



# A Community Food Security Assessment of Weber County, Utah

*A Meta-analysis*

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## Report Prepared by

Cassandra Lee Backman, PSM, *Grant Evaluation Specialist*  
Katharine French-Fuller, PhD, *Director of the Research Extension*  
Emily Esplin, MS, *Network Facilitator*

Center for Community Engaged Learning—  
Research Extension  
2955 Harrison Blvd  
Ogden UT, 84403

801-626-7879  
weber.edu/ccel  
ccel@weber.edu



United Way of Northern Utah  
2955 Harrison Blvd  
Ogden, UT 84403

801-399 -5584  
uwnu.org



## Report Prepared for

Ogden Civic Action Network  
Weber State University  
Office of Community Development

2605 Monroe Blvd.  
Ogden, UT 84401  
ogdencan@weber.edu



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A Meta-analysis



# Table of Contents

Acknowledgements.....	5
Food Security Team .....	6
The Food Security Steering Committee and Team .....	7
National Leadership Academy for the Public’s Health .....	7
Executive Summary.....	8
Key Findings .....	8
Recommendations.....	10
Future Implications.....	12
Ogden Civic Action Network.....	13
The Social Determinants of Health .....	15
Weber County, Utah .....	16
Ogden City and East Central Neighborhood .....	17
Social Determinants of Health .....	19
Food Security in Weber County .....	21
Ethnographic Study and Photojournalism Project.....	22
Food Security and Covid-19’s Effect.....	22
Key Drivers of Food Security.....	24
Availability .....	25
Emergency Resources .....	25
Community Resources.....	26
SNAP-EBT.....	26
WIC .....	28
Other Food Assistance Programs.....	29
Culturally Relevant Food Options .....	30
Access .....	32
Accessible and Reliable Transportation.....	33
Time-Constraints .....	35
Emergency Resources .....	37
Culturally Relevant Food Options .....	39
Community Resources.....	39
SNAP-EBT.....	39

WIC .....	40
Other Food Assistance Programs.....	41
Knowledge .....	43
Nutrition Education .....	43
Examples of Programs .....	43
Referral Options for Healthcare Providers .....	44
Food Preparation and Cooking Skills .....	45
Local, Relevant Food Options .....	46
Affordability .....	48
Median Income of Households .....	48
Housing Cost .....	49
Food Cost .....	49
Other Living Expenses .....	51
Policy.....	55
Economic Development .....	55
Land-Use Planning .....	56
East Central Commercial Plan (1991 -2009) .....	56
Transportation Planning.....	57
Socio-cultural factors .....	59
Local Food Environment Alignment with Food Traditions .....	59
Healthy Mindset and Relationship with Food .....	60
Personal Taste Preferences.....	61
Recommendations .....	63
Healthy Corner Stores .....	63
Food Policy Council.....	65
Community Representation in Vacant-Lot and Road Development.....	67
Future Implications .....	69
References and Resources.....	69
Appendix A.....	78
Appendix B.....	84

# Acknowledgements

## Food Security Steering Committee\*

Kim Bowsher <i>Executive Director</i>	Ogden Downtown Alliance
Mikkol Richins <i>Market Manager</i>	
Jesse Bush <i>Health Promotion Director</i>	Weber-Morgan Health Department
Travis Olsen <i>Community Health Educator</i>	
Katharine French-Fuller, PhD <i>Director</i>	Center for Community Engaged Learning – Research Extension Weber State University
Blanca Yagüe <i>PhD Candidate</i>	University of Utah
MJ Munger <i>Resident Advisory Council Organizer</i>	Ogden Community Action Network Office of Community Development Weber State University
Randy Chappell <i>Director</i>	Catholic Community Services
Angela Choberka <i>Community Partner Specialist</i>	The Alliance at Intermountain Healthcare
Neil Rickard <i>Child Nutrition Advocate</i>	Utahns Against Hunger
Jordan Barrett <i>Community Support Manager</i>	Ogden-Weber Community Action Partnership
Lindsay Garr, DHSc, MHA <i>Assistant Professor</i>	Dumke College of Health Professions Weber State University
Mark Horton, MSPH, MD <i>NLAPH Team Coach</i>	National Leadership Academy of Public Health – Public Health Institute

\*also includes all core team members

## Food Security Team

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### Bill Cook

#### *Team Advisor*

Executive Director  
Office of Community Development  
The Ogden Civic Action Network  
Weber State University  
[billcook@weber.edu](mailto:billcook@weber.edu)  
(801) 721-9382

### Emily D. Esplin, MS

#### *Team Coordinator*

Network Facilitator  
Community Impact  
United Way of Northern Utah  
[eesplin@uwnu.org](mailto:eesplin@uwnu.org)  
(801) 399 – 5584  
Ext. 116

### Cailyn Holcomb, BS, CHES

#### *Public Health Representative*

Community Health Education Specialist  
Health Promotion  
Weber-Morgan Health Department  
[cholcomb@co.weber.ut.us](mailto:cholcomb@co.weber.ut.us)  
(801) 399-7188

### Robin Aufdenkampe, MS, MHA, RDN, FAND

#### *Intermountain Healthcare Representative*

Assistant Vice President  
Nutrition Services  
Intermountain Healthcare  
[robin.aufdenkampe@imail.org](mailto:robin.aufdenkampe@imail.org)  
801-507-8020

### Kathleen Nielsen, MBA, RDN

#### *Community Member*

Registered Dietitian Nutritionist  
Retired Food and Nutrition Services Director  
[donteatrocks@comcast.net](mailto:donteatrocks@comcast.net)  
(801) 589-7420

### Cassandra Lee Backman, PSM

#### *Community Research Representative and Needs Assessment Advisor*

Grant Evaluation Specialist  
Center for Community Engaged Learning –  
Research Extension  
Weber State University  
[cassandrabackman@weber.edu](mailto:cassandrabackman@weber.edu)  
(801) 626 – 7870



## The Food Security Steering Committee and Team

In Fall 2019, Ogden Civic Action Network (OgdenCAN) invited several community partners with expertise in food security, nutrition, public health, and local food initiatives to come together to address the first of four primary social determinants of health, food security<sup>1</sup>. This group subsequently formed the Food Security Steering Committee. The committee provides guidance through their own areas of expertise in the community and food environments. Within the Food Security Steering Committee, six members form the Food Security Team. The team oversees the development, administration, and evaluation of the food security assessment and seeks support and input from the Steering Committee to ensure community representation and guidance throughout the assessment process. The aim of the team is to identify successful recommendations and implement strategies so *all Weber County residents can access, prepare, and eat nutritious foods of their choice*.

## National Leadership Academy for the Public's Health

The OgdenCAN Food Security Team collaborated with the National Leadership Academy for the Public's Health (NLAPH), funded by the Centers for Disease Control and Prevention (CDC) to propel our work forward. NLAPH is a national program focused on improving population health through multi-sector leadership teams and use of an applied, team-based collaborative leadership development model. Center for Health Leadership and Practice (CHLP), a center of the Public Health Institute (PHI), implements the program and provides training and support for a period of one year. Between November 2019 and September 2020, OgdenCAN's Food Security Team participated in coach-lead meetings, online webinars/trainings and one onsite retreat (Atlanta, Georgia). This experience was invaluable and vital to our initiative and planning. OgdenCAN would like to acknowledge our coach, Mark Horton, MD, MSPH, and NLAPH for providing us with professional guidance in the development of our leadership skills and team-based collaborative work. The Academy provided experience and guidance as we developed our needs assessment and identified interventions regarding policy and systems change targeting food security in Weber County, Utah.

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<sup>1</sup> See next section for a discussion and definition of the social determinants of health.



# Executive Summary

In collaboration with Intermountain Healthcare’s Alliance for the Determinants of Health, OgdenCAN seeks to address all nine social determinants of health, with a particular priority on food security. In 2018, 11.8% of individuals and 14.4% of children identified as food insecure in Weber County. Since the start of the Covid-19 pandemic, this has increased to 14.5% of individuals and 19.5% of children (as of October 2020). The goal of this assessment is to provide recommendations on how to best address food security concerns in Weber County, Utah with a specific focus on residents of the East Central neighborhood of Ogden, Utah, especially in light of the pandemic.

The food security team and steering committee identified six primary drivers of food security in Weber County:

**Availability** — the presence of sufficient quantities of nutritious, culturally relevant food

**Access** — the ability to acquire adequate and nutritious food to promote health without transportation, location, or time-constraint barriers

**Knowledge** — the awareness of local, nutritious, and culturally relevant food options and the skills needed to prepare and cook nutritious and culturally relevant food

**Affordability** — the household’s food cost compared to other living expenses relative to the household’s expendable income

**Policy** — the regulations and laws related to economic development, transportation, and land-use planning that influence food security in the community

**Socio-cultural factors** — larger scale forces within cultures and societies that affect thoughts, feelings, and behaviors

## Key Findings

### Availability and Access

- Weber County contains 11 food deserts. Ten of the 11 are in Ogden City despite the presence of several retailers that sell nutritious foods as well as the availability of emergency and community resources.
- Select neighborhoods, specifically in North and West Ogden, have little to no access to public transit and/or pedestrian-friendly infrastructure. This impedes residents’ access to nutritious and culturally relevant foods that may be present.
- From 2016 to 2019, the county experienced an unexplained decrease in the use of WIC and SNAP while the use of food pantries increased.
- The threshold set by the state for SNAP may be impacting county residents’ food security since over half of food insecure Weber County residents were above Utah’s threshold for SNAP (130% FPL).

- The abundance of junk food versus nutritious foods in food swamps makes raising children with healthy eating habits difficult, especially for immigrant families who would like to serve and eat traditional foods.
- More children qualify for free and reduced school breakfast and lunch than are utilizing it, indicating that many children may experience hunger in Weber County.

### **Knowledge**

- Individuals classified as having low food security are more likely to have lower confidence in their cooking ability and less frequent food preparation behaviors than their food secure counterparts.
- Residents of East Central have expressed a desire to gain skills in food preparation and cooking, but very few of the food assistance programs offer education courses focused on developing these skills. Further knowledge of residents' food preferences and skill levels can build the existing and help develop new courses that serve residents experiencing low food security.
- The Food Security Team needs a more comprehensive understanding of the types of nutrition educators in the county and their knowledge of food security. Nutrition educators specialized in food security would help improve nutrition serves in the county.
- The food security team is aware of the importance of the relationship between local retailers and the residents of the East Central neighborhood of Ogden. Non-profit and government organizations working on food security issues have a poor understanding of where residents shop and why.

### **Affordability**

- Households that make below a livable wage in Ogden City are constrained in their ability to maintain a healthy diet. The rapidly increasing costs of rent and utilities, as well as childcare costs, make it difficult for low-income families to cover other expenses, such as food. This is especially true for parent(s) who work multiple jobs, single parents, and/or lower-income residents.
- From 2011–2018, the average meal cost for a family in Weber County has risen by 23.4%, and their food budget has decreased by 2.78%, increasing the difficulty of providing for the needs of food-insecure families.

### **Policy**

- Opportunities exist to address zoning policies and transportation routes that impact food security at the neighborhood, city, and county level.
- The design for the current transportation plan for East Central has the potential to impact food insecure residents positively or negatively.
- In addition, sustainable and inclusive opportunities exist to increase food security through vacant lot development and zoning changes, while fostering a thriving neighborhood.

### Socio-cultural factors

- A misalignment between food traditions and local food environments facilitates unhealthy food choices by residents. Cultural pressures and different US food practices can make it difficult for some immigrant families to maintain healthy eating habits. This misalignment influences changes to palates and food preferences.
- Currently, there are low fruit and vegetable consumption and high obesity rates in select areas, such as Ogden Downtown and Roy/Hooper. There may be social and environmental factors influencing residents' mindsets and relationships with food.

## Recommendations

### Healthy Corner Stores

A corner store is typically a small independently owned business with limited space and inventory and includes convenience and drug stores. A healthy corner store initiative would increase the neighborhood stores' capacity to sell healthy options and market those options to the community in a profitable and sustainable way in many of the convenience stores in and around Ogden City. This approach promotes healthy eating habits by providing a higher ratio of nutritious and culturally relevant options in comparison to junk food. Steps to developing a healthy corner store include the following:

1. Start with a few well-known and utilized corner stores that can influence other stores in the area. Develop a relationship with the store owners or managers through diverse coalitions and partnerships.
2. Ensure that community is involved throughout the process to minimize negative outcomes (Minkler et al., 2018).
  - a. Engage residents in nutrition education and healthy retail efforts via marketing strategies.
  - b. Train retailers how to provide healthy options that are also culturally relevant to the neighborhood in a profitable way.
3. Choose approaches individualized to each store that involve all parties (i.e. the buyer, the seller, the distributor) and how they play a role (i.e. incentives to reduce prices *and* education and promotion of healthy products)
  - a. A food inventory survey can supply more information on local and relevant food options in the neighborhood.
4. Community partners and retailers should track and monitor the outcomes of the individualized approaches over a long term (six months to one year).

Healthy corner stores can be successful and provide a lasting change for the community that aligns with the city planning goals and the community's identity while increasing residents' access to nutritious and culturally relevant food options. However, to ensure success, there is a need for community engagement, long-term monitoring and research, and trusting relationships with established stores in the community.

## Food Policy Council

A food policy council connects the community with the government, so joint decisions are made on policies. Policy decisions can indirectly or directly influence the food security of residents. A food policy council is a mutual convening of community members and stakeholders with interest and knowledge in food issues relative to their area. They convene to discuss, research, and develop programs and policies that improve local and regional food systems. In Ogden City, they would ensure the community guides the policies impacting the bus rapid transit and road system, increasing access to nutritious and relevant food options. On the state level, they would guide policies that can increase food insecure residents' eligibility for food assistance programs like SNAP and WIC. In the long term, the food policy council would guide local policies in the county that may mitigate the impact of increasing food costs on food insecure families, making nutritious food more affordable. Steps to forming a food policy council include the following:

1. Identify partnerships, collaborations, geographic level (e.g., city-level or county-level), and how the food policy council is structured (e.g. as a separate entity, in the local government, or as a non-profit). Other councils have benefited from joining a national or regional network that aligns with their goals for the community (as determined by the food policy council). Network partners can also assist in obtaining sustainable funding sources, which is essential to a successful food policy council.
2. Identify who should and wants to be represented on the council.
3. Develop a meeting schedule at varying times and days throughout the month.
4. Utilize residents or resident advisors as representatives of the community.

A council can act as the voice for food security on the local level to governmental stakeholders and act as a point of contact that can incentivize, inform, and guide the local government (ChangeLab Solutions, 2012). Overall, success is defined by consistent communication, sustainable funding, governmental support, community and diverse representation, and clear goals.

## Community Representation in Vacant Lot and Road Development

Community residents should be involved in the design of all interventions moving forward, specifically with vacant lot and road development in the East Central neighborhood. Steps to ensure community representation include the following:

1. Establish a strong governance and voice within the city-level planning commission and Utah Department of Transportation (UDOT) to ensure businesses and open spaces are inclusive and representative of the community's identity. Develop a benefits agreement with new businesses to allow community voice and avoid negative outcomes from the development (Changelab Solutions, 2012).
  - a. In all future interventions, identify culturally relevant food options and taste preferences specific to the community through resident involvement and research.
2. Municipal-level interventions that integrate advocacy in community planning aim for transit routes where bus stops are located on side streets, not just on main roads. Residents should

also supply input into road development to ensure pedestrian-friendly streets and sidewalks are available (Biehler et al., 2019).

3. Communities with low food security within Ogden City are involved in all aspects of ordinance development and city planning to ensure representation and accessibility. Ogden City planners should keep up their current efforts to involve and engage with residents of East Central.

Involving the community in efforts to develop vacant lots can ensure development promotes residents' health and safety. Retailers, markets, or gardens can be established that promote healthy, culturally relevant foods and practices. Safer roads and transit systems can be instituted to increase access for residents (Biehler et al., 2019, Minkler et al., 2018).

### Future Implications

Findings in this report reflect the first phase of research and only provide a general understanding of the food system in Weber County. The ethnography and photojournalism project will provide more recommendations specific to the East Central neighborhood. Due to current events of 2020–2021, these recommendations will evolve and adapt as local communities work through the impacts of Covid-19 and the rise in food insecurity in Weber County. OgdenCAN will continue to monitor and evaluate the impact of its interventions on food security in Weber County, Ogden City, and the East Central neighborhood.

# Ogden Civic Action Network

The Ogden Civic Action Network (OgdenCAN) is a consortium of seven anchor institutions, eight partners, many allies and 14,646 residents that is determined to create comprehensive neighborhood revitalization in the East Central neighborhood of Ogden, Utah.

## Anchor Institutions

- Intermountain Healthcare
- Ogden City
- Ogden Regional Medical Center
- Ogden School District
- Ogden-Weber Technical College
- Weber-Morgan Health Department
- Weber State University

## Partners

- Latinos United Promoting Education & Civic Engagement
- Ogden Diversity Commission
- Weber County Intergenerational Poverty
- Ogden-Weber Community Action Partnership
- National Association for the Advancement of Colored People
- Weber State University as Fiscal Agent
- United Way of Northern Utah

## Collaboration and Alignment

- Ogden United and The United Partnership Council
- Promise Partnership Regional Council
- The Quality Neighborhoods Initiative
- The Intermountain Healthcare Alliance
- Weber County Intergenerational Poverty
- East Central neighborhood residents

OgdenCAN came together in 2016 with three priorities: *health, housing, and education*. In 2020 *food security* was added to these priorities. Each of these priorities has individual committees and work groups that report and guide initiatives affecting each area. The Food Security Team is under the Healthy Lifestyles Workgroup.

## Mission

Create comprehensive neighborhood revitalization using a place-based strategy centralized in the East Central neighborhood of Ogden, UT

## Vision

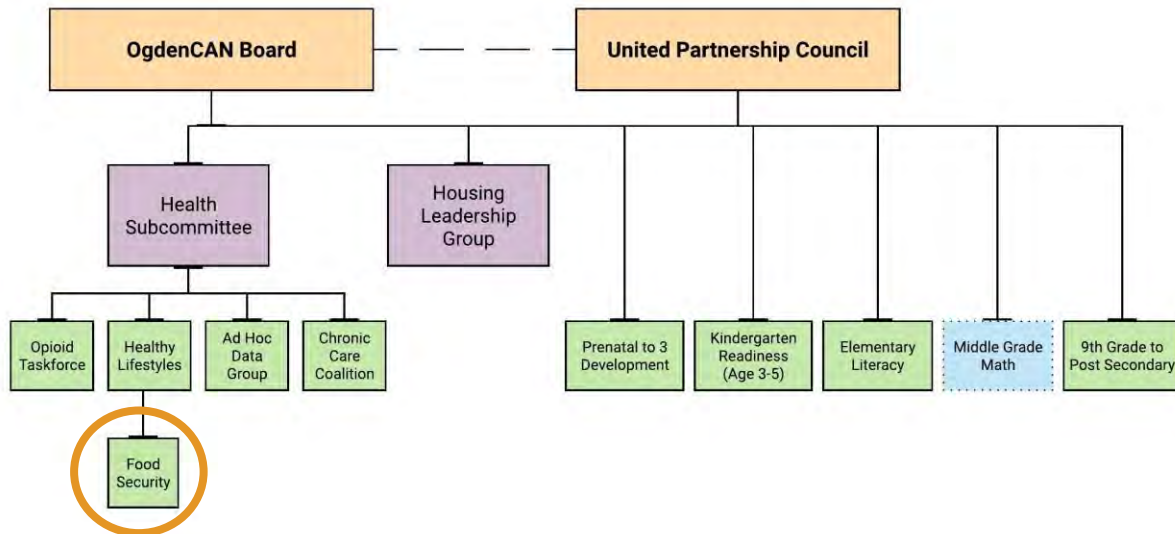
We aim to improve the health, strength, and engagement within our community: economically, socially, environmentally, educationally and civically.

### Health Subcommittee's Vision

*Quality of life and health are accessible to all and life expectancy increases*

### Healthy Lifestyle Workgroup's Focus

*Everyone has access to healthy foods and activities, and healthy weight maintenance*

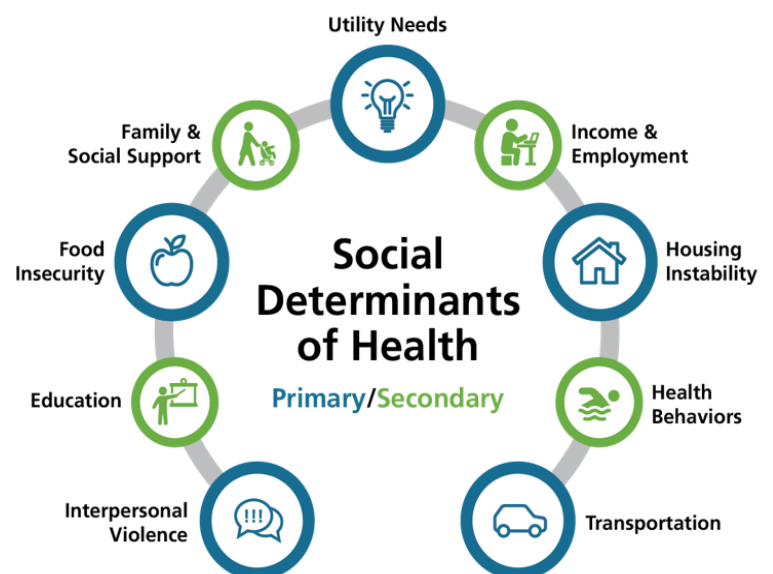


*OgdenCAN and United Way of Northern Utah have aligned their community work in health, housing, and education under the United Partnership Council. The OgdenCAN Board works in tandem with the United Partnership Council to avoid duplication of efforts, maximize resources, provide leadership support, and encourage accountability. All workgroups in green are actively pursuing outcomes, while those in blue are groups to be developed. The committees in purple steer the associated work and facilitate collaboration between subgroups within OgdenCAN and between partners.*



# The Social Determinants of Health

The Healthy People 2030 initiative established in 2020 defines social determinants of health (SDoH) as “the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks” (Healthy People 2030, 2020). Intermountain Healthcare’s Alliance for the Determinants of Health identified nine total social determinants, including these five primary determinants: interpersonal violence, food insecurity, utility needs, housing instability, and transportation (About the Alliance, 2019). SDoH can impact an individual’s quality of life and contribute to numerous health disparities<sup>2</sup> and inequities<sup>3</sup>. For example, limited access to healthy food options that are culturally relevant drives food insecurity in a neighborhood by minimizing the amount of nutritious food a person can consume and, in the long-term, results in a higher likelihood of being obese and developing diabetes or heart disease (Healthy People 2030, 2020). This risk reflects the fact that the experience of the individual in the environment and the environment’s effect on the individual drives their health (Baah, Teitelman, & Riegel, 2019). More than 60% of health outcomes (e.g. obesity and heart disease) are determined by the SDoH in comparison to medical determinants of health (e.g. medications and treatments). Weber County is home to a large enough population of individuals needing support due to their income and a possible risk for negative health outcomes (e.g. lower life expectancy and higher behavioral need), as well as community readiness (e.g. developed cultural collaboration and public health efforts). Based on these factors, the Alliance determined that Weber County was ripe for the development of strategies to address the nine social determinants of health (About the Alliance, 2019). This community assessment focuses on food security, as one of the primary SDoH that OgdenCAN wishes to address within Weber County, Utah and specifically the neighborhood of East Central.



*Intermountain Healthcare’s Alliance for the Determinants of Health’s Nine Social Determinants of Health*

*Blue = primary*

*Green = secondary*

*(About the Alliance, 2019)*

<sup>2</sup> Health disparities are differences in health outcomes closely linked to economic, socio-cultural, and environmental/geographic disadvantage. Health disparities are the metrics by which health equity is assessed (Utah Department of Health, 2018).

<sup>3</sup> Health equity is the principle behind the commitment to pursue the highest possible standard of health for all while focusing on those with the greatest obstacles. To not practice this principle is to have health inequity (Utah Department of Health, 2018).

## Weber County, Utah

Since its founding in 1850, Weber County has acted as the crossroads of Utah and the Intermountain West. Given its history as the connection point between Union Pacific and Central Pacific railroads, Weber County is known for having a diversity of cultures. Many immigrants from China and Spanish-speaking countries, as well as Mexican migrants from Colorado and New Mexico, came to Utah to work on the railroad system. However, it was not until during and after War World II when there was a need for farmhands and factory workers that communities of immigrants established across Northern Utah. Many of the immigrants were from Central and South America. These predominantly Hispanic communities (*Hereafter referred to as “Latinx” except as required by the U.S. Census/other data sources*) developed deep rooted connections through native languages, traditions and celebrations at local churches and other social organizations. In the 1960s, during the Civil Rights Movement, children of immigrants revitalized these traditions and passed down to them. Many of these communities are still heavily centered around these traditions, celebrations, and connections across the county. One key element of these communities are Hispanic-owned businesses that offer culturally relevant items (e.g. food) that connect the community to those traditions. The estimated Latinx population in 2019 was 251,498, and the population continues to grow (Bill Cook, personal communication, September 9, 2020; Gallenstein, 1998; United States Census Bureau, 2019, S0101).

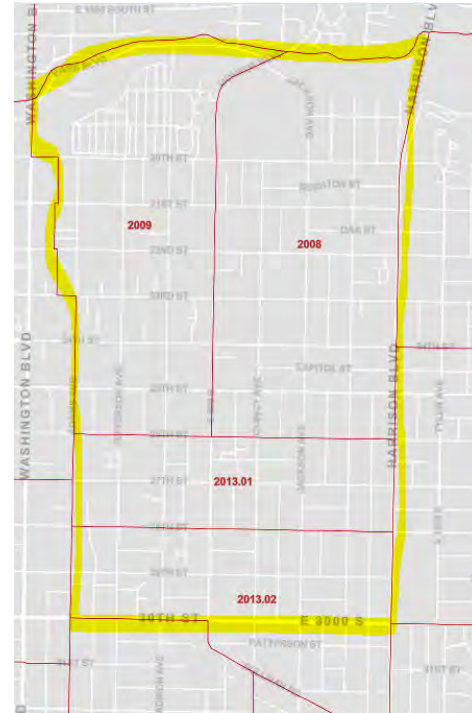


Overlook over Ogden City, Utah and western areas of Weber County

Photo taken and edited by: Cassandra L. Backman, PSM

## Ogden City and East Central Neighborhood

In 1845 Miles Goodyear founded Ogden. It became the 'Junction City' in 1869 when the transcontinental railroads connected in what is now Union Station. Ogden was the center of development for Weber County and had a population boom post World War II (Roberts & Sadler, 1997). Since the early 20th century, Ogden has increased in its population and commercialization. The current population is 86,833 (United States Census Bureau, 2019, S0101). In Ogden, the East Central neighborhood is directly east of the Central Business District (Washington Boulevard acts as boundary) and west of Harrison Boulevard. The northern edge is the bluff south of the Ogden River. The southern edge is 30th Street. East Central covers the census tracts 200800, 200900, 201301, and 201302. It is a community of 14,646 residents that are diverse, with 40% identifying as Hispanic (United States Census Bureau, 2019, S0101). East Central is the original residential neighborhood of Ogden that developed in the late 1800s and early 1900s. When it first developed, it was a mixture of mansions and modest buildings with smaller commercial establishments to meet the needs of residents. The main source of public transit was the trolley that ran to downtown.



However, starting in the 1940s and through the 1980s—during and after War World II, about the time of the population boom and the development of immigrant communities in Northern Utah—the neighborhood community changed as wealthier residents moved east. There was an increase in housing shortages due to the population boom and the development of zoning permits (R-4 and R-5) that allowed for higher density and out-of-scale office uses, and convenience stores in the neighborhood. The lack of residential and commercial development in the neighborhood discouraged certain businesses (e.g. grocery stores and supermarkets) from developing in the vacant lots and buildings (Ogden City, 2020). This indirectly discouraged new residents. Today, East Central continues to thrive as a diverse and tight-knit community full of history and culture. However, data indicates that residents have a lower median income, a high rate of residents live below poverty, a higher proportion are renters, and many have a lower education attainment, as shown in Table 1. (Also see *Social Determinants of Health* section.)

An outline of the East Central neighborhood in Ogden City, Utah and the corresponding census tracts. 200900 is northwest, 200800 is northeast, 201301 is central and 201302 is south East Central.

Demographic and Education	East Central	Ogden City	Weber County	Utah
Total Population	14,646	86,833	251,498	3,096,848
Median Age	31.6	31.8	32.7	30.8
% White	50.6%	61.3%	76.10%	78.3%
% Hispanic/Latinx	40.2%	31.9%	18.4%	14.0%
% Black/African American	2.1%	1.7%	1.0%	1.1%
% Asian	1.5%	1.2%	1.1%	2.3%
% Foreign Born	17.1%	12.3%	6.9%	8.5%
% With a Disability <sup>a</sup>	14.9%	13.4%	11.2%	9.6%
White High School Graduates <sup>b</sup>	90.2%*	91.9%	94.4%	95.6%
White Residents with a Bachelor's Degree <sup>b</sup>	20.3%*	25.7%	27.2%	35.3%
Hispanic High School Graduates <sup>b</sup>	51.1%*	60.4%	69.5%	71.1%
Hispanic Residents with a Bachelor's Degree <sup>b</sup>	2.7%*	6.3%	8.5%	14.4%

Table 1. A comparison of demographic, disability status, and education of residents in East Central, Ogden City, Weber County and Utah as reported by the 2019 American Community Survey (ACS) 5-Year Estimates, retrieved from data.census.gov (Tables S0101, S1810, DP02 and S1501).

\*Lack of high school credentials is a social or economic indicator of low food security

<sup>a</sup> Total Civilian Noninstitutionalized Population (*East Central* = 14,512, *Ogden City* = 84,757, *Weber County* = 248,664, *Utah* = 3,070,877)

<sup>b</sup> Population 18 years and older (*East Central* = 10,526, *Ogden City* = 64,028, *Weber County* = 179,836, *Utah* = 2,173,265)

**Income, Employment  
and  
Health Insurance**

	East Central	Ogden City	Weber County	Utah
<b>Median Household Income</b>	\$39,626	\$50,061	\$67,244	\$71,621
<b>% Below Poverty</b>	25.4%*	17.2%	10.2%	9.8%
<b>% on Food Stamps</b>	20.7%*	14.5%	8.7%	6.7%
<b>% Unemployed <sup>a</sup></b>	4.4%	3.1%	2.5%	2.4%
<b>% White Uninsured <sup>a</sup></b>	15.1%*	9.4%	6.0%	6.4%
<b>% Hispanic Uninsured <sup>a</sup></b>	27.5%*	22.7%	20.8%	24.9%

Table 2. A comparison of income, employment, and health insurance of residents in East Central, Ogden City, Weber County and Utah as reported by the 2019 American Community Survey (ACS) 5-Year Estimates, retrieved from data.census.gov (Tables DP03, S1701 and S2701).

\*Social or economic indicator of low food security

<sup>a</sup> Civilian Non-Institutionalized

<b>Housing</b>	East Central	Ogden City	Weber County	Utah
<b>% Owner-Occupied Housing</b>	40.2%	57.7%	73.4%	70.2
<b>% Renter Occupied Housing</b>	59.8%	42.3%	26.6%	29.8%
<b>Median Rent</b>	\$667–\$807	\$818	\$891	\$1037

Table 3. A comparison of education residents in East Central, Ogden City, Weber County and Utah as reported by the 2019 American Community Survey (ACS) 5-Year Estimates retrieved from data.census.gov (Table S1101, DP04).

\*Social or economic indicator of low food security

### Social Determinants of Health

Social determinants of health influence 60% of health outcomes according to the Alliance for the Determinants of Health (2019). They include housing and utility needs, food insecurity, interpersonal violence, and transportation as well as education, employment, support networks, and health behaviors. Therefore, interventions that improve residents' housing, food, or employment while, at the same time, addressing health inequities and disparities will ultimately improve important health outcomes. Based on the Utah Department of Health, Office of Public Health Assessment: System Behavioral Risk Factor Surveillance (IBIS) (2015-2019), life

expectancy is statistically worse in downtown Ogden than in the state of Utah generally.<sup>4</sup> Ogden downtown has 33.8 more cases of coronary heart disease deaths per 100,000 residents compared to the state of Utah overall and 6.7% more doctor-diagnosed hypertension cases compared to Utah overall (indicated by \* in Table 4), as well as higher rates of obesity and diabetes (IBIS, 2020). Previous research studies directly connect high rates of coronary heart disease, obesity, hypertension, and diabetes to issues of food insecurity, specifically the lack of nutritious and accessible food (Seretis, 2019; National Cancer Institute, 2017).

Health Indicators	Ogden Downtown	Weber-Morgan District	Utah
Life Expectancy at Birth (years) (2014-2019)	75 (74.3–75.7)*	78.2	79.8
Coronary Heart Disease Death (Adult Rate/100,000) (2014-2019)	102.4 (85.7–121.4)*	74.1 <sup>a</sup>	68.6
Adult Obesity (%)	33 (29.5–38.7)*	31.8	27.2
Doctor-diagnosed Hypertension (High Blood Cholesterol) in adults (%) (2015, 2017, and 2019)	32.7 (27.4–38.4)*	28.7*	26
Doctor-diagnosed Diabetes (%) adults	10.7 (8–13)*	9	8
Diabetes Underlying Cause of Deaths (Adult Rate/100,000)	36.3 (27.7–46.6) <sup>b</sup>	25.4	36.5
Current Cigarette Smoking (%) adults	14.1 (11.2–17.7)*	11.4*	8.8
Asthma Prevalence (%) children (2017-2019)	No Data	6.7	5.6
Doctor-diagnosed Depression (%) adults	26.6 (22.7–30.8)*	24.8*	22.4
Poor or Fair General Health (%) adults	18.5 (15.2–22.3)	14.5	13.8

Table 4. Retrieved from the Utah Department of Health, Office of Public Health Assessment: Behavioral Risk Factor Surveillance System; Utah Office of Vital Records and Statistics; and National Center for Health Statistics. Numbers are reported for combined years 2015–2019 except where noted.

<sup>a</sup> Year is 2017–2018, compare with caution

<sup>b</sup> Years 2014–2019, compare with caution

\*Statistically different from other areas

<sup>4</sup> IBIS does not offer data specifically for the OgdenCAN neighborhood but rather for an area defined as “Ogden Downtown.” Ogden Downtown overlaps with the East Central neighborhood, which is the initial focus of OgdenCAN and the Food Security Team.



# Food Security in Weber County

This report serves as the first documented food assessment for communities in Weber County. A community food assessment is defined as a “collaborative process that examines the broad range of community food issues and seeks to determine where gaps and barriers exist in the food system. The purpose is to inform change at the community level to make food more secure, equitable, and improve access to food” (Utah Department of Health, 2020). The data presented herein on food security is not exhaustive but summative.

The Food Security Team (FST) of Ogden Civic Action Network (OgdenCAN) defines food security in the following way (modified from the United States Department of Agriculture) for this report (Coleman-Jensen, A., Rabbitt, M. P., & Gregory, C. A., 2020). Food Security can vary from high to low levels across communities. Therefore, the team broadly defines it as such:

## Food Security

All household members have access to enough food, at all times, for an active, healthy life.

*At a minimum this includes:*

1. The ready availability of nutritionally adequate, safe, and culturally relevant foods.
2. The assured ability to acquire food in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies deemed unsafe and unsustainable).

## Food Insecurity

The limit or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

The goal is to provide recommendations on how to best address food security concerns in Weber County, Utah with a specific focus on residents of the East Central neighborhood in Ogden, Utah. There are two proposed questions addressed in this report:

- 1) What are the infrastructure, policy, and systemic barriers that impede Weber County residents, specifically East Central residents, from being food secure?
- 2) What are the identified social determinants and indicators that inform interventions which support and drive food security among all residents in Weber County?



## Ethnographic Study and Photojournalism Project

The team recognizes that food security is complex and based heavily on the socio-cultural factors (traditions, mindsets around food, and taste preference) that influence an individual, a household, and the community they live in. For these reasons, OgdenCAN hired the ethnographer Blanca Yagüe to provide a more detailed understanding of the socio-cultural factors influencing residents' food security in the East Central neighborhood through interviews and observations (*Appendix A*). Ethnography is a branch of anthropology that uses observation and interview techniques to study beliefs, social interactions, and behaviors of individuals in their community (Naidoo, 2012). Ms. Yagüe will report on her findings and provide further recommendations in a separate report.

In addition to the ethnography, the team will conduct a photojournalism project that MJ Munger, Resident Advisory Council Organizer; Katharine French-Fuller, director of the Research Extension; and Amir Jackson, Director of Nurture the Creative Mind in Ogden, Utah will co-lead. Photojournalism is a qualitative technique that uses the theoretical approach of community-based participatory research (CBPR). Participants will take photos and reflect on their experiences (Mitchell, Stevees, & Perez, 2015). Frequently used in cross-culture studies, it will provide a cultural context surrounding food through the eyes and words of the East Central residents. Both studies will provide further insight and guidance to the team and steering committee regarding interventions specific to the East Central neighborhood. The team recognizes the limitations to the secondary data provided in this report and the need for these two qualitative studies to address these limitations. Each section acknowledges these limitations.

## Food Security and Covid-19's Effect

In Weber County, 11.8% of adults and 14.1% of children experienced food insecurity in 2018. Food insecurity in Weber County decreased from 2011 to 2018 (Figure 1)<sup>5</sup>, but based on the current projection, 14.5% of adults (1% higher than the state) and 19.5% of children (2% higher than the state) are food insecure as of October 2020 (Figure 2). Weber County predicts an increase in food insecure adults by 23% and 38% for children due to Covid-19 (Gundersen, Hake, Dewey et al., 2020). The Food Security Team acknowledges that Covid-19 has increased the challenges households are facing in relation to food security beyond what it presents in this report. All data in this report is prior to the pandemic unless otherwise stated.

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<sup>5</sup> Please note that methodologies changed in 2013 (addition of homeownership into the calculation of food insecurity) and 2020 (addition of disability status into the calculation of food insecurity). The graph displays trends but should not be used for comparison purposes.

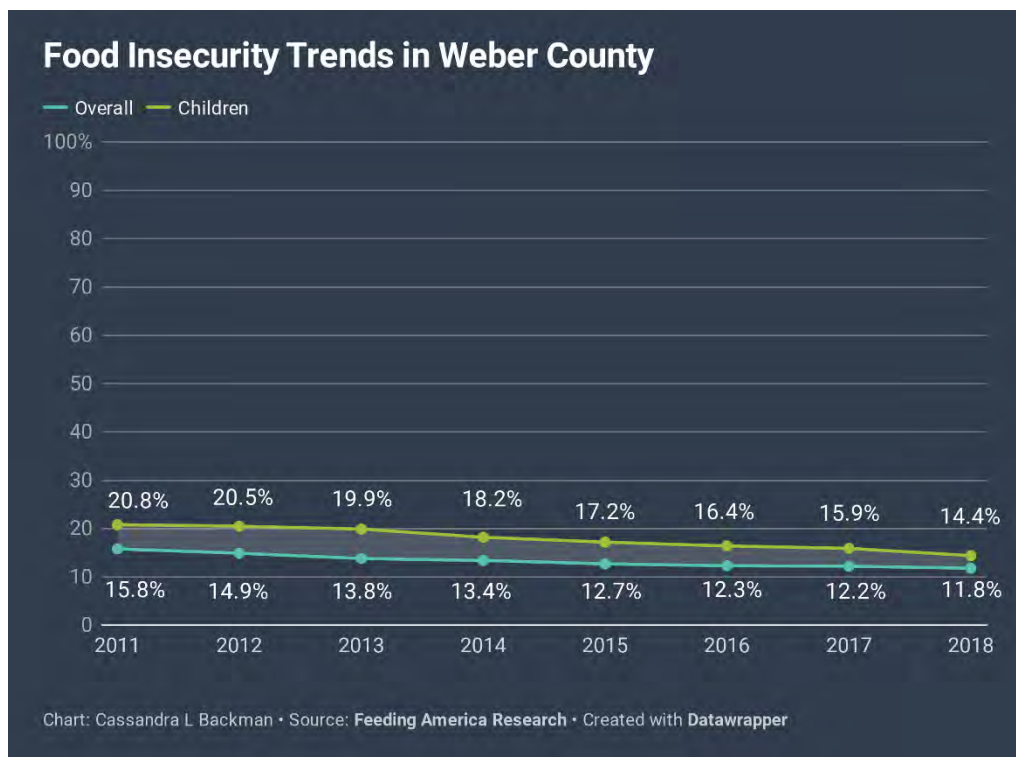


Figure 1. Data is from Feeding America Research, published by Gundersen et al. (2013–2020) using data from 2007–2018 American Census Survey (ACS) 5-Year Estimates and 2011–2018 Bureau of Labor Statistics (BLS) 1-year estimates (employment). Feeding American Research publish these data every two years. The 2019 data will be available in 2021.

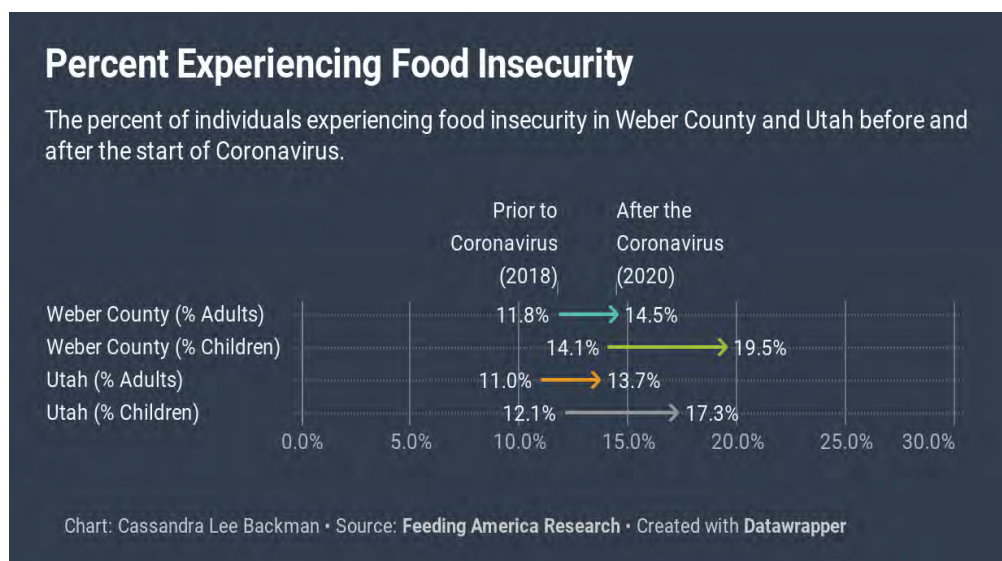
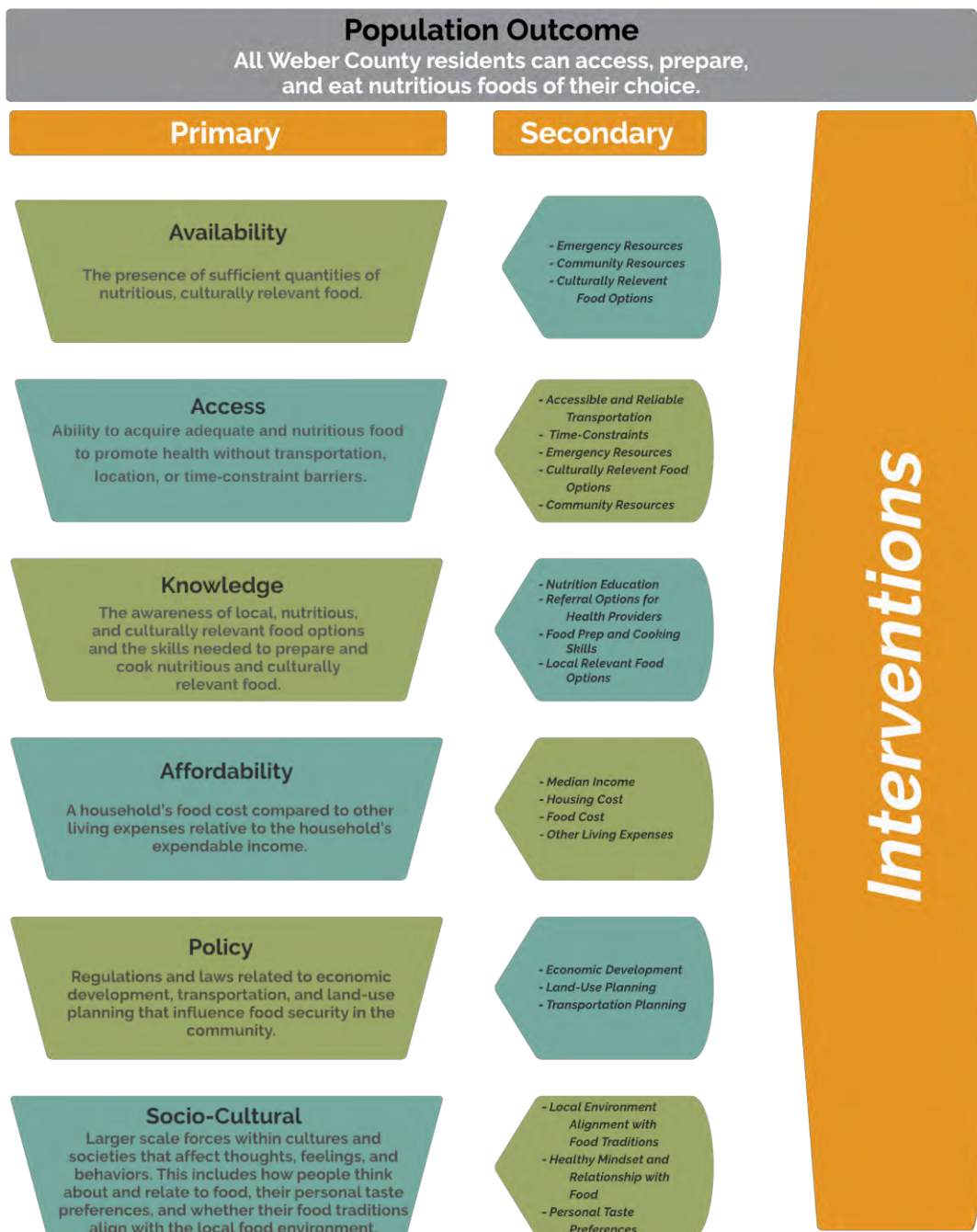


Figure 2. Data is from Feeding America Research (2020). Percent food insecurity after the Covid-19 are projections based on the change of employment, homeownership and poverty after the start of the Covid-19 to October 2020.

# Key Drivers of Food Security

This report details the primary and secondary drivers of food security identified for Weber County. Each driver is based on a collection of secondary data, literature, and the experience and expertise of the team and steering committee members. We plan to develop specific interventions to address them, starting with strategies coming from the recommendations in this report.



## Availability

### *The presence of sufficient quantities of nutritious, culturally relevant food*

The availability of culturally relevant foods is a key driver of food security that entails not just the presence of the food in the environment but the resources needed to obtain food in a socially acceptable way (Ginsburg et al., 2019). When a community demonstrates signs of food insecurity, key areas to focus on are the presence and use of emergency food resources and food assistance programs, to understand policies and practices that are enabling and inhibiting the availability of culturally relevant food (Kaiser and Cafer, 2017). However, it is also important to understand the food environment, specifically the location of food retailers, what they have to offer, and the reason they may or may not offer nutritious and culturally relevant food options. This can further inform policy (Minkler et al., 2018), but also provide a broader understanding of the community and its food environment (USDA, 2015; Colón-Ramos et al., 2017).

### Emergency Resources

The goal of emergency food assistance programs is to provide food commodities to households at no cost through food providers like food banks, food pantries, soup kitchens and homeless shelters. They act as short-term relief from food insecurity and hunger. Many of the food providers supply assistance and resources to longer-term options that can relieve, if not prevent, food insecurity among their clients (CCS, 2020; Feeding America, 2020). Therefore, availability of these resources is vital to relieving food insecurity in the short and long term.

There are 12 food assistance programs published by 2-1-1 United Way that are available to Weber County residents, two additional resources on the Weber Cares Pantry's webpage, and four additional resources identified by the Weber-Morgan Health Department (totaling 18 programs). Utahns Against Hunger (2018) also identified these sites as food resources. Thirteen (72%) of the programs listed are emergency food resources. Most identified are pantries, food kitchens, and prepared-meal sites through local faith organizations and local non-profit organizations. Most are located within the zip code 84401. The resources in 84401 are mostly in southwest Ogden with one in Roy and one in Riverdale (both southwest of Ogden) (*Appendix B*).<sup>6</sup> There are a lot of emergency food resources available to clients, but there is a need for more services in different neighborhoods, specifically northern neighborhoods of Ogden, since this region also had one of Weber County's highest densities of low-income households with limited access to grocery stores/supermarkets [As reported by the 2018 American Community Survey (ACS) 5-Year Estimates retrieved from data.census.gov (Tables DP03, S1701, B08201), See Access section].

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<sup>6</sup> This list is not exhaustive but representative of resources publicized by organizations working with food insecure households in Weber County.

## Community Resources

Supplemental Nutrition Assistance Program (SNAP-EBT) and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are two of the major community resources available to residents at the state level. Both programs had a decrease in enrollment from 2016-2019, prior to Covid-19 (Weber-Morgan Health Department, 2019; Utah Department of Workforce Services, 2019). Other food assistance programs are available at the federal, county, and municipal levels (Feeding America, 2020).

### SNAP-EBT

SNAP-EBT enrollment has decreased by 20% for the county from 2016–2019 (Utah Department of Workforce Services, 2019). This could be due to eligible individuals’ unawareness of eligibility, state policy changes that were confusing to applicants, increases in the barriers in applying for food stamps, or individuals not wishing to apply for government assistance. (See *Access.*) The zip codes of 84401 (decrease by 4865, -10% change), 84403 (decrease by 3963, -19% change) and 84404 (decrease by 3802, -14% change) have the largest decrease in enrollment from 2016 to 2019 (Figure 3), but Northern Utah Food Bank reported the highest number of Weber County households using their services from these zip codes in 2019 (CCS, 2020).

Two resource centers are available to SNAP eligible residents of Weber County: Department of Workforce Services (480 27th Street, Ogden, UT 84401) and a Food \$ense SNAP-Ed Program (1181 North Fairgrounds Drive, Ogden, Utah 84404) (Utahns Against Hunger, 2018). Both centers are in zip codes where significantly higher numbers of residents are enrolled in SNAP-EBT, zip codes that also had the largest decrease in enrollment from 2016 -2019. Therefore, there may be a need for education and enrollment assistance outside these zip codes. (See

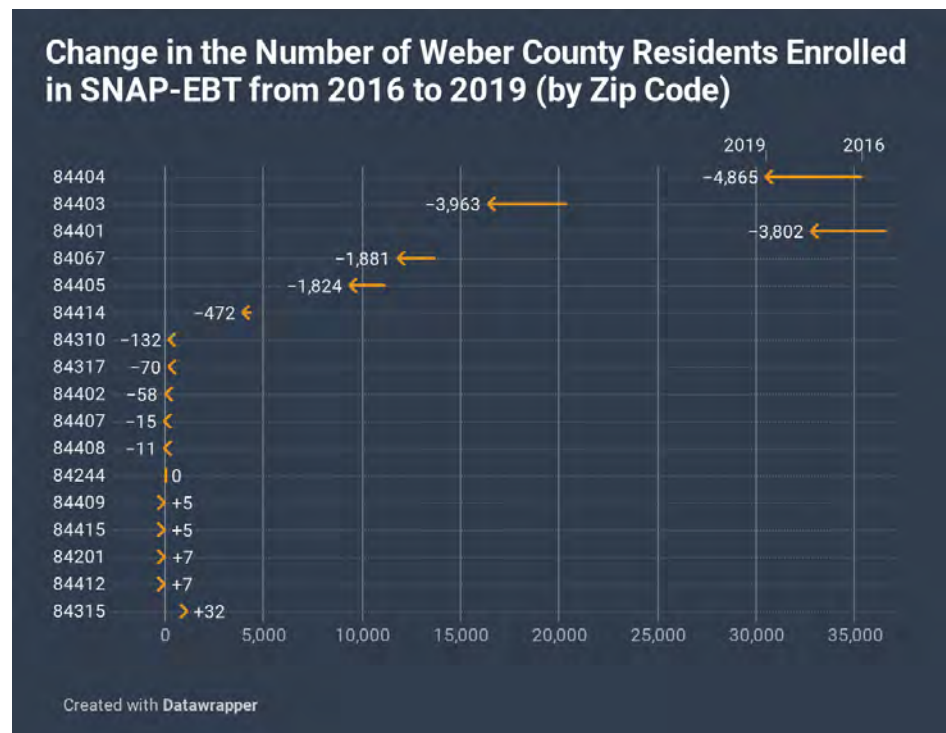


Figure 3. Weber County Change in SNAP-EBT Enrollment (Total) by Zip Code—2016 to 2019. Retrieved from Utah Department of Workforce Services (2019).

\*Numbers with (-) reflect a decrease in residents enrolled in SNAP while (+) shows an increase in SNAP enrollments from 2016 to 2019.



Access.) The East Central neighborhood does have a higher rate of retailers accepting SNAP-EBT at 10.98 per 10,000 residents in the population compared to Ogden overall (at 8.00 per 10,000 residents) and Weber County overall (5.59 per 10,000 residents) (Table 5) (FNS-USDA, 2020a). When looking at tracts within East Central, northwest East Central (200900) has the highest percent of households on SNAP-EBT (28.1%, 508 residents) with the ratio of SNAP households to SNAP retailers being 12 to 1 (Figure 4).

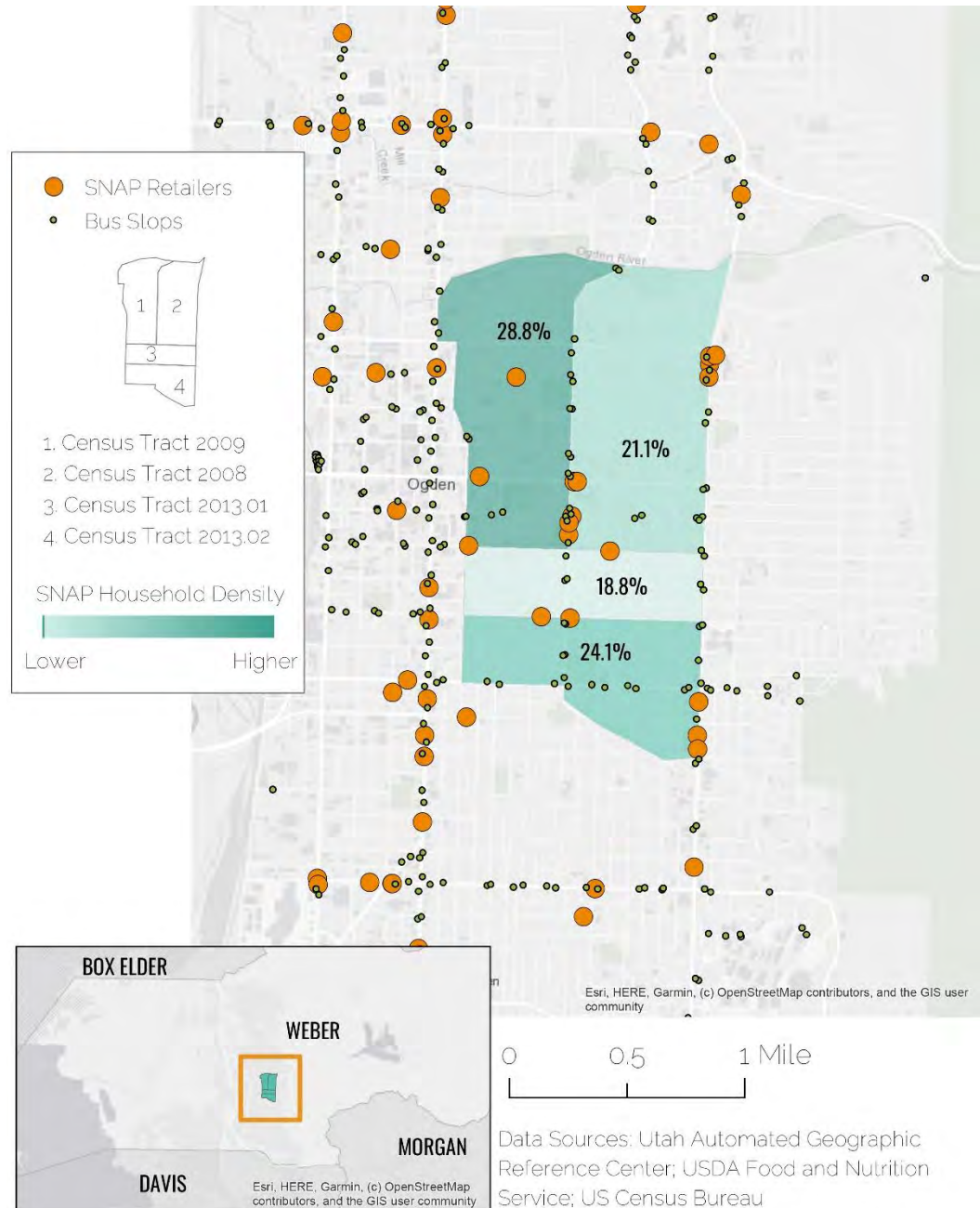


Figure 4. Percent of household on food stamps in relation to SNAP retailers and bus stops. As reported by the 2018 American Community Survey (ACS) 5-Year Estimates retrieved from data.census.gov (Table S2201), SNAP retail locations (13 October 2020) retrieved from fns.usda.gov/snap/retailer-locator, and UTA bus-stop locations (13 October 2020) retrieved from <https://gis.utah.gov/data/transportation/transit/> with topologically integrated geographic encoding and referencing. Map designed by and retrieved from Elizabeth Jones, MPH, Weber-Morgan Health Department.

Community	Total Population	Total SNAP- Authorized Retailers	SNAP-Authorized Retailers, Rate per 10,000 Population
East Central	14,216	17	10.89
Ogden City	86,126	62	8.00
Weber County	247,731	126	5.59

Table 5. Total Population in comparison to the number of retailers within the East Central neighborhood, Ogden and Weber County. The number of retailers are from the US Department of Agriculture, Food and Nutrition Service, USDA - SNAP Retailer Locator: 2020. Additional data analysis by CARES.

Utahns Against Hunger (2018) identified 134 SNAP Retailers and one farmers' market that accepts SNAP-EBT in Weber County. Therefore, the availability of SNAP-EBT-accepting retail does not appear to be a limitation. However, when looking at the type of stores that accept SNAP-EBT in Weber County, 90 out of the 135 (66%) are convenience stores or drug stores; 35 out of the 135 (26%) are grocery stores, a farmer's market (one in the county), or supercenters (e.g. Walmart). In the East Central neighborhood, there are 15 SNAP retailers one mile from the center of the neighborhood. Two are local supermarkets, one a seasonal farmers' market, one a specialty food store, and eleven are convenience stores. In addition, the farmers' market is the only place residents can use Double Up on Food Bucks (DUF<sup>7</sup>) in the county (*Appendix B*).

It is important to note that those living in northwest East Central (tract 200900) have Walmart (1959 Wall Avenue), those that live in northeast have Fresh Market (2044 Harrison Boulevard) and those in southern areas of the neighborhood have Carl's Super Saver (3135 Harrison Boulevard) and Super Grocery (off Adams Avenue) within a mile of their area. By identifying the stores that accept SNAP in the neighborhood and identifying what they stock and sell, one can better understand what is available to residents eligible for SNAP. For example, farmers' markets and supermarkets typically provide more nutritious options than convenience stores, but convenience stores may provide foods that are culturally relevant and/or fit the taste preferences of the community. Therefore, the ethnography and photojournalism data will provide a better understanding of what is available to residents on SNAP-EBT at the neighborhood level (*Appendix A*).

## WIC

In 2019, across Weber and Morgan County 7,737 women, children and infants were enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), as compared to 2016 when 9,898 individuals enrolled. Between 2016 and 2019, WIC enrollments decreased 22%, prior to Covid-19 (Weber-Morgan Health Department, 2020) (Figure 5).

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<sup>7</sup> With Double Up Food Bucks, SNAP-EBT recipients can get up to \$30 of FREE Utah-grown fruits and veggies—per market day—when using SNAP (food stamp) EBT Horizon cards at participating farmers' markets, mobile markets, and farm stands (Utahns Against Hunger, 2020).



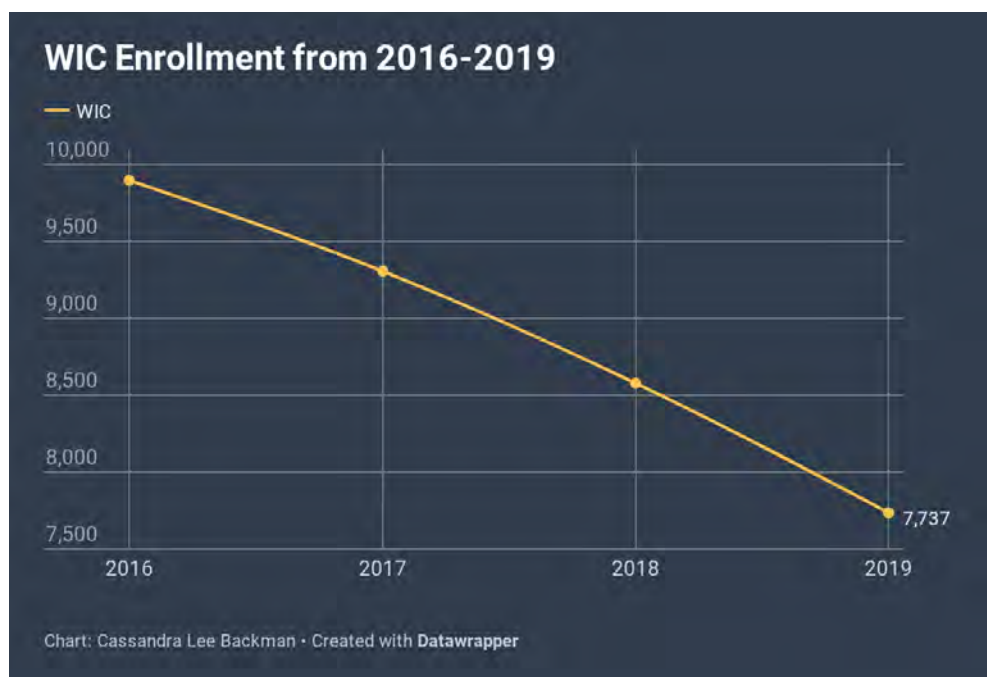


Figure 5. WIC Enrollment (all women, children and infants) from 2016 to 2019. Retrieved from Weber-Morgan Health Department (2020).

Utahns Against Hunger (2018) identified 19 WIC vendors in Weber County with only one WIC Clinic (2233 Grant Avenue, Ogden, UT 84401). Of the WIC vendors, one is in Eden, one in Harrisville, one in North Ogden, nine in Ogden, one in Riverdale, two in South Ogden, and four in Roy. When comparing zip codes, 84404 had the most vendors (six), and 84067 (Roy-Hooper area) had next most (four). Northern regions of the county and more rural areas (e.g. North Ogden and Harrisville) are lower in the number of vendors compared to other areas. The zip code 84401 has three vendors: Walmart Supercenter (1945 Wall Avenue), Fresh Market (2044 S Harrison Boulevard), and Rancho Markets (905 E 26th Street). Rancho Markets is the only vendor located inside East Central; the other two are just outside the neighborhood (Utah Department of Health, 2020).

### Other Food Assistance Programs

There are thirteen large national nutrition programs in the United States. The largest is SNAP-EBT, the second largest is WIC and the third is the National School Lunch Program (Seligman & Berkowitz, 2019). Feeding America (2020) has a list of five other non-emergency national food assistance programs: the Commodity Supplemental Food Program (CSFP), the Child and Adult Care Food Program (CACFP), the National School Lunch Program (NSLP), the School Breakfast Program (SBP), and the Summer Food Service Program (SFSP). Many of these programs are specific to a certain age demographics. For instance, NSLP, SBP, and SFSP are for K-12 children less than 18 years of age. For senior-based programs, Utahns Against Hunger (2018) identified 12 Senior Congregate Meal Sites, one Meals on Wheels Program, and nine CSFP Free Senior Food Box Program Sites in Weber County.

For child-based programs, Utahns Against Hunger (2018) identified 63 schools serving Free/Reduced Breakfast and Lunch under the NSLP (as of 2019 only 39 sites exist across the two

districts with eligible students), 28 summer nutrition sites funded by SFSP, and 21 afterschool snack and meal sites funded through CACFP in Weber County.

Two vegetable and fruit prescription programs are available at the state and county levels. On the state level is Fruit & Vegetable Prescriptions (FVRx), and on the county level is Produce Rx. Produce Rx is a new program run by the Weber-Morgan Health Department. Individuals and families identified as at risk of chronic diseases (e.g. obesity, hypertension, and diabetes) by their primary health provider receive a fruit and vegetables voucher that is redeemable at participating stores. Healthcare providers monitor patients' progress during follow-up appointments. Providers benefit from these types of programs by offering a tangible service and improving the health of their patients. Retailers benefit by expanding their customer base and revenue (EPICC, 2020). The addition of Produce Rx in Weber County can benefit the neighborhoods with the lowest food income and access, specifically East Central and surrounding neighborhood blocks. (See *Access*.) Currently, Rancho Markets and the Farmers' Market Ogden are the only participating retailers. Midtown Clinic, Weber County VA Clinic, University of Utah, Ogden Clinic on 12<sup>th</sup> Street, and Weber Human Services are the participating providers that serve residents and prescribe the voucher. To date, 37 participants from the East Central neighborhood and surrounding blocks are using in the program. Weber-Morgan Health Department plans to expand the program in the upcoming year to other neighborhood blocks in Ogden, Utah, and Weber County more broadly, but no additional data is available on participation and services currently.

### Culturally Relevant Food Options

Just below seven percent of Weber County's population is foreign-born, while the foreign-born population in Ogden City is 12.3% and in the East Central neighborhood is 17.1%. Although 88% of foreign-born residents identify as born in a Latin American country, 6% were born in a European country, and 5% were born in an Asian country (United States Census Bureau, 2019, DP02). Regardless of country of origin, 40.2% of residents in East Central Ogden identify as Hispanic or Latinx, compared to 31.9% of Ogden City residents, 18.4% of Weber County residents, and 14.0% of Utah residents (United States Census Bureau, 2019, DP02).

Paternal and maternal figures expose their children and teens early on to culturally relevant food options (Heidelberger and Smith, 2015). A study conducted with Latinx mothers in the Washington, D.C. metro found that they desired to feed their children the healthy food (fruit, vegetables, and water) that they grew up with (traditional foods), but their children preferred fast food and unhealthy snack-based foods that were nearby. The Latinx mothers also preferred to shop at the Latin market due to the availability of traditional foods, but these markets offered unhealthy deals, like free soda with a purchase (Colón-Ramos et al., 2017), that encouraged unhealthy eating habits.

Currently, there are three small chains offering a diversity of cultural options in Ogden City: Rancho Markets (East Central and North Ogden), Kim's Market (East Central), Anaya's Market (East Central and North Ogden). Focus groups of East Central residents found that English-speakers expressed a desire for more healthy options and supermarkets in the neighborhood, and Spanish-speakers expressed a desire for more culturally sensitive establishments (French-

Fuller, 2019). Therefore, it is important that culturally relevant options are predominantly available to residents in their neighborhood in comparison to unhealthy options (e.g. free soda with a purchase). It is also important that the retailers offering these options provide culturally sensitive marketing and customer services in addition to the food offered.

### Key Findings

1. There is an unexplained decrease in the use of WIC and SNAP in Weber County while at the same time the use of food pantries has increased from 2016–2019.
2. The ubiquitous presence of junk food over nutritious foods in food swamps makes it difficult to raise children with healthy eating habits, especially for immigrant families who would like to serve and eat traditional foods.

## Access

*Ability to acquire adequate and nutritious food to promote health without transportation, location, or time-constraint barriers*

Research shows that food security may be due to availability of nutritious and culturally relevant foods but also the accessibility of these types of foods (Colón-Ramos et al., 2017; Heidelberger and Smith, 2015). Access to food is a broad term that the relevant literature has narrowed to five areas. OgdenCAN's definition includes *Accessibility* (the physical location of the food and when it is available—e.g. hours of operation for nearby stores), *Accommodation* (providing a diverse amount food that is always culturally relevant and accessible), and *Acceptability* (meets both federal and personal quality standards—e.g. not expired, nutritious and safe to consume). The literature has also defined *Availability* (a nearby selection of a variety of food) and *Affordability* (monetary value of time spent obtaining and buying food and resources) as part of access (Caspi et al., 2012, Ginsburg et al., 2019). OgdenCAN and the FSSC have defined *Affordability* and *Availability* as key drivers separate from access. The USDA report on food access found that it is multifaceted and dependent of the community. For instance, in urban core areas the main drivers of limited food access are higher levels of racial segregation and greater income inequality (systemic barriers), while in small-town rural areas the main drivers are a lack of infrastructure and transportation (infrastructural barriers) (Ver Ploeg et al., 2009). Therefore, USDA (2019) defines an urban food desert as a low-income neighborhood with low access to affordable and nutritious food.

Weber County is a mix of rural, small towns, and small- to medium-size cities with about half of the county consisting of the Wasatch mountain range. As of 2016, there were 154 fast-food restaurants, 138 full-service restaurants, 88 convenience stores, 29 full-service grocery stores, 6 supercenters, 148 farms with direct sales, one farmers' market, 207 vegetable and fruit farms, and two small slaughterhouses. Between 2011 and 2016, the number of grocery stores decreased 17%, and convenience-store numbers increased 25% in Weber County. Therefore, the ratio of fast-food restaurants and convenience stores to full-service grocery stores and supermarkets is 7 to 1 in the county (United States Census Bureau: County Business Patterns, 2018; USDA Food Environment Atlas, 2016).

East Central's food story is even more complicated. When looking at SNAP-accepting retailers, the East Central neighborhood has a higher quantity of convenience stores (11 stores) compared to grocery stores (Rancho Markets and Kim's Market) (FNS-USDA, 2019). Based on the definition established by the 2018 American Census Survey 5-Year Estimates and USDA (2019), East Central is a *Food Desert* (Figure 6). However, OgdenCAN and the Food Security Team also finds support

in defining the East Central neighborhood as a *Food Swamp*.<sup>8</sup> A food swamp is a neighborhood where non-nutritive foods are more readily available than nutritive foods. Food swamps can exist within food deserts, where there are limited options for purchasing nutritious food. Convenience stores and fast-food restaurants are more prevalent than supermarkets and grocery stores in food swamps (Behrens, Simons, Harding & Milli, 2015). Overall, there are 11 food deserts in Weber County with 10 in Ogden and one in Washington Terrace (Tract 211100).<sup>9</sup>

### Accessible and Reliable Transportation

Access to transportation can determine a resident's ability to access a store that has affordable, nutritious, and culturally relevant food. Infrastructural barriers include access to a reliable vehicle and/or public transit. Nine percent of Ogden City households are without a vehicle compared to the rest of the state of Utah, in which 4.1% of households have no vehicle. In East Central, 16.9% of residents are without a vehicle, and 4.7% (versus 2.4%

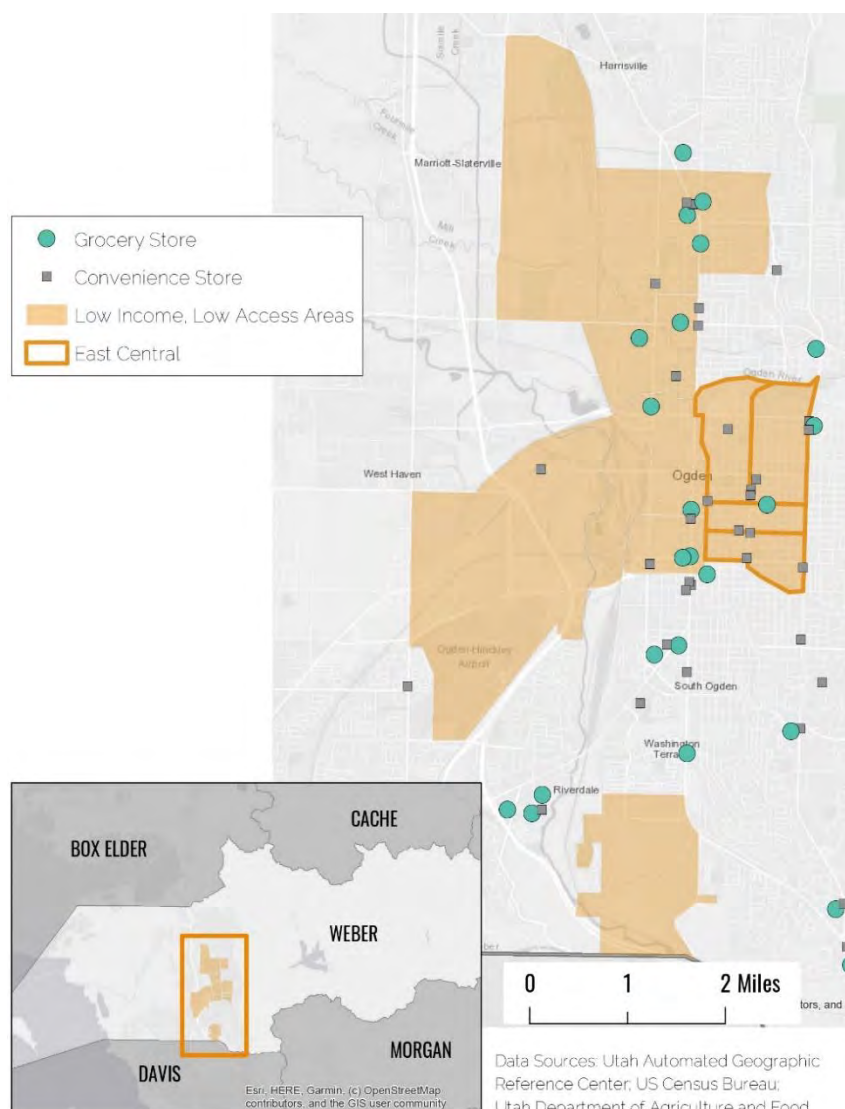


Figure 6. Identified Food Deserts in Weber County. This methodology was based on that used by the United States Department of Agriculture Economic Research Service (<https://www.ers.usda.gov/data-products/food-environment-atlas/documentation/>). As reported by the 2018 American Community Survey (ACS) 5-Year Estimates retrieved from data.census.gov (Tables DP03, S1701, B08201) with topologically integrated geographic encoding and referencing. Map designed by and retrieved from Elizabeth Jones, MPH, Weber-Morgan Health Department.

<sup>8</sup> As OgdenCAN's Health Subcommittee spreads their focus across the county, *Food Deserts* and/or *Food Swamps* are likely to be identified in other neighborhoods and municipalities, as defined by the USDA-ERS Food Access Research Atlas (2015).

<sup>9</sup> Low Income was determined based on median household income data and poverty data. If the median household income of a census tract was below 80% of that of the state (or, for urban tracts, the surrounding metro area), or if 20% or more of the population was classified as being low income, the tract was determined to be a Low-Income area. Census Tracts were classified as Low Access if 100 or more households reported not having a vehicle available.

of all Utahns generally) use public transportation (United States Census Bureau, 2018, S2101 and S1101) (Table 6). Focus groups conducted in 2019 in East Central found 42% of participants use public transit in some capacity during the month. Although there are grocery stores with nutritious options in and around East Central, these grocery stores and supercenters do require public transit or a car since obtaining access requires crossing three main roads in Ogden (Wall Avenue, Washington Boulevard, or Harrison Boulevard). Northern East Central also has a significantly lower density of bus stops than other parts of the neighborhood. (See *Availability*.)

Percent of Households	East Central	Ogden City	Weber County	Utah
With no vehicle	16.9% (968)	8.9% (2705)	5% (4200)	4% (39171)
Rely on carpool to get to work	12.5% (839)	11.4% (4643)	9.7% (11787)	10.8% (159967)
Use public transit to get to work	4.7% (314)	2.3% (958)	1.7% (2032)	2.4% (36030)
Walk or bike to work	4.8% (321)	3% (1224)	1.8% (2184)	3.2% (47343)

Table 6. A comparison of vehicle ownership and transportation use per household in East Central, Ogden City, Weber County and Utah as reported by the 2019 American Community Survey (ACS) 5-Year Estimates, retrieved from data.census.gov (Tables DP03, S2504, S0801).

Access to a household vehicle and/or location within one mile of a supermarket can determine a resident's access to nutritious and relevant foods (Ver Ploeg et al., 2012). When looking at Weber County census tracts, East Central (tracts 200800, 200900, 201301, 201302), western Ogden (tracts 201100, 201200, 201900), Washington Terrace (tract 211100), and northern Ogden (200202, 200300, 200400) all have more than 100 households with no vehicle access and/or 33% of the households that are more than one mile from a supermarket. These areas also have lower median income and higher poverty (Figure 6).

Access to reliable transit and safe walking/biking routes can also affect residents' access to food. Overall, Ogden City has a low walk, transit and bike score making it car dependent (*most errands require a car*).<sup>10</sup> North Ogden has the highest car dependence (lowest walk, transit and bike score) compared to other identified areas, with all errands requiring a car, some public transit, and some biking infrastructure. West Ogden has the second highest car dependence.

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or if more than 33% of the area covered by a census tract was more than one mile from a food retailer. This methodology was based on that used by the United States Department of Agriculture Economic Research Service (Ver Ploeg et al., 2012).

<sup>10</sup> The Walk Score is a scale from 0 to 100. The scale goes from *daily errands do not require a car* (90–100) to *most errands can be accomplished on foot* (70–89) to *some errands can be accomplished on foot* (50–69) to *most errands require a car* (25–49) to *car-dependent* (0–24).

The transit score follows same increments from 0 (minimal transit) to 100 (riders' paradise). The bike score follows different increments of from 0 (somewhat bikeable) to 69 (bikeable), then 70 to 89 (very bikeable) and 90 to 100 (bikers' paradise).



Washington Terrace has the third highest car dependence. East Central also has one of the lowest walk scores (Score 63) compared to other Ogden neighborhoods, like Central Business District (walk score 77) in Ogden and Jefferson Historical neighborhood (walk score 72) (Table 7). Walk scores decrease even more the farther northward an area is in the East Central neighborhood. East Central and other neighborhoods, despite having higher walk scores, also score low on their transit scores and bike scores. Therefore, residents with no vehicle access in the northern and western areas of Ogden may struggle due to the lack of public transportation and bike infrastructure near them (See *Community Resources*). Ogden City is in the process of implementing a transportation plan that will increase the accessibility of public transportation and pedestrian-friendly infrastructure. For more details on this transportation plan, see the *Policy* section (Ogden City, 2020a).

Scores	Ogden City	East Central	North Ogden*	Western Ogden*	Washington Terrace
Walk	46	63	20	24	32
Bike	36	54	25	58	27
Transit	45	42	28	34	31

Table 7. Walk Scores, Bike Scores and Transit Scores for different neighborhoods and areas in Ogden City and surrounding municipalities (Walk Score, 2020).

\*Highest car-dependent areas in and around Ogden City

## Time-Constraints

Time-constraints due to work, family obligations and other life challenges can act as a barrier to consuming a healthier diet. Individuals least likely to eat healthy due to time-constraints are women, college students, and individuals of lower income. Lower income individuals tend to lack the ability to “buy time,” like meal delivery services or healthy premade meals. Women tend to have the constraints of balancing traditional household tasks and a job. Students struggle to structure their time (i.e. class, work, social obligations), so healthy eating becomes a low priority. Long work hours and strong family obligations can influence perceived time-constraints. Overall, perceived time-constraints around eating healthy differ for different groups, individuals, and communities (Knol, L.L et al., 2018; Pelletier, J.E., Laska, M.N, 2012).

Food insecure households are more likely to experience time barriers regarding the purchasing, preparing, and consuming of meals in relation to other daily tasks compared to food secure households. Perceived time-constraints influence food insecure households’ fruit and vegetable consumption more than other barriers, like taste preference. When time-constraints act as a mediator to dietary behaviors, it can lead to constant tradeoffs between healthy food decisions and needed resources (e.g. other living expenses and social obligations). Food insecure households are more likely to lack access to readily available resources (e.g. disposable income, childcare, etc.), exacerbating the tradeoff between time and healthy food (Mook et al., 2016).



Therefore, time-constraint is a driver of low food security, especially for families and individuals who are lacking those resources that can alleviate other obligations (cooking, childcare, etc.) that fill their day (Pelletier, J.E., Laska, M.N, 2012; Knol, L.L et al., 2018; Committee on Examination of the Adequacy of Food Resources and SNAP Allotments et al., 2013).

Time needed to purchase, prepare, cook, and consume food is more of a constraint than the cost of food. For instance, families on a thrifty meal plan (the basis for the maximum allotment on SNAP) would need 16.1 hours a week or 2.3 hours a day to prepare food. Therefore, single parents working multiple jobs and/or full-time jobs may opt for premade and prepackaged meals compared to fruits and vegetables that have increased preparation time, are costly, and are not always SNAP and/or WIC eligible items

(Committee on Examination of the Adequacy of Food Resources and SNAP Allotments et al., 2013).

According to the Bureau of Land Statistics' American Time Survey (2011-2019), on average residents around Salt Lake City-Ogden-Clearfield Metro spent 24% of a

24-hour day on food related activities (grocery shopping, storing, food preparation, consuming, and cleaning) (Figure 7) (Hofferth et al. 2020).<sup>11</sup> This is a little lower than the trends seen in literature that reported 35% of time allotted to food-related activities (Committee on Examination of the Adequacy of Food Resources and SNAP Allotments et al., 2013). More data on the specific populations can help public-health and non-profit workers understand residents' time-constraints involving food preparation and consumption. Understanding time-constraints

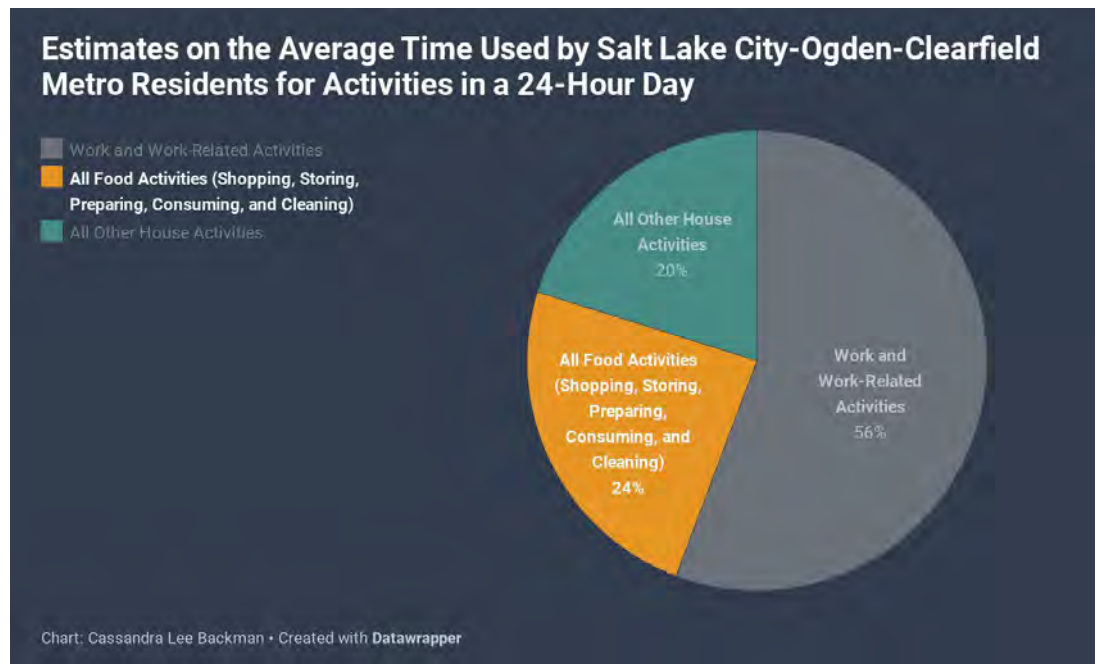


Figure 7. A comparison of time used by residents of the SLC-Ogden-Clearfield Metro area from the Bureau of Land Statistics' American Time Survey (2011-2019). These are averages over single years. Sample size is below 1000 residents over 8 years, so estimates should not be generalized to the population. It is based on a 24-hour day and excludes leisure, recreational activities, and time sleeping (Hofferth et al. 2020).

<sup>11</sup> These averages are not from Ogden or Weber County residents, specifically. Estimates at the metro-area level are partial, and it is recommended to use these estimates with caution (Hofferth et al. 2020).

can inform household-level interventions. Further qualitative data via the ethnographic interviews can provide more in-depth understanding of perceived time-constraints among residents' drivers of food security at the individual, household, and neighborhood levels (*Appendix A*) (Yagüe, 2020).

## Emergency Resources

The Northern Utah Food Bank<sup>12</sup> had an increase in the number of clients from 2016 to 2019 with an overall increase by 20% of all clients served and 42% increase in dependents served prior to Covid-19 (Figure 8). This trend is opposite to SNAP and WIC enrollment trends from 2016 to 2019 in Weber County (Figure 4 and 5). From March 2019 to March 2020, the Northern Utah food bank served 2444 households and 6145 clients across Northern Utah (*Box Elder, Cache, Davis, and Weber Counties*). Of those households served ( $n = 559$ ), 22.87% were first-time users and 62% ( $n = 1518$ ) are households without children. Most households served were one-person or two-person households ( $n = 1550$  or 63%). However, households with four to seven members had on average 11 to 15 visits/household over the year, respectively, compared to one-person households averaging nine visits/household over the year. Households with children also had on average more visits/household over the year, at 12 visits/household, compared to those with no children, at with nine visits/household, over the year. Clients that identified as White ( $n = 2936$ , 48%) and Hispanic/Latinx ( $n = 2592$ , 42%) made up most of the clients. Clients who identified as Hispanic/Latinx had a higher ratio of visits per client (14 visits per year) compared to clients identifying as White (10 visits per year). Based on these yearly numbers, Hispanic/Latinx clients,

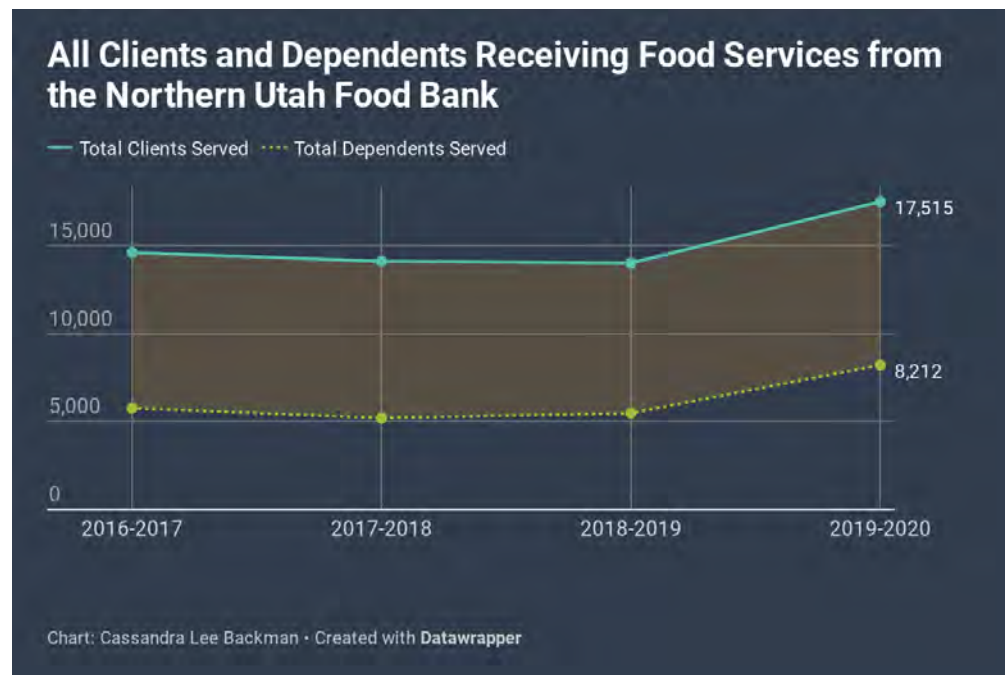


Figure 8. Total Clients (all ages) and total dependents (age <18) served through local food pantry and emergency resources between March 2016-March 2020. This is before the start of the pandemic (Catholic Community Services of Northern Utah, 2020).

<sup>12</sup> Northern Utah Food Bank provides services to Weber County. However, there are other emergency food assistance programs available, specifically the Latter-Day Saints (LDS) Storehouses and Cannery, whose data is not available at the time of this report. However, the team is aware of the food assistance and meal services that the LDS programs provide to Weber County residents.

larger families, and families with children were likely returning users to the food bank compared to other demographics that may make up higher portions of clients and households. How close clients live to a food bank may also have influenced how often they visit.

Ninety-five percent ( $n = 2314$ ) of households that utilized the Northern Utah Food Bank were from Weber County, and 74% of those households in Weber County lived in Ogden, Utah. When looking at zip codes, 34% ( $n = 953$ ) of households lived in 84401 (west and central Weber County, including the neighborhood of East Central) and 27% ( $n = 668$ ) lived in 84404 (north and west Weber County). However, Clearfield (in Zip Code 84015) and North Ogden (in Zip Code 84404) had a higher ratio of visits per household over the year at 12 visits/household compared to Ogden with 10 visits/household. Those accessing the resources varied by city and zip-code with the most clients being from Weber County, specifically Ogden, and the zip codes of 84404 and 84401. However, the highest visits/client were for clients in North Ogden and Clearfield.

Visit Category Accessed	Percent of Households Served	Percent of Visits by Household Served
Food Services	80%	65%
Holiday Food Services	9%	9%
Admin Card	2%	8%
Baby Needs	6%	10%
Miscellaneous	3%	8%

Table 8. Visit category by household ( $n = 2444$ ) and number of visits ( $n = 23946$ ) (CCS, 2020).

In general, clients utilized the food services (i.e. pantry pick-up and meal boxes) more than other services (e.g. holiday food services—Christmas and Thanksgiving meals, baby needs, admin card, and miscellaneous visits). Sixty-seven percent of households served ( $n = 1649$ ) utilized the monthly pick up services at the Northern Utah Food Bank (which includes mostly food/meal pick up), and this accounts for 54% of visits over the year. When including holiday food services, Thanksgiving and Christmas meals that occurred only in November and December, this jumps to 75% ( $n = 1853$ ) of household served and 62% of visits. Thirty-two percent of clients (1956 out of 6145) visited due to a need for a food service (excluding holiday food services). Food services, other than holiday food services, accounted for 65% of visits. Therefore, residents accessed emergency resources mainly for food-based needs, even outside the holiday season when the need is higher (Table 8).

## Culturally Relevant Food Options

Most residents that participated in the East Central focus groups shopped at a national and regional chain (i.e. Walmart, Rancho Markets, WinCo Foods, and Smith's Food and Drug). All participants from the neighborhood expressed a desire for more healthy options. They expressed concern with the number of vacant lots and wondered why supermarkets or restaurants offering healthy options did not replace them (French-Fuller, 2019). Therefore, the availability of the types of stores and the accommodations they provide regarding the cultural sensitivity of these establishments is a likely driver of East Central residents' access to nutritious foods. Past literature studying food security among lower-income children and teens found multiple drivers that determined their access. Key drivers identified were food storage options, what adults in their lives bought and stored, as well as the food stores and restaurants in proximity and on travel routes to and from home. Therefore, if the neighborhood and schools nearby do not offer healthy and culturally relevant options, then residents, specifically those under 18, tend to choose less healthy options based on proximity and convenience (Colón-Ramos et al., 2017; Heidelberger and Smith, 2015). The ethnography and photojournalism project will provide further data on what East Central residents are consuming, the food offered nearby, and whether the food is culturally relevant to them (*Appendix A*) (Yagüe, 2020).

## Community Resources

### SNAP-EBT

Weber County has a high portion of food insecure residents with income above the 130% threshold needed to qualify for SNAP. In 2018, 56.8% of food insecure residents were above the 130% threshold which qualified them for SNAP, and 40% were above the threshold for other nutrition assistance programs (185% of the poverty line). This is out of 29,680 residents that identified as food insecure (Figure 9) (Gundersen et al., 2009–2020)<sup>13</sup>. Using the SNAP Program Access Index (PAI) developed by Food and Nutrition Services under the USDA (2020a), 35.53% of eligible residents in Weber County accessed SNAP in 2019 (FNS-USDA, 2020a). This is a decrease from the 2017 PAI for Weber County (56.32%), calculated by Utah's Against Hunger (2018).<sup>14</sup> Data from Catholic Community Services (2020), found 76% of the 2444 households using the food bank from 2019-2020 were not using SNAP ( $n = 1859$ ). Twenty-two percent ( $n = 544$ ) of those households not enrolled did not qualify for SNAP. Therefore, there may be an access barrier based on the current threshold set by the state (130% below the poverty level) (Gundersen et al., 2020).

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<sup>13</sup> Please note that methodologies changed in 2013 (addition of homeownership into the calculation of food insecurity) and 2020 (addition of disability status into the calculation of food insecurity). The graph displays trends but should not be used for comparison purposes.

<sup>14</sup> The PAI indicates the degree of access but is not a measure of SNAP participation versus eligibility because the SNAP eligibility level is 130% of poverty, not 125%. The index does not account for any of the other factors impacting an individual's eligibility for SNAP. The Food Distribution Program on Indian Reservations (FDPIR) participants were not subtracted due to the inability to identify participants' counties (FNS-USDA, 2020a).

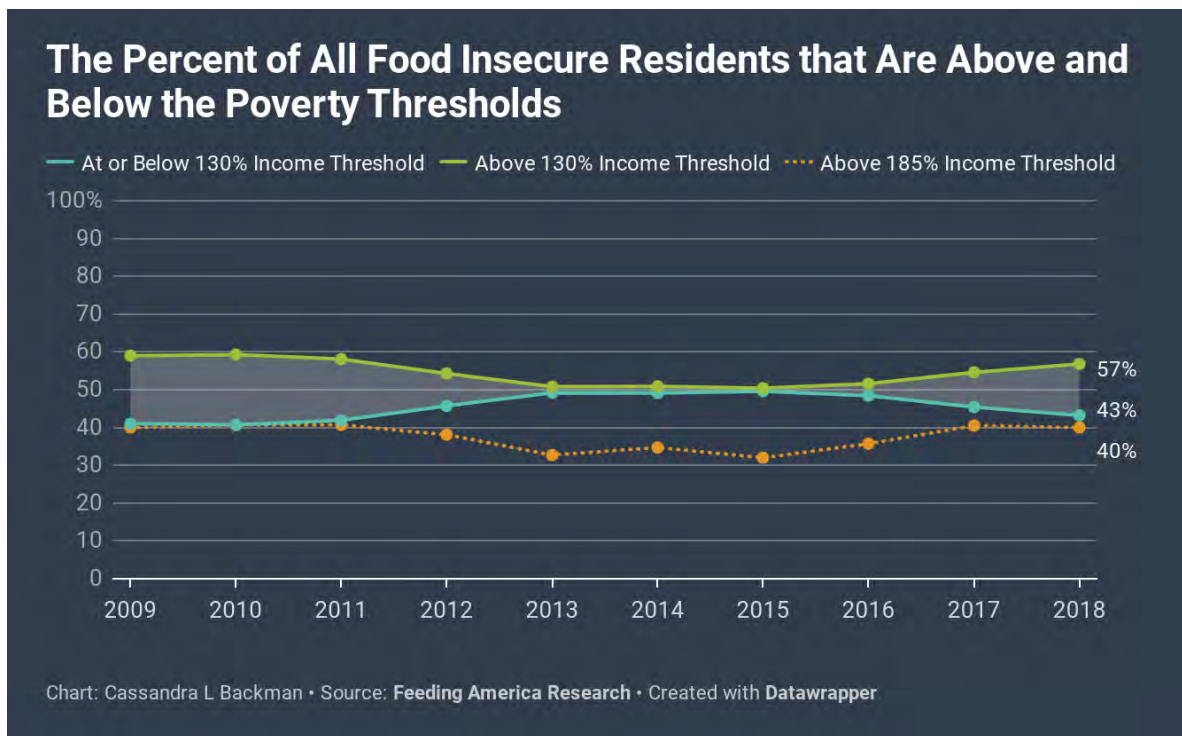


Figure 9. Retrieved from Feeding America Research (2009-2020). Data used to calculate the food insecurity rate at the county level was unemployment rates, median income, poverty rates, homeownership rates from the American Census Survey (ACS) and unemployment from Bureau of Labor Statistics (BLS). Those below or at 130% federal poverty level qualify for SNAP compared to those 185% or below, who qualify for other food assistance programs (e.g. WIC and School Lunch Program) (Gundersen et al., 2009-

## WIC

Weber-Morgan Health District has increased access to nutrition classes online for WIC participants. In 2019, half of enrolled WIC users were using this online resource with 2000 classes completed throughout the year (Weber-Morgan Health Department, 2019). In 2020, eWIC enrollment stood at 3907 residents of Weber County. The highest portion resided in zip codes 84404 (32.07%) and 84401 (19.22%), which mirrors the same trend seen with SNAP enrollment for 2019 and patrons of the Northern Utah Food Bank. The Roy-Hooper area (84067) and 84403 (Eastern Ogden and Weber County) also show higher portions of eWIC enrollment (Weber-Morgan Health Department, 2020). Given these eWIC numbers are after the start of the pandemic, it is of interest that the portion of residents participating in each zip code follows a similar pattern to both SNAP-EBT and the food bank prior to the pandemic, showing enrollment declines similar to those in the other programs. Therefore, women and children in these communities are likely experiencing the same, if not, higher food insecurities since the start of the pandemic. The added option for online classes and eWIC can increase access for residents due to removing travel restrictions and negative stigmas about food stamp use in stores (e.g. using a card instead of food stamps at register when paying) (Burris, Bradley, Rykiel & Himmelgreen, 2020). However, these programs have only existed for about a month in 2020



(eWic) and one year (online classes). Weber-Morgan Health Department is tracking these numbers, and these data will inform future interventions in the county (Weber-Morgan Health Department, personal communication, October 2020).

### Other Food Assistance Programs

Weber School District has five schools where over 50% of students are eligible for free or reduced lunch and one school where over 50% of students are eligible for free lunch. Two are near or in Washington Terrace and two are in Roy. Washington Terrace is likely a food desert with more than 20% below poverty and low access to a grocery store/supermarket, as defined by the USDA (Figure 3) (Ver Ploeg et al., 2012), which could explain why more students are eligible at these schools. In 12 out of the 21 Ogden School District schools, 100% of students are eligible for free lunch. Seven out of the 12 are in the northern Ogden area (north of 20<sup>th</sup> Street), and four are in or near East Central. These facts further support food security concerns in these neighborhoods and the need to support the current food assistance programs through national funding (NCES, 2019) (Table 9).

National School Lunch Program	Number of Sites	Percent Eligible for Free or Reduced Lunch	Percent Eligible for Free Lunch
Ogden School District ( <i>n</i> = 11716)	21	72.17% (8455 students)	68% (7997 students)
Weber School District ( <i>n</i> = 12912)	18	35.32% (44305 students)	26% (3228 students)

Table 9. Number of students eligible for Free and/or Reduced Lunch (NCES, 2019).

Utahns Against Hunger (2018) identified that fewer students were using the School Breakfast Program both in Ogden and Weber School District for the 2018-2019 school year. In Ogden School District, 30.6% (2203 out of 7197) of eligible students were *not* utilizing the breakfast program compared to 67.22% (4667 out of 6943) of eligible students in Weber School District (USBE, 2019). There is an identified need to increase children's access to breakfast as well as lunch during the school day. In Weber County, there was a decrease in meals served from 2016 to 2018 (-11.56%) from the Senior Congregated Meal Sites, but about the same percent of individuals served. There also was a decrease in participants served (-5.84%) from 2016 to 2018 by the Meals on Wheels Program in the county. There were about 52 participants served Senior Food Boxes from the CFSP. More information on the sites' location and the zip codes of participation can identify access barriers for senior residents of the county.

## Key Findings

- 1) There are 11 food deserts in Weber County based on the USDA's definition of a food desert. Ten of the 11 are in Ogden City.
- 2) Select neighborhoods, specifically in North and West Ogden, have little to no access to public transit and/or pedestrian-friendly infrastructure, which makes obtaining nutritious food difficult for residents.
- 3) Over half of Weber County residents identified as food insecure were above Utah's threshold for SNAP at 130% of the poverty line.
- 4) Low-income families have less time to prepare nutritious food due to time-constraints. There are few options in East Central to buy affordable, nutritious, and culturally appropriate food.
- 5) Larger families utilize food pantries more often than smaller families; Latinx families utilize food pantries more often than other families.
- 6) More children qualify for free and reduced school breakfast and lunch than are utilizing these services, indicating that many children may experience hunger in Weber County.



# Knowledge

*The awareness of local, nutritious, and culturally relevant food options and the skills needed to prepare and cook nutritious and culturally relevant food*

## Nutrition Education

Individuals classified as having low food security are more likely to have lower confidence in their cooking ability and less frequent food-preparation behaviors than their food-secure counterparts. Nutrition educators can provide food procurement skills through classes, and community educators can provide guidance for accessing nutritional and affordable foods (Knol, L.L et al., 2018). Currently, there are nutrition programs within the local health department, school districts, small clinics, healthcare settings, and universities (e.g. Utah State University Cooperative Extension and Weber State University).

### Examples of Programs

Weber-Morgan Health Department (WMHD) and local childcare facilities run *Teaching Obesity Prevention in Childcare Settings (TOP Star)*, which provided trainings in 2019 to 79 childcare providers on ways to improve the nutrition and physical activity in their facility, an increase from 2018 (49 childcare providers). In 2019, WIC participants completed over 2000 online WIC nutrition classes, and WIC educators taught 135 in-person classes quarterly, totaling 540 classes (Weber-Morgan Health Department, 2019). Currently, WMHD and a Weber State University professor specializing in nutrition and nutrition education have collaborated to design and implement cooking classes available to all Ogden residents. These classes are new, so little data is available currently.<sup>15</sup> Utah State University Cooperative Extension (USU) offers a variety of nutrition and cooking classes available to SNAP participants in Weber and surrounding counties. The classes are under the United States Department of Agriculture's SNAP-ED program, known as Create Better Health®. Programs run from October 1 to September 30 each year. Due to Covid-19, attendance decreased and fewer classes were offered. However, over the last three years (2017 to 2020) there have been 4425 participants from Weber County (most from Ogden) in 1325 sessions totaling 1679 hours (Utah State University Cooperative Extension, 2020). Studies found that individuals on food stamps benefited from enrolling in SNAP-ED and had lower food security after one year (Loopstra, 2018). Therefore, it is important to expand classes offered to all residents, not just those in food assistance programs. Strategies should include educating residents but also professionals providing nutrition education and services to the community (Burris, Bradley, Rykiel & Himmelgreen, 2020). Providing trainings to local health providers and nutrition educators (e.g. registered dietitians, public health educators, etc.) about signs of food insecurity, local cultures and food traditions,

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<sup>15</sup> T.Olsen (personal communication, October 30, 2020) stated the classes were still novel and have low attendance at the moment.

and food assistance programs available in the community can assist residents in not just accessing nutritious and relevant food but in gaining skills in preparation and cooking. Making these classes available to all residents is important since food insecure individuals do not always qualify for or know about food assistance programs. Such classes can also build trust with professionals who supply nutrition services and education, and increase residents' access to food assistance programs (French-Fuller, 2019; Intermountain Healthcare, 2019).

### Referral Options for Healthcare Providers

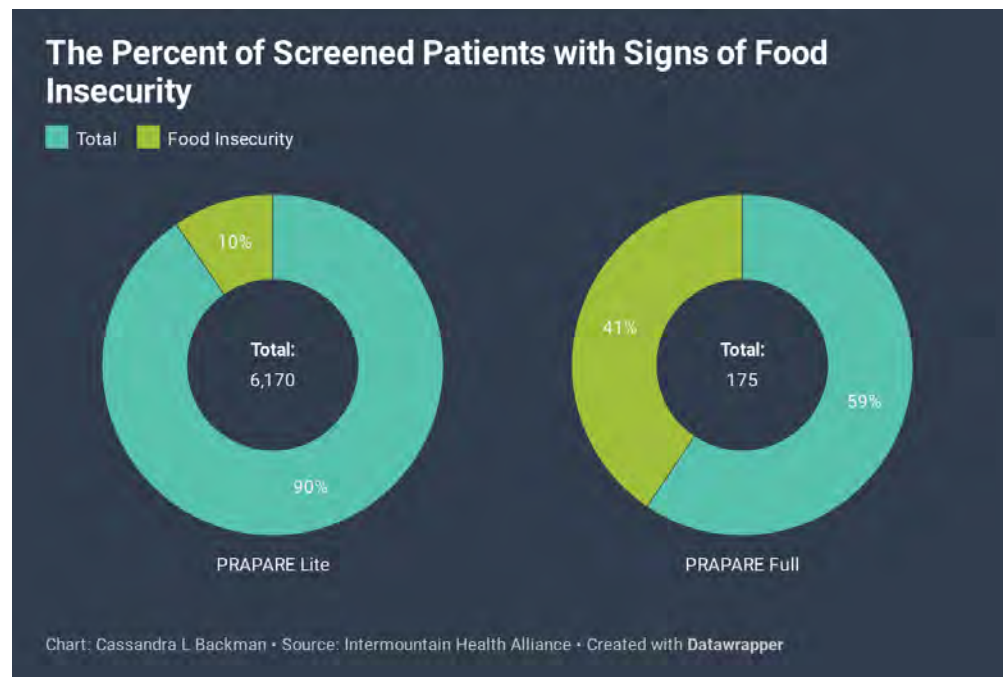


Figure 10. Intermountain Healthcare Alliance's reported number of PRAPARE Lite and Full screenings for 2019 (Intermountain Health Alliance, 2020).

Food insecurity can impact the overall health of an individual, whether a child (age < 18), adult (ages 19–64), or senior (age > 65) (See *Social Determinants of Health*). Among children and seniors, food insecurity can drive negative health outcomes like asthma, behavioral/mental health problems (i.e. depression), and poorer general health. Food insecure adults are more likely to smoke and suffer from hypertension and diabetes. Therefore, healthcare providers must know how to identify food insecurity issues among their new and returning patients, as well as know where to refer them for assistance within the community (Hosler & Michaels, 2017; Ryu & Bartfeld, 2012, Seligman, Laraia & Kushel, 2010, Seligman et al., 2007).

Very few residents in the East Central neighborhood are aware of food assistance resources, and those that are aware struggle to navigate the resource system (French-Fuller, 2019). Increasing healthcare providers' knowledge and ability to refer patients to these food assistance programs can bring awareness and help residents in navigating the options. A lack of health insurance can also inhibit residents' access to preventative care due to cost, so they only access medical care for urgent matters. (See *Affordability*.) Therefore, all medical personnel (e.g. emergency responders) need to be made aware of resources available to food insecure residents.

Intermountain Healthcare and SelectHealth conduct screenings for social determinants of health (SDoH), which include food insecurity. The medical professionals prompted to conduct the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)

assessments are primary care providers, medical personnel, and emergency responders. PRAPARE Lite and Full versions both aim to identify at-risk patients over 6 years old and provide them with the necessary resources (e.g. 2-1-1 Utah/Idaho). Resources vary by the patients' intensity of need: Low—history of food security but has support and food currently—to High—no food or social support currently (Intermountain Healthcare, 2019).

In 2019, Intermountain Healthcare screened 6170 patients for the first time (PRAPARE Lite) and found 591 patients (9.6%) with varying levels of food insecurity. For PRAPARE Full, 175 patients took the assessment, and 71 (40.6%) expressed varying levels of food insecurity (Figure 10). Primary care providers conducted most of the PRAPARE assessments (64.5%). The following facilities conducted screenings (ordered from highest to lowest number from 2018–2019): Intermountain Healthcare, SelectHealth, Weber Human Services, Association for Community Health, Family Healthcare, and Midtown Clinic (Intermountain Health Alliance, 2020).<sup>16</sup> Training more healthcare professionals, specifically at clinics in higher-risk neighborhoods, like Midtown Clinic and Weber Human Services (See Access), in SDoH screenings (e.g. PRAPARE) will ensure all residents with low food security know about and can access the needed resources. Training healthcare professionals can also build trust between local healthcare facilities and residents, helping to prevent the negative outcomes of food insecurity (e.g. obesity, diabetes, and hypertension) through regular preventative screenings.

## Food Preparation and Cooking Skills

Adults in households not only provide food but also must possess the cooking skills to prepare the food. Residents can experience barriers to food preparation and cooking due to limited availability of cooking equipment and food storage options (Heidelberger and Smith, 2015). Food procurement abilities can increase self-efficacy (belief in one's abilities) and alleviate knowledge barriers to food security (Knol, L.L et al., 2018)

Residents of the East Central neighborhood expressed general lack of knowledge on the preparation of healthy food, specifically vegetables. A consensus among residents in the focus groups (both English-speakers and Spanish-speakers) was to have cooking classes to build their skills (French-Fuller, 2019). There are food assistance programs readily available for residents, but very few resources help build food preparation and cooking skills (Dunivan & Herbert, 2020). Weber-Morgan Health Department has partnered with Weber State University to establish cooking classes for residents in the county, specifically the Ogden area, that focus on culturally relevant and healthy options. Given the novelty of these courses, no numbers are available at this time. The Weber-Morgan Health Department and Weber State University are working to refine and improve the classes to better serve residents. The ethnography and photojournalism project will provide more information on individual residents' and households' cooking skills (*Appendix A*) (Yagüe, 2020).

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<sup>16</sup> The number of screenings does not represent the number of food insecure patients or the portion that visit that get screened. However, it does provide insight to what organizations' providers are screening the most.

## Local, Relevant Food Options

Participants of the East Central focus groups identified shopping at Walmart the most, then Rancho Markets, WinCo Foods, and Smith's Food and Drug (French-Fuller, 2019). Within Weber County and East Central, there is a low ratio of grocery stores/supermarkets to convenience stores (See *Access.*) (United States Census Bureau: County Business Patterns, 2018; USDA Food Environment Atlas, 2016). Using the Nutrition Environment Measures Survey (NEMS-S), a study conducted in the Atlanta-metro area found a large difference in healthy food options between supermarkets and convenience stores (Glanz et al., 2007). Literature supports that convenience stores in lower-income neighborhoods tend to have lower quality food options than grocery stores in higher-income neighborhoods (Pechey & Monsivais, 2015; Glanz et al., 2007; Turrell, 1998). However, retailers who sell healthy options improve residents' perceptions of the stores and increase residents' self-efficacy to cook and eat healthy foods. It also can change the retailers' perceptions on stocking and selling more nutritious options (Paluta, 2019). Rancho Markets is known for providing local, relevant, and affordable options for the Latinx communities in the East Central neighborhood. Kim's Market is also known to serve the Latinx and Asian communities in the neighborhood. However, what residents know about food offerings in the convenience stores and other establishments is not yet known. Therefore, the ethnography and photojournalism project can provide an idea of what residents know about the local food options, specifically those at the convenience stores as well as the local and chain grocery stores (*Appendix A*) (Yagüe, 2020). However, to further understand any knowledge barriers, an additional survey of local retailers' inventories and layout can provide information on what residents' options are in comparison to what they know is available.

## Key Findings

- 1) Residents of East Central have expressed a desire to gain skills in food preparation and cooking, but very few of the food assistance programs offer education courses focused on developing these skills.
- 2) Individuals classified as having low food security are more likely to have lower confidence in their cooking ability and less frequent food-preparation behaviors than their food-secure counterparts. Therefore, further knowledge of residents' food preferences and skill levels can build the capacity of new and existing classes to meet the needs of residents experiencing low food security.
- 3) The Food Security Team needs a more comprehensive understanding of the types of nutrition educators in the county and their knowledge of food security. Nutrition educators specialized in food security would help improve nutrition services in the county.
- 4) In the East Central neighborhood of Ogden, the food security team is aware of the importance of the relationship between local retailers and the residents. Non-profit and government organizations working on food security issues have a poor understanding of where residents shop and why.

## Affordability

### *A household's food cost compared to other living expenses relative to the household's expendable income*

Feeding America Research found that in Weber County when there is a 1.0% increase in the poverty rate and unemployment, food insecurity increases by 0.26% and 0.5%, respectively. In contrast, they found that when there is a 1.0% increase in home ownership, Weber County food insecurity decreases by 0.09%. Smith, Rabbitt and Coleman-Jensen's (2017) research findings coincide with Feeding America's identified determinants of food insecurity. Therefore, the affordability of a neighborhood is a strong determinant of food security there.

An economic study conducted by Jenny Gnagey at Weber State University identified eight major categories that affect living expenses in Ogden, Utah. The ones with (\*) represent a significant portion of expenses for all family types.

- Housing\*
- Childcare
- Food\*
- Transportation\*
- Healthcare
- Entertainment
- Miscellaneous
- Savings

It is important to have enough income, affordable housing, and the ability to reserve income for additional expenses without restricting the food budget.

### Median Income of Households

Most families in the East Central Neighborhood of Ogden do not make a livable wage. Utah's median income is \$68,374. The median income of households in Weber County is \$64,636 compared to Ogden City households at \$46,807. The median income for East Central households is about \$33,093 across the census tracts (United States Census Bureau, 2018, S0101). Gnagey's (2018) living wage study for Ogden, Utah found that a livable wage for a one-adult household is \$21,681; for one adult and one preschooler is \$35,418; \$49,662 for one adult, one preschooler, and one school-aged child; and \$56,187 for two adults, one preschooler, and one school-aged child. Therefore, the median income for Weber County is higher than the calculated livable wage for all family types. However, Ogden City's median income is \$9,360 dollars less than the livable wage for a family of four (two adults and two children). The median income for an East Central family is \$23,094 less than is calculated livable. Therefore, most families with two adults and children are far below the livable wage for Ogden City, specifically in East Central. However, in



East Central, 50% of families with children have only one worker in the family compared to Ogden City at 39.6% of families with children. That one working adult must then make a wage of \$35,418 or higher to sustain the family, increasing the likelihood of lower levels of food security.

## Housing Cost

Housing is not affordable for the residents of East Central Ogden, especially for those who rent. In the neighborhood, 61.4% of residences are renter occupied, and the median rent ranges from \$629–\$802 per month (United States Census Bureau, 2018, S1101). Forty-six percent of East Central households' gross rent is 30% or more of their income (United States Census Bureau, 2018, DP04). In addition, inflation for a two-bedroom apartment in Ogden was 12.89% between 2018 and 2020. This is a larger annual inflation rate than for 2016–2018 at 11.95%. From 2016 to 2020 the inflation rate for all rent was 26.39% in Ogden (Gnagey, 2018; HUD Economic and Market Analysis Division, 2020) (Table 10). Focus groups in East Central found that 47% of residents had trouble paying utility bills (French-Fuller, 2019). The more money spent on housing, the less is available for other necessities like food, and vice versa (Gnagey, 2018).

Year	Annual	Monthly
2016	\$9096	\$758
2018	\$10,183	\$849
2020	\$11,496	\$958
Inflation Rate 2016–2018	26.39%	

Table 10. The weighted annual and monthly rental cost for 2020–2021 calculated for Ogden City from Fair Market Rents and the weighted area of individual zip codes defined by HUD Economics (excluding Postal Boxes and Weber State University); see Gnagey (2018) for methods and assumptions (HUD Economic and Market Analysis Division, 2020).

## Food Cost

Weber County's average meal cost, based on the assumption the average resident eats three meals a day, is \$2.95, as calculated by Gundersen et al. (2020). This is a significant increase from 2011 where the average meal cost was \$2.39 and \$2.95 in 2018. Furthermore, from 2011–2018, Weber County residents' food budgets decreased by 2.78% (Gundersen et al. 2018; Gundersen et al. 2020). The cost of food was between 13.8% (for one adult and one child) and 17.8% (for two adults and two children) of total expenses (Gnagey, 2018) (Figure 11). Therefore, one of the three significant parts of a living wage is paying for food. Among low-income residents in East Central, the cost of healthy food was a perceived barrier (French- Fuller, 2019).

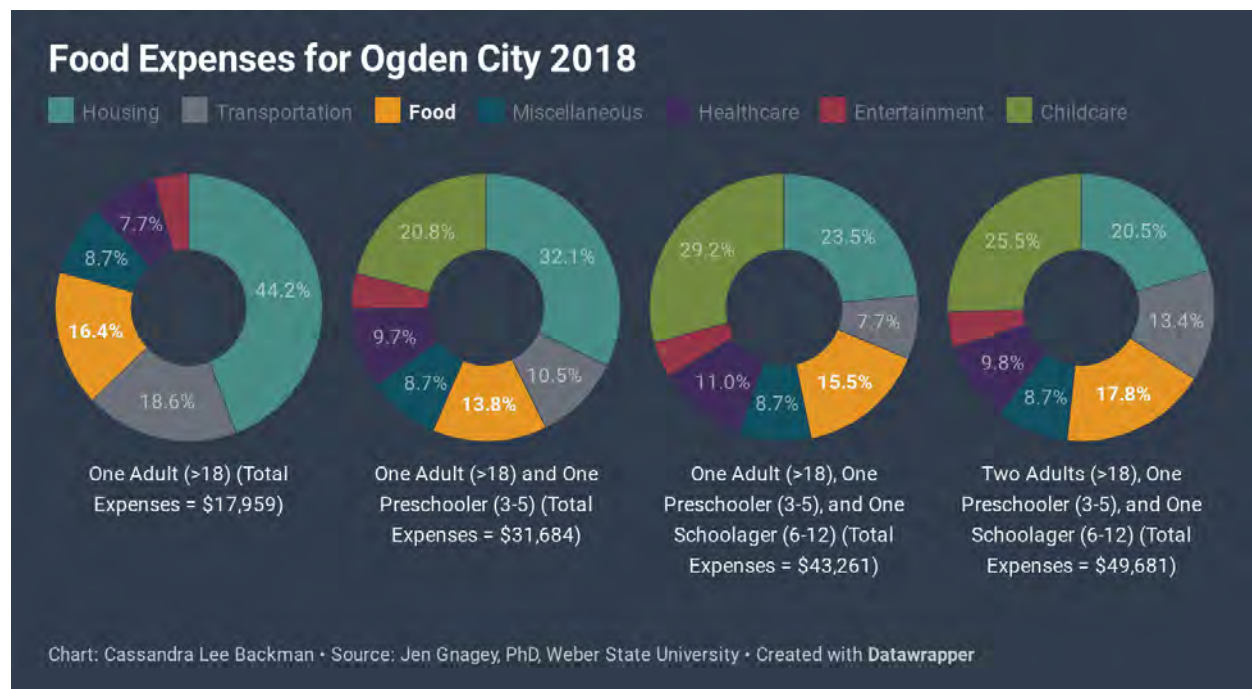


Figure 11. Food cost in proportion to total expenses, by family type—as identified by Dr. Jen Gnagey and the Spring 2018 Weber State University ECON 3400 (Labor Economics) class in the report *The Ogden Independent Living Standard, written for the Cottages of Hope*. This is not inclusive of all family types and representative of the 2018 living wage standards for Ogden, Utah and does not account for inflation that occurred from 2019 to 2020 or for other areas in Weber County.

The USDA has four plans:

- Thrifty Plan (Most Conservative)
- Low Cost Plan
- Moderate Plan
- Liberal Plan

In 2018, the estimated cost for items at the following grocery stores still fell within the parameters of the USDA Low Cost Plan for 2020. Three out of the four stores still fell within the parameters of the Thrifty Plan despite the decrease in the USDA’s meal cost calculation from 2018 to 2020 and the estimated increase in food prices for Ogden, Utah from 2018–2020 (Gnagey, 2018; USDA, 2020) (Table 11). The Walmart where participants in the East Central focus groups shopped the most had the lowest cost estimates (French-Fuller, 2019). Surveying grocery stores is the most accurate way to measure the cost of food in an area and can be beneficial in identifying affordability of healthy options for residents (Gnagey, 2018). Interventions should focus on addressing food budgeting and skills, as well as incentivizing stores to accept WIC and SNAP to promote nutritious and healthy options that fit the USDA Low Cost and Thrifty Plans in their inventory.

Families	Thrifty plan	Low Cost plan	Moderate Plan	Liberal Plan
2 persons ( <i>Male and Female 19–50 years</i> )	\$403.20	\$518.00	\$642.90	\$802.50
2 persons ( <i>Male and Female 51–70 years</i> )	\$383.70	\$496.30	\$619.60	\$746.80
4 persons ( <i>Couple and Children 2–3 and 4–5 years</i> )	\$588.50	\$752.70	\$929.50	\$1147.70
4 persons ( <i>Couple and Children 6–8 and 9–11 years</i> )	\$676.20	\$891.10	\$1110.20	\$1344.10

Table 11. The monthly cost for each food plan, calculated by the USDA as of July 2020 and adjusted for Weber County (5% less) (USDA, 2020).

## Other Living Expenses

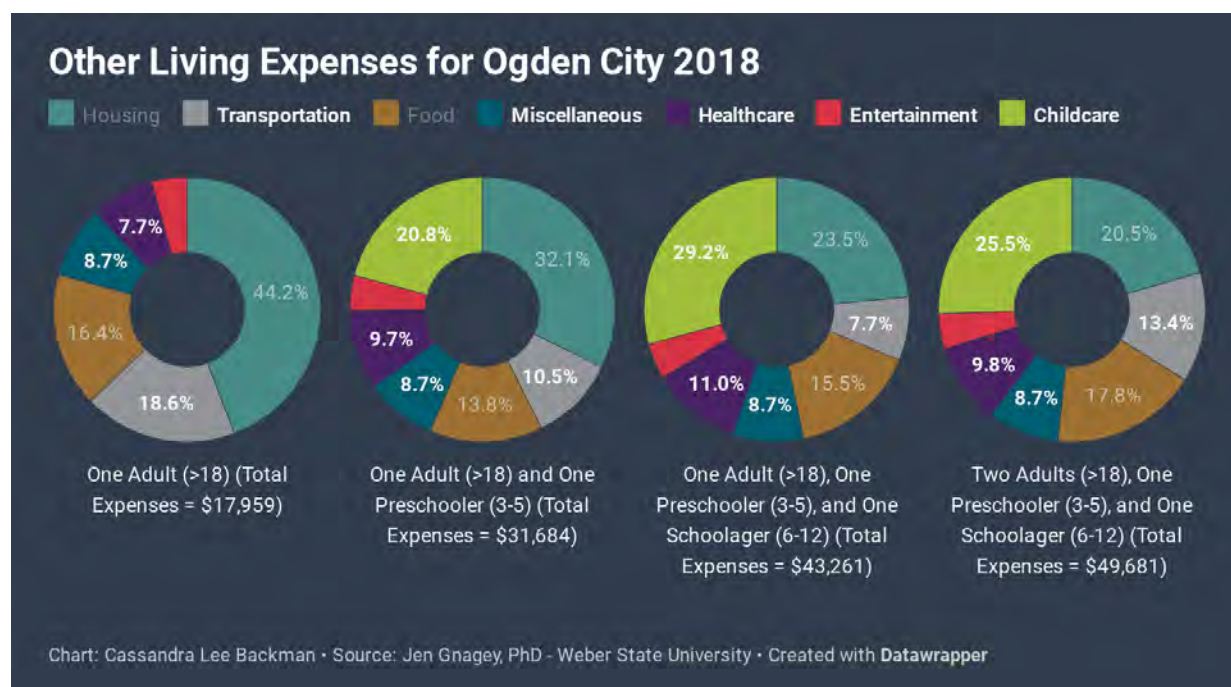


Figure 12. Other costs in proportion to total expenses, by family type—as identified by Dr. Jen Gnagey and the Spring 2018 Weber State University ECON 3400 (Labor Economics) class in the report *The Ogden Independent Living Standard, written for the Cottages of Hope*. This is not inclusive of all family types and representative of the 2018 living wage standards for Ogden, Utah and does not account for inflation that occurred from 2019 to 2020 or for other areas in Weber County.

Other living expenses for Ogden, Utah include transportation, childcare, healthcare (premiums and out-of-pocket-cost), entertainment, miscellaneous (e.g. clothing, housekeeping supplies, personal care products—shampoo, etc., toothpaste, etc.), and savings (at least 1% of gross income) (Gnagey, 2018) (Figure 12).

### Transportation

After childcare, transportation cost was the second highest portion of expenses at 18.6% or \$3,354/car (Figure 12). This includes the cost of maintenance per month (\$49 per month), any loans (for a sedan, \$103.59 payment for 6 years with 5% interest rate), gas expenses (\$84.33/month), and insurance (\$41.46/month) (Gnagey, 2018). In the East Central neighborhood focus groups, 42% stated they used public transit (French-Fuller, 2019). Therefore, cost of public transportation across cities and towns in Weber County can also influence the expendable income residents have to buy healthy foods.

### Childcare

When families have children under 12, childcare is the highest portion of expenses (Figure 13). Childcare for one preschooler (three to five years old) in a family of two is 20.8% of expenses. Childcare for a family that consists of one adult, one preschooler and one school-aged child (6 to 12-years-old child) is 29.2% of monthly expenses, and for two adults, one preschooler and one school-aged child the cost is 25.5%. This assumes that no family members or neighbors can care for the child. From 2016–2018, the estimated inflation was 9.5% (Gnagey, 2018). Looking at monthly costs from 2017–2020, costs increased by 5% to 10% for childcare at care centers (Table 12) (Care About Childcare – Weber State University, 2019).<sup>17</sup> Families are more likely to experience food insecurity if they have no teens (13 to 18 years old) or senior members in the household (> 65), have parent(s) who work multiple jobs, are headed by a single parent, and/or have lower incomes because they may need to stretch food budgets to meet childcare needs. However, it is important that families have access to childcare because childcare providers can act as referral/resource centers for families experiencing food insecurity. In addition, children in childcare centers get nutritional meals/snacks during the day that they would not have access to at home (Heidelberger & Smith, 2015; Smith, Rabbitt & Coleman-Jensen, 2017).

Age Group	0–24 Months	2 years old	3 years old	4 years old	5 years old	6 years old
2019	\$756	\$633	\$589	\$577	\$538	\$517
2017	\$712.48	\$575.96	\$548.67	\$536	\$514.04	\$492
% Change	6%	10%	7%	8%	5%	5%

Table 12. Childcare costs in Ogden City as of January 2019 and September 2017, reported by Care about Childcare at Weber State University, for children 5 and under not in school and 6 years and older in school. Methods from Gnagey (2018).

<sup>17</sup> Home-based childcare is lower cost, but this report focuses on care centers (Care About Childcare – Weber State University, 2019).

## Healthcare

The availability of preventative healthcare services impacts household budgets, especially if households lack health insurance. Focus groups in the East Central neighborhood of Ogden had 42% of participants (English- and Spanish-speaking) identify a lack of health insurance as a major impediment (French-Fuller, 2019). Health-insurance costs continue to increase. From 2016 to 2018, the cost of health insurance increased by 29.61% in Ogden, Utah (Gnagey, 2018). Twenty-three percent of full-time employed residents of East Central are uninsured compared to Utah with 9.3% of full-time employed residents uninsured (United States Census Bureau, 2019, S2701). In Weber County, 20.8% of Hispanic/Latinx residents are uninsured compared to 6% of White (Not Hispanic/Latinx) residents (United States Census Bureau, 2019, S2701), indicating further financial barriers to health care for Hispanic/Latinx residents in the county. Increases in healthcare and insurance costs impact food insecure individuals more. Feeding America Research (2018b) found that a food-insecure adult spent \$1558 more on healthcare than a food secure adult in Weber County. A 10% increase in food-insecure adults would increase the healthcare cost for the county by 81.31% (Feeding America Research, 2018b) (Figure 13). High costs for insurance and general healthcare are concerning because they can place a burden on families, especially if families only access medical care in emergencies due to the inability to afford primary care. Lacking a primary care provider can also prevent access to necessary screening and resources that can help mitigate food insecurity among families (See *Knowledge*).

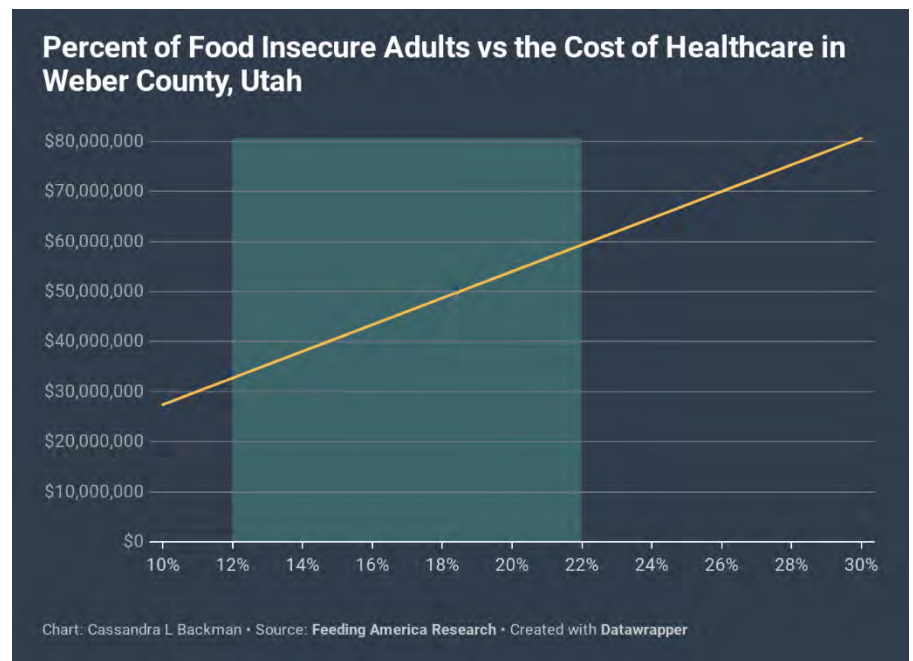


Figure 13. The percent of adults experiencing food insecurity in Weber County was 12% in 2018 with healthcare cost estimated at \$32,733,227. If the number of food insecure adults increased by 10% the cost of healthcare would go up to \$59,349,060 (81.31% change).

## Key Findings

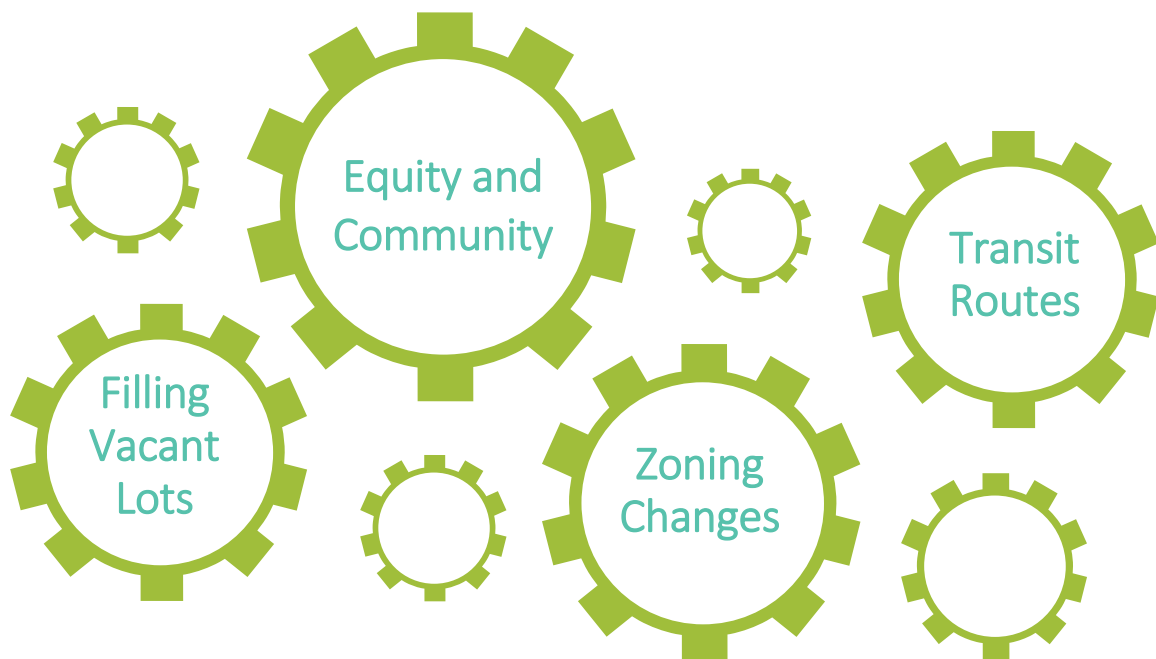
- 1) The rapidly increasing costs of rent and utilities as well as childcare costs make it difficult for low-income families to cover other expenses, such as food.
- 2) Households with parent(s) who work multiple jobs, with a single parent, and/or with lower incomes are more likely to be food insecure, as they need to stretch their budget to meet childcare, transportation, and healthcare needs.
- 3) From 2011–2018, the average meal cost for a family in Weber County rose by 23.4%, and their food budget decreased by 2.78%, increasing the difficulty of providing for the needs of food-insecure families.
- 4) Households that make below a livable wage in Ogden City are constrained in their ability to maintain a healthy diet.



## Policy

*Regulations and laws related to economic development, transportation, and land-use planning that influence food security in the community*

The type of governance influences the level of food security in a given community. Ineffective and slow-moving policy can impact the food production and distribution in an area, but strong governance decreases the social vulnerability of the population and improves the crisis response of the local and state governments (Candel, 2014).



## Economic Development

In a neighborhood, stigmas about the high rates of crime and other unfavorable conditions deter businesses, who see the neighborhood or block as a low-revenue area that has high economic risk. This diminishes the capacity of a community to attract businesses that could enhance the economic viability of the neighborhood and health of its residents, in this case, stores that offer a variety of food that is nutritious and culturally relevant. Key drivers that address these underlying stigmas are important for the development of new policies that can improve the food environment (Mui & Jones-Smith, 2017). Within Utah, Ogden City, specifically East Central and Downtown, has negative stigmas based on media and reported crime rates (Utah Department of Public Safety, 2019).

These negative stigmas and perceptions impact the East Central neighborhood. Focus groups in East Central identified that Spanish-speakers experienced crime more readily than English-speakers did. Not-for-profit workers expressed how drugs are the symptom of the problem rather the problem itself, such as a lack of physical activity and coping behaviors (e.g. stealing)—due to living in a food desert/swamp—or poor mental health. In addition, realtors and public workers upheld stigmas and were reluctant to work in the neighborhood. A Spanish-speaking resident expressed that it took days for the city to come and check a water pipe leaking in the street (French-Fuller, 2019).

To build economic viability of a neighborhood, public officials and not-for-profit workers must alleviate stigmas around crime and work to address inequities in the community by working with businesses, realtors, and public workers. Ogden City is strategically editing their community plan for the neighborhood of East Central, which includes initiatives addressing the cultural identity. Cultural identity mainly focused on the historical revitalization in the past (e.g. historical signage), but there is a push strategically to increase accessible community events and neighborhood standards that are equally set for all residents (renters and owners). Efforts that feature the diversity of culture and history of the community are important to economic development in Weber County, specifically East Central. These efforts can provide incentives for new business to come in by highlighting what the community has to offer while also increasing recreation and needed resources (e.g. walking trails and relevant nutritious-food retailers) (Ogden City, 2020a, 2020b).

## Land-Use Planning

Land-use planning influences availability of and access to nutritious and culturally relevant food. The history of land-use, like zoning, can provide underpinning forces for the placement of establishments in the area (Biehler et al., 2019). Ogden City (2020a) is changing certain zones to keep the historical feel of neighborhoods, reduce crowding, and fill vacant lots. The zones aim to provide central shopping areas that are accessible to residents of a given neighborhood (Ogden City, 2020a).

*Key to a healthy neighborhood is a sense of stewardship of the community by individual property owners*  
(Ogden City, 2020, 14. B. 15)

### East Central Commercial Plan (1991 -2009)

The City of Ogden proposed a commercial plan in 1991 and adopted an edited version, as of October 20, 2009, for the East Central neighborhood. In the 1991 commercial plan, CP zones replaced C zones and R-2EC and R-3EC zones replaced the R-3, R-4, and R-5 zones. These changes minimized commercial land-use impacts on residents and developed lots that fit the pattern of the community. From 1991 to 2009, Jefferson Street became Jefferson Historical District. Ogden City Redevelopment Agency established zoning incentives to preserve historical resources, infill ordinances, and ordinances to allow reuse of vacant commercial buildings. There is an ongoing plan to reduce high density or multiple family dwellings but address the population growth through the development of more housing in vacant lots. Controversially, the city has a

goal in developing the community identity by reversing the negative perception of the neighborhood through diligent upkeep of the landscape and housing while utilizing the historical resources as a focal point of the neighborhood. The problematic plan was meant to

- Promote original use and conforming buildings through infill ordinances and zoning regulation (increasing walkability where high commercial areas already exist and zoning to promote community characteristics).
- Keep historically accurate housing and buildings.
- Raise living standards and provide accessible resources to the community.
- Increase the protection for renters but decrease the number of group homes that prohibit community connections and promote hazardous living environments.

OgdenCAN is concerned about land-use and transportation in future planning and is working closely with the Ogden City General Plan in this process (Ogden City, 2020b). Zoning, infill ordinances, alternative transportation routes and pedestrian/bicycles routes influence the type of food stores and restaurants established, as well as how residents access those commercial establishments in the neighborhood. Accessibility of nutritious and affordable food options is a key driver of food security. OgdenCAN also wants to help ensure the food environment is inclusive and representative of the East Central neighborhood's diversity of cultures. Continued growth of the East Central community will involve both historical revitalization (seen in the commercial plan), but also cultural celebration that promotes equity, trust, and community (Ogden City, 2020a).

## Transportation Planning

Cities typically design transportation, trains and bus stops, in a radial fashion or along the main streets. Therefore, residents not on the main routes tend to be farther from bus stops (Biehler et al., 2019). The city is changing the transportation plan for the East Central neighborhood and surrounding neighborhoods, which if designed appropriately can mitigate barriers that are present in the traditional radial design of most transit systems. Ogden City Planning Commission plans to promote use through incentive-based programs, like free-fares downtown, while enhancing the services and frequency on heavily trafficked roads, like Harrison and Washington—which both border East Central. Ogden City plans to alter regulations around land-use to prioritize transportation in and around the neighborhood of East Central (Ogden City, 2020b).

Ogden City also will adopt street ordinances to ensure future planning integrates bike and pedestrian safety into their design. Current plans are to create a city-wide bicycle network focused on serving the downtown, Weber State University, and the Business District of Ogden with a focus on developing maintained sidewalks on both sides of the road. However, they hope to work with the Utah Department of Transportation, Weber County and Utah Transit Authority (UTA) to integrate facilities that can connect adjacent neighborhoods and municipalities. As seen with the transportation plan for the neighborhood, the city wants to construct safe and appealing facilities that promote biking and walking. They also expressed the need to develop

enforcement policies for bikers and integrate bicycle requirements into engineering standards (Ogden City, 2020a).

The public expressed concern to Ogden City about the bicycle safety and walkability of the East Central Neighborhood. In the older plan, Ogden City proposed to bring street cars, original in the neighborhood in the early 1900s, back to the neighborhood that connects with McKay-Dee Hospital and Weber State University. However, there was the added barrier of incentivizing the use of this alternative transportation (Ogden City, 2020a). The plans could be viable in increasing food access among certain neighborhoods. Therefore, it is important to engage in the transportation planning process to ensure the City Planning Commission, UDOT, and UTA meet the transportation needs (improved bus access, bike lanes, and safe sidewalks) of all residents in neighborhoods, like East Central.

### Key Findings

- 1) There are opportunities to address policies impacting food security at the neighborhood, city, and county level—for example, zoning policies and transportation routes.
- 2) Currently, the city is designing a transportation plan for East Central, which—if done correctly—has the potential to positively impact food- insecure residents in the neighborhood.
- 3) In addition, sustainable and inclusive opportunities exist to increase food security through vacant lot development and zoning changes, while fostering a thriving neighborhood.

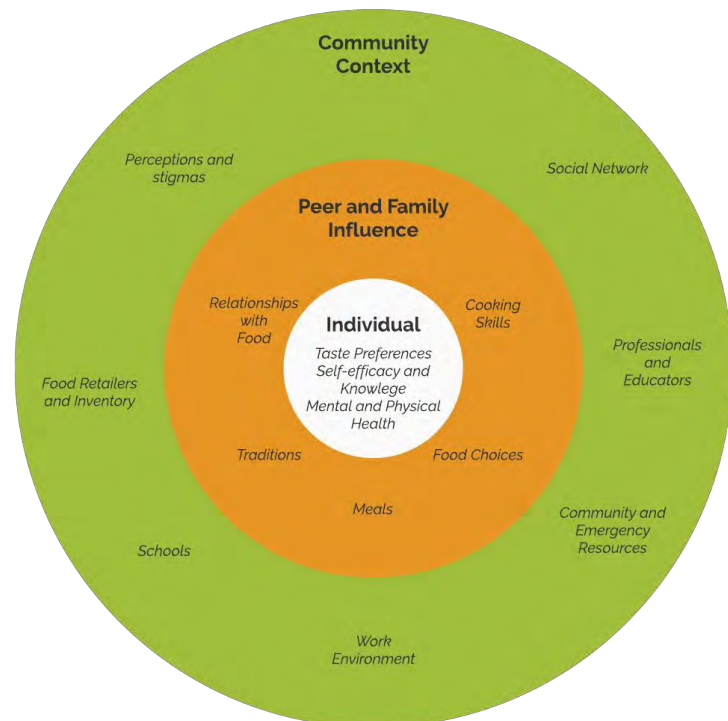
## Socio-cultural factors

*Larger scale forces within cultures and societies that affect thoughts, feelings, and behaviors. This includes how people think about and relate to food, their personal taste preferences, and whether their food traditions align with the local food environment*

Strong family relationships drive awareness of an individual's food security and the food they eat. Poor social networks can exasperate severe food security issues (Gundersen & Zilaik, 2014). The National Health and Nutrition Examination Survey (NHANES) reported that families where children experience very low food security reported significantly weaker social and emotional support networks (Anderson, Butcher, Hoynes, & Schanzenbach, 2014). Therefore, food security reflects the strength of the social system (family, neighbors, traditions, and culture of the community).

### Local Food Environment Alignment with Food Traditions

A misalignment of an individual's food traditions and the community's food options and practices can result in poor food choices and a disconnect from other family members and neighbors. This can result in poor health outcomes such as anxiety, obesity, and diabetes (Committee on Examination of the Adequacy of Food Resources and SNAP Allotments et al., 2013). A project focused on the impacts of food swamps on immigrant families found that the mothers valued tradition and foods prepared in their home countries. They expressed that they would go out of their way to find them. However, they found their



*The local food environment encompasses multiple factors at varying levels from the individual to the household/social group of that individual to the target population (neighborhood). Each factor, within the varying levels and across all levels, influences the others.*

children preferred other foods (e.g. processed foods), because they were abundant in the neighborhood. This in return caused dissonance between the mothers, health professional advice, and the children. However, many mothers expressed a desire for schools to offer more foods that were healthy and aligned with their culture, and were willing to work with them to initiate a healthy food program (Colón-Ramos et al. 2017).

Focus groups in East Central found that participants of color felt discrimination and unwelcomed at schools, food shops, restaurants, downtown events, and other public spaces due to the absence of culturally relevant options and inclusive pedagogies (French-Fuller, 2019). To address this concern, local public space should build a community around food and the local culture. Currently, three food markets serve traditional foods from some of multiple cultures that are present in East Central (Kim's, Anaya's, and Rancho). This is not an exhaustive list, and non-residents such as researchers know little about traditional-food availability in the smaller convenience stores of the area. (See *Availability and Access*.) However, food traditions are not only food but the practices (food prep, cooking, specific celebrations, etc.) and social network that surrounds them. As of 2015, 53.1% of all families that had high food security ate as a family five or more times a week compared to 35.6% of all families with low food security in Utah (BRFSS, 2020). The social network (parents, peers, schools, local retailers, and siblings) influences the foods children eat as well as the experience and memory surrounding those foods (Colón-Ramos, 2017; Heidelberger, L., & Smith, C., 2015). The photojournalism project and ethnography will highlight the predominate cultures and traditions of the East Central neighborhood (*Appendix A*) (Yagüe, 2020).

## Healthy Mindset and Relationship with Food

The social system (family, school peers, work colleagues, healthcare providers, local stores, and the household) surrounding an individual influence their mindset and relationship with food (Burris et al., 2020; Colón-Ramos et. al., 2017; Heidelberger & Smith, 2015). Parents (who provide the food options in the home), siblings and peers (who cook and eat out together), local retailers in the area (who provide meals on the go), and the school environment (offering school meals) all influence children's relationships with food throughout their lifetimes. The Weber-Morgan District has the second highest adolescent obesity rate in the state at 12.1% and the sixth highest adult obesity rate for adults at 30.3% in comparison to other health districts in the state (IBIS, 2020). When looking at fruit and vegetable consumption, 24% of adults in Ogden-Downtown reported consuming fruit two or more times a day compared to adults in Weber-Morgan Health District with 32.5% and Utah state with 32.3%. Ogden-Downtown is 7<sup>th</sup> lowest in fruit consumption out of 63 small areas in the state. It is also has the lowest consumption compared to East Weber, Roy/Hooper, Riverdale, South Ogden, and Ben Lomond (all small areas in the county). Fourteen percent of adults in Ogden-Downtown reported consuming vegetables three or more times a day compared to adults in Weber-Morgan Health District with 15.5% and Utah state with 16%. Ogden-Downtown's vegetable consumption is 26<sup>th</sup> lowest out of 63 small areas within the state. Roy/Hooper is the only small area in Weber County that has lower



vegetable consumption than Ogden Downtown. There 13% of adults consume vegetables three or more times a day (BRFSS, 2020) (Figure 14).

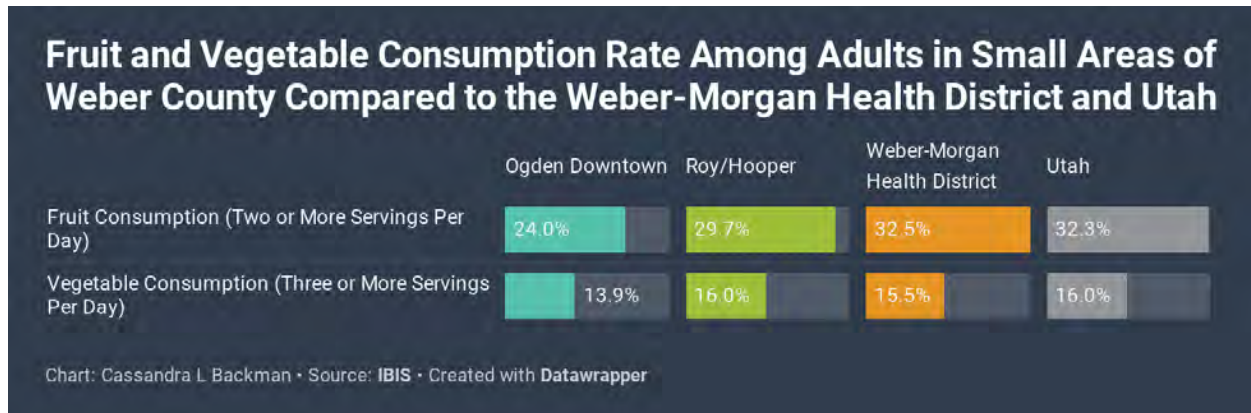


Figure 14. Retrieved from the Utah Department of Health, Office of Public Health Assessment: System Behavioral Risk Factor Surveillance. Numbers reported for fruit consumptions combined years 2015 and 2018, and numbers reported for vegetable consumption combined years 2013, 2015, and 2017.

Currently, a lot of programs for adolescents (individuals under 18 years of age) on the state, county and district level supply nutrition education and focus on developing healthy relationships with food (Utah's Against Hunger, 2018). (See *Community Resources*.) However, it is important that parents/guardians work in the home to develop a culture around food early on through their own behaviors (e.g. fruit and vegetable consumption and what foods they provide in the home). Therefore, interventions should focus on the family and household level as well as schools and after-school/summer programs. Policymakers also need to work to ensure families have access to healthy options in their neighborhood to further influence and promote shared values and relationships around food (Burris et al., 2020; Colón-Ramos et al., 2017; Heidelberg & Smith, 2015). To promote a healthy mindset around food within a community, one requires an understanding of the culture and food present within the community. The photojournalism project can provide visual and written information around East Central residents' relationship with food. The ethnography will also provide a more in-depth analysis of residents' mindset around healthy food (*Appendix A*) (Yagüe, 2020).

## Personal Taste Preferences

Living in a food swamp and/or food desert can influence families' taste preferences for less nutritious food (Committee on Examination of the Adequacy of Food Resources and SNAP Allotments et al., 2013). Latinx mothers who valued traditional and healthy foods but were living in food swamps still found their children preferred the less healthy options that surrounded their residence. Local establishments that offered culturally relevant food options still promoted less healthy options by providing free items (e.g. soda) with purchases (Colón-Ramos et al., 2017). Therefore, the food environment (social system and food options) influences personal taste preferences from a young age. Focus groups in East Central documented similar commentary from residents. One Spanish-speaking resident expressed concern about the amount of fat and

grease in their diet and how their children were overweight and developing taste preferences for these unhealthy foods (French-Fuller, 2019). Interventions, like nutrition and cooking classes that utilize traditional foods and promote interest in healthy foods, can help mitigate food insecurity influenced by the food environment (Loopstra, 2018). East Central residents expressed a desire for such interventions. (French-Fuller, 2019). Residents in Weber County have access to cooking classes through Utah State University Extension and Weber State University. However, there is little to no data available at the time of this report on their impacts. (See *Knowledge*.) The ethnography and photojournalism project will provide further insight into the needs and desires of residents regarding taste preferences for certain food(s) or food groups (*Appendix A*) (Yagüe, 2020).

### Key Findings

- 1) A misalignment between food traditions and local food environments facilitates unhealthy food choices by residents. Cultural pressures and different US food practices can make it difficult for some immigrant families to maintain healthy eating habits. This misalignment influences changes to palates and food preferences.
- 2) Currently, there are low fruit and vegetable consumption and high obesity rates in select areas, such as Ogden-Downtown and Roy/Hooper. There may be social and environmental factors influencing residents' mindsets and relationships with food.

# Recommendations

## Healthy Corner Stores

It is recommended to work with local convenience stores in East Central and other surrounding neighborhoods in Ogden City to promote products that are healthy and culturally relevant. A corner store is typically a small, independently owned business with limited space and inventory (more limited than a grocery store or supermarket) that represents quick access to food and drinks, including convenience stores and drug stores. Healthy corner stores can improve perceptions that consumers and retailers have about nutritious food options, as well as their access to and knowledge of healthy and culturally relevant options since corner stores are more readily available to certain neighborhoods and communities than grocery stores or supermarkets (Paluta, 2019; USDA, 2016). Usually strategies are marketing-based (Four P's – Products, Promotions, Placement, Prices) and are multi-component approaches (using more than one of the Four P's). Most use promotions (i.e. signage) (Karpyn et al., 2020). Weber-Morgan Health Department initiated a similar strategy in Ogden's Lee Marketplace and Ogden's and Logan's Ayana's Convenience Markets with Food \$ense Thumbs Up labels. Ayana's owner noted that customers were noticing and utilizing the labels (Utah Department of Health, 2019). As seen in this local example and other healthy corner stores across the United States, success is highest when working with already well-known and developed stores in the neighborhoods. It is also important to engage and educate residents and support and train the local retailers (Bassett, 2014; ChangeLab Solutions, 2020; Healthy Food Systems, 2020; Minkler et al., 2018; The Food Trust, 2014; Utah Department of Health, 2019).

### Steps to developing healthy corner stores:

1. Start with a few well-known and utilized corner stores that can influence other stores in the area. Develop a relationship with the store owners or managers through diverse coalitions and partnerships (Minkler et al., 2018).
  - a. Many of the Healthy Corner Store initiatives can act as a connection between the neighborhood's retailers, which helps recruit new businesses and provides more affordable options to obtain produce through retailer co-ops (ChangeLab Solutions, 2020).
  - b. Working with local grocers' associations is another way to build relationships and partnerships within the communities (Healthy Food Systems, 2020).
2. Ensure that community is involved throughout the process, thus minimizing negative outcomes like gentrification (Minkler et al., 2018).
  - a. Residents need to be engaged in nutrition education and healthy retail efforts.
    - i. This includes improving marketing (Four P's) but also providing nutrition education in stores and surrounding schools to help educate the community and encourage healthy choices (The Food Trust, 2014).
  - b. Retailers need to be trained to provide food advocacy, workforce development, skills to staff and neighborhood collaborations.

- i. This includes increasing the capacity of small corner stores to sell healthy and nutritious options and providing training on how to make the healthy changes and still be profitable (The Food Trust, 2014).
    - ii. Cross cultural training for staff is important in culturally diverse communities (ChangeLab Solutions, 2020).
  3. Choose multiple-component approaches that are individualized to each store. For example, when supplying incentives to retailers to reduce prices on healthy options, also educate the customers and promote these products to them (Karpyn et al., 2020; Minkler et al., 2018).
    - a. In-store interventions:
      - i. Many strategies focus on marketing (Four P's). Most have recorded success through promotions (e.g. signage changes), as seen with Food \$ense Thumbs Up. Promotion strategies combined with placement (e.g. end of the isles have healthy food) and product (e.g. add healthy food options) strategies can increase positive outcomes (i.e. customers buy more healthy food) more than using a single strategy.
      - ii. Produce vouchers from local suppliers, farmers markets and farms, as well as free training and free supplies to help redesign and market the store, can incentivize owners and increase the stock of healthy products (ChangeLab Solutions, 2020).
    - b. Food distribution interventions:
      - i. Identify local distributors and suppliers and incentivize them to highlight and promote healthy options in their supply lists and catalogues. Reference *Adopt a Shop* for examples of incentives (Bassett, 2014).
  4. Community partners and retailers should track and monitor the outcomes of the individualized approaches over a long term (six months to one year). Tracking can include but is not limited to any of the following (Karpyn et al., 2020):
    - a. Customer receipts
    - b. Objective food purchasing data (e.g. photos or bag checks)
    - c. Object store sale data
    - d. Food inventory survey
    - e. Self-reporting diet, consumption or purchase interview or survey
    - f. Self-reporting intent to purchase, purchasing, or expenditures

Healthy corner stores can impact key drivers of food security in the East Central neighborhood and other neighborhoods in Weber County in the following ways:

- **Availability** —
  - Since Ogden City and specifically East Central has a high ratio of convenience stores, local convenience stores can promote healthy eating habits by providing a higher ratio of nutritious and culturally relevant options in comparison to junk food.
- **Access** —
  - Since meal cost and living expenses are increasing in the city and county, healthy corner store initiatives increase the current

neighborhood stores' capacity to sell healthy options and market those options to the community in a profitable and sustainable way.

- **Knowledge —**
  - Since residents expressed an interest in gaining cooking skills and little is known about residents' relationships with retailers and local nutrition educators, nutrition education at stores increases residents' knowledge about how to use the food sold at the stores and the retailers' knowledge of the foods.
- **Affordability —**
  - Using stores already established in the community mitigates cost disparities observed between neighborhoods regarding nutritious food options.
- **Policy —**
  - Incentivizing the stores' distributors to highlight healthy options in their catalogs enables those options to reach a higher number of retailers and food-insecure neighborhoods in the county.
- **Socio-Cultural Factors —**
  - Cross-cultural training for retailers and participating stakeholders increases the cultural sensitivity of staff. Working closely with cultural associations and small businesses promotes strong relationships with the community and removes environmental and systemic barriers to healthy foods.

Healthy corner stores can be successful and provide a lasting change for the community that aligns with the city planning goals and the community's identity while increasing residents' access to nutritious and culturally relevant food options. However, to ensure success, there is a need for community engagement, long-term monitoring and research, and a trusting relationship with established stores in the community. Developing trust with retailers known to residents, gaining outside grants and support from the city, and engaging residents throughout the process and prior to the development of healthy corner stores can mitigate negative outcomes and ensure lasting success (Minkler et al., 2018; USDA, 2016).

## Food Policy Council

Establishing a food policy council would provide a connection between the community and the government related to policies that can indirectly and directly influence the food security of residents. A food policy council is defined as a mutual convening of community members and stakeholders with interest and knowledge in food issues relative to their area to discuss, research, and develop programs and policies that improve local and regional food systems. A council can act as the local-level voice for food security with governmental stakeholders and act as a point of contact that can incentivize, inform, and guide the local government (ChangeLab Solutions, 2012). By including key stakeholders through a council, community representatives can build the conversation around food insecurity, build strong governance, and make changes within the food system. Within Ogden City and the East Central neighborhood, OgdenCAN has established public support and a network of local organizations, educational institutions, and

not-for-profits over the years. Local municipal and county governments can benefit from this network when addressing the issue of governance around food security. Currently, there are 238 active food policy councils in the United States with Utah having the third lowest number in the country (Bassarab, Santo & Palmer, 2019). Therefore, the state, Weber County, and Ogden City can benefit from a food policy council.

#### Steps to developing a food policy council:

1. Identify partnerships, collaborations and where the food policy council is located (e.g. as a separate entity, in the local government, or as a non-profit). Other councils have benefited from joining a national or regional network that aligns with their goals for the community (as determined by the food policy council). Network partnerships can also assist in obtaining sustainable funding sources, which is essential to a successful food policy council.
  - a. Most councils tend to be more sustainable with direct funding from the government compared to an outside funding source. In addition, the support of the governmental officials helps organizations navigate the bureaucracy of the process and connects them to the appropriate department or governmental official for certain issues and initiatives (Gupta et al., 2018). Therefore, governmental support and city-wide buy-in is key (ChangeLab Solutions, 2015; Kessler, 2019).
2. Identify who should and wants to be represented on the council.
  - a. Questions to consider: “Would it be beneficial to have governmental staff run the council?” and “Should it be open to all in the community who have an interest or work on food issues?”
3. Develop meeting times.
  - a. Many councils found it beneficial to vary the time of meetings from early to later in the day. This increases accessibility and participation among members (Kessler, 2019).
4. Utilize residents or resident advisors as representatives of the community.
  - a. Past food policy councils found it helped to shift the power dynamic and ensure all of the neighborhoods impacted by policy change were the ones informing it (Kessler, 2019).
5. Overall, success is defined by consistent communication, sustainable funding, governmental support, community and diverse representation, and clear goals.

A food policy council can impact key drivers of food security in the East Central neighborhood and other neighborhoods in Weber County in the following ways:

- **Availability and Access —**
  - The food policy council can ensure the community guides the policies impacting the transit and road system.
  - The food policy council can guide policies that can increase food-insecure residents’ eligibility for food assistance programs, like SNAP and WIC.



- **Affordability —**
  - In the long term, the food policy council can guide local policies that may mitigate the impact of increasing food costs on food-insecure families.
- **Policy —**
  - The council can bring the issue of food insecurity to governmental officials' attention and allow them to connect the issue with the current initiatives and concerns of the city, county, or state.
- **Social-Culture Factors —**
  - A food policy council can promote more inclusive terminology and ensure that the community impacted by a policy is the one informing it by having residents participate in the council.

A food policy council can provide connections between the city, OgdenCAN, and food security efforts by initiating governance around food security issues, developing a strong financial budget and political leadership—despite a turnover of political officials—and establishing knowledge from the various organizations, stakeholders, policymakers, and residents. Barriers that can impede the success of the committee include having non-paid/volunteer positions, which increase the likelihood of personal and work obligations minimizing engagement, mobility issues or the ability to drive to the destination of the meeting, frustration with planning meetings that do not meet the needs of all committee members, and general communication issues that may arise. Overall, governments and committees need to be accountable and responsive to one another, transparent to residents, and inclusive of the community to ensure success (Candel, 2014; ChangeLab Solutions, 2015; Minkler et al., 2018).

## Community Representation in Vacant-Lot and Road Development

It is recommended that community representation be present in all interventions moving forward, specifically with vacant-lot and road development in the East Central neighborhood. Vacant lots or “brown land” should be central to intervention planning since it provides the chance to renew the community and integrate them into the development while increasing their access. Examples of this are community gardens and food co-ops placed in vacant lots as well as grocery store and supermarket development.

Steps to ensure community representation:

1. Establish strong governance and a voice within the city-level planning commission and Utah Department of Transportation (UDOT). This can help ensure businesses and open spaces are inclusive and representative of the community's identity. Developing benefits agreements with new businesses ensures the community's voice and limits negative outcomes resulting from the development (Changelab Solutions, 2012).
2. Interventions that integrate advocacy in community planning at the municipal level should aim for transit routes that include bus stops on side streets, not just on main

roads. Residents should supply input into road development to ensure pedestrian-friendly streets and sidewalks are available (Biehler et al., 2019).

3. Communities with low food security within Ogden City must be involved in all aspects of ordinance development and city planning to ensure representation and accessibility.
  - a. Currently, Ogden City Planning Commission is holding monthly meetings with efforts to engage East Central residents (English and Spanish speakers) in the process and planning of ordinances affecting their neighborhood. Some of the main topics include filling vacant lots and the bus rapid transit. However, there is consistently poor turnout. Representatives from OgdenCAN, the Food Security Subcommittee and Team are attending these meetings and working with city planning to increase residents' participation in these meetings (Ogden City, 2020b).
  - b. Those living outside the East Central Neighborhood know little about the culturally relevant food options and taste preferences of residents, but future interventions should conduct research identifying the options and preferences specific to the community.

Community representation in economic development and land-use planning can impact key drivers of food security in the East Central neighborhood and other neighborhoods in Weber County in the following ways:

- **Availability and Access —**
  - Involvement in city planning ensures that infrastructure changes, like sidewalk and BRT development, have the residents in mind and focus on neighborhoods that have lower food security.
  - Purposeful use of vacant lots increases availability of and access to nutritious and culturally relevant options while utilizing unused space, whether for a grocery store, a community garden, or another healthy food retailer that represents the community's expressed needs.
- **Policy —**
  - Involving the community in the development of these vacant lots ensures retailers, markets, or gardens established in the lots promote both healthy and culturally relevant foods and practices, and ensures safer roads and transit systems that can increase access for residents.
- **Socio-Cultural Factors —**
  - Including the community in their neighborhood's development ensures that the current residents have areas where they feel safe and welcome. It discourages gentrification and promotes a thriving community for current and new residents (Biehler et al., 2019, Minkler et al., 2018).

Although community representation is vital to all recommendations stated in this report, addressing it explicitly is important, especially when that impacts the needs and desires of residents, like vacant lot use and road development. OgdenCAN has already initiated efforts to

involve community members in Ogden City Planning. A further understanding of the food environment from the ethnography and photojournalism projects will provide more information on direct interventions specific to the East Central neighborhood. However, it is important to initiate involvement and continually involve residents at all levels moving forward.

## Future Implications

These recommendations reflect phase one of OgdenCAN's larger initiative to address food security in Weber County. Phase two will include more recommendations specific to the East Central neighborhood, from the ethnography and photojournalism projects, that will further inform more direct interventions. Due to the current events of 2020-2021, these recommendations will evolve and adapt as local communities work through the impacts of Covid-19 and the rise in food insecurity in Weber County. OgdenCAN will continue to monitor and evaluate the impact of its interventions on food security in Weber County, Ogden City, and the East Central neighborhood.

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# Appendix A

## Interview Guide

Blanca Yagüe - ethnographer

### **Food Security in East Central Neighborhood, Ogden, UT – Interview questions (English)**

#### Demographics

Full name

Age

Gender

Ethnicity/race

Language

What language are you most comfortable speaking?

How many people, including yourself, do you currently live (and eat) with?

Education completed

What is the highest level of school that you have finished?

Employment

What is your current work situation?

Household annual income

During the past year, what was the approximate total combined income for you and your family members you live with? (excluding remittances)

Years in East Central

Where did you grew up? What was it like for you growing up there?

#### Food preferences, eating and cooking

1. What do you like to eat? What are your favorite foods? When did you start to like these foods?
2. Are these the foods you cook/eat at home? If not, why?  
Do you always eat the kinds of foods you would like to?  
What type of foods do you like to serve your family?  
Do you eat all together, or by yourself?
3. Where did you learn to cook those foods? / Who taught you to cook them?
4. Do some family members want to eat different foods from the rest of the family? How do you manage those different preferences and requests?
5. What food dishes do you cook more frequently? (every day or most days of the week)  
What food items are the main parts of the meal: meat, rice, vegetables?  
What sauces and spices do you use in cooking?
6. Can you tell me the recipe of one of your main dishes (like a meat or vegetable dish)?  
Prompt: What is the name of the dish, what are all the ingredients and the steps to make it.

#### \*Meal changes since COVID-19?

What, if anything, has changed in your diet (or your family's diet) since COVID-19? Please explain...



Food access

7. Where does your food come from? Please list  
Stores/Supermarkets/Farmers Market/Garden/Food Banks or Pantries/Family members and friends
8. Of all the places where you buy food from, which is your first choice?
9. Why do you buy food there?
10. Do you ever have trouble finding the foods you would like to eat?
11. Do you ever have trouble buying the foods you would like to eat?
12. How often do you/your household go grocery shopping in a month?
13. Can you please describe a typical trip to the grocery store? (who goes, time of day, transportation method, which store(s), what do you buy, do you make a list before going to the store?, do you buy only the items that you know?, what do you do when you don't find the item that you are looking for?, etc.)
14. If/When you eat out, where do you go? Why you choose these particular restaurant/food truck?
15. What do you like the most about the places where your food comes from?
16. What are the things that make you feel welcomed to a store/restaurant? Are there stores or restaurants in your area that you avoid or feel uncomfortable going to? Please explain...
17. On average/approximately, how much money do you spend on food every month? (excluding food stamps)

\*Food access changes since COVID-19?

Gardening and others

18. In addition to grocery shopping, do you do any of the following? Gardening, hunting, fishing, berry picking, canning, jam making, bread making, wine/beer/other making, other (specify). If you do, how often? How much of your weekly diet comes from these activities? Have you experienced any challenges?
19. Gardening: do you grow food at home? In a garden/balcony? Do you participate in any community garden or other type of gardening space? If you do, how did you access the space? If not, would you like to grow your own food?

\*Changes since COVID-19?

Food programs and other services

20. What food-related programs are you or your family currently part of? Have you been part of any others in the past? Including use of food pantries, SNAP, and school lunch programs, Double Up Food Bucks (DUFb), Produce RX. Please list.  
\* If users of school lunch programs: how much do you rely on them?
21. Can you please describe your experience with each of those programs? What aspects of the programs would you improve?

\* If food stamps user:

22. Every month, approximately how much money do you get through food stamps?

23. What food items do you usually buy with food stamps? Is there food you would like to use food stamps for but not able to? What challenges have you experienced with the program? How do you respond to those challenges?

**\*Program participation changed since COVID-19?**

#### Food security and health

24. Over the past (year/3 months), how often did you worry about not having enough food to eat? Would you say (never, rarely, sometimes, often, always)?  
What makes it difficult to get food during those times? How do you manage food for yourself and your family during those times?  
Prompts: Gardening, sign up for food stamps/WIC, go to friends/neighbors for lunch or dinner, borrow money from friends/relatives, buy food on credit from small store owners, other things
25. What would you say are “healthy foods”?
26. What would you say it means to “eat healthy”?
27. Based on your answers, would you say you eat healthy? Why yes or why not?

#### Food sharing and celebrations

28. How often do you eat with people that you care about and feel close to (that are NOT part of your household)?
29. What events or celebrations can you think about in your life in which food is important? Please describe one of them.

#### Food landscape and future interventions

30. How would you like the food landscape/food scene of the neighborhood to look like? How would you redesign your neighborhood or local community to make the foods you like and prefer more accessible?
31. Interventions: OgdenCAN would like to support food access and food security in the neighborhood. What could we do in your neighborhood or local community to make food more accessible in a way that works for you?
32. What would you expect from a successful intervention? What would you like to see happening?

## Seguridad Alimentaria en el barrio de East Central, Ogden, UT – Entrevista (Español)

### Características demográficas

Nombre completo

Edad

Género

Etnicidad/raza

Lengua o idioma

¿En qué idioma se siente más cómodo/a hablando?

¿Cuántas personas, incluyéndole, viven (y comen) actualmente con usted?

Educación cursada

¿Cuál es el nivel más alto de educación que ha terminado?

Empleo

¿Cuál es su situación actual respecto al empleo?

Ingresos anuales del hogar

Durante el último año, ¿cuál fue, aproximadamente, el ingreso total combinando de usted y los miembros de su familia con los que vive?

(Sin contar lo que envía como remesas)

Años East Central

¿Dónde creció? ¿Cómo fue para usted crecer en ese lugar?

### Preferencias alimentarias, comer y cocinar

33. ¿Qué es lo que le gusta comer? ¿Cuáles son sus comidas favoritas? ¿Cuándo empezaron a gustarle estas comidas?

34. ¿Son estas comidas las que prepara o come en la casa? Si no, ¿a qué se debe?

¿Siempre come los alimentos que quisiera comer?

¿Qué tipo de comida le gusta dar a su familia?

¿Comen juntos o por separado?

35. ¿Dónde aprendió a cocinar esos alimentos/platos? ¿Quién le enseñó?

36. ¿Hay algún miembro de su familia que quiere comer diferente al resto de la familia?

¿Cómo hace para conciliar estas diferencias?

37. ¿Qué platos son los que cocina con mayor frecuencia? (todos o casi todos los días)

¿Qué alimentos son la parte principal de la comida? (carne, arroz, verduras)

¿Qué salsas o especias usa cuando cocina?

6. ¿Podría contarme la receta de uno de sus platos principales? Carne o vegetales

Nombre del plato, cuáles son los ingredientes, pasos para prepararlo

### \*Cambios en la alimentación desde Covid-19

¿Ha cambiado algo en su dieta o la de su familia desde el Covid-19?

### Acceso a los alimentos

7. ¿Dónde consigue sus alimentos? Por favor enumere

Tiendas/supermercados/mercado de productores/ huerto/bancos de alimentos/de familiares y/o amigos

8. De todos esos lugares, ¿cuál es su primera opción para comprar comida?

9. ¿Por qué motivos compra en ese lugar?



10. ¿Tiene alguna vez dificultades para encontrar los alimentos que quisiera comer?
11. ¿Tiene alguna vez dificultades para comprar los alimentos que quisiera comer?
12. ¿Con qué frecuencia usted o su familia van a comprar alimentos cada mes?
13. ¿Podría por favor describir cómo sería un viaje típico a comprar alimentos?  
(quién va, en qué momento del día, medio de transporte, a qué tienda/s, qué es lo que compra, si hace una lista antes de ir a comprar, si solo compra alimentos que reconoce, qué hace cuando no encuentra el alimento que estaba buscando)
14. Si come fuera de casa, ¿a qué lugares va? ¿Por qué elige esos restaurantes/carros de comida en particular?
15. ¿Qué es lo que más le gusta de esos lugares en donde consigue su comida?
16. ¿Qué cosas son las que le hacen sentirse bienvenido/a en una tienda o restaurante? ¿Hay restaurantes o tiendas cerca de su casa que usted evita o donde se siente incómodo/a? Por favor explicar.
17. Aproximadamente, ¿cuánto dinero gasta en comida cada mes? (sin contar *food stamps*)

\*¿Ha habido cambios en la forma en que consigue su comida desde el Covid-19?

#### Huertos y otros

18. Además de comprar alimentos, ¿realiza alguna de las siguientes actividades? Cultivar en algún tipo de huerto, cazar, pescar, recolectar frutos, conservas, mermeladas, pan, vino o cerveza u otros (especificar).  
Si lo hace, ¿con qué frecuencia? ¿Qué tanto de su dieta semanal proviene de estas actividades? ¿Ha experimentado alguna dificultad para realizarlas?
19. Huertos: ¿cultiva alimentos en su casa? ¿en un huerto, balcón, etc.? ¿Participa de algún huerto comunitario u otro tipo de huerto colectivo? Si lo hace, ¿cómo obtuvo acceso al espacio? Si no, ¿le gustaría poder cultivar sus propios alimentos?

\*¿Ha habido cambios en algo de esto desde el Covid-19?

#### Programas de alimentos y otros servicios

20. ¿En qué programas relacionados con la alimentación y la comida participa usted? ¿Ha participado de algún otro en el pasado? Incluido: bancos de alimentos, SNAP, programas de alimentación escolar, Double Up Food Bucks (DUFEB), Produce RX. Por favor enumere.  
\* Si usa alimentación escolar: ¿qué tanto depende del programa?
21. ¿Podría por favor describir su experiencia con cada uno de esos programas o actividades?  
¿Qué aspectos de esos programas quisiera mejorar?
- \* Si usa SNAP:
22. Cada mes, aproximadamente ¿cuánto dinero gasta a través de SNAP?
23. ¿Qué alimentos compra normalmente con SNAP? ¿Hay algunos alimentos que le gustaría comprar con *food stamps* pero no puede? ¿Qué dificultades ha experimentado con SNAP?  
¿Cómo responde ante esas dificultades?

\*¿Ha habido cambios en su participación en este tipo de programas desde Covid-19?

Seguridad alimentaria y salud

24. En los últimos (12/3 meses), ¿con qué frecuencia se ha preocupado por no tener suficiente para comer? (nunca, raramente, a veces, con frecuencia, siempre)  
¿Qué hace que sea difícil conseguir alimentos en esas épocas? ¿Cómo hace para conseguir comida para usted y su familia en esas épocas?  
Por ejemplo: cultiva, se registra en SNAP/WIC, se apoya en amigos o vecinos para comer, presta dinero de familiares o amigos, compra a créditos en pequeños comercios, otros.
25. En su opinión, ¿qué diría que son “alimentos saludables”?
26. En su opinión, ¿qué diría que es “comer sano”?
27. En base a sus respuestas, ¿diría usted que come sano? ¿Por qué?

Compartir alimentos y celebraciones

28. ¿Con qué frecuencia come con personas que le importan y con las que siente cercanía (y que no hacen parte de su hogar)?
29. ¿Qué eventos o celebraciones en su vida puede mencionar en los cuales la comida es importante? Por favor describa uno de ellos.

Paisaje alimentario e intervenciones futuras

30. ¿Cómo le gustaría que fuera el paisaje alimentario/la escena alimentaria en su barrio?  
¿Cómo rediseñaría algunos aspectos de su barrio o comunidad local para lograr que las comidas que le gustan y prefiere sean más accesibles?
31. Intervenciones: OgdenCAN quiere apoyar el acceso a los alimentos y la seguridad alimentaria en el barrio. ¿Qué podríamos hacer para lograr que la comida sea más accesible en formas que funcionen para usted?
32. ¿Qué esperaría de una intervención exitosa? ¿Qué le gustaría que sucediera al respecto?

(Yagüe, 2020)

## Appendix B

Store	Type	Distance from Middle of East Central
7-Eleven Store 23558 C	Convenience Store	0.04 mi
Rite Aid 06146	Convenience Store	0.06 mi
Kwick Shop	Convenience Store	0.22 mi
Topper Bakery	Specialty Food Store	0.25 mi
Family Dollar Store 5136	Convenience Store	0.32 mi
Rancho Markets #6	Local Grocery Store	0.48 mi
7-Eleven Food Store 23842C	Convenience Store	0.5 mi
Kwick Stop 2	Convenience Store	0.64 mi
Kwick Stop 1	Convenience Store	0.68 mi
Stop & Go Market	Convenience Store	0.79 mi
Kim's Market	Local Grocery Store	0.8 mi
Benon Chevron	Convenience Store	0.98 mi
Anaya's Market	Local Grocery Store	1.45 mi
Walmart Supercenter	Supercenter/Grocery Store	1.58 mi
Fresh Market	Regional Grocery Store	1.03 mi
Super Grocery	Local Grocery Store	1.46 mi
Carl's Super Savers	Local Grocery Store	1.63 mi
Farmers' Market Ogden	Farmers' Market	0.98 mi
Tiger Mart	Convenience Store	1.00 mi
Petro Mart I	Convenience Store	0.97 mi

List of retailers that sell food and accept SNAP/EBT/Food Stamps within one mile of the center of East Central (the middle of Census Tracts 2008, 2009, 2013.1, 2013.2) (FNS-USDA, 2019)



Food Assistance Programs	Location	Neighborhood
Catholic Community Services of Northern Utah (CCS)	2504 F Ave, Ogden, UT 84401	West Ogden, Utah
Episcopal Church of the Good Shepherd	2374 Grant Ave #1408, Ogden, UT 84401	Central Business District, Ogden, Utah
First Baptist Church of Ogden Food Pantry	2519 Jefferson Ave, Ogden, Utah 84401	East Central, Ogden, Utah
First Baptist Church of Roy Food Pantry	2025 W 5700 S, Roy, UT 84067	Roy, Utah
Griffin Memorial Church Food Pantry	2424 E Ave, Ogden, UT 84401	West Ogden, Utah
Hope Resurrected Church Food Pantry	2280 Jackson Ave, Ogden, UT 84401	East Central, Ogden, Utah
Lantern House / St. Anne's Center	269 W 33rd St, Ogden, UT 84401	Railyard, Ogden, Utah
Mobile Food Pantry, Utah Food Bank	Mobile	Based in Salt Lake City, Utah
Ogden Rescue Mission	2775 Wall Ave, Ogden, UT 84401	Railyard and Jefferson, Ogden, Utah
Ogden-Weber Community Action Partnerships (OWCAP)	3159 Grant Ave, Ogden, UT 84401	Railyard and Jefferson, Ogden, Utah
Open Hand Food Pantry	5120 S 1050 W, Riverdale, UT 84405	Riverdale, Utah
Salvation Army (pantry and breakfast)	2615 Grant Ave, Ogden, UT 84401	Jefferson, Ogden, Utah
Youth Futures (ages 12-18)	2760 Adams Ave, Ogden, UT, 84403	East Central, Ogden, Utah
Women, Infants, Children (WIC)	455 23 <sup>rd</sup> Street, Ogden, Utah, 84401	Central Business District, Ogden, Utah
Supplemental Nutrition Assistance Program (SNAP)	280 27 <sup>th</sup> Street, Ogden, Utah, 84401	East Central, Ogden, Utah
Seventh Day Adventist Church of Ogden Food Pantry	2185 Taylor Ave, Ogden, UT 84401	Taylor, Ogden, Utah
LDS Bishop's Storehouse & Cannery*	1525 Lincoln Ave, Ogden, UT 84404	Mountain View, Ogden, Utah
Weber Cares Food Pantry (Only Weber State University Students)*	Weber State University, Ogden, Utah 84408	Mount Ogden and Southeast Ogden

Utah 2-1-1 Weber-Morgan Resource List's Food Assistance Programs that are emergency resources for Weber County Only (12 programs total). Retrieved from United Way of Northern Utah (2-1-1 Utah, 2019).

\*Additional programs retrieved from Weber State University's Center for Community Engaged Learning Weber Cares Food Pantry Webpage <https://weber.edu/ccel/pantry.html>