

Food Security and Environmental Sustainability in Lehigh Community

Jane (Ming Ting) Chen
Advised by Breena Holland
Lehigh University,

Department of Environmental Initiative

Background

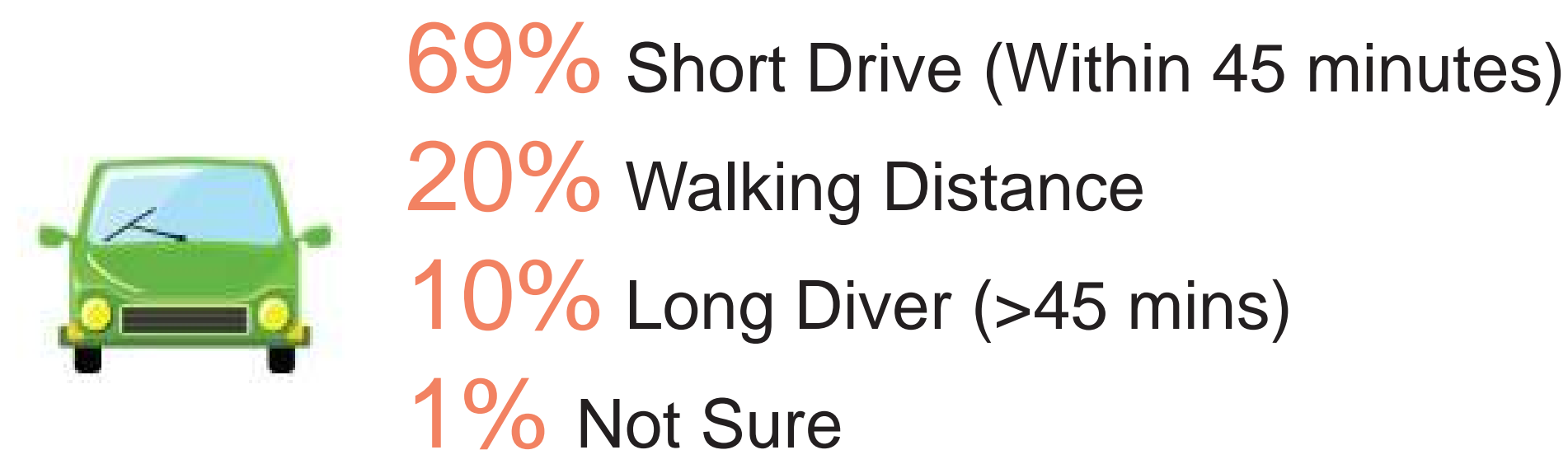
According to a 2012 [1] W.K. Kellogg Foundation survey, 93% of those surveyed say it is “very important” or “somewhat important” that all Americans have equal access to fresh produce; however, in 2014, Feeding America revealed the new edition of “Map the Meal Gap,” [2] which exhibited trends in food insecurity between 2009 and 2013 and showed there are still **49.1 million** Americans who lived in food insecure households. To ensure food security means all people should have access to enough food for an active and healthy life. However, food insecure households are not necessarily food insecure all the time. It may reflect a household’s need to make trade-offs between important basic needs, such as medical bills. Thus better understanding why food insecurity occurs will contribute in solving and reducing percentage of food insecurity in the United States.

Introduction

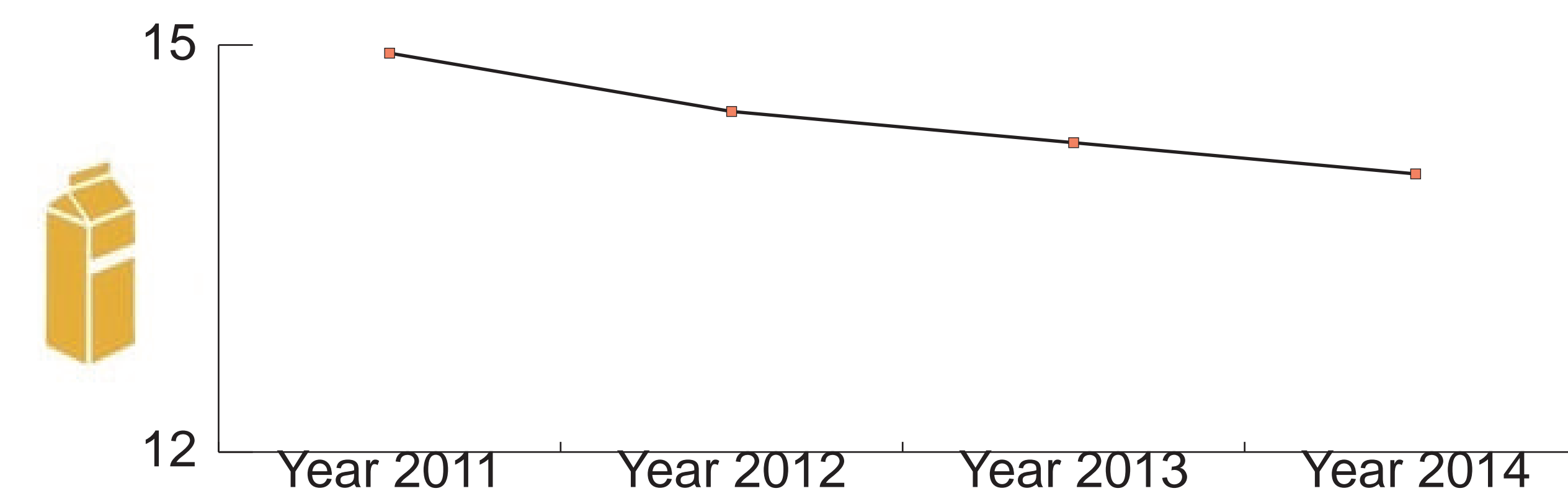
Given the links between local food systems and sustainability and the desired role of farmers’ market in local food system, studying local produce supplies can offer insights into the barriers and opportunities that exist for strengthening local food systems and achieving sustainability outcomes. In collaboration with Olga Negron, who runs the Community Supported Agriculture (CSA) Program at the Public Library in South Bethlehem, this project works to address problems of food insecurity and environmental unsustainability in local South Bethlehem community. The specific activities include: exploring the urban food security challenge in South Bethlehem, developing a relationship with local farmers, especially with Richard Rowe from the *Bechdolt Orchard*, promoting a form of “**direct to consumer**” produce purchasing through canning and food preserving workshops and working with the children in the South Bethlehem Boys and Girls Club. It is my hope that the residents and children I worked with will transmit these positive experiences and views of food and farmers among other community members.

Results and Discussion

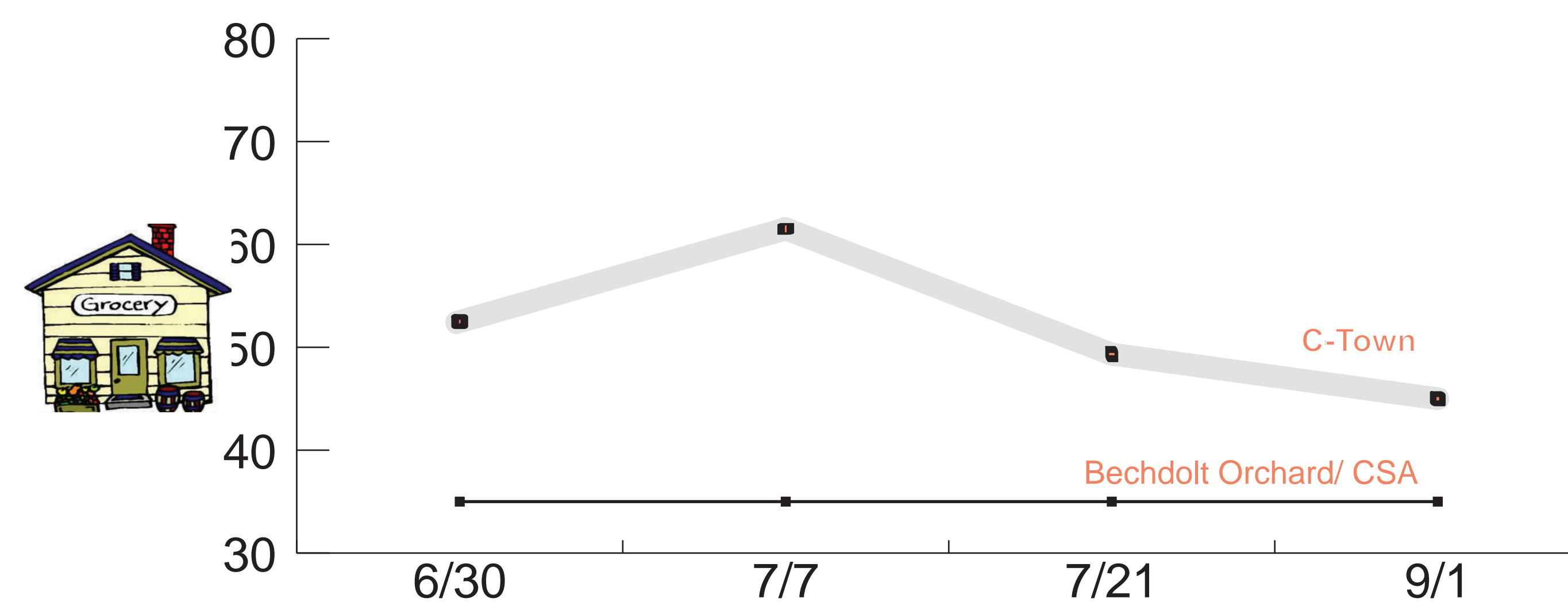
The Road to Access: How far must people travel to get food [3]



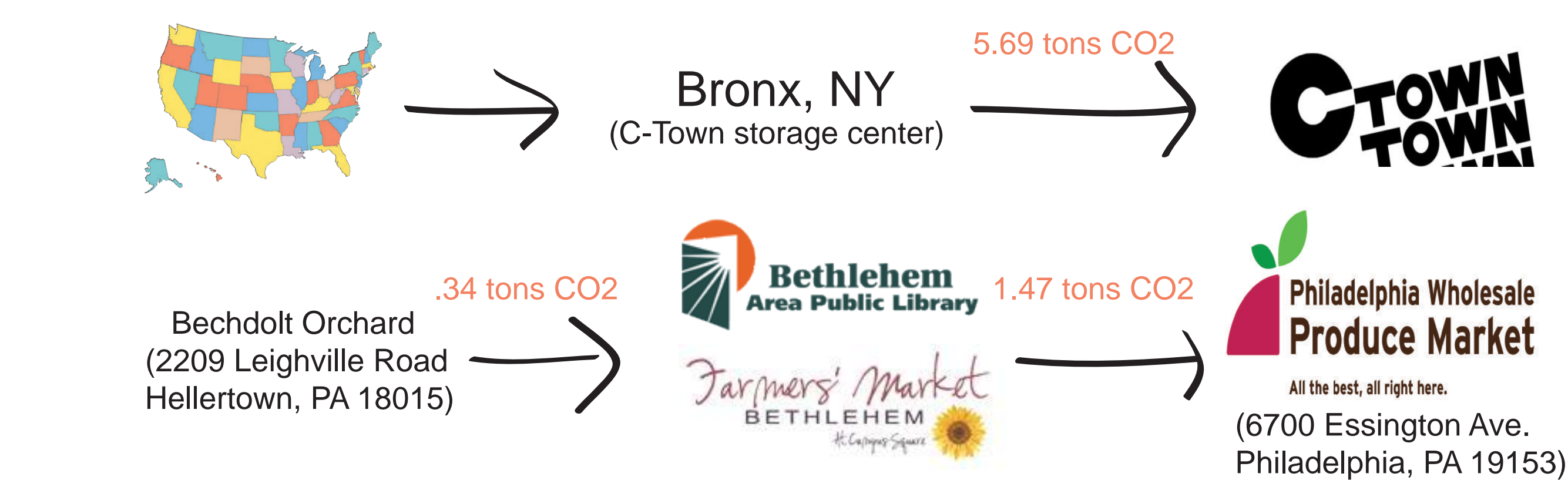
Trends in Prevalence Rate of Food Insecurity in U.S. Households, 2011-2014 [2]



Price Comparison between Conventional Grocery Store and CSA



Carbon Footprint Calculation [4]



From my research, I gathered information and understood the food insecurity in South Bethlehem. When evaluating the food availability and food equality, **easy parking** and **good location** become important factors. For example, C- Town, which locates on the East 3rd Street, offers shuttle service to the elders, the disabilities, or anyone who spends over \$30. This service greatly contributes people’s willingness to shop closer to home. Furthermore, my interview with the produce manager -Franklin, he indicated that C-town was originally interested buying Ahart’s Market due to its location and space. Larger space for parking means more customers. “Location, location, location” he said. Nonetheless, C-Town has provide more access in nutritious and cheap food options on the southside. With less individual’s distance driving, it contributes less carbon dioxide emission to the environment.

Still, through twice a week delivery from Bronx, NY, C-Town produces **5.69 tons of carbon dioxide each year**. This is not even adding the produce that needs to be delivered first to the control center. Majority of the local residents, especially the Hispanics and Latinos prefer to shop in C-Town rather than from the farmer’s market or support CSA food share due to conventional stores run until late in the evening, offer unseasonal produce all year long, and most importantly usually provide coupons for discount food.

However, through calculation and personal participation in the CSA Food Share, it provides a **cheaper, fresher, closer relationship** alternative to conventional grocery stores. Each week, the CSA participants receive a food share of local produce that alternates according to what is seasonally available from the local farm. The chart on the left indicates how much costumers will need to pay in the conventional grocery stores for the same amount of produce. Participants will need to commit total of four months starting from July until end of October and each week pay a fixed cost of \$35. Even though the CSA doesn’t allow participants to select what they get each week, but it provides tasty and less pesticide produce that **directly contribute to local economic** and develop a reciprocal relationship between community members and local farmers.

Because I believe our culture and society convenience have divorced us from our national connection with the earth, thus leading adult education cooking and canning classes at the public library help local residents **reconnect and appreciate the nature of food**. Through three total workshops, we shared and experienced ways in freezing, pickling, and canning; the feedbacks were all positive. Learning how preserve food makes it more possible for family to turn unused into future food security.

Future Work

Many communities lack the capacity or resources to meet the needs of a growing population of hungry Americans. Increases in obesity and diet-related diseases are major public health problems. These problems may be worse in lower income communities because access to affordable and nutritious foods is difficult. Limited access to nutritious food suggests tendency to purchase from fast food restaurant and canned food. Therefore, working to improve food equality in local community not only improves general health, but also encourages local economy. This research has fully extend my passion in food and the environment, thus I will continue to contribute this positive vibe in the South Bethlehem by my weekly involvement with the Boys and Girls club. Through garden work and experiencing new healthy foods, the children will further increase their interests in the nature and most of all, change the way they eat at home. Furthermore, since the workshops were such great success, Me and Kate Armbruster will continue to provide two more on September 26th and October 24th. Please join us on the preserving mission in order to better understand our land and our food.

Acknowledge

Thank you Lehigh University for providing this great opportunity. Furthermore, thank you Emily Gibbs, Kate Armbruster, Estefania Perdomo- Calero, Franklin, Richard Rowe, and Winston for all the assistant and support along the way. Lastly, Thank you Professor Breena Holland for all the advices and encouragement you provided, couldn’t have done this without you.



Citations

- [1]Resnikoff, N. (2014, April 21). Food insecurity is at historic highs and getting worse. Retrieved September 10, 2015.
- [2]Key Statistics & Graphics. (2014). Retrieved September 10, 2015.
- [3]Reincke, K. (2015, September 2). Two pilot programs launched to help families across the U.S. increase workforce mobility and achieve economic security - W.K. Kellogg Foundation. Retrieved September 14, 2015.
- [4] Calculate through <http://www.nativeenergy.com/travel.html>