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## Mapping the VCU Campus Food Environment

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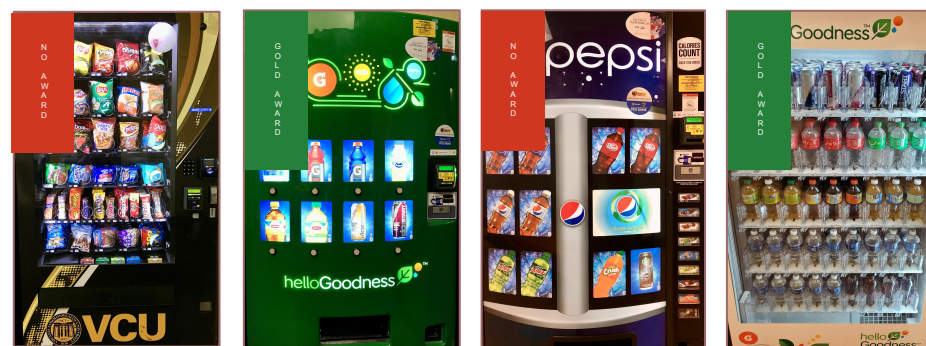
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## INTRODUCTION

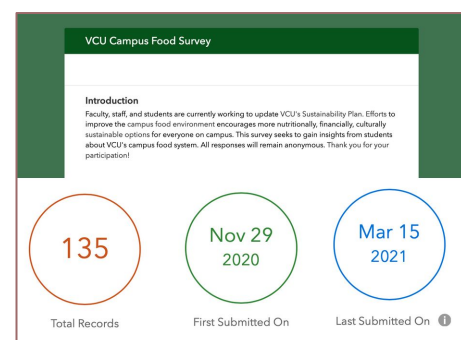
*Preliminary research from a related VCU faculty team indicated that roughly 1/3 of all VCU students experience some level of food insecurity. Interventions to remedy this dire situation will require a more complete picture of the campus food environment. This project documented aspects of that environment.*

## METHODS

- Research conducted between Fall 2019 through Spring 2021 with contributions from 53 undergraduate students through their ENV5 101 applied research groups
- Nutritional Environment Measure Survey ([NEMS](#)) toolkit created by Penn State University
- NEMS-Vending | **NEMS-V** assessed campus vending machines by nutritional value, location, availability, cost, and product advertising



- VCU vending machines assigned award levels: **gold** (50% healthy options), **silver** (40% healthy options), **bronze** (30% healthy options), and **none** (less than 30% healthy options)
- NEMS-Corner Store | **NEMS-CS** measured canned, frozen, and fresh vegetables and fruits as well as meal, snack, and beverage items commonly found within corner stores
- NEMS-CS evaluates corner stores food on a **61 point system** dependent on availability, price, and acceptable quality
- NEMS results depicted in VCU Campus geospatial map
- Additionally, student surveys administered to gauge general usage and attitudes towards food options on campus



### VCU Buildings Surveyed

- 8 Residential Halls
- 12 Academic and Student Services
- 5 Buildings No Vending Options

### Vending Machine Options

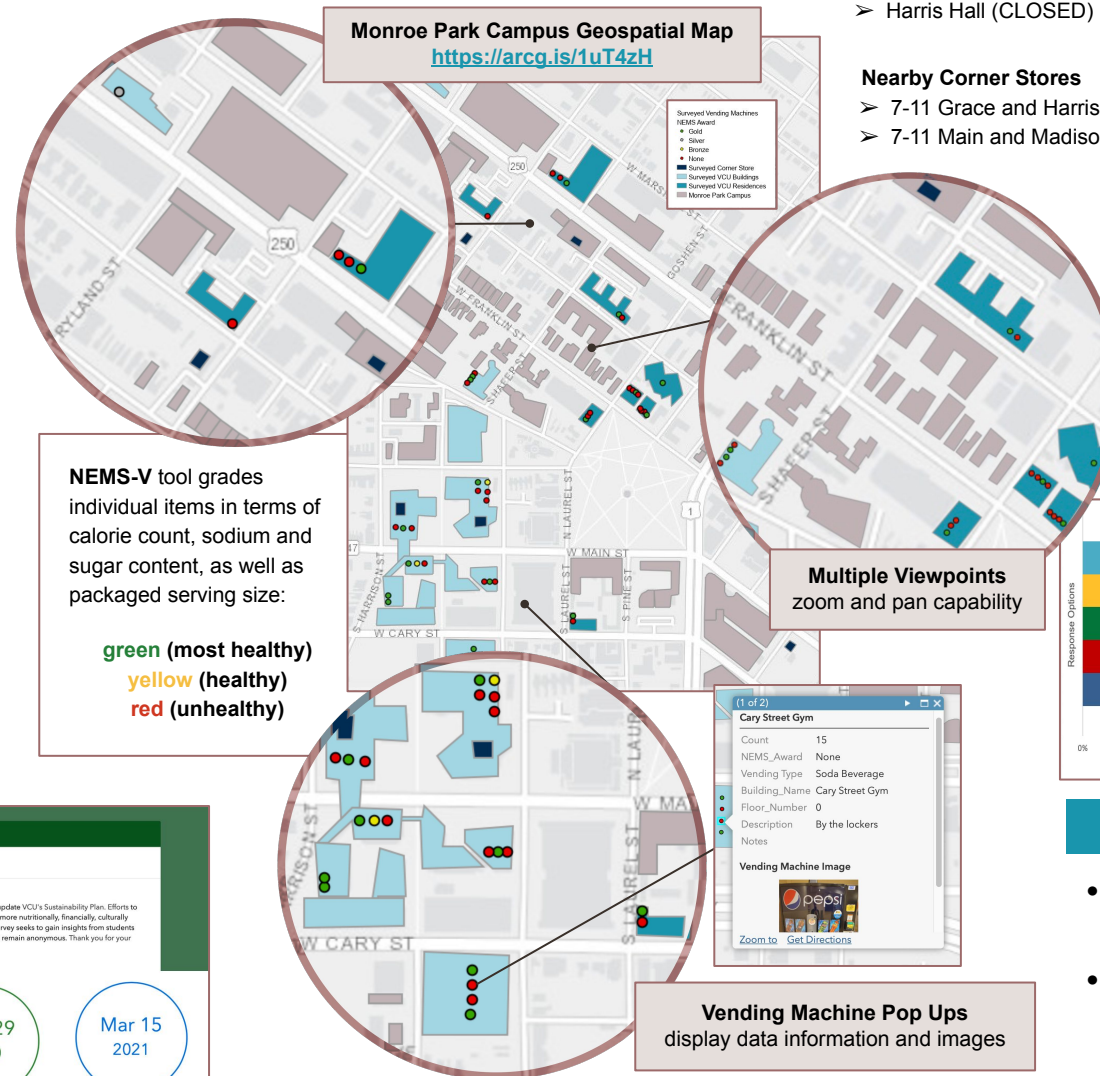
- Snack
- Hello Goodness Beverages
- Pepsi/Aquafina Products

### On Campus Corner Stores

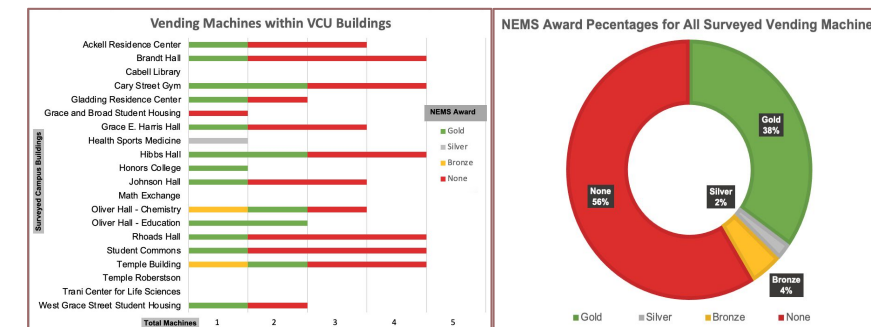
- POD Market
- Barnes & Noble Cafe
- Harris Hall (CLOSED)

### Nearby Corner Stores

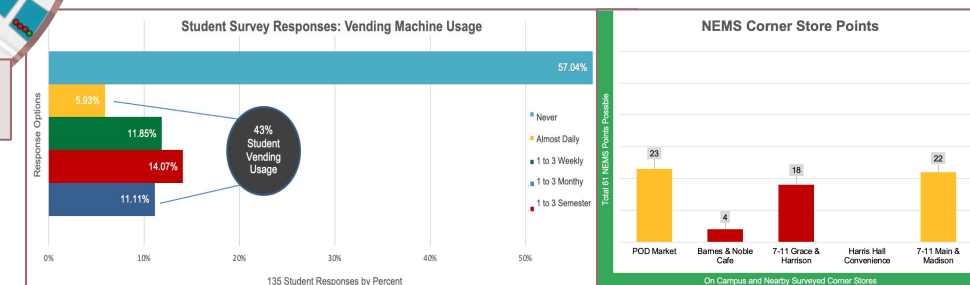
- 7-11 Grace and Harrison
- 7-11 Main and Madison



## RESEARCH FINDINGS



- All surveyed snack machines and 11 beverage machines on received no awards due to overwhelming unhealthy options while all Hello Goodness beverage machines received gold awards due to more balanced choices
- All corner stores surveyed received low scores below 25 points out of 61 total; Barnes & Noble Cafe the lowest (4 pts) POD Market the highest (24 pts)
- 85% of the 135 students surveyed believed food insecurity is a significant issue among college students and 84% reported changes in their own food behaviors



## CONCLUSION

- Recommend replacing current snack machines (which include at most 4 healthy options out of 35) with more balanced choices such as Hello Goodness snack machines
- Replace plastic beverage bottles with can varieties for lower-calories per volume and more sustainable package as the university transitions away from single-use plastics

*Our hope in representing the data in a visually informed layout will incite action by the university administration to implement new opportunities ensuring a healthy and balanced food environment for the VCU community.*