Baseline Inventory of the UBC Food System Healthy Food Situation Assessment and Action Plan

Alexandra Little

Hana Tahaei

Hannah Shu

Letitia Das Ros

Rita Molander

University of British Columbia

LFS 450

April 9, 2012

Disclaimer: "UBC SEEDS 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 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 Coordinator about the current status of the subject matter of a project/report".

Baseline Inventory of the UBC Food System

April 09

2012

Scenario 1 Group 2: Alexandra Little, Hana Tahaei, Hannah Shu, Letitia Da Ros, Rita Molander Healthy Food Situation Assessment and Action Plan

I. Abstract:

Snacks are an integral part of a university student's diet given that schedules do not always allow enough time for students to sit down for a regular meal. This means that the to-go items that are offered at the main campus locations play a key role in determining student health. At the University of British Columbia campus, UBC Food Services is the primary food provider as they run and maintain several central dining locations such as Totem Park Residence Dining Hall, Place Vanier Residence Dining Hall, Ike's Café and the Loop. To assess the healthy snack options on campus from a consumer's perspective, a baseline inventory of all snack items available at the four locations was compiled and a survey of students was administered. Each inventory item was given a categorized as "choose most", "choose sometimes", "choose least", and "not recommended" according to B.C. Food Sales Guidelines and labeling such as whether the snack was gluten-free was recorded. The Loop and Place Vanier had the most items under the 'choose most' category, and therefore, had the healthiest choices. Totem Park and Ike's Cafe showed lower numbers of snack items belonging to the 'choose most' category. The combined survey results showed that 59% of consumers felt that the location they frequented had enough healthy options. At several locations, consumers voiced the desire for more vegan options as well as a greater variety of fruit. This was inconsistent with our inventory and led us to conclude that, although UBC Food Services is actively pursuing its local, fair trade, and organic procurement goals, consumers are often unaware of their procurement policies and the nature of the goods they provide. Therefore, our recommendations for UBC Food Services includes increasing the amount of 'choose most' options at both Totem and Ike's Cafe, improving the labeling of dietary facts on snack items to increase awareness among consumers, as well as increasing the number of vegan, gluten-free and lactose-free snack alternatives.

II. Introduction

Olivier De Shutter, the UN special rapporteur on the right to food, announced on March 12th, 2012 that the global food system has reached an international public health disaster (Zweynert, 2012). He addresses that the main problem is the production of cheap calories over quality foods that seems to be causing damage to both the developing and developed countries. The suggestions that are outlined include taxing unhealthy products and regulating foods that are high in saturated fats, salt and sugar.

Universities in North America can play an important role in addressing the current concern of the global food system (Martin & Samels, 2012), as they are well known for holding high standards of education. Creating an environment that also supports healthy eating can be imperative in nourishing the mind. Initiatives such as the Sustainability Tracking, Assessment and Rating System (STARS) can give credit to Colleges and Universities for their efforts in improving their food system. STARS is well-known as a self-reporting framework that allows universities to assess their performance on sustainability.

According to the recent STARS report (2011), UBC has had impressive improvements such as being the first Canadian University awarded the Fair Trade Campus status, purchasing all eggs and poultry from local providers, and selling fair-trade, organic, and shade grown coffee/tea (non-branded). UBC has also put forth a Climate Action Plan that includes goals such as reducing GHG emissions by 33% by 2015 and to be a net energy producer by 2050.

Although there have been many initiatives done to analyze and score a Universities Food System performance, there has not been much addressing the options for healthy snacks. Greater improvements need to be made on the accessibility of health snacks available to the over 48000 current undergraduate and graduate students at UBC.

a. Main Issues

The UBC food system has undergone many changes the last few years. To get a clearer idea of what is currently provided, there was an inventory list of available healthy snacks was needed at The Loop, Ike's, Vanier Residence Dining hall and Totem Residence Dining hall. In context of this project, a snack was defined as anything that is usually eaten between meals that can also be taken to-go. Furthermore, details, such as the presence of nutritional information or whether it caters to certain dietary preferences/ needs: vegan, gluten-free, lactose-free, or organic, was also lacking. There also was a need for identifying the healthiness of snack items at the four establishments. Our project will deal with these issues through conducting an inventory of snacks at the above mentioned establishments, and classifying each snack item as not recommended, choose least, choose sometimes, and choose most, as well as mentioning if they have any labeling on them or not.

Another issue is the lack of assessment previously done to get an understanding of student demands in regards to healthy snack availability on campus, and whether or not students perceive snack options available as healthy or not. So we have also conducted a survey to get a better understanding of consumers' satisfaction with the availability of healthy snacks on campus, and compared the survey results with the inventory to give UBC Food Services some recommendations to reduce the gap between what is provided, and what consumers demand.

b. UBCFSP Vision Statement and Identification of Value Assumptions

Our project involved analyzing the Vision Statement put forth by the UBC Food Security Project (UBCFSP). Our group felt that, although it represents a utopian food system, the overall message is positive and clear. It is a clear, concise statement that serves as a model to improve all

elements of food security: affordability, accessibility, appropriateness, availability, sustainability, and safety of the food. It also involves all 3 aspects of sustainability – ecological, economical, and social.

For areas of improvement, each guideline should have been more SMART (specific, measurable, attainable, relevant, and timely). Without these measurements, the guidelines come off as rather ambiguous. We do appreciate, however, that it tackles different issues such as production, as both fair prices and safe working conditions are considered. It also places emphasis on ethnic foods and affordable prices, which are key in dealing with multicultural UBC students.

When analyzing this document, there were several value assumptions we had that affected our critique. When dealing with our projects, we valued student health as highest priority. Student life is quite busy and our group wanted to improve on not just having healthier snack food items, but also having these items be highly accessible and affordable. Furthermore, we know that we are dealing with a multicultural group of people on campus, and therefore we hoped to improve the availability of culturally appropriate items.

These values affected how we critiqued the vision statement principles. Firstly, although we enjoyed the cultural considerations, this can be contradictory when aiming to increase local food items on campus. Therefore, some restrictions on cultural and ethnic foods should be accepted based on what can be grown in the region. Also, when it comes to increasing more local foods, climate can cause many challenges and, therefore, may not always be feasible.

Furthermore, as students, we place a higher emphasis on learning. As a result, there needs to be an additional principle that focuses specifically on greater public education and how food outlets can educate the public about consumer choices. The "promoting awareness" portion

needs to more specific. It is reassuring, however, to see the last point emphasizing on public learning opportunities should be easy to obtain.

Overall, the principles are not realistic. For example, the first principle discusses that the basis of agriculture is to create an artificial ecosystem by disrupting what is there. Its focus should be not to damage the surrounding area, thereby allowing succession to re-establish post-agricultural use and thus, able to return to its original state. We still appreciate how it places emphasis on educating the public to choose foods that "does not disrupt or destroy ecosystems", allowing consumers to realize that the foods they choose to eat do cause an impact on the ecosystem.

Also, some principles are not very clear. For example, our group is uncertain of how UBC could ensure that recycling was done locally. We understand that they are simply guiding principles and it would be inappropriate to include too much information, it would be beneficial, however, to include one example for each principle.

Nonetheless, these guidelines are excellent in addressing key concerns and force every individual to rethink their choices when purchasing food items on campus

III. Methodology

The way in which we approached our UBCFSP centered on our goal of assessing snacks in the UBC Food System from a consumer perspective. For the purposes of our project, snack foods were defined as to-go items eaten between meals, as sizes of snacks varies depending on an individual's stature and eating habits. To begin, we needed to establish a better understanding of the service provider. This included becoming familiar with the UBC Food Services goals, action plans and the STARS dining service reports on their current activities. The information

was accumulated through contact with our primary stakeholder representative Victoria Wakefield, the purchasing manager for Student Housing & Hospitality Services, by accessing reported goals and action plans from the UBC Food Service website and through the LFS 450 lecture presented by Victoria Wakefield and the head chef at the Vanier Residence, Steve Golob. To then compare UBC Food Services targets with those of other provincial programs, the Guidelines for Food and Beverage Sales in B.C. Schools from the BC Ministry of Education and Ministry of Healthy Living and Sport was reviewed and summarized after being accessed from the LFS 450 Vista website (ActNow BC. 2010.). Due to the fact that the Guidelines for Food and Beverage Sales in B.C. Schools are focused mainly on elementary/secondary schools, we also wanted to review what goals other Canadian universities have with respect to the food services that they offer. This was done principally by searching for the key words "food services" on each of the following university websites:

- University of Alberta
- University of Saskatchewan
- ➤ McGill University

With this background information we were then able to begin collecting our primary data. Our first action was to visit each of the four locations (Place Vanier, Totem Park, Ike's Cafe, The Loop), during an identified "snack time" (10-11am or 1-3pm) during the week of Feb 27th – March 2nd, and create an inventory list where all snack items that were available at that time were recorded. If any nutritional information, such as vegan, gluten-free, organic, or daily average intake values were present on the food, that information was also recorded. Inventories were performed in this fashion in order to get a snapshot of what is available to consumers in between meal times. It also provided an idea as to how well UBC Food Services advertises the

goods they provide such as organic foods, vegan options and so on. The resulting lists were compiled into an excel document with each location's inventory being placed on individual sheets. Each food item from each of the locations was then assigned a category based on the criteria seen in the Guidelines for Food and Beverage Sales in B.C. Schools. These categories include:

- Not Recommended
- Choose Least
- Choose Sometimes
- Choose Most.

As previously mentioned, the focus of this project was to assess the provided services from a consumer perspective therefore a sampling of public opinion was done. To create a suitable survey, the group collaborated to come up with several questions that would give an idea as to what foods were consumed between meals as well as what other foods customers would like to see. The question draft was then sent to our stakeholder, Victoria Wakefield for approval. Ms. Wakefield identified other key areas that she hoped we could include such as determining what time of day the locations experienced the highest volume of people in search of snack foods. This was incorporated into the survey which was then sent to Molly Campbell, our teaching assistant, for comments. Molly was able to provide a great deal of feedback allowing us to modify our survey into a more user friendly version. The draft was once again sent to Ms. Wakefield for final approval before distribution. The final survey can be found in Appendix A.

From March 14th – 16th, twenty surveys were taken to each location to be filled out, where one of our group members approached random individuals, who were in the process of utilizing the food services, to ask if they would be willing to fill out a survey. The four locations

visited were Place Vanier and Totem Park Residence, Ike's Café and The Loop. We visited the locations around 1pm and attempted to gain an equal spread between males and females to participate in the survey. This may have been limited in some cases due to the lower number of visitors frequenting the location. Once a customer agreed to fill out the survey, they were presented with an explanation that the survey was being done for an LFS 450 class project where we were working with UBC Food Services to identify how the services are being used inbetween meal times. They were also informed that the survey was anonymous and that they were under no obligation to fill out the survey and could withdraw at any time. This was accompanied by a consent form which all participants signed (Appendix B). While the survey was being filled out, the group member present remained nearby in the case of any questions. Once twenty surveys were performed at the majority of the locations, the answers were organized into a spreadsheet for analysis.

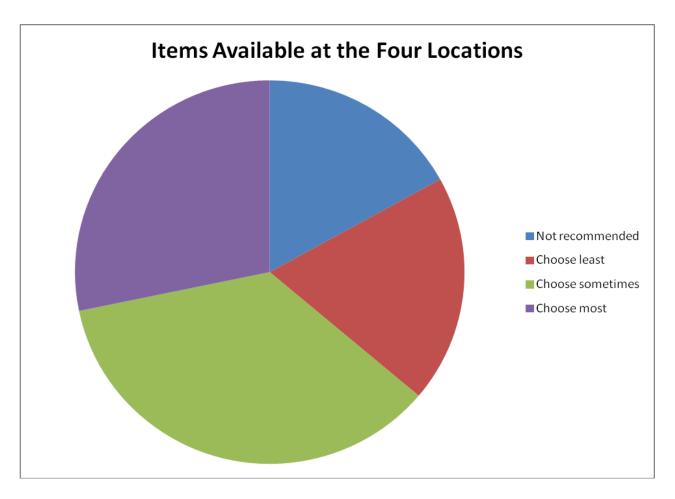
Having a group member on-site distributing the survey proved to be beneficial for many reasons. First of all, the surveyor could answer any questions the individual may have as well as act as someone for them to bounce ideas off of while they were going through the survey. This also prompted completion of the survey as questions involving a "why?" clause often goes unanswered without prompting. Having a group member approach people in the facility potentially made the participant more comfortable as well as they could speak with friends for opinions, and were in an open, familiar setting. A potential source of error however is that many of the survey participants were chosen as they were sitting down enjoying their meal or snack as they were deemed as potentially having the time to complete the survey. This may not be representative of the people who do use the location for snacks as snacks are often a grab-and-go type food.

To ensure that we had achievable goals, we decided on several parameters that would be used to determine the project's success. The first goal was to create a detailed snack inventory for each of the locations, listing a minimum of fifty items from the Totem Park and Place Vanier residence and a minimum of ten items at Ike's Café and The Loop. For the inventory to be complete, each item would have to be grouped into one of the following groups; not recommended, choose least, choose sometimes or choose most. For the surveys, a minimum goal of 15 surveys for each location was set. Concerning the data we expected to get from the surveys, we aimed for the surveys to be filled out to the extent that 70% of the anticipated data was collected. Percent completion of the survey was determined by counting all answers in the survey that were left blank or where "none" or "N/A" were written and subtracting that number by the total number of answers. The difference was then divided by the total number of answers. Once the surveys came in and were analyzed, 82% of the anticipated data had been collected. Stakeholder feedback was also sought in order to define the project's success from the UBC Food Service point of view.

IV. Findings and Outcomes

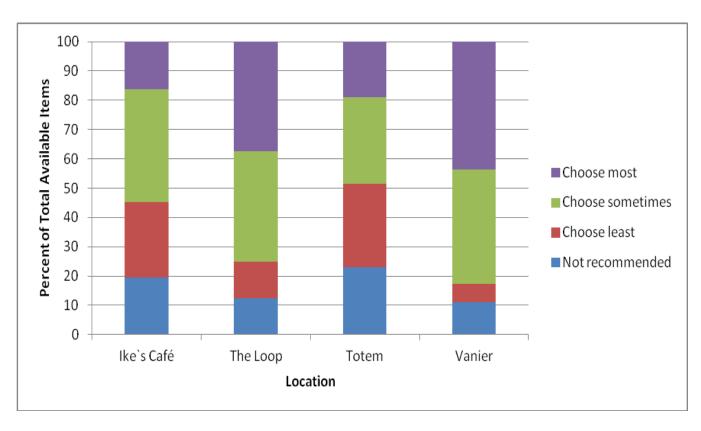
a. Baseline Inventory Results

From the inventory list created at the four locations (Appendix C), the snack foods were then categorized into "choose most", "choose sometimes", "choose least", or "not recommended". We were able to find that in aggregate, 28% of all items included in the inventory fell into the "choose most" category, 36% were "choose sometimes" items, 19% fell under "choose least", and 17% were "not recommended".



Graph 1. Overall Percentages of Items Categorized

At Totem Park Residence, 19% of items were categorized as "choose most", 30% as "choose sometimes", 28% as "choose least", and 23% as "not recommended". Place Vanier had the highest percentage of choose most inventory items, with 44%. 39% were classified as "choose sometimes", 6% as "choose least", and 11% as "not recommended". The Loop was second highest, with 37.5% as "choose most" items, 37.5% as "choose sometimes", 12.5% as "choose least", and 12.5% of items were "not recommended". Ike's Cafe had the lowest amount of "choose most" items, with 15%. 20% of the items were categorized as "choose sometimes", 25% as "choose least", and 40% as "not recommended". Overall, we were also able to notice that vegan, gluten free, lactose free, and organic items were available at each location, but were not readily accessible and were limited in options.



Graph 2. Percentage of Items in Each Category Available at Each Location

A more elaborate break down of category percentages for each type of snack item at the four locations are available in Appendix D-G.

b. Survey Results

As previously mentioned, a primary evaluation of snack and to-go foods was conducted at our four locations, Totem Park Residence Dining Hall, Place Vanier Residence Dining Hall, The Loop, and Ike's Café. This consisted of a survey we created, and approved by our primary stakeholder, which was then completed by approximately 20 people at each location. The survey questions consisted of different snack options consumers would buy or avoid, in addition to the most common time of day that these would be purchased at each location. The results are listed below.

i. Totem Park Residence Dining Hall

53% of respondents thought that there were enough healthy snack options, the remaining 47% who didn't think this was because of feelings that "things were sugary", "night snacks were unhealthy and greasy" (at Magdas), or that there were "no vegan baked goods". Baked goods were the number one most common purchase (84%), followed by fruits and vegetables (both at 79%), and beverages along with wraps/sandwiches came up third (74%). The most common avoided purchases ranged from cookies, cakes, chips and fruit to fried foods. Some of the responses to "what snack option would you like to see at this location" included better and more variation of fruit, more vegan options, and protein rich snacks such as nuts. The most common times of purchase were between 6pm-close (84%), 3pm-6pm (42%), while 9am-12pm and 12pm-3pm were occasional answers (32%).

ii. Place Vanier Residence Dining Hall

55% of respondents thought that there were enough healthy snack options. 45% thought that there was "too much junk food", "more healthy meals than healthy snacks", and "didn't know how the food was prepared". The most common purchase were wraps/sandwiches (75%), beverages (65%), fruit (55%), and vegetables and baked goods (45%). Avoided purchases included the fruit at the salad bar, pizza, burgers, donuts and pastries. Answers for snack options wished to be seen were "trail mixes", "do-it-yourself pasta bar", "dried fruits", "healthy snack bars", and "more fruit". 12pm-3pm was the most frequented time (55%), followed by 6pm-close (45%).

iii. The Loop

79% of respondents thought that enough healthy snack options were available. Among the top choices for frequent purchase included baked goods and wraps/sandwiches (both at 50%), followed by beverages (43%). Frequent answers to which items were avoided were chips, brownies, and the salad bar because they were "unhealthy", "high calorie count", or "too expensive". Snack options that would be of interest to those surveyed included more salad choices, healthier wraps, dried fruit, and low-fat yogurts. The most common time to purchase snacks at this location were 9am-12pm (79%) and 12pm-3pm (43%).

iv. Ike's Café

50% of respondents thought that there were enough healthy options, while the remaining 50% thought that snacks were "high sugar", "high fat baked goods", or "should be more homey foods". Beverages were the most commonly purchased item (65%), followed by wraps/sandwiches and baked goods (both 40%). Most commonly avoided items for purchase were also baked goods, along with fruit, due to "fattening" or "too expensive" views. Snack options that would be of interest if available were healthier cheaper sandwiches, fruit salad, cheese and crackers. Most common time to purchase from this location was 12pm-3pm (80%), with 9am-12pm and 3pm-6pm also chosen as frequent hours (45% and 35% respectively).

From all of this information gathered at the various locations, we were able to create an excel spreadsheet, with separate sheets for each location, which has all the above information listed. This data is available for use.

V. Discussion of Findings

a. Inventory of Healthy Snacks vs. Student Awareness of Options

Taking inventory of snack items available at Ike's Cafe, the Loop, Totem Park Residence Dining Hall, and Place Vanier Residence Dining Hall showed that there was some overlap of items within the ones available at the four locations. They were generic snack items such as baked goods, prepackaged goods and beverages. However, this did not mean that the variety of these options available at all locations were the same. As it can be seen from the inventory, the varieties available at the two residence dining halls are quite different. Totem Park had a much bigger variety of options; but, the surveys showed that students wanted more options, particularly vegan ones. Vegan alternatives of baked goods are actually available at Totem Park; these items are kept in a back freezer and are available to students upon request. This discrepancy could be explained by the lack of awareness amongst students. Approximately 68% of the students surveyed at Totem's dining hall were first year students and it is likely that they may be less aware of the available snack options. Moreover, this information is not readily available in general. This was not the only discrepancy between the survey results and what was indicated to be available by our inventory. Our surveys showed that many students wanted a better selection of fruit or certain fruits to be available. Based on this, it is clear that students are not aware of UBC food procurement policies: that preference of where they purchase food items are "given to local manufacturers who demand environmental and/or reusable packaging, and limit truck traffic on campus by reducing the number of deliveries per week and the number of contracted vendors." (UBC Food Services)

In contrasting what snack items students wanted to be available at the four locations to the baseline inventory taken, it is obvious that there is definitely a lack of awareness when it comes to food options and alternatives availability. To truly understand whether there is, indeed, a market gap between the demand of snack choices and what is currently offered, there first needs to be an ameliorated situation of awareness of options, UBC Food Services, and the UBC Food system among the students.

b. Healthy vs. Not Healthy Options

The perception of whether there are enough healthy snack options at each location differed from the reality of the BC Ministry of Health Services Food Guideline rankings assigned to all options in our baseline inventory. At each of the four locations, a minimum of 50% of the survey sample believed the respective location they were being surveyed about offered enough healthy options. However, this was not the case at Totem Park Residence Dining Hall and Ike's Cafe. As shown in the findings, only 19% of Totem Park's snack inventory was healthy, or categorized as "choose most"; and, only 16% of Ike's inventory was healthy. Since Ike's Cafe is supplied by Totem Park, it is not surprising that they are ranked together as the bottom two most unhealthful locations of the four. It should also be noted that the situation at the Loop is not clearly reflected through our evaluation results due to their very limited selection of snack food options as well as it being a newer cafe, located in the new Centre for Interactive Research on Sustainability (CIRS) building.

Despite the fact that students felt that all four locations offer enough healthy snack options, only 28% of the aggregate baseline inventory was ranked to be healthy, or categorized as "choose most". There are major limitations to surveying whether students believed a location to have enough healthy options available for sale. The response to such a question reflects students' personal definition of "healthy" and what they perceive to be a "healthy snack"; it is

entirely subjective and can be influenced by the relative comparison of all items available and the environment of the location.

c. Availability of Dietary Specific Options and Labelling

Nutritional labelling exists mostly for items that are commercially packaged. Snack items like individually wrapped baked goods lack nutritional labelling and are not always well labelled as vegan, gluten-free, lactose-free, or organic. In fact, in cases like the baked goods at Totem Park, items are not set out to be seen.

The baseline inventory shows that items that cater to specific dietary needs exist at all four locations. For the most part, the items that have been indicated to be vegan, gluten-free, or lactose-free are only categorized as such because the items naturally or normally do not contain gluten, lactose, or ingredients derived from animal or animal by-products. This shows that the four locations have vegan, lactose-free, and/or gluten-free items; but, not alternatives. By alternatives it means that the consumer has the choice to pick between options when snack items have varieties that cater to specific dietary preferences, such as in baked goods.

VI. Stakeholder Recommendations:

After analyzing the data collected at Totem Park, Vanier Residence, Ike's Café and The Loop regarding healthy snack options available at these locations, our group has come up with three recommendations for our stakeholder, UBC Food Services.

Our first recommendation is that UBC Food Services increase healthier "choose most" snack varieties at Ike's Café and Totem Park due to the fact that these two cafes had the lowest level of satisfaction in terms of enough healthy snacks available at their location. According to

our survey (appendix A), 50% of students thought there were enough healthy snacks available at Ike's Cafe; while, at Totem Park, 53% believed so. Ike's Café had mostly baked goods with very few options for fruits and vegetables and Totem also had higher selections in the baked goods and dessert categories compared with healthier snack options. If more varieties of healthy snacks were offered at Ike's Cafe and Totem, instead of only large varieties in the number of baked goods for example, students may increase their likelihood of purchasing healthier snacks as they will have a better selection. From our survey results, it is clear that students are looking for more variety in healthy snack options at these four locations. More nuts, trail mix, ethnic (Asian, Mexican etc.) snacks, fresh fruit and granola bars were examples of what students wanted to see more of at these establishments. If UBC Food Services cut back on unhealthy snack varieties and offered more options in the above listed healthier goods, then the snacks offered would please consumers, as well as increase the healthiness of snacks available. Healthier varieties should be increased slowly, adding one new item at a time at one location. This can be started next September, and slowly, the number of baked goods can be replaced with healthier options. For example, the "Two-Bite Brownies" package can be replaced with a trail mix bag, as "baked goods" was one answer that was predominant in the survey where students chose to avoid.

A major issue our team found when conducting the snack inventories was the lack of labeling at all four locations. Especially for the baked goods, it was difficult to find out if they were vegan, gluten free, or lactose free. The nutritional value and ingredients list for most baked goods were also not available to see easily. Therefore, we recommend that UBC Food Services provide ingredients lists and nutritional labeling on at least 50% of all baked goods by this time next year to increase consumers' awareness of UBC Food Services procurement policy of

providing local, fair trade and organic products. This way, students who decide to purchase snacks can make more educated decisions on what they are consuming. Healthy, local and organic snacks should also be promoted more through labeling. If students know that a snack is made from local, organic ingredients, they may be more inclined to buy the product. If a certain snack is high in a healthy nutrient such as fibre, this should be highlighted and promoted with labeling. If students are aware of the nutritional information about the snacks they consume, this will have a large impact on their purchasing decision and will ideally lead them to buy healthier, local and organic snacks.

Our team's third and final recommendation for the UBC Food Services is increasing the availability of healthy gluten free, vegan, and lactose free snacks, as well as increasing labeling for these goods. Offering at least two vegan, gluten-free or lactose-free options that are openly available with the other snacks is recommended for each location. These two types of snacks should ideally be healthier baked goods, as this was the area where vegan, gluten-free and lactose-free snacks were lacking the most. We were shocked to find out that the majority of these types of snacks offered at Totem and Vanier were kept in the freezer, away from public display. According to our survey taken at Totem, many students seemed to be unaware that UBC Food Services provided vegan and gluten free snacks. 5 out of 19 random surveys from students at Totem were either vegan, lactose intolerant, or vegetarian, and all 5 listed that they wanted more selection in vegan, and lactose free baked goods. This could be due to the fact that either they were unaware that Totem provides these special baked goods if they are personally requested, or if they were simply unsatisfied with the options available. UBC Food Services should increase labeling to educate students where they can obtain vegan/gluten free snacks as well as make them more openly available with the other baked goods. We understand that these snacks have a

lower demand, and are often more perishable than normal (non-gluten free etc.) snacks, but if advertised correctly, vegan baked goods for example can be enjoyed by all students – who may or not be vegan. Offering for example one, "special snack of the week" such as a vegan, high protein nutritious muffin may be helpful in providing more nutritious snacks as well as offering more variety to those with dietary restrictions.

If these three recommendations for the UBC Food Services are implemented within a year's time, more nutritious and healthy snacks would be made more available for consumers, and student awareness about healthy snacks will increase due to the increased labeling. All three recommendations are meant to be feasible within the next year, and are small enough changes to be cost effective and help UBC become a place where quality, nutritious, sustainable snacks are proudly served.

VII. Scenario Evaluation & Feedback:

Our team evaluated the successfulness our project by looking at our combined results from our extensive inventory list of snack items at each of the four establishments (Totem Park, Place Vanier, The Loop and Ike's Café), as long with our survey results to see if we reached our original goals of acquiring sufficient data to make constructive recommendations to our stakeholder. Our goal for the inventory was to have information on 50 snack items each at Totem and Vanier, and 10 snack items each for Ike's Cafe and The Loop. Our group has exceeded this goal by having 70 snack inventories at Totem, 65 for Vanier, 20 for Ike's Cafe, though only having 8 at The Loop. Our goal of the surveys was to conduct at least 15 surveys at each location. We were able to conduct 19 surveys at Totem, 15 surveys at the Loop, and 21 surveys each at Vanier and Ike's Café. Also, we aimed for a 65% minimum completion of surveys and

we had 82% completion out of all our completed surveys. Our group has successfully conducted the primary data collection in compiling a detailed list of snacks offered at the four establishments, and offered this information to the UBC Food Services along with the survey results with recommendations to improve the availability of healthy snacks on campus.

To further strengthen our evaluation of the project, we made sure to regularly correspond with our primary stakeholder, Victoria Wakefield to ensure her satisfaction. Our group strived to keep our goals in line with our stakeholder's goals, as well as to provide realistic and simple recommendations for her and UBC Food Services to work on. For a successful project, our inventory and survey data must be easily understood by our primary stakeholder and we did this by emailing in our results ahead of time to see if our results were understandable and useful to her. We also answered any questions she had regarding the results in a timely manner. Overall, our project was successful because we exceeded our inventory and survey goals as well as ensuring our primary stakeholder was satisfied with our results and recommendations.

Some challenges our group faced was conducting the snack inventory at the four locations. We had to ensure we conducted the surveys at the establishments at the designated "snack times" our team came up with. We also had to come up with a good definition for a snack, which proved to be more difficult than originally anticipated. Defining "snack" was crucial to have consistent inventory lists between the four establishments (to know what items to include/not include) as well as having consistent survey results. Another challenge was the uncertainty of whether or not our efforts in collecting the primary data and offering recommendations would be actually used to improve the snacks offered around campus. There were times our group wondered if we were actually contributing towards a positive change for improving the UBC Food System. At first, there was some confusion on what was actually

wanted from our group, but after several group meetings, getting assistance from our TA and contacting our primary stakeholder for clarification of the project, we are now confident that our recommendations will help improve overall snack quality on campus.

For recommendations for next year's LFS 450 students, students should seek clarity about the project right away from the TA, and contact their primary stakeholder as soon as possible to get a clear direction and goal for the project. They could also follow up after the project is completed to see if their recommendations were actually implemented.

For the LFS teaching team, we are very thankful for their support and hard work in helping our group succeed with our project. For the future, we recommend that we be given clearer guidelines at the beginning of the term especially with the smaller assignments such as the project outline and meeting managements. There was some confusion about the exact criteria, but after getting clarification from our TA, our group was able to understand each assignment. But if more specific guidelines were stated in the syllabus at the beginning of the term, it would have answered many questions our group had right away.

For next year's scenario, we recommend that the group further work on conducting surveys to get a bigger sample size for more comprehensive data on what consumers want as snacks on campus. What our group has done was a start to get an idea on the gap of what UBC Food Services provides and what students want. Next year's group should strive to conduct 50 surveys at each location, to get a better view on student's wants in terms of snacks. A question on the survey asking students if it would be helpful to add labeling to snacks should also be added. Another recommendation for this future scenario is for students to assist UBC Food Services create simple and effective nutritional value labeling on snacks at the four establishments studied. A starting point for this is to pick one of the establishments to start

offering labeling of snacks regarding ingredients and nutritional value. This should be possible to do within one semester.

VIII. Conclusion

After conducting our primary inventory and survey data collection and analysis, it is clearly seen that UBC Food Services is doing a great job in offering healthy snack options on campus as well as working to provide snacks for different dietary preferences and needs. What is now needed is for students to be aware of what UBC Food Services is currently offering to provide healthy, sustainable snacks. This can be improved by UBC Food Services advertising their food procurement policies more to let students know that offering sustainable snacks is an important aspect of what UBC Food Services provides to consumers. Communication between UBC Food Services and students is key. Methods such as food labeling can be improved so that students are aware of which snacks are healthier than others as well as knowing which snacks are vegan, gluten-free and lactose-free. More of these types of snacks should be made readily available to students, as well as offering a wider variety of choices for students to choose healthier, "choose most" snacks. Students are looking for healthier alternatives, and so far, UBC Food Services is doing well to meet their needs and wants, and should be advertising their healthy snack varieties more often.

Media release (Appendix H)

With collaboration from the UBC Food Systems Project and UBC Food Services, we had the unique opportunity of finding more information about healthy snacks on campus. As 4th year students of the Land and Food Systems (LFS) 450 course, we ventured out into 4 food retailers on campus: The Loop, Ike's Cafe, Vanier Residence Dining hall and Totem Residence Dining hall. Our main goal? To get a better understanding about the current snacks at these locations!

First path on the journey: To be able to actually make a difference in improving healthy snacks on campus, we first needed to compile a list of what is currently present. We then evaluated each item into the categories of "choose most", "choose sometimes", "choose least" and not recommended. Although there were many available healthy items, it was rather shocking to see just how easy it was to purchase baked goods. There were readily accessible and affordable at all 4 locations! Also, it was unfortunate to find out that at some locations, many gluten-free, diary-free, and vegan options were kept in the freezer and were only taken out when requested!

Second path: Our stakeholder inspired us to create a survey to get a better understanding of what students' current thoughts are about healthy snacks on campus. Much to our surprise, only about half of the students that were eating at Ike's, Vanier, and Totem thought that there were enough healthy snack options! Many students complained about the snack items containing too much sugar, which matched the results of our inventory list.

Final destination: First off, as LFS students, we felt very proud to come across many students that were willing to open up their thoughts and concerns with healthy snack items.

From the results of our inventory list and survey, we were able to give suggests that we hope to see being implemented in the next few years. What a perfect way to end our university career!



Action Photo of Scenario 1 Group 2 at Ike's Cafe: (left to write) Letitia Da Ros, Hannah Shu, Hana Tahaei, Alexandra Little, Rita Molander

References

ActNow BC. (2010). Guidelines for Food and Beverage Sales in BC Schools. Ministry of Education & Ministry of Healthy Living and Sport. Retrieved from http://www.bced.gov.bc.ca/health/2010_food_guidelines.pdf

Martin, J., Samels, J.E. (2012). *The Sustainable University: Green Goals and New Challenges* for Higher Education Leaders. Baltimore, Maryland. The John Hopkins University Press.

Sustainability Tracking Assessment and Rating System. (2011, August 2). University of British Columbia. Retrieved from https://stars.aashe.org/institutions/university-of-british-columbia-bc/report/2011-08-02/#ec_6

UBC Food Services. Sustainability Initiatives. Student Housing and Hospitality Services.

Retrieved from www.food.ubc.ca/

Zweynert, A. (2012, March 12). The Global food system an international "public health disaster"

– UN food expert. *Thomson Reuters Foundation's Humanitarian News*. Retrieved from http://www.trust.org/alertnet/news/global-food-system-an-international-public-health-disaster-un-food-expert/





Land and Food Systems 450 UBC Food Systems Project (UBCFSP) Snack Time Survey

The purpose of this survey is to give us a better idea of how to improve snacking options at this location. It will take approximately 5 minutes to complete. This is a voluntary survey, and you may withdraw from completing this survey at any time without any consequences. Your responses will remain anonymous and confidential.



As busy university students, eating at regular meal times can be challenging with our schedules. In these situations, snacks have come to be relied on to get us through the day. These can include baked goods, fruits, vegetables, and beverages, along with any other items that are eaten between meals.

1.	Year level:	□1 st □Pref	□2 nd er not to	_	□4 th	$\Box 5^{th}$	□Other
2.	Gender:	$\square M$			$\Box F$		☐ Prefer not to answer
3.	Do you feel that (check the choice ☐ Yes Why?			_	-	_	ons available at this establishment?
4.	What snack for all that apply) ☐ Baked Goods ☐ Fruit ☐ Vegetables		s do you	□Beve	erages ps/Sand	wiches	a month at this establishment? (check
5.	Which snack it	em(s) s	old at th	nis estab	olishme	nt do yo	u avoid purchasing? Why?
6.	Are there any javailable at thi						likely to purchase if they became list items)
7.		he day a	are you	most lik	ely to p	urchase	a snack at this establishment? (check
	<i>all that apply)</i> □ Open-9am			□9am	-12pm		□12pm-3pm
	□3pm-6pm				-close		
	o you consent y Food Systems 4 □Yes Thank you for y	50 clas	s UBCFS	SP repor	t? □No	J	ncluded anonymously in a Land and

B. Informed Consent Form

THE UNIVERSITY OF BRITISH COLUMBIA



Dr. Andrew Riseman, Agreecology Faculty of Land and Food Systems 323-2357 Main Mall Vancouver, BC, Canada V6T 1Z4

Tel: 604-822-9607 Fax: 604-822-2016

Email: andrew.niseman@ube.es

INFORMED CONSENT

I am agreeing to collaborate in the study entitled "The UBC Food System Project", conducted by students of the Faculty of Land and Food Systems within their course "Land, Food & Community III" (LFS 450) in collaboration with UBC Food Services, the Alma Matter Student Society (AMS), AMS Food and Beverage Department, UBC Waste Management, Faculty of Land and Food Systems, Centre for Sustainable Food Systems at UBC Farm, the UBC Sustainability Office and its SEEDS Program (Social, economic and ecological development studies)

I have been informed of my right to interrupt any interview or questionnaire linked to this project in which I agree to participate, at any time that I consider necessary. Also, I have been assured that my answers will remain anonymous unless I provide written permission (below) to the UBC student conducting the interview or survey, to disclose my name, working position or any other information revealing my identity in any possible future use of the information I provide.

- · Signature of the person volunteering to participate in the study:
- Name and signature if accept to reveal name, revealing my identity (or freely chosen name and signature, if you prefer):
- Contact information if accept to be quoted by name or position in public use of the information i provide to review the quotes:
 - (Name, Telephone #, fax#, email, mailing address)
- Date:
- Name of the interviewer.

If you have any concern about this study please contact the Principal investigator at the above contact information or Professor Andrew Riseman, the Course instructor at

E-mail: andrew.riseman@ubc.ca

MCML 323 - 2357 Main Mail, Vancouver, BC Canada, V6T 1Z4

Tel 604.822.9607 Fax: 604-822-2016

Dr. Andrew Riseman Principle Investigator

Nanuary, 2012

C. Baseline Inventory

Location	Category	SNACK ITEM	CHOOSE MOST/CHOOSE SOMETIMES/CHOOSE LEAST/NOT RECOMMENDED	reasoning?	VEGAN	GLUTEN FREE	LACTOSE FREE	ORGANIC	Label with nutritional information/ nutrition facts table (Y/N)
	Baked	ONACK ITEM	RECOMMENDED	reasoning:	VLOAN	INCL	TREE	ORGANIC	table (1/IV)
Vanier	Goods	cinnamon buns	Not recommended						no
Vanier	Baked Goods	eclairs	Not recommended						no
Vanier	Baked Goods	pie	Not recommended						no
Vanier	Baked Goods	cake	Not recommended						no
Vanier	Baked Goods	tarts	Not recommended			yes			yes
Vanier	Baked Goods	granola bars	Choose sometimes						no
Vanier	Baked Goods	waffles	Choose sometimes						no
Vanier	Baked Goods	muffins	Choose sometimes						no
Vanier	Baked Goods	croissants	Choose sometimes						no
Vanier	Baked Goods	buns	Choose most						no
Vanier	Baked Goods	danishs	Choose least						no
Vanier	Baked Goods	cookies	Choose least			yes			no
Vanier	Drinks	milk	Choose sometimes						yes
Vanier	Drinks	yop	Choose sometimes						yes
Vanier	Drinks	smoothies	Choose sometimes						no
Vanier	Drinks	V8 juice	Choose most						yes
Vanier	Drinks	happy planet	Choose most						yes
Vanier	Fruit bar	m&m	Not recommended						no
Vanier	Fruit bar	blueberries	Choose sometimes						no
Vanier	Fruit bar	raspberries	Choose sometimes						no
Vanier	Fruit bar	yogurt	Choose most						no
Vanier	Fruit bar	dried grains (oats, ect.)	Choose most						no

Vanier	Fruit bar	oranges	Choose most		no
Vanier	Fruit bar	pineapples	Choose most		no
Vanier	Fruit bar	mixed fruit	Choose most		no
Vanier	Fruit bar	trail mix	Choose most		no
Vanier	Fruit bar	dried fruit	Choose most		no
Vanier	Fruit bar	seed mix	Choose most		no
Vanier	Other	desert tofu	Choose sometimes		yes
Vanier	Other	pudding	Choose least		no
Vanier	Other	ice cream	Choose least		no
Vanier	Packaged Goods	two bite brownies	Not recommended		yes
Vanier	Packaged Goods	sushi	Choose sometimes		yes
Vanier	Packaged Goods	sandwhichs	Choose sometimes		yes
Vanier	Packaged Goods	wraps	Choose sometimes		yes
Vanier	Packaged Goods	yogurt	Choose sometimes		yes
Vanier	Packaged Goods	nutri-grain bars	Choose sometimes		yes
Vanier	Packaged Goods	sandwhichs	Choose most	yes	no
Vanier	Packaged Goods	wraps	Choose most	yes	no
Vanier	Salad bar	olives	Choose sometimes		no
Vanier	Salad bar	humus	Choose sometimes		no
Vanier	Salad bar	noodle salad	Choose sometimes		no
Vanier	Salad bar	greek salad	Choose sometimes		no
Vanier	Salad bar	carrots	Choose sometimes		no
Vanier	Salad bar	bean sprouts	Choose sometimes		no
Vanier	Salad bar	chickpeas	Choose most		no
Vanier	Salad bar	spinach	Choose most		no
Vanier	Salad bar	mixed greens	Choose most		no
Vanier	Salad bar	cauliflower	Choose most		no
Vanier	Salad bar	tomatoes	Choose most		no
Vanier	Salad bar	cucumber	Choose most		no
Vanier	Salad bar	guacamole	Choose most		no
Vanier	Salad bar	beets	Choose most		no
Vanier	Salad bar	tofu	Choose most		no
					21

Vanier Soups almon corn chowder Choose sometimes no almon corn chowder Vanier Soups chowder Choose sometimes no on o	Vanier	Soups	Cream of brocoli	Choose sometimes						no
Vanier Soups chowder Choose sometimes no Vanier Soups vegetable soup Choose sometimes no Vanier Whole fruit Vanier Vanier Whole fruit Vanier Vanier Whole fruit Vanier	Vanier	Soups	chicken gumbo	Choose sometimes						no
Vanier Whole fruit bananas Choose most yes no Vanier Whole fruit yes no vanier Whole fruit oranges choose most no no Vanier Whole fruit wascados Choose most no no no vanier whole fruit avacados choose most no no no no vanier whole fruit avacados choose most no		Soups		Choose sometimes						no
Vanier Whole fruit apples Choose most no Whole fruit vanier van		·	vegetable soup	Choose sometimes						no
Vanier Whole fruit oranges Choose most no Vanier Whole fruit grapefruit Choose most no Vanier Whole fruit red grapes Choose most no Vanier Whole fruit red grapes Choose most no Totem Baked goods donut fritters Not recommended no no no no no Totem Baked goods pecan tarts Not recommended no	Vanier	Whole fruit	bananas	Choose most						no
Vanier Whole fruit grapefruit Choose most	Vanier	Whole fruit	apples	Choose most					yes	no
Vanier Whole fruit vacados Choose most no Whole fruit red grapes Choose most no Whole fruit red grapes Choose most no no Raked goods donut fritters Not recommended no	Vanier	Whole fruit	oranges	Choose most						no
Vanier Whole fruit red grapes Choose most Totem Baked goods donut fritters Not recommended no no no no no no no no Totem Baked goods donnuts Not recommended no no no no no no no no Totem Baked goods pecan tarts Not recommended no no no no no no no no no Totem Baked assortment of cake goods and pie sitices Not recommended no no no no no no no no Totem Baked goods brownies Not recommended no no no no no no no no Totem Baked goods brownies Not recommended no no no no no no no Totem Baked goods blueberry cobbler Not recommended no no no no no no no Totem Baked goods nanaimo bars Not recommended no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods claires Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no no Totem Baked goods sesame bagels Choose sometimes no	Vanier	Whole fruit	grapefruit	Choose most						no
Totem Baked goods donuts Not recommended no no no no no no no no Totem Baked goods donnuts Not recommended no no no no no no no Totem Baked goods pecan tarts Not recommended no no no no no no no Totem Baked assortment of cake and pie slices Not recommended no no no no no no no Totem Baked goods brownies Not recommended no no no no no no no Totem Baked goods blueberry cobbler Not recommended no no no no no no no Totem Baked goods nanaimo bars Not recommended no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no no no no Totem Baked goods plain bagels Choose sometimes no no no no no no no	Vanier	Whole fruit	avacados	Choose most						no
Totem Baked goods donuts Not recommended no no no no no no no no Totem Baked goods donnuts Not recommended no no no no no no no Totem Baked goods pecan tarts Not recommended no no no no no no no no Totem Baked assortment of cake and pie slices Not recommended no no no no no no no no Totem Baked goods brownies Not recommended no no no no no no no Totem Baked goods blueberry cobbler Not recommended no no no no no no no Totem Baked goods nanaimo bars Not recommended no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no	Vanier	Whole fruit	red grapes	Choose most						no
Totem Baked goods brownies Not recommended no	Totem		donut fritters	Not recommended	r	no	no	no	no	no
Totem Baked goods pecan tarts Not recommended no no no no no no no no Totem Baked assortment of cake and pie slices Not recommended no no no no no no no no Totem Baked goods brownies Not recommended no no no no no no no no Totem Baked goods blueberry cobbler Not recommended no no no no no no no no Totem Baked goods nanaimo bars Not recommended no no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods sesame bagels Choose sometimes no Baked goods plain bagels Choose sometimes no	Totem		donnuts	Not recommended	r	าด	no	no	no	no
Totem Baked goods brownies Not recommended no	Totem	Baked	pecan tarts	Not recommended	r	าด	no	no	no	no
Totem Baked goods brownies Not recommended no	Totem			Not recommended	r	าด	no	no	no	no
Totem Baked goods rocky road brownies Not recommended no	Totem		brownies	Not recommended	r	าด	no	no	no	no
Totem goods nanaimo bars Not recommended no no no no no no no no Totem Baked goods rocky road brownies Not recommended no no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no no no Totem Baked goods plain bagels Choose sometimes no	Totem		blueberry cobbler	Not recommended	r	าด	no	no	no	no
Totem goods rocky road brownies Not recommended no no no no no no no no Totem Baked goods eclaires Not recommended no no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no no Totem Baked goods plain bagels Choose sometimes no no no no no no Totem Baked goods plain bagels Choose sometimes no	Totem		nanaimo bars	Not recommended	r	10	no	no	no	no
Totem goods eclaires Not recommended no no no no no no no Totem Baked goods butter tarts Not recommended no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no no Totem Baked goods plain bagels Choose sometimes no no no no no Totem Baked goods Baked goods plain bagels Choose sometimes no	Totem		rocky road brownies	Not recommended	r	าด	no	no	no	no
Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods cinnamon buns Not recommended no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no Totem Baked goods plain bagels Choose sometimes no no no no Baked goods Baked	Totem		eclaires	Not recommended	r	no	no	no	no	no
Totem goods cinnamon buns Not recommended no no no no no no no no Totem Baked goods sesame bagels Choose sometimes no no no no Totem Baked goods plain bagels Choose sometimes no no no no Totem Baked	Totem		butter tarts	Not recommended	r	าด	no	no	no	no
Totem goods sesame bagels Choose sometimes no no no no Totem Baked goods plain bagels Choose sometimes no no no no Totem Baked	Totem		cinnamon buns	Not recommended	r	no	no	no	no	no
goods plain bagels Choose sometimes no no no no Totem Baked	Totem		sesame bagels	Choose sometimes			no		no	no
	Totem		plain bagels	Choose sometimes			no		no	no
, , ,	Totem	Baked goods	blueberry bagels	Choose sometimes			no		no	no

Baked goods	cinnamon-raisin bagels	Choose sometimes		no		no	no
Baked goods	white toast	Choose sometimes	yes	no	no	no	no
Baked goods	plain english muffins	Choose sometimes	yes	no	no	no	no
Baked goods	bran muffins	Choose sometimes	no	no	no	no	no
Baked goods	whole-wheat bagels	Choose most		no		no	no
Baked goods	whole-wheat toast	Choose most	yes	no	no	no	no
Baked goods	regular croissants	Choose least	no	no	no	no	no
Baked goods	cheese croissants	Choose least	no	no	no	no	no
Baked goods	fruit filled danishes	Choose least	no	no	no	no	no
Baked goods	poppyseed muffins	Choose least	no	no	no	no	no
Baked goods	cheese scones	Choose least	no	no	no	no	no
Baked goods	cranberry scones	Choose least	no	no	no	no	no
Baked goods	cookies	Choose least	no	no	no	no	no
Baked goods	ponderosa cake	Choose least	no	no	no	no	no
Baked goods	Desert Loaves	Choose least	no	no	no	no	no
Baked goods	biscotti	Choose least	no	no	no	no	no
Baked goods	peanut butter granola bar	Choose least			no	no	no
Baked goods	cornflake krispies	Choose least		no		no	no
Baked goods	herb/cheese scones	Choose least	no	no	no	no	no
	goods Baked	Baked goods white toast Baked goods plain english muffins Baked goods bran muffins Baked goods whole-wheat bagels Baked goods whole-wheat toast Baked goods regular croissants Baked goods cheese croissants Baked goods fruit filled danishes Baked goods poppyseed muffins Baked goods cranberry scones Baked goods cookies Baked goods Desert Loaves Baked goods biscotti Baked goods granola bar Baked goods cornflake krispies Baked	goods bagels Choose sometimes Baked goods white toast Choose sometimes Baked goods plain english muffins Choose sometimes Baked goods bran muffins Choose sometimes Baked goods whole-wheat bagels Choose most Baked goods whole-wheat toast Choose most Baked goods regular croissants Choose least Baked goods cheese croissants Choose least Baked goods fruit filled danishes Choose least Baked goods poppyseed muffins Choose least Baked goods cheese scones Choose least Baked goods Choose least	goods bagels Choose sometimes Baked goods white toast Choose sometimes yes Baked goods plain english muffins Choose sometimes yes Baked goods bran muffins Choose sometimes yes Baked goods whole-wheat bagels Choose most Baked goods whole-wheat toast Choose most yes Baked goods regular croissants Choose least no Baked goods cheese croissants Choose least no Baked goods fruit filled danishes Choose least no Baked goods poppyseed muffins Choose least no Baked goods cheese scones Choose least no Baked goods Cheese scones Choose least no Baked goods Cookies Choose least no Baked goods Desert Loaves Choose least no Baked goods Desert Loaves Choose least no Baked goods Desert Loaves Choose least no Baked goods biscotti Choose least no Baked goods Choose least no Baked goods Choose least no Baked goods Desert Loaves Choose least no Baked goods Choose least no Baked goods cornflake krispies Choose least	goods bagels Choose sometimes no Baked goods white toast Choose sometimes yes no Baked goods plain english muffins Choose sometimes yes no Baked goods bran muffins Choose sometimes yes no Baked goods bran muffins Choose sometimes no no Baked goods whole-wheat bagels Choose most no Baked goods whole-wheat toast Choose most yes no Baked goods regular croissants Choose least no no Baked goods cheese croissants Choose least no no Baked goods fruit filled danishes Choose least no no Baked goods poppyseed muffins Choose least no no Baked goods cheese scones Choose least no no Baked goods cookies Choose least no no Baked goods ponderosa cake Choose least no no Baked goods ponderosa cake Choose least no no Baked goods biscotti Choose least no Baked goods biscotti Choose least no Baked goods peanut butter goods granola bar Choose least Baked goods cornflake krispies Choose least	goods bagels Choose sometimes no no Baked goods white toast Choose sometimes yes no no no Baked goods plain english muffins Choose sometimes yes no no no Baked goods bran muffins Choose sometimes no no no no no Baked goods whole-wheat bagels Choose most no no Baked goods whole-wheat toast Choose most yes no no Baked goods whole-wheat toast Choose most no	goods bagels Choose sometimes

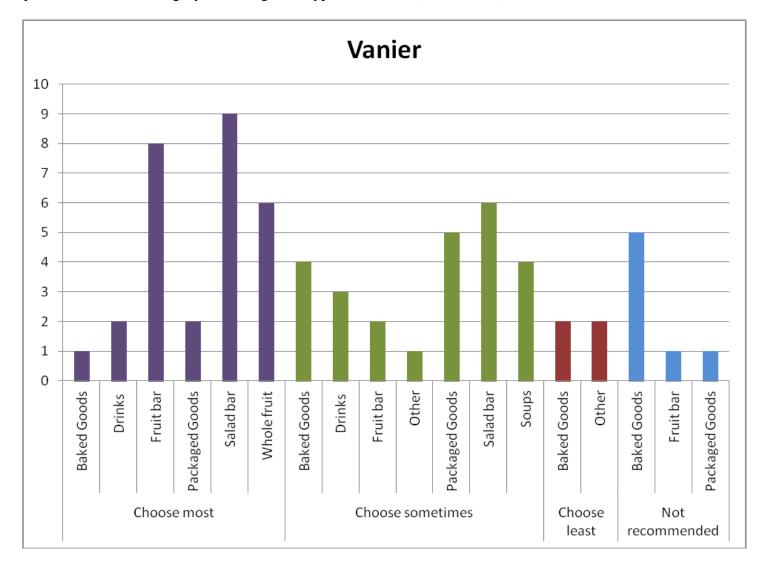
Totem					3 out of the 15			
Totom	Cereals	cereals	Choose sometimes	yes	options	yes	no	yes
Totem	Condiments	cream cheese	Not recommended	no	yes	no	no	no
Totem	Condiments	peanut butter	Choose sometimes	-	y	-		-
Totem	Condiments	honey	Choose sometimes					
Totem	Condiments	jams	Choose least	yes/no	yes	no	no	no
Totem	Drinks	yop drinks	Choose sometimes	no	yes	no	no	yes
Totem	Drinks	so good soy beverages	Choose most	yes	yes	yes	no	yes
Totem	Other	ice cream bars	Not recommended	yes	yes	yes	no	·
Totem	Other	ice cream by the scoop	Choose sometimes	no	·	no	no	no
Totem	Other	popsicles	Choose least					
Totem	Packaged Goods	bagged chips	Not recommended	yes	no	no	no	yes
Totem	Packaged Goods	bagged baked chips	Not recommended	yes	yes	yes	no	yes
Totem	Packaged Goods	bagged brownies	Not recommended	no	no	no	no	yes
Totem	Packaged Goods	allbran bars	Choose sometimes	no	no	no	no	yes
Totem	Packaged Goods	dairyland yogurts	Choose sometimes	no	yes	no	no	yes
Totem	Packaged Goods	sunrise tofu dessert (banana, coconut, custard, almond)	Choose sometimes	yes	yes	yes	no	yes
Totem	Packaged Goods	gluten free/vegan/lactose baked goods: kept in freezer and must ask for them	Choose sometimes	yes	yes	yes		
Totem	Packaged Goods	cheesestring	Choose most	no	yes	no	no	yes
Totem	Packaged Goods	nutrigrain granola bars	Choose least	no	no	no	no	yes
Totem	Packaged Goods	vector cereal bars	Choose least	no	no	no	no	yes
Totem	Packaged Goods	jello	Choose least	yes	yes	yes	no	no

Totem	Packaged	kozy-shack pudding							
Totom	Goods	(tapioca and vanilla)	Choose least		no	yes	no	no	yes
Totem	Salad bar	yogurt	Choose sometimes						
Totem	Salad bar	cottage cheese	Choose sometimes						
Totem	Salad bar	chickpeas	Choose sometimes						
Totem	Salad bar	hummus	Choose sometimes						
Totem	Salad bar	various cheeses	Choose sometimes						
Totem	Salad bar	pasta salad	Choose sometimes						
Totem	Salad bar	greek salad	Choose sometimes						
Totem	Salad bar	fresh vegetables	Choose most						
Totem	Salad bar	cous-cous salad	Choose most						
Totem	0.45 11 - 3			most items okay, some salads high fat					
T . (Salad bar	canned fruit	Choose least	content	yes	yes	yes		no
Totem	Salad bar	canned vegetables	Choose least						
Totem	Whole fruit	apples	Choose most		yes	yes	yes	yes	-
Totem	Whole fruit	oranges	Choose most		yes	yes	yes	no	-
Totem	Whole fruit	bananas	Choose most		yes	yes	yes	no	-
Totem	Whole fruit	kiwi	Choose most		yes	yes	yes	no	-
Totem	Whole fruit	cantaloup	Choose most		yes	yes	yes	no	no
Totem	Whole fruit	honeydew	Choose most		yes	yes	yes	no	no
Totem	Whole fruit	green grapes	Choose most		yes	yes	yes	no	no
Totem	Whole fruit	avocado	Choose most		yes	yes	yes	no	-
The Loop	Drinks	Infused freshly made Iced tea (3 options)	Choose sometimes	fresh real iced brewed tea	yes	yes	yes	some	no
The Loop	Drinks	Italian Sodas	Choose least	added sugar, minimal nutrients	yes	yes	yes	no	yes
The Loop	Packaged Goods	Mini-birthday cake in a jar	Not recommended	energy dense	no	no	no	no	yes
The Loop	Packaged Goods	Canadian Dry Roasted Hazelnuts	Choose sometimes	sodium a bit too high	yes	yes	yes	no	yes
The Loop	Packaged Goods	Pickled asparagus (in a jar)	Choose sometimes	Sodium a bit too high	yes	yes	yes	no	yes
The Loop	Packaged Goods	Oatmeal to go (oatmeal in a cup, just had hot water)	Choose most	highly nutritious, natural ingredients/not processed	yes	no	yes	no	yes

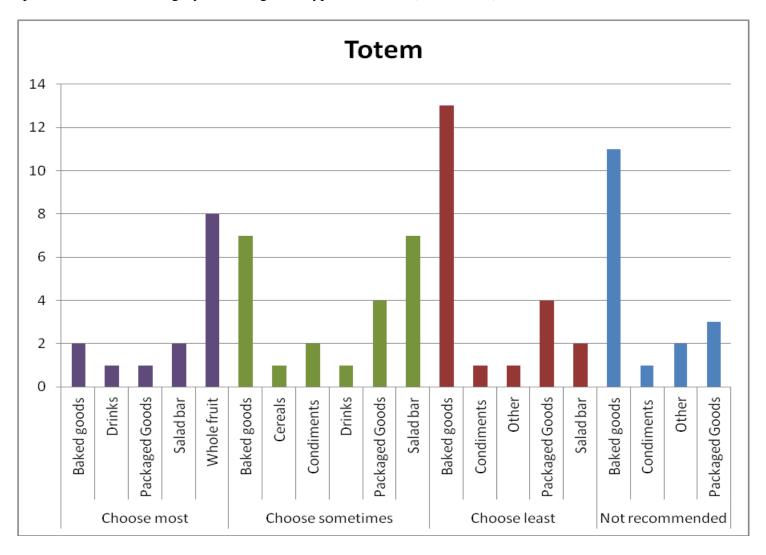
The Loop	Salad bar	small salads	Choose most	assortment of vegetables. Not packaged, made fresh, customer can choose ingredients.	Some	some	some	some	no
The Loop	Whole fruit	Fresh fruit	Choose most	whole food item	yes	yes	yes	some	no
Ike's Café	Baked goods	muffins	Choose least	if made with whole grains	no	no			no
lke's Café	Baked goods	scones	Choose least		no	no			no
Ike's Café	Baked goods	cookies	Choose least		no	no			no
lke's Café	Baked goods	loaves	Choose least		no	no			no
lke's Café	Baked goods	biscotti	Choose least		no	no			no
lke's Café	Baked goods	squares	Choose least		no	no			no
lke's Café	Baked goods	Sponge Cake	Choose least						
Ike's Café	Baked goods	reduced fat muffin	Choose sometimes	depends on if made with whole grains and size	no	no			no
Ike's Café	Baked goods	bagels	Choose sometimes		no	no			no
lke's Café	Baked goods	croissants	Choose sometimes						
lke's Café	Baked goods	cinnamon buns	Not recommended		no	no			no
lke's Café	Baked goods	rice krispies	Not recommended		no	no			no
Ike's Café	Drinks	so good beverages	Choose most						
Ike's Café	Drinks	Happy Planet	Choose sometimes						
Ike's Café	Drinks	odwalla smoothie	Choose sometimes						
Ike's Café	Drinks	Milk	Choose sometimes						
Ike's Café	Other	pepperoni stick	Choose least		no	no			no
lke's Café	Other	wraps	Choose sometimes	depends what	no	no			yes

				is in the wrap				
Ike's Café	Other	ham and cheese croissant	Choose sometimes		no	no	no	no
lke's Café	Other	samosa	Not recommended	depends if baked/fried	no	no		no
Ike's Café	Other	calzone	Not recommended	dependant on contents	no	no		no
lke's Café	Other	english muffin fritata	Not recommended	high fat content	no	no		yes
Ike's Café	Packaged Goods	fat-free yogurt	Choose most		no	yes	no	yes
lke's Café	Packaged Goods	vegetable & dip	Choose sometimes		yes	yes	yes	yes
Ike's Café	Packaged Goods	premade (bagel) sandwiches	Choose sometimes	depends what is inside	no	no		yes
Ike's Café	Packaged Goods	two bite brownies	Not recommended					
Ike's Café	Soups	Split Pea and ham	Choose sometimes					
lke's Café	Soups	Creamy Garden vegetable	Choose sometimes					
Ike's Café	Whole fruit	Apples	Choose most		yes	yes	yes	no
Ike's Café	Whole fruit	oranges	Choose most					
Ike's Café	Whole fruit	Bananas	Choose most					

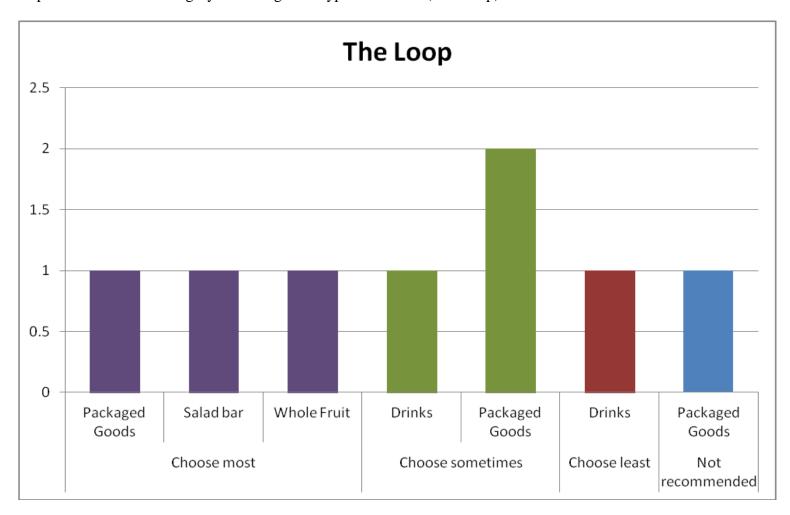
D. Graph: Breakdown of Category Percentages of Types of Snacks (Place Vanier)



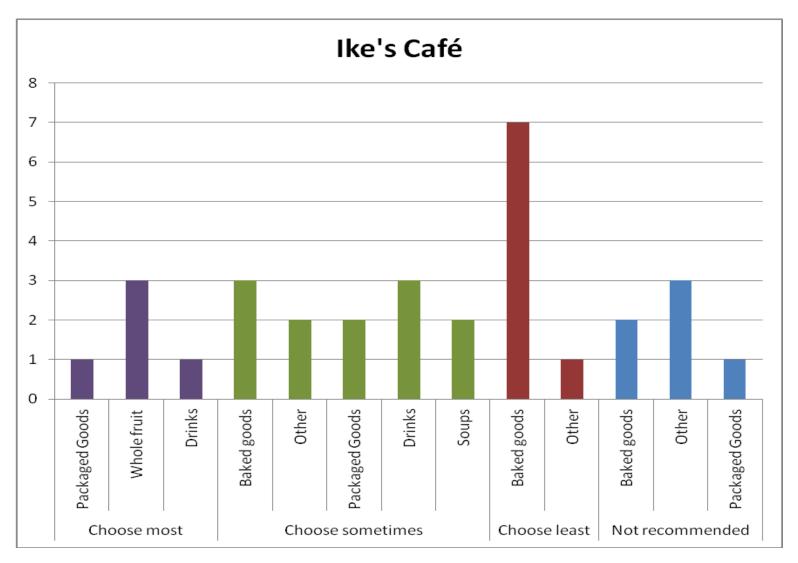
E. Graph: Breakdown of Category Percentages of Types of Snacks (Totem Park)



F. Graph: Breakdown of Category Percentages of Types of Snacks (The Loop)



G. Graph: Breakdown of Category Percentages of Types of Snacks (Ike's Cafe)



Healthy Snacks on Campus

With collaboration from the UBC Food Systems Project and UBC Food Services, we had the unique opportunity of finding more information about healthy snacks on campus. As 4th year students of the Land and Food Systems (LFS) 450 course, we ventured out into 4 food retailers on campus: The Loop, Ike's Cafe, Vanier Residence Dining hall and Totem Residence Dining hall. Our main goal? To get a better understanding about the current snacks at these locations!

First path on the journey: To be able to actually make a difference in improving healthy snacks on campus, we first needed to compile a list of what is currently present. We then evaluated each item into the category of Not Recommended, Choose Least, Choose Sometimes, Choose Most. Although there were many available healthy items, it was rather shocking to see just how easy it was to purchase baked goods. There were readily accessible and affordable at all 4 locations! Also, it was unfortunate to find out that at some locations, many gluten-free, diary-free, and vegan options were kept in the freezer and were only taken out when requested!



Second path: Our stakeholder inspired us to create a survey to get a better understanding of what students' current thoughts are about healthy snacks on campus. Much to our surprise, only about half of the students that were eating at Ike's, Vanier, and Totem thought that there were enough healthy snack options! Many students complained about the snack items containing too much sugar, which matched the results of our inventory list.

Final destination: First off, as LFS students, we felt very proud to come across many students that were willing to open up their thoughts and concerns with healthy snack items. From the results of our inventory list and survey, we were able to give suggests that we hope to see being implemented in the next few years.

What a perfect way to end our university career!