

# How Fresh is FRESH?

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## Introduction

Colleges and universities throughout the United States are pushing for a more equitable food system through initiatives such as FRESH to Table, Boston College's premier dining program. The FRESH program seeks to incorporate Fairly Traded, Regional, Equitable, Sustainable, and Healthy food items into the diets of undergraduate students. In order for a food item to earn the FRESH label it must satisfy two out of the five requirements included in the name; however, there is a knowledge gap in terms of how/why producers/food qualify as equitable, regionality/sustainability of foods based on vendor location, and impact of program on student eating habits.

## Research Questions:

1. Assessing The Equitability of the FRESH Label
2. Assessing The Sustainability of the FRESH Label
3. Assessing the Impact of the FRESH Label

## Methods

**Question 1:** Equitable employment is defined here as a job that provides the following: stable employment, benefits, safe working conditions, and a living wage. Boston College Dining Services (BCDS) provided a list of all the businesses they have already identified as having equitable labor practices along with their reasoning. Businesses that were included in BCDS's list under vague or confusing reasoning were verified through additional research to determine if they meet the above definition.

**Question 2:** All data used was taken from the Fall 2019 semester. Vendors were compared based on their sustainability according to BCDS, but they did not have enough information on some vendors to have made a determination about their sustainability, and those are categorized as unknown. The distance between vendors and BC was calculated as the crow flies, using their coordinates and the haversine formula. The coordinates of the vendors were determined by their zip codes, or if they were international, their addresses. Emissions from the distribution to BC were calculated by multiplying the distance shipments traveled, the weight of the shipments, and the emissions factor of freight trucks, 143.8 gCO<sub>2</sub> per tonne km.<sup>1,2</sup>

**Question 3:** A two-section survey with a quantitative section meant to gauge familiarity with the FRESH program, associated healthy eating habits, and actual eating habits and a qualitative section meant to determine more personal definitions of what healthy and unhealthy eating habits mean to the participants.

## Results

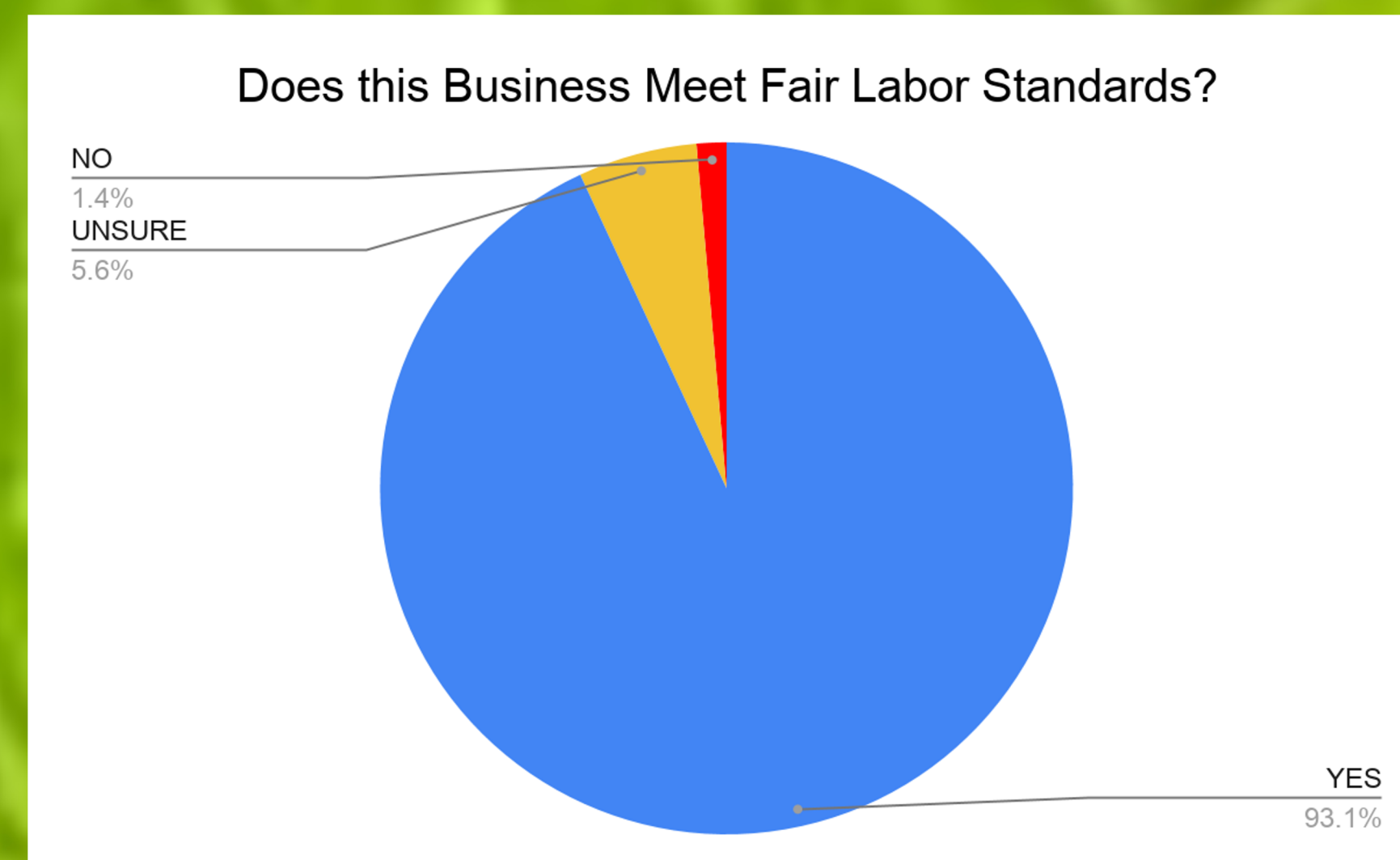


Figure 1: Of the 72 businesses in this study, 67 (93.1%) were verified as having fair labor practices. Research was inconclusive for 4 businesses (5.6%), and they were put in the UNSURE category. Only 1 business did not meet the fair labor standards outlined in this study.

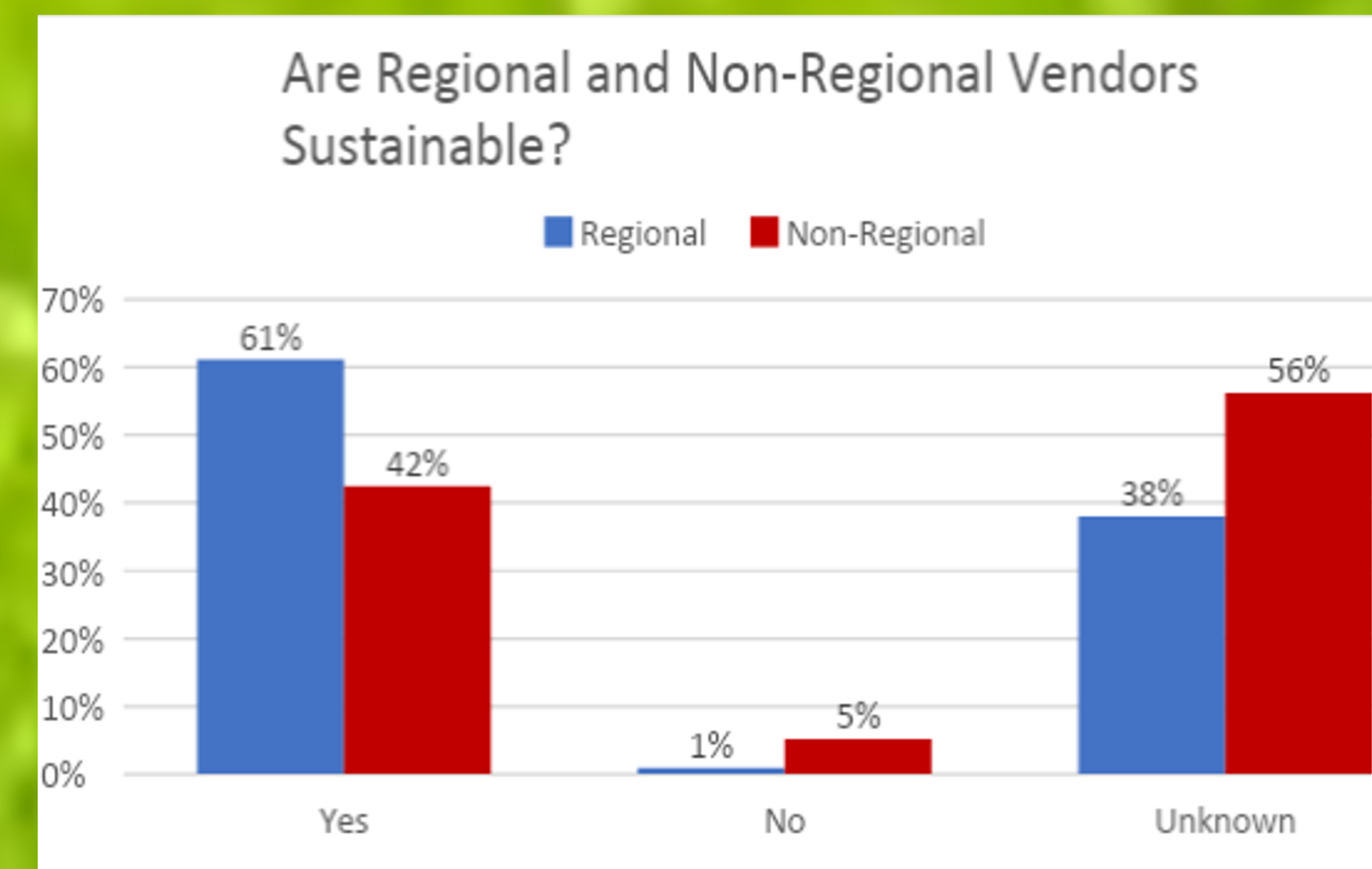


Figure 2: Sustainability of regional and non-regional vendors. 'Yes' indicates a vendor is considered sustainable, 'No' indicates not sustainable, and 'Unknown' indicates not yet determined.

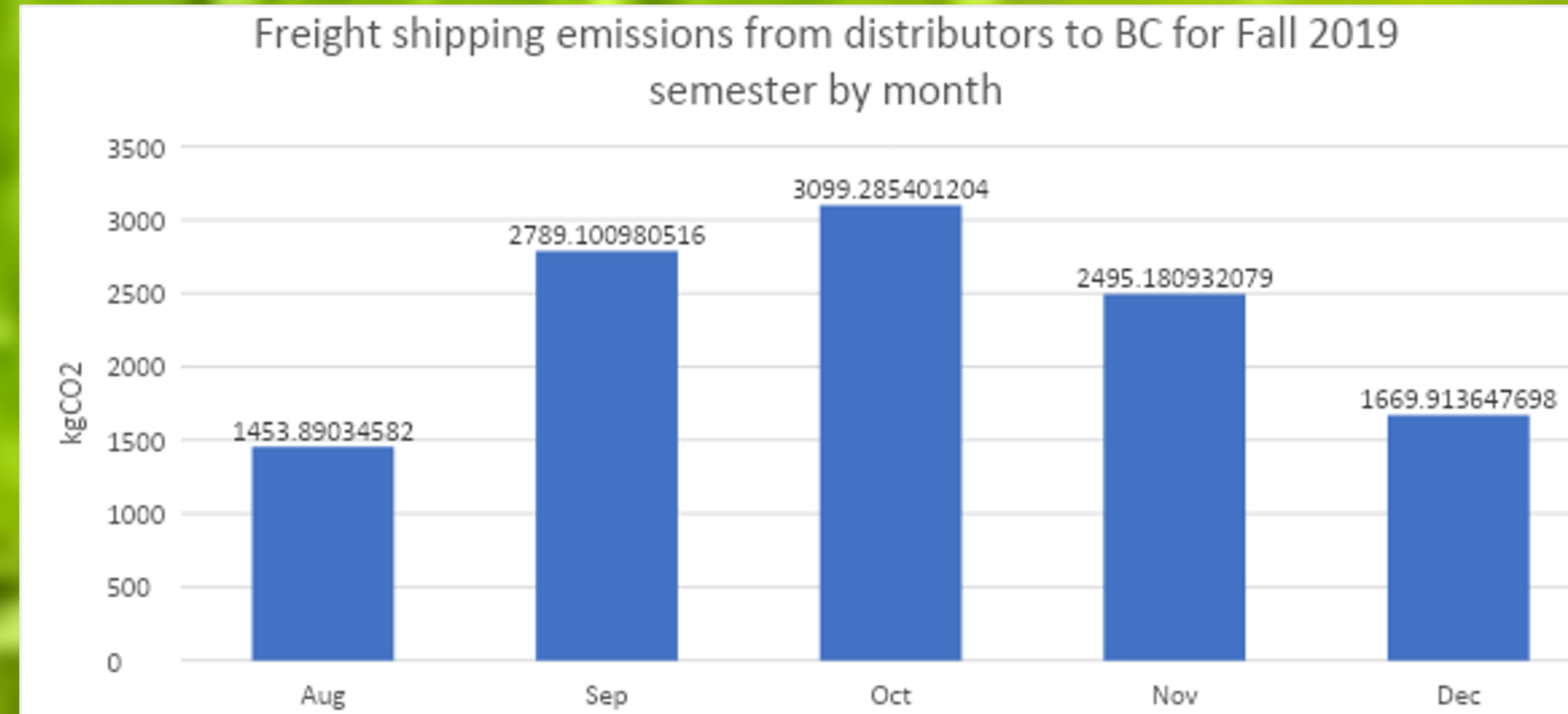
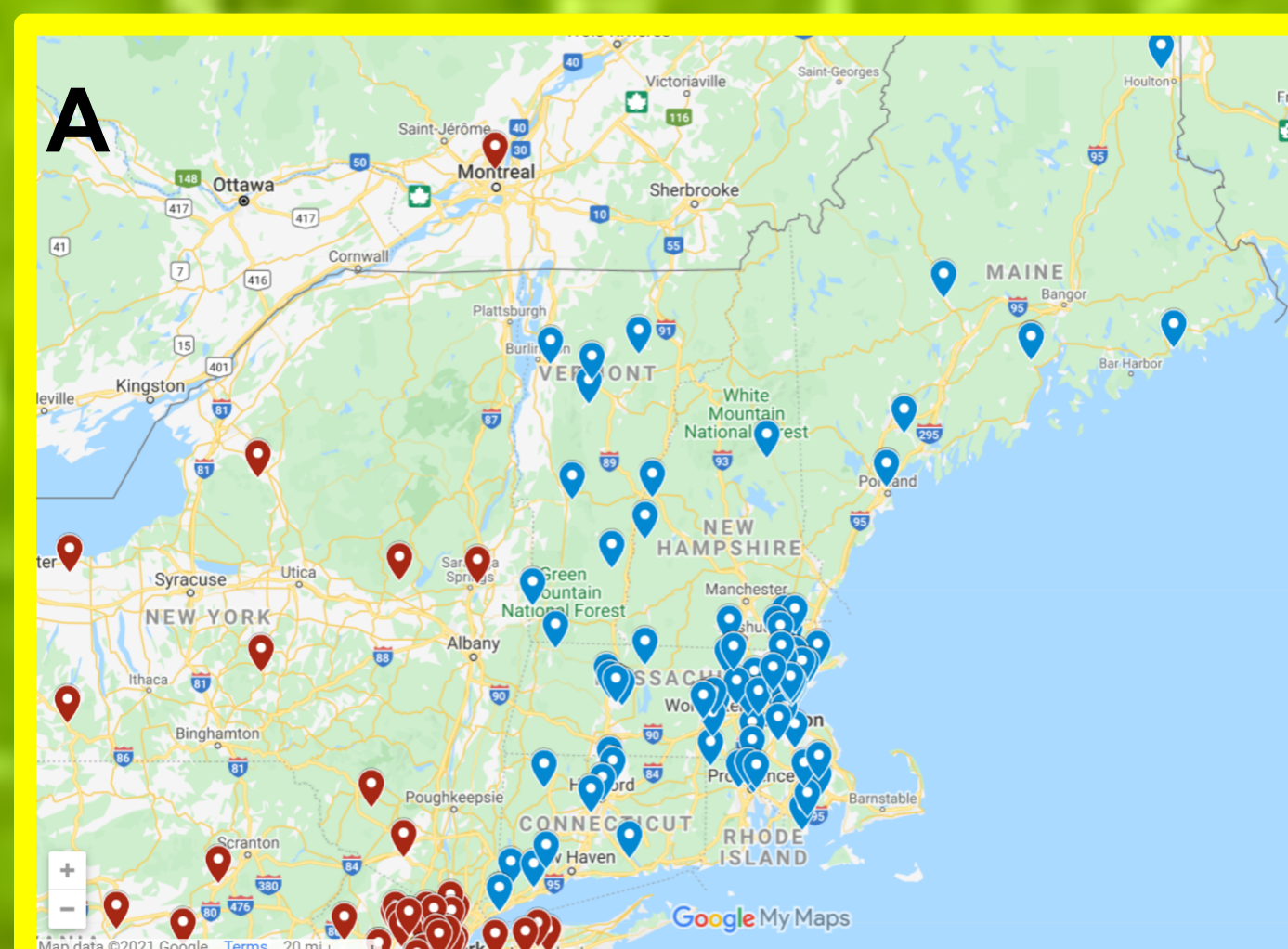


Figure 3: CO<sub>2</sub> emissions of freight shipping for the Fall 2019 semester in kgCO<sub>2</sub> by month. Emissions are quantified as the CO<sub>2</sub> released for the transport of goods being brought to BC from the distributors on their trucks, and therefore present not how many trips distributors are making but how much is in those trips.



Figure 4: Maps of vendor locations in New England (A) and worldwide (B). The average distance of the 106 regional vendors with determined locations from BC is 91.0 ± 94.0 km, with a median distance of 51.8 km. The average distance of the 290 non-regional vendors with determined locations from BC was 2,185.2 ± 2,015.0 km, with a median distance of 1493.1 km. Click [here](#) for interactive map.

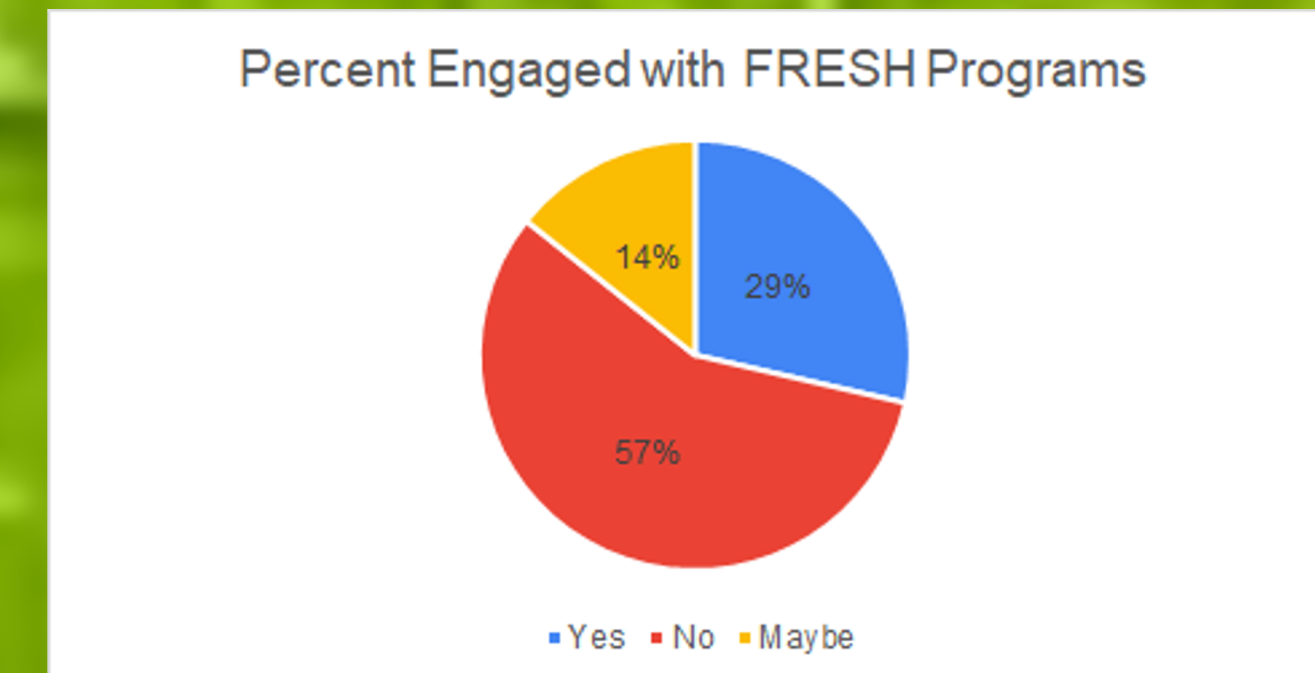
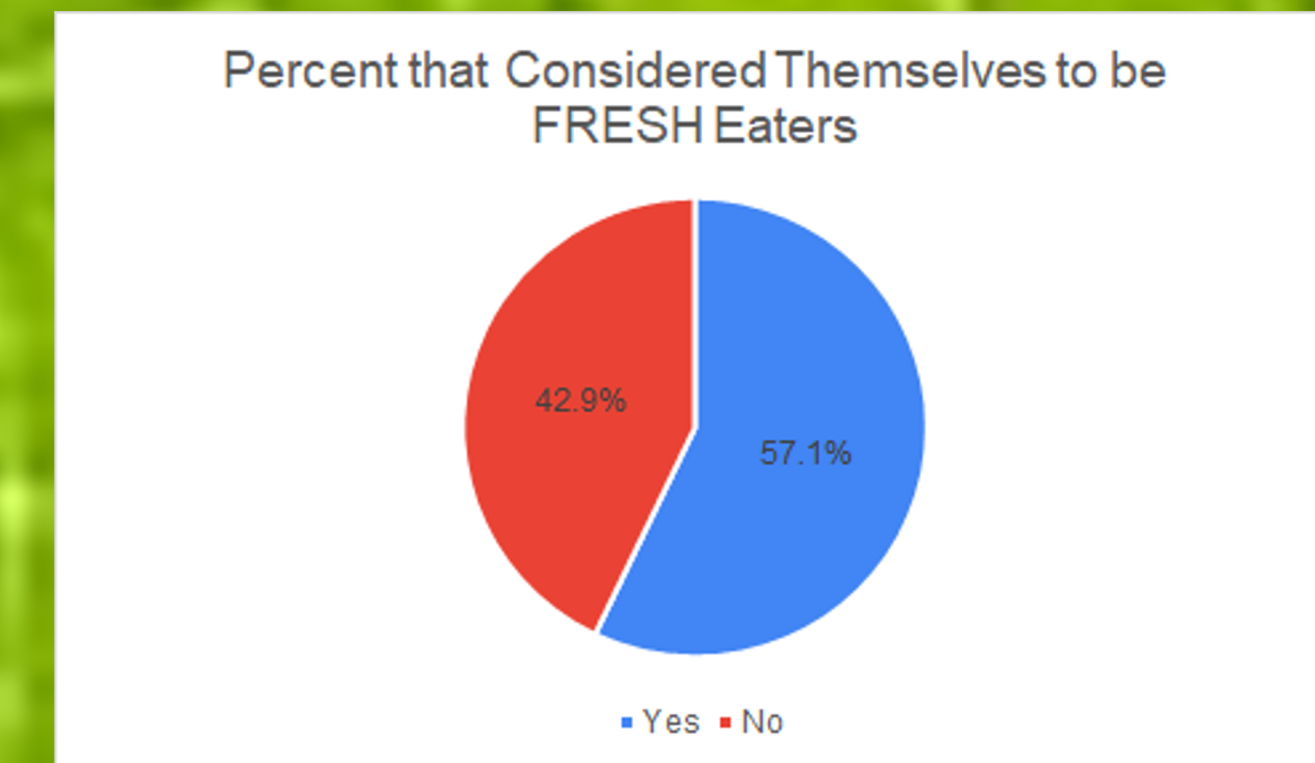


Figure 5: Pie charts of self-proclaimed "FRESH" status versus pie chart of self-proclaimed engagement with FRESH program (52 respondents)

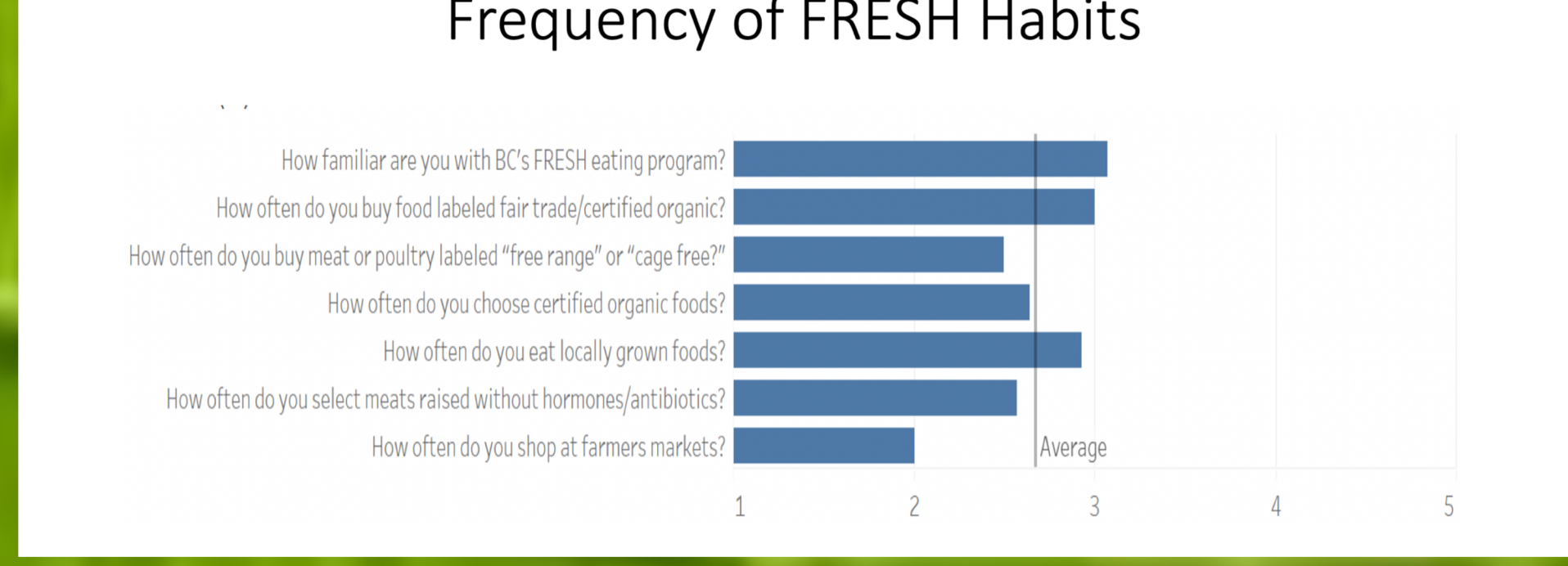
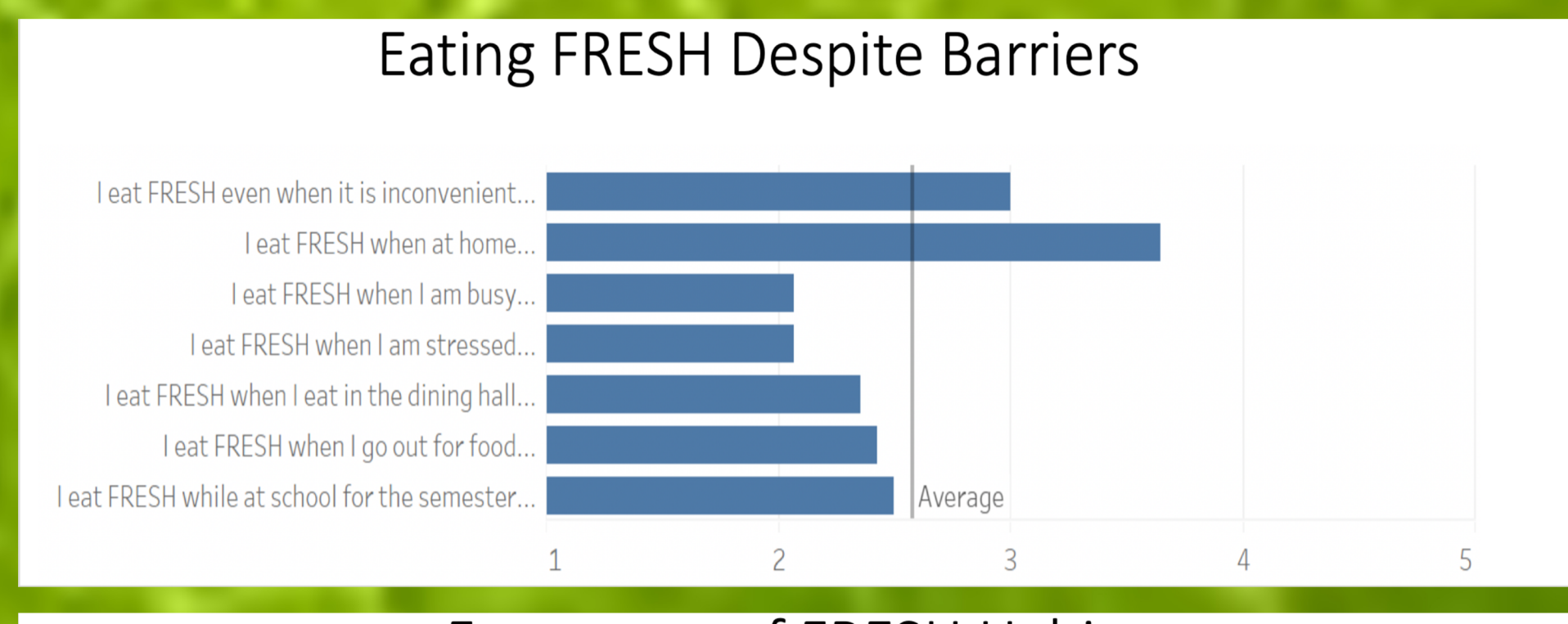


Figure 6: (Above) Chart depicting frequency of FRESH associated habits where 1 is "Never" and 5 is "Weekly" (52 respondents)

Figure 7: (Below) Chart depicting FRESH tendencies despite barriers where 1 is "Never" and 5 is "Always" (52 respondents)

## Discussion

### Question 1:

Findings of this study largely confirm that the companies BCDS identified as Equitable do in fact have fair labor practices, with one notable exception: Hillandale Farms. After looking into Hillandale Farms, several concerning reports immediately surfaced, including one about unsafe working conditions.<sup>3</sup>

### Question 2:

- A substantial percentage of both regional and non-regional vendors had undetermined sustainability.
- The differences in distances from the school between the two categories is substantial.
- Regional is not always closer, brings up an important discussion about what can be considered 'local'.
- While regional vendors account for a lower percent of the distributor to school emissions, they also account for a lower percent of the total weight of goods.

### Question 3:

- Respondents showed an apparent lack of interaction with FRESH programs but still demonstrated knowledge of FRESH tenets.
- Significant barriers to FRESH eating which explain the disparity between beliefs and actual student eating habits are price, time, convenience, and stress.

## Recommendations

BCDS should further analyze existing data to further establish the sustainability and equitability of the FRESH label. To determine environmental impact of regional and sustainable categories, further defining the parameters and levels of the supply chain is necessary. To pursue a socially just food system, BCDS should standardize a system for determining which businesses qualify as fair labor food suppliers. Finally, BCDS can address barriers to healthy eating on campus through programs such as setting up easy-meal prep classes, partnering with the Institute for Wellness Coaching.

## References

1. Mathers, J., Wolfé, C., Norsworthy, M., & Craft, E (2014). "The Green Freight Handbook". Environmental Defense Fund.
2. Transportation and Climate Division Office of Transportation and Air Quality U.S. Environmental Protection Agency (2020). 2020 SmartWay Shipper Company Partner Tool: Technical Documentation: U.S. Version 2.0.19 (Data Year 2019). EPA
3. Wright, D., Hawkins, S., Wang, J., Martz, G., & Efron, L. (2015, June 10). Hillandale Farms Responds to Hidden Camera Footage Showing Decomposing Chickens at Pennsylvania Egg Farm. ABC News.