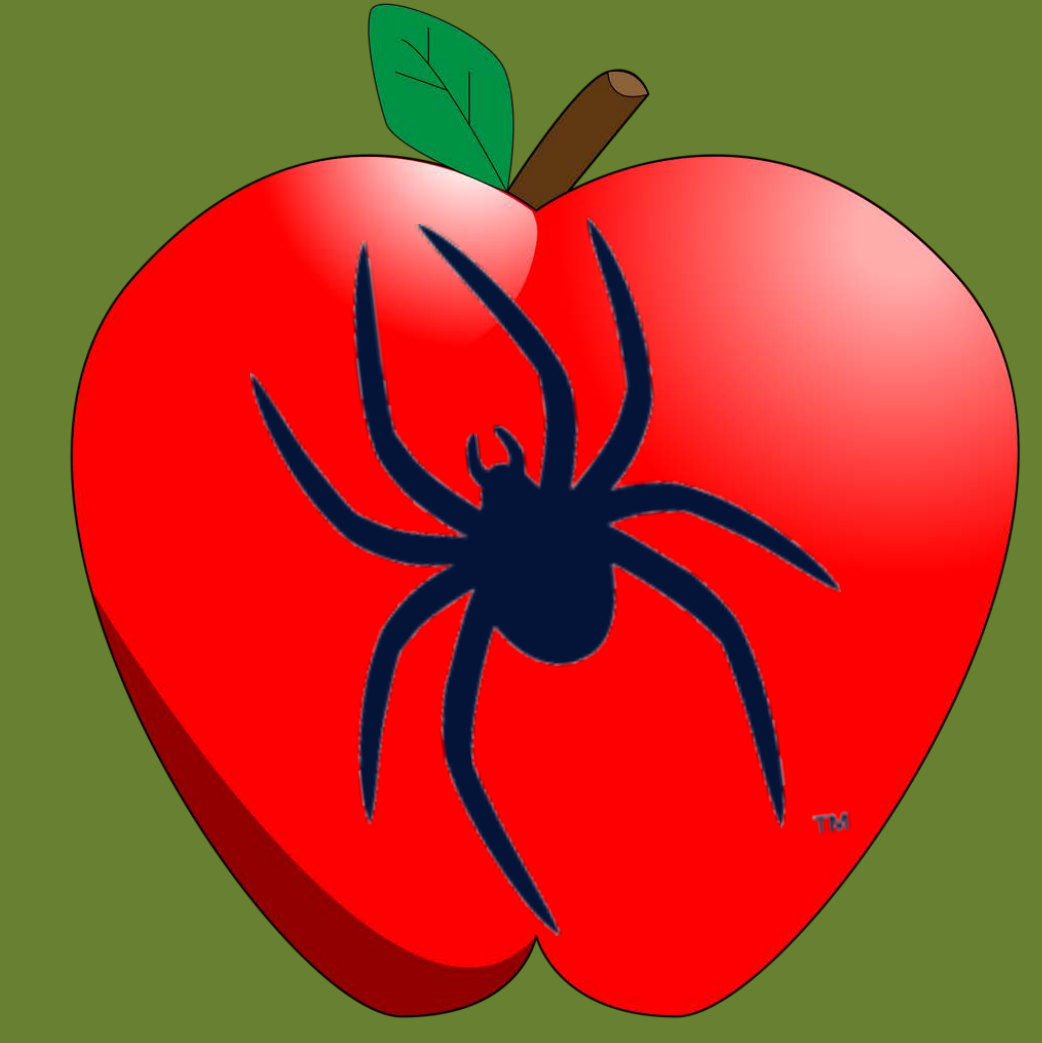




# Food Security at the University of Richmond

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## Introduction

The University of Richmond's Strategic Plan states the University's goal to be "a leader in innovative practices that sustain our environmental, human, and financial resources" (Crutcher 2017). The University has also signed multiple national and global sustainability commitments such as the Talloires Declaration (2003), the American College and University President's Climate Commitment, (2007) and the American Campuses Act on Climate Pledge (2015). These commitments set ambitious climate action goals and address the responsibility of colleges and universities not only to cultivate an environmental consciousness on campus but also to transform the conventional operation systems on which college and universities depend. While the University has taken active steps to integrate sustainability into its academic, administrative, and operational practices, there remains much room for improvement. We identified the University's food system as one area of campus particularly vulnerable to changing climate conditions. Prompted by dining's low score (1.13 out of 7) on the University of Richmond's 2017 Sustainability Report (Andrejewski 2017), this project seeks to both determine the current state of food security among students at the University as well as to analyze the larger context in which our food system is embedded.

A food system includes all the activities related to producing, transporting, trading, storing, processing, packaging, wholesaling, retailing, consuming, and disposing of food (Brown et al. 2015). While food systems manifest themselves differently all over the world, the United States' conventional food system requires intensive capital and energy inputs. The impacts of this food system have been two-fold: on the one hand, food has become cheaper, more plentiful, and easier to access for the majority of the population, but also has resulted in environmental degradation, market exclusions of small and mid-scale producers, and has exacerbated disparities in food security (Hoppe 2014).

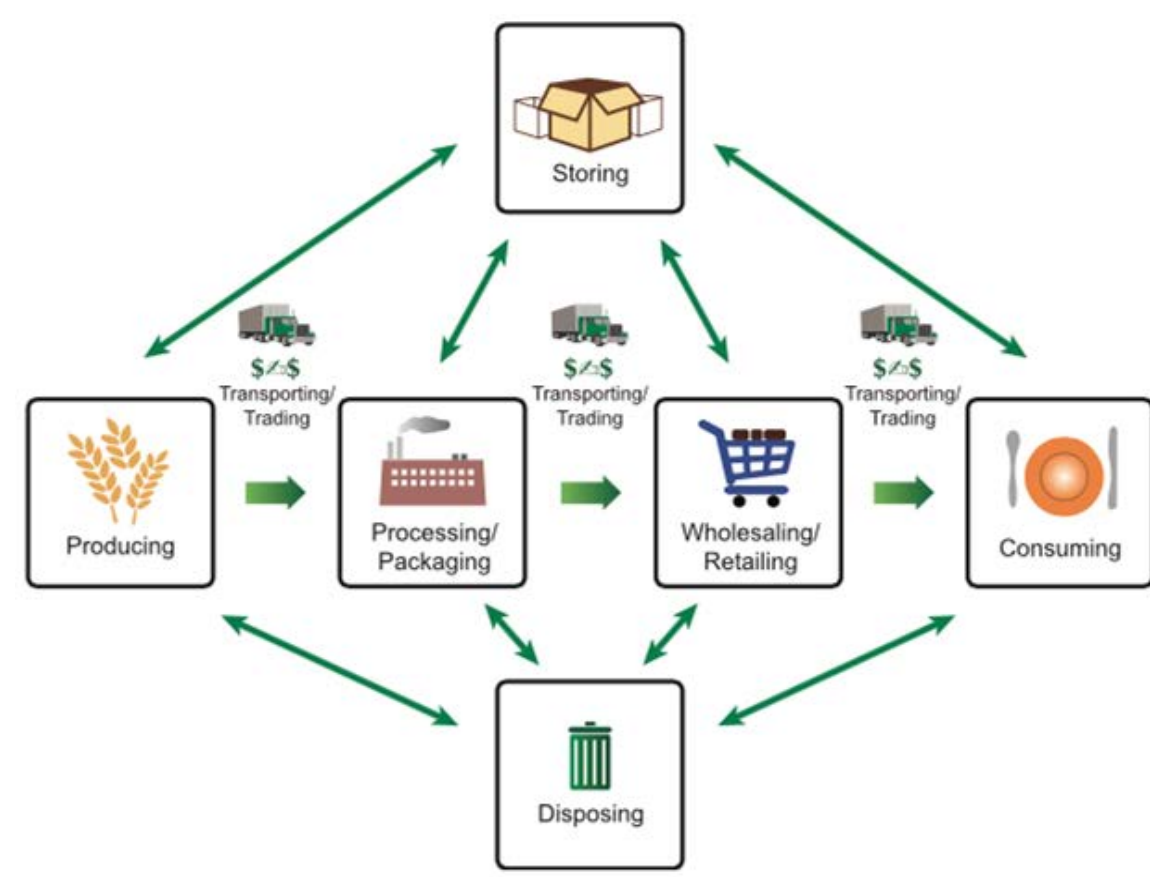


Figure 1: Represents the components of a food system. Exploring food from production through to consumption and following it to waste.

Food security exists "when all people at all times have physical, social, and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO 2012). Historically evaluations of food insecurity on college campuses are few but emerging interest in the research of food systems have encouraged colleges to examine the state of food security on campus (Booth & Anderson 2016). In response to the problems caused by the conventional food system, local and sustainable food movements have championed alternative food systems that integrate social justice with environmental stewardship (Feenstra 2002). In order for these programs to be successful, the University must have intellectual, social, political, and economic spaces that can facilitate resources and relationships (Feenstra 2002).

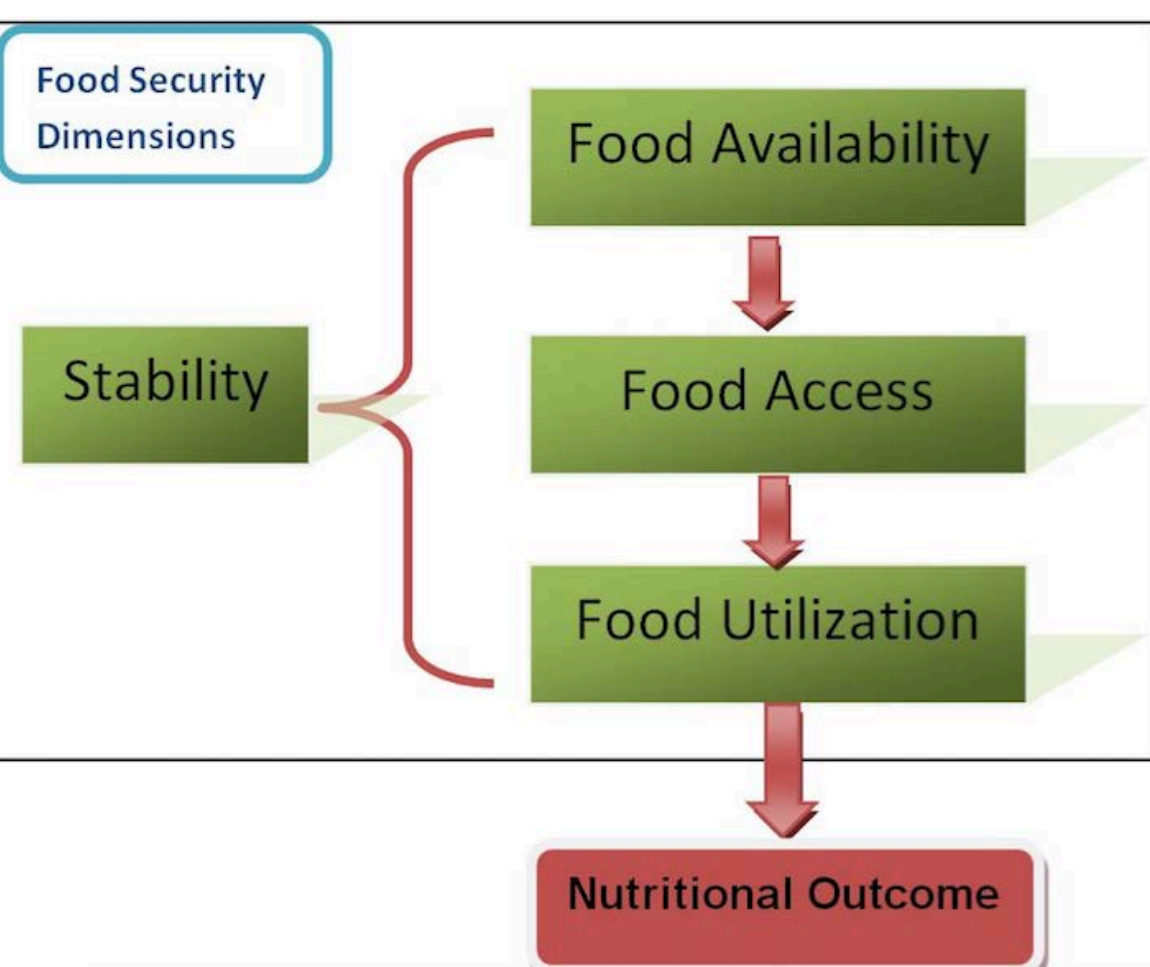


Figure 2: Represents the components of food security. Long term stability relies on strong foundations within availability, access, and utilization.

## Methods

- 302 students responded to a 23 question survey, active for 24 days, covering topics such as demographics, food choice and access on campus, food awareness, and interest in food projects.
- 32% of administrative coordinators, 47% of FYS and SSIR professors, and 33% of club presidents distributed the survey
- Conducted 5 semi-structured ethnographic interviews with university dining services staff in purchasing and residential dining, staff from Cavalier Produce (University's vendor for fruits and vegetables), and the CEO of Seasonal Roots (local community supported agriculture company).

## Food Production Results

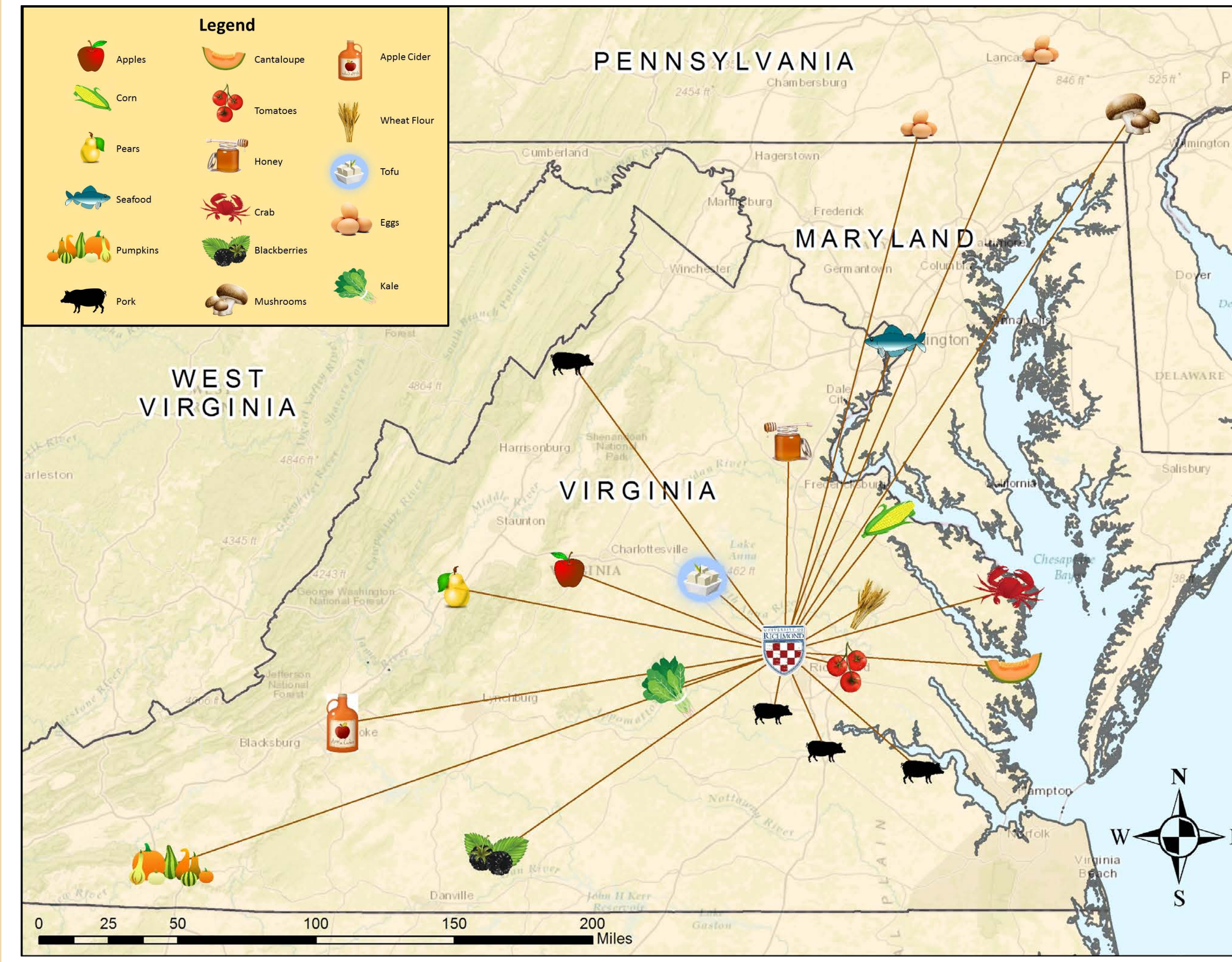


Figure 3: Map of Dining Services local food vendors. 'Local' is defined by STARS criteria as food that has been grown, raised, caught, processed, or distributed by a community-based producer within a 250 mile radius of consumption. Products from intensive livestock operations (e.g. CAFO facilities), large producers (\$5 million or more in annual sales), and geographically dispersed products are excluded from this category. Data taken from University of Richmond STARS food report for February 2016.

Product Category	Percentage of total University expenditures for food and beverage allocated to each category	Percentage of category purchases that are local & community-based (250mi)	Percentage of category purchases that are third party verified (e.g. Certified Organic, Fairtrade, Humane, or FSC labeled)	Percentage of category purchases that are conventionally produced
Dairy	15.8%	0.0%	0.0%	100.0%
Beverages	4.0%	1.1%	0.1%	98.8%
Meat	18.2%	2.4%	0.0%	97.6%
Poultry	15.9%	0.0%	0.0%	100.0%
Eggs	2.9%	0.3%	0.0%	99.7%
Produce	3.0%	27.8%	0.0%	72.2%
Grocery	32.6%	0.2%	0.0%	99.8%
Tea/Coffee	0.7%	0.0%	0.0%	100.0%
Fish/Seafood	3.6%	2.5%	48.8%	48.7%
Baked goods	3.3%			100.0%

Table 1. Percentage of University's food and beverage purchases according to category. Lists percentages of purchases sourced from local and community-based producers, third party verified, and conventional practices. The 'community-based' category is designed to recognize campus farms, gardens, and small local producers that may not have the resources necessary to pursue third party sustainability certifications. 'Third party verified' refers to producers who have obtained one or more certifications proving their product has been produced by ecologically sound, fair and/or humane practices according to recognized sustainability standards. 'Conventional practices' include meat, poultry, fish/seafood, eggs, and dairy products that are not third party verified or local and community-based.

Rows have been highlighted to demonstrate categories with highest percentage of 'local and community-based' and 'third-party verified' purchases. Note that while the University spends only 3% and 3.6% of total food and beverage expenditure on 'Produce' and 'Fish/Seafood' respectively, 27.8% of total Produce expenditure comes from local and community based producers (see Figure 3 map) and 48.8% of total Fish/Seafood expenditure is third party verified. As of February 2016, the University sources 3.23% of its total food and beverage expenditure from local and community-based and third party verified sources.

## Survey Results

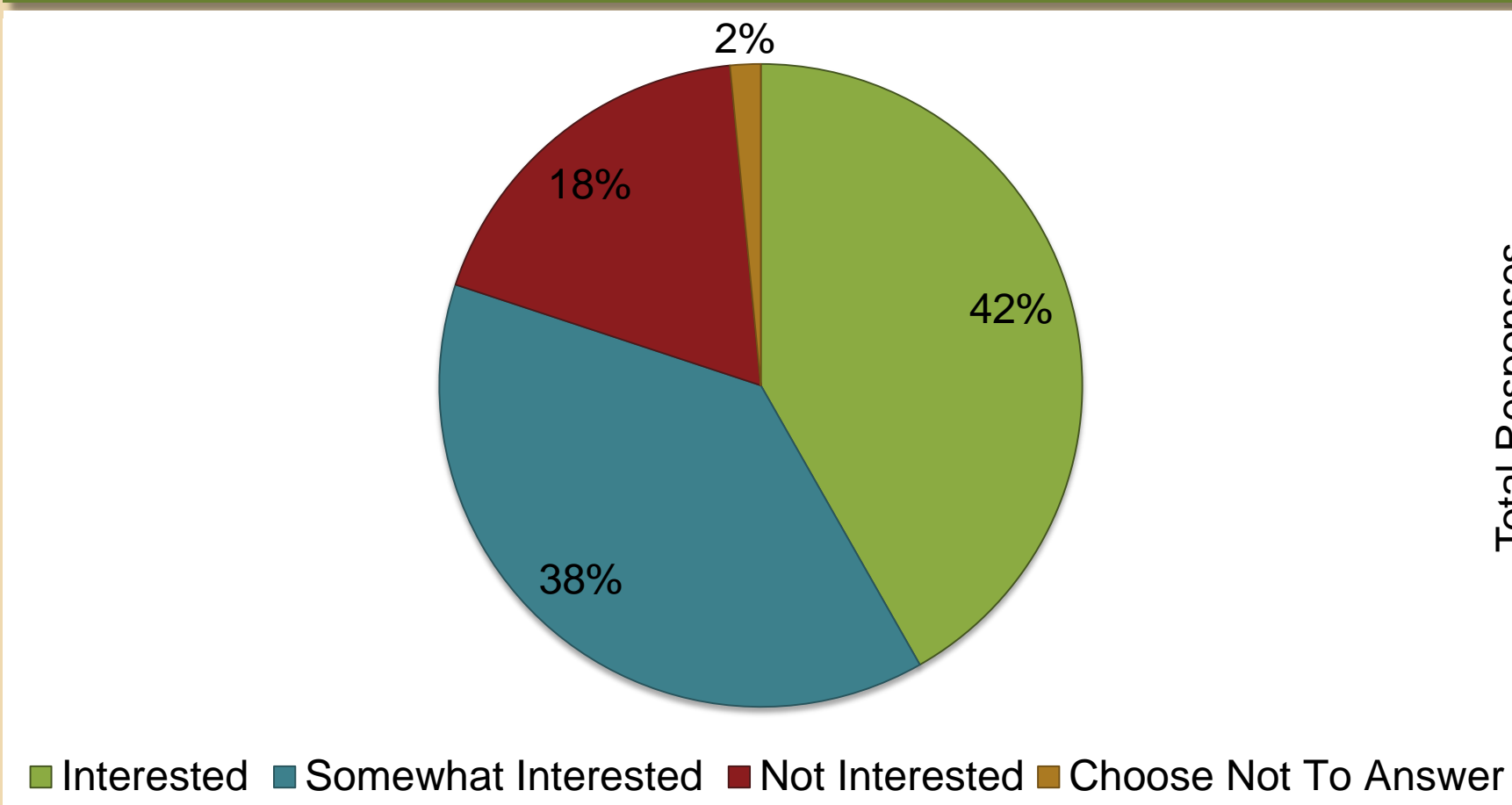


Figure 4: We asked students how interested were they in participating in a food project such as a garden.

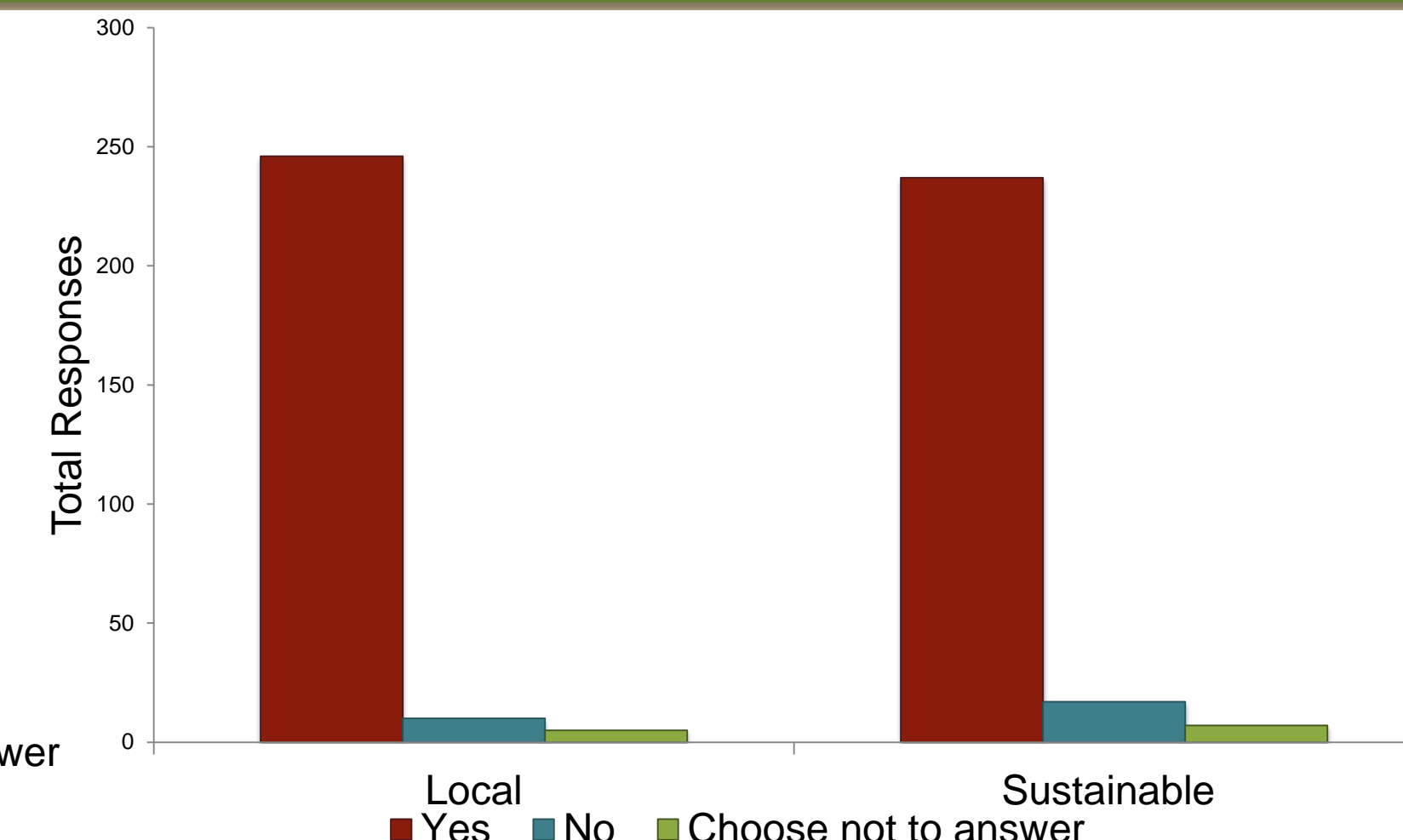


Figure 5: We asked students if they thought the University should source more food from local farmers and sustainable food producers

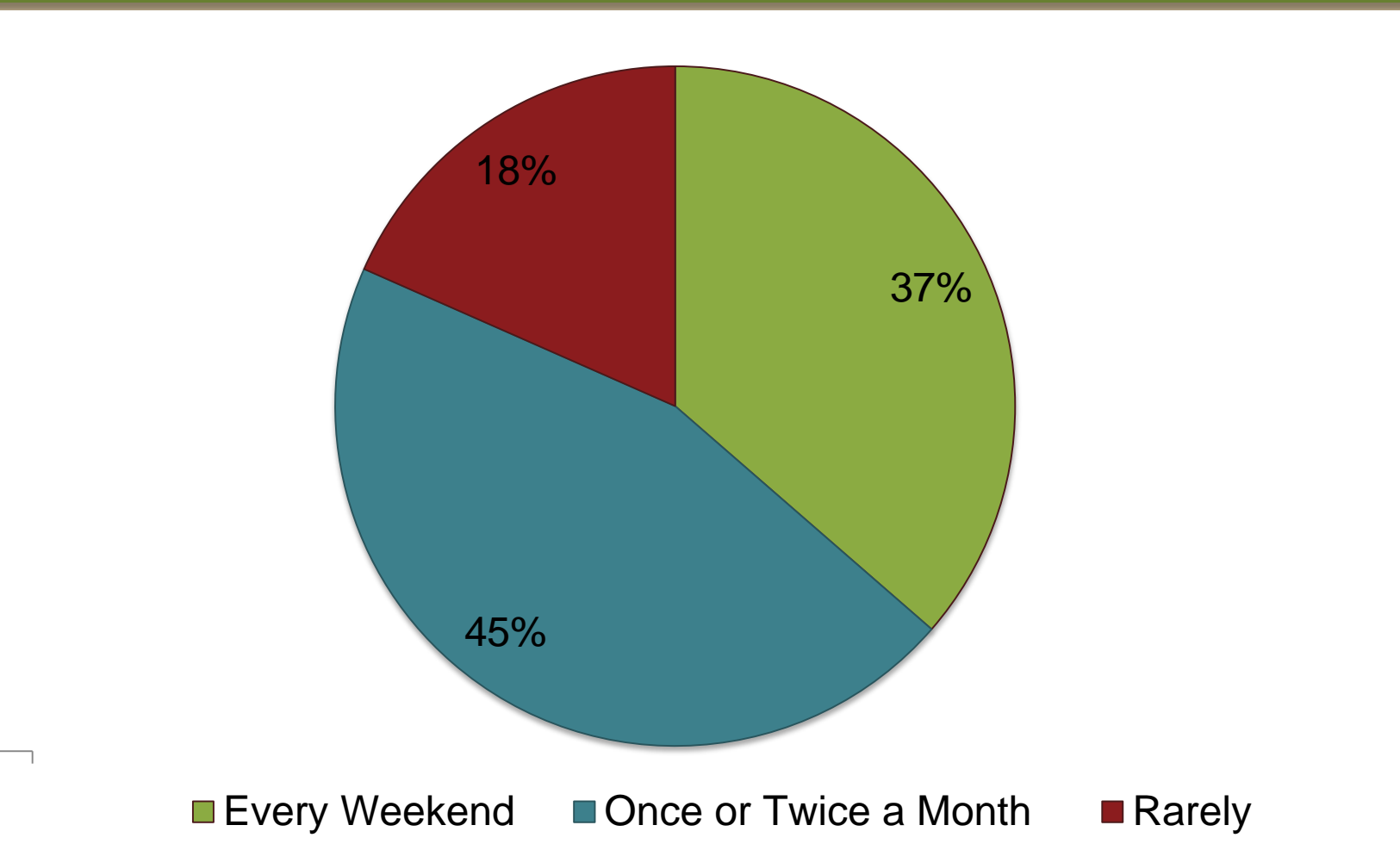


Figure 6: We asked students how often would they purchase produce from a farmers market that came to campus every weekend.

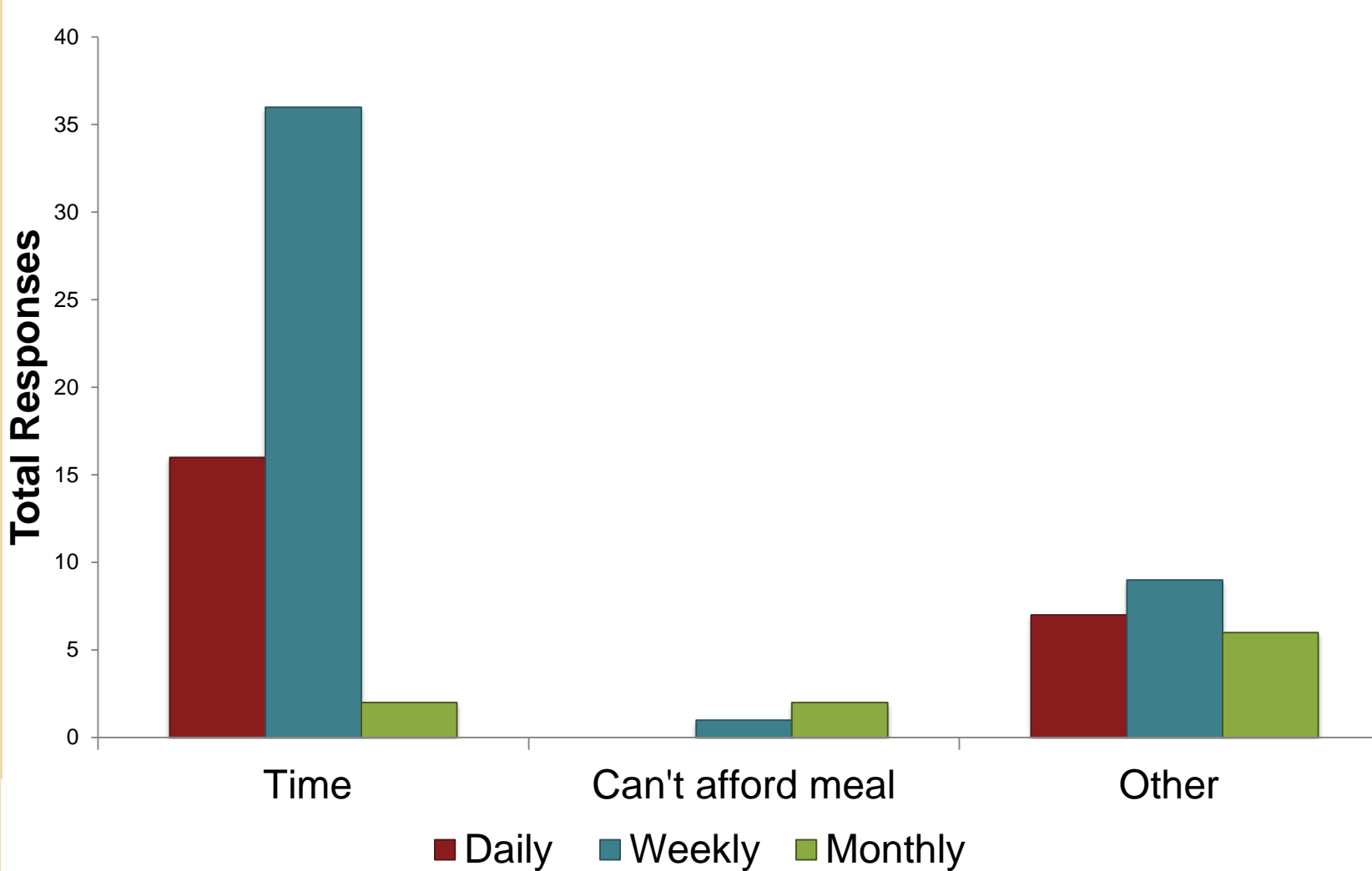


Figure 7: Represents why students intentionally skip meals and how often they skip meals due to time, budget, and other reasons. Just over a quarter of students said they intentionally skip meals.

**Survey Statistics**

302 students responded to the survey  
 68% identified as females 38% graduate in 2020  
 92% have a meal plan with Heilman Dining Hall swipes

51% of students are somewhat concerned about the environmental impacts of their food choice followed by never concerned, and very concerned.

50% of students who consume meat responded the school had enough of the kinds of food they want whereas 64% of students who don't consume meat responded school has enough food but not food I want

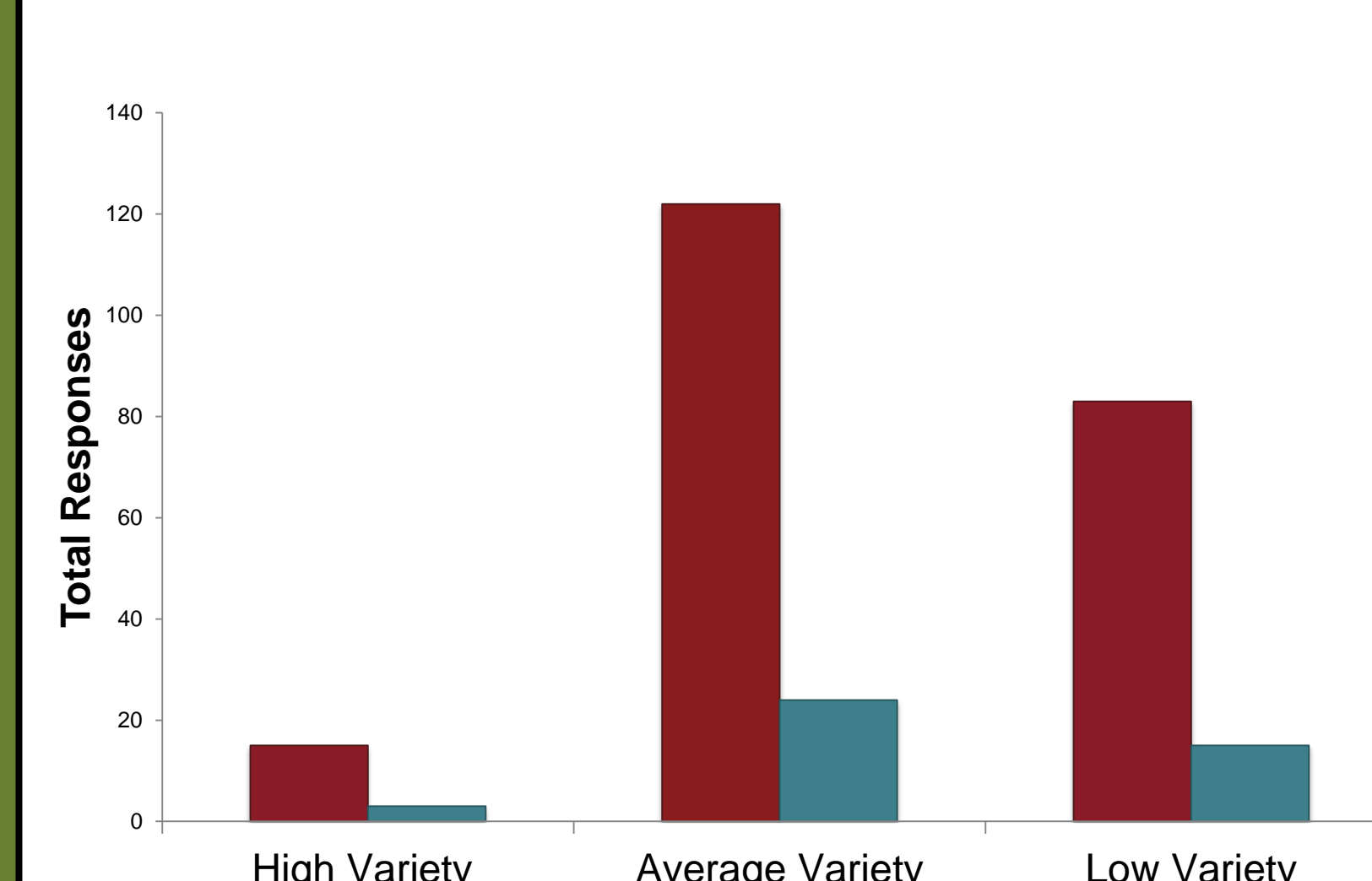
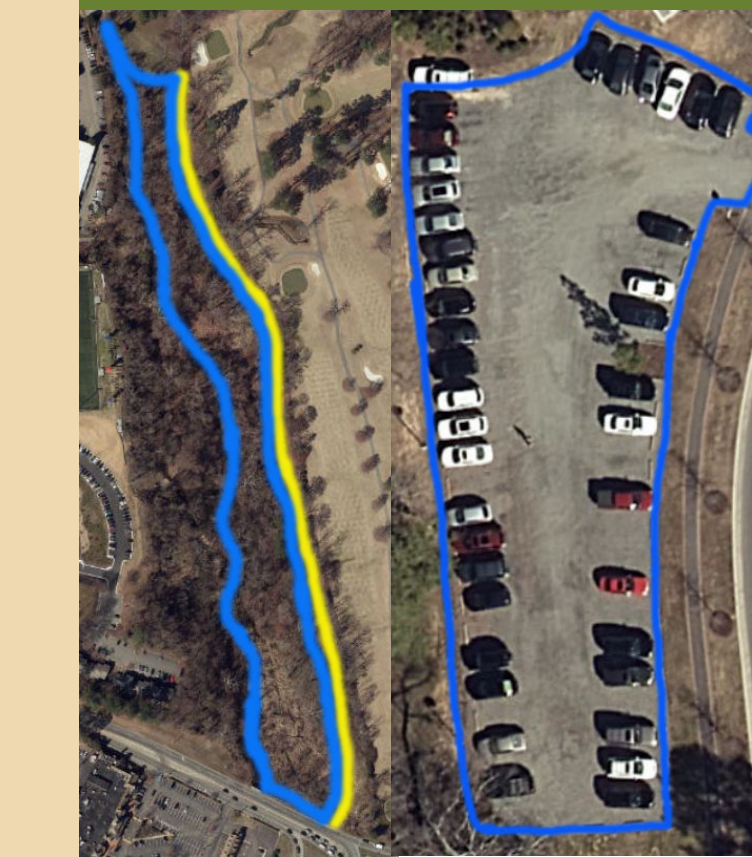
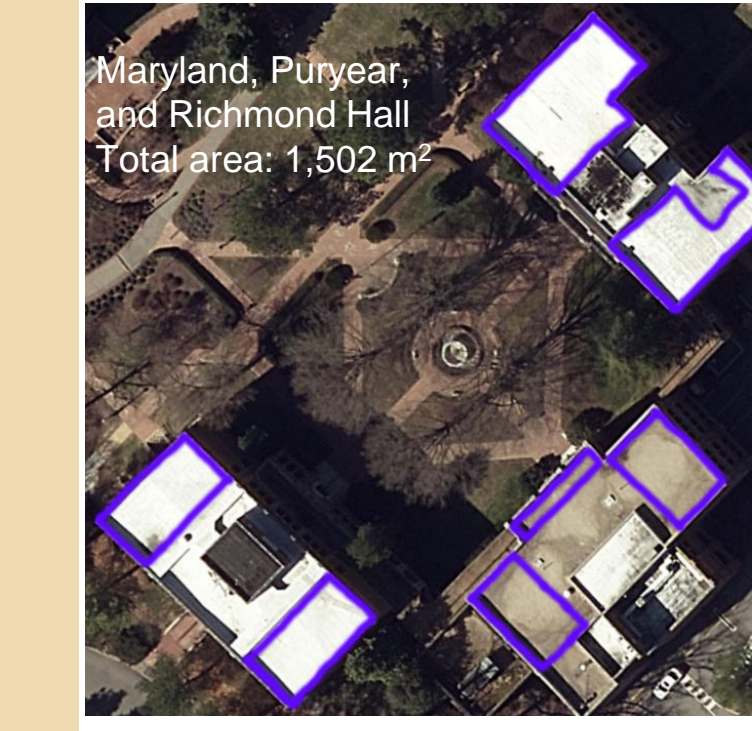


Figure 8: Students (meat eaters and non meat eaters) were asked to describe the variety of fruits and vegetables available on campus

## Assets and Recommendations



Gambles Mill Corridor Area: 57,739 m<sup>2</sup>  
Westhampton Gravel Area: 2,485 m<sup>2</sup>



Maryland, Pūnyear, and Richmond Hall Total area: 1,502 m<sup>2</sup>



School of Law Total area: 380 m<sup>2</sup>



Heilman Dining Center Total area: 968 m<sup>2</sup>

Using the space concepts discussed in Feenstra (2002) we present current assets and recommend ways to expand these spaces

- Social Space
  - What we have
    1. Greeks going green
    2. Food Recovery Network
    3. Community garden
    4. Earth Lodge
  - What we recommend
    1. Organize more social and educational activities regarding food systems
    2. Expand garden space ex: orchard along Gambles Mill Corridor or rooftop gardens
- Political Space
  - What we have
    1. GreenUR
    2. Office for Sustainability
  - What we recommend
    1. Make the activities of GreenUR and Office for Sustainability more transparent and accessible
    2. Involve students, staff, and faculty to create guidelines for purchasing sustainable food
    3. Develop a food committee comprised of students, staff, and faculty
- Intellectual Space
  - What we have
    1. Environmental Studies
    2. Geography and the Environment: GESS
    3. Sociology/Anthropology
  - What we recommend
    1. Expand options for active learning on campus: gardening activities, individual internships, sustainability themed first year experience
- Economic Space
  - What we have
    1. Office for Sustainability
    2. Quality Enhancement Plan
    3. Richmond Guarantee
  - What we recommend
    1. Cross-campus collaboration to apply for food grants

## Conclusions

Local and sustainable food movements are increasingly common and represent the future of our food system. Implementing these food frameworks on college campuses leads to less reliance on our current environmentally intensive agricultural system while engaging students with sustainability and the fundamentals of food production. Our results show 95% of students want more local and sustainable food options, 42% are interested in gardening, and 81% of students would buy produce at a on campus farmers market at least once a month. For the future we want to encourage guidelines for sustainability, an across campus food committee, and more awareness/education about food systems and how they operate environmentally, economically, politically, and socially. The recommendations suggested from our research will fulfill goals stated in the strategic plan and create meaningful cross campus relationships.

### Works Cited and Acknowledgements

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