

Student Food Survey

Spring 2011

Sample size = 808 students

Background

The purpose of this survey was to assess the values, perceptions and beliefs of students living on campus regarding food on the University of Arizona campus with the intention of gaining a better understanding of student needs and desires. This survey was conducted by Campus Health Service in collaboration with Student Affairs and Residence Life. Data was collected via an online survey powered by Student Voice and the data was analyzed utilizing SPSS.

Discussion Points

- The most popular factors that are important in determining what to eat on campus by students living on campus are:
 1. 93% students indicate TASTE is important
 2. 91% students indicate EXTENDED HOURS/WEEKEND HOURS is important
 3. 84% students indicate HEALTHY CHOICES are important
 4. 75% students indicate COST is important
- Fresh vegetables and fruits, foods that are low in added fat and sugar and made with whole grains, organic/natural foods and accessible nutrition information are important to the majority of students in determining what is healthy.
- Healthful food choices are a determining factor to 94% of students in assessing the quality of food on campus.
- A reduction of fried foods on campus is important to 66% of students living on campus.
- Roughly two thirds of students regard nutrition facts at point of purchase and point of purchase branded healthful food choices as important.
- Vending machines are utilized frequently by a high percentage of students.
- Half of students do not feel that food on campus is fairly priced or healthy, and one third do not feel that food on campus is high quality.

Conclusion Statements

Creation of a healthy eating environment on campus by systemically highlighting and promoting healthy foods while reducing the visibility of unhealthy foods will enhance perceptions that food on campus is healthy, high quality and fairly priced, leading to increased usage of Dining Services. Vending machines are an opportunity to meet the demand for tasty, healthy foods available all day, every day. Taste is a very important factor in determining what to eat on campus and research indicates that taste trumps health for many people; foods options must be promoted as tasty and healthy to meet the demands of students.

Results

Gender:

	%
Male	30.8
Female	68.9
Transgender	.2

Age:

	%
18	31.1
19	49.6
20	13.5
21	4.3
22	.9
23	.4
24	.2

Have a meal plan through Dining Services:

	%
Yes	84.3
No	15.7

Type of student:

	%
In-state	68.7
Out-of-state	31.1
Unsure	.2

International student:

	%
Yes	1.1
No	98.9

How important are the following factors to you in determining what to eat on campus (% in each)?

	Not important	Somewhat Important	Imp/Very Important
Taste	.1	.6	99.3
Extended hours/weekend hours	1.5	7.5	91.0
Healthy options	2.6	11.0	84.4
Cost	5.2	18.4	76.4
Short lines/fast service	4.3	30.1	65.6
Sustainable food options	17.8	24.5	57.7
Nutritional information provided	18.4	27.8	53.7
Ethnic variety	19.9	31.2	48.9
Organic or natural food options	21.7	30.4	47.9
Allergen information provided	45.8	23.5	30.7

Please indicate your level of agreement with the following: Overall, the food available in the Student Union is... Strongly disagree/disagree (SD/D), neutral, agree/strongly agree (A/SA)

	SD/D	Neutral	A/SA
Fairly priced	53.5	25.7	20.8
Healthy	53.3	29.8	16.8
Quality	32.9	36.9	30.2
Freshly made	28.8	36.8	34.4
Convenient	5.2	15.5	79.3

How important are the following factors to you in determining that food is “healthy”?

	Not important	Somewhat Important	Imp/Very Important
Made with fresh vegetables and fruit	.7	5.8	93.4
Made with low fat foods	3.0	13.1	83.9
Made with whole grains	4.7	17.5	77.8
Low in sugar	4.5	23.3	72.3
Nutrient facts provided	12.5	25.9	61.6
Organic or natural ingredients	11.1	30.3	58.5
An icon clearly indicating that it is healthy	25.2	27.5	47.3

How important are the following factors in determining that food is “convenient”?

	Not important	Somewhat Important	Imp/Very Important
Fast service	2.2	12.7	85.0
Take out	6.3	20.2	73.5
Can be eaten on the go	8.2	25.4	66.5
Pre-packaged	31.8	38.6	29.6

How important are the following factors in determining that food is “high quality”?

	Not important	Somewhat Important	Imp/Very Important
Healthy or nutritious	1.0	5.2	93.8
Carefully prepared	.9	6.6	92.6
Visually appealing	6.8	18.9	74.3
Organic or natural	11.5	29.6	58.9

How important are the following factors in determining that food is “freshly made”?

	Not important	Somewhat Important	Imp/Very Important
Made to order	.9	8.9	90.2
Not made with processed or pre-packaged food	2.4	12.1	85.5
Locally grown ingredients	16.8	31.4	51.7
Food made from scratch on campus	8.0	20.3	71.7

How important is it to you to have the following information displayed on menus next to the menu choices?

	Not important	Somewhat Important	Imp/Very Important
Calories, fat, fiber, sodium and sugar content	10.3	22.0	67.7
Identification of items that are healthy choices	12.9	21.2	66.0
Organic, local, natural, etc.	20.5	29.0	50.5
Vegetarian/Vegan	27.6	25.6	46.8
Allergens and gluten	29.8	26.9	43.3

How important is it to you that food vendors on campus do the following:

	Not important	Somewhat Important	Imp/Very Important
Reduce fried food options with increased baked options	18.4	15.5	66.1
Eliminate fried food options on campus and replace with baked options	41.2	20.8	38.0
Make no changes to the availability of fried food on campus	51.1	26.2	22.6
Increase the availability of fried food on campus	79.3	13.1	7.5

Would you support a mandatory meal plan for students living on campus that provides flexibility to choose the number of meals per week that you are pre-purchasing?

	%
Yes	19.4
No	80.6

How often do you purchase from vending machines on campus?

	%
Daily	11.0
Weekly	40.1
Monthly	15.5
Less than once per month	7.2
A few times a semester	17.5
Never	8.8

GENDER COMPARISONS
How important are the following factors to you in determining what to eat on campus?
Cost

	Male	Female	p value
Important/Very Important	76.3	76.5	n.s.
Somewhat Important	17.7	18.7	
Not important	6.0	4.8	

Healthy options

	Male	Female	p value
Important/Very Important	75.9	91.0	.000
Somewhat Important	20.1	7.0	
Not important	4.0	2.0	

Organic or natural food options

	Male	Female	p value
Important/Very Important	35.7	53.5	.000
Somewhat Important	30.5	30.2	
Not important	33.7	16.3	

Short lines/fast service

	Male	Female	p value
Important/Very Important	63.1	66.8	n.s.
Somewhat Important	31.3	29.4	
Not important	5.6	3.8	

Nutritional information provided

	Male	Female	p value
Important/Very Important	36.5	61.4	.000
Somewhat Important	32.1	25.9	
Not important	31.3	12.7	

Allergen information provided

	Male	Female	p value
Important/Very Important	20.9	35.2	.000
Somewhat Important	22.9	23.9	
Not important	56.2	40.9	

Taste

	Male	Female	p value
Important/Very Important	98.0	99.8	.019
Somewhat Important	1.6	.2	
Not important	.4	0	

Extended hours/weekend hours

	Male	Female	p value
Important/Very Important	91.6	90.8	n.s.
Somewhat Important	6.8	7.9	
Not important	1.6	1.3	

Ethnic variety

	Male	Female	p value
Important/Very Important	47.8	49.4	n.s.
Somewhat Important	28.5	32.5	
Not important	23.7	18.1	

Sustainable food options

	Male	Female	p value
Important/Very Important	51.0	60.5	.002
Somewhat Important	24.1	24.8	
Not important	24.9	14.7	

Please indicate your level of agreement with the following: Overall, the food available in the Student Union is...

Healthy

	Male	Female	p value
Strongly Agree/Agree	12.9	18.7	.034
Neutral	34.9	27.5	
Disagree/Strongly Disagree	52.2	53.9	

Convenient

	Male	Female	p value
Strongly Agree/Agree	77.1	80.3	n.s.
Neutral	16.5	15.1	
Disagree/Strongly Disagree	6.4	4.7	

Quality

	Male	Female	p value
Strongly Agree/Agree	28.9	30.9	n.s.
Neutral	36.1	37.2	
Disagree/Strongly Disagree	34.9	32.0	

Freshly made

	Male	Female	p value
Strongly Agree/Agree	33.7	34.6	n.s.
Neutral	36.1	37.2	
Disagree/Strongly Disagree	30.2	28.2	

Fairly priced

	Male	Female	p value
Strongly Agree/Agree	16.5	22.8	n.s.
Neutral	25.3	26.0	
Disagree/Strongly Disagree	58.2	51.2	

How important are the following factors to you in determining that food is “healthy”?
Made with fresh vegetables and fruit

	Male	Female	p value
Important/Very Important	87.6	96.1	.000
Somewhat Important	10.4	3.8	
Not important	2.0	.2	

Made with low fat foods

	Male	Female	p value
Important/Very Important	76.7	87.1	.001
Somewhat Important	18.1	11.0	
Not important	5.2	2.0	

Organic or natural ingredients

	Male	Female	p value
Important/Very Important	47.8	63.6	.000
Somewhat Important	34.9	28.0	
Not important	17.3	8.4	

Made with whole grains

	Male	Female	p value
Important/Very Important	64.7	83.7	.000
Somewhat Important	26.9	13.3	
Not important	8.4	3.1	

Low in sugar

	Male	Female	p value
Important/Very Important	59.0	78.1	.000
Somewhat Important	33.7	18.7	
Not important	7.2	3.2	

Nutrient facts provided

	Male	Female	p value
Important/Very Important	45.8	68.6	.000
Somewhat Important	32.9	22.8	
Not important	21.3	8.6	

An icon clearly indicating that it is healthy

	Male	Female	p value
Important/Very Important	33.7	53.5	.000
Somewhat Important	27.3	27.3	
Not important	39.0	19.2	

How important are the following factors in determining that food is “convenient”?

There are no significant differences between genders in response to this question.

How important are the following factors in determining that food is “high quality”?
Carefully prepared

	Male	Female	p value
Important/Very Important	90.0	93.7	n.s.
Somewhat Important	8.4	5.7	
Not important	1.6	.5	

Healthy or nutritious

	Male	Female	p value
Important/Very Important	87.1	96.8	.000
Somewhat Important	10.8	2.7	
Not important	2.0	.5	

Visually appealing

	Male	Female	p value
Important/Very Important	69.1	76.7	.013
Somewhat Important	20.5	18.1	
Not important	10.4	5.2	

Organic or natural

	Male	Female	p value
Important/Very Important	42.6	66.2	.000
Somewhat Important	38.2	25.9	
Not important	19.3	7.9	

How important are the following factors in determining that food is “freshly made”?
Made to order

	Male	Female	p value
Important/Very Important	88.0	91.2	n.s.
Somewhat Important	10.4	8.3	
Not important	1.6	.5	

Not made with processed or pre-packaged food

	Male	Female	p value
Important/Very Important	79.5	88.2	.004
Somewhat Important	17.7	9.7	
Not important	2.8	2.2	

Locally grown ingredients

	Male	Female	p value
Important/Very Important	38.6	57.6	.000
Somewhat Important	35.7	29.4	
Not important	25.7	12.9	

Food made from scratch on campus

	Male	Female	p value
Important/Very Important	70.7	72.2	n.s.
Somewhat Important	20.5	20.1	
Not important	8.8	7.7	

How important is it to you to have the following information displayed on menus next to the menu choices?

Calories, fat, fiber, sodium and sugar content

	Male	Female	p value
Important/Very Important	53.8	73.8	.000
Somewhat Important	27.7	19.6	
Not important	18.5	6.6	

Identification of items that are healthy choices

	Male	Female	p value
Important/Very Important	49.4	73.6	.000
Somewhat Important	26.5	18.7	
Not important	24.1	7.7	

Allergens and gluten

	Male	Female	p value
Important/Very Important	30.5	49.0	.000
Somewhat Important	29.7	25.7	
Not important	39.8	25.3	

Vegetarian/Vegan

	Male	Female	p value
Important/Very Important	28.9	54.8	.000
Somewhat Important	30.1	23.7	
Not important	41.0	21.5	

Organic, local, natural, etc.

	Male	Female	p value
Important/Very Important	36.9	56.7	.000
Somewhat Important	30.9	28.0	
Not important	32.1	15.3	

How important is it to you that food vendors on campus do the following:

Increase the availability of fried food on campus

	Male	Female	p value
Important/Very Important	13.7	4.8	.000
Somewhat Important	17.3	11.3	
Not important	69.1	83.8	

Make no changes to the availability of fried food on campus

	Male	Female	p value
Important/Very Important	27.3	20.6	.050
Somewhat Important	27.3	25.5	
Not important	45.4	53.9	

Reduce fried food options with increased baked options

	Male	Female	p value
Important/Very Important	61.4	68.0	.007
Somewhat Important	13.7	16.3	
Not important	24.9	15.6	

Eliminate fried food options on campus and replace with baked options

	Male	Female	p value
Important/Very Important	30.1	41.5	.001
Somewhat Important	19.7	21.4	
Not important	50.2	37.2	

Would you support a mandatory freshman meal plan that provides flexibility to choose the number of meals per week that you are pre-purchasing?

	Male	Female	p value
Yes	16.1	21.0	n.s.
No	83.9	79.0	

CORRELATIONS

Factors in determining what to eat on campus and on a meal plan:

	Correlation	Significance
Cost	2.34	.000
Healthy options	-.101	.004
Organic or natural food options	-.044	Not significant
Short lines/fast service	.004	Not significant
Nutritional information provided	-.048	Not significant
Allergen information provided	.048	Not significant
Taste	.023	Not significant
Extended hours/weekend hours	-.113	.001
Ethnic variety	.047	Not significant
Sustainable food options	.028	Not significant

On a meal plan and support for a mandatory meal plan

	Correlation	Significance
Support mandatory food plan	.040	Not significant

Discussion

This survey provides valuable information about the factors that impact student's food choices. It is assumed that students living on campus utilize the Dining Service facilities more than any other student group; therefore information gathered from this survey will enable Campus Health Service, Residence Life and Dining Services to better meet their needs.

The data was collected from a large sample of typical Dining Services users. More females than males completed the survey, which is common. When the results are compared between males and females there are significant differences in responses, however the trends remain consistent between genders. The students who have completed the survey are Dining Services customers as the majority of the responses have come from students with a meal plan. While certain trends are identified, the responses are balanced and do not appear to be from "fringe" students.

Factors that play a role in food choices on campus

Healthy options are important to a majority of students. Choosing healthy options is important to many students, even more than cost and speed of service, and healthy options enhance nearly all students' perception of quality food. Taste and extended hours/weekend hours are the only two factors that are important to more students than healthful options. In males, taste and extended hours/weekend hours are important to the most students, followed by cost as slightly more students than healthy options; whereas in females, healthy options and extended hours/weekend hours are important to equal numbers of students, second only to taste and followed by cost. Based on this information, tasty and healthy foods that are available throughout the day and week are in highest demand.

Perceptions of food on campus

Students do not believe that food on campus is healthy or fairly priced. Student opinion regarding quality and freshly made is split; students do not feel strongly about either characteristic. Nearly all students feel that food on campus is convenient.

Healthy options are important in determining what to eat on campus by nearly all female students and three-quarters of male students. Since health is a determining factor for many students, it is troubling to see that more than half of male and female students do not believe that healthy options are available on campus. The results indicate that when increased numbers of healthy options are presented to students, they will be purchased by a majority of students.

Changing perceptions of fairly priced and quality food on campus

By improving the perception of quality food on campus, it is possible to change the perception that food on campus is not fairly priced. Cost becomes increasingly important to those not on a meal plan, therefore promotion of high quality foods may be even more important for Dining Services customers not on a meal plan. Since healthy options plays a role in determining that a food is high quality, by increasing healthy food options, more students may feel that food on campus is high quality and therefore feel that food on campus is fairly priced.

Nearly all male and female students determine quality based on healthy options and careful preparation. Visual appeal is also important to a majority of students. According to survey data, to enhance the perception of quality, Dining Services must increase the number of and the visibility of nutritious, carefully prepared and visually appealing foods.

Some of the factors that are important in determining that a food is healthy are: made with fresh vegetables and fruit, made with low fat foods, made with whole grains and low in sugar. Students can clearly see if a food or meal contains fresh vegetables or fruits, however it is hard for students to know if foods are low in added fats or sugar, or if they are whole grain. An icon indicating that food is healthy and calorie information allows students to make more informed choices and to promote healthy items and this concept is supported by a large

percentage of students. If these types of foods are highlighted on campus and positioned with high visibility, it is likely that they would be purchased and this would enhance the image and perceptions of health and quality food on campus.

Vending machines as an opportunity to meet student needs

Vending machines are frequently used and serve as another opportunity to provide tasty and healthy foods to students. Half of students, more males than females, purchase foods from vending machines weekly and/or daily. The benefit to vending machines is that they are available 24 hours a day, 7 days a week and serve as an opportunity to meet desires for food around the clock. When vending machines are stocked with healthy and tasty foods this will assist in meeting the identified demand for tasty and healthy foods that are available anytime.

Point of purchase information

Students are interested in seeing nutritional and environmentally-sustainable information (organic, local, etc.) when making purchases. A majority of students, male and female, feel it is important to see nutritional facts and an icon that identifies healthy items. Based on the importance of both healthy and tasty foods, the branding of healthful options should not ignore taste; the design of the icon should incorporate the promotion of good taste and healthy food. Identification of sustainable-food choices is important to half of students, and a greater percentage of females than males feel it is important.

Interestingly, a large percentage of students believe that it is important food allergen and intolerance information be provided on menus fact food allergens and intolerances even though allergies and intolerances impact a small number of students.

Availability of fried foods on campus

Students do not have a preference for fried foods. It is enlightening to see that the more than half of students, both male and female, feel that it is important to reduce the availability of fried foods on campus. Overall students want a variety of options. Reduction of fried foods available will also enhance the perception of healthy food, which may influence the perceptions of quality and fairly priced food on campus.

Mandatory meal plan

Despite the fact that the majority of students have a meal plan, most students are opposed to a mandatory meal plans. Having a meal plan is not correlated to being opposed or in favor of a mandatory meal plan.

An environmental shift will increase usage of Dining Services

Increasing the number of and visibility of healthy options should lead to increased usage of and favorable opinions of Dining Services. Healthy options include fresh vegetables and fruit, foods low in added sugar or added fats, foods that are whole grain (or less processed). To demonstrate that healthy foods are available, increase the visibility of healthy options while reducing fried foods and provide point of purchase nutritional information. These efforts will create a healthy eating environment on the University of Arizona campus. Creating this healthy eating environment, which emphasizes, promotes and highlights many different healthy and tasty options, will increase the perception that food on campus is healthy and high quality, which may enhance the perception that food on campus is priced fairly, all of which can potentially increase usage of Dining Services.

The survey and report have been developed by Hana A. Feeney, MS, RD, CSSD will support from Campus Health Service, Residence Life and Student Affairs. Please address comments and questions to Hana.

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