

**Influential Factors for Purchasing Lunch Meals at UBC Nest Building**

**Alex Yao, Alice Luk, Janice Wu, Su Zhanhong, Veronica Cheung**

**University of British Columbia**

**PSYC 321**

**May 26, 2017**

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

**Influential Factors for Purchasing Lunch Meals at UBC Nest Building**

**Research conducted by The Tenacious Five:**

**Veronica Cheung, Alex Yao, Alice Luk, Su Zhanhong, Janice Wu**

## **Executive Summary:**

This research explores the characteristics of people who eat at the new student union building (The Nest) located within the University of British Columbia (UBC). Students were asked if they had dietary restrictions, and were also surveyed on their rationales behind making the choice to purchase lunch meals at the Nest. Two sample t-tests were ran to determine whether the presence of dietary restrictions were predictive of patterns or specific choices in regards to obtaining food from the Nest, while Pearson coefficients were calculated to find the correlations between the number of restrictions a person has and the frequency they go to the Nest for food. Results showed that the main factor for people with dietary restrictions to turn away from the Nest was the concern for pricing, which was not consistent with the hypothesis of the study. However, the hypothesis is partially supported by the second-most compelling reason for those who have dietary restrictions to not frequent the Nest – lack of options catered towards dietary restrictions. This research suggests that the Nest food establishments should lower prices for students and be more sensitive to dietary restrictions such as lactose intolerance, nut allergies, and vegetarian options.

Keywords: Dietary Restrictions, Lunch, Meals, UBC Student Union Building, Food, Students, Health

## **Research Question:**

What percentage of people have dietary restrictions, and do their limitations influence their choices of getting lunch meals in Nest?

## **Research Hypothesis:**

People with dietary restrictions do not get food from the Nest due to the lack of alternatives being offered by food establishments in the Nest.

## **Methods:**

### **Participants:**

214 students from UBC

### **Conditions:**

Participants include domestic, international and exchange undergraduate students.

### **Measures:**

Participants took a survey powered by UBC Survey Tool asking if they had dietary restrictions and if they purchased lunch at the Nest or not. As well, the survey included questions regarding the reason behind undergraduates choosing whether or not to frequent the Nest to obtain lunch meals. Demographic questions were included as well, such as gender, ethnicity, year of school, but correlations were not made with these variables. Instead, we focused on independent (dichotomous) variables: yes dietary restriction and no dietary restriction. For dependent variables, we looked at factors, such as pricing, options for dietary restrictions, convenience, variety of choices on menu, healthy options, food quality, speed of service, food portion, environment, and clarity of ingredient labels. Then, with our gathered data, we looked at how many people in the dichotomous variables made up the percentage for each factors.

## **Procedures:**

A survey was designed using the UBC Survey Tool as the measure of this study. Key questions for participants inquired to whether they had dietary restrictions, the specific types of dietary restrictions they have (lactose tolerance, allergies, religious restrictions, etc.), their preferred locations to get lunch in the Nest by rank, operation-related reasons as to why they eat in the Nest (such as good service, variety of choices, location and operational hour convenience, etc.), and reasons why they choose not eat in the Nest (lack of options catered towards dietary restrictions, service speed, food quality/portions, etc.).

Other questions were asked in an effort to find correlations of other variables to dietary restrictions or reasons for not going to the Nest for lunch. Demographics such as gender and ethnicity, along with income status, year and programs of study were among some of the many questions asked.

We posted the survey link to several social media platforms such as Facebook, WordPress, Twitter and SnapChat, and encouraged our friends/followers to share with fellow UBC schoolmates. Additionally, members of our research team collected data in person by reaching out to students at numerous parts of the UBC campus by randomly approaching people and asking them to participate in the survey. Students living in housing and dorms on campus were also sampled so that the data would not be biased (many of these residences have their own cafeterias or food establishments, which may serve as a possible reason for these students to not go to the Nest due to location convenience). A member of the team stood at the foyer of several residences such as Place Vanier, Marine Drive, Totem Park, Walter Gage, and Orchard Commons for a few hours at different days and asked in person for participation in the survey. Data collection took place for approximately three weeks, from March 3rd to March 22nd.

## **Results:**

A breakdown of those with and without dietary restrictions as well as the specific restrictions are summarized in Figure 1. Almost half of the students surveyed report to have some sort of dietary restriction (46%). More than half of all dietary restrictions from the samples were due to lactose intolerance and allergies (largely to various forms of nuts).

Our results suggest that regardless of whether people have dietary restrictions or not, the price of the food was the top reason contributing to the student's reluctance to purchase meals at the Nest, as seen in Figure 3. The lack of options catered towards dietary restrictions stand as the second-most compelling reason as to why people do not eat at the Nest, which is supported by a two sample t-test ( $p < 0.001$ ). This analysis is in favor of our hypothesis which postulates that people who have dietary restrictions but do not purchase at the Nest due to the lack of informative alternatives available for them. However, our hypothesis is still rejected due to pricing being the main motivation to not go to the Nest for lunch meals. Upon examination of Figure 4, it would appear that convenience is the main reason why students buy meals at the Nest, with the other options mattering significantly less ( $p < 0.001$ ).

Our research is outlined in Figure 5, which shows an astounding perfectly negative correlation ( $r = -1.000$ ) between the number of dietary restrictions a person has and their preference

to frequent the Nest. There also appears to be a strong positive correlation between those who have no dietary restrictions and frequenting the Nest for meals more often ( $r = 0.751$ ).

### **Discussion:**

Aside from the pricing factor, this analysis provides an initial support to our hypothesis that the lack of alternatives is the main reason why people with dietary restriction choose to not get food from the Nest. Students' dietary limitations do appear to influence their choice of whether or not to buy lunch at the Nest. Moreover, the research shows that people with multiple dietary restrictions rarely buy lunch at the Nest. Our results suggest that people who choose to buy lunch at the Nest care about the convenience for the location rather than the choice or variety of food they have at the Nest. People who do not buy lunch at the Nest care most about pricing. Both reasons of pricing and convenience hold as strong factors for people with or without restrictions - pricing being the primary factor for those who do not buy lunch at the nest, while convenience is plays the largest role when deciding to go to the Nest for food. This suggests that the location of the current Nest is a rather accessible spot on campus to students from all faculties. Pricing seems too high for all students and although it will may not be probable to decrease the pricing on food due to inflations and fair wages, it may be possible to introduce loyalty programs to vouchsafe students' dissatisfaction.

Our results were limited to one place at UBC and the dietary pattern that we investigated restricted to lunch meal only. Although the questionnaire was open to all students in UBC, the majority of participants were recruited from social media, especially from Facebook. Participants in the survey responded in a voluntary manner, which means that participants were either people who were interested in this topic or friends we pressured to complete the survey - both of which would result in a biased sample. Another limitation of this study is visualized in Figure 2. Although there are significantly more of those who do not have dietary restrictions that responded to "Lack of Options for Dietary Restrictions", the question is inherently biased towards those who do have dietary restrictions - after all, why should the availability of food selection catered towards those who have specific diets affect those who don't adhere to any specific diet at all? Although the outcomes of selecting this reason for not going to the Nest answers the research question, it is nevertheless biased towards those who have dietary restrictions. Fortunately, one sample t-tests show that the responses "Lack of Options for Dietary Restrictions" are still significant when compared to the various other reasons that students choose as reasons for not going to the Nest.

For future research, we suggest that in order to investigate food inclusivity in the Nest and the dietary choices people are making there, we could also investigate the items of each menu in the Nest and see what kind of dietary selections are missing or lacked for people with dietary restriction. Furthermore, we can also make a comparison between the percentage of people who have dietary restrictions and the percentage of people who order the items that were catered for certain types of dietary restriction. With this comparison, we are able to know the gap between supply and demand for people with dietary restriction. Moreover, our study targets lunch only, it will be beneficial to also include breakfast and dinner, and perhaps even snacks in the future study. As such, we can know whether all food offered in the Nest satisfy need of students with dietary restriction in different circumstance. Although our current research suggests that the Nest creates a convenient place for students to buy lunch, our research lacks a strong link to mental sustainability and students' well-being who frequently buy lunch there. Since we could not come up with a measurable outcome other than asking people's satisfaction on the services in the Nest

to link with students' wellbeing, further research can also be done by suggesting links or correlations between services and choices at the Nest on the effects of mental sustainability.

### **Recommendations to UBC Client:**

Through this research study, we were able to determine which factors affect a student's choice in dining at the Nest, focusing on students with dietary restrictions. Our results show that "Convenience" is the primary reason as to why these students purchase lunch at the Nest; "Pricing" and "Lack of options for dietary restrictions" are the two leading reasons for not purchasing lunch in the venue. Our purpose for this study is to find what is lacking in these food establishments, and, as such, find which aspects can be thoroughly improved upon. The AMS Student Nest is an area that aims to "focus on the needs and desires of all students on campus," according to the vision noted on the UBC AMS website. However, the food services there appear to be lacking in one notable aspect – food items for restricted diets. From our study, over 40% of participants have some sort of food restriction, half of whom do not purchase food at the Nest. What this means is that the Nest is not targeting all students; a sizeable portion of the community is being left out. If the Nest is aiming to create a welcoming environment for all students, it would be highly beneficial for them to include more food options for those with dietary restrictions. Increasing available options for those with restricted diets will not only generate more consumers in that scope, but will also create more accessibility for such students to purchase food and to stay at the Nest. We recommend our client to consider adding food products addressed specifically to restricted diets. Doing so may increase the variety of consumers, but, more importantly, may create an increasingly student-friendly environment.

**Appendix:**

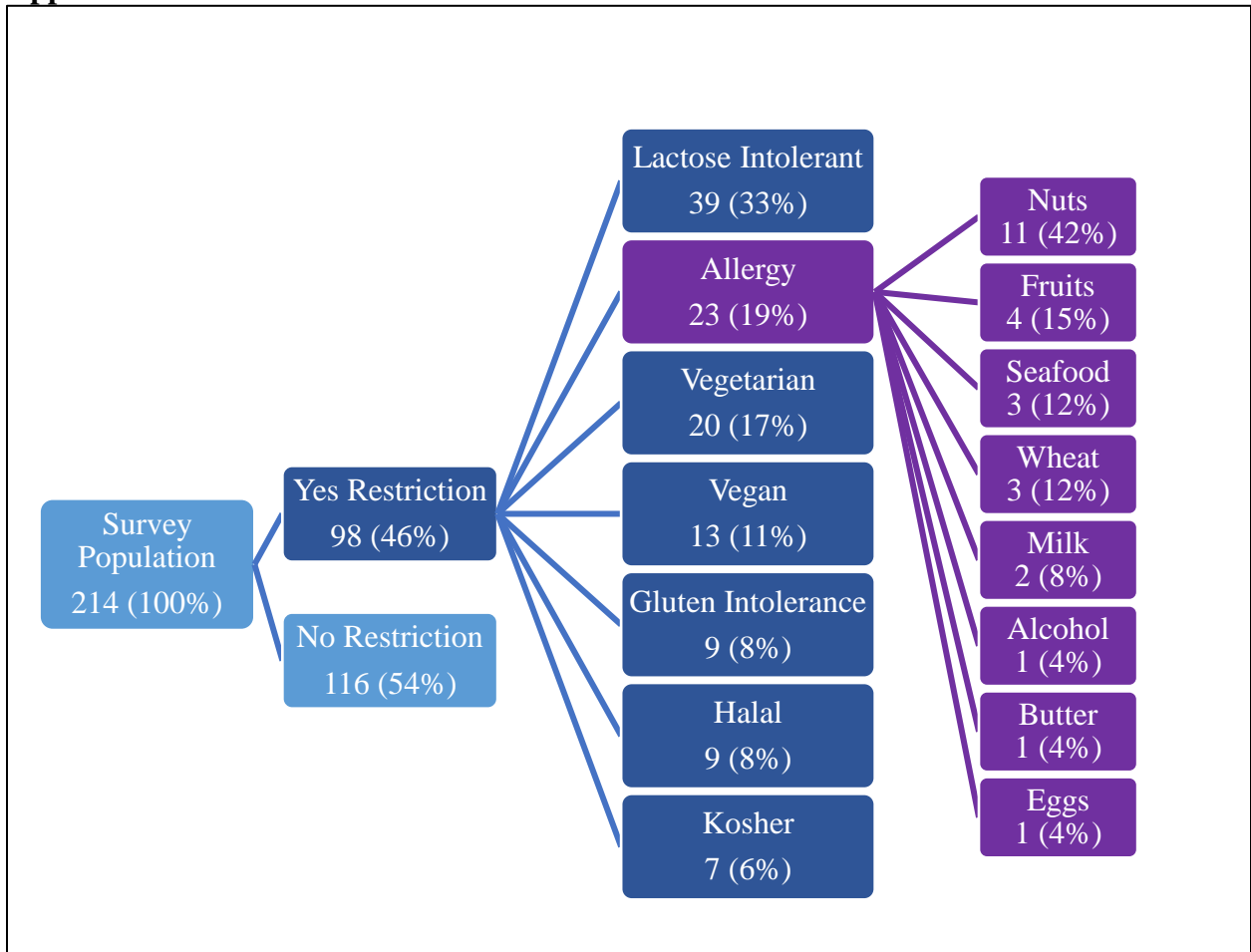


Figure 1. Breakdown of survey population in terms of those with restrictions and those without, as well as specific percentages of food restrictions.



Figure 2. Percentage of people who buy and don't buy food from Nest, separated by status of having food restriction or not.

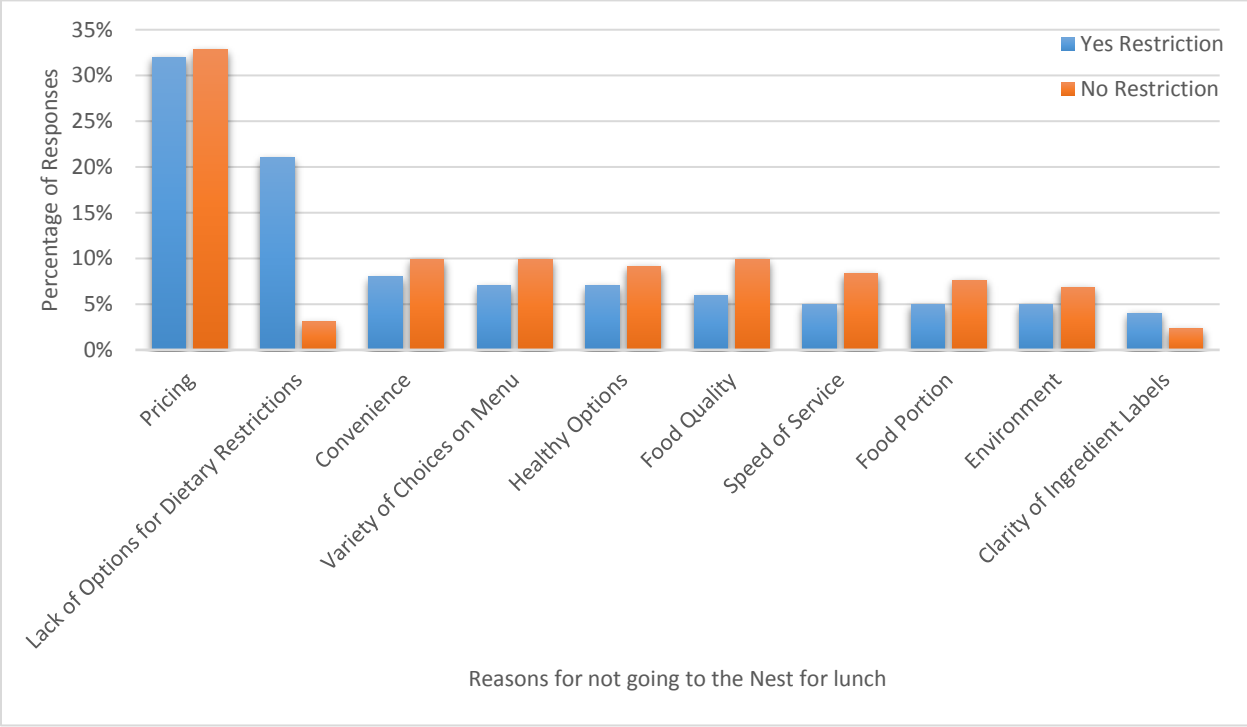


Figure 3. Percentage of responses to why students do not go to the Nest to buy lunch meals, separated by status of having food restriction or not.



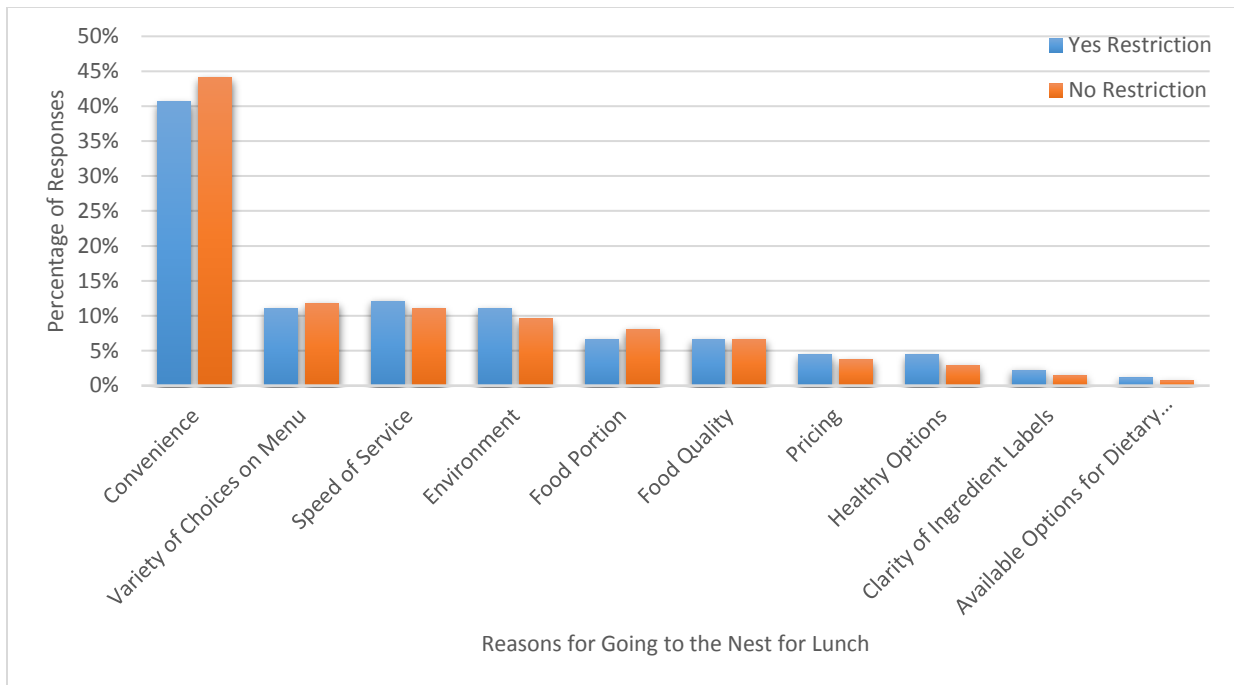


Figure 4. Percentage of responses to why students go to the Nest to buy lunch meals, separated by status of having food restriction or not.

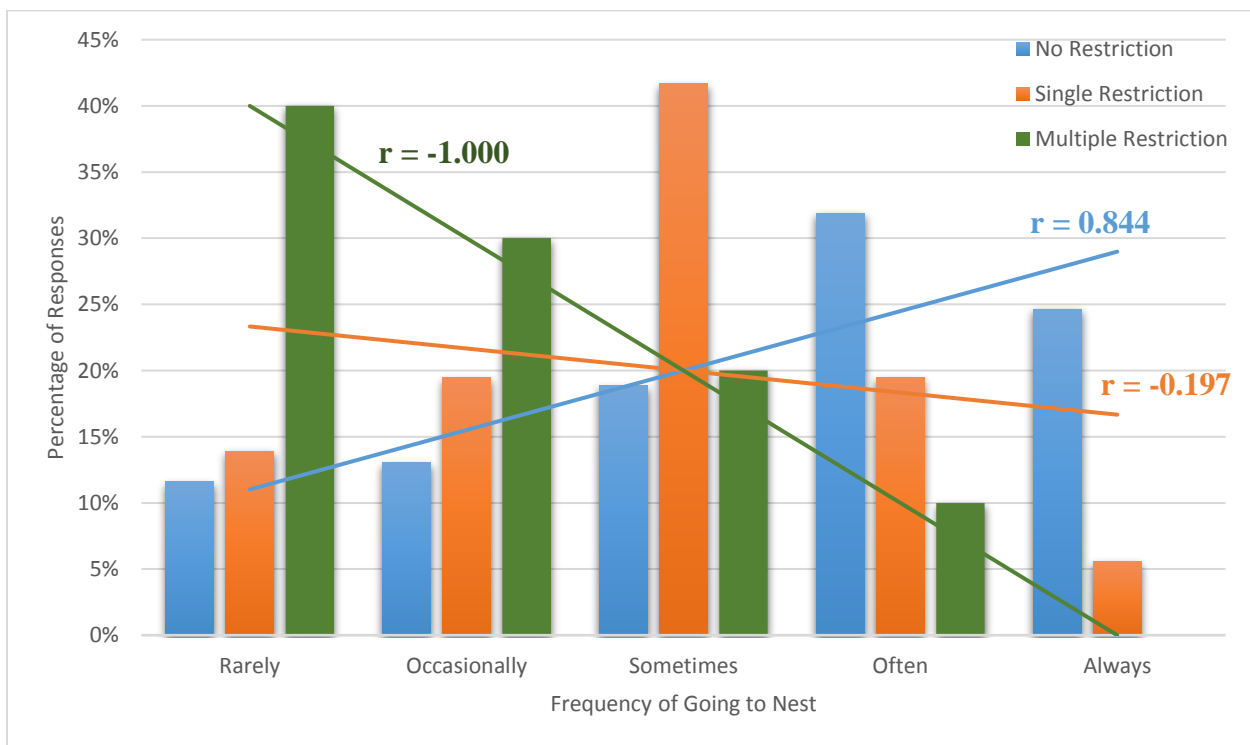


Figure 5. Percentage of responses of how often people who do buy lunch at the Nest goes to the student union building.

The link for the survey is as presented below so that questions may be reviewed:  
<https://survey.ubc.ca/s/Psych-321foodsurvey/>

No problems, delays or difficulties were experienced during the course of this experiment.

Acknowledgements: We thank our professor Dr. Jiaying Zhao and teaching assistant Kyle Gooderham for all their assistance, as well as AMS staff Kasha Foster and David Gill for their guidance.