Executive Summary 2018-19

Real Food and Climate Emissions Analysis at Santa Clara University

Working towards a more sustainable and just campus food system

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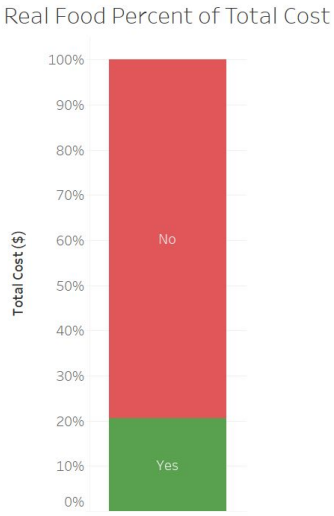
Overview

Dining service providers at institutions of higher education have large purchasing power. This presents colleges and universities with an opportunity for improving equity and sustainability in local, national, and global food systems. Recognizing this opportunity and responsibility, Santa Clara University has pledged to reduce carbon emissions and advance issues of sustainability and environmental justice in campus food purchases, amongst many other operations.

To track progress and identify areas for improvement, SCU has collaborated with the food justice organization Real Food Challenge (RFC) and the carbon and nitrogen emissions calculator Sustainability Indicator Management & Analysis Platform (SIMAP) to analyze the amount of Real Food served on campus and to conduct a greenhouse gas emissions profile of the University's food purchasing patterns.

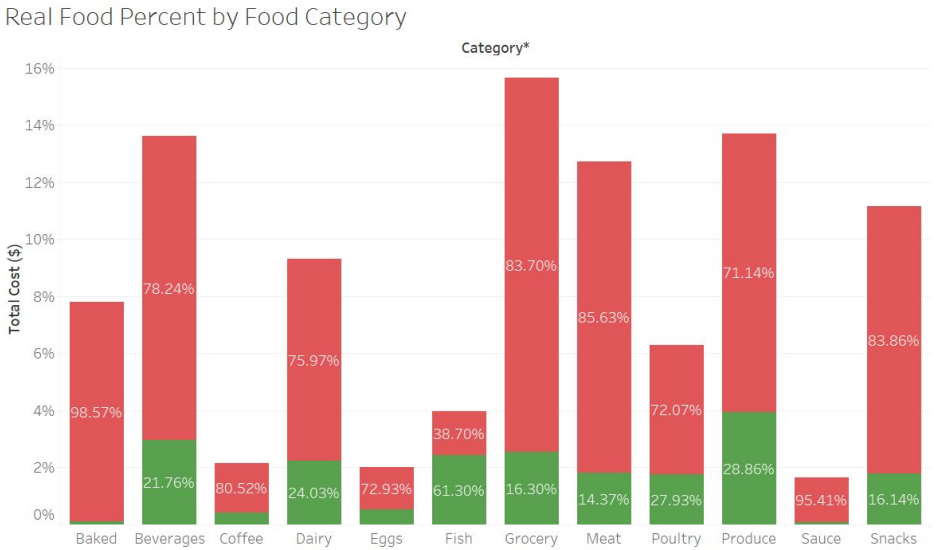
Research Questions

1. What percent of food purchased at SCU is Real Food?
2. What is the greenhouse gas emissions profile of the food products purchased at SCU?
3. Which products purchased at SCU promote a more sustainable, equitable food system? Which do not?



Methods

Two student fellows analyzed over 11,000 line items of purchasing records from October 2018 and February 2019.



For a food product to be considered "Real", it must meet at least 1 of 4 criteria: fair, local, humane or ecologically sound. Items were evaluated using the Real Food Guide 2.1 Standards[1]. Fair, humane, and ecologically sound criteria are met through 3rd-party certifications, such as USDA Organic and Fairtrade International. Local products must come from small- or medium-sized producers within 250 miles of campus.

Researchers recorded weight and up to three main ingredients for each line item for the purpose of calculating a greenhouse gas emissions profile using SIMAP Food Report calculator and analysis[2]. The calculator uses average carbon and nitrogen emissions data for production, transportation, and waste of individual food categories to estimate total carbon and nitrogen emissions for an institution.

Assumptions:

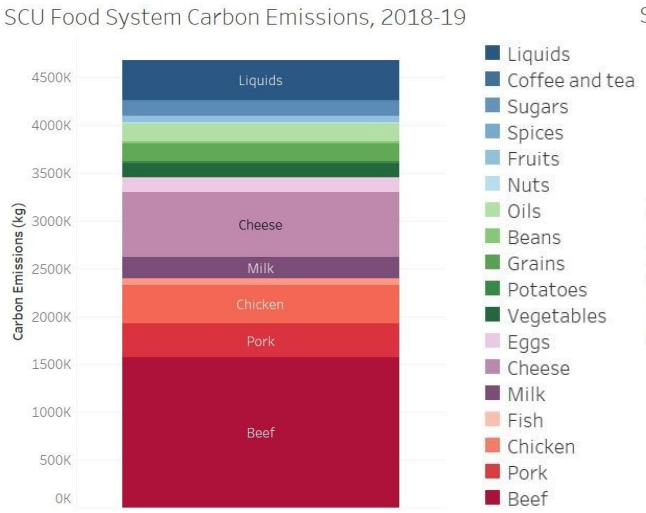
- Some weight and ingredient data were extrapolated.
- An estimated 2.35% of total spending was missing from food purchasing data.
- October 2018 and February 2019 were assumed to be representative months for the 2018-19 academic year for Santa Clara University's Real Food percentage and total weight of food purchased.

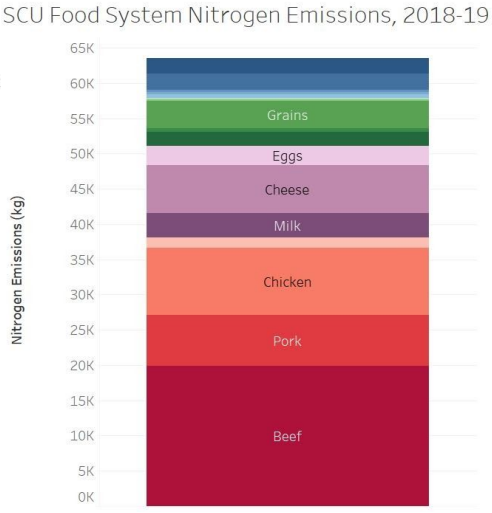
Results: Real Food Analysis

- **Total Real Food purchased was 20.68%, up 1% from last year's analysis and over 3% from analysis in 2015.**
- Real Food expenditures are concentrated in produce, fish, poultry, dairy, and beverage categories.
- Marketplace Real Food is largely local produce.
- Cellar Market Real Food is largely packaged, organic products.

Results: Climate Emission Analysis

- **81.33% of carbon emissions and 88.72% of nitrogen emissions from SCU's food system derive from the consumption of animal-based products.**
- Total carbon and nitrogen emissions are depicted below and summarized in the table in the next column[3,4].





	Weight (metric tons)	CO_2 Equivalents	Equivalent Gallons of Gasoline Burned
Carbon Dioxide (CO_2)	4,677.1	4,677.1	526,290
Nitrous Oxide (N_2O)	63.5	17,907	2,129,290

Recommendations to Improve Campus Food System Sustainability

- Source more produce from small, local farms.
- Promote purchasing of plant-based food products.
- Choose fair trade and/or organic bakery items.
- Switch to fair trade coffee, sugar, and tea.
- Purchase eggs from local and/or free-range distributors.
- Reduce purchasing of ultra-processed, conventional snack foods and beverages.
- Include educational materials at points of sale (such as the Marketplace and Cellar) to involve the broader student body in improving the campus food system.

Recommended Policy Changes

- Sign a Campus Commitment with the Real Food Challenge to annually increase Real Food purchases at Santa Clara.
- Form a Food Systems Working Group with stakeholders from multiple facets of the Santa Clara food system (students, dining managers and employees, faculty members, local sustainable food system allies).
    - Incorporate SIMAP into a yearly food system analysis.[5]

Acknowledgements and References

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[1] https://www.realfoodchallenge.org/
[2] https://unhsimap.org/home
[3]https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator
[4] https://www.epa.gov/ghgemissions/overview-greenhouse-gases Nitrogen emissions in the form of Nitrous Oxide (N2O) have a Global Warming Potential 265–298x that of CO2 emissions over a 100-year timescale. Values reflect the median of this estimate.
[5] Please direct questions or comments to the SCU Center for Sustainability at sustainablefood@scu.edu