Massaman Curry Beef	Sasian	Poblano Relanos	Camerica				
Thai Larb Tofu	SEAsian	Achiote Chicken Taco	Camerica				
Tsukune Chicken Bowl	Namerican	Bulgogi Seitan Taco	Camerica				
Kitsune Soba Bowl	Namerican	Perogy Plate	Eeurope				
		Perogy Plate with Smokie	Eeurope				
		Dijon Roasted Pork Loin	Weurope				
		White Bean Cassoulet	Weurope				
		Quesadilla - Chicken	Camerica				
		Quesadilla Vegetarian	Camerica				

2. Culturally Appropriate Foods: Raw Data

Please refer to the attached zip file for document data.

3. Culturally Appropriate Foods: Supplemental Graphs



C. Landscape Scan

Points to note:

1. Universities usually only focus on cultural diversity instead of cultural appropriateness of foods
2. Many universities have similar values to UBC's (ie. source local food). This list shows what other universities are doing (that UBC is not doing) in promoting sustainable foods

Landscape Scan			
<i>Food Visions & Values</i>			
Institution	Policy Name	Policy	Source
Princeton University	Campus Vision for the Future of Dining	A full document outlining the campus dining vision, core values, and guiding principles. Strong emphasis on respect to the individual, continuous learning and growth and healthy and sustainable dining.	https://dining.princeton.edu/our-story
University of Victoria	Vision & Values	Has a set of vision and values listed on their website as well as a list of suppliers	https://www.uvic.ca/services/food/about/vision/index.php
<i>Culturally Appropriate</i>			
Institution	Policy Name	Policy	Source
University of Winnipeg	Diversity Food Services	A social enterprise dedicated to "maximizing social, cultural, economic and environmental well-being for the community. "Particular focus is given to creating authentic cultural food that is alive with flavour and nutrition, prepared from scratch using authentic ingredients and recipes. Maintains sourcing local, seasonal and organic ingredients.	https://www.uwinnipeg.ca/food-services/index.html https://www.diversityfoodservices.com/our-vision
Princeton University	Celebrating Diversity Through Cuisine	<ul style="list-style-type: none"> - Partners with student organizations to host cultural heritage dinners each month (ie. Native American month) - Encourages chef to collaborate with students for recipes - Uses the term 'socially responsible' to describe use of ingredients - Runs a fully kosher dining hall - Works with Office of Religious life to ensure they meet the needs of religious students during Ramadan 	https://www.princeton.edu/news/2017/04/24/sharing-new-tastes-through-cultural-heritage-dining https://dining.princeton.edu/sites/dining/files/campusdiningvisionbook_ay19_20.pdf
UCLA	Pan-Asian dining hall	With a dining hall that only serves pan-Asian cuisine from 7 Asian countries, featuring 2 countries' cuisine per day	https://portal.housing.ucla.edu/dining-services/feast-at-rieber
Harvard University	Harvard University Dining Services	Design menu to incorporate dishes from many cultures, and promote staffs to provide authentic recipes	https://dining.harvard.edu/about-huds/menus-change

Plant-Based Foods/Sustainable Foods

Institution	Policy Name	Policy	Source
Stanford University	Stanford Dining Sustainable Food Ethos	<ul style="list-style-type: none"> - Purchase organic foods - Purchase ingredients from farms that protects environmental health ie. plant diverse number of crops - Source imperfect/ ugly looking produce to reduce food waste - They also post an list and description of specific farms where they source products 	https://rde.stanford.edu/dining/sustainable-food-program https://rde-stanford-edu.s3.amazonaws.com/Dining/PDF/Stanford%20Dining%20Food%20Ethos%202019.pdf https://rde.stanford.edu/dining/sustainable-purchasing
Stanford University	Dorm and Dining Hall Education	Conducts educational programming in dining halls. Examples include garden work days, Fair Trade chocolate tastings, jam making, nutrition lectures	https://rde.stanford.edu/dining/education-awareness
Stanford University	Farm Accelerator Program	Program that supports three small, local, organic farms. A three-year start-up model where they agree to purchase most of the produce grown on these farms.	https://rde.stanford.edu/dining/sustainable-purchasing
Harvard University	Harvard University Sustainable and Heartful Food Standards	<ul style="list-style-type: none"> - Seasonal menu with seasonal foods - Purchase imperfect fruits - Purchase organic foods - Environmental impact label 'VER-EAT!-AS" in dining hall - Purchase 'catch of the day' seafoods from local fishermen 	https://dining.harvard.edu/about-huds/sustainability https://green.harvard.edu/topics/food
University of Toronto	Local Food Plus Program (LFP)	<ul style="list-style-type: none"> - All foods are purchased from LFP certified farms - To be LFP certified, farms need to have sustainable farm practices (ie. use green energy, preserve wildlife habitat) 	https://ueat.utoronto.ca/eating-sustainable-and-local-at-u-of-t/
Yale University	Yale Hospitality strategic initiatives	<ul style="list-style-type: none"> - Purchase locally manufactured products - Purchase locally (350miles radius) to support local businesses - Reduce number of deliveries to campus 	https://hospitality.yale.edu/sustainable-dining-yale https://sustainability.yale.edu/take-action/sustainable-food-dining https://hospitality.yale.edu/sustainability-core-value-yale-dining

University of Alberta	Sustainable Food Policy	<ul style="list-style-type: none"> - Serve local lunch once a month : lunch with all ingredients that are sourced locally - Purchase locally (200km radius) before purchasing provincially and nationally - Purchase from farmers with sustainable farm practices ie. preserve wildlife habitat - Locally grown food labels in dining hall 	http://temp-albertaflavour.nationbuilder.com/the_university_of_alberta https://www.ualberta.ca/augustana/about-us/departments-offices-and-units/lab/sustainability/campus-initiatives/food
University of Waterloo	FRSH Vegan	- Runs an all-vegan 'restaurant'	https://uwaterloo.ca/food-services/content/frsh-vegan
McGill University	Sustainable Menus	<ul style="list-style-type: none"> - Clear labels of local and McGill farm meal options - Meatless Mondays with reduced price lunch deals 	https://mcgill.ca/foodservices/sustainability/sustainable-menu
Princeton University	Origins Dinner	<ul style="list-style-type: none"> - An interactive dining experience as the first meal for incoming first year students - highlights where food comes from, local farms, those who prepare the food in order to foster student engagement and gratitude 	https://dining.princeton.edu/events/origins-dinners-first-year-students
Princeton University	Flexitarian Night	Several nights throughout the year are chosen to offer a seasonal, locally sourced, plant-forward menu	https://dining.princeton.edu/sites/dining/files/campusdiningvisionbook_ay19.20.pdf
Princeton University	The Crafted Burger	A burger blend of grass-fed beef and portobello mushrooms	https://paw.princeton.edu/article/princeton-crafted-burger-bye-bye-all-beef-hello-sustainability

III. Survey

A. Survey: Questions

Please select your affiliation with UBC:

- Domestic Student
- International Student
- Staff
- Faculty
- Other/Not affiliated with UBC

Which residence do you live at?

- Place Vanier
- Totem
- Orchard Commons
- Other On - Campus Residence
- I Don't live in UBC residence

How often do you eat at the following UBC Food Services Dining Locations ?

	Please indicate below how often you eat at these UBC Food Services dining locations.				
	Never	Rarely	Sometimes	Often	Always
Open Kitchen - Orchard Commons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gather at Vanier Residences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feast at Totem Residences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other UBC Food Services Locations - see full list here: https://food.ubc.ca/feed-me/	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Food Locations on Campus (AMS Nest, UBC Village options etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please pick the racial or ethnic background(s) that you most identify with (Please select all that apply.)

- Arab
- Black
- Chinese
- Filipino
- Japanese
- Korean
- Latin American
- South Asian
- Southeast Asian
- West Asian (Iranian, Afghan etc.)
- White
- Indigenous
- Other
- Prefer not to answer

How often do you intentionally eat vegan and/or vegetarian entrees per week?

- Never (0 times/ week)
- Occasionally (1-3 times/ week)
- Frequently (4-7 times/week)
- Most of the time (7+ times/week)
- I only eat plant-based entrees

How many plant-based meals do you want to incorporate into your diet?

Less than I eat now

About the same as I eat now

More than I eat now

How important are the following factors in encouraging you to eat plant-based meals?

	Rank the level of importance of each of the following factors				
	Unimportant	Slightly Important	Moderately Important	Important	Very Important
Environmental health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animal Rights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Influence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convenience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (If N/A, ignore this factor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input style="width: 100%; height: 15px;" type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many plant-based entrees do you feel UBC Food Services currently provides?

Not Enough

Needs More

Just Enough

Too Much

Based on your previous answer, do you have any recommendations for UBC Food Services on providing plant-based food options?

On a scale of 1-5, rate UBC Food Services on providing a diverse selection of plant-based entrees ? (i.e. how many options you have to choose from)

1 - Poor

2

3

4

5 - Excellent

Would you be interested in seeing an indicator of climate friendly/unfriendly foods on the menus in the dining halls?

Yes

No

I don't know or I don't care

What types of cuisines did you grow up eating? (Ex: Italian, French, Japanese, Vietnamese, American)

What types of cuisines did you eat now?

(Ex: Italian, French, Japanese, Vietnamese, American)

Do you know what the term “culturally appropriate food” means?

Yes

No

Unsure

Select definition (s) of what “culturally appropriate food” means? (more than 1 options)

Authenticity / taste

Preparation methods

Context ie. whom do you eat with

Seasonality

Other

Based on your previous answer, do you have any recommendations for UBC Food Services on providing culturally appropriate foods?

On a scale of 1-5, rate UBC Food Services for providing a culturally diverse selection of foods?

(1 - There is an inadequate amount. - 5 - There are plenty of options.)

1 - inadequate amount

2

3

4

5 - plenty of options

On a scale of 1-5, rate the quality of culturally diverse foods in the UBC dining halls?

(1 - Poor. - 5 - Excellent)

1 - Poor

2

3

4

5 - Excellent

How important is it that UBC Food Services provide culturally diverse options?

Extremely important

Very important

Moderately important

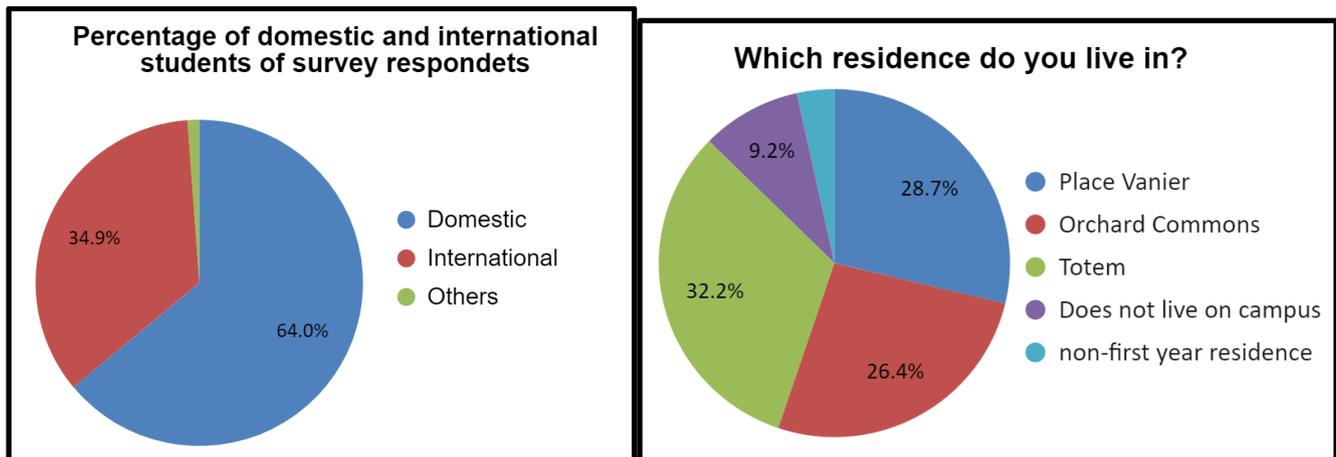
Slightly important

Not at all important

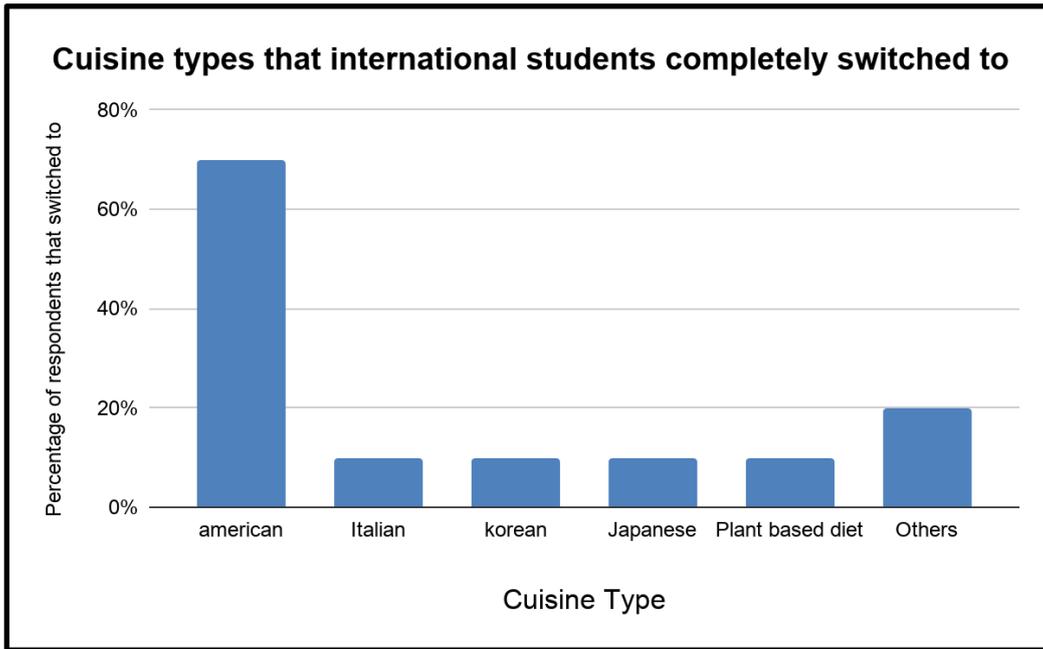
- B. Survey: Responses
 - 1. Survey Responses: Raw Data

Please refer to the attached zip file for document data.

2. Survey Responses: Supplemental Graphs & Data



Respondent Ethnicity	Respondent %
White	24.4
Korean	3.5
Chinese	14
Chinese, White	2.3
Chinese, South Asian	1.2
Black	4.7
Black, Pakistani	1.2
Black, White	1.2
Arab, Black	1.2
Filipino	3.5
Latin American	12.8
South Asian	12.8
Indigenous	1.2
White, Indigenous	1.2
Japanese	2.3
Japanese, white	1.2
Arab	2.3
Southeast Asian	5.8
West Asian	1.2
Taiwanese	1.2
Other	1.2



Note: Some respondents switched to more than one cuisine type (ie. from Italian to American and Japanese), so the percentages do not add up to 100%.

Example of how we determined the increase / decrease / same / complete switch in cuisine type

Key

	decrease variety in diet
	complete switch in diet (do not eat what they grew up with anymore)
	increase variety
	stay the same

What types of cuisines did you grow up eating? (Ex: Italian, French, Japanese, Vietnamese, American)	What types of cuisines did you eat now? (Ex: Italian, French, Japanese, Vietnamese, American)
Spicy Indian	Bland American
Latin american food/arab food	American, way more often than i used too (dominos a and w for example) because it's usually cheaper
Latin american	American
Italian, American, Japanese, Chinese, French, Indian.	Italian, American, Japanese, Chinese, French, Indian.
Italian, American, Jamaican, Trinidadian, Chinese	Italian, Japanese, American
american	american
Japanese, Chinese, American	French, Japanese, American, Vietnamese, Chinese
Chinese, American, Japanese	Canadian, Japanese, Vietnamese, Japanese
Chinese, American, Japanese	Canadian, Japanese, Vietnamese

*Note: for the last column, although the cuisine types changed to Chinese, American → Canadian, Vietnamese, this is still counted as having the same no. of variety because this does not suffice as a 'complete switch' in diet. We acknowledge that this is not a perfect system, and future studies can try to come up with a better system to characterize the change in cuisine types.

C. Student Feedback from Survey on Plant-based Entrées and Cultural Foods

1. Student Feedback from Survey: Plant-Based Entrées

Have more than just a salad bar	Have more menus
I think UBC has a decent amount of plant-based options, but could provide more.	Add more options of food type
Instead of meat replacements, look for tasty ways to make veggies taste like tasty veggies. I.e. Stir fries more frequently, etc	Note lactose free options
Maybe ask restaurants to have the meat they incorporate to be on the side instead of mixed into the food. That will expand their menu	I feel like they should provide more vegetarian dishes because there are few and you don't really have diversity because sometimes it's not like you're going to like all the dishes so with the little they have you end up having a narrow range to choose from or basically eating the same thing every day.
More variety and more often	more variety and cheaper way to get specific portions (ie. at totem you cant adjust the set salads and pay less)
More vegetarian	It will be better if the food service adopt options that are more suitable for the needs of people from other cultural background
Cheaper prices for the salad bars	indian food (as there are a lot of options)
Better veggie patties that don't have 72 grams of carbs; less soy-based protein; greater variety	Just more options
Have more vegetarian options in residence cafeterias/on campus restaurants	Potatoes and other starches can be used in a multitude of delicious and healthy recipes
Give more variety and use more spice :)	ubc farm should hold events more often.
Add more affordable fruit and salad options	There are a lot of vegans that need more options
Get plant-based comfort food to convince people it's delicious	Make them more obvious.
most places with good vegetarian options (especially porch) have odd hours, maybe look at that	more spice/flavour included with plant based options
have a vegan option for every non vegan option in the kitchen.	include beyond cheese !!
more options	More Falafel and cauliflower in ONE dish. Also, the tofu is so god awful.
Make it tasty...tofu tastes bad	Not only provide plant based, also provide more veggies
consider nutritional requirements and restrictions of residents	Provide plant based entrees with a variety of protein sources, right now it's mostly only tofu but using tempeh, legume, seitan based protein entrees would be great.
The prices could be more accessible, way too often prices are extremely high for many students who cannot afford it	More vegetable-based meals, not only meals centred around meat substitutions.
Listen to residents, send out a survey asking them for recommendations about what they want to eat, or what they usually eat on a daily basis	incorporate beyond meat
incorporate more customizable options, a lack of substitutions in meals is very deterring	Make the salad less expensive

2. Student Feedback from Survey: Cultural Foods

Stop so much fusion	More Filipino foods
Should be more appropriate, for example, Mexican dishes are not very authentic and want to put sugar to things like pico de gallo, which is not accurate nor healthy	There should be a more diverse selection of food from all backgrounds to fully embrace different cultures
Increase feedback from residents about dishes served at cafeterias.	yes! ensuring that the taste of certain foods which belong to a certain culture tastes exactly the same it helps filling in the gap of feeling nostalgic especially if you are an international student and grew up eating that. i think generally the dishes i tasted so far are pretty good
The person who cooks a type of cuisine should be good at it	more soup based foods (pho, noodle soups, etc.)
Make conscious decisions to respect traditional recipes	It will be nice if the food service consider students' different eating habits
More diversity in terms of food options	More culturally precise foods and not, as an example, "Indian foods" that are Americanized
Offer a rotation of different cultural foods	Often, foods associated with cultures lack flavour. Using recipes from people who actually belong in the culture is a step towards having good-tasting culturally appropriate foods.
Make dishes more authentic	More authentic
culturally appropriate chefs!	ADD SPICE!!
provide information on the types of food being offered.	more soups with chicken
a larger variety of culturally foods and less fast food	more cheese
Boiling is not cooking	More plain food - sometimes I just want to eat some (fully) cooked vegetables without much spice or extra stuff. I don't want a bacon avocado grilled cheese, a plain one is just fine!
to have a more authentic flavour and prep methods	Don't skimp out on ingredients and don't try to substitute.
Make the naan bread at the delly more legitimately indian	Making more of an effort to make authentic cuisine available.
No idea, maybe have people who have actual experience making the food be the ones to make the culturally appropriate food	Just make better food. Also the eggs Benedict is a disgrace, definitely not culturally appropriate.
gain insight from ethnic cooks	

IV. Focus Group

A. Focus Group: Questions

Questions - Experience

- What is your experience with foods that are provided in the UBC Dining Halls? (ie. Are you satisfied with quality, authenticity, portions, taste, etc.?)
- What types of cuisines did you eat most often in the dining hall?
- Do you feel like it provided an adequate variety of foods for you to choose from that you enjoyed?

Questions - Culturally Appropriate

- When you hear the term “culturally appropriate”, how would you define it?
- On a more personal note, what would “culturally appropriate” mean to you?
- Is having “culturally appropriate” foods on campus important to you? Why or why not?
- Do you think UBC Food Services should prioritize including “culturally appropriate” foods at their locations? Why or why not?
- Do you think UBC Food Services is doing a good job in providing “culturally appropriate” foods, like in terms of quality and amount ? Why or why not?
- What would you like to see from UBC Food Services to better provide “culturally appropriate” foods (ie. more accurate representation, wider selection, more authentic tastes)?
- Would you find a regionally themed day offensive (ie. Mexican Day)?
- Have they had other experiences with more cultures since living in residence? Should it be part of your first-year experience (trying foods that are not your own)?
- Wiggle room to consider cultural dishes (categorizing dishes due to lots of fusion)

B. Focus Group: Ethics Form

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Liska Richer
Faculty of Land and Food Systems
221-2357 Main Mall
Vancouver, BC, Canada V6T 1Z4

Tel: 604-822-3270
Email: liska.richer@ubc.ca

Class Project: The Food System Sustainability Initiative INFORMED CONSENT

STUDY TEAM: *Who is conducting the study?*

Principal Investigator:

Liska Richer, Instructor, Land and Food Systems 450 class, Faculty of Land and Food Systems
E-mail: liska.richer@ubc.ca
Tel: 604.822.3270

INVITATION AND STUDY PURPOSE

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

STUDY PROCEDURES: *How is the study done?*

This study is being carried out by students within their course on “Land, Food and Community III” (LFS 450) in the Faculty of Land and Food Systems. If you agree to participate, you are being asked to participate in an interview, focus group or questionnaire, and your time commitment will vary depending on which one you are participating in. It is estimated that your time commitment will range from 5 minutes to 1 hour. You will be given either a form to answer or be asked verbally a set of questions.

STUDY RESULTS

The results of this study will be reported in course based undergraduate reports and will be published in the SEEDS Sustainability Library and UBC cIRcle Digital repository.

POTENTIAL RISKS OF THE STUDY

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We do not think there is anything in this study that could harm you or be bad for you. Some of the questions we ask might upset you or seem sensitive or personal. Please let one of the study staff know if you have any concerns. You do not have to answer any question if you do not want to.

POTENTIAL BENEFITS OF THE STUDY

You may be helped in this study by findings contributing to the advancement of a more ecological, economic and social sustainable food system. In the future, others may benefit from what we learn in this study.

CONFIDENTIALITY

Your answers will remain anonymous unless you provide written permission (below) to the UBC student conducting the interview or survey, to disclose your name, working position or any other information revealing your identity in any possible future use of the information you provide. If you are participating in a focus group, please note that only limited confidentiality can be offered and we encourage participants not to discuss the content of the focus group to people outside the group; however, we can't control what participants do with the information discussed. All documents will be identified only by code number and kept in a locked filing cabinet. Subjects will not be identified by name in any reports of the completed study.

PAYMENT

We will not pay you for the time you take to be in this study.

CONTACT FOR INFORMATION ABOUT THE STUDY

If you have any questions or concerns about what we are asking of you, please contact the Principal Investigator.

Principal Investigator:

Liska Richer, Instructor, Land and Food Systems 450 class, Faculty of Land and Food Systems
E-mail: liska.richer@ubc.ca Tel: 604.822.3270



Liska Richer
Principal Investigator
January, 2020

Version December 13, 2017

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CONTACT FOR COMPLAINTS: *Who can you contact if you have complaints or concerns about the study?*

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598

PARTICIPANT CONSENT AND SIGNATURE PAGE

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact on your employment, or class standing.

Your signature below indicates that you have received a copy of this consent form for your own records. Your signature indicates that you consent to participate in this study.

Participant Signature

Date

Printed Name of the Participant signing above

C. Focus Group: Summary of Findings

Focus Group Findings

Questions - Experience

What is your experience with foods that are provided in the UBC Dining Halls? (ie. Are you satisfied with quality, authenticity, portions, taste, etc.?)

Generally, people tend to understand the limitations of the dining halls in being able to offer a wide variety of cultural foods. With the diversity of cultures and restaurants in UBC, if you want to eat ethnic food it seems more likely that you would go to a restaurant.

People recognized the improvement over the years, as well as the current diversity of options in the dining halls. While it is clear that an attempt is being made, the authenticity isn't there.

What types of cuisines did you eat most often in the dining hall?

People tended to talk about exploring new cuisines rather than the one they are most familiar with or grew up eating. Reasoning is because diverse foods were easily accessible and available, some expectation of disappointment/lack of authenticity in their own cuisine.

Do you feel like it provided an adequate variety of foods for you to choose from that you enjoyed?

Questions - Culturally Appropriate

When you hear the term "culturally appropriate", how would you define it? On a more personal note, what would "culturally appropriate" mean to you?

Key words: familiar, ethnic, grew up eating, UBC student culture, authentic, seasonality, **authentic ingredients**, respecting religion, respecting different definitions, local food, affordable, sustainable

People raised the question of who they are striving to be culturally appropriate for in the food they serve. Different groups would require different outcomes. If they are striving to be culturally appropriate for Canadians/ the local cuisine then they should emphasize local and seasonal ingredients. If they are striving to be culturally appropriate for UBC/residents then they should attempt and strive for authenticity in ingredients, recipes. Source ingredients from other countries and don't use fusion or westernize food.

*Seems like regardless of who they are trying to be appropriate for, authenticity in taste and ingredients are big priority.

Is having "culturally appropriate" foods on campus important to you? Why or why not? Do you think UBC Food Services should prioritize including "culturally appropriate" foods at their locations? Why or why not?

Having availability of **culturally diverse foods was important** as it promotes well being, celebrates diversity, and is comforting. However, students did not expect to have their own culture or ethnicity in dining halls and do not expect authenticity. Many people emphasized that international students should experience eating more **Canadian foods as it is part of the student experience**.

Is attempting to provide culturally diverse foods enough to be culturally appropriate? Even if it does not use authentic foods or is adapted?

How they label foods is important (i.e. label if it is authentic or an adaptation). They should not label/communicate as authentic if it isn't. People encourage transparency.

Another emphasis was placed on learning from knowledge holders, in order to be authentic it must come from the source. If they truly want to be appropriate and authentic they will have to do more. People recognized the challenges this brings in time and cost but would be willing to trade of wider availability for less availability but more authenticity. Preference for a classic dish over fusion.

Do you think UBC Food Services is doing a good job in providing “culturally appropriate” foods, like in terms of quality and amount ? Why or why not?

Achieving sustainability, lacking in affordability.

What would you like to see from UBC Food Services to better provide “culturally appropriate” foods (ie. more accurate representation, wider selection, more authentic tastes)?

Achieve authenticity by partnerships and learning. Bring in chefs of different backgrounds, partner with cultural groups, students to learn what people want and share knowledge. More offerings of culturally diverse foods in vegan and vegetarian options to meet more diverse ethnic and religious needs.

Would you find a regionally themed day offensive (ie. Mexican Day)?

Regional days are not as offensive. People recognize that this could be an opportunity to provide more authentic food but less frequently. Success will be contingent on how

Do you think that UBC should remove ‘culturally appropriate’ from their food vision and values? How does it conflict with other values like plant based food?

Emphasis on incorporating more culturally diverse options into the plant based options.

Have they had other experiences with more cultures since living in residence? Should it be part of your first-year experience (trying foods that are not your own)?

Just mainly ate what was offered, did not have very great experience with what was offered.

Wiggle room to consider cultural dishes (categorizing dishes due to lots of fusion)

Other Comments

Appreciative of the strive for improvement. Call for more collaboration, partnership and learning from the community.

Key Themes

Improvement

Many people voiced the changes that they have noticed in the dining halls over the past few years. General appreciation for the attempts to offer culturally diverse foods, diversity of options like plant based foods, the sustainability initiatives.

Purpose of the Dining Hall

Many people voiced that the dining hall is not a destination place to try a new cuisine or experience authentic food. If you want that, people go to one of the many diverse restaurants that Vancouver has to offer. The dining halls serve “**not for food experience but for nourishment**”. Many people also recognize the challenges and limitations the dining halls have in being able to meet the needs of everyone, or in being able to provide truly authentic food.

Authenticity

Authenticity was continuously raised as a key part of culturally appropriate food. To be authentic it must come from the source. If making Canadian food - purchase local. If making Chinese food - import Chinese ingredients. If making Indigenous food - bring in Indigenous chefs. There is opportunity to provide authentic food by learning from and bringing in outside knowledge.

Communication/Labeling

The point was raised a few times that intention and communication will drive experience. For example, claiming to offer authentic food and not would be bad. However, if there was labeling on food using terms like “inspired by” then it is clear that the food is not attempting to be an authentic representation of a cuisine. They should be clear in their marketing, labeling, communication on what they are choosing to do.

Culturally Appropriate Context

People emphasized authenticity as a key factor of culturally appropriate food as well as providing foods that are familiar, diverse and respectful of various needs. The context in which the dining hall decides who/what they are striving to be culturally appropriate for will have their own other guidelines to the definition.

There was a lot of discussion on what context they are trying to provide culturally appropriate food for. Three main contexts were raised. Because they compete with each other, only one can be met in terms of offering culturally appropriate food.

- a. Culturally appropriate for the residents in the dining halls. Food should meet the needs of residents and reflect the diversity of the students in what is offered. This would include importing needed ingredients and striving for authenticity.
- b. Culturally appropriate for Vancouver/Canada. Food should reflect the local cuisines of Vancouver and Canada. Emphasis on buying local but maintaining diversity. This includes meeting standards of sustainability and affordability adopted by the UBC/Vancouver community.
- c. Culturally appropriate for the land. Food should reflect what is Indigenous to the land. This would include incorporating Indigenous food systems and native plants, not just locally grown plants.

V. First-Year Residence Demographic 2020*

	Orchard Commons	Vanier	Totem	Totals for Meal Plan areas
# of residents	1068	1456	2162	4686
% domestic	64.6	60.2	62.5	62.3
% international/visa	35.4	39.8	37.5	37.7

Percentage	Country	Percentage	Country	Percentage	Country	Percentage	Country
36.71%	China	0.40%	Australia	0.11%	Cambodia	0.06%	Botswana
20.64%	India	0.40%	France	0.11%	Cameroon	0.06%	Burkina Faso
9.67%	USA	0.40%	Germany	0.11%	Columbia	0.06%	Costa Rica
2.94%	Indonesia	0.40%	Iran	0.11%	Ecuador	0.06%	Democratic Republic of Congo
2.21%	Hong Kong	0.40%	Nigeria	0.11%	Israel	0.06%	Guatemala
1.64%	Korea, South	0.40%	South Africa	0.11%	Jamaica	0.06%	Honduras
1.64%	Turkey	0.34%	Mauritius	0.11%	Lithuania	0.06%	Ireland
1.58%	Vietnam	0.34%	Sri Lanka	0.11%	Morocco	0.06%	Ivory Coast
1.30%	Brazil	0.28%	Kazakhstan	0.11%	Myanmar	0.06%	Latvia
1.24%	Japan	0.28%	Lebanon	0.11%	Nepal	0.06%	Libya
1.13%	Thailand	0.23%	Switzerland	0.11%	New Zealand	0.06%	Macau
1.02%	Taipei	0.17%	Brunei	0.11%	Oman	0.06%	Malawi
0.90%	Bangladesh	0.17%	El Salvador	0.11%	Panama	0.06%	Norway
0.90%	Peru	0.17%	Ghana	0.11%	Sweden	0.06%	Palestine
0.85%	Pakistan	0.17%	Italy	0.11%	Taiwan	0.06%	Portugal
0.85%	Philippines	0.17%	Jordan	0.06%	Afghanistan	0.06%	Rwanda
0.79%	Malaysia	0.17%	Mongolia	0.06%	Albania	0.06%	Scotland
0.79%	Singapore	0.17%	Netherlands	0.06%	Argentina	0.06%	Senegal
0.68%	Egypt	0.17%	Syria	0.06%	Armenia	0.06%	Spain
0.68%	Mexico	0.17%	Uganda	0.06%	Austria	0.06%	Tanzania
0.68%	United Kingdom	0.17%	Ukraine	0.06%	Bahrain	0.06%	Uzbekistan
0.57%	Kenya	0.17%	Zimbabwe	0.06%	Belgium	0.06%	Zambia
0.57%	United Arab Emirates	0.11%	Azerbaijan	0.06%	Benin		
0.45%	Russia	0.11%	Bolivia	0.06%	Bermuda		

* Data release approval from David Speight via email on Monday March 13th, 2020.