Carolina Dining Services 2021 September Purchasing Period, UNC-Chapel Hill Real Food Calculator Final Report

Lynn Cha, Karen Jordan, Ceferino Killebrew, John Kinsey, Natalie Ollis

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I. Executive Summary

In September 2021, UNC purchasing included 21.47% “real food”. This means that 21.47% of UNC purchasing met certain certifications that aligned with the Real Food Guides definition of real food. This guide is housed within the Real Food Calculator, which is a system set into place by a group of student activists and sustainability proffesionals in order to calculate the exact percentage of real food an institution purchases. Within UNC specifically, the percentage of real food is based off the total purchases across its two dining halls, Chase and Lenoir, which in combined make up Carolina Dining Services; collequilly referred to as CDS.

II. Real Food Challenge and Intership Overview

The Real Food Challenge was started in 2007 by a group of student activists and sustainability experts. As interns our job is to analyze CDS invoices for a specific month, and find the exact percentage of real food was accounted for in the total purchasing. As long as this percentage is at or above 20%, CDS meets the RFCs real food goal. “Real food” is defined by the Real Food Calculator as any item that aligned under its 2.1 standards. CDS uses the 1.1 standards for their definition of real food, as it serves to provide a benchline standard of what real food is, and also because the 1.1 standards are the only version that Chancellor Folt signed into effect. We as interns still must also find the 2.1 percentage on top of this, however, as that is the number that the RFC actually takes into account. These standards include any food products that meets certifications within one of its four dividing categories: Local & Community Based, Fair, Ecologically Sound, and lastly, Humane. The first of these categories, local, is constituted by any product/product ingredient/distribution center that is within a certain distance of the institution being analyzed. With 1.1 standards this distance is capped at 150 miles, but under the newer 2.1 standards, this distance is extended to 250 miles. The second category, fair, is defined as any products that have/meet certain certifications, such as “Fair Trade Certified” by Fair Trade USA and “Ecocert Fair Trade Certified.” The third, Ecologically Sound, includes products with certifications such as “USDA Organic” and “Food Allience Certified”. Lastly, the Humane category, includes p roducts that have certifications such as “Biodynamic Certified” and “Animal Welfare Approved”. One of the largest differences within the humane category between the 1.1 and 2.1 standards lies within the fact that cage-free eggs count with the latter, and not with the former. On top of a product needing to fit into one of the above categories to count as real, it also had to pass all of the disqualifier checks. Examples of these disqualifiers includes any item that contained Genetically Modified Organisms (GMOs), any ultra-proccessed foods, and any product that came from a producer known to be a Concentrated Animal Feeding Operation (CAFO). If a product was deemed to align into any of the disqualifying categories, it was immediately counted as not real no matter how many other certifications it had.

III. Importance of RFC in Carolina Dining

RFC plays a large role within CDS. Although CDS isn’t technically legally bound to follow the RFC guidelines, they do year after year as it provides a simple and effective way to incorporate sustainable business practices within CDS. By having a set goal of 20%, there is no uncertainty about how much real food to purchase. By having the definition of real food set at a benchmark standard under the 1.1 RFC guidelines, there little variability about what specific foods qualify and what foods don’t. Incorporating such sustainable business practices, not only within CDS, but UNC as a whole is invaluable not only because it helps the planet, but also because it helps educate and hopefully inspire UNC students/alumni to pick up such actions within their own lifestyle. UNC also being such a large public institution while also still visibly caring about putting the planet first could serve to inspire other schools to follow suite in its journey, promoting more sustainable efforts across the country.

IV. Calculator Methodology

In order to run the calculator accurately, we first had to analyze invoices from the month of September 2021 that Carolina Dining Services provided us. We researched all the items purchased and vendors purchased from in order to determine which food items would count as real or not real under both the Real Food Calculator 1.1 and 2.1 standards. We called and sent emails to some companies, but we mostly looked at company websites to determine if the standards were met. RFC employees checked and confirmed our findings so we could finally calculate our results.

V. Final Results

Our final calculations showed that, if only considering the RFC 1.1 standards and 20% Real Food goal that Chancellor Folt approved, the Carolina Dining Services real food spending was slightly above the 20% threshold and in line with recent years (**Exhibit A**). The exact spending numbers were $225,439.61 for real food under 1.1 standards out of a total spend of $1,050,199.74, or 21.47%. However, when calculating the spend that counts as real under the newer RFC 2.1 standard, the number is reduced to $144,209.45, or 13.73% (**Exhibit B**).

By breaking down these real food spend percentages (**Exhibit C**), we saw that locality is a very important criteria when it comes to CDS purchasing, as about 70-76% (about 70% for 1.1 purchasing and about 76% for 2.1 purchasing) of real food purchased are real because they are “local”. Very little purchasing is considered “fair” under both RFC 1.1 and 2.1 standards (less than 3%). The “humane” real food spend percentage decreases from about 20% to about 12% between 1.1 and 2.1 due to the more strict standards. The local “increase” seen in the **Exhibit C** charts can be misleading, so it is important to note the decrease in pie size (total real food spend). For the most part, the increased percentage of “local” real food simply makes up for the reduction of “humane” foods, and does not represent an increase in “local” real food spend from 1.1 to 2.1 standard comparisons.

Exhibit D gives a better look at how the switch from RFC 1.1 to 2.1 standards changed the spending percentages per food category. Many categories did not see a change, such as baked goods, beverages, tea/coffee, etc. However, the updated standards had a major impact on the categories of eggs, meat, produce, and fish specifically. Most notably, about 80% of egg purchasing was considered real under the 1.1 standards, but close to 0% counts under the 2.1 standards. The exclusion of cage-free eggs, farms with too high revenue, and non-wild-caught fish may play a role in these decreases. **Exhibit D** also shows the percentage of spend in each category from September 2021 that were considered “real”. For example, about 93% of the tea/coffee that CDS purchased in this month was considered “real”, while only 4.6% of dairy purchasing was considered “real”. The categories with 20% or more counting as “real” under 2.1 are baked goods, poultry, fish, and tea/coffee. If considering 1.1 standards, this list extends to include eggs, meat, and produce. The beverage, dairy, and grocery category percentages remain low when considering either standard.

We also decided to measure CDS' s spending on products from women and minority owned (or co-owned) businesses, which is something the previous UNC RFC audit intern groups have not researched (**Exhibit E**). We found that about 11% of spending goes to such businesses, with about 7% going to minority owned or co-owned businesses and about 4% going to women owned or co-owned businesses. .1% of spending falls into both categories, meaning minority women own or co-own the businesses.

VI. Comparison to Previous Years

We compared our findings, data, and recommendations with past groups - namely, the groups who analyzed the purchasing periods of September 2019 and February 2020. This was done to keep track of trends, how the COVID-19 pandemic impacted CDS purchasing, and what past groups thought of RFC.

September 2019 Purchasing Period:

- Real food purchasing was calculated at 21.4%
- Recommended the following for RFC:
    - More clarity on definitions, certifications, and disqualifications
        - I.e. Why are concentrated animal feeding operations (CAFOs) considered a disqualifier? What makes certain certifications more useful towards assessing real food than others?
    - Recommended that revenue caps for the "local" qualifications be removed
    - Recommended that more certifications towards the "fair", "ecologically sound", and "humane" qualifications be used
- Recommended the following from CDS:
    - More purchasing of USDA certified food for both dining halls
    - More promotion of RFC guidelines and general sustainability in the dining halls
        - Stated that social media campaigns and management of databases by RFC interns are the most optimal way to do this

February 2020 Purchasing Period:

- Real Food purchasing was calculated at 12.4%
- Noted that COVID-19 restrictions made contacting vendors difficult. Thus, a lack of transparency ensued.
- Recommended the following for RFC:
    - Concluded that RFC does not give enough transparency and should strive to have more accessibility with definitions, certifications, and qualifications
    - Does not give enough consideration towards alternative sustainable measures
    - Only measures individual product sustainability rather than supply chain sustainability
    - Notwithstanding, it was reported that access to other yearly reports was easily accessible

- Recommended the following for CDS:

    - Hiring a full-time sustainability coordinator
    - Evaluate RFC standards and guidelines more carefully
    - Phasing out of RFC due to limitations and lack of transparency
    - More campus involvement for dining hall sustainability
    - Creating an internal standard that is easier and more coherent for CDS themselves

VII. What Changed?

Our report found that CDS is improving their purchasing of real food for some food items while not making improvements for others. We found that a percentage increase exists for baked goods, beverages, dairy, meat, and produce. On the contrary, the percentage of real food purchased appears to be decreasing with eggs, grocery items, poultry, fish, tea, and coffee all being lower than they were from the September 2019 and February 2020 reports. It is possible, however, that such increases or decreases are the result of methodological differences between groups. **Exhibit F** shows the differences between September 2019 and September 2021 while **Exhibit G** shows the differences between February 2020 and September 2021.

In terms of real food per category (local, fair, ecologically sound, and humane), CDS appears to be purchasing more products certified as fair compared to the February 2020 report. This is indicated by the increase of 0% from the February 2020 report to 2% calculated from our data. We found, however, that roughly 70% of real food calculated qualifies as local while the February 2020 report found this percentage to be at 85%. We additionally found that nearly 10% of the real food calculated qualifies as ecologically sound and 20% qualifies as humane. These percentages are both lower than the February 2020 report which found real food that qualified as ecologically sound to be at 15% and real food that qualified as humane to be at 43%. The February 2020 report noted, however, that percentages calculated did not add up to 100% due to several products existing under more than one category. It is not made clear in this report which products exist in several categories or which two or more categories they fall under. **Exhibit H** compares the differences found between the February 2020 purchasing period and the September 2021 purchasing period.

VIII. Challenges & Observations

There were several challenges in regards to the RFC standards. Both CDS and us interns agree that the 1.1 and 2.1 standards are too selective. Their exclusion of certain practices and certifications creates tensions between RFC and CDS.

First, there is the exclusion of sustainable farming practices in the standards. RFC does not recognize efforts within a farm to become more sustainable, and instead only rely on an ecologically-sound certification. Decreasing chemical use by replacing pesticides, herbicides, and insecticides with natural alternatives is unrecognized. Adopting sustainable practices, such as evapotranspiration and integrated pest management, are also unrecognized. Underneath the RFC standards, sustainable farms that are not entirely organic, but are still making efforts towards organic, are viewed the same as farms that drown their produce in toxic chemicals.

There is also no recognition of companies that have B-Corp certification. B-Corp measures a company’s potential negative impact on the environment and communities by researching their policies and practices. The median score for an ordinary business is a 50.9 and the qualifying score is an 80. There are currently over 4000 food and beverage companies that are B-Corp certified. CDS already purchases from three of them: Danone (score: 96), Bigelow (

score: 81.6), and Larry’s Coffee (score: 109.6). There are many more companies that CDS can purchase from to improve their internal sustainability goals rather than completely go by how RFC defines sustainability.

RFC also does not take into account minority-owned or female-owned businesses. CDS currently purchases 10.84% of their food items from women and minority owned businesses. This could easily become a standard as there are certifications that fall into this category, including Women-Owned certification and Minority Business Enterprise certification.

Alternative proteins are also absent from the RFC standards. This is particularly problematic as alternative protein consumption is predicted to continue to grow in consumption over the decade, and continue this upward trend in the 2030s. (Brigl) Under the standards, alternative proteins are automatically disqualified because they are considered ultra-processed. This is problematic as some alternative proteins can meet RFC’s standards. For example, Twin Oaks Tofu meets RFC ecologically-sound criteria because they are certified USDA organic, but are then disqualified because they are an alternative protein. RFC is currently working on creating a new standard for alternative proteins, but there is no timeline for when this standard will be finished.

RFC is also inconsisent with their local definition. For example, they said that Larry’s Coffee, which is from Raleigh, does not count as local because they source their coffee beans from Bolivia. However, they said that Manhattan Bakery, which is from Morrisville, *does* count as local even thought they source their baking ingredients from Vermont. It is also interesting to note that RFC considered Manhattan Bakery as not local the year prior because their ingredients are from out-of-state. There is a clear lack of consistency from RFC in how they define local for products that contain non-local ingredients.

Our group also made important observations of CDS and RFC’s relationship. Most notably, there are obvious tensions between both parties. CDS prefers to stick with 1.1 standards, whereas RFC would like for them to start using 2.1. CDS prefers more flexibility n what they consider sustainable purchasing, whereas RFC prefers more selectivity based on certifications.

These tensions have left CDS unsure of what the future of working with RFC looks like. CDS wants to include women-owned and minority-owned businesses as part of their sustainability goals, and they have the opportunity to introduce B-Corp and alternative proteins as well. They also have the opportunity to recognize and purchase from farms that use sustainable practices.

The differing perspectives within CDS has made it difficult for them to make steps towards defining their sustainability goals. Some CDS employees want to create internal standards, and others want to keep RFC 1.1 as a purchasing measurement. However, everyone agrees that that CDS needs to know what the students want, but little to no research has been done to find out; there hasn't been a student survey about sustainable purchasing since 2017. However, there is currently a survey awaiting approval as of April 2022, which was created by the newly-hired Sustainability Manager, Victoria Hill. Ms. Hill was hired in the beginning of April 2022.

There is currently a serious lack of student outreach, which can be used to determine CDS' goals and to promote their current goals. Communication has been out-of-date due to tensions and differing perspectives, for example, the majority of Lenoir's signage about sustainability is incorrect. The UNC RFC logo is also absent from all CDS related events and buildings as well. However, with the recent hiring of Ms. Hill, there is an optimistic hope within CDS for improvements in both defining their goals and in marketing these goals as well.

IX. Recommendations

As mentioned in the previous sections, we have faced multiple challenges while completing research for the Real Food Challenge. The previous section of this reported about the specifics of the challenges that we have faced, and in this section we have compiled a list of potential recommendations that can make this efficient, and enjoyable project for all stakeholders involved.

1. Looking into different standards: Our group has experienced the shortcoming of the real food challenge. We desire a standard that can encompass for the multiple brands/vendors that we have determined as sustainable, yet did not count according to the standard; however, the standards should not be too lenient as it will introduce threats of greenwashing. More specifically, the changes that we want to see include:
    - Including B-corp as a standard.

- Food item should also be defined local depending on where it is processed.
- Recognition for minority or woman owned businesses.
- Addressing environmental justice within the food industry and the different intersectionalities of this issue.
- Encouragement of alternative protein.
- GMOs and over-processed should not be a disqualifier when it comes to alternative protein.

Because of these shortcomings, our group has researched a number of possible options. The decision matrix for these recommendations were,

a) They are similar scale to the Real Food Challenge, looking into a large portion of campus food purchasing and can be compared with other institutions
b) The information should be somewhat comparable to previous research.
c) It should be a realistic option that UNC can implement.

The pros and cons of each option will also be listed in the section below. As the results from the sustainable foods survey is evaluated UNC can choose an option that accurately represents what sustainability means to students.

a. Create internal UNC standards.

i. The method will allow UNC to create standards that most accurately represent what the students view as sustainable. It will allow UNC to become more rigorous with their sustainable food standards, or more forgiving to give credit to sustainable farms/vendors.

ii. There is a high possibility that internal standards will fall through, and not be kept up to date.

1. To prevent this from happening, there needs to be multiple checks and balances institutionalized, which will require resources and good organization.

iii. A lot of communication will be needed for UNC to come to an agreement as to what these standards will look like.

iv. The internal standards may not be comparable to previous data.

b. Changing to AASHE (the Association for the Advancement of Sustainability in Higher Education) standards.

i. AASHE has more lenient guidelines which can potentially align with what UNC views as sustainable. They also accoun t for alternative protein (“Food and Beverage Purchasing – the Sustainability Tracking, Assessment & Rating System ”).

ii. AASHE is one of the only guidelines that compares to the Real Food Challenge when it comes to scale. The AASHE standards can also be used to compare and contrast UNC’ s progress with other institutions.

iii. Because of their more lenient guidelines there is a higher risk of greenwashing.

iv. AASHE works in collaboration with the Real Food Challenge so there will be little change into what the interns will need to monitor. This can be beneficial as the information will be more comparable to past research; however, it also means that there will be little substantive change from the real food challenge.

b. Resign contract with Anchors in Action standards.

i. Real Food Challenge has announced that they will be updating their standards around next year and this will be named Anchors in Action (AiA Standards Alignment Project). These standards will account for alternative protein, and address environmental justice.

ii. These standards will still be somewhat comparable to previous research.

2. Institutionalizing the Real Food Challenge: During the internship we have realized the intersectionality that is embedded within the Real Food Challenge. There was far much more work that we wanted to do, but simply did not have the time to do so. There was also internal politics that we have experienced, and conflicting interests between different groups. For these reasons we have explored the possibility of institutionalizing the Real Food Challenge through creating paid internships or positions that will incentivise students/employees to go above and beyond. These students/employees could do more than simply monitoring CDS, and help with marketing or other sustainability initiatives within CDS.
3. Creating internal management plans: Another challenge that we have faced is the fact that the Real Food Challenge internship is disorganized. It was difficult to orient ourselves in the beginning of the internship, with a few improvements this internship could be more effecti

ve and efficient. We have also found that there is not enough communication between the different stakeholders (CDS, RFC, the E3P department, and interns). In turn, this made us question what we were doing, and why we were doing all this research. This section of recommendations will contain steps that can be taken to make the internship more organized and improve communication between the different contributors.

a. **Creating an internal group contract amongst interns.**
    i. At the beginning of the internship interns should discuss amongst themselves and create an internal contract. Although communication and work distribution was not a problem for our group, it could be a matter of conflict for future groups. This contract will open the door for communication amongst interns, and prevent disputes from happening. The contract will include information such as:
        1. Agreement on work distribution, and steps that will be taken if a teammate does not complete their work.
        2. Creating a clear line of communication between interns.
        3. Expectations for meetings, what attitude should students bring when meeting amongst themselves.
        4. What steps should be taken if the interns come to a disagreement.
        5. Organization of meetings, and an outline of what internal meetings will look like.
        6. Internal timeline and deadline.
            a. This should be realistic and achievable.
    ii. This contract will be reviewed by mentors to ensure that it is fair and realistic.

b. **Creating turnover documents.**
    i. Although we had access to previous RFC reports and presentations, we felt the need for more comprehensive documents that would help interns at the beginning of the internship. The next group of interns should create turnover documents towards the end of the internship, and if possible, previous interns should help during this process.
    ii. The turnover document will include information such as:
        1. How to start the research.

            2. What resources are available.
            3. Tips from previous interns.
            4. What meetings will look like.
            5. Time table.
            6. Contact template.
        iii. In turn, the turnover documents will also make sure that the research that each group is doing is similar, and comparable. It will create a standardized baseline for the research and monetization that interns need to do.
    c. **Clear indication of the role of the mentors.**
        i. The exact role of the mentors was unclear throughout the internship. It would be beneficial for future interns if there was a clear indicator of mentor involvement.
    d. **Ensuring regular meetings between interns, CDS, and mentors.**
        i. We believe that there is a need for regular meetings between interns, CDS, and mentors. This will also provide the chance for all parties to communicate, and avoid miscommunication. In these meetings the interns will be the pioneers of the conversation. This is a possible layout for the meetings:
            1. Interns report the progress that they have made.
                a. The mentors and CDS representatives will provide feedback
            2. Interns will prepare questions that they want to ask, and ask during the meeting.
            3. The remaining time will be used for discussion.

X. Conclusions and Takeaways

This was a very valuable learning experience for us interns. We have concluded the research successfully, and UNC has managed to reach 21.48% Real Food purchasing using 1.1 standards in September of 2021. Our numbers were reviewed with Real Food Challenge, and compared with the numbers that CDS had, therefore, we are fairly certain that they are accurate. Compared to the previous group our numbers have increased dramatically, but this may have to do with differing methodology. Yet, compared to other groups, numbers are similar. Due to COVID-19 related supply chain issues we have purchased more from Cheyney compared to other years. Overall, our numbers are comparable to previous groups.

The challenges that we have faced do not come from the research, but the Real Food Challenge guidelines and the internal miscommunication. The Real Food Challenge guidelines are limiting and do not perfectly align with what we view as sustainable. This is apparent when it comes to alternative protein and B-corp. Besides this, we have found it challenging to navigate our research when there are conflicting interests amongst the different stakeholders. To mitigate these issues we recommend making adjustments to what guidelines that we adhere to. Additionally, there should be more communication and organization between stakeholders to ease the research process for future interns.

We have found that there is no unified view on the future of Real Food Challenge and what purpose it serves. Although our job is to simply monitor CDS food purchasing, this is not fulfilling enough considering all the possibilities that this internship has. There should be an agreement on what the purpose this internship serves. We hope that this internship further develops into something great that can create a more sustainable campus.

XI. References

AiA Standards Alignment Project. "AiA Standards Alignment Project." *Google.com*, 2022, sites.google.com/view/aia-standards-alignment/home.

"Food and Beverage Purchasing - the Sustainability Tracking, Assessment & Rating System." *The Sustainability Tracking, Assessment & Rating System*, 22 Feb. 2022, stars.aashe.org/resources-support/help-center/operations/food-and-beverage-purchasing/.

Brigl, Michael et. al. "Food for Thought: The Protein Transformation." *Boston Consulting Group,* 24 March 2021, https://www.bcg.com/en-us/publications/2021/the-benefits-of-plant-based-meats

XII. Appendix

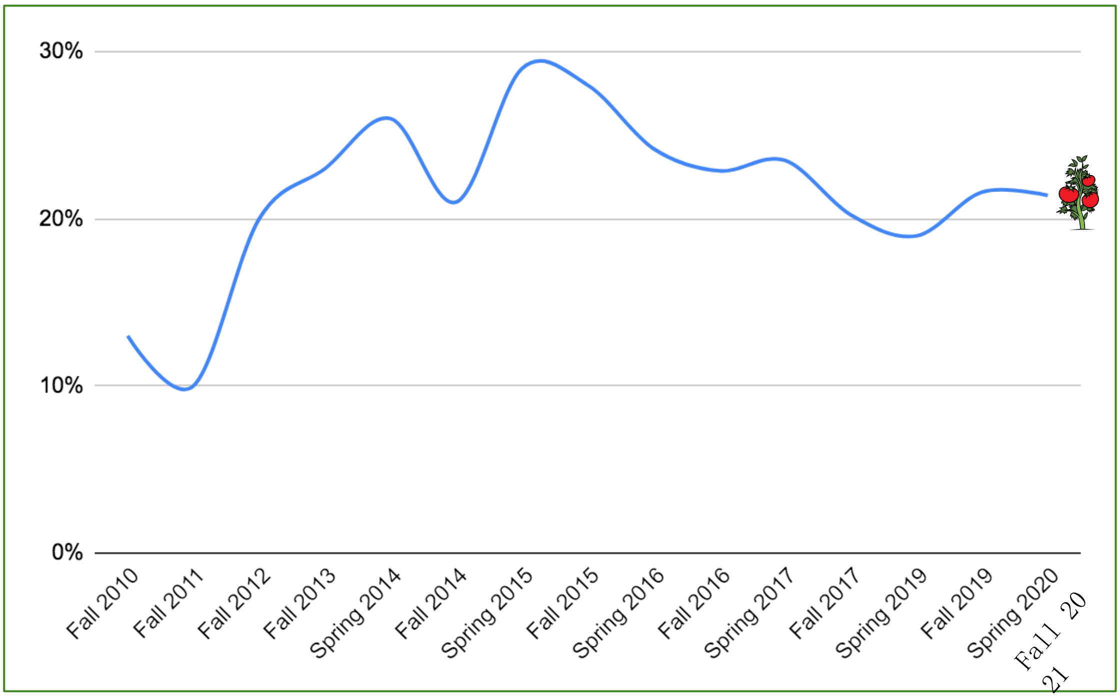


Exhibit A. Percentage of Real Food Spend Under 1.1 Standards Over Time: Carolina Dining Services' "Real Food" spend has remained relatively consistent over the past few years since the 2015-2016 school year and continues to be above the 20% goal.

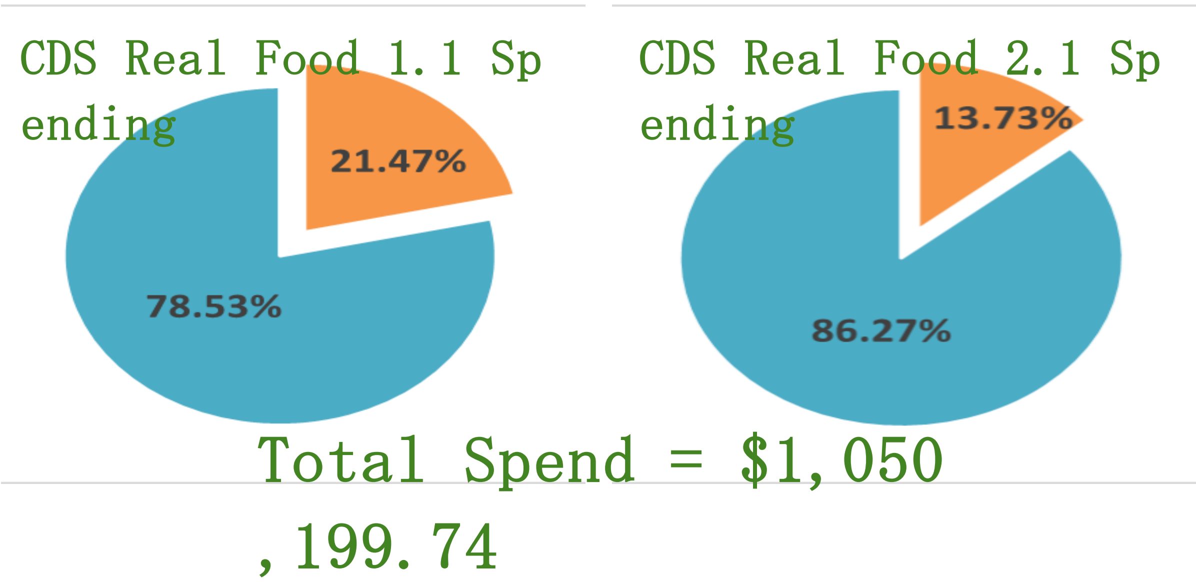
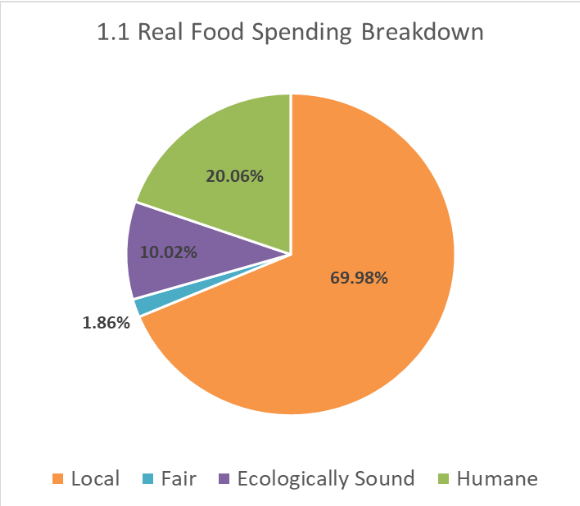
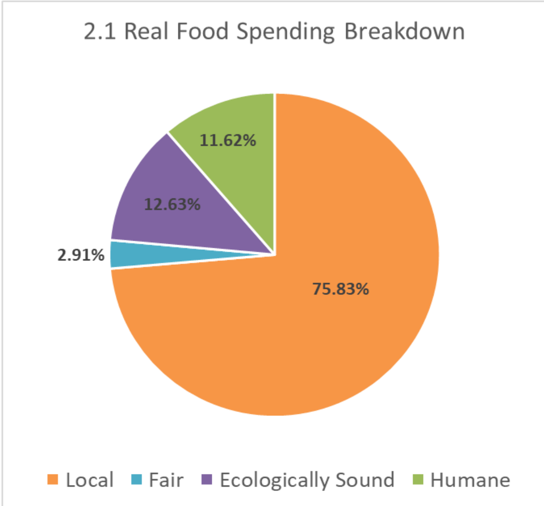


Exhibit B. Percentage of Real Food Spend in September 2021 Under RFC 1.1 and 2.1 Standards: The percentage of spending that qualifies as real food is shown by the smaller orange slice. The stricter 2.1 standards cause the percentage to decrease.



Total Real Food Spend (1.1) = $225,439.61



Total Real Food Spend (2.1) = $144,209.45

Exhibit C. Breakdown of Real Food Spending in September 2021 by RFC Categories: Locality is a very important criteria when it comes to CDS purchasing, as about 70-76% of real food purchased are real because they are "local". Very little purchasing is considered "fair" under both RFC 1.1 and 2.1 standards. The "humane" real food spend percentage decreases between 1.1 and 2.1 due to the more strict standards. The local "increase" seen in these charts can be misleading, so it is important to note the decrease in pie size (total real food spend). For the most part, the increased percentage of "local" real food simply makes up for the reduction of "humane" foods, and does not represent an increase in "local" real food spend from 1.1 to 2.1 standard comparisons.

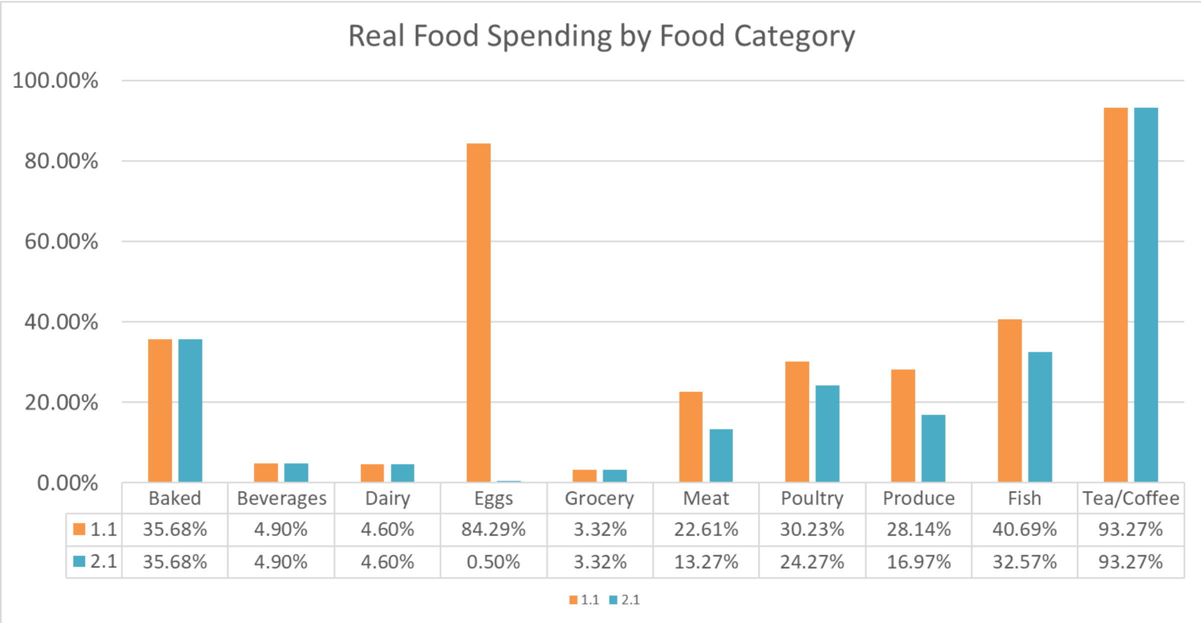


Exhibit D. Breakdown of Real Food Spending in September 2021 by Food Category: This chart better shows the impact of the standard change between RFC 1.1 and 2.1. You can see from the decreased percentages from 1.1 to 2.1 that the 2.1 standards are more strict in certain categories. This graph also shows the percentage of spend in each category from September 2021 that were considered "real". For example, about 93% of the tea/coffee that CDS purchased in this month was considered "real", while only 4.6% of dairy purchasing was considered "real".

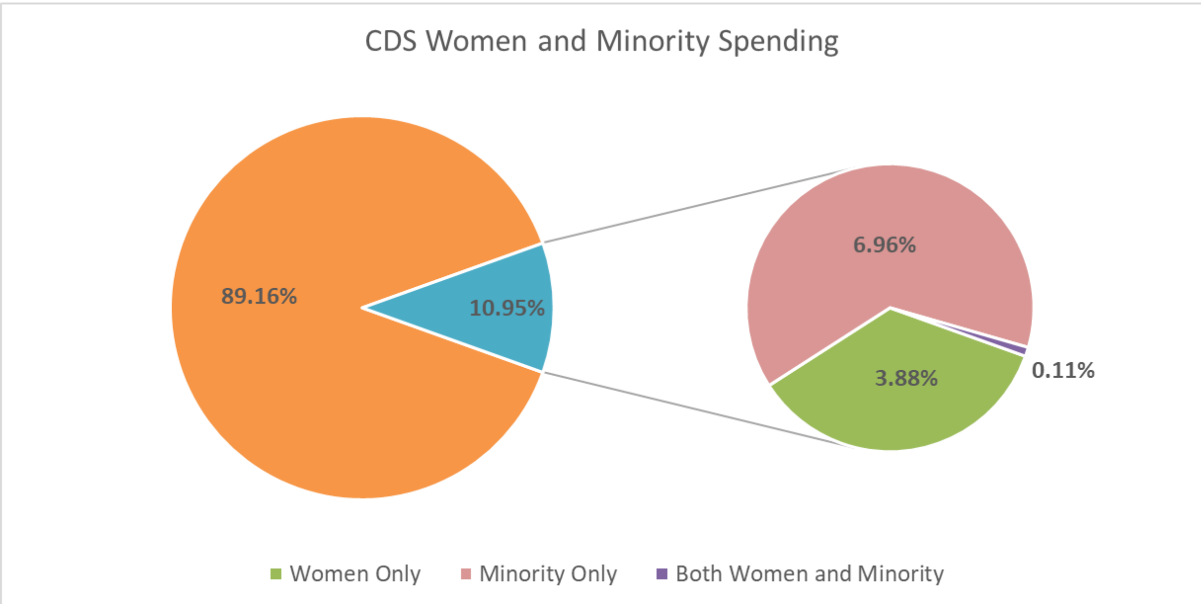


Exhibit E. Breakdown of Women and Minority Spending in September 2021: This graph shows the breakdown of women and minority spending. Of the ~11% of spending that went to women and/or minority owned (or co-owned) businesse s, about 7% went to minority owned (or co-owned) businesses and about 4% went to women owned (or co-owned) businesses. About .1% actually went to businesses that were minority women owned (or co-owned).

	Sep. 2019 Purchasing Period	Sep. 2021 Purchasing Period
Baked	0%	11%
Beverages	0%	1%
Dairy	1%	2%
Eggs	20%	13%
Grocery	5%	4%
Meat	7%	23%
Poultry	36%	9%
Produce	5%	26%
Fish	21%	10%
Tea/Coffee	5%	4%

Exhibit F. Comparison of Real Food per Food Item from September 2019 to September 2021.

	Feb. 2020 Purchasing Period	Sep. 2021 Purchasing Period
Baked	N/A	11%
Beverages	N/A	1%
Dairy	0.2%	2%
Eggs	N/A	13%
Grocery	4%	4%
Meat	4%	23%
Poultry	42%	9%
Produce	10%	26%
Fish	32%	10%
Tea/Coffee	9%	4%

Exhibit G. Comparison of Real Food per Food Item from February 2020 to September 2021.

Category	Feb. 2020 Purchasing Period**	Sep. 2021 Purchasing Period**
Local	85%	70%

Fair	0%	2%
Ecologically Sound	15%	10%
Humane	43%	20%

Exhibit H. Comparison of Real Food per Category from February 2020 to September 2021.

**Percent does not add up to 100 as some products fall under multiple categories