



Willimantic's Alliums: Increasing Food Access

Abiezer Soto¹, Adriel Soto¹, Azul Hernandez², Jacob Morales³, Dianisi Torres⁴, Adriana Garcia⁵

¹Windham High School; ²Norwich Technical High School; ³Edwin O. Smith High School; ⁴CLiCK Willimantic; ⁵UConn NRCA



Project Motivation & Goals

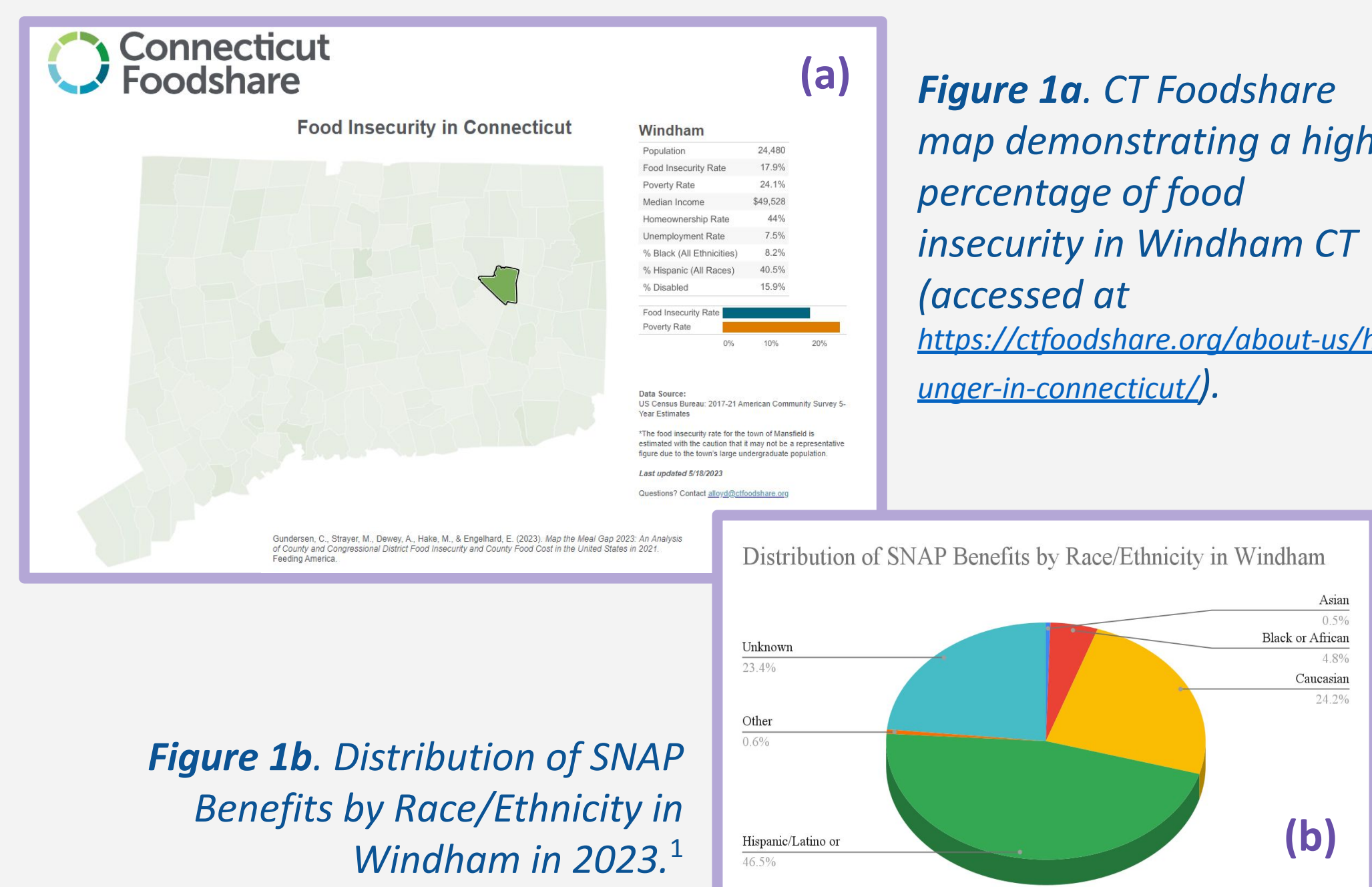
Food insecurity is a prevalent issue in low-income communities around the world, with those at the blunt end of its force having to endure with little to no assistance. In 2022, food insecurity in the U.S. was higher for households with incomes below the federal poverty line, with **36.7% of them having low or very low food security** and the majority being **Black, Hispanic, and/or single-parent households**.³ In Windham CT, about 18% of the population experiences food insecurity (Fig. 1a). In 2023, at least 50% of those who received SNAP (Supplemental Nutrition Assistance Program) benefits in Windham are minorities, most being of Hispanic/Latino or Spanish origin (Fig. 1b).¹

In an effort to reduce food insecurity in Windham, CT, we are **increasing access to food for Windham's community by restocking "La Refrigeradora Comunitaria", a publicly accessible community fridge** with supplies from the adjacent food pantry, run by the Windham Community Food Network (WCFN). Along the same lines, CLiCK's (Commercially Licensed Cooperative Kitchen, inc) **community garden and orchard are also in need of soil testing to ensure they are prepared for the growing season for public enjoyment and use this year.**

These services are important to ensure that everyone has, at the very least, something to eat and/or drink, despite any economic hardships contributing to the food insecurity they may be facing.

Objectives:

- Develop and implement a process to consistently restock the communal public fridge with food, beverages, and other necessities.
- Conduct soil tests at CLiCK's garden and orchard.



The Community Fridge (La Refrigeradora Comunitaria)

Purpose:

- The Community Fridge was undergoing a change in its management and needed a caretaker during this transition, especially since many people in the community rely on it for access to food.

Process:

- Visited the Windham Community Food Network Pantry and the Community Fridge to learn the steps and proper protocol for restocking The Community Fridge (Fig. 3).
- Every week, we emptied, cleaned, and restocked communal fridge/pantry with food, drinks, and toiletries retrieved from the Windham Community Food Network pantry.
 - Materials: Boxes, Gloves, Disinfecting Wipes, Paper Towels

Impact:

- We restocked **1,416 items: 945 drinks, 228 non-perishable food items, and 243 toiletries** (Fig. 3)
- The major outcome was in having successfully provided a means for anyone financially challenged to have access to clean food, water, and toiletries; in an attempt to help curb food insecurity in Willimantic.
 - Although people were not socially interacting with each other, by having granted them a safe and consistent source of support, a strong communal environment was ultimately promoted.
- Our 12-week-long services also eased the workload of the Windham Community Food Network.



Figure 3: (a) Map showing key community assets in Willimantic that were vital for the project: 1) Community Fridge location, 2) Melanie introducing the WCFN Food Pantry, 3) Soil Testing at CLiCK, 4) Meeting at CLiCK, 5) Dianisi leading a cooking session at CLiCK. (b) Map of Windham county with arrow to Willimantic for context. (c) Jacob & Abiezer quantifying community fridge items. (d) Infographic showing number of items restocked during the project.

Soil Testing

Purpose:

- We tested the soil for any developing nutrient deficiencies or pH imbalances to identify needs before planting or harvesting produce from the garden and orchard, to prevent problems with crop production.²

Process:

- Location of soil testing sites:**
 - 10 different garden beds at CLiCK in Willimantic, CT
 - 4 different trees in the orchard at CLiCK in Willimantic CT
- Soil sample collection:** We took a half full cup of soil from each bed and tree in orchard, combined them, and collected the mixed samples in two resealable bags (Fig. 2).
- Testing process:** We sent soil samples to the UConn Soil Nutrient Analysis Laboratory for a **Standard Nutrient Analysis**.
 - Tests: pH, minerals (calcium, magnesium, copper, lead, and more), Cation Exchange Capacity, % Base Saturation

Results & Impact:

- We're still awaiting the soil test results.
- CLiCK will use results for setting up the garden in the future. Soil testing will provide guidance on limestone and fertilizer usage.



Figure 2. These pictures show the steps of us collecting the soil for the soil testing. (a) Dianisi and Adriana explaining the steps to us. (b) Preparing the beds to collect the soil. (c) Collecting the soil. (d) Two mixed soil samples for the 10 garden beds and 4 trees in the orchard.

Community Partnership

Communities are filled with organizations and key people that are working tirelessly to address environmental and social injustices! In Willimantic, our community partner Dianisi is one of those assets as she is very knowledgeable on the needs of the Willimantic community.

Working at **CLiCK Willimantic** (Fig. 4), she has connections with the **Windham Community Food Network (WCFN)** and put us in touch with Melanie, formerly responsible for The Community Fridge, so that we could take care of the fridge while she transitioned out of the role. Dianisi is also an Extension Nutrition Outreach Educator at UConn and connected us with UConn's Soil Nutrient Analysis Laboratory for soil testing (Fig. 4).



Figure 4. Photos on the left and right show Dianisi giving us a cooking lesson and giving us examples of what we wanted to do for our community project. The middle photo is showing us (Team Alliums!) standing outside of the CLiCK building, and logos are key partners for the project.

Conclusion and Next Steps

Conclusion:

This project opened our eyes to the people in need in our community and allowed us to give back while The Community Fridge transitioned into new management. Helping others in ways with no benefits for ourselves has helped improve our character, integrity, and humanity, along with making fun memories to cherish and laugh upon. In retrospect, we think this project was an excellent opportunity to connect with our community.

Next Steps:

Although we have finished our part in keeping The Community Fridge afloat, it will still be a vital part of the community going forward. There are people in the community that are often overlooked or forgotten about that rely on systems that tackle food insecurity like SNAP Benefits, the Windham Food Network, and The Community Fridge. Support for these vital programs through funding or volunteering is essential.

Acknowledgements and References

We would like to give a special thanks to our community partner Dianisi, who while very notably oscillating between her variety of jobs, nonetheless provided us with new opportunities to create change and funded the soil testing we conducted. Similarly, we also want to acknowledge Melanie who gave us the information and resources to restock the Windham Community Food Network's community fridge and pantry; she especially trusted us with this task, so we thank her for that commitment in us. Next, thank you to our parents; if not for them, we would have never been able to even join the program, carry out our duties, or attend our weekly meetings. In addition, we greatly appreciate our exceptional Difference Maker Mentor Adriana for having personally worked with us for the last ten months; she has gone above and beyond from helping to schedule our weekly meetings and communal fridge and pantry restock dates, to providing transportation to those meetings, and taking time from her own school breaks to keep helping us move along with this project. Out of everyone mentioned, she dealt with our whims the most, so we truly appreciate her for having kept us on track all this time. Finally, thank you to the various funding sources that allowed the NRCA to provide us with stipends.

¹Department of Social Services. (2017). DSS Dashboard: Windham County. <https://dssdashboards.ct.gov/Views/PeopleServed/PeopleServed?%3AEmbed=y&%3AIsGuestRedirectFromVizportal=y>. Accessed 3 March 2024.
²UConn Extension. (n.d.). Soil Testing. <https://ag.uconn.edu/greenhouse-floriculture/greenhouse-best-management-practices-bmp-manual/soil-testing>. Accessed 24 March 2024.
³U.S. Department of Agriculture. (2023). Food Environment Atlas. <https://www.ers.usda.gov/data-products/food-environment-atlas/>. Accessed 3 March 2024.