

Earth Grant Intern Final Report: Kendra Martinez



Purpose:

The purpose of this summary is to outline and detail the Earth Grant experience and internship with Local First Arizona. This report will be broken down into sub-sections, with the intention of explaining the various roles and projects worked on throughout the year. This report will also appear chronologically, for clarity's sake.

Scale Up (Fall 2021):

During the first course of the semester, the Local First Arizona internship centered around finding a niche for me to work in, and being introduced to the various sustainability efforts happening around Local First Arizona. The Scale Up Program is one of Local First Arizona's initiatives to provide small businesses a pathway to become Energy Star certified Green, and serves as a sustainability bootcamp that explores sustainability through the lens of energy consumption, waste reduction, building efficiency and in the creation of a sustainability culture.

After observing the Scale Up program in action, my first responsibility was to suggest potential new ideas or examine the program from an outside perspective. This included watching the material, noting aspects of the program that could be improved or clarified, and providing feedback directly to Mr. Nick Shivka. From there, the need for a local resource list for sustainable energy solutions prompted me to start a list for the local businesses participating in the Scale Up Program, and is linked below. Note: this is the start of a resource list for the Tucson, AZ area, and is meant to be expanded as time goes on.

https://docs.google.com/document/d/1XwHrr0ln_H9bFt9nxaktK52QZuGvNPHit20Rd-FVdaQ/edit?usp=sharing

Energy Consumption Data (Spring 2022)

Beginning in the spring semester, one of the goals was to regroup and seek to switch gears to an idea that was introduced in the last weeks of the fall semester. One of the challenges faced by small businesses that participate in the Scale Up program is in the consistent documentation of energy consumption, both historically and currently. Working with the local Tucson company Green 2 Sustainable, Local First Arizona had provided participating small businesses with an avenue to track and interact with their energy consumption data.

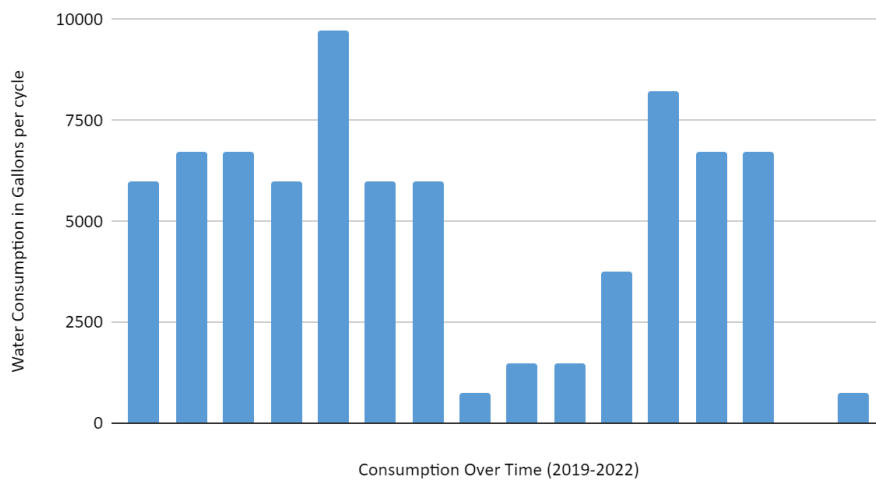
Throughout this semester, one of the main questions posed was how this process of examining historical data could be more engaging, and cost effective. This involved stakeholder meetings with Green 2 Sustainable, where we were introduced to their services and current engagement display. From this, I was tasked with going through the current engagement display with the goal of thinking about questions, suggestions and engagement ideas that could elevate the current system to fit Local First Arizona's needs. Below is a link to some of the suggestions for Green 2 Sustainable for their platform:

<https://docs.google.com/document/d/1gJpOtmVApn3C-MYW44hv-hja5lXG2KVhDz8QpwtImE/e/dit?usp=sharing>

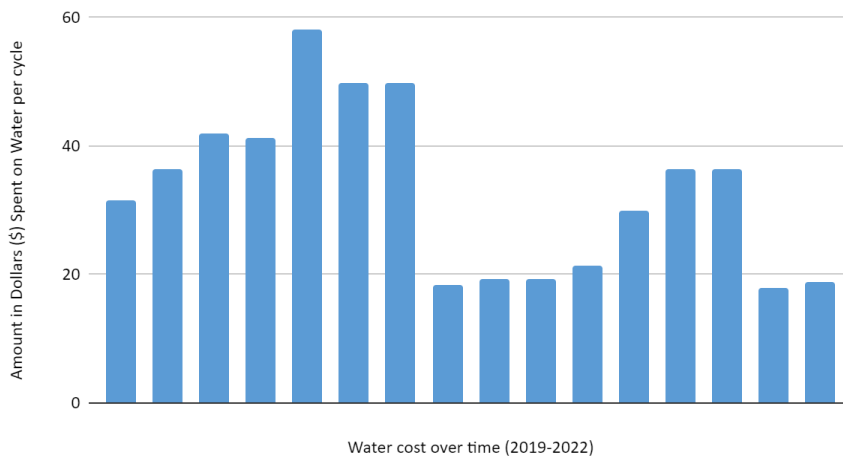
Another aspect of this experience revolved around inputting historical data from four of Local First Arizona's small businesses. This involved combing through electrical and water bills from the past year in order to set the foundation for historical data available. From this process, one of the key takeaways was in the process of data cleaning. More specifically, analyzing and organizing historical data can be compared to completing a puzzle, in that sometimes you have to piece things together in order to complete the big picture.

Below is an example of the historical data analysis conducted for four different locations within the Local First Arizona's network.

Water Consumption (Gal)



Water Cost of Business A



Pictured above is an example of cost over time for water consumption over time. As a note: Y-axis is the cost in dollars (\$) that the company paid for water and the X-axis is in reference to the time (2019-2022) elapsed between each bill. Per client privacy, I cannot share the exact company name nor information, however, I can detail how water and energy consumption was measured.

For reference, water consumption was measured by not only the gallons, however, as a unit of gallons determined by the water company in question. If a company did not surpass a certain amount of gallons (in this case 748), then the unit would not be charged, and water costs would come more from the various fees and taxes associated with using the service.

When thinking about electricity, it was a similar case, as measured by kWh, or kilowatts. In general, there were some intriguing trends to look into further for analysis. Broadly speaking, there were instances where both electricity and water would spike for some businesses, and it would be interesting for the businesses in question to understand why in order to help decrease their energy costs.

Recycling Materials (Spring 2022):

After the gathering and inputting of historical data, another project emerged closer to home, specifically in the development of recycling, compost and landfill signage for the Local First Arizona Office. This process involved looking into the current recycling standards for the Local First Arizona office, developing marketing material to be used around the office and translating the recycling materials into a Spanish version. Below is an example of the signage created, linked:

https://www.canva.com/design/DAE2B6n-v5I/WNmM6_Fv6LCm7JTX9Fg4Wg/view?utm_content=DAE2B6n-v5I&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

The recycling material was made with the intention of being a visual and accessible way for people to know what can and cannot be recycled or composted. These materials were also altered to be used within the Fuerza Community Kitchen (<https://localfirstaz.com/commercial-kitchen-use>) and can be altered to fit the needs of a given local business. The key to this signage is to understand what the guidelines are for a specific service, and create a visual representation for that.

Strategic Plan (Spring 2022):

As the semester came to a close, one of the big questions was how to apply all that was learned into the Local First Arizona's office, as a new leaf was being turned as everyone is coming back to the office after the pandemic. Along these lines of questioning, I assisted with part of the Strategic Plan for implementing a sustainable culture, citing ideas for growth, incentives to be greener, and some companies that stood out to me when it came to cultivating sustainability in their company. Attached is the document for reference, that details some of the potential ideas and changes that could be made to instill the road to sustainability:

https://docs.google.com/document/d/1N9CCV_i9zgWq8RuqiCAzBeliDruQvvviMasKuWoo7tg/edit?usp=sharing

Sustainability Ice Breakers:

Another final brainstorm occurred while thinking about how to introduce employees of Local First Arizona to sustainability, and what kinds of activities they could engage in to start the conversation about sustainability. I was tasked to come up with both virtual and non-virtual solutions, and ideas ranged from hands-on (such as in the planting of office plants) to community engagement (with local business participation). Detailed further, the exact ideas are listed in the document below:

https://docs.google.com/document/d/1N9CCV_i9zgWq8RuqiCAzBeliDruQvvviMasKuWoo7tg/edit?usp=sharing

Conclusion:

In conclusion, this experience has been a varied and engaging internship. Under the mentorship of Mr. Nick Shivka and Leona Davis of the Earth Grant, I am thankful to have participated and grateful for their guidance.