

Eating Behaviors of First Year Students: Transitioning from High School to College

Thesis

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By

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## **Abstract**

First year students attending university typically experience several lifestyle changes during their first semester of college. These changes often impact the eating behaviors and autonomy of students. Specifically, as new dining facilities and meal plans were added for Ohio State students, it is important to look at how these changes are impacting the well-being and health of first year students during their transition period. In order to better understand the eating behaviors and patterns of first year students living on campus, two anonymous online surveys were administered. One survey was administered the first four weeks of fall semester 2016 and one was administered in the last two weeks of fall semester 2016. Students were asked to respond to a variety of questions to give insight into their daily eating habits and factors that influence their eating behaviors. Of those participants who completed both surveys, 30% reported that, in high school, they never ate breakfast with the intention of eating with another individual. The same question yielded 42% of respondents at the beginning of the semester and 52% of respondents at the end of fall semester 2016. There is an abundance of information on the transition between high school and college and on the considerable weight gain that many first-year students experience, (“freshman fifteen”). However, there is a lack of information on how this transition is related to the first-year student experience and how autonomy plays a role in this relationship. Information collected from these surveys can be used to inform research and departments in the university to ensure that Ohio State procedures match with the needs of the students.

## **Dedication**

It is my great pleasure to dedicate this to The Ohio State University chapter of Project HEAL. As a non-profit organization, Project HEAL works to raise money to help send individuals with eating disorders to treatment while spreading ideals of body positivity and self-love. Without inspiration from this organization, this project would not have been created or seen to fruition.

## **Acknowledgements**

I would like to show my gratitude, first and foremost, to my incredible thesis mentor Dr. Randi Love. She has gone above and beyond the expectations of a mentor and I am forever grateful for her endless support, guidance, and words of encouragement. I would also like to thank the College of Social Work for providing me with this incredible opportunity and my parents for supporting my decision to continue to pursue a passion of both practice and research in the field of social work. Lastly, I would like to thank Jennie Babcock for her mentorship and positivity each and every step of the way.

## **Curriculum Vitae**

June 2014.....Framingham High School

May 2017.....B.S. Social Work, Honors Research Distinction,  
Summa cum laude, The Ohio State University

### **Fields of Study**

Major Field: Social Work

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## **Chapter 1: Statement of Research Topic**

First year students at any university or college undergo a variety of changes socially, academically, and behaviorally. Prior to attending university, many college freshmen live at home with their parents, or are under some form of limitations or supervision. However, when first year students begin living on their own in residence halls, there are less restrictions and supervision especially when it comes to eating and eating behaviors.

### **Problem Statements**

There were a total of 6,978 New Freshman enrolled at The Ohio State University's Columbus campus in autumn 2015 (Quick facts, n.d.) As of autumn 2016, there were a total of 7,885 enrolled freshman (2016 Enrollment Report, 2016), meaning that campus is growing in size, and specifically in the number of new first year students on campus. As the number of first year Ohio State students increases, it is important to keep their health and well-being in mind which includes both issues of mental health and their eating patterns.

As the university continues to grow, it is critical not to let students become just “numbers in a large university” but rather important members who make and shape the community they live and learn in. Without students, and specifically without incoming first year students, the university would not be as successful as it is and would not be growing at the rate that it is. As these individuals enter our university we must ensure that their needs, desires, and health are taken into consideration during the decision making process.

### **Purpose of the Study**

The purpose of this study was to uncover more information about the eating behaviors and autonomy of first year students attending The Ohio State University. The first specific aim of the study was to determine if there exists a relationship between first year Ohio State students

living in on-campus residence halls and their food or eating-related behaviors. These behaviors are defined by meal and eating frequency and dietary habits. The second specific aim was determining the nature of the relationship between these behaviors and the individuals' experience of autonomy. For the purposes of this study, autonomy was defined as a combination of independence and self-determination, or the ability to make one's own decisions.

Previous studies have assessed the eating behaviors of first year students by evaluating either major weight gain or loss and other studies have assessed the experiences of college freshman transition from high school to college or university. However, research is lacking in the exploration of the relationship between the high school to college transition and changing eating behaviors and patterns. Also lacking is research examining the experience of autonomy and its relationship to eating behavior as students begin and end their first semester attending university.

The present study can also be used to inform different large departments within the university such as the Office of Student Life. As changes continue to be made to the university, including the perspectives and actual experiences of students is very important.

### **Population**

As mentioned, enrollment of first year student increased from 6,978 in autumn 2015 (Quick facts, n.d.) to 7,885 in autumn 2016 (2016 Enrollment Report, 2016). As enrollment of first-year students increases each and every year, the university has to find ways to accommodate for this tremendous growth. Particularly, the university has been adding and changing the meal plans and dining facilities on campus, which impacts the habits and eating patterns of Ohio State students.

### **Research Questions**

Prior to creating and finalizing the pretest and post-test surveys, two research questions

were formed in to shape the rest of the research project. The two questions asked were as follows: How does living in on-campus residence halls as an Ohio State University student relate to food-related behaviors? How does the experience of autonomy play a role in these behaviors?

## Chapter 2: Literature Review

### Transition from High School to College

As mentioned, life transitions can impact the every day lives of individuals. Specifically, major periods of transitions for individuals can lead to growth and positive change. On the other hand, these transitions offer the opportunity for the development of increased self-doubt and even encourage self-defeating thoughts and habits (Hicks & Heastie, 2008). In order to combat some of the difficulties in this transition period for students, many colleges and universities offer a variety of programming which can often fit into three categories: service learning, learning communities, and first year experience seminars (Clark & Cundiff, 2011) Some of common topics addressed include developing positive academic habits such as studying, time management, and resiliency, information about financial aid and even psychosocial supports (Venezia & Jaeger, 2013).

In one study, transitional periods and periods of extreme stress (academic and social) were identified as major areas where eating behaviors can become either much healthier or much unhealthy. Furthermore, the extreme stress related to these areas is one of the largest contributing factors to these eating behavior pattern changes. (Deliens, Clarys, Bourdeaudhuij, Deforche, 2014).

### The Ohio State University

**First year experience.** “First Year Experience is committed to creating the conditions for success at the university for all new undergraduate students” which is accomplished through programming, creating relationships with others, and develop the skills to engage in the various new and challenging situations throughout their education at Ohio State (Enrollment Services- The Ohio State University, n.d.). Part of the First Year Experience at Ohio State includes

Success Series which fall into six distinct categories: academic engagement and career exploration, buckeye book community, buck-I-care about consent, diversity and global awareness, finances, leadership and civic engagement, and health and wellness.

The Ohio State University offers a multitude of opportunities to students and is recognized for its accomplishments in many areas, including being ranked as an A+ for best campus food. CBS Moneywatch also ranked Ohio State as one of the top 25 universities with the “happiest freshman” (Quick facts, n.d.). Additionally, US News conducted a study of 1,500 colleges and universities that considered exemplary first year experience programs. Among the most mentioned was The Ohio State University, tying for spot number fifty-four (10 colleges with great first-year experience, n.d.).

**Food service options.** There are a variety of service styles offered at Ohio State’s main campus: traditions, retail, and C-stores. There are three total traditions, or rather cafeteria-style locations, twenty-one retail locations, and three C-store locations. Retail locations are considered anything that is a quick-service restaurant, a café/grab-n-go, fast casual, or table service (Dining locations, n.d.) (see figure 1). The dining options provided on Ohio State’s campus impact the living styles of students throughout campus, and so do the meal plans offered. The meal plans range from an unlimited option all the way to a maximum of fourteen visits per week. The unlimited option allows students to visit a tradition location and have an “all-you-care-to-eat” option an unlimited amount of times per day and week. On the other hand, the Scarlet 14 plan allows students to have two meals a day at one of the tradition locations, and also provides the option for meal exchanges which can be used at other dining locations on campus (Columbus campus dining plans, n.d.). Each meal plan option offers different benefits and is chosen by the student prior to moving in.

**FIGURE 1. Dining Hours of Operation**

	<b>MONDAY - THURSDAY</b>	<b>FRIDAY</b>	<b>SATURDAY</b>	<b>SUNDAY</b>
12TH AVENUE BREAD COMPANY	8 a.m. - 8 p.m.	8 a.m. - 8 p.m.	noon - 8 p.m.	noon - 8 p.m.
BERRY CAFE	7:30 a.m. - 11 p.m.	7:30 a.m. - 8 p.m.	8 a.m. - 8 p.m.	11 a.m. - 11 p.m.
CAFFEINE ELEMENT	7:30 a.m. - 5 p.m.	7:30 a.m. - 5 p.m.	Closed	Closed
CAMPUS GRIND (DRINKO)	8 a.m. - 2:30 p.m.	8 a.m. - 2:30 p.m.	Closed	Closed
CAMPUS GRIND (MCPHERSON)	7:30 a.m. - 5:30 p.m.	7:30 a.m. - 4:30 p.m.	Closed	Closed
CAMPUS GRIND (VETMED)	7:30 a.m. - 2 p.m.	7:30 a.m. - 2 p.m.	Closed	Closed
CFAES	8 a.m. - 5:30 p.m.	8 a.m. - 4:30 p.m.	Closed	Closed
CONNECTING GROUNDS	7 a.m. - 8 p.m.	7 a.m. - 8 p.m.	10 a.m. - 8 p.m.	10 a.m. - 8 p.m.
COURTSIDE CAFE	10:30 a.m. - 10 p.m.	10:30 a.m. - 8 p.m.	11 a.m. - 8 p.m.	noon - 10 p.m.
CRANE CAFE	7:30 a.m. - 5:30 p.m.	7:30 a.m. - 4:30 p.m.	Closed	Closed
CURL MARKET	11 a.m. - midnight (M/T) 11 a.m. - 9 p.m. (W/Th)	11 a.m. - 8 p.m.	11 a.m. - 8 p.m.	11 a.m. - midnight
C-STORE AT MARKETPLAC E	10 a.m. - 10 p.m.	10 a.m. - 10 p.m.	noon - 8 p.m.	noon - 8 p.m.
C-STORE AT MORRILL	7 a.m. - 9 p.m.	7 a.m. - 9 p.m.	noon - 9 p.m.	noon - 9 p.m.
C-STORE AT SCOTT	7 a.m. - 8 p.m.	7 a.m. - 8 p.m.	10 a.m. - 8 p.m.	10 a.m. - 8 p.m.
ESPRESS-OH	7 a.m. - 10 p.m.	7 a.m. - 8 p.m.	9 a.m. - 8 p.m.	10 a.m. - 9 p.m.

JUICE 2	6:30 a.m. - 11 p.m.	6:30 a.m. - 11 p.m.	8 a.m. - 11 p.m.	10 a.m. - 11 p.m.
KSA CAFE	7:30 a.m. - 5:30 p.m.	7:30 a.m. - 4:30 p.m.	Closed	Closed
MARKETPLACE	10 a.m. - 10 p.m.	10 a.m. - 10 p.m.	noon - 8 p.m.	noon - 8 p.m.
OXLEY'S BY THE NUMBERS	7 a.m. - 7:30 p.m.	7 a.m. - 5 p.m.	Closed	Closed
OXLEY'S TO GO	8 a.m. - 5 p.m.	8 a.m. - 5 p.m.	Closed	Closed
SLOOPY'S DINER	9 a.m. - midnight	9-12:30 a.m.	9 - 2 a.m.	10 a.m. - midnight
STREET SWEETS	7 a.m. - 10 p.m.	7 a.m. - 10 p.m.	noon - 8 p.m.	noon - 8 p.m.
TERRA BYTE CAFE	7:45 a.m. - 11 p.m.	7:45 a.m. - 8 p.m.	9 a.m. - 8 p.m.	9 a.m. - 11 p.m.
THE PAD - IN* HOUSE	8 a.m. - midnight	8 a.m. - midnight	4 p.m. - midnight	4 p.m. - midnight
THE PAD - DELIVERY	8 a.m. - midnight	8 a.m. - midnight	4 p.m. - midnight	4 p.m. - midnight
TRADITIONS AT KENNEDY	7 a.m. - 2 p.m. 4 - 10 p.m.	7 a.m. - 2 p.m. 4 - 8 p.m.	10 a.m. - 2:30 p.m. 4 - 8 p.m.	10 a.m. - 2:30 p.m. 4 - 10 p.m.
TRADITIONS AT MORRILL	7 a.m. - 2 p.m. 4 - 8 p.m.	7 a.m. - 2 p.m. 4 - 8 p.m.	10 a.m. - 2:30 p.m. 4 - 8 p.m.	10 a.m. - 2:30 p.m. 4 - 8 p.m.
TRADITIONS AT SCOTT	7 a.m. - 10 p.m.	7 a.m. - 8 p.m.	9 a.m. - 8 p.m.	9 a.m. - 10 p.m.
THYME AND CHANGE FOOD TRUCK	CLOSING at 1 p.m. 4/12 OPENING at 11:30 a.m. on 4/13 10:30 a.m. - 3 p.m.	10:30 a.m. - 3 p.m.	Closed	Closed
UNION MARKET	10:30 a.m. - 10 p.m.	10:30 a.m. - 9 p.m.	11 a.m. - 8 p.m.	11 a.m. - 10 p.m.



WOODY'S TAVERN	11 a.m. - 10 p.m.	11 a.m. - 10 p.m.	1 - 10 p.m.	1 - 10 p.m.
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(Spring semester hours of operation 2017, 2017)

### **Adult Eating Behaviors**

Eating behaviors and patterns can have an immense amount of impact on one's life in multiple areas including, but not limited to, self-image and mental health. According to one study, an overall poor diet that contains much processed food is associated with an increased possibility for mental health issues such as anxiety and depression. The same study also indicates that a traditionally healthier diet can promote more positive mental health outcomes (Eisenberg, Nicklett, Roeder, Kirz, 2011).

Another factor to consider is how behaviors and habits formed prior to adulthood can impact behaviors and health status later on in life. Early adulthood health problems are associated with a variety of behaviors during adolescence including eating large amounts of food, eating alone to hide strange eating patterns, and also frequent weight changes (Johnson, Cohen, Kasen, & Brook, 2002, p. 550).

### **College Students**

Literature suggests that traditional aged college students are at the age when there is heightened risk for a variety of disorders and health issues to develop. Specifically, "adolescence and young adulthood are periods of heightened risk for the development of disordered eating, unsafe dieting, and eating disorder symptoms. Disordered eating and eating disorders (EDs) are concerns because of their associations with depression, obesity, functional impairment, psychiatric disorders, adverse health outcomes, and suicidality" (Liechty & Lee, 2013, p. 790).

As college students begin to struggle with any of the above diagnosis and symptoms, their academic performance and also social performance can be directly impacted, ultimately shaping their college experience and experience as a first year student (Unwin, Goodie, Reamy, & Quinian, 2013). However, traditional college aged students may not consider the risk for developing serious and chronic conditions and how their behaviors (meal skipping, snacking, fast food consumption, inadequate nutritious food intake) may increase risk of poor health and development of these conditions (Plotnikoff et al., 2015).

In one study, students identified that body image, social pressure, periods of extreme stress, and self-discipline are all major factors that influence eating related behaviors, especially among college students. Students in this study believed that self-discipline is related to self-dependency, especially in terms of eating-related behaviors (Deliens et al., 2014).

### **Disorder Eating and Eating Disorders Among College Students**

Sometimes, when discussing mental health disorders, it is easy to make assumptions about the populations who most commonly suffer from these disorders. However, mental health disorders do not discriminate between age, race, gender, or ethnicity. 91% of female students on a college campus have reported dieting behaviors in attempts to control weight and “recent estimates indicate that 25% of college men binge eat, 24% diet, and 3% purge (e.g., self-induce vomiting, abuse diuretics or laxatives) at some level” (Cain, Epler, Steinley, & Sher, 2012, p. 768). Additionally, when comparing eating disorders among male and female college students, between 10-20% of women and 4-10% of men suffer from an eating disorder (Jacobson, n.d.). Approximately 20% of students (including 34% of undergraduate females) reported that they believed themselves to be fat even though others say they are thin, and approximately 17% of students (including 26% of undergraduate females) reported worrying that they have lost control

over how much they eat (Eisenberg et al., 2011). Although statistics are different between male and female students, conditions such as eating disorders and disordered eating behaviors have the ability to develop in all groups, even in men.

### **Suggested Healthy Eating Guidelines**

Suggested caloric intake is typically based on age, gender, and activity level of an individual. The USDA Center for Nutrition Policy and Promotion suggests the three categories of activity level. Sedentary involves low levels of physical activity that are typical of daily life. Moderately active involves about 1.5-3 miles of walking per day and other light physical activity. An active lifestyle indicates walking over three miles per day in addition to light physical activity. Using these three categories, males age 18-20 have a suggested caloric intake of 2400-3200 calories and females age 18-20 have a suggested caloric intake of 1800-2400 (U.S. Department of Health and Human Services).

### **Conclusions**

The literature suggests that disordered eating behaviors are common among college students, and specifically among first year college students. Eating behaviors seem to change and unhealthy behaviors such as meal skipping and periods of bingeing seem to develop and increase among first year college students. Disordered eating behaviors are often related to the transitional period of a first year student, increased stress and stressors, and increased autonomy and independence as a first year student begins living on their own in a residence hall. Although statistics vary between genders, the literature also suggests that disordered eating behaviors and habits impact both men and women, and also do not discriminate among races, ethnicities, or any other groupings. Lastly, universities are large institutions that have the potential and ability to engage and impact thousands of students (Plotnikoff et al., 2015). The Ohio State University is

one of the largest public institutions in the United States and in turn has the ability to vast change in all of its students. Particularly, Ohio State has the ability to create environments and opportunities that can help first year students develop healthy eating and living behaviors to help with their success.

## **Chapter 3: Methodology**

### **Research Design**

This study was conducted utilizing a pretest and post-test design conducted through online Qualtrics surveys. First year Ohio State students were asked to respond to a variety of questions in regard to their eating behaviors and patterns and also their views on any shifts of autonomy and their independence. The pretest survey was administered in the first four weeks of fall semester 2016 and the post-test was administered in the last two weeks of regularly scheduled classes of fall semester 2016 (See Appendix A and B).

Participants were only required to respond to first six questions on each survey (consent, age of participants, rank, meal plan, BuckID number, and current living arrangements.) On the post-test survey, participants were also required to respond if they had participated in the pretest survey. There was no time limit set on the surveys; participants were allowed to spend as much time answering and thinking through their responses.

### **Data Collection Procedures**

The Office of Responsible Research Practices determined this study exempt from IRB review. Data was collected solely through a pretest and post-test survey conducted online through Qualtrics.

### **Participant Recruitment Procedures**

Two methods of recruitment were used in the hopes of receiving the maximum amount of responses. The first step of participant recruitment was through an informational flier posted in all of the residence halls across Columbus campus. Over 400 fliers were printed and posted in the forty-two residence halls across campus. Originally, the pretest survey was supposed to close after only two weeks, however, after minimal participation, new fliers were created, printed, and

posted with an updated end date for the pretest data. A second step of recruitment was also taken in the hopes of receiving higher levels of participation.

The second step of participant recruitment was a brief informational post that was continuously posted two or three times per week in three individual Class of 2020 Facebook pages. The posts included a similar brief explanation of the research project and also a link that was easily accessible for students. These Facebook posts reached an upwards of 13,000 students who had previously joined the group.

### **Participants**

The inclusion criteria were individuals who were considered undergraduate first-year students enrolled at the Columbus campus of The Ohio State University. All participants were required to be at least eighteen years of age and currently living in an on-campus residence hall.

Participant's informed consent was given on the first page of each survey through an unsigned and online consent. Once a student entered either survey, they were asked for further information to ensure that they fit participation criteria. Participants were asked if they were older than eighteen years of age, academic rank, and living arrangements. In order to proceed to the rest of the survey participants had to have answered that they were older than eighteen, that they were a first year student and that they were currently living in an on-campus residence hall.

Participants were asked to provide their nine-digit BuckID number found at the bottom left-hand corner of the student BuckID. The BuckID numbers were used to match up data and to eliminate participants who only participated in one of the two surveys. Out of 84 completed pretest surveys and 52 completed post-test surveys, the final sample included 39 participants who completed both the pretest and post-test survey.

### **Measures and Variables**

Both the pretest and post-test surveys were created in order to address two major categories: eating behaviors/patterns and autonomy. These two categories were then further broken down into subcategories. Eating behaviors and patterns were broken down into: frequency of meal consumption and frequency of meal consumption with the intention of eating with other individuals, estimation of daily caloric intake, and identifying food groups most frequently consumed at breakfast, lunch, and dinner (based on MyPlate). The second category (autonomy) was separated into: understanding progression in freedom when making food-related decisions, identifying major influences in eating habits (cravings, meal plan, class schedule, extracurricular schedule, lack of time) and identifying changes of influences of eating habits.

### **Survey Questions**

The survey questions were created with immense consideration for the literature review. Fore example, the questions related to meal frequency, influencing factors of eating-related decisions, and questions regarding autonomy were all heavily related to the information discovered in the literature review. Likert scaling was often used throughout both surveys as a result of the literature review and to allow participants to answer questions most accurately.

## Chapter 4: Results

### Data Analysis

In order to be able to properly track the eating behaviors and patterns of first-year Ohio State students, data from 39 participant surveys were used during the data analysis process.

These individuals completed both the pretest and post-test surveys.

### Meal Plan

25% of participants had the unlimited meal plan, 48% of participants had the Gray 10 meal plan, and 28% of participants had the Scarlet 14 meal plan.

### Meal frequency

One of the key portions of both surveys was regarding meal frequency for the three main meals during a day: breakfast, lunch, and dinner. For the purposes of both surveys, breakfast, lunch, and dinner were clearly defined using the same criteria. Breakfast was defined as the first meal of the day consumed between 7AM and 11AM. Lunch was defined as the second meal of the day consumed between 11AM and 3PM. Dinner was defined as the third or final meal of the day consumed between 3PM and 7PM.

**TABLE 1. Meal frequency: High School**

<b>HIGH SCHOOL</b>	<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
<b>Never</b>	1	0	0
<b>Less than once/ month</b>	2	0	0
<b>Once/ month</b>	1	0	0
<b>Few times/ month</b>	2	0	0
<b>Once/ week</b>	2	0	0
<b>2-3 days/ week</b>	1	1	2



<b>4-6 days/ week</b>	14	12	10
<b>7 days/ week</b>	13	24	25

**TABLE 2. Meal frequency: Beginning of fall semester**

<b>BEGINNING OF FALL SEMESTER 2016</b>	<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
<b>0 times/ week</b>	2	0	0
<b>1 time/ week</b>	1	0	0
<b>2 times/ week</b>	9	1	0
<b>3 times/ week</b>	4	6	3
<b>4 times/ week</b>	3	3	1
<b>5 times/ week</b>	8	10	5
<b>6 times/ week</b>	2	4	6
<b>7 times/ week</b>	8	13	22

**TABLE 3. Meal frequency: End of fall semester**

<b>END OF FALL SEMESTER 2016</b>	<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
<b>0 times/ week</b>	4	0	0
<b>1 time/ week</b>	6	1	0
<b>2 times/ week</b>	2	2	0
<b>3 times/ week</b>	0	2	1
<b>4 times/ week</b>	7	3	3
<b>5 times/ week</b>	6	7	0

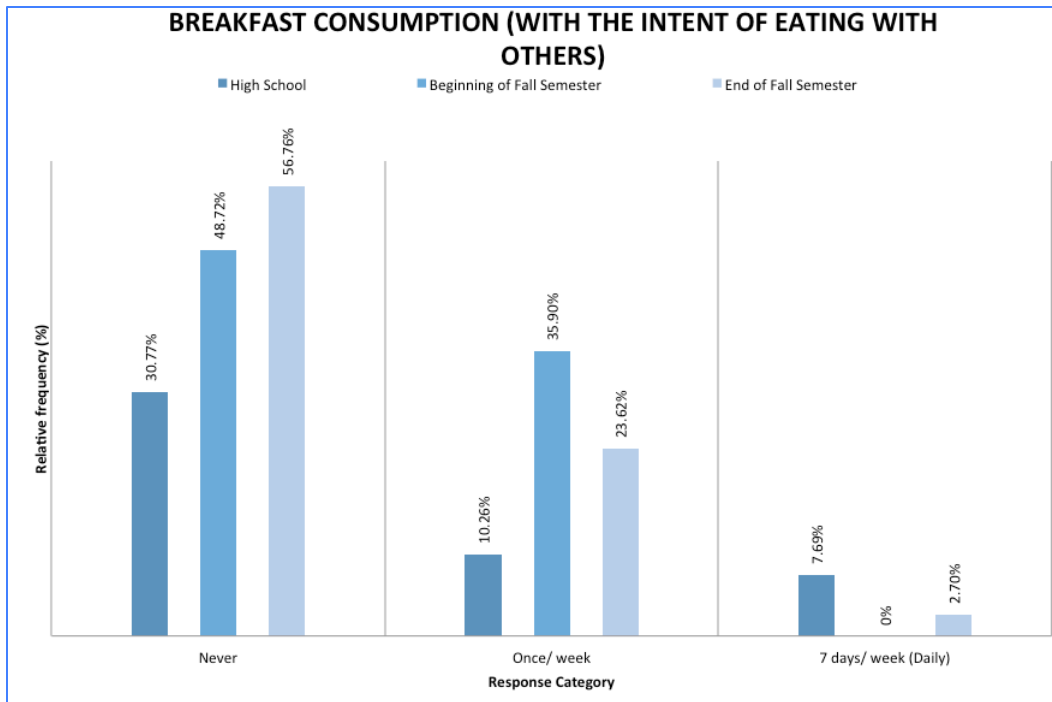
<b>6 times/ week</b>	7	5	10
<b>7 times/ week</b>	5	15	22

According to table 1, in high school, 36.11% of participants during breakfast, 64.86% of participants during lunch, and 67.57% of participants during dinner consumed each meal 7 days per week. According to 2, at the beginning of fall semester 2016, 21.62% of participants during breakfast, 35,14% of participants during lunch, and 59.46% of participants during lunch consumed each meal 7 days per week. According to table 3, at the end of fall semester 2016, 13.51% of participants during breakfast, 42.86% of participants during lunch, and 61.11% of participants during dinner consumed each meal 7 days per week. In all, when looking at the frequency of meal consumption 7 days per week, there was a decrease from high school to the end of the first semester in college, indicating that these participants are consuming breakfast, lunch, and dinner less frequently.

### **Intent of Eating with Others**

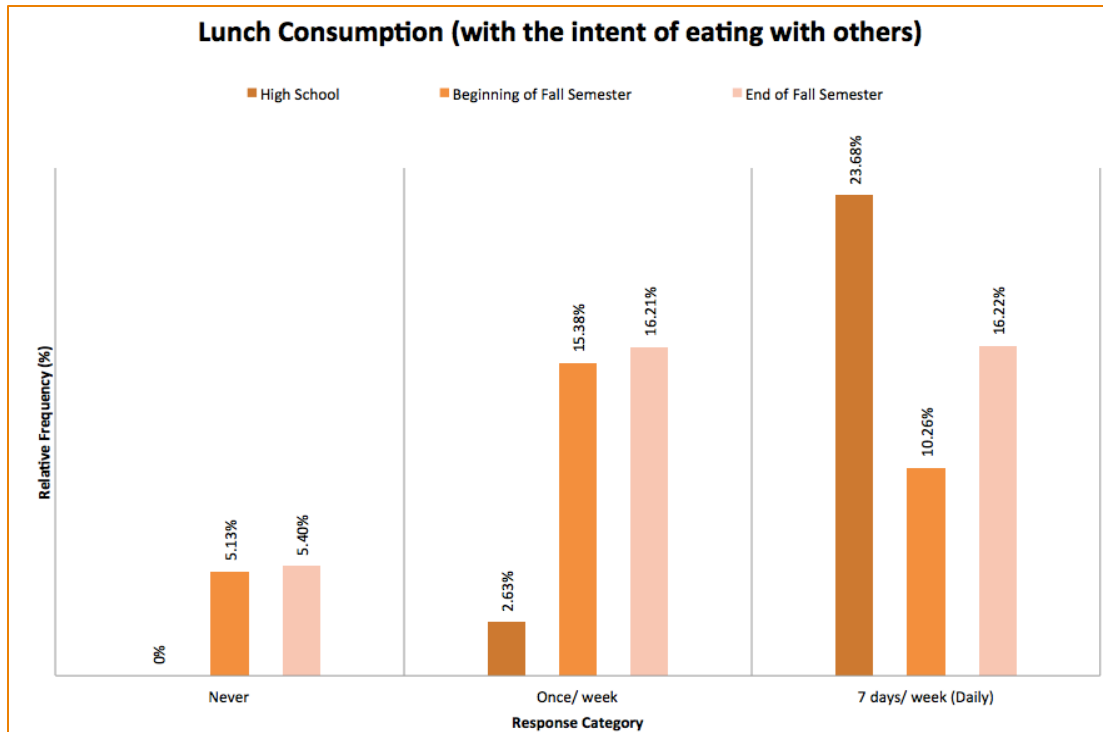
Meal frequency with the intent of eating with another individual was one of the major areas looked at in both surveys. There is a difference between eating alone in a secluded location, eating alone at a table in a public space such as a dining hall or library, and intentionally eating with another individual at the same table, such as with a friend or classmate in that same public space.

**FIGURE 2. Breakfast with others**



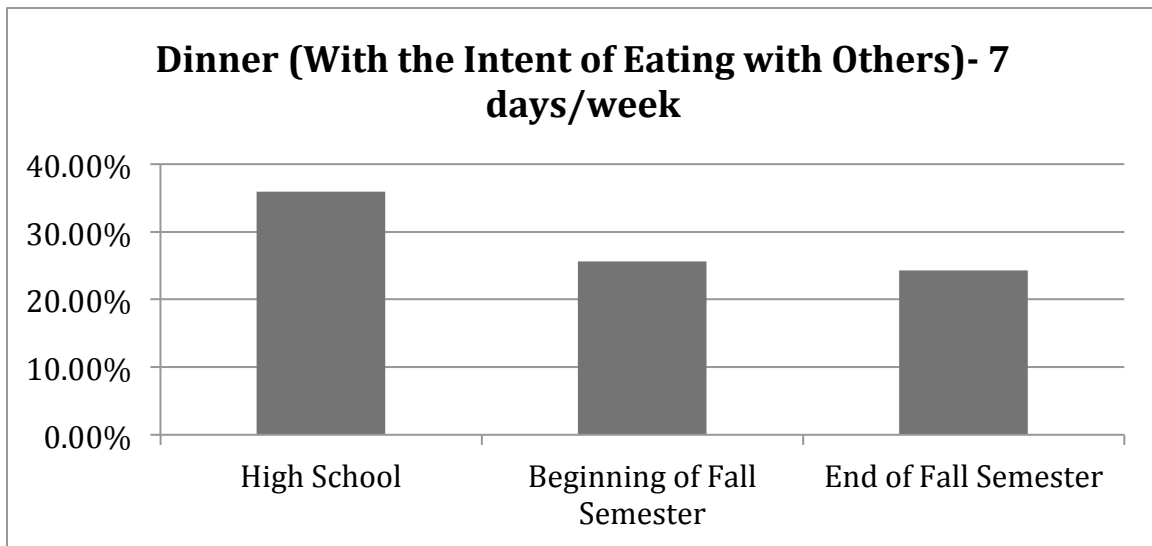
Throughout this study, more participants reported that they were never eating breakfast with the intent of eating with other individuals. By the end of fall semester 2016, over half of the participants were not eating breakfast with the intent of eating with another. Based on data from the pretest, there was a dramatic increase in participants who ate breakfast with the intent of eating with another individual once a week. In high school only 10.26% of participants fit this category whereas by the beginning of fall semester 2016, 35.90% of students fit this criteria (see figure 2).

**FIGURE 3. Lunch with others**



The most drastic change was between high school and the beginning of fall semester 2016 in terms of consuming lunch with others 7 days per week. Over 30% of participants in high school said that they consumed lunch with the intent of eating with others, whereas at the beginning of fall semester the frequency dropped to around 10% of participants (see figure 3).

**FIGURE 4. Dinner with others**



### **Shared Meals**

When analyzing Figure 4, the biggest shift is between high school and the beginning of fall semester. When looking at figures 2, 3, and 4, there are two ways of looking at these data. The first way would indicate that individuals eating meals less frequently with the intent of eating with another individual might indicate that students are becoming more comfortable eating by themselves and gaining independence. However, the other way of interpreting at these data is by saying that a decrease in meal consumption with the intent of eating with another individual may indicate an increase in social isolation and fewer positive interactions when in the company of food.

**Who to eat with.** In high school participants most commonly ate breakfast (n=18) and dinner (n=15) with their parents/guardians and ate lunch (n=36) with their friends. When looking at a pattern for a high school student, these results make sense as students are consuming breakfast prior to school at home, then attending high school where they are eating lunch at a

table with friends in a lunch room, and then returning home at night to eat dinner in the company of their family.

At the beginning of the semester, participants most commonly ate breakfast (n=24), lunch (n=36), and dinner (n=37) in the company of their friends. At the end of the semester, results were similar to what they were at the beginning of the semester. Participants most commonly ate breakfast (n=26), lunch (n=34), and dinner (n=36) in the company of friends. Again, this makes sense for a typical college student living in on-campus residence halls. If and when students decide to eat with the intention of eating with another individual, it will most likely be their friends who they are surrounded by and not necessarily a family member who may be several, if not hundred of miles away.

**Portion Size**

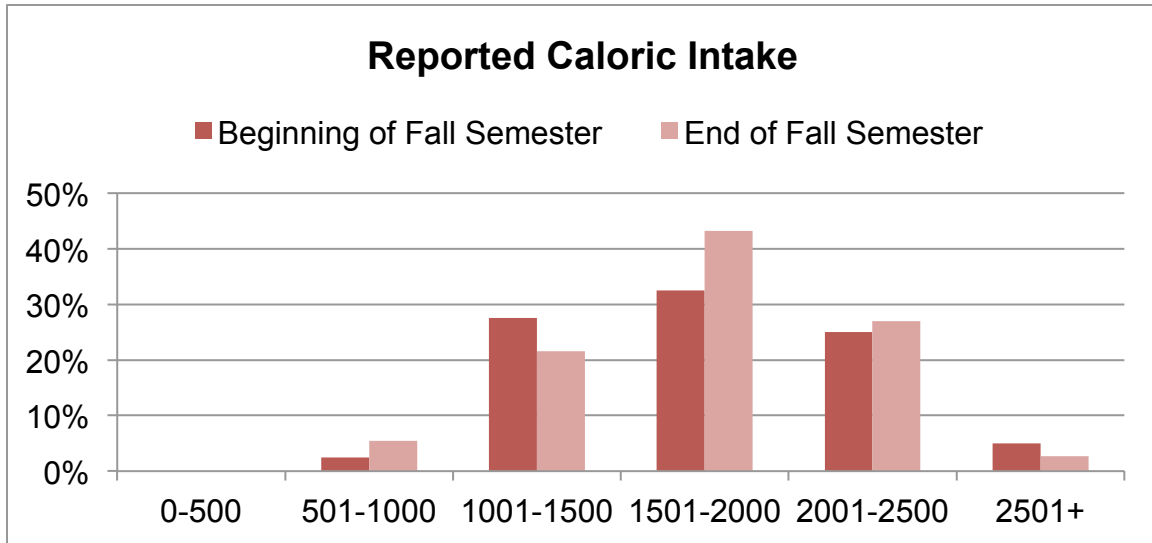
**TABLE 4. Portion Size**

	Pretest	Post-test
Much Smaller	5.41%	5.41%
A little bit smaller	29.73%	21.62%
About the same	27.03%	35.14%
A little bit bigger	35.14%	35.14%
Much bigger	2.70%	2.70%

In the pretest survey, participants were asked to compare their current portion sizes at the beginning of the semester to their high school experience. The post-test survey asked participants to compare their current portion sizes at the end of the semester to their portion sizes from the beginning of the semester (see table 4).

## Caloric Intake

FIGURE 5. Caloric Intake



The average caloric intake slightly increased from the beginning of fall semester 2016 to the end of that semester as shown in figure 5. It is important to keep in mind when analyzing these data that participants were asked to estimate their daily caloric intake and then choose a caloric range based on that prediction. Participants were not asked to count calories in any way prior to completing either survey, meaning that these results could be skewed based on over-prediction or under-reporting.

### Influencing Factors

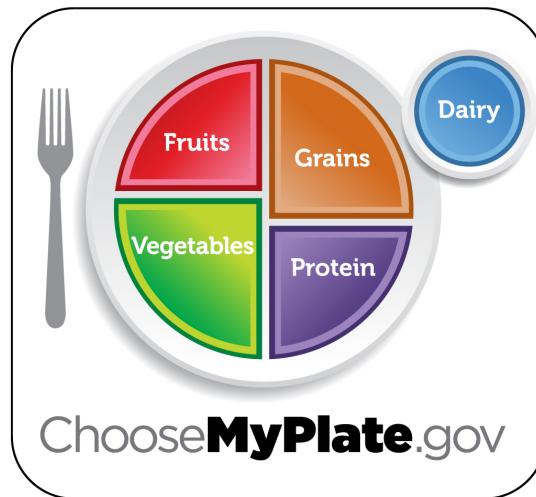
Participants in both surveys identified the following influencing factors when making food-related decisions: food allergies, arising hunger, stress, when friends are available to eat with, health, laziness of the individual, the dining hall and the options they provide, and pressure. In addition to the options provided in the survey, students identified the following factors that influence their food related decisions: health/healthiness, laziness, location of dining halls/their

options, and pressure.

### MyPlate Food Groups

The MyPlate image in figure 6 (MyPlate graphic resources, 2017) provides five areas of food consumed: protein, grain, dairy, fruits, and vegetables. During both the beginning and end of the semester, the majority of respondents consumed grains during breakfast and protein during lunch and dinner.

**FIGURE 6. MyPlate**



### Concern About Food

**TABLE 5. Concern about food**

	Beginning of fall semester	End of fall semester
Never	10.81%	13.51%
Once / week	5.41%	8.11%
2 / week	24.32%	29.73%
3-4/ week	29.73%	18.92%
5-6/ week	8.11%	18.92%
7/ week	21.62%	10.81%

The question asked participants to discuss how often they are concerned about the types of food they eat and the examples provided in the surveys referred to concern about the food not



being healthy enough or not providing the proper nutrients. About 30% of participants (the largest percentage) were concerned about their food 3 or 4 days per week at the beginning of the semester, whereas about 30% of participants (the largest percentage) were concerned about their food only twice per week at the end of the semester (see table 5).

**Freedom when Making Food-Related Decisions**

**TABLE 6. Freedom**

	Pretest	Post-test
Less Freedom	13.51%	16.22%
About the same Freedom	18.92%	62.16%
More Freedom	67.58%	21.61%

The majority of participants felt as though they had more freedom at the beginning of the semester in comparison to high school, but about the same freedom when comparing the beginning of the semester to the end of the semester (see table 6).

**Qualitative Results**

Participants were asked to reflect and be specific on any changes they noticed between their previous and current eating habits.

1. Pretest Participant Responses

- a. “I notice that I often skip meals because I [do not] have enough time between classes to go to a traditional dining hall. Also I find that I eat a lot more unhealthy foods because of the limited options here.”
- b. “I stress eat, which [has not] changed. I just have more access to cookies here so my dessert consumption is up.”

- c. “[I am] eating bigger meals, but [I am] not eating as much snacks. I used to eat as I worked, but now [it is] not really the case. [I am] getting more snacks soon, so that might change.”

## 2. Post-test Participant Responses

- a. “I feel I need to conform to a certain body type so I tailor my eating habits towards that, not based on what I am "supposed to eat" by the MyPlate.”
- b. “I try to eat a little bit healthier now than I did at the beginning of the semester. I make conscious decisions and try to limit myself.”
- c. “I have more of a schedule established for what I eat and when I eat [...and I] eat more by myself now than before due to time conflicts. I choose quicker options now.”

Participants were asked to identify any changes between what previously and currently affected their eating habits and why they felt as if these factors influenced their eating-related decisions.

## 1. Pre-test Participant Responses

- a. “Since there is so much unhealthy/fast food around me in college, I have been more careful to eat healthy when I have the opportunity and not give into temptation more than a few times per week.”
- b. “My mood or how much I have exercised affects my eating habits. The more I exercise the more I eat. My social plans as well. If I have plans to party I will eat less so I can keep my calorie intake down.”
- c. “In high school I was influenced by what I wanted to eat but now I am more influenced by what is most available, cheapest, or most convenient to eat at a certain time. I [do not] really think about if it tastes great or not.”

## 2. Post-test Participant Responses

- a. “When you get to college, you see girls who go out every weekend, and eat whatever they want, and they still [do not] gain weight, so you stop eating so you can look the way they do and still go out and stuff like they do. [...] You eat with them sometimes so they [do not] notice. Or you offer them food, so it looks like you always have food and they [do not] notice, but what [you are] really doing is getting rid of food so you [do not] have to eat it and then they think you eat a lot more than you do.
- b. “Time constraints influence my eating habits a lot more now than before. I am always looking for the quickest option. My meal plan continues to limit my choices, as it seems more limited than previous years in terms of the number of meals I get per week. At the beginning I made it a priority to spend time and eat with friends, but now it seems like more of a struggle to arrange a date and time that works with busy schedules.”
- c. “Being in the house more has caused me to eat more. When [I am] just staring at food [I am] going to eat it.”
- d. “I do not eat socially anymore. I eat when I want to, not when my friends want to. I also eat on campus more as opposed to off campus.”

Participants were finally asked to provide any other feedback about their eating habits that may not have been addressed. This question was used to give the researcher more information on topics that the participants felt were not addressed or felt as if they did not have the opportunity to address in depth.

## 1. Pretest Participant Responses

- a. “Weather may determine where or when I eat (depends on my location on campus)”
  - b. “[I am around] 150 lbs male and for whatever reason I [do not] seem to gain weight. I eat a lot of food compared to some of my larger friends. I kind of would like to not be so much like a stick figure.”
2. Post-test Participant Responses
- a. “I am more mentally aware of what foods I am consuming now, in terms of how healthy they are, than I was at the beginning of the school year.”
  - b. “I still eat a fair amount, just not as much as I did. I just got better at lying about it. College made me good at that.”

## **Conclusions**

One of the most concerning findings was that multiple participants responded that social pressure heavily influenced their eating behaviors. Individuals did not feel comfortable eating certain foods, eating certain portion sizes, or even eating in general in front of others in fear of being judged and criticized for their food choices.

Additionally, there was a decrease in the frequency that people ate dinner with the intent of eating with another individual, indicating that there is less time spent with others when in the company of food. Individuals in high school seemed to consume dinner more frequently when in the company of others, however once the majority of participants transitioned into their college lifestyle, they seemed less likely to seek out others. Influencing factors identified by participants for food-related decisions in general include stress, food allergies, arising hunger, health, laziness of the individual, dining halls and the options they provide, and social pressure.

The caloric intake of individuals also seemed to shift to a more negative skew, as more

participants believed they consumed between 1501-2000 calories per day. Thus, more participants seemed to be consuming more calories each day which could be a statistic that relates to the commonly known ideas of the “freshman 15”.

## **Chapter 5: Discussion**

### **Summary of Results**

The data reflects the largest changes between high school and the first four weeks of participants' first semester in college. Although from the data, some changes can be observed between the beginning and end of fall semester 2016, the majority of participants experienced their largest shift in behaviors, feelings, and attitudes from high school to the beginning of their first semester.

The data received and results concluded can only be applied to the participants who participated in both the pretest and post-test study, and cannot be generalized to the population. This study is in fact a preliminary study, and more research would be needed in order to have a clearer and more accurate idea of the eating behaviors/patterns and feelings of autonomy of the entire first year undergraduate population.

### **Limitations**

One limitation is that the study was unable to collect any demographic information on the participants in order to keep the strongest confidentiality possible. Demographic information would be helpful and interesting to look at when comparing answers and looking at participants' progression from high school to the beginning and end of their first semester in college.

Additionally, self-reporting bias is a limitation that impacts the study in addition to the limited sample of 39 participants in both surveys. This limited sample also means that results collected from this study are only applicable to these participants and not generalizable to the entire first year population at the main campus of The Ohio State University and not to all first year undergraduate students at any university.

Another limitation is that participants were asked to look retrospectively at their eating

behaviors and patterns during high school, which may have impacted the accuracy of their responses. Another concern with accuracy arises when looking at the participants' prediction of caloric intake, as they were not asked to track their caloric intake in any manner.

### **Implications**

Further research is needed on the factors influencing Ohio State's students eating behaviors as they transition from high school to college. Focusing on this area of research and the data collected from this study can assist in creating interventions to help incoming students engage in healthier eating behaviors and form healthier habits as their education at Ohio State continues.

If a similar study is able to be conducted each year as new first year students enroll in Ohio State, the university may have a better understanding of the non-academic struggles that their students are facing, and may be able to better tailor programming and educational information to their students. Although resources are offered at the university, it is difficult to truly know if these resources are actually helping our students.

University-wide departments such as the Office of Student Life could use information from this preliminary study and information from further research when making changes to the university. As changes are made to the dining facilities and living arrangements for students, the university must ensure that students' opinions and needs are being reflected in these decisions. Additionally, when implementing programming for first year students such as First Year Experience and first year survey courses, it is important that information is provided for students and delivered in such a way that they are willing to absorb the information. First year students should not be told what to do, but rather be given the tools and resources to be able to make decisions for themselves throughout their college career.

## **Conclusion and Future Research Recommendations**

A thought for future research is to have similar research conducted for every first year student during the survey course. As a required course, this provides a great means to conduct these surveys in order to gauge the incoming students. Surveys should still be kept confidential and provide a list of resources. Although confidential, future research could look into the demographic information of participants from the very start of the research. This would allow the researcher to know if there is a difference in behavior among different ethnicities, races, or genders.

This was only a preliminary study to get information on a small amount of first year students at The Ohio State University. For example, one of the concluded results was that individuals were eating dinner less frequently with the intent of eating with another individual. However, this study was not able to look into why this was occurring as the study only concluded general findings of influencing factors when making food-related decisions. This study could be implemented at regional campuses of Ohio State as well. There are many additions and revisions that can be made to this study to fit a certain population and also gather more in depth information about each participant.

Although not all college students develop one of these disorders, it is crucial that colleges and universities consider this information when making decisions about the living and eating environments for students. Additionally, students' opinions and needs should be considered and reflected when creating and revising introductory courses and programming. Students should be provided with the information to make educated decisions and know how to access the proper resources for when assistance may be needed.



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## Appendix A

### Eating Behaviors Pre-Test

The data is being used for a Honors Research Thesis for the OSU College of Social Work. The purpose of the study is to learn if there exists a relationship between students' experiences as first year students at The Ohio State University and their eating habits and behaviors. Additionally, the data collected through the following survey and a post-test survey administered at the end of the semester, will be used to see if the previous relationship is at all impacted by the role of autonomy. BuckID numbers will be collected in order to match the pretest and post-test survey data. Once both surveys have closed, BuckID numbers will be permanently deleted and replaced by a different random code assigned individually to each participant. BuckID numbers will in no way be used by either the principal investigator or the co-investigator to look into any further information about participants such as name or identity. All data will be kept confidential and only accessed by the principal investigator and co-investigate. The survey is not expected to take longer than 20-25 minutes to complete. Participants are able to skip any question they do not wish to answer. Incentives will be offered to a total of 60 different participants and will be distributed in two groups of 30 students. The pre-test survey will be administered August 23-September 6, 2016. Raffle winners will be chosen after the first round of data collection (when the pretest survey closes) and 30 raffle winners will then be chosen for the \$10 Amazon gift card. The post-test survey will be administered November 24-October 4, 2016. Once the second survey is completed, participants who are eligible for the second raffle will then be chosen and provided their incentive of \$15. If students are able to complete both the pretest and post-test survey, they are eligible to win up to \$25 to Amazon in the form of gift cards. By agreeing to participate you do not give up any personal legal rights you may have as a participant in this study. This study has been determined Exempt from IRB Review. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251 or [hsconcerns@osu.edu](mailto:hsconcerns@osu.edu). For general questions about the research please contact Dr. Randi Love.45@osu.edu or Erica Magier.2@osu.edu

Confidentiality: Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research): Office for Human Research Protections or other federal, state, or international regulatory agencies; The Ohio State University Institutional Review Board or Office of Responsible Research Practices; The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study. BuckID numbers will be collected in order to match the pretest and post-test survey data. Once both surveys have

closed, BuckID numbers will be permanently deleted and replaced by a different random code assigned individually to each participant. BuckID numbers will in no way be used by either the principal investigator or the co-investigator to look into any further information about participants such as name or identity. All data collected will be kept on a secure computer and only accessed by the principal investigator and co-investigate. Incentives will be offered to a total of 60 different participants and will be distributed in two groups of 30 students. The pre-test survey will be administered August 23-October 4, 2016. Raffle winners will be chosen after the first round of data collection (when the pretest survey closes) and 30 raffle winners will then be chosen for the \$10 Amazon gift card. The post-test survey will be administered November 24-December 8, 2016. Once the second survey is completed, participants who are eligible for the second raffle will then be chosen and provided their incentive of \$15. If students are able to complete both the pretest and post-test survey, they are eligible to win up to \$25 to Amazon in the form of gift cards. Participant Rights: You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status. If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By agreeing to participate you do not give up any personal legal rights you may have as a participant in this study. This study has been determined Exempt from IRB Review. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251 or [hsconcerns@osu.edu](mailto:hsconcerns@osu.edu). For general questions about the research please contact Dr. Randi Love.45@osu.edu or Erica Magier.2@osu.edu

- Yes, I consent to proceed.
- No, I do not consent to proceed

If No, I do not consent to pro... Is Selected, Then Skip To End of Survey

Are you 18-years-old or over?

- Yes
- No

If Yes Is Not Selected, Then Skip To End of Survey

What academic rank are you?

- 1st year (first year attending any college/university)
- 2nd year
- 3rd year
- 4th year
- 5th year
- Other: \_\_\_\_\_

If 1st year (first year attend... Is Not Selected, Then Skip To End of Survey

What are your current living arrangements?

- On campus residence hall
- Off-campus housing
- Commuter Student

If On campus residence hall Is Not Selected, Then Skip To End of Survey

What is your current meal plan?

Please enter your 9 digit Buck ID number (located at the bottom left hand corner of your BuckID

What were your living arrangements in high school or prior to coming to college?

- Lived primarily with a parent/guardian
- Lived primarily in boarding school housing
- Lived on my own
- Other: \_\_\_\_\_

For the following questions you will be asked questions based on your eating habits in regards to food consumption in breakfast, lunch, and dinner. Breakfast will be defined as the first meal of the day eaten anytime from 7AM-11AM, lunch will be defined as the second meal of the day eaten between 11AM-3PM, and dinner will be defined as the third/final meal of the day eaten between 3PM-7PM.

In HIGH SCHOOL, how often did you consume breakfast, lunch, and dinner?

	Never	Less than once a month	Once a month	A few times a month	Once a week	2-3 days per week	4-6 days per week	Daily (7 days per week)
Breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In HIGH SCHOOL, how often did you consume breakfast, lunch, and dinner in the company of others (with the intention of eating with another individual)?

	Never	Less than once a month	Once a month	A few times a month	Once a week	2-3 days per week	4-6 days per week	Daily (7 days per week)
Breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Less than once a month Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If Once a month Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If A few times a month Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If Once a week Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If 2-3 days per week Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If 4-6 days per week Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...If Daily (7 days per week) Is Selected, Then Skip To In HIGH SCHOOL, who did you most ofte...

In HIGH SCHOOL, who did you most often eat breakfast with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other: \_\_\_\_\_

In HIGH SCHOOL, who did you most often eat lunch with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other: \_\_\_\_\_

In HIGH SCHOOL, who did you most often eat dinner with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other: \_\_\_\_\_

Reflect back on your eating habits while a HIGH SCHOOL student. Using your best guess, what was your average daily caloric intake?

- 0-500
- 501-1000
- 1001-1500
- 1501-2000
- 2001-2500
- 2500+

How often do you CURRENTLY consume breakfast, lunch, and dinner?

	Never	Once a week	2 times a week	3 times per week	4 times per week	5 times per week	6 times per week	7 times per week (daily)
Breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How often do you CURRENTLY consume each meal in the company of others (with the intention of eating with another individual)?

	Never	Once a week	2 times a week	3 times a week	4 times a week	5 times a week	6 times a week	7 times per week (daily)
Breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Once a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 2 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 3 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 4 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 5 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 6 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 7 times per week (daily) Is Selected, Then Skip To CURRENTLY, who do you most often eat ...



CURRENTLY, who do you most often eat breakfast with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

CURRENTLY, who do you most often eat lunch with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

CURRENTLY, who do you most often eat dinner with? (select all that apply)

- Parent's or Guardians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

Using your best guess, what is your CURRENT caloric intake?

- 0-500
- 501-1000
- 1001-1500
- 1501-2000
- 2001-2500
- 2501+

Based on the MyPlate image below, please select what food groups you CURRENTLY consume at a daily breakfast

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at breakfast? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

Based on the MyPlate image below, please select what food groups (non-beverages) you CURRENTLY consume at a daily lunch

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at lunch? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

Based on the MyPlate image below, please select what food groups (non-beverages) you CURRENTLY consume at a daily dinner

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at dinner? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

In sum of daily consumption, are you concerned about the types of foods you eat (i.e. do you worry that it is not healthy enough or not providing you with the proper nutrients?)

- Never
- Once a week
- Twice a week
- 3-4 times a week
- 5-6 times a week
- 7 times a week (every day)

Fill in the blank by choosing the most applicable answer. Based on your portion sizes in high school, my current portion sizes are \_\_\_\_\_

- Much bigger
- A little bit bigger
- About the same
- A little bit smaller
- Much smaller

In comparison to high school, do you feel as if you have more, equal, or less freedom in making food-related decisions?

- More freedom
- Same amount of freedom as before
- Less freedom

Rank these in order of what you feel influences your CURRENT eating habits the most

- \_\_\_\_\_ Cravings/ what food I'm in the mood for
- \_\_\_\_\_ My meal plan
- \_\_\_\_\_ Lack of time
- \_\_\_\_\_ Class Schedule
- \_\_\_\_\_ Extracurricular schedule
- \_\_\_\_\_ Other: (if NOT APPLICABLE, then type N/A and rank as number 6)

Please reflect on any changes you may have noticed between your previous and your current eating habits. Please be as specific as possible.

Are there any differences in what previously and what currently affects your eating habits. Please identify any factors that influence your eating behaviors and why you feel they influence your eating-related decisions.

Would you like to receive a reminder email to participate in the post-test survey? If yes, please fill out your complete email address in the box provided.

- Yes, I would like a reminder email \_\_\_\_\_
- No, I do not want a reminder email

Please provide any other feedback about your eating habits that may not have been addressed.

Do you wish to be entered into the Amazon gift card raffle?

- Yes
- No

If Yes Is Not Selected, Then Skip To Thank you for participating in this a...

Please enter your OSU student email address to be entered into the raffle (ex: brutus.1@osu.edu)

Thank you for participating in this anonymous survey. Your responses will remain anonymous throughout the entire process. Information provided during raffle entry will have no impact to the responses you provided during the survey. Please feel free to use the following resources if help is needed or desired: 1) Counseling and Consultation Service @ The Ohio State University Phone: 614-292-5766; <http://www.ccs.ohio-state.edu/> 1640 Neil Avenue, Columbus, OH 43201 2) National Suicide Prevention Lifeline (24/7) Phone: 1-800-273-8255 3) National 24/7 suicide hotline: Phone: 1-800-784-2433 4) National Association of Anorexia Nervosa and Eating Disorders Phone: 630-577-1330 5) National Eating Disorders Association Phone: 800-931-2237 6) National Mental Health Association Hotline (24/7) Phone: 800-273-5437

## Appendix B

### Eating Behaviors Post-Test

The data is being used for a Honors Research Thesis for the OSU College of Social Work. The purpose of the study is to learn if there exists a relationship between students' experiences as first year students at The Ohio State University and their eating habits and behaviors. Additionally, the data collected through the following survey and a post-test survey administered at the end of the semester, will be used to see if the previous relationship is at all impacted by the role of autonomy. BuckID numbers will be collected in order to match the pretest and post-test survey data. Once both surveys have closed, BuckID numbers will be permanently deleted and replaced by a different random code assigned individually to each participant. BuckID numbers will in no way be used by either the principal investigator or the co-investigator to look into any further information about participants such as name or identity. All data will be kept confidential and only accessed by the principal investigator and co-investigate. The survey is not expected to take longer than 20-25 minutes to complete. Participants are able to skip any question they do not wish to answer. Incentives will be offered to a total of 60 different participants and will be distributed in two groups of 30 students. The pre-test survey will be administered August 23-October 4, 2016. Raffle winners will be chosen after the first round of data collection (when the pretest survey closes) and 30 raffle winners will then be chosen for the \$10 Amazon gift card. The post-test survey will be administered November 24-December 8, 2016. Once the second survey is completed, participants who are eligible for the second raffle will then be chosen and provided their incentive of \$15. If students are able to complete both the pretest and post-test survey, they are eligible to win up to \$25 to Amazon in the form of gift cards. By agreeing to participate you do not give up any personal legal rights you may have as a participant in this study. This study has been determined Exempt from IRB Review. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251 or [hsconcerns@osu.edu](mailto:hsconcerns@osu.edu). For general questions about the research please contact Dr. Randi Love.45@osu.edu or Erica Magier.2@osu.edu

Confidentiality: Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research): ·Office for Human Research Protections or other federal, state, or international regulatory agencies; ·The Ohio State University Institutional Review Board or Office of Responsible Research Practices; ·The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study. BuckID numbers will be collected in order to match the pretest and post-test survey data. Once both surveys have

closed, BuckID numbers will be permanently deleted and replaced by a different random code assigned individually to each participant. BuckID numbers will in no way be used by either the principal investigator or the co-investigator to look into any further information about participants such as name or identity. All data collected will be kept on a secure computer and only accessed by the principal investigator and co-investigate. Incentives will be offered to a total of 60 different participants and will be distributed in two groups of 30 students. The pre-test survey will be administered August 23-October 4, 2016. Raffle winners will be chosen after the first round of data collection (when the pretest survey closes) and 30 raffle winners will then be chosen for the \$10 Amazon gift card. The post-test survey will be administered November 24-December 8, 2016. Once the second survey is completed, participants who are eligible for the second raffle will then be chosen and provided their incentive of \$15. If students are able to complete both the pretest and post-test survey, they are eligible to win up to \$25 to Amazon in the form of gift cards.

**Participant Rights:** You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status. If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By agreeing to participate you do not give up any personal legal rights you may have as a participant in this study. This study has been determined Exempt from IRB Review. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251 or [hsconcerns@osu.edu](mailto:hsconcerns@osu.edu). For general questions about the research please contact Dr. Randi Love.45@osu.edu or Erica Magier.2@osu.edu

Yes, I consent to proceed.

No, I do not consent to proceed

If No, I do not consent to pro... Is Selected, Then Skip To End of Survey

Did you participate in the pretest survey administered in the first two weeks of fall semester 2016?

Yes, I did participate

No, I did not participate

If Yes, I did participate Is Not Selected, Then Skip To End of Survey

Are you 18-years-old or over?

Yes

No

If Yes Is Not Selected, Then Skip To End of Survey

What academic rank are you?

- 1st year (first year attending any college/university)
- 2nd year
- 3rd year
- 4th year
- 5th year
- Other: \_\_\_\_\_

If 1st year (first year attend... Is Not Selected, Then Skip To End of Survey

What are your current living arrangements?

- On campus residence hall
- Off-campus housing
- Commuter Student

If On campus residence hall Is Not Selected, Then Skip To End of Survey

What is your current meal plan?

Please enter your 9 digit BuckID number (located on the bottom left hand corner of your BuckID)

For the following questions you will be asked questions based on your eating habits in regards to food consumption in breakfast, lunch, and dinner. Breakfast will be defined as the first meal of the day eaten anytime from 7AM-11AM, lunch will be defined as the second meal of the day eaten between 11AM-3PM, and dinner will be defined as the third/final meal of the day eaten between 3PM-7PM.

At the BEGINNING of the semester, how often did you eat breakfast, lunch, and dinner?

	Never	Less than once a month	A few times a month	Once a week	2-3 days per week	4-6 days per week	7 days per week
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dinner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

At the BEGINNING of the semester, how often did you consume breakfast, lunch, and dinner in the company of others (with the intention of eating with another individual)?

	Never	Less than once a month	Once a month	A few times a month	Once a week	2-3 days per week	4-6 days per week	Daily (7 days per week)
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dinner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you CURRENTLY consume breakfast, lunch, and dinner?

	Never	Once a week	2 times a week	3 times per week	4 times per week	5 times per week	6 times per week	7 times per week (daily)
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dinner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you CURRENTLY consume breakfast, lunch, and dinner in the company of others (with the intention of eating with another individual)?

	Never	Once a week	2 times a week	3 times a week	4 times a week	5 times a week	6 times a week	7 times per week (daily)
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dinner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If Once a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 2 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 3 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 4 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 5 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 6 times a week Is Selected, Then Skip To CURRENTLY, who do you most often eat ...If 7 times per week (daily) Is Selected, Then Skip To CURRENTLY, who do you most often eat ...



CURRENTLY, who do you most often eat breakfast with? (select all that apply)

- Parent/s or Guardians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

CURRENTLY, who do you most often eat lunch with? (select all that apply)

- Parent/s or Guradians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

CURRENTLY, who do you most often eat dinner with? (select all that apply)

- Parent's or Guradians
- Siblings
- Friends
- Coworkers
- Other \_\_\_\_\_

Using your best guess, what is your CURRENT caloric intake?

- 0-500
- 501-1000
- 1001-1500
- 1501-2000
- 2001-2500
- 2501+

Based on the MyPlate image below, please select what food groups you CURRENTLY consume at a daily breakfast

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at breakfast? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

Based on the MyPlate image below, please select what food groups (non-beverages) you CURRENTLY consume at a daily lunch

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at lunch? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

Based on the MyPlate image below, please select what food groups (non-beverages) you CURRENTLY consume at a daily dinner

- Fruits
- Vegetables
- Protein
- Grains
- Dairy

Do you normally consume a beverage at dinner? If so, please be specific as to what you normally consume (include all applicable beverages)

- Yes: \_\_\_\_\_
- No

In sum of daily consumption, are you concerned about the types of foods you eat (i.e. do you worry that it is not healthy enough or not providing you with the proper nutrients?)

- Never
- Once a week
- Twice a week
- 3-4 times a week
- 5-6 times a week
- 7 times a week (every day)

Fill in the blank by choosing the most applicable answer. Based on my portion sizes at the beginning of the semester, my current portion sizes are \_\_\_\_\_

- Much bigger
- A little bit bigger
- About the same
- A little bit smaller
- Much smaller

In comparison to the beginning of the semester, do you feel as if you have more, equal, or less freedom in making food-related decisions?

- More freedom
- Same amount of freedom as before
- Less freedom

Rank these in order of what you feel influences your CURRENT eating habits the most

- \_\_\_\_\_ Cravings/ what food I'm in the mood for
- \_\_\_\_\_ My meal plan
- \_\_\_\_\_ Lack of time
- \_\_\_\_\_ Class Schedule
- \_\_\_\_\_ Extracurricular schedule
- \_\_\_\_\_ Other: (if NOT APPLICABLE, then type N/A and rank as number 6)

Please reflect on any changes you may have noticed between your previous and your current eating habits (beginning of the semester in comparison to now). Please be as specific as possible.

Are there any differences in what previously and what currently affects your eating habits. Please identify any factors that influence your eating behaviors and why you feel they influence your eating-related decisions.

Please provide any other feedback about your eating habits that may not have been addressed.

Do you wish to be entered into the Amazon gift card raffle?

- Yes
- No

If Yes Is Not Selected, Then Skip To Thank you for participating in this a...

Please enter your OSU student email address to be entered into the raffle (ex: brutus.1@osu.edu)

Thank you for participating in this anonymous survey. Your responses will remain anonymous throughout the entire process. Information provided during raffle entry will have no impact to the responses you provided during the survey. Please feel free to use the following resources if help is needed or desired: 1) Counseling and Consultation Service @ The Ohio State University Phone: 614-292-5766; <http://www.ccs.ohio-state.edu/> 1640 Neil Avenue, Columbus, OH 43201 2) National Suicide Prevention Lifeline (24/7) Phone: 1-800-273-8255 3) National 24/7 suicide hotline: Phone: 1-800-784-2433 4) National Association of Anorexia Nervosa and Eating Disorders Phone: 630-577-1330 5) National Eating Disorders Association Phone: 800-931-2237 6) National Mental Health Association Hotline (24/7) Phone: 800-273-5437

