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HUNGER ON THE RICHEST HILL:

A CASE STUDY OF LINKED HISTORICAL AND CONTEMPORARY FOOD INSECURITY IN BUTTE, MONTANA

By

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B.A. Geography, State University of New York at Geneseo, Geneseo, NY, 2020

Thesis

presented in partial fulfilment of the requirements for the degree of

Master of Sciences in Geography, Option in Community and Environmental Planning

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HUNGER ON THE RICHEST HILL: A CASE STUDY OF LINKED HISTORICAL AND CONTEMPORARY FOOD INSECURITY IN BUTTE, MONTANA

Chairperson: Dr. Sarah J. Halvorson

On the "Richest Hill on Earth" or Butte, Montana, a dilemma of food insecurity persists. This dilemma broadly consists of limited access to affordable, healthy, and appropriate nutrition for the city's urban population. This thesis constructs a historically and contextually-informed understanding of food insecurity in Butte since the city's establishment in 1864. Food insecurity research largely lacks place-specific consideration of historical events and processes which contribute to and reinforce the root factors contributing to food insecurity. Butte was once a thriving copper-mining boom town yet saw the decline of its primary industry in the late 20th century. In 2020, nearly one fifth of the population was living below the federal poverty line, and 19.5% of all residents were determined to be food insecure. In light of its industrial history and current socio-economic vulnerabilities, Butte represents a prime location for a case study of food insecurity in the post-industrial Rocky Mountain West. The first part of the study presents an investigation of the dynamic factors contributing to food insecurity through three main phases of Butte's history: pre- and early settlement, industrial boom times, and post-industrial decline. The analysis reveals the persistence of food insecurity that influenced a portion of the lived experiences of Butte's population, even before the loss of its primary industry of copper mining in the late-1900s. The process and outcomes of post-industrial decline which impacted the local food system and transformed the drivers of food insecurity are also examined. The second part of the study examines the contemporary situation, including the environmental and socio-economic factors contributing to food insecurity in Butte. Current efforts to address the challenges as well as a path forward into a more food-secure future are explored. Through a mixed-methods approach that combines qualitative key informant and oral history interviews and participant observation with quantitative GIS analysis, this research seeks to analyze and contextualize the historical chains of explanation that help to decode contemporary patterns and experiences of food insecurity in Butte, Montana. The findings suggest that efforts in local food infrastructure and community planning could support urban residents' capacities in addressing their food needs.

Keywords: food insecurity, post-industrial decline, urban geography, Butte, Montana

DEDICATION

This research is dedicated to three individuals and one entire town.

Sarah Halvorson, my committee chairperson and advisor, is an individual with whom I am honored to have the opportunity to work. Her experience, intelligence, and kind-heartedness are matched by very few. I have learned so much from her over the last two years, both as student and as a citizen of the planet. I hope to one day be able to fill my plate as full as she does with projects as impactful as hers.

Margie Seccomb is a bright light in every life she meets. The combination of her compassion, brilliance, dedication, and good nature are a powerful blend far beyond which my words can do justice. Only those fortunate enough to know her can possibly understand. Margie has been a powerful influence on myself and countless others throughout the Butte community and beyond. I owe many thanks and admiration to Margie, her wonderful daughter Claire, and the Action Inc. family who have made Butte a true home for myself and all my neighbors in this city.

Connie Ternes-Daniels is a friend, role model, and leader like no other. Only after we had worked together for weeks did I realize that she was the previous Chief Executive of Anaconda-Deer Lodge County. She is humble, gracious, brilliant, and uplifting. Her work and her presence make all of her surroundings a better place. I am a much richer person for knowing her and will always hold her very close to my heart. Connie has helped to open many doors for me, and there is no other person in my life I am more grateful for having crossed paths with. We need to get lunch soon.

Finally, this research is dedicated to a city I fell in love with at first sight and have grown more in awe of each day since. Butte is most well-known for its rich mining history and rowdy St. Patrick's Day celebrations, but what has gripped my heart the tightest is the compassionate and resilient community. I have witnessed people in Butte act more selflessly, work harder together, and love their home through thick and thin more so than I have anywhere else in the country. Perhaps it is a history of struggle that reinforces the beautiful bonds of compassion that have held this city high and together for decades. I am honored and excited to be a part of its renaissance.

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I would also like to thank the Butte-Silver Bow Public Archives and the staff archivists for sharing their enormous reservoir of Butte history and for their guidance in sorting through the collections most relevant to this research. I would like to acknowledge my study participants, who informed this study through their conversations and willingness to share knowledge and experiences with me. Finally, I wish to thank my committee members Jeremy Sage, Neva Hassanein, and Sarah Halvorson.

The present work attempts to convey one case study of food insecurity in Butte through time. I would like to recognize that the output of this research will do just that: present *one* narrative of food insecurity in Butte, though the perceptions and lived experiences of other groups and individuals constitute myriad alternative narratives. There are two general scopes to this work: space and time. The physical scope is inclusive of the city of Butte, Montana. The chronological scope of this work is distinctive between two chapters. The first includes researchable history of Butte from pre-settlement to the present; the second chapter describes contemporary Butte and future possibilities.

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CHAPTER 1: INTRODUCTION

On the "Richest Hill on Earth," or Butte, Montana, there exists a fundamental insecurity: the dilemma of food insecurity. This problem broadly consists of limited access to affordable healthy and appropriate nutrition for this urban population. This work traces the veins of food insecurity in Butte, highlighting the processes, experiences, and contextual players of food insecurity through time. It also investigates the present-day circumstances and causes of the problem in this western post-industrial city. Overall, this work presents a case study of food insecurity in Butte following two distinct lines of inquiry: historical food insecurity and contemporary food insecurity.

Food insecurity research often lacks attention to historical processes and place-specific contexts which create and reinforce issues of food insecurity (Gunderson & Ziliak 2018, Carter et al. 2013) Understanding these contexts is essential for addressing the root causes of food insecurity and implementing meaningful efforts for remediation. Further, scholarship on food insecurity in post-industrial cities largely focuses on cities in the eastern United States. The longstanding focus on the eastern areas of the United States is logical given the industrial history and national employment shifts from the Rustbelt to the Sunbelt region following World War II (WWII) (Bubinas 2011, 157). This emphasis ignores similar processes which took place farther west and lacks perspectives from the American West. Butte, Montana, an ex-mining city in the urban mountain West, is a prime location for a historically and contextually informed, place-specific case study of food insecurity.

To fill these gaps in scholarship, this thesis seeks to address the following questions: (1) What are the historical circumstances and causes of food insecurity in Butte? (2) What are the contemporary circumstances and causes of food insecurity in Butte? (3) How does Butte's

history reflect the processes of post-industrial decline, and how may its characterization as a post-industrial city explain and/or incite modern issues of food insecurity? (4) Finally, how are various actors in Butte addressing issues of food insecurity today and what more can be done? It became apparent through this research that food insecurity is not a novel hardship in post-industrial, present-day Butte. Rather, food insecurity has been a persistent issue since the city's earliest development and the drivers and circumstances of food insecurity evolved through time.

Research Setting

Butte is situated in southwest Montana at the foot of the Continental Divide in the northern Rocky Mountains. Once known widely as the largest and wealthiest city west of the Mississippi River between Chicago and San Francisco, Butte was a bustling copper mining boom town during the nineteenth and early twentieth centuries (Saks 2019). Renowned for its mining success, the booming industrial city and its thriving mining sector attracted large numbers of immigrants, primarily from Ireland, southern and eastern Europe, China, and Mexico during this time (Finn, 1998). Some reports claim the peak population was over 100,000 people (B-SB History & Culture). It was a city celebrated for its "work hard play hard" lifestyles, for its role in electrifying the nation with its abundant copper resources, and for being a pinnacle of enterprise in the twentieth-century American West. The historical influence of mining remains evident

within the culture and physical landscape of Butte today (Figure 1).



Figure 1: The city of Butte, Montana next to its open pit mines the Continental Pit and the Berkeley Pit. Source: *Great Falls Tribune* (https://www.greatfallstribune.com/story/news/2018/08/06/mines-mansions-why-you-should-see-butte-montana-like-tourist/914261002/)

In its prime, the city facilitated a vibrant small-market food landscape, had viable local horticultural production, and was a primary distribution hub for agricultural Montana and the surrounding region. Literature on historical food systems hold that the food environments of cities and neighborhoods were originally dominated by small, locally-owned and operated shops and markets in the United States (Lu & Reardon 2018, 1321; Deutsch 2010, 43). This trend was certainly the case in Butte, where relationships between producers, distributors, consumers, and customers alike were benevolent and altruistic. Despite the wealth in and jubilant nostalgia for those days, poverty and food insecurity were persistent struggles for many prior to the decline of mining.

The departure of the once dominant copper industry in the 1980s, after the richest ores were extracted, has left in its wake chronic economic and community distress. Butte has experienced a prolonged period marked by unemployment, population loss, disinvestment, environmental degradation, and economic decline. Such trends are consistent with the common characteristics, processes and experiences of post-industrial cities as described in the literature. An upheaval of the local economic, physical, and social structures concurrent with the decline of mining in Butte initiated transformation of the city's circumstances and causes of poverty and food insecurity.

Owing to its multifaceted history, Butte is currently one of the nation's largest National Historic Landmark Districts and Superfund Sites. The city has long been a topic of scholarship, primarily through investigations of mining history and its impacts (Finn 1998); however, scholarship on the local food system and food insecurity in Butte is scant. The Butte-Silver Bow County 2020 Community Needs Assessment found that in 2020 19.1% of the total population lived in poverty and 22.8% of children lived in poverty. Further, it stated that 19.5% of residents were identified as "food insecure" that year. The term "food insecure" is defined in the report as "having run out of food in the past year and/or worried about running out of food" (PRC 2020, 47). It is important to distinguish that over 88% of the county's population lives within the urban area of the county, and mostly within the urban boundary of the City of Butte (PRC 2020, 35-36). For reference the area of Silver Bow County is 719 square miles (B-SB Community Fact Sheet), just over half the size of the state of Rhode Island, and the urban boundary of the City of Butte contains 29.7 square miles acres (Butte-Silver Bow GIS). Compared to Montana's 10.3% food insecurity rate in 2018 (Feeding America 2018), Butte's food insecurity statistic in 2019 is nearly ten percent higher.

Thesis Structure

This thesis maintains a traditional thesis structure. In addition to this introductory chapter, it entails an approach and methodology chapter, a conceptual framework chapter, two data analysis and discussion chapters, and a concluding chapter. Each data chapter represents a line of inquiry within the same geographic setting, Butte, Montana, but through distinct temporal scales.

The first data chapter, Chapter 4, analyzes food insecurity, industry, and history in Butte structured with three main time periods: Pre-settlement and early years of settlement (1880s and earlier); boom years (1890s to 1960s); and the post-industrial era (1960s to the present). This chapter explores both causes and coping strategies related to food insecurity in Butte during its phases of pre-industry, heaviest industry, and post-industrial decline. It addresses the overarching research questions by explaining historical circumstances and variables of food insecurity, as well as illustrating the industrial and post-industrial processes which took place in Butte. This tracing of historical processes and patterns is warranted given the inextricable relationship between mining and life in Butte since its establishment. The form, function, economy, and society of Butte largely developed with mining entrenched at its core. This chapter also helps to build an informed understanding of the role of history in the present-day circumstances of food insecurity in Butte.

Chapter 5 presents an in-depth investigation into the circumstances and causes of contemporary food insecurity in Butte, highlighting important efforts taking place to address food insecurities today. This chapter addresses the questions by identifying contemporary circumstances and causes of food insecurity in Butte; explaining how Butte's characterization as a post-industrial city explains and/or incites modern issues of food insecurity; and identifying current alleviations efforts. Understanding the root and contextual causes of food insecurity is

essential to implementing meaningful measures for relief. This chapter reveals both commonly cited and Butte-specific factors of food insecurity, highlighting the importance of history and context in food insecurity research.

The concluding chapter first poses recommendations for addressing food security in Butte's future. It then summarizes the distinct elements of the research and illustrate how the two temporal scopes, historical and contemporary food insecurity, intertwine to provide a more comprehensive image of food insecurity in Butte and an informed understanding of how the processes of industrial activities and post-industrial decline impacted food security here through time. This chapter ties together the questions that this study has sought to address, as well as describe the theoretical, methodological and empirical implications of the research. Finally, it explains the limitations of this study and ponder areas for future research.

CHAPTER 2: APPROACH AND METHODOLOGY

Introduction to the Case Study

This study employs a case study methodology to understand and elucidate the contexts and components of food insecurity in Butte through time. The case study methodology is particularly relevant when conducting an in-depth investigation of a specific context-dependent phenomenon (Schoch, 2020), as this research does regarding food insecurity in Butte. The scope of this case study examines one geographic location through two distinct temporal scales: historical and contemporary. The value of this approach is that it provides a comprehensive image of food insecurity in Butte, and generates an informed understanding of how the processes of industrial activities and post-industrial decline impacted food security here through time. The two temporal scales are developed independently in separate chapters (Chapters 4 and 5) and are clearly linked as they represent the same locality and their timelines merge.

A beneficial feature of the case study approach is that it relies on multiple data sources and data collection techniques, both qualitative and quantitative. It draws upon key informant interviews, oral history interviews, internship-based participant observation, and GIS mapping to examine and represent the evolution of food insecurity in Butte through time. This research seeks to enhance understanding of the phenomenon of urban food insecurity and the evolution of the local food system in Butte, producing a relevant and applicable narrative that contributes to the larger body of food insecurity literature as well as informs local solutions to the problem. I would like to acknowledge that this case study, like most, function within the postpositivist paradigm. As such, the output of this research will present just *one* narrative of food insecurity in Butte, though the perceptions and lived experiences of various groups and individuals constitute

myriad alternative narratives. The following paragraphs elucidate the specific methods and data sources employed in this study.

Qualitative Methods

Key Informant Interviews

Eight key-informant interviews were conducted during the Spring of 2021. Key informant interviews are loosely structured conversations with a selected group of individuals who have specialized knowledge about the topic of interest (DiCicco-Bloom & Crabtree, 2006). Using purposive sampling, subjects were selected for their place-based knowledge of Butte, as well as affiliation with various organizations and communities tied to food insecurity in the city. These organizations included Action Inc., the National Center for Appropriate Technology (NCAT), the Montana State University Extension Silver Bow County SNAP Education Program, the Butte Farmers' Market, Montana FoodCorps, and the Butte Food Co-Op. These perspectives from organizations with ongoing experience engaging with the issues related to food insecurity in Butte shed light on the lived reality of the issue as well as steps underway to address it.

These interviews were structured by an interview guide to ensure that each was systematic and allowed for meaningful comparison. Subjects were asked about their perceptions of food insecurity in Butte, about any geographic patterns or trends that they recognized in relation to food insecurity in Butte, as well as to identify drivers of the problem. Subjects were then asked about the specific work being performed by the organization they represent, which contributes to a comprehensive understanding of the current efforts being taken throughout the city to address the problem of food insecurity. Finally, subjects were asked to identify, from their own position, what more can and should be done moving forward. All interviews took place over

Zoom, were recorded and transcribed, and coded using content analysis to identify emergent themes, patterns, and categories of responses. The key informant interview consent form, interview guide, and coding protocol may be referenced in Appendices A, B, and C.

Oral History Interviews

In addition to the eight key-informant interviews, three oral history interviews were conducted during the Fall of 2022. These interviews were intended to help build deeper historical understanding and contexts of food insecurity in Butte, as well as hear from a greater diversity of knowledgeable community members. As a methodology, oral history collects narratives and perspectives from individuals for the purpose of research on a specific topic (Leavy 2011). These interviews are loosely structured, open-ended forms of interviews that seek out depth and description of personal experiences, perceptions, and knowledge. Keeling and Sandlos (2015) describe the utility of oral history for permitting researchers to explore the multiple meanings and experiences of mining places. Their goal, similar to our own, was to capture personal experiences and perceptions of mining induced change.

Due to the nature and length of oral history interviews that aim to capture various perspectives, stories, and knowledgebases, only three were conducted for the purpose of this research. Whereas key informant subjects were selected for their knowledge of and work with the contemporary food system and food problems in Butte, oral history interview participants were selected based on their knowledge of the *history* of Butte. The oral history subjects included a local Archivist and lifelong Butte resident; an ex-miner and lifelong Butte resident; and an individual who does not live in Butte but who has historical knowledge of and family roots in Butte. These interviews were invaluable to a comprehensive contextual grounding of the

history and changes that have taken place in Butte before, during, and since the decline of the mining industry. Further, these interview subjects have provided personal-level experiences and perspectives of success, change, and struggle related to local industry.

An interview guide was also developed for the oral history interviews to ensure that each interview was systematic and would allow for meaningful comparison. Subjects were asked about their connection to Butte, how they would describe the city's legacy of mining and changes related to the industry's decline, how they would describe the past and present food environment of Butte, and whether they know of or suspect any local challenges with food access. Subjects were invited to share stories, opinions, knowledge, and anecdotes related to the prompts. All three oral history interviews took place in person and were recorded and transcribed to retain accurate representation of each subjects' views, explanations, and histories. Consistent with the key informant interviews, our oral history interviews were analyzed using content analysis and coded for key themes, patterns, and categories. The oral history interview consent form, interview guide, and coding protocol may be referenced in Appendices D, E, and F.

Internship-Based Participant Observation

During the summer of 2021, I engaged in participant observation through an on-site internship with Action Inc., a community development agency in Butte. Action Inc. hosts a number of assistance programs, including housing assistance, heat assistance, career assistance, youth empowerment and the head start program, and food and nutrition programs. This particular internship involved assisting with the Summer Meals Program, which provides breakfast and lunch at several sites in Butte to ensure that families have adequate nutrition when school is not in session (between June 14th and August 13th). Spanning nine weeks, this internship included

working with volunteers, staff, and program clients at meals distribution sites; working in the Butte Highschool kitchens to prepare the daily lunches; assisting with program paperwork; providing driving and delivery services; and helping to run the eighteen food delivery sites. It entailed logistics and planning skills, collaboration, paperwork and writing, and assisting with program management.

This internship allowed me to live and work in Butte during these nine weeks. The combination of living and working in Butte proved immensely useful for data collection and field work. Schensul, Schesul and LaCompte (1999) refer to participant observation as a data collection method and process of learning through exposure to or involvement in routine activities in the research setting. It is valuable in gaining a first-hand, place-specific understanding of the phenomenon of study. This immersion within the local context was critical to understanding first-hand the issue of food insecurity in Butte, to observe how it is presently being addressed, and to identify what more may be done.

This fieldwork entailed focused participant observation, with observation supported by previously-conducted interviews which guide decisions about what to observe (Angrosino & DePerez, 2000). In other words, I observed most closely what was deemed fundamental through previous key-informant interviews. This included primarily cases of food insecurity, coping strategies, community efforts, and causes of food insecurity. Data collection took place in the form of detailed field notes. Records included daily tasks conducted; number of meals served per day; descriptions of the setting; descriptions of the activities being performed and observed; emotions and/or relevant issues expressed; notes from informal conversations; and anything else of interest or importance related to the research. Field notes, along with the key informant and oral history interviews, were iteratively reviewed and coded for themes and meaning. Through

these qualitative methods, I was able to gain a personal impression of the conditions (severity, geographic distribution, peoples' experiences), causes (physical, social, economic, etc.) and historical roots of food insecurity in Butte. Transcribed field notes and coding protocol may be referenced in Appendices G and H.

All qualitative portions of this research have been reviewed and approved by the University of Montana's (UM) Institutional Review Board under the exempt category, allowing this study to employ human subjects in research. In qualitative research, particularly when using interviews and participant observation, it is important to uphold the highest standards of research ethics to minimize any potential risk to study participants. To ensure that information was collected, analyzed and conveyed as accurately as possible, I found it critical that I as the researcher remain reflexive and considerate of my own positionality. As a white woman originally from the Hudson Valley region of New York and not a native of Butte or the American West, I believe it is important to highlight that my role as an outsider likely underlies my interpretation of the data.

Archival Records

Archives maintain the non-current government record of the consolidated city-county of Butte-Silver Bow, historical photographs and manuscripts, and other pieces of Butte history. This vast public reservoir of Butte history was paramount to building an understanding of historical circumstances of food insecurity in Butte as numerous records of household-level food insecurity and documentation of broader county-level food and poverty assistance programs have been well-preserved.

For this thesis research I examined several collections, including County Assistance Records, Investigative Poor Records, Poor Hospital Records, Paupers Applications for Aid Records, and Widowers' Pension Records. Many of these collections are large; hence, I selected subsets of each for relevant years around the rise and peak of Butte's population and mining production. When certain records are quoted in this thesis, the names of individuals and families who were preserved in the original record have been removed for privacy. These collections illustrate the struggles of life that miners faced in Butte, and the conditions of poverty and food insecurity from the late 1800s through the end of the twentieth century. While there were very wealthy classes in Butte with presumably few food constraints during its heyday, these collections provide evidence of the experiences of the city's less fortunate and the phenomena of food insecurity and coping strategies within that population.

Quantitative Methods

Geographic Information Systems

The quantitative component of this study maps two factors of food insecurity: poverty and access. While circumstances and causes of food insecurity are different and complex per each household and/or individual, poverty and access are primary factors which, when combined with each other and/or other factors, may inhibit someone's ability to afford and/or procure adequate food resources. Geographic information systems (GIS) is a powerful mapping software and tool. For the purposes of this research, GIS generates a visual representation of some critical factors of food insecurity in Butte. It shows the locations of poverty rates by census tract throughout the city. It also displays locations of two categories of food stores: full-line grocers and limited grocers. Full-line grocers are traditional supermarket-style stores which carry a full

variety of food options, fresh and other, which can support a complete diet. Limited grocers are more niche, specific food stores such as butcher shops or delis which also serve limited produce and dry goods. These are smaller and have a less comprehensive variety than full-line stores, but are still primarily food stores.

Statistics for poverty rate are derived from the U.S. Census Bureau and the American Community Survey 5-year 2019 estimates. I have also acquired a package of data from the City-County of Butte-Silver Bow's GIS department, consisting of census block boundaries, roadways, the urban limits of the city, and zoning layers. The location of food stores was transposed by address into a GIS layer, which were then overlayed on the poverty layer to depict the locations of each type of stores in relation to census tracts with the lowest and/or highest poverty rates. These maps are useful in illustrating where access and poverty may be compound barriers to food insecurity, though these conditions are not wholly determinative of food insecurity. This mapping may have the potential to call to attention certain areas of the city that could be most vulnerable to food insecurity, pose explanations to food insecurity factors in these places, and prompt solutions and provoke remediation in these areas.

It is my hope that the combination of both qualitative and quantitative data and methods in this case study serves to triangulate results and tell a story of city-wide conditions of food insecurity in Butte. This mixed-methods approach aims to present a visual and narrative representation of food insecurity in Butte, relating the meanings of lived experiences and social processes that play into food insecurity with observable geographic patterns.

In the following chapter, I present the theory that informed this study. The theoretical framework draws upon literature from several bodies of scholarship to inform the concepts, patterns and trends which emerge from the data.

CHAPTER 3: CONCEPTUAL FRAMEWORK

Introduction

Food insecurity constitutes a major health crisis in the United States. This term is defined by the Butte-Silver Bow Community Health Needs Assessment (2020) as, "having run out of food in the past year and/or worried about running out of food" (PRC 2020, 47). According to the USDA Economic Research Service (2020), 35.2 million Americans lived in food-insecure households in 2019. Associated with a variety of negative health outcomes, the scale and consequences of the problem have warranted a great deal of research in the last several decades, amassing an extensive body of literature from a variety of fields. Food insecurity research often examines the causes and consequences, as well as efficacy of responses to the issue in both urban and rural settings.

What is less well understood and in need of attention is how the specific circumstances, attributes, and histories of local environments may be implicated. As such, it is critical to understand the local contexts of a place and history in relation to food insecurity to deepen our overall understanding of this complex public health issue, as well as address it. While this study examines the commonly studied factors of food insecurity in Butte outlined above, it also aims to address the contextual gap by providing a case study of place- and history-informed food insecurity in Butte, Montana. It also provides a case study of these processes in a western mountain city, a setting largely left out of food-related and general post-industrial city discourse. This chapter presents the concepts of food insecurity, the common contextual characteristics of post-industrial cities, and food insecurity in the post-industrial landscape as described in the literature.

Food Insecurity

Food insecurity is a dynamic and reflexive term, defined and measured differently by various agencies. In the United States it is measured yearly based on a set of qualifications that evaluate an individual's concerns about the reliability of consistent and accessible food, with agree/disagree statements such as "I worried whether our food would run out before we got money to buy more," and questions such as "Did a child in the household ever not eat for a full day because you couldn't afford enough food?" (Gunderson & Ziliak 2018, 120). In addition to this survey conducted by the U.S. Bureau of Labor Statistics, food insecurity is also often measured by smaller-scale local municipalities in similar ways (Heady & Ecker, 2013). The Butte-Silver Bow Community Health Needs Assessment measured food insecurity through a survey, which asked adults: "Now I am going to read two statements that people have made about their food situation. Please tell me whether each statement was "Often True," "Sometimes True," or "Never True" for you in the past 12 months: (1) I worried about whether our food would run out before we got money to buy more. (2) The food that we bought just did not last, and we did not have money to get more." Those answering "Often" or "Sometimes True" for either statement are considered to be food insecure.

The primary determinant of food insecurity is largely understood as a lack of financial resources (Carter et al. 2013, 95). Households with lower incomes and living in poverty are consistently more likely to be food insecure (Gunderson & Ziliak 2018, Horst et al. 2017), and food insecurity rates are often found to be higher than the national average for households found to be below the federal poverty line (Freedman & Bell 2009, 826). Gunderson and Ziliak (2018) elucidate specific financial factors that lead to food insecurity as financial assets (e.g., limited

savings, lack of access to credit), physical assets (e.g., renting rather than owning a home), and human capital (e.g., lower education levels, lower financial management skills).

Food disparities also exist largely based on the sociodemographic characteristics of households and communities. Freedman and Bell (2009, 826) note the enhanced likelihood of urban populations that live in racial and ethnic minority communities to experience food insecurity. Similarly, Horst et al. (2017), in their synthesis of multidisciplinary literature on food justice, urban agriculture and planning, note that rates of food insecurity are higher in households with single mothers, and those headed by people identifying as Black and/or Hispanic.

Banks et al. (2021) consider household type, level of education, and experience of significant life changes in the last year to be significant sociodemographic characteristics that contribute to household food insecurity. According to the USDA (2020), of all food insecure households in 2020, 40.9% were households with children, 19.7% were female-headed households with children, and 16.9% were married-couple households with children. Further, 59.1% were households without children, and about 20.6% were households with at least one elderly adult. Significant life events, such as loss of a loved one, change in finances, job loss, and legal troubles were found to be twice as common in food insecure households (Banks et al. 2021, 6). Lachaud et al. (2020) also indicates a commonly intertwined relationship between food insecurity and mental health, substance abuse, and/or chronic health problems. They rightly state that homelessness, food insecurity, and discrimination are "avoidable social problems" that affect too many in the United States and beyond.

Clear geographic disparities exist in access to healthy, affordable, and culturally appropriate foods among disadvantaged urban demographics in the United States. Grocery stores and other variety and fresh food outlets tend to be found in areas that are predominantly white

and middle to upper class; on the other side of the same coin, low-income and minority neighborhoods are often underserved by grocery stores and fresh food outlets (Freedman & Bell 2009, Young et al. 2011, Horst et al. 2017). Freedman and Bell (2009) call this an inverse relationship between community access to chain supermarkets and rates of food insecurity. This fosters an injustice and inequality within urban food environments, where socioeconomically disadvantaged groups lack means and access to ample healthy, affordable, appropriate foods. Further, where healthy food is less available, fast food outlets and other sources of unhealthy food tend to proliferate (Horst et al. 2017, 279).

It is clear that the distribution of food insecurity is disparate across demographic groups and local geographies. This is the case at the national scale too. For example, food insecurity rates in the upper Midwest and Northeast tend to be lower than the national average, while pockets in the Mississippi Delta and Appalachia are known to have particularly high rates (Gunderson & Ziliak 2018, 121). Food insecurity rates in the Rocky Mountain West tend to fall near the national average (USDA Economic Research Service 2020); a less than ideal statistic, yet this region receives little attention in terms of food insecurity research. Additionally, most research on food insecurity in the West focuses on rural areas. While urban, rural, and spaces in between can and do face food insecurity, this paper focuses on food insecurity in an urban mountain setting.

The Social Determinants of Health imply that the environments in which we live profoundly influence our health and wellbeing (Ompad et al. 2007). Scholars have linked the combination of economic barriers and a lack of access to healthy food choices to a number of negative health-related outcomes including obesity, diabetes, and heart disease (Horst et al. 2017). Furthermore, inequities in food quality and access highlight how the experience of living

in poorer communities is vastly different from living in wealthier ones, notable in terms of human health (Block et al. 2012). In their synthesis of the literature on food insecurity, Carter et al. (2013) state that the link between macro socio-political and individual-level economic factors and food security is well-established. Further, Marmot and Wilkinson (1999) plainly hold that the health of populations is directly related to the social and economic organization of society and place.

Contexts and Framework of the Post-Industrial City

Given the notion that the organization and functionality of our surroundings directly impact our health and wellbeing, this thesis highlights the precarious situation of food security in cities experiencing post-industrial decline. For the purpose of this research, post-industrial decline refers to the economic, social, and physical urban decomposition of cities after the loss of their primary industry. These contexts have been mostly studied in the eastern half of the United States but lack perspectives of similar cases in the urban mountain West.

A straightforward definition describes deindustrialization as a process of "systematic decline in the industrial base" (Bluestone 1988, 35). This process has ultimately led to the exodus of once plentiful American industrial corporations and jobs from their labor-driven city homes to foreign or more remote domestic places. Following World War II, America's dominance on the world market for exports such as steel, cars, and electronics peaked and then declined as competition from other global powers recovered with their economies. This rise in international competition translated to rapid decline in the U.S.'s post-war profits; thus, American corporations sought to cut costs through mobilizing capital and relocating (Bluestone

1988). Accompanied by the rise of suburbs and a national shift from an industrial to service-oriented economy, post-industrial cities have faced a host of struggles since the 1950s.

A number of federal policies regarding housing and highways allowed for economically mobile populations migrate of city centers, constituting a mass exodus of middle to upper class, predominantly white residents from cities to rapidly developing suburbs in the mid 1950s (Maneer et al. 2012). Around the same time, jobs and populations were rapidly relocating from the Rustbelt to the Sunbelt region (Bubinas 2011). Globalization also contributed to the outsourcing of many industrial jobs to other U.S. or foreign locations, and the country began shifting from an industry-oriented to a service-oriented economy. The resulting depopulation and stark decline in employment in these industrial cities was exacerbated by loss of federal investment in core urban centers, leading to consistent decline in many urban post-industrial city centers for the last several decades (Maneer et al. 2012).

Where post-industrial cities were once the shining symbol of industrial society, many now suffer from serious problems of abandonment and decay. As the national economy restructured, these cities experienced serious trauma as their major employer(s) disappeared or migrated elsewhere (Meyer 2000). The decline of post-industrial cities may partly be understood as a lack of adaptation to new conditions, where decay is a consequence of the unfitness of old spatial structures and patterns to new modes of production (Fernandez Agueda 2009). Meyer explains that different cities, even ones that share a common history, seem to experience "different cycles of prosperity and depression- in timing, depth, duration, persistence, etc." (2000, 14). These differences reflect a variety of resource endowments, industrial diversities, scale economies, physical features, and accessibility among post-industrial cities that allow them to adapt and recover. Importantly, they note that while some cities have recovered quickly and

some have not recovered at all, smaller cities have fewer opportunities, resources, and means to respond (Meyer 2000). Chapter 4 describes these processes in Butte, situating this western city within a framework commonly applied to cities in the eastern half of the United States.

Urban Food Insecurity in the Post-Industrial Landscape

The loss of important, keystone economic activities and the deterioration of infrastructure in post-industrial cities has had a clear negative impact on the quality of life of residents in these places. Issues facing post-industrial cities today include population decline, unemployment, low wage jobs, poverty and food insecurity (Maneer et al. 2012). Further, Bubinas (2011) posits that post-industrial cities are particularly prone to economic crises as they experience a declining manufacturing sector, stagnant wages, a workforce not retrained or educated for 21st century job markets, the cleanup of brownfield sites, and reduction in state and federal support.

Compounding the impacts of deindustrialization in American cities, federal policies regarding housing and highways incited the mutually reinforcing processes of suburbanization and disinvestment in urban cores. For example, President Raegan's McGill Commission suggested that inner-city residents follow jobs wherever available; fallaciously, there was no attempt to produce jobs in areas that people already lived within the core (Maneer et al. 2012). As a result, those who could afford to fled cities to pursue the American Dream in newly established suburbs (Calthorpe 1993). With populations and wealth migrating to suburbs, grocery stores followed. Larger regional shifts in employment are also important to consider; as plants were closing in the industrial Rust Belt (or Frost Belt) region of the country, jobs and populations were rapidly relocating to the nation's Sun Belt (Bubinas 2011; Bluestone 1984).

Around the same time, local food systems in most communities around the country began changing as the global and national food system burgeoned. The scholarly literature on the history of food systems in the United States extensively documents examples of the ways in which the food environments of cities and neighborhoods were originally dominated by small, locally owned and operated shops and markets in the United States (Lu & Reardon 2018; Deutsch 2010). Deutsch describes the reason for the dramatic growth of chain supermarkets in the U.S. in two ways: First, supermarkets were able to offer lower prices and appeal to consumers economic interests; And second, socially, supermarkets remade retailing to appeal to the freedom and autonomy of consumerism. Lu and Reardon (2018) suggest that by the mid-2000s, supermarkets nearly fully ruled food retail in developed countries. Though these shifts are not unique to post-industrial settings, it is important to understand macro-processes unrelated to city-specific industry which had a role in shifting food systems and food security in many of these places.

According to Maneer et. All (2012), the unstable economic, social, and physical conditions of many of the nation's former industrial cities have translated to losses in and relocation of local healthy food resources. Both Bubinas (2011) and Maneer et al. (2012) argue that of farmers markets and urban agriculture projects have a particular utility and relevance in post-industrial cities that are particularly vulnerable to conditions of food insecurity. Many post-industrial cities face problems associated with soil contamination and harmful remnants of past industrial activities. For example, Taylor and Ard (2015) describe barriers to urban farming in the legacy of an industrial city where vacant lots and abandoned facilities are plentiful, yet potentially toxic and contaminated, and the residents who want to farm are faced with either the costs of soil testing and remediation or the costs of potential health risks.

Much of the research on food environments in post-industrial landscapes references cities in the Midwest and eastern half of the country. While this is logical when considering the well-known Rustbelt to Sunbelt migration and economic abandonment of industrial cities in the eastern half of the country, there is need for examination of contemporary struggles of food insecurity in post-industrial cities in the West. The two main topics of this work, historical and contemporary food insecurity, intertwine to create a narrative of the complicated history of Butte, Montana in respect to the persistent conditions of food insecurity. Given that nearly one-fifth of the city's present-day population is considered to be food insecure, it is critical to gather a deeper understanding of the problem within its specific context as a former mining city in the urban mountain west. The following chapter examines historical food insecurity in Butte, investigating the relationship between food insecurity and different phases of industry in this exmining city.

CHAPTER 4: FOOD INSECURITY AND DEINDUSTRIALIZATION IN BUTTE:

A HISTORICAL PERSPECTIVE

Introduction

Food insecurity is an extensively studied public health concern in twenty-first century

United States. Previous scholarship, however, often lacks historical perspective. A historical
perspective is vital to highlighting processes and legacies of uneven food access through time, as
well as understanding contemporary circumstances of food insecurity. This research recognizes
that present-day issues often stem from deeper-rooted historical systems, events and factors. The
primary objective of this chapter is to examine Butte's history with a balance of brevity and
relevant detail to identify the factors and processes that shaped the relationship between food and
the mining industry through historical phases of this iconic western city. Regarding the
overarching research questions, this chapter seeks to explain the historical circumstances and
causes of food insecurity in Butte, as well as its defining experience with post-industrial decline.
Illuminating these historical contexts and processes is vital to understanding the roots of
contemporary food insecurity that are addressed in Chapter 5.

The evolving variables of food insecurity described in this chapter include financial resources and poverty; social capital; physical access; and food resource availability. These are commonly studied and cited factors of food insecurity (Carter et al. 2013, 95; Gunderson & Ziliak 2018; Lachaud et al. 2020; Freedman & Bell 2009; Young et al. 2011; Horst et al. 2017); however, these factors have not often been studied for their historical and place-specific roots. This chapter traces these variables of food security through Butte's history. The chapter is structured around three main historical periods: Pre-settlement and early years of settlement (1880s and earlier); boom years (1890s to 1960s); and the post-industrial era (1960s to the

present). I will first operationalize the terms used in this chapter. I will then present my findings of food insecurity and related industrial history in Butte through the three main time periods, illustrating experiences and factors of historical food security. This chapter concludes with a description of the post-industrial processes described in the literature in Chapter 3 as they occurred in Butte, and what these changes entailed for local food security.

Operationalizing Terms: Historical Variables of Food Insecurity in Butte

The primary variables which influence food insecurity described in this chapter include both causes and coping strategies, the combination of which contribute to a more comprehensive capture of the experiences and contexts of food insecurity. The first variable is financial resources and poverty. The primary determinant of food insecurity is largely understood as a lack of financial resources (Carter et al. 2013, 95). Households with lower incomes and living in poverty are consistently more likely to be food insecure (Gunderson & Ziliak 2018, Horst et al. 2017), and food insecurity rates are often found to be higher than the national average for households found to be below the federal poverty line (Freedman & Bell 2009, 826). Gunderson and Ziliak elucidate specific financial factors that lead to food insecurity as financial assets (e.g., limited savings, lack of access to credit), physical assets (e.g., renting rather than owning a home), and human capital (e.g., lower education levels, lower financial management skills).

Financial resources and/or poverty proves to be an enduring factor in food insecurity in Butte.

Social capital, the second variable of focus in this historical analysis, refers to relationships among individuals and between groups which entail potential material and social benefits or obligations associated with those relationships (Leddy et al. 2020). The literature suggests that social capital and meaningful relationships with others may have a protective effect

against food insecurity (Leddy et al. 2020, Martin et al. 2004). Martin et al. (2004) refer to this measure as one of trust, reciprocity, and social networks; they found that in the United States, households living in communities with high social capital were 52% less likely to experience hunger than households within communities with low social capital. Social capital and community bonds are important themes in Butte history, especially when facing hard times and bleak food prospects.

Access is a primary factor contributing to food insecurity and is a complex concept which may be assessed on several dimensions. Spatial proximity is a key determinant of physical food access, but daily travel patterns or the role of public transportation and/or informal ride-sharing networks may mean that the most proximate store is not the most accessible (Shannon et al., 2021). Other factors limit accessibility, including food prices, food types, and food preferences. The focus of this study is physical access in terms of spatial proximity, with attention to the ease and means of reaching these locations. Contemporary-focused research indicates that there is an inverse relationship between access to supermarkets and rates of food insecurity (Freedman & Bell 2009, 826).

Food resource availability is the fourth variable of food insecurity considered closely in this study. The reason for the inclusion of this variable is that food availability- the modes and scales of food production, and the methods of supplying and transporting food- has changed dramatically over the last two centuries. The 1950s and 1960s saw an unprecedented acceleration in the pace of agricultural productivity and food production globally and within the United States (Pielke & Linner 2019). New agricultural technologies, including hybrid seeds, fertilization techniques and machinery, pesticides, and other changes in farming practices indeed increase food yields, but there is debate whether the greater amount of food produced has translated to

reduced hunger. In fact, many arguments posit that income and hunger gaps have increased, and food security has not significantly increased with the increased efficiencies and volume of food production (Pielke & Linner 2019, Kerr 2012). It is evident in Butte that the metric of food availability has transformed through time and has impacted the experiences of food security differently throughout history. These four variables are tangible throughout the evolution of food systems and food insecurity in Butte, and reflective of the contexts of each time period presented in this case study.

Findings

The findings of this historical analysis are organized into three primary time frames: Presettlement and early years of settlement (1880s and earlier); boom years (1890s to 1960s); and the post-industrial era (1960s to the present). This organization is important because it explains the bearings between food insecurity and each phase of history and industry in Butte. It also illustrates the relationship between various industrial stages and food insecurity. Each period contains both stories and themes which emerged from the data, and which are related to the relevant variables of food insecurity per each period. The third period, the post-industrial era to the present, marks the transition from industrial to post-industrial society in Butte. It includes important transitional concepts and trends which contribute to making this section longer than the first two. The purpose of the following sections is to discuss the data and evidence that sheds light on intersections of Butte's urban and industrial history and food insecurity in Butte.

Period I: Pre-Settler Arrival and Early Settlement, 1880s and preceding

Pre-Settler Arrival

According to a local historian, "Some of the earliest documentation about Butte surrounds food" (OH 3). Food has been a principal theme of the area since its earliest written and oral records. The first people in the area were from the local Salish and Blackfoot tribes, who fished and hunted the backbone of America. There are Tribal accounts of the Silver Bow Creek area, which was known as a place where Salish hunted the abundant bull trout with bows and arrows. The Salish word for Silver Bow Creek was "The Place Where You Shot Fish In The Head" (Melcher 2017), made possible by their plentitude and size. This placename highlights the notable abundance of food resources in this area during that time.

The geography and climate, one subject indicated as she pointed at the blizzard taking place out the window during our interview, "and the fact that the water is... not plentiful here and never has been," (OH 3) discouraged settlement early on. These lands were likely hunting and fishing grounds long before they were settled, yet the Tribal history speaks of this upper basin of the Clark Fork as a land of food bounty and provisioning long before permanent settlement. Food availability and access was almost entirely controlled by natural factors during this time. As Limerick (1987) poignantly highlights, "The conquest of Western America shapes the present- and sometimes perilously- as the old mines shape the mountainsides.". As Anglo settlers inundated the area and removed Native peoples, the original bountiful resourcing and provisioning ways of this area were eventually forgotten and replaced by mining as the primary activity.

Early Settlement

As Butte and surrounding areas garnered a reputation for potential wealth, it began attracting miners and others to settle and search for profits. Sitting beneath the Continental Divide in a high mountain environment, Butte is in a prime geographic location for rich mineral deposits and fruitful mining. One subject explained that "Silver and gold were the first [lucrative minerals mined] in Montana, and most people didn't care about copper" (OH 1). Copper was what eventually pinned Butte on the map as the demand for copper wiring to electrify the country was growing exponentially. Butte eventually was supplying twenty-five percent of all the world's copper resources at one time (B-SB History & Culture).

Butte was established as a mining camp in 1864 and considerable permanent Anglo settlement began around the late 1870s. Early documentation describes food shortages for the "maybe less than five hundred" people living in Butte in the late 1860s. Many of the earliest settlers shared provisions with one another, and hunting remained a critical food source in the area given its isolated geography (OH3). With newly developing city organization and early-stage mining cash-ins, these foundational settlement times were not always easy or prosperous for the few hundred residents of Butte.

One oral history subject (OH 3) recounted a story of the "flour war" and a Butte man named Joseph Ramsdell. Due to a long winter of heavy snow, forty-foot drifts and intense low temperatures preventing shipments of flour from Salt Lake City, Utah, southwest Montana experienced a shortage between the years 1864 and 1865. As a result, merchants and grocers in the area raised the price of flour from \$22 to \$26 per sack, to \$47 per sack- equivalent to just over \$800 in today's market. By late Spring of 1865, the cost of flour rose again to \$100 per sack. Individuals in several towns, including Virginia City, Alder Gulch, Butte, and Bannack,

rioted and raided stores of flour. In most cases, they would leave promissory notes of around \$30 per sack, which they felt was a fair price (Johnson 1957). Joseph Ramsdell, a stable owner and owner of the Ramsdell Parrott mine in Butte, had hoarded flour in his livery stable. This hording caused a local riot, where miners raided the livery and stole sacks of flour in Butte. For comparison, a miner's rate of pay at that time may have been between \$6.00 and \$11.00 per week (OH 3).

This anecdote represents one early example of food insecurity during the early settlement years of Butte, largely tied to the factors of financial resources and resource availability. The uncontrollable physical constraints of weather and transportation led to this resource scarcity, and the substantial price of flour compared to the average earnings of the time implied insufficient financial resources for many Butte residents. The early settlement years of Butte and those before this time were vulnerable to natural determinants of the security of food resources. Climate and geography largely impacted access to resources and food resource availability. Despite this, social capital was abundant and a significant coping strategy at the time, as the first people in Butte were very accustomed to sharing provisions and working together.

Period II: Boom Years, 1890 - 1960s

A Company Town

Butte is often remembered as a company town, a mining city, and a "mining company town" (OH 1). These monikers are largely attributable to its ties with the mining industry and specifically the Anaconda Mining Company, who steered industry and life throughout the city for several decades. Under its corporate control, Butte grew to its largest population, its heftiest and most stable economy, and became a cultural and ethnic melting pot of the American West.

The remnants of these times persist vehemently throughout the city today, nostalgically, socially, economically, and upon the landscape. One subject insisted, "it would be something not to see that [...] scar on the side of the hill and know what it did for this town, I mean, it really made the town" (OH 2). They are referring to the hard to miss chopped-up interior of a fraction of the Northern Rocky Mountains on the northeast side of town, commissioned for open-pit mining in the 1960s.

The Anaconda Copper Mining Company

When the lofty value of copper was recognized by the late 1800s, Butte became a battleground of "Copper Kings" vying for political and economic domination of the region. Marcus Daly, William Clark, and F. Augustus Heinze were the three main Copper Kings, who consolidated mining and other associated businesses including railroads and timber. The Anaconda Mining Company was established in 1890 and sold the majority of its stock to the Atlantic Richfield Corporation (ARCO) in 1979 (B-SB History & Culture). One subject highlighted the authority and importance of these large enterprises in Butte: "to put it in perspective nationally, [ARCO] had a headquarters in Butte [...] and they had a headquarters in New York City" (OH 1). The Anaconda Mining Company became colloquially known as "the Company," and became synonymous with the City of Butte as the city and industry grew up together (Finn 1998).

The scope and capacity of the Anaconda Mining Company was vast. The Company owned its own lumber division as well as most of the natural resources it needed to function. The Anaconda Mining Company also produced most of its own tools, machines, and materials for their mining activities (B-SB Public Archives). As such, the Company employed more than just

miners in Butte. In addition to the internal supporting occupations, many local stores, ancillary jobs, and other large regional industries such as Champion Lumber and Hoss Steel provided goods and services to the Anaconda Mining Company (OH 1, 2). Tuttle Manufacturing conducted all the metal manufacturing and foundry activity for the Company for over 100 years. Archival evidence confirms the presence of several female-owned boarding houses which provided miners with a place to live. Local grocery markets functioned within the Company-dominated economy to feed the city's workers and families.

The co-production of community by the Company and Butte residents reinforced a sense of unity with the workers and identity among city residents. Reinforcing that point, one subject stated that "everybody was a part of the mining Company... everybody belonged to it" (OH 2). As somewhat of a paternalistic entity, the Anaconda Copper Mining Company intentionally worked to create a sense of community that they could control and that would prevail to its benefit. The Company did this through inventing definitions of good workers and neighbors, controlling local press, encouraging "work hard play hard" lifestyles, and investing in local housing and recreation (Finn 1998).

At times when the Company prospered, so did the city. When the Company struggled and/or when there were strikes, "everybody took a beating" (OH 2). Driven by difficult work and living conditions, Butte was at the forefront of the American labor movement in the twentieth century and was one of the first cities in the country where the tension between labor and management came to head (B-SB History & Culture). One subject summarized the situation in this way, "The legacy of mining in Butte is kind of the legacy of every mining company town... Once that industry suffers, the town suffers as well" (OH 1). The food system also reflected that of a company town, where local producers and consumers worked as ancillary businesses to

support the mining industry. They too struggled when the Company struggled; they too took a financial beating.

No Strangers to Hard Times

The Butte community was diverse in many ways during its mining days, primarily ethnically and economically. It was a richly diverse melting-pot of immigrants who came to work underground and in other supporting jobs. Immigrants often formed ethnic neighborhoods around mine entrances, and neighborhood markets often provided or specialized in ethnically appropriate foods. The pasty is one persisting example of an ethnically specific specialty found in Butte, originally a Cornish treat popularized as an ideal miners' lunch to send underground, but still celebrated today in Butte's Sosten Fest and Pasty Baking Competition (KI 6). Moreover, the oldest continuously operating Chinese restaurant in the United States is in Butte, the Pekin Noodle Parlor.

Butte was also diverse in the late 19th and early 20th centuries by class, money, and power. Butte miners were commonly depicted as privileged- employed in a profitable industry in a booming, popular city- but living and working conditions were often extremely difficult and dangerous. Poverty and hard times did not discriminate in Butte, which became obvious while sifting through intake records from Butte's Poor Farm. These records noted the "Nativity" or "Nationality" or "Where born" of each admitted patient. The logs include several countries in Northern Europe, such as Norway and Finland; several countries in Eastern and Central Europe, such as Poland, Slavonia, Russia, Montenegro, Turkey; several from Western Europe, including Belgium, France, Germany, Italy, Greece, Scotland, and of course, Ireland. The largest ethnic

group in Butte was and still is Irish, and this particular ethnic group was believed to be the favorite of Copper King Marcus Daly.

Periods of strikes, work-related injuries and illnesses, and substance abuse were common shapers of the experience of poverty in Butte. Some archival records, including the Auditor Assistance Collection, described the circumstances of thousands of families and individuals who had fallen on hard times and were requesting county aid. The Auditor Assistance Collection was a formalized Silver Bow County program during much of the twentieth century. One section of this enormous record, dated around the height of industry and population in Butte, contains entries that speak to the circumstances of poverty and need:

Butte, Mont., Jan. 26th, 1915.

Mrs. Phil X, X Lexington Terrace.

"This woman's husband is dying with miners consumption, and has been unable to work for some time. They have four children, the oldest being 12 years of age. They own their own house. The neighbors say they are in destitute circumstances. They asks for coal and groceries. Case looks deserving. Given aid Coal \$6 and groceries \$10.00

R.J. Campana

Butte, Mont., May 20th, 1915.

Mrs. Millie X, X S. Montana.

"This woman has a broken hip, and is unable to work and the neighbors say that she had money left her by one of her relatives in California, but it is tied up by the courts. Attorney B. K. Wheeler is trying to do something with the will be he sasys he does not know when it will be settled. This woman was released a short while ago from the Asylum at Warm springs and still seems to be a little off. The neighbors say they have been giving her food but they are unable to help her any longer. Case looks deserving. Given temporary grocery order \$10.

R.J. Campana

Butte, Mont., Mar. 2nd, 1915.

Mr. X, Near Silver Bow

"Resided here for the last 20 yrs. Mr. X is taking up a homestead and has resided on it for four years; not filing on it he is unable to secure any money on it. They have two orphan children they have been taking care of for the past 11 yrs. Wants grocery order fro 3 or 4 months till vegetables grow, and then he can get along without order. Mr. X has been working in the mines

every winter, but this last winter he was unable to secure work. Granted for 3 or 4 months. \$10 Groceries

R.J. Campana

These and thousands of other examples dated between 1887-1977 illustrate the need for general aid, neighbors supporting and advocating for one another, and the impacts of mining on families and individuals. They also illustrate specific, historical cases and causes of food insecurity, and coping strategies. Neighbors often provided one another with informal forms of hunger relief when possible, such as hosting other family's children for meals, and/or vouching for each other to receive county assistance. These are prime examples of important and impactful social capital measures during Butte's heaviest mining days.

Some records describe resourceful household-level horticulture practices, including home gardens and microlivestock keeping, such as raising chickens. These forms of household-level provisioning in urban spaces were common and essential in the urban household economy in the nineteenth century America, particularly for working-class families (Sheridan 2013). Other accounts even describe foraging at the county dump for scraps. Despite the famed prosperity in Butte during much of the twentieth century, food insecurity was still a present issue for many and largely a symptom of poverty and limited financial resources. The "Pauper Petitions" are another clear example of strong social capital and important coping strategy against food insecurity. These formal forms show a collection of signatures from neighbors and local business owners verifying that this person is deserving of County aid (Figure 5: Pauper Petition).

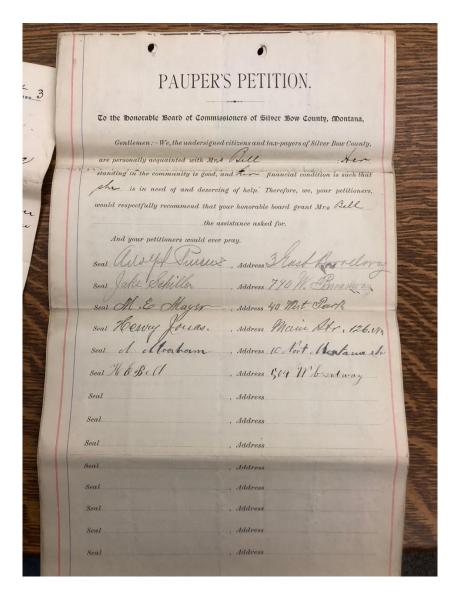


Figure 5: One of many Pauper Petitions from the Pauper Records Collection (Box 1: 1983-1984) Courtesy of the Butte-Silver Bow Public Archives. These are petitions signed by various neighbors, acquaintances, and local business owners who vouch for an individual of family to receive county aid.

While the shared occupation of mining and a hard-working self-identity was common ground for many Butte residents, what also worked to create and sustain social capital was the common struggle against difficult living and working conditions; an at-times strained relationship with the Company that had such a heavy hand in everyday lives; and pride for their beloved city and industry. Butte was an important map dot and pinnacle of enterprise in twentieth century America. Given its legacy as a mining company town and intimate ties with a

powerful corporation and lucrative copper market, it is no surprise that there was great variety and disparity of wealth in the city, as well as ebbs and flows of food security in times of prosperity and struggle. Butte was well-known for its "Copper Kings" and for being the "Richest Hill on Earth;" while simultaneously infamous for poverty, hardship, and grit. The community thrived on the uncertainty and brutality of the copper mining industry in the shadow of larger-scale corporate, political, and economic processes. The inextricable ties between life and industry in Butte instilled a sense of community identity and pride, but also enrooted vulnerabilities unique to industry towns.

A Western Hub

Butte has also been a paramount nucleus of connection and distribution for the region and the nation since the late nineteenth century to the present-day. In 1881, a spur of the transcontinental railroad was driven to Butte to move ores. By 1919, five major railroads met in Butte (OH 3). As a result of the expansion of transportation networks, the city developed into an integral agricultural, industrial, and transportation hub for the expanding Western frontier. Being a site of goods convergence, food availability in Butte has been tied to its position as a transportation center since the 1880s.

Subjects described Butte proudly and monumentally as a hub for the region's agriculture. One noted "Bozeman's wheat [...] and cattle from the South" would come over the mountains to Butte, as well as produce from the "Garden City" of Missoula to the northwest (OH 1). Another described how "Montana farmers and ranchers would bring their chickens, their pigs, their hogs, their cattle [to Butte] to be put on the train, the railroad. And the trains came here from all over and they went everywhere. And because it was a big rail center- five railroads came here- they

could move their wheat, their cattle, their goods out of here." The same historian eloquently reminds us that Butte "[served] agricultural Montana in a way that I don't think a lot of people think about" (OH3). The city played a critical role in the development, expansion, interconnection of America, and foundation of the national food system at its seat at the crossroads of critical highway and railroad routes. Butte's role as a catalyst of the modern food system makes it no exception to that system's fallaciousness.

A Thriving Foodscape

Agricultural Butte

While many presume that the city's geography and climate prevented Butte from agricultural success, they would not be entirely accurate. Though the location and climate of Butte are not *ideal* for horticultural productivity- being within a high-altitude arid mountain plains geography with very short and variable seasonality- there were several local farms, gardens, and ranches that fed the city's residents throughout the history of Butte. Some recall that "The Chinese had gardens down on the Flats, [...] and Henningsen Produce had a hog farm and chickens and eggs [with which] they made a fortune producing for hungry miners" (OH3). Hanson Packing and other businesses and communities had "tremendous gardens," as shown in Figures 2 and 3. These gardens were prolific from the late 1920s through 1950. The flat, valley to the south of Butte's hill was originally agricultural lands that supplied food for hungry miners.

There were several meatpacking plants and cattle yards in the valley of Butte which processed both local and regionally imported beef. Local towns of Elk Park and Browns Gulch also provided fresh milk, butter, and eggs to the people of Butte (OH 3). With a stigma today

about the safety and viability of local food production in Butte- in part due to its seasonality and in part due to its soil conditions being a Superfund Site- it is unknown to many today that such bountiful harvest was ever grown in Butte, but an important phase of Butte food history nonetheless.



Figure 2: Men harvesting cabbage around 1940. Uptown Butte sits in the background. These croplands were eventually developed when Butte suburbanized onto "the Flats." Courtesy of the Butte-Silver Bow Archives.



Figure 3: Hanson Fields circa 1940. The tank in the background reads "Silver Bow Brands." Courtesy of the Butte-Silver Bow Archives.

A Landscape of Local Markets

While recounting the history of food in Butte, one subject stated that "there was a lot more locally sourced food in Butte" at one time compared to the present-day. Many subjects recalled that there were numerous small neighborhood markets, and eventually larger grocery stores in most if not every neighborhood in Butte (OH 1 & 3, KI 6). Within these markets, many products were grown and/or processed locally. Figure 4 depicts Silver Bow brand produce on display in a local grocery store in 1952.



Figure 4: Silver Bow brand produce on display in a local Butte market, circa 1940. Courtesy of the Butte-Silver Bow Archives.

With "dozens and dozens of small little grocery stores [...] distributed all over town," (KI 6) the food environment in Butte was at one time bountiful, diverse, and dispersed. Just as there was a convenient local headframe and mine shaft within each neighborhood, so was there a market. In the early 1900s, many of these markets accepted credit and loaned food to neighbors to be paid back, especially during strikes and other hard times when incomes were inconsistent. One historian postulated, "I think that people did better because of neighborhood structures with the small market that would help people through those difficult times" (OH3). Several Pauper Records still preserved at the Butte-Silver Bow Public Archives contain notes from local markets vouching for families or individuals who were in debt to their business to receive county aid. One of these reads:

"Dear Sir-

We have known the bearer hereof, Eugene XXX, for some time and believe he is actually in need of assistance.

Yours Very Truly, Butte Cash Grocery Company. Per A. Per A. F. Bray, Mgr. (Butte, Montana, July 12th, 1894)

Such archival records indicate two important food insecurity elements. First, that financial resources and poverty were common factors of food insecurity. Second, that small neighborhood markets not only provided fresh accessible food to those who lived nearby, but mutual support and social capital between neighbors and markets. As described earlier, neighbors would help feed each other's children or advocate for families and individuals to receive formal assistance when possible.

One historian described the situation, saying "people did better because of neighborhood structures with the small market that would help them though [...] difficult times" (OH 3). These times and incidences illustrate meaningful relationships between producers, distributors, and consumers, where people knew first-hand who and where their food came from. Further, producers and distributors were invested in the health and well-being of their customers. This example of social capital represents a significant preventative strategy which, combined with barriers to food security, helps generate a more comprehensive understanding of the experiences of food insecurity during Butte's "boom times."

Small-scale grocery landscapes with short supply chains were common and successful in Butte during the early 20th century, when people's lives and work were largely focused and confined to their immediate physical vicinity. This neighborhood market structure concurs with literature on the history of American food systems (Lu & Reardon 2018, 1321; Deutsch 2010, 43). People had greater physical and financial access to foods that traveled fewer food miles.

Neighborhood markets might have been the nucleus of life in those times; a community-based place of neighborliness and nourishment. These times changed with the proliferation of the national and international food system, and the rise of the Supermarket Era and consumerism (Lu & Reardon 2018, 1321; Deutsch 2010, 43).

Period III: Post-Industrial Times, 1960s to the Present

The time period from the 1960s to the present marks the shift from industrial to post-industrial society in Butte. The Conceptual Framework in Chapter 3 described the process of deindustrialization that eroded many American cities after World War II. Bluestone (1988) reports that between 1969 and 1976, 22.3 million jobs disappeared in the United States due solely to plant closings. He summarizes some obvious economic issues born from deindustrialization and the exodus of American industrial jobs as soaring unemployment rates, productivity decline, population loss, and overall abandonment of once-industrial communities (Bluestone 1988, 31). Similarly, but regarding food insecurity, Maneer et al. (2012) state that severe population decline, unemployment, and disinvestment in many of the nation's formerly industrial cities have translated to losses in local healthy food resources in more recent times.

The coming section describes how the processes of economic restructuring, deindustrialization, and related physical and socioeconomic shifts in Butte impact the local food system and food security. This discussion situates Butte within the framework and common experiences of post-industrial cities. These processes are critical to understand when considering the impact that industrial shifts had in transforming issues of food access, quality, and security at local and larger levels. As Butte's economy, urban form and function, and society shifted, so too did its drivers of food insecurity. Butte's circumstances are nested within broader contexts and

similar processes which took place in many industrial urban centers around the nation and the nation as a whole. Butte is unique to many of these cases, however, for its location in a western mountain city setting.

The Deindustrialization of Butte, Montana

The Downfall of "the Company"

The majority of research on deindustrialization and post-industrial cities in the United States focus on the eastern half of the country. This focus logically aligns with the concept of the "Rust Belt" to "Sun Belt" migration, but largely ignores similar processes which happened farther west. Butte is a prime example of the process and consequences of deindustrialization and the loss of a primary industry in the American West, filling this geographic gap in the literature. After a series of violent labor strikes in Butte motivated by post-war layoffs, mine closures, and economic decline- not unfamiliar to many other industrial American cities at that time- the Anaconda Company began exploring foreign copper resources. In 1923, the Company purchased the Chuquicamata copper mines in Chile. This mobilization led to major capital investments for the Company in Chile, while U.S. copper markets struggled (Finn 1998).

In the 1970s, Chile nationalized all mines and expelled the Anaconda Copper Mining Company; while this returned Butte as the company's principal site, the Company never fully recovered from the loss of its foreign riches. Accompanied by the cumulative effects of union demands, falling copper prices, the shift from underground to open pit mining, and growing environmental restrictions in the U.S., the Company officially terminated in 1982 (Finn 1998). Soon after, all Company mining operations ended in Butte and the city entered an extended period of confusion and economic and social decline. Some smaller-scale mining operations

eventually returned, namely Montana Resources Inc., but never to the scale it once was (OH 2). The Environmental Protection Agency (EPA) became a major player in the local economy, as Butte became the epicenter of the nation's largest Superfund cleanup site as a result of a century and a half of natural resource extraction (Finn 1998).

Post-Industrial Decline in Butte

When asked about the decline of mining in Butte, subjects identified different times as the beginning of that decline. One historian proposed the 1960s, saying "the shift in mining from underground mining to open pit mining had a really dramatic impact on our place" (OH 3). She stated, "because of that shift from underground to open pit, hundreds [if not thousands] of people left here," explaining:

They left because the nature of the work was changing. Underground miners could earn a lot of money. They negotiated their own salaries, and sometimes they made as much if not more than the CEO of the Company. [...] And then [when open pit mining took over] there was a lot of employment for people who were not as skilled or less skilled. And when that work shifted, miners were no longer allowed to negotiate their salary with the Company. They couldn't do their contracts the way they wanted to. [...] They had to go from being underground miners, which was really well-paying jobs, to being truck drivers and teamsters and operators. And that really shifted how people thought about their work and themselves, and a lot of people left. And jobs became less, and the population started to fall, and the poverty level started to rise. And there were very few real services for those people. And that is, I think, a critical point, because when Model Cities came in in the 1970s, they found that there was a high rate of poverty and there was a philosophy of never asking for help in this community that ran so deep it placed people in jeopardy. That they would not go and apply for welfare, they would not be seen at the doors of a food bank or any kind of services that they could get, they would not go and seek them. (OH 3)

Her explanation poses that the changes in the *type* of mining initiated larger community-scale and economic changes in Butte. Given the longstanding correlation between work and life in Butte, the loss of profits as well as personal investment and self-image in the work meant

more than just the loss of industry; it meant loss of identity, specialization, pride, and community.

Two other oral history subjects referred to the collapse of the Anaconda Copper Mining Company and all major mining operations of *any* kind in the 1980s as the start of decline in Butte. One said, "Everybody points to, I want to say, '83 when the Anaconda Company shut down... There was actually huge panic in the community" (OH 1). He explained that his uncle, who was a dump truck driver in the open pit mines at the time, had to leave the state to find work. He said, "they knew the layoffs were coming, they were told months ahead so the Company had kind of padded it a little, but when it shut down my uncle actually had to go to Wyoming to find work." Mining work and profit was variable during the 1960s through 1980s, and mines would sometimes shut down to later reopen. The subject recalled that his uncle "did return back to Butte when they opened back up and finished out his tenure until he got throat cancer" (OH 1). These are common tales among miners, both underground and open pit, whose lives were ultimately devoted to the trade.

Another subject, an ex-miner himself, described the decline of mining and ensuing issues of job scarcity, low wage jobs, and community panic:

I worked for the Anaconda Company at that time, [...] I worked at the Concentrator. So when they shut it down in the 1980s, you couldn't find a job. I mean it was horrible. And eventually MRI (Montana Resources) came back, [...] but the town was in a bad shape for a few years because there weren't those decent jobs, paying jobs. And [...] there was a lot of families their dads, their brothers, everybody worked for [the Company], so your kids were gonna work for them and they all were going to have a steady job and a goodpaying job and have a new truck and everything else; And when that ended, you know, making three bucks at McDonalds was not going to pack the bill. (OH 2)

After the collapse of the Anaconda Mining Company, Montana Resources Incorporated (MRI) began operating in Butte in 1985. To highlight the importance of mining to the

community, one ex-miner stated, "I would say we'd be a ghost town if [...] somebody didn't come in" (OH2). This starkly illuminates the extent to which the city of Butte relied on its primary industry and how people perceived that reliance. Without it, would Butte not exist?

Since the onset of post-industrial decline in Butte- whether that began with the shift from underground to open pit mining or with the collapse of the Anaconda Mining Company- the Butte community experienced significant changes. As a primary industry town, the loss of that industry entailed economic decline and loss of ancillary businesses, increased unemployment rates, population loss, and identity crisis. These factors are many of the same ones described throughout deindustrialization scholarship (Bluestone 1988, Calthorpe 1993, Bubinas 2011, Maneer 2012). These factors are also strongly associated with the form, function, and success of urban food systems. It is important to remember that as these industrial and societal factors shifted, the city's food system and the local drivers of food insecurity were transformed.

Community Impacts

Physical Changes

As demonstrated above, the basis of life in industrial Butte was predominantly labor and Company focused. Where growth and physical development in Butte was deliberately formed to support industrial processes and large populations, post-industrial times saw abandonment and decay of neighborhoods and the urban core. Buildings and businesses lay vacant, the urban core faded, and many neighborhoods shrunk or disappeared entirely in Butte (OH 3, Finn 1998).

Exacerbating disinvestment in the urban core, suburbanization and migration to the Flats changed the physical landscape of Butte in the 1960s. The shift from underground mining- which took place below the homes and lives of residents throughout the city- entailed the need for land

to be "opened." The creation of the Berkeley Pit displaced three known ethnic neighborhoods and impacted four others. These communities were intentionally eliminated to mine the earth beneath them. Many of these residents and even some of the houses and other structures were transplanted to the rapidly suburbanizing Flats, or the level stretch of valley at the bottom of the hill. As residents relocated, many businesses followed. One historian described this process in Butte:

Uptown they needed to be close to their work, so you know, as people grew up they moved to the Flat, and the post-war building boom [...] was really out on the Flat. The west side [of the Flats] started to be developed in 1910, 1920; But, you know, they just needed to expand so they started building out on those big agricultural lands south of town. And, you know, that's just a normal shift actually if you looked at inter-urban area here and moving out to suburbs. And when they started decimating the neighborhoods [...] to develop the Pit- they had to build them somewhere- and the big building happened on the Flat, because they could move houses that were opting to be moved out there. Then they built new housing out there to rehouse people. As well as McGlone Heights they, you know, they had to find pockets because they were literally displacing hundreds of people. (OH 3)

This process was not dissimilar to other industrial urban centers in the United States. As the nation adjusted to its economic and societal shifts, two groups emerged. Many with jobs and money greeted consumerism jubilantly, embraced the freedom of personal automobiles and highways, moved to suburbs, and embodied the American Dream (Calthorpe 1993). Others were faced with unemployment and few opportunities, perpetuating a cycle of poverty and disinvestment in previously industrial urban cores (Maneer at al. 2012). Issues including blight, vacant lots, lack of investment, depopulation, erosion of the tax base, racial segregation, unemployment, low wage jobs, and concentration of the poor took hold in many of these areas (Maneer et al. 2012).

Cities that were once thriving industrial communities became quite the opposite as the post-industrial society and suburban landscape proliferated in surrounding spaces. What

remained of some of these cities became known as "post-industrial cities," distinctively boom-to-bust, hailed-to-forgotten places of American industry. As people's lives and work became more mobile, once-centralized inner-city jobs evaporated, and suburbanization took hold, the physical landscape of Butte and similar American cities reflected that. Changes in industry, society, and physical landscape are deeply interconnected; these processes in Butte are historically rooted and motivated and remain distinctively evident today. The alteration of these pillars or urban existence entailed significant and logical shifts in the food system and drivers of food insecurity.

Socioeconomic Shifts

Beyond the physical urban form, Butte experienced steady population loss from the middle to the end of the century. Many residents that remained had lost their jobs, as many secondary industries dwindled after the exodus of the Anaconda Copper Mining Company. As one historian summarized, when the shift in "how people thought about their work and themselves, [...] a lot of people left. And jobs became less, and the population started to fall, and the poverty level started to rise. And there were very few real services for those people" (OH 3).

In line with Bluestone's (1988) explanation of the quality of remaining jobs after the loss of a primary industry, the problem with remaining and emerging jobs in Butte was that they were often unskilled and low wage. When sharing his own experience similar to many others', one subject recalled "[I went] from making very good wages, went to nothing... It was scary at the time... Things were not good that's for sure" (OH 2). He transitioned from working as a miner for the Company to bartending to feed his family. Another illustrated the prevalence of low wage jobs and the lack of job diversity, describing a family member who "has to work two jobs just to live in the trailer court that [they] live in, and it's one of the lower income trailer courts" (OH 1).

Poverty and low wage jobs are the basis for many socio-economic struggles in any community, and especially Butte, where these issues have been produced and reinforced by historic events.

Where community-building, sense of pride and unity, and local identity were centralized and cultivated through mining and the Company, these less-tangible yet critical community aspects became dubious and uncertain. Where job security used to be a given for many mining families in Butte, panic over unemployment drove thousands out of the city. These processes left local residents in a period of identity disorientation (OH 2). People moved away from previous places of work that united them, and automobiles and capital mobility allowed for novel freedoms of consumerism and lifestyle choice for some. Others did not have the freedom to relocate, and were stuck in urban cores where disinvestment, meager job opportunity, poverty, and declining social capital usurped. While mining and the 'old way of life,' were fading throughout Butte, there were certainly traits which endured, such as being a play-hard city, a compassionate community, and a historical pinnacle of western expansion and industrial America.

Market Shifts: The Dawn of the Supermarket Era in Butte

Keeping in mind the critical connections between the economy, physical distribution of residents and businesses within a city, and societal grocery shopping behaviors, the overhaul of these previously established systems in Butte entailed dramatic shifts in the local food system and the drivers and scale of food insecurity. Food system evolution literature explains that the food environments of cities and neighborhoods were originally dominated by small, locally owned and operated shops and markets in the United States (Lu & Reardon 2018, 1321; Deutsch 2010, 43). This structure was established and successful in Butte for several decades. Eventually,

beginning around the 1920s and the end of World War I, national and regional chains began to pop up in many American cities. Deutsch (2010) describes the reason for the dramatic growth of chain supermarkets in the U.S. in two ways: First, supermarkets were able to offer lower prices and appeal to consumers' economic interests; And second, socially, supermarkets remade retailing to appeal to the freedom and autonomy of consumerism. Concurrently, one historian explained this progression in Butte:

Supermarkets were starting to become a big thing through the late 60s and early 70s, and it really put the pressure on the small neighborhood markets. And I think by the early 80s all the neighborhood markets were gone. You know, most people drove [cars] and they could get to a Supermarket, and neighborhood markets just didn't exist anymore. (OH 3)

She explains that as automobiles and supermarkets began inundating American communities and society entered the age of consumerism, the vogue and necessity of neighborhood markets diminished. With shifts in mentality and lifestyles, the way people thought about food changed. Food became something to only consume and purchase, not for the average citizen to produce for themselves or their families. Additionally, relationships between producers, distributors, and consumers became distant and eventually extinct in many cases. To this point, one historian joked, "You would never think of going to Safeways and saying 'Hey, you know, we're having a difficult time, why don't you, you know, front me a couple hundred dollars' worth of groceries' [laughing]. Yeah no, that's not happening" (OH 3). She reckons that people did better with neighborhood market structures, where there were meaningful relationships and sympathy between producers, distributors, and consumers. The loss of these connections represents a diminishment of social capital, a primary food insecurity coping mechanism.

The Safeway Warehouse: An Anecdote

A major employer in Butte in the 1960s through 1983 was the Safeway Warehouse. This operation is illustrative of the large-scale grocery operations burgeoning in the United States during the time as all fresh, frozen, and staple foods were shipped to Butte on rail, then distributed out of Butte by truck (OH 3). This particular warehouse served Montana, Wyoming, Idaho, and likely the Dakotas. Butte was an ideal location for this apex of the increasingly linked and expanding national food system, for its position at the crossroads of Interstate 90 and Interstate 15. The warehouse shut down in 1983, largely due to the collapse of the mining sector and ultimately loss of population including the customer and employee base (OH 3).

Butte acted as a regional agricultural and food system hub for over a century; the case of the Safeway Warehouse illuminates the importance of mining to the function and stability of a robust, adequate food system. Without a strong economy supporting a population of workers and customers, food stores and systems of any scale cannot succeed. While the availability and scale of food distribution was much greater at this time compared to the early 1900s in Butte, the loss of mining was an ultimate decider of fate for both periods.

Despite the suburbanization of Butte and the significant local population exodus from Uptown to the Flats, some large-scale grocery retailers did exist in Uptown, but they did not last long. One historian presumed, "I think they were built in the late 60s early 70s and then they were gone in 1983 when the mines closed" (OH 3). Concurrently, another subject recalled, "[When the mines closed] the grocery stores went out, a lot of the food service industry went out, because at that time there was no secondary industry, that mine was it" (OH 1). These closures reflect the same reasons for the loss of other businesses in Butte, primarily poor investment, low profits, and a declining customer base.

Eventually, all major grocery retailers left Uptown Butte and the only remaining locations to procure a full array of groceries (i.e. full-line grocers) were on the Flats. Replaced with gas stations and corner stores, which carry primarily processed and high shelf-life foods, it became the case that "there are limited food options in Uptown" (KI 5). This pattern has left a major gap in the food environment Uptown, which was once a mosaic landscape of neighborhood markets. This stark difference in food environments between industrial Butte and post-industrial Butte emblematically reflects the changes to and voids left in the social, economic, and physical fabric of the city.

Conclusion: The Emergence of Post-Industrial Butte

This chapter presents the historical circumstances and causes of food insecurity through three primary time periods. It also describes the industrial processes which have shaped the outcomes of Butte, food related and in general. These processes are what shape Butte as a post-industrial city. The findings of this research are indicative of a relationship between industrial processes and food security. They have revealed an evolving role of food access, food availability, financial resources, and social capital within an industrial to post-industrial trajectory. It is important to consider what these findings mean for this case study of Butte, and where they fit into the broader contexts of scholarship and other similar case studies of post-industrial cities.

Before Butte was an established city, the area was an important site of abundant hunting, fishing and food provisioning for the local Indigenous peoples. As mining became a lucrative Anglo enterprise and Butte became an established mining camp in 1864, the 'city' of Butte developed around the profitable metals and minerals beneath it. Early settlement times were

taught with struggles of food availability and access largely determined by environmental and geographic factors including weather and proximity; at this time, sharing provisions and social capital were fruitful. As the mining industry grew and Copper Kings gripped society and autonomy throughout Butte, poverty and financial barriers prevailed as the major confounding factor of food insecurity. The Company had significant control over the means of Butte residents and the functionality of the town. Despite difficult times, social capital was high during the city's heydays. As the Company and industry weakened and disappeared, so too did the spine of the Butte economy and community.

With the loss of its primary industry, poverty and unemployment levels rose, low wage jobs spawned throughout Butte, stores closed and/or relocated, and social capital declined. These processes reflect commonalities among post-industrial cities. These issues also constitute significant and commonly-cited barriers to food security in post-industrial cities and in general (Carter et al. 2013, 95; Gunderson & Ziliak 2018; Lachaud et al. 2020; Freedman & Bell 2009; Young et al. 2011; Horst et al. 2017).

Food availability may have increased with the increased global food production of the 1950s and 60s (Pielke & Linner 2019, Kerr 2012), but local food production declined. Sheridan (2013) points out that the presence of micro-livestock raising in American cities largely disappeared in the twentieth century. Further, livestock grazing areas and farmland and was eliminated when the Flats were suburbanized and supermarkets became the primary site of food procurement (Deutsch 2010). In Butte, this area was once home to the Chinese gardens, several meat processing plants, and a focal point for nearby towns to bring their goods.

The food landscape also changed from relatively numerous localized neighborhood markets to three primary chain grocery stores- two Safeways and Walmart. This shift is

consistent with the literature on the evolution of urban food environments (Lu & Reardon 2018, 1321; Deutsch 2010, 43), and entailed a significant decline in physical access. Where Uptown residents may have once had ease of access to their local market or even Uptown supermarkets, the loss of the neighborhood market structure and subsequent supermarket failures rendered Uptown as a food sparce landscape. Many residents who remained in Uptown, rather by choice or inability to relocate, now lack an affordable and comprehensive food procurement or provisioner. Those who are "familiar and able to take public transportation, or are able bodied, or lucky enough to have [their] own transportation" (KI 5) are often forced to travel to the Flats to buy groceries by sheer lack of another option.

The issues of access faced primarily in Uptown are further confounded by post-industrial declining financial resources and rising poverty rates. As on historian mentioned, there were noticeably high rates of poverty in Butte in and around the 1970s (OH 3). Food insecurity research often cites poverty and insufficient financial resources as one of the primary factors of food insecurity (Carter et al. 2013, 95; Gunderson & Ziliak 2018; Lachaud et al. 2020; Freedman & Bell 2009; Horst et al. 2017). As so, even those who could access stores may not have been able to afford a whole diet or appropriate foods. As one key subject stated, "in Butte we have those larger grocery stores, but the location in which they are (down on the Flats) is away from the population that needs it most, I feel" (KI 7). This highlights the co-productive factors of poverty and access as barriers to food security.

Finally, through the combination of interviews, archival research and field work observations, it seems that social capital has decreased and changed significantly over time in Butte. Literature suggests that social capital and meaningful relationships with others may have a protective effect against food insecurity (Leddy et al. 2020, Martin et al. 2004). The relationships

between producers, distributors and consumers of food have become distant, impersonal, and nearly nonexistent in Butte and nationally. Despite these general trends in the food system, relationships and mutual support between Butte neighbors and residents seem to have transformed, not disappeared entirely. There are still many formal and informal support systems in Butte in terms of food insecurity and other struggles. Chapter 5 addresses the contexts and causes of contemporary food insecurity, and provides an overview of these community efforts in play today.

CHAPTER 5:

CONTEMPORARY FOOD INSECURITY IN BUTTE

Introduction

In 2020, a Community Health Needs Assessment reported nearly one of every five residents were food insecure (PRC 2020). Based on statistics from this assessment, 19.1% of the total population lived in poverty and 22.8% of children lived in poverty. Further, 19.5% of residents are determined to be "food insecure," defined by the report as "having run out of food in the past year and/or worried about running out of food" (PRC 2020, 47). Interview findings from this study indicate that this may be a misrepresentative, understated statistic. These conditions warrant alarm and address.

Given Butte's evolution into a post-industrial city as described in Chapter 4, this chapter attempts to assess the conditions and causes of *contemporary* food insecurity in post-industrial Butte. To fully understand food insecurity in Butte today, it is critical to consider the historical chains of explanation that decode current community issues (addressed in Chapter 4). Further, it is important to identify and understand the efforts and actors in Butte working toward a more food-secure future. This chapter addresses the research questions: What are the contemporary circumstances and causes of food insecurity in Butte? How does Butte's characterization as a post-industrial city explain and/or incite modern issues of food insecurity? Finally, how are various actors in Butte addressing issues of food insecurity today?

This chapter builds upon the conceptual background on food insecurity and food insecurity in the post-industrial landscape described in Chapter 3. The following paragraphs present the findings of circumstances and causes of food insecurity in present-day Butte, and conclude with a discussion of current efforts taking place in Butte to address food insecurity.

The findings of this chapter include two main topics: contexts and factors of food insecurity today. Contexts refer to the patterns and exhibition of food insecurity in Butte today, including this issue being high priority, under-reported, and the distribution of the problem across geographic space and demographic groups. Essentially, contexts attempt to answer the question what does food insecurity look like in Butte today? The causes, or factors, of food insecurity explained in this chapter attempt to understand *why* food insecurity looks the way it does in present-day Butte. The emergent factors include economic, social, historical, environmental, and geography and access, and source and quality. These six groups of factors emerged as meaningful themes in the data and relate to both common and Butte-specific components of food insecurity.

Contexts of Contemporary Food Insecurity in Butte

A "High Priority"

Key informant interview subjects unanimously considered food insecurity a pressing issue in Butte, Montana. Some referred to it as "high priority" (KI 4, 7) and "exacerbated by the pandemic" (KI 3, 8). To illustrate the severity of the issue, one subject sorrowfully told the story of the moment that he understood the reality of food insecurity in his neighborhood. When the local Small-scale Intensive Farm Training Program (SIFT) Farm Manager had brought several large bags of leftover lettuce home from work with him one day and offered it to the children in his neighborhood,

They came running to me, and they [said] 'Please, can I have some?' They took their hands and started eating it. And I'm sitting there like, 'what kid likes lettuce that much?' [...] and they [said] 'we don't get fresh vegetables. You don't understand, this is like a delicacy for us.' [...] That's where is hit hard... I've never seen kids react that way over lettuce. (KI 4)

The consolidated City-County Butte-Silver Bow Health Department reported a 19.5% food insecurity rate for all residents in 2020. When asked to reflect on the accuracy of this statistic, there were two groups of responses. Two subjects responded that this statistic was mostly unsurprising and logical, given the poverty rate and the number of people eligible for food assistance programs in Butte. Others, however, condemned it as unrealistically low. The majority of subjects agreed that the conditions of food insecurity may be worse than that 19.5%. Those most skeptical of its accuracy referred to the tendency of surveyed numbers and geographic determinations to hide the on-the-ground truth. One subject said, "when I say that I think that nineteen-percent number is low, I'm not sure that they know everybody who lives here" (KI 4). He proceeded to add that the severity of issues such as homelessness, transience, and food insecurity are harsh "realities that we understand, but I'm not sure [...] ever hits a number on the books."

Similar sentiments about the hidden truths of food insecurity in Butte were echoed by several other subjects for reasons such as the inability of survey methods to adequately reach all members of the community, limited response rates from the community, pride of community members which bar honest reporting, and an increase in state-wide food insecurity levels due to the COVID-19 pandemic. Action Inc. Chief of Operations provided an anecdote illustrating the misrepresented geographies of food insecurity in Butte:

One of our sites [in 2020] actually is a site that would not typically qualify for a meal site because the census tract is within the country club area. And it was our third highest area of serving meals. So when you start looking at geographic areas within the community [...] sometimes it's a little bit misleading... If this was a normal year and we didn't have COVID, [...] we wouldn't have even been able to have a site there. (KI 3)

Action Inc. served 68,624 meals in 2020, a 320% increase from the previous summer. In 2021, Action Inc. served 57,111 meals. One oral history subject, when describing how the

Summer Meals program does not serve all the lunches that it realistically could, stated that "we should be doing three times [the amount we do]" (OH 2). These staggering statistics and the possibility that they likely are not be reaching all who are food insecure make it clear that there is a significant food insecurity problem within the city that may be worse than what is indicated by local reports and statistics.

The Local Distribution of Food Insecurity

The City of Butte is geographically split between "Uptown," which is on the hill, and "the Flats," which are lower in the valley. When asked about the geographic distribution of food insecurity throughout the city, there was general consensus among key informant interviews that the issue is most prevalent in Uptown Butte. Three subjects likened Uptown Butte to a "food desert," but all insisted that they were unsure if there was a formal "food desert" designation or if that was a general descriptor. While Uptown was generally referred to as the more food insecure area of the city, the Uptown region itself is a mix of high- and low-income populations (KI 5, 6). Uptown contains the Montana Technological University, both high schools in Butte, has some very upscale homes, and overall "there is wealth in Uptown Butte, absolutely" (KI 5, 6).

Montana FoodCorps Program Associate Director summarized the more prevalent issue of food insecurity Uptown as not purely a function of socio-economic status, but one of access and "limited food options in Uptown Butte" (KI 5).

The notions of the Social Determinants of Health imply that the environments in which we live profoundly influence out health and wellbeing (Ompad et al. 2007). As highlighted by MSU Extension SNAP Education Leader, "Food insecurity [...] could be considered a social determinant of health." When considering the ways in which the environments in which we live

affect our health and wellbeing, access to quality and affordable food is paramount. Thus, food insecurity has "become a health issue" (KI 4) in Butte. Health is a key concern in Butte for two reasons particularly relevant to this study. First, the "selection [of food in Butte] is predominantly fast, processed food" (KI 7) and there's "[not] a lot of healthy lifestyles" (KI 6). On the other end of the food system, Butte is the epicenter of the country's largest Superfund site (KI 4, 6, 7), plagued with toxic water and soils resulting from its mining days. While this does not make it impossible to grow food in Butte according to some subjects, it breeds misunderstanding, fear, and hesitation to do so (KI 4, 7).

One of Butte's many defining characteristics is a strong and resilient community. Nearly all subjects praised the community for its hardiness, supportiveness, and historic ability to persevere through difficult times. Unprompted on the topic of community, several interview subjects said things such as: "one of the Butte community's real strengths [is] coming together and really helping out, and donating a lot of time for something that they really care about" (KI 2); "we've been through way worse in this town. We stick up for each other" (KI 4); and "we've [...] just really tried to pull together as a community to make sure that no one does go hungry... Butte's a great town" (KI 3). Indeed, Butte has endured difficult times, and the community takes great pride in that resilience. While the city struggles today in many ways beyond food insecurity, there are strong efforts taking place within the city to come together and address the problem, distinctive of the character of this small but mighty city.

Factors Influencing Contemporary Food Insecurity in Butte

Economic Factors

When discussing causes of food insecurity, all key informant interview subjects pointed in some way to poverty and/or economic hardship facing the city and residents. Montana Program Associate Director at FoodCorps summarized that issues of food insecurity in Butte as "perpetuated by the economy and opportunity for jobs" (KI 5). Five out of eight key informant subjects specifically referred to poverty and income disparity in Butte as primary drivers of food insecurity in Butte. Two of three oral history subjects also referred to poverty as a major issue and contributor to food insecurity. More specifically, four key informant subjects identified low wage jobs and scarce opportunity to make livable wages as underlying factors. Discussing the role of Butte's insufficient job market in producing food insecurity, local FoodCorps Team Leader elucidated: "thinking of the bigger picture, I would say [the] big thing is just pay" (KI 7). These trends in Butte are consistent with the literature on economic causes of food insecurity (Carter et al. 2013, Gunderson & Ziliak 2018, Horst et al. 2017).

Social Factors

Causes of food insecurity "go much further than just lack of money," (KI 4) according to one subject who also brought up social issues in Butte related to food insecurity. These issues, frequently echoed and expanded upon by several key informant and oral history subjects, include homelessness, incarceration and post-release, substance abuse, mental health, disabilities, education, and inadequate resources to address these problems.

One coworker working on the Summer Meals Program verbally affirmed that we have permission to quote him saying, "Everyone and their dog drank [in Butte]." He said this when

highlighting the historic and historically-rooted tradition of heavy drinking in Butte.

Additionally, one historian explained the pre-release program and other programs focused on necessary treatment in Butte which are largely concentrated in Uptown:

Almost all of Broadway Street is [...] pre-release, and the empty garage, that's pre-release parking, and then their food and social welfare services are next to it... And down by this brewery on Galena Street are two big alcohol and drug treatment facilities. And pre-release offices. And all of this needs to get more dispersed in our community because everything, all the problems are here. (OH 3).

When considering social issues like the ones described above, it is important to remember that "it's an overlap between those things that determine health [that] can impact somebody's ability to find appropriate and consistent food for them and their household" (KI 8). According to the U.S. Census Bureau 2021 population estimates, 16% of Butte-Silver Bow residents have at least one disability. One subject referred to the ongoing relationship between the multiple possible social factors and food insecurity as a "cyclical pattern" (KI 5) that perpetuates poverty and food insecurity.

The economic and social factors of food insecurity in Butte align with the major determinants discussed throughout the literature. Causes that make the case of Butte remarkably unique, however, are its post-industrial history, environmental constraints, and urban geography. Attention to these place-specific contexts and circumstances addresses two gaps identified in the literature: First, it observes the role of specific attributes of a place in implicating food insecurity; Second, it examines food insecurity in a western mountain city.

Historical Factors

Although not an inspiring hallmark, Butte is often "branded [...] as an ex-mining town, like a boom-and-bust community that's in the bust phase" (KI 5). Typical to post-industrial cities

and boom to bust regression trajectories, there was a serious "economic impact [and] demographic shift in the community" following the decline of the local mining industry (KI 8). One subject noted that "at one point [Butte] was at 100,000 people in the 1920s, and now we're seeing about 31-32,000 people. So, we've reduced that much population, yet the infrastructure is still sitting here" (KI 4). The majority of participants agreed that the legacy of Butte's mining history contributes to contemporary issues of food insecurity.

At one time in Butte, "there were grocery stores in every neighborhood" (KI 6) and "there was this idea of the commonwealth of food" (KI 4). One subject explained that "folks who have been in Butte for their whole lives and now are in their 70s and 60s [...] can remember a time where people weren't eating out for everything, and people were growing their own food, and [they had] family farms in the surrounding area that they all worked with and used." She went on to conclude, however, "that's definitely not what Butte is today for sure" (KI 7). Indeed, Butte once supported a vibrant neighborhood market structure, where the headframe and local market were the nuclei of each neighborhood.

Where Butte was once a thriving, self-sustaining community, the city today "has lost a lot of its self-sufficiency" (KI 7). There seems to be "less knowledge within households, within neighborhoods about food resilience or self-sufficiency" today (KI 8). This shift in self-sufficiency- likely also related to environmental contamination- is accompanied by a shift in attitude. One subject explained that from his understanding, "most people left, and the people who stayed […] have this idea that you're left here with this, you know, wasteland…" (KI 4).

Two subjects even referred to Butte as having an "underdog" mentality, stemming from its legacy of unionization and hardship as a labor-driven mining city (KI 5, 7), but which undermines a comeback. It seems that this shift in knowledge and attitudes between generations

in Butte was a relevant factor contributing to the problem of food insecurity today. It is also important to highlight that while Butte's mining history leaves the city to face issues of environmental contamination and economic stagnation today, it is also a major source of community pride and identity.

Environmental Factors

Butte's circumstances of food insecurity are also bounded by environmental factors. Given its position within one of the country's largest Superfund sites, at the foot of the Continental Divide, and in an arid southwestern Montana climate, one subject joked that Butte is "not necessarily a thriving agricultural community" (KI 5). She went on to explain that "the soil health itself, combined with high desert elevation [and] very short growing season" does not make it a prime location to produce its own food. Half of all key informant subjects highlighted soil health and environmental toxicity as a contributor to local food insecurity and a barrier to addressing it. One even referred to the local soil as "gravel," as it has been "mined and everything has been washed down" (KI 4).

While "it is not easy to grow food [in Butte]" given its "inhospitable climate" (KI 6), local food production is possible with advanced season extension tools. Local farmer and sustainable agricultural specialist made it clear that Butte "[does not] have good soil, we have really good season extension tools and that allows us to grow in Butte, period. Because we've had snow in July, we've had frost every month of the year... you're really going to need those season extension tools" (KI 4). While poor seasonality and environmental toxicity make it difficult to grow foods locally for the community, several subjects indicated that an even greater

barrier is the local perception that growing in Butte is unsafe and/or impossible, reducing the willingness and likelihood of community members to grow their own food.

Geography and Access

On a local scale, Butte's geography and urban configuration may augment issues of food insecurity. In reference to the distinctly uneven food environments of Uptown Butte and the Flats, one subject expressed that "resources aren't equally distributed among that geographic spread" (KI 5). Five subjects referred to the disparity between food availability Uptown versus the Flats as an additive reason for food insecurity, with there being "limited food options in Uptown" (KI 5). When asked about the causes of food insecurity, the county SNAP Educator explained that "having fewer points to access food resources in the community is [...] probably a very big part of it" (KI 8). Another subject stated that "in Butte we have those larger grocery stores, but the location in which they are (down on the Flats) is away from the population that needs it most, I feel" (KI 7). Uptown was commonly pointed out to be "where the majority of folks who are low income or using SNAP usually reside" (KI 7).

Map 1 represents the locations of food stores in Butte using two categories: full-line grocers and limited grocers. Map 2 displays poverty rates by census tract in Butte in 2019. Two of the three highest poverty rate tracts make up Uptown Butte, 40% and 23.5% respectively. The second highest poverty rate (26.4%) is located on the west side of the Flats. Map 3 shows the distribution of food stores *and* poverty across the city. This map illustrates the concentration of limited food options in areas with higher rates of poverty; full-line grocery options are located mostly in areas with the lowest poverty rates in Butte. Further, all full-line grocery stores are located on the Flats, and none are located Uptown. The northernmost full-line grocer is located

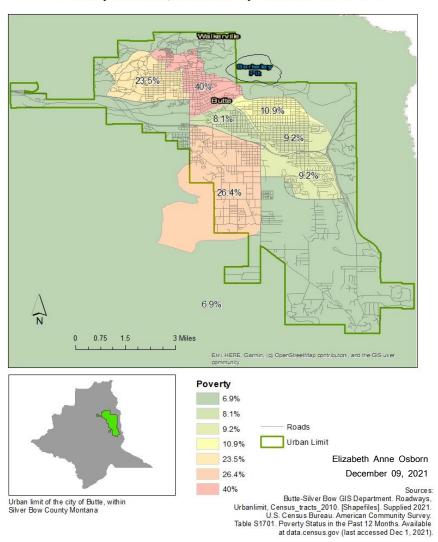
on Front Street, which is often referred to as the boundary between Uptown and the Flats.

Concurrently, three of five limited grocers are located Uptown. The presence of these limited grocers in Uptown and the lack of limited grocers on the Flats may indicate disproportionate food needs in Uptown which are hopefully being met by these establishments, though their prices are often not affordable for low-income shoppers and households.

Food Stores in Butte, Montana 0.75 1.5 3 Miles Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS use **Food Stores** Туре Full-line Limited grocer Roads Elizabeth Anne Osborn Urban Limit December 09, 2021 Urban limit of the city of Butte, within Silver Bow County Montana Butte-Silver Bow GIS Department. Roadways, Urbanlimit, Census_tracts_2010. [Shapefiles]. Supplied 2021. U.S. Census Bureau. American Community Survey. Table S1701. Poverty Status in the Past 12 Months. Available at data.census.gov (last accessed Dec 1, 2021)

Map: 1 Location of food stores in Butte, Montana. Green markers indicate full-line grocery stores. Orange markers represent limited grocers, where food sale is the primary business operation but supplies and variety are limited.

Poverty in Butte, Montana by Census Tract 2019



Map: 2 Poverty by census tract in Butte, Montana.

0.75 1.5 3 Miles Poverty Food Stores 6.9% Type 8.1% Full-line 9 2% Limited grocer 10.9% Roads Elizabeth Anne 23.5% Urban Limit Osborn 26.4% 40% Butte-Silver Bow GIS Department. Roadways, Urban limit of the city of Butte, within Silver Bow County Montana Urbanlimit, Census_tracts_2010. [Shapefiles]. Supplied 2021. U.S. Census Bureau. American Community Survey. Table S1701. Poverty Status in the Past 12 Months. Available

Poverty and Location of Food Stores in Butte, Montana

Map: 3 Poverty by census tract and location of food stores in Butte, Montana. The delineation between "Uptown" and the "Flats" lies approximately where the "Butte" label is located on the map.

at data.census.gov (last accessed Dec 1, 2021).

These maps help to illustrate a recognized trend in Butte of poor food access and significant distance to grocery stores for certain populations. Limited geographic access poses an even greater obstacle for low-income households and those with limited transportation options to obtain adequate and affordable food. According to the 2020 Community Health Needs

Assessment conducted for Butte and Silver Bow County, 13.0% of the population has low food

access, meaning they are "far" from a supermarket or large grocery store. This statistic, however, is based on county-level survey data which subjects have indicated may not be wholly representative of the area's food issues.

For the last several decades, Hennessy Market was the only grocery store in Uptown Butte. The closure of the Hennessy Market in 2019 has left a major gap in the Uptown food environment, where besides two butcher shops and a "little natural food store" (KI 6), there are very few places to easily access food (KI 5, 6, 8). According to one subject, "it's not easy to get from Uptown to down on the Flats." Nearly all subjects mentioned the loss of Hennessy Market, which demonstrates an inadequacy of the food environment Uptown and "creates a hardship for people that live up here" (KI 6). Based on interview responses, there is a clear geographic disparity in the location of food options in Butte. This highlights the fundamental obscuring role of access in the city's food security problems, further exacerbated by the difficulty of travel for many between Uptown and the Flats (KI 3, 6, 7).

Compounding the effects of disparate economic conditions and food availability between Uptown and the Flats, half of all subjects pointed to transportation as a major inhibitor to food access. All major grocery stores and the local food bank are located in the valley, which "isn't easily accessible unless you're familiar and able to take public transportation, or are able bodied, or lucky enough to have your own transportation" (5). Recognizing access as a key piece to food security, as the literature does, transportation is "definitely a barrier to navigating food insecurity in Butte" (5).

Source and Quality

Several interview subjects highlighted that locally-sourced and quality foods are scarce in Butte, and an important consideration within access barriers. "When we're talking about food insecurity, we're talking about access to local fresh foods that can be grown around us," said one subject. As a health issue, food insecurity is also a function of the *quality* of food one can procure. As most affordable food options in Butte are fast and processed foods (KI 7), a common theme that emerged throughout the study was that very little food in Butte is sourced locally. Half of all subjects expressed that they would like to see more locally-grown or Montana-grown food in Butte to combat food insecurity. Some reasons for this were to "diversify what's available here" (KI 8), and that in order to "build a stronger community, we have to really feed them fresh food" (KI 4). A Butte Food Co-Op Steering Committee member articulated that, "We want food that's produced by our neighbors and our region and our state" (KI 2).

While participants hope that increasing the availability of quality affordable, fresh, local foods would directly benefit food insecure populations in Butte, it would also benefit local producers and economy. One subject illustrated this point by saying "if it's grown close nearby, it would lift everybody... Even if the farmer is, you know, a couple valleys over, at least that money is staying within our region" (KI 4). This plea for local food production aligns with the argument by Maneer et al. (2012) that leveraging local agricultural operations in post-industrial cities can be an effective tool for alleviating food insecurity and stimulating the local economy. When faced with the structural social and economic decay that plagues many post-industrial cities today, local food production may be one way for Butte to connect with tradition, regenerate autonomy, and alleviate food insecurity.

Positive Efforts

In addition to outlining the conditions and causes of food insecurity in Butte, this study has highlighted the remarkable character, strength, and resilience of the community. Nearly all subjects praised the community for its hardiness, supportiveness, and historic ability to persevere through difficult times. There are several strong efforts taking place in the community to address food security issues. The following collection of efforts may not be exhaustive, and is compiled through word of mouth, interviews, and participant observation. This section begins to address the research question: How are various actors in Butte addressing issues of food insecurity today and what more can be done?

Butte has a local community farm operating primarily for donation and research purposes (NCAT's SIFT Farm). This farm holds educational workshops and produces crops to show locals what and how they can grow at a high altitude, and at an affordable price (KI 2), as well as donates 99% of its products to local organizations (KI 4). There are also two recognized community gardens with plots available to residents and community members for personal horticulture and donation to the food bank. The Butte Farmers Market has implemented a double-SNAP Dollars program which incentivizes using SNAP dollars on locally produced, fresh foods at the farmers market by doubling the available spending amount when used there. In 2020, the Butte Farmers Market was reimbursed \$10,000 for SNAP use (KI 7), indicating a promising amount of use. While options at the farmers market can be limited at times and it does not run consistently year-round, it is an important resource which supports both local shoppers and local farmers.

Nutrition education classes are promoted at various sites throughout the city, including schools and places of work. Work is underway to establish a Butte Food Co-Op located in

Uptown, and is undergoing a market study to locate a prime site in terms of customer base, access, and profitability. Action Inc. has an emergency meal delivery program which serves lunches to homeless and other vulnerable populations via truck, which enables food to find people rather than placing responsibility on people to find food, thus shrinking the access barrier. The Butte Emergency Food Bank, which I was unable to interview for this study, is also a key player in the emergency food realm in Butte and was praised by several subjects for its hard work and invaluable role in the community.

According to some subjects there is also a great deal of collaboration between agencies, groups, and individuals when working on these issues in Butte. Several subjects are part of the infant stages of a Montana Food Economy Initiative (MFEI) project to develop a community snapshot of Butte's food system and identify possibilities for the future, for which subjects seem hopeful (KI 7, 8). The Summer Meals program is made up of 86 volunteers, which represents just a small but significant portion of the individual efforts that citizens take to help their neighbors in Butte. There are also a number of faith-based groups that perform volunteer work and support hunger-relief efforts throughout the community.

One of the most important, compelling themes to emerge as a result of this research is compassion. Field notes analyzed from participant observation cited the theme for "good people" and/or "compassionate community" twenty times, and it was certainly a memorable impression from the field work aspect of this research. Whether is it informal neighborly actions that I have witnessed and been told about (i.e. citizen-stocked food cupboards located around town), or more informal volunteer and/or staff-based food insecurity relief efforts (i.e. the Summer Meals Program, the Butte Farmers Market, the Butte Food Co-Op, etc.), it is evident that the Butte community is rich with compassion. Perhaps it is a legacy of struggle and togetherness that has

transcended time; Butte's proven resilience, hard work, and humanity make a more food-secure future look promising.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

Recommendations for a More Food-Secure Future

Butte is in the "infancy of food systems work" (KI 7). Data and observations during this study demonstrate that there are not many people working on food issues and the city has relatively low capacity to address these issues at this time. Nevertheless, recent events and community engagement suggest that the trend seems to be changing. There is meaningful and hopeful movement throughout the community at various scales to address local issues of food insecurity, as noted by study participants. The factors that suggest incremental expansion of local capacity include food quality (KI 6, 5); food availability and source (KI 7, 5); supporting local producers and business-owners (KI 5, 2, 4); food access (KI 6, 5, 2); self-sufficiency in terms of food (KI 6, 7); greater nutrition and food security education (KI 8); and continued and expanded community collaboration (KI 3).

Based on the suggestions of participants and commonly cited food insecurity interventions, I highlight the following strategies for mending the food environment and improving food security for Butte residents. These aspects will be increasingly important as population, development, and the economy in Butte grow. Recent years have seen slow but steady population growth, an increase in development, and an increase in rent prices. Without careful attention and consideration, the changes could lead to further displacement and inequity for Butte's vulnerable populations, many of whom already struggle with food insecurity. The intent of these recommendations is to ensure that the place-specific contexts of Butte are accounted for and optimized when addressing issues like food insecurity:

1. Address geographic disparity in relation to community needs

Nearly all subjects discussed the inequitable spread of food options between Uptown and the Flats. The sparce food availability in Uptown is particularly problematic for Uptown residents, given the high poverty rates in much of that area of the city. Improving policy and plausibility of a comprehensive, affordable food retailer in Uptown Butte would be a meaningful step toward decreasing the barrier of access to food for residents who may face additional compounding factors of food insecurity.

- 2. Increase local awareness for food production and acquisition options
- It is important that Butte residents are aware of the options they have for procuring food, both formally and informally. There are several options for local food production and acquisition such as community gardens, at-home horticulture, and food pantries which may be underutilized or not widely known about. Butte also offers a free public bus system. Enhancing ridership of free public transportation in Butte could be a powerful tool within this recommendation, linking people who live in Uptown to more affordable and comprehensive food shopping on the Flats. Additionally, the Butte Food Co-Op will be opening its doors in Uptown, with hopes of being a welcoming and useful place for low-income families and individuals to buy food and fill the gap in the food environment in Uptown. Enhancing the awareness of these resources as well as the sense of viability for certain groups to utilize them is paramount.
- 3. Break the barriers which prevent local food sale, production, and purchase

 According to one subject, "rules for local food policy can sometimes be way against you"

 (KI 4). By "rules" this individual is referring to local and state legislation, zoning, and other

policy-related protocol. Several others indicated a need for a stronger, more effective local food network and markets, where local and regional producers could viably profit from bringing their products to Butte. Many have indicated that this opportunity has considerable untapped potential, as Butte sits at the junction of Interstate 90 and Interstate 15. Steps should be taken such that the local regulations and market potential support more local production and sale at a profitable, affordable, effective, and sustainable level.

4. Continued and expanded community collaboration

One key informant interview subject resolutely highlighted the importance of continued and expanded community collaboration for addressing local food issues (KI 3). Should the interest in alleviating issues of food insecurity in progressive, sustainable, and Butte-specific ways take hold in the community, there is great potential for significant improvements and reform. Raising awareness and rewarding those who work hard throughout the community should be continuous efforts to yield promising results. Increased collaboration could also be a mode of increasing social capital between local actors and individuals.

5. Get to the roots

The most meaningful way to combat food insecurity is to address its roots causes (Carter et al. 2013). In Butte this means the following: reducing poverty rates through avenues such as improving employment rates and the number of livable-wage jobs; providing greater resources and aid to social problems such as homelessness, substance abuse, and mental health struggles; improving access to food through promoting geographic equity of affordable, comprehensive food options; and leveraging the city's assets to raise the socio-

economic foundation of the community in a careful and inclusive way so that all of the community may rise together. Understanding and implicating the processes and structures which reinforce food insecurity in this post-industrial city will be the key to breaking the cycle.

6. Establish a local food policy advisory board

In 2020, Missoula, Montana established its first Food Policy Advisory Board (Kidston 2020). This board allows the local government to draw on the expertise of their local food and agriculture community and be advised by a body of local food actors to generate holistic approaches to supporting their food system. A similar advisory board in Butte would be a compelling step to addressing the food issues of this ex-mining city in the twenty-first century. A local government may not have the tools or expertise to address certain food issues; the installation of a food-focused advisory board may help to fill these gaps in policy-making and direction. Drawing on a local wealth of knowledge is a powerful and essential way to generate context- and place-informed pathways toward a more equitable, sustainable food system.

Concluding Remarks

This thesis has sought to enhance awareness and create an informed understanding of the circumstances and factors of food insecurity in Butte through time. The overarching research questions of this case study were guided by the notion that historical events, post-industrial decline, and place-specific contexts are critical components to understanding and addressing community food insecurity. These factors are often omitted from food insecurity scholarship.

They are recognized in the food insecurity literature that is specifically addressing post-industrial cities, but these case studies lack a western perspective. This thesis acts as an empirical contribution to these bodies of literature, providing a case study of context- and place- specific examination of food insecurity in the urban mountain west. As inner-cities and historical communities reinvent and reinvigorate in post-pandemic society- and at unprecedented rates in Montana, the need for these localized investigations into community vulnerabilities is merited.

Food insecurity is often deeply rooted in historically created and reinforced economic, social, and political systems. In Butte, these systems are tied to the city's once prosperous and all-encompassing mining industry. The form and function of industrial Butte directly contributed to the success of its food system during its industrial era: the built landscape of Butte directly modeled the centrality of industry to everyday life, with a headframe and local market in each neighborhood; abounding social capital helped families and individuals through difficult times; before the Flats were developed, local produce was grown and processed within the city to be sold Uptown; as a primary transportation hub for the region, local goods and provisions passed frequently through the city. It is critical to recognize the role of Butte's industrial to post-industrial progression when understanding the patterns and changes in its food system and varying factors of food insecurity. This thesis endeavors to be a theoretical contribution to the geographic and contextual framing of food insecurity research.

Chapter 4 offered a historical tracing of industry and food insecurity in Butte through three major time periods: pre-settlement and early years of settlement (1880s and earlier); boom years (1890s to 1960s); and the post-industrial era (1960s to the present). The five emergent elements of food insecurity that made up the chapter were financial resources and poverty; social capital; physical access; and food resource availability. These are commonly studied and cited

factors of food insecurity (Carter et al. 2013, 95; Gunderson & Ziliak 2018; Lachaud et al. 2020; Freedman & Bell 2009; Young et al. 2011; Horst et al. 2017) but have not often been studied for their historical and place-specific origins. This chapter served to provide a contextual and historical lens through which it is clear that historical events and processes generate and reinforce issues of food insecurity.

Food insecurity has been a persistent dilemma in Butte even during its most prosperous times. A major takeaway of Chapter 4 is that the conditions and elements of food insecurity evolved often concurrently with the shifts in industry, economy, and society in Butte from presettlement to the present. The case study of Butte as a post-industrial city illustrates the relationship between various industrial stages and food insecurity. This reinforces the notions of existing scholarship on food insecurity in post-industrial settings, as these processes characteristic of post-industrial decline reinforce the root causes of food insecurity (Bluestone 1988; Bubinas 2011; Maneer et al. 2012; Meyer 2000; Fernandez Agueda 2009). To this body of research, this thesis adds a western mountain city perspective.

In Chapter 5, the contemporary issue of food insecurity is investigated to understand its dimensions and causes. Interview responses indicated that food insecurity is likely a more serious, complex, and hidden issue than is reported by surveys and data for the area. A host of economic, social, historical, environmental, geographic, and accessibility issues compound the problem for vulnerable populations, particularly those located Uptown and away from a full-line grocery store. As investment, population growth, and attention to food issues change in Butte in recent and coming years, it will be important to keep sight of the vulnerable populations who live here.

Methodologically, this case study has several implications. Few studies in food insecurity and/or post-industrial city domains present two distinct temporal lines of inquiry. The value of these parallel lines of inquiry of the same geographic location but two different temporal scales is the ability to generate an overall informed understanding of the historical and contextual implications of modern food security issues. This is especially relevant to post-industrial cities, where food insecurity may be disclosed as a persistent, ever-present phenomenon of resource-dependent or one-industry locales. Additionally, the combination of qualitative and quantitative methods allows for both visual and narrative representation of food insecurity in Butte, relating the meanings of lived experiences and social processes that play into food insecurity with observable geographic patterns.

Limitations

Like all research, this thesis is not without its limitations. Interview sample sizes and participants are dependent on who is available and willing to interview, as well as time available for me to conduct and transcribe interviews. During interviews, oral history interviews specifically, it is important to remain an active and reflective listener and stay cognizant of the effects of nostalgia and "social memory" in shaping individuals' recollections of events and issues.

In Chapter 4 specifically, several limitations exist. Historical and archival research can be time consuming, inexhaustive, and obscure at times. Historical data comes in the form of written records, stories and lore, and word of mouth which amount to an indefinable amount of information. The historical research component of this thesis was limited in time and scope to what was available and plausible for collection and analysis. Additionally, it is impossible to

precisely grasp and portray experiences of those from the past, but this research attempts to create the most accurate portrayal of the data as gathered and analyzed. The Butte-Silver Bow Public Archives is a treasure trove of records and stories as well as passionate historians who were invaluable to the data collection process for deciphering accurate meanings and background information to piece together an authentic history of Butte.

In Chapter 5, GIS data used for mapping poverty rates is based on county-level 5-year estimates from the American Community Survey. While over 88% of Silver Bow County's population resides within the urban boundary of the city of Butte, this scale and distribution is important to keep in mind. Due to the large number and difficulty of comparison, corner stores, gas stations, dollar stores and other places that sell food but have a different primary sales objective have been omitted from this study; however, these are valuable and viable resources which should not be ignored as important pieces of every modern food environment.

Future Research Directions

The outcomes of this study suggest that the experiences and causes of, and capacity to cope with, food insecurity will vary from context to context. As such, it is valuable to look at locations with similar historical events and processes, similar geographic assets and/or barriers, and similar economic and social structures. More studies conducted at diverse and various locations, scales and scopes will help provide a broader set of examples for local actors to compare their own circumstances to and develop place-based solutions. Additionally, scholars should continue bolstering theoretical, empirical, and methodological approaches to identifying food insecurity solutions.

Other areas in need of research which have spurred from this study include the role of volunteerism and compassion in alleviating food insecurity; understanding and mediating the perceived risks and real risks of food production in Superfund Sites; the role of local food production in increasing autonomy and self-sufficiency of residents in post-industrial cities; and understanding the role of corner stores, gas stations, dollar stores, etc. in food systems. These topics would be relevant and worth-while in Butte, along with assessing the role of local actors and the outcomes of "food systems work," as many subjects called their efforts, in Butte.

In summary, this thesis provides insight into the complexity of food insecurity in Butte, Montana. Implicating historical events and contexts is important in understanding the intertwined relationship between the places we live and our health and wellbeing. The city has faced several unique vulnerabilities, including but not limited to capricious copper markets, environmental degradation, and post-industrial decline. Butte may be entering a renaissance and rediscovery, with slow but steady population and investment growth over the last decade and growing attention to food issues. Vulnerable populations, however, remain a large part of the city's constituency and could potentially face further displacement and struggle with upcoming community changes. Despite the focus of this research on food insecurity- a discouraging and widespread affliction- this research also uncovered several positive and inspiring efforts, organizations and individuals working hard to solve these problems. Between the compassion coursing the veins of the Butte community and burgeoning room for growth and renaissance, there is a strong future for reconciling food security in Butte, Montana.

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APPENDICES

Appendix A: Key Informant Interview Consent Form

A Case Study of Food Insecurity in Butte, Montana

Subject Information and Consent Form

Key Informant Interview

Introduction:

You are invited to participate in research examining food insecurity in Butte, Montana. This interview seeks to gain an deeper understanding of the problem of food insecurity in the city, as well as what efforts and organizations are working to address it. This study is being conducted by Elizabeth Anne (Lila) Osborn, a graduate student at the University of Montana within the Department of Geography. Please read this entire form and ask any questions that may arise before making a decision to participate.

Purpose:

The purpose of this research is to understand and convey the current conditions of food insecurity in Butte, Montana. This entails understanding its spatial dimensions, its causes, how it affects locals, how it is being addressed, and what more can be done. You are invited to participate in this study because your knowledge, experiences, and/or perspectives are valuable to building this understanding.

Procedure:

If you agree to participate in this study, you will be participating in a conversational interview. You will be asked a series of questions regarding your work, the work of your organization, and your perceptions related to food security in Butte, Montana. This open-ended interview should last approximately one hour. Our discussion will be recorded to be transcribed at a later date. Zoom recordings record both video and audio. Once transcribed, the recording will be erased.

Your initials	indicate your	permission to	o Zoom	record	(video	and	audio)	the
interview.								

*Once transcribed, the video and audio recording will be erased.

Risks and Benefits:

There is no anticipated discomfort for those contributing to this study, so risk to participants is minimal. However, some questions may ask you to think about things that may make you sad or upset. In order to minimize stress in this process, you are not required to answer any questions which make you feel uncomfortable.

There is no promise that you will receive any direct personal benefit from this study. Although you may not directly benefit from taking part in this study, your help may yield valuable insight into food insecurity in Butte. This information could be useful for future planning and policy, and has the potential to benefit others in your community.

Confidentiality:

Your records will be kept confidential and will not be released without your consent as required by law. Only researcher and her UM faculty advisory committee will have access to your transcribed interview. I will never record of use your name without your express permission, but due to the unique nature of your position I cannot guarantee complete confidentiality of your identity.

If the results of this study are presented or published, your name will not be used and I will take all measures to mask your identity if discussing sensitive content.

Your initials	indicate your permission to be identified by name in any
presentations or publicat	ions.
If you do not war	nt to be acknowledged by name in any presentations or publications,
please initial here:	<u>.</u>

Voluntary Participation/Withdrawal:

Your decision to participate in this study is entirely voluntary. Your decision will not affect your position with the University of Montana in any way. You may choose not to answer individual questions, or stop the interview at any time.

Future Research:

Your information collected as part of this study, even if identifiers are removed, will <u>not</u> be used or distributed for future research studies.

Contact and Questions:

If you have any questions, please contact Lila Osborn via email at <u>elizabethanne.osborn@umconnect.umt.edu</u>. She will be happy to answer any questions you may have at any time. If you have any questions regarding your rights as a research subject, you may contact the UM Institutional Review Board (IRB) at (406) 243-6672.

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Your signature on this consent form indicates that you have read this form and that you understand the risks and benefits of your participation in this study. You are also indicating that all of your questions have been answered. Your signature indicates that you are voluntarily agreeing to participate in this study. You understand that Zoom recordings will be crossed after
agreeing to participate in this study. You understand that Zoom recordings will be erased after transcription, and that your name will not be recorded in the transcription. After signing this form you are free to ask any questions or to withdraw your consent for participation. You will receive a copy of this consent form.

Printed Name of Subject	
Subject's Signature	Date

Appendix B: Key Informant Interview Guide with Questions

BUTTE KEY INFORMANT INTERVIEW GUIDE

Ask Rap Hi, my name is Lila Osborn and I am a Master's student at the University of Montana in the Geography & Community Environmental Planning program. I will be studying Butte and community food security for my thesis research. I'm hoping to get a better understanding of the problem, as well as what organizations and players there are working on it. I am wondering if you would be willing to participate in an interview to help me find some answers for my study?

Instructions to Interviewer

- -Check internet connection & laptop/phone battery
- -Record the following:
 - Informant's name
 - Give a subject code (Butte1, Butte2, etc.)
 - Name of organization they represent
 - Date & time

Introduction Thank you for agreeing to meet with me and participate in this interview. I am trying to learn more about the conditions of food insecurity in Butte, particularly about what efforts and organizations are currently working on the ground in the city. I am interested in your perspectives, your work, your organization, how you perceive food issues in Butte, things like that.

Before we get started I'd like to say that since you are the only _____ [their position] and that is a unique position, I cannot guarantee complete confidentiality of your identity, but I will not use your name and will make all efforts that I can to mask your identity if discussing sensitive content. I will also leave some time at the end for you to ask or tell me anything important you think I may have missed. Does that sound OK?

Great, I would also like to record this Zoom session and interview, if that is OK with you. This ensures that your views are accurately recorded and I can focus on our conversation right now.

Is that OK? IF YES, TURN ON RECORDING.

IF NO, SAY: Okay, that is fine, I will just have to take notes.

History

Let's start with a little bit about you and your history with [organization name].

- 1. How long have you been working with ____[org. name]___? [Record # years/year started]
 - a. What exactly is your role?
 - b. What motivated you to get involved with this organization in particular?

Food Insecurity in Butte

Great, thanks for telling me about your history! I'd like to transition now to talking a little bit more generally about food insecurity in Butte and your perceptions of the issue.

- 2. How pressing is the problem of food insecurity in Butte?
 - a. Follow-up: What are your major concerns regarding food insecurity in Butte?
- 3. According to the 2020 Community Needs Assessment, 19.5% of residents are food insecure in the county/city. How do you think that specifically the city of Butte is related to this statistic?
 - a. Follow-up: How accurate do you think this statistic is?
 - b. Follow-up: Are there specific patterns of distribution throughout the city? (By geography? By certain groups?)
- 4. What do you think are main factors or causes of food insecurity in Butte?
 - a. Probe: Are there any other causes of food insecurity you can think of?
- 5. In what ways, if any, do you think Butte's industrial history relates to its current issues of food insecurity?

a. Probe: Are there any other ways?

Organizational Work/Effort

Great, thanks! I'd like to talk now a little bit more specifically about ___[organization name]___.

- 6. Please tell me about the efforts or programs your organization currently has working toward food security in Butte.
 - a. Probe: Great, are there any other programs or efforts?
- 7. When you think about the problem of food insecurity in Butte, in what ways has your organization been successful in addressing it?
 - a. Probe: Are there any other successes?
- 8. In what ways, if any, do you think your organization or the city could better address the problem of food insecurity?
- 9. I am curious, what are your suggestions for addressing the future of food security in Butte?
 - a. Probe: Do you have any other suggestions?
 - b. Follow-up: What does the city need in order to address the problem of food insecurity?
- 10. Are there any other organizations or people that I should talk to during my study?
 - a. Say thank you regardless!

Wrap-Up To wrap up, can you think of anything that I may have missed or that you think would be important to consider in my research?

Thank you so much for your time. I really value your participation and think that your input is very important to this project.

Do you have any questions for me?

Great, if I need any clarification or an extra question may I follow up with you?

Have a great rest of your day.

Appendix C: Key Informant Interview Coding Protocol

Butte Key Informant Interview Coding Protocol

Themes & Categories:

Participant Identification ("ID")

Statistic ("Stat.")

Conditions of Food Insecurity in Butte ("Cond.")

- Pressing issue "PrI"
- Geographic description "GD"
- The truth is hiding "Truth"
- Superfund site "SF"
- Health "Health"

Causes of Food Insecurity in Butte ("CS")

- Economic "Ec."
 - o Poverty "Pov."
 - o Low wages "LW"
 - o Little opportunity "Opp."
- Social "Soc."
 - o Education "Ed."
 - o Eligibility vs. actual use "EvA"
 - o Substance abuse "SA"
 - o Homelessness "HL"
 - Mental Health
- Geography and Access "G/A"
 - o Inadequate food options uptown "Upt."
 - o Difference between uptown and the flats "UvF"
 - o Transportation "Trans."
 - o Local foods "Loc."
 - o Options & Quality "QO"
- Environmental "Env."
 - o Toxicity "Tox"
 - o Seasonality "Szn"
- Historical ("H")
 - o Mining history "Min."
 - o Generational knowledge, attitudes, & traditions "Gen."

Barriers ("Bar.")

- Education KI4: 3, 5; KI7: 3, 6; KI5: 3, 4
- See Tox and Szn
- Not just a food issue KI4: 8
- Geog. & Access KI5: 1, 2, 5

Community Response ("Resp.")

- Organizations and programs "O/P"
- Collaboration "Collab."
- Looking ahead

The truth is hiding "Truth"

- o Plans "Plan"
- o Suggestions "Sug."
- o Hope "H"

Participant Identification ("ID") KI 7: 1 KI2: 1 KI3: 1 KI4: 1 KI5: 1 KI6: 1 KI8: 1 Statistic ("Stat.") KI3: 2 KI7: 4 KI4: 4 KI8: 1, 2 **Conditions of Food Insecurity in Butte ("Cond.")** Pressing issue "PrI" KI 7: 3, 4 KI 3: 1, 4 KI4: 1, 4 KI5: 1 KI8: 1, 2 *many people refer to it as a food desert, but that they're not sure it explicitly is one Geographic description "GD" KI 7: 3 KI3: 3 KI4: 3, 7, 9, 11 KI5: 1, 5 KI6: 1, 2 (history), 3 (inhospitable geog.), 4 KI8: 2, 5

```
KI7: 4
KI3: 3
KI4: 3, 4
KI8: 7, 8
Superfund site "SF"
KI7: 5
KI4: 2, 3
KI6: 3
Community "Comm."
KI2: 4
KI7: 6
KI3: 7
KI4: 7
KI5: 3
KI6: 4, 5
Health problem "Health"
KI4: 2, 3, 4
KI7: 3, 4, 5
KI6: 2
KI8: 2
                        Causes of Food Insecurity in Butte ("CS")
Economic "Ec."
Poverty "Pov."
KI3: 3
KI4: 3, 4, 5,
KI5: 1, 2
KI8: 2
Low wages "LW"
KI7: 5
KI3: 3
KI4: 5
KI8: 2
Little opportunity "Opp."
KI7: 5.
KI4: 5
KI5: 2, 3
```

Social "Soc."
Education "Ed."

KI5: 3 KI4: 2, 5 KI8: 2

Eligibility vs. actual use "EvA"

KI7: 4 KI8: 3

Substance abuse "SA"

KI7: 5 KI3: 3 KI8: 2

Homelessness "HL"

KI4: 4, 6 KI8: 2

Mental Health "MH"

KI4: 7 KI5: 2 KI8: 2

*"It's overlap between those things that determine health can impact somebodies ability to find appropriate and consistent food for them and their household..." KI8 on mental health, disabilities, homelessness, substance abuse, transportation

Geography and Access "G/A"

Inadequate food options uptown "Upt."

KI7: 11 KI2: 3, 7 KI5: 1, 2 KI6: 2, 4 KI8: 2, 3

Difference between uptown and the flats "UvF"

KI 7: 3 KI5: 1, 2 KI6: 2

Transportation "Trans."

KI7: 5 KI2: 3 KI5: 1 KI6: 3

Local foods "Loc." (also Food systm. Things)

KI2: 3

KI4: 3, 5, 7, 8

KI5: 2, 5

KI6: 4, 5

Options & Quality "QO"

KI7: 3, 11

KI4: 4

KI5: 2

KI8: 6

Environmental "Env."

Toxicity "Tox"

KI4: 2, 11

KI5: 5

KI6: 2, 3

KI8: 3

Seasonality "Szn"

KI 7: 3

KI 5: 5

KI6: 3, 4, 5

Historical ("H")

KI4: 2, 3

KI5: 3

KI6: 2, 4

KI8: 3

Mining history "Min."

KI4: 1, 3

KI8: 3

Generational knowledge, attitudes, & traditions "Gen."

KI7: 6, 10

KI4: 2, 3, 9

KI5: 3

KI6: 2, 4, 5

KI8: 3

Bigger picture

KI8: 2 (SDH)

KI4: look for

Community Response ("Resp.")

```
Organizations and programs "O/P"
KI7: 1, 2, 13 (farmer market), 14
KI2: 1 (SIFT)
KI3: 1, 4, 5, 6
KI4: 1, 6, 7, 9, 10, 11
KI5: 1, 4, 6
KI6: 3, 4, 5, 6
KI8: 4, 5
Collaboration "Collab."
KI7: 8, 12
KI3: 4, 5
KI4: 5, 6
Ki8: 4
Looking ahead
KI7: 12
Plans "Plan":
-Understand food system
       KI7: 8
       KI2: 7
       KI8: 5
-Co-Op:
       KI7: 8
       KI2: 3, 4, 7
       KI8: 6
Suggestions "Sug.":
-Growing in Butte
       KI7: 3, 6, 8, 10
       KI6: 4
       KI4: 12
       KI8: 6
-More grocery stores
       KI7: 10
       KI2:
-Education "Ed."
       KI4: 2, 9
       KI5: 3
       KI6: 4, 6
```

KI8: 6

-Need quality/fresh food

KI4: 4, 5 (Food is medicine), 6

-Policy

KI4: 9

Deeper roots:

KI4: 12

KI6: 6

KI8: 2

Hope "H":

KI4: 5, 6

KI3: 7

KI2: 4

KI5: 3

KI4: 7

KI6: 4, 6

Appendix D: Oral History Interview Consent Form

A Case Study of Food Insecurity in Butte, Montana

Subject Information and Consent Form

Oral History Interview

Introduction:

You are invited to participate in research examining food insecurity in Butte, Montana. This interview seeks to gain a deeper understanding of the local problem of food insecurity and its relation to Butte's history. This study is being conducted by Elizabeth Anne (Lila) Osborn, a graduate student at the University of Montana within the Department of Geography. Please read this entire form and ask any questions that may arise before making a decision to participate.

Purpose:

The purpose of this research is to understand and convey the current conditions of food insecurity in Butte, Montana, and to explore how it may be connected to local history. This entails understanding the spatial dimensions of food insecurity, its causes, how it affects locals, how it is being addressed, and what more can be done. You are invited to participate in this study because your knowledge, experiences, and/or perspectives are valuable to building this understanding.

Procedure:

If you agree to participate in this study, you will be participating in a loosely-structured, conversational interview. The interview will be guided by a loose set of prompting questions regarding your knowledge, experiences, and/or perceptions related to Butte, Montana. This openended interview should last approximately one hour. Our discussion will be recorded to be transcribed at a later date. Zoom recordings record both video and audio, should that be your preferred interview mode. Once transcribed, the recording will be erased.

Your initials _____ indicate your permission to record (video and audio if via Zoom) the interview.

*Once transcribed, the video and audio recording will be erased.

Risks and Benefits:

There is no anticipated discomfort for those contributing to this study, so risk to participants is minimal. However, some questions may ask you to think about things that may make you sad or upset. In order to minimize stress in this process, you are not required to answer any questions which make you feel uncomfortable.

There is no promise that you will receive any direct personal benefit from this study. Although you may not directly benefit from taking part in this study, your help may yield valuable insight into food insecurity in Butte. This information could be useful for future planning and policy, and has the potential to benefit others in your community.

Confidentiality:

Your records will be kept confidential and will not be released without your consent as required by law. Only researcher and her UM faculty advisory committee will have access to

your transcribed interview. I will never record or use your name without your express permission, but due to the unique nature of your position I cannot guarantee complete confidentiality of your identity.

If the results of this study are presented or published, your name will not be used and I will take all measures to mask your identity if discussing sensitive content.

Your initials	indicate your permission to be identified by name in any
presentations or publication	ns.
If you do not want	to be acknowledged by name in any presentations or publications,
please initial here:	

Voluntary Participation/Withdrawal:

Your decision to participate in this study is entirely voluntary. Your decision will not affect your position with the University of Montana in any way. You may choose not to answer individual questions, or stop the interview at any time.

Future Research:

Your information collected as part of this study, even if identifiers are removed, will <u>not</u> be used or distributed for future research studies.

Contact and Questions:

If you have any questions, please contact Lila Osborn via email at elizabethanne.osborn@umconnect.umt.edu. She will be happy to answer any questions you may have at any time. If you have any questions regarding your rights as a research subject, you may contact the UM Institutional Review Board (IRB) at (406) 243-6672.

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Statement of Consent:

Your signature on this consent form indicates that you have read this form and that you
understand the risks and benefits of your participation in this study. You are also indicating that
all of your questions have been answered. Your signature indicates that you are voluntarily
agreeing to participate in this study. You understand that Zoom recordings will be erased after
transcription, and that your name will not be recorded in the transcription. After signing this
form you are free to ask any questions or to withdraw your consent for participation. You will
receive a copy of this consent form.
Printed Name of Subject
Subject's Signature Date

Appendix E: Oral History Interview Guide with Questions

ORAL HISTORY INTRVIEW GUIDE

Fall 2021

Pre-interview Primer

This interview will include topics such as...

- History and legacy of mining in Butte
- Changes in Butte since the decline of mining and demise of the Anaconda Mining Company
 - 'Changes' could include cultural, socio-economic, demographic, and environmental
- Opinions and/or perceived changes in Butte's food system
- Where you perceive issues of poverty and food insecurity to be located in the city

Ask rap

Hi, my name is Lila Osborn and I am a Master's student at the University of Montana in the Geography Program and pursuing a concentration in Community Environmental Planning. I am studying Butte and community food security for my thesis research. I am conducting oral history interviews to capture local voices, stories, and perspectives to better understand Butte's history and the food-related issues that are a concern today. I am wondering if you would be willing to participate in an oral history interview to help me find some answers for my study?

Instructions to Interviewer

- -Check that phone is charged and can record
- -Record the following:
 - Informant's name
 - Give a subject code (OH 1, OH 2, OH 3)
 - Their job/community position/identifier (ex: historian, local resident, ex-miner, etc.)
 - Date & time

Introduction Thank you for agreeing to meet with me and participate in this oral history

interview. I am trying to learn more about Butte's history, and how it may help me understand

the current issue of food insecurity that the city faces today. I am excited to hear your

perspectives and of any stories or experiences that you would be willing to share that you think

would pertain to my study. Our interview will be guided by some open-ended questions to

prompt topics, but we don't have to strictly stick with those questions.

Before we get started, I would like to say that since you are the only ____ (OR) are well known

around town, I may not be able to guarantee complete confidentiality of your identity, but I will

make all efforts that I can to mask your identity if discussing sensitive content. Is that OK with

you?

Great, thanks! I would also like to record this interview so that I may transcribe it later on, if that

is OK with you? This ensures that your views are accurately recorded and I can focus on our

conversation right now.

Is that OK? IF YES, START RECORDING.

IF NO, SAY: That is fine, I will just have to take notes as we go along.

Personal

1. Would you like to introduce yourself and tell me what your connection is to Butte?

a. How long have you lived/worked in Butte?

b. Is your family from Butte?

Historical

Great! I'd like to start out talking about Butte's history. My first prompt is...

- 2. Briefly, how would you describe the legacy of mining in Butte?
- 3. How would you describe the effects of the loss of that industry in Butte?
 - a. Have you noticed/do you know of any major changes in the Butte community or economy in the last several decades?
 - b. Do you have any personal or family stories related to those times?

Food Environment

Wonderful, thank you. I'd like to transition now to talking a little bit more specifically about food issues in Butte.

- 4. How would you describe the food system of Butte, either today, in the past, or both?
 - a. This could be related to food prices and access, where and how people shop, where
 Butte's food comes from, where it used to come from, etc.
 - b. If they do not mention issues of access: Are stores equitably spread throughout the city?
 How do most people get to stores or food? Do you see any issues related to food access in Butte?

MAP ACTIVITY:

Thank you! Next I'd like to have us take a minute here to look at a map of Butte and for you to help me identify areas that you know of that are associated with certain things that affect this

topic of food security. First, could you circle places that you associate with being affected by poverty with this green pen? Next, could you take this red pen and circle on the map places that you associate with where residents might experience food insecurity? Next, could you use this yellow pen to circle areas that you think may have poor food access (far from grocery stores, difficult to obtain food)?

- a. Show map and provide colored pencils: Poverty (green), Food Insecurity (red), Poor Access (yellow).
- b. Hopefully this activity spurs discussion and explanation, but ask for explanation if not.
- c. Is there anything else that you feel would be worth-while to map? (If yes, give them a purple pen and specify what they are mapping.)
- d. Say thank you!
- 5. Nearly 1 out of every 5 Buttians were determined to be food insecure last year. This represents a serious food insecurity issue within the city. In what ways, if any, do you think present-day issues of food security are related to Butte's history?

Wrap-up To wrap up, can you think of anything you'd like to share that I may have missed or that you think would be valuable to my study?

Do you know of anyone else I might want to reach out to for an interview for my research?

Do you have any questions for me?

Thank you for your time. I really value your participation and your input is very important to this project.

If I need any clarification or an extra question may I follow up with you? Have a great rest of your day.

Appendix F: Oral History Interview Coding Protocol

Butte Oral History Interview Coding Protocol

Themes & Categories

Historical Poverty (HP)

OH1: 3, 4

OH2: 3, 4,

OH3: 3, 4, 5, 6

Contemporary Poverty & Problems (CP)

OH1: 3, 8, 15, 17, 18*, 19, 20, 21, 24,

OH2: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

OH3: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

Company Town (CT)

OH1: 2, 22

OH2: 1, 2, 3

OH3: 3,

Anaconda Mining Company (AMC)

OH1: 2, 3, 27

OH2: 2

OH3:

Mining (Min)

OH1: 1, 2, 11, 13, 16, 21, 22, 23, 24, 26, 27

OH2: 1, 2, 3, 4

OH3: 3, 4

Geography affects food security (Geog.)

OH1: 7, 11, 12, 14, 22, 25, 26, 27

OH2: 6, 7, 8, 9, 13

OH3: 1, 2, 6, 7, 8, 10, 19, 20, 21, 22

Transportation hub (TH)

OH1: 11, 12, 13

OH2: -

OH3: 2, 9, 10

Historical Food System (HFS)

OH1: 4, 5, 8, 9, 11, 12

OH2: 5

OH3: 1, 2, 3, 4, 5, 6, 7, 9, 10, 22

Contemporary Food System (CFS)

OH1: 4, 5, 14, 15, 19, 25*

OH2: 5, 6, 7, 8, 9, 11, 12, 13, 14

OH3: 11, 12, 13, 14, 15, 16, 18

Changes (Ch)

OH1: 1, 4, 5, 9, 14, 16, 21, 23

OH2: 2, 3, 4

OH3: 3, 4, 5, 6, 7, 8, 10

Community (Comm.)

OH1: 3, 6, 7, 21

OH2: 2, 5, 10, 12

OH3: 3, 4, 5, 17

Personal Info (Person)

OH1: 1, 6, 20

OH2: 1, 2, 4

OH3: 13

Appendix G: Field Notes Transcribed

Field Notes Summer 2021 Transcribed & Fortified Action Inc. Summer Meals Program Approx. June 14-August 13

Week 1

Monday 6/14

Location: East Middle School

Meals served: 23

We had extra meals at the end of the day.

Rode along with Marnie. She did this job last summer, and works as a recess monitor during the school year. Talked about how this was a great job. She had a helper with her in the van last year, and sometimes they would stop for coffee. First we got to Holy Spirit, then Clark's Park, then stay at East. Hot in the sun! Got offered pizza and "pop" by the East Middle School construction workers. There is a construction project taking place to redo the school, approximately 3 years, only in the summers.

Tuesday 6/15

Location: Whittier Elementary

Meals served: 36

Needed to get refilled by Barry. Read my book and hung out by the baseball field. Handed out lunches to children and families. Some are regulars. Seems to be a nice area. Residential and next to the school. Many children likely walk to school, and seems like a safe enough neighborhood to do so.

Wednesday 6/16

Location: West Elementary Kitchen

Meet at the kitchen at 6am! The cooks at West are amazing ladies: super pleasant, upbeat, positive, fun, and kind. They have a good time together cooking meals and hanging out during slow periods. This kitchen also cooks for the Rocky's program, which is a summer program for

learning in the summers. So they make and serve lots more meals. That program will be picking up by a lot next week. Max and another young man help out in this kitchen, and deliver the meals to the classrooms at the right times.

Thursday 6/17

Location: Action Inc. & driving around with Connie

- Drove to 3 sites: Kuprivika Park, Webster Elementary, JFK Elementary Kuprivika is always covered by Ed because it is an iffy spot. Lots of homeless. It is also right across from the food bank, so not sure if it is in the best spot? Does the food bank serve children meals?

Webster is the alternative school next to Safeway. It is for students with behavioral issues or things like that. Troubled kids. Summer Meals feeds their summer program students, as well as an open site out of the back cafeteria. The open site is very difficult to find and does not look like a place to pick up food.

Kennedy (JFK) has lots of very poor kids (Travis is the principal, also Barry's son-in-law.). It just got a very nice new addition that replaced old, unsafe trailers that children had classes in. It is a Title 1 school, meaning they get Title 1 funding support. It is Uptown by the Big Butte recreation area, and only a few blocks up from Antimony St. Nice little tour around Butte!

Friday 6/18

Location: Butte High Kitchen

Pizza Friday. I bagged lunches, wrapped pizza in tin foil, mopped the floors b/c its Friday! The Butte High kitchen ladies are also hardworking and good at their jobs, but they are certainly more serious than the West ladies. I like working in both kitchens.

Preparing food in the schools kitchens and for this program involves lots of disposable packaging, plastic, and bulk throw-away items. This is a symptom of the messed-up American food system, and generates large amounts of unnecessary waste. Programs like these are reactionary, but important. The food system needs change!! (It terms of food miles, waste, and emergency food assistance programs; quantity is not the issue, distribution is.)

Week 1 Recap/Reflection

-The number of meals served total per day increased daily this week

• The slowest day was the first day

-It is good to be at some sites and to say hi to others. I got to explore around Butte and start to

create mental maps of the city and the summer meals program

-Uptown (like JFK) & other Uptown (Walkerville) sites seem the poorest but don't serve as

many meals maybe? -Should check actual number to see

-Walkerville has their own mayor & certain own government things, but is still Silver Bow

County

• Is it within the urban boundaries for city of Butte? Check this.

-Lots of nice houses and ramshackle houses, right next to each other

• It seems like this is the case all over Butte

• Huge wealth disparity in the city, but not much physical distance between this disparity

• Irony!!: There is rich, there is poor, but there may not be much segregation of these

groups like there are in many places

• I think this pattern has been the case through much of Butte's history. The richest of the

rich living with the poorest of the poor.

-A lot more people live in The Flats than I thought. It is a commercial area and a large residential

area

-Getting from uptown to the flats is a very difficult: long drive and busy roads. Not walkable for

sure.

Week 2

Monday 06/21

Location: Butte High Kitchen

-Packed bags and lunches and coolers. They didn't have me wrapping meals. I think they had

enough hands and had to find something for me to do. We finished with the coolers and bags

really early so just hung out after that.

-We got a large produce delivery. Thousands of apples, oranges, celery, and broccoli. Celery and

broccoli individually packaged into mini bags. It gets dropped off on pallets. The driver came all

the way from Spokane today.

• Why not source local!!! That is such a far drive and such large food miles.

• Lots of cardboard boxes & plastic, we even condensed boxes of celery and oranges

because the contents of two boxes could fit into just one.

• There is so much waste and the food distribution system is wack! Very disjoined and

ironic. The problem is not with food supplies, but with distribution. We threw out lots of

plastic and cardboard.

Tuesday 06/22

Location: East Middle School, on Marnie's route

I stayed at Holy Spirit today because the volunteer was not there when we first arrived.

• Mariel, our volunteer who showed up shortly after Marnie left to finish the route, talked

about Butte with me. People in Butte are very eager to talk about the history and their

experiences in Butte. Mostly always positive, and even when admitting negative

attributes there is a "but" to describe something admirable or inspiring. She said Butte is

like many cities and towns used to be before they got too big. Butte hasn't gotten to big

yet, but is on its way it seems. She referred to Butte as a melting pot, referring to

ethnicities.

Then I ended up back at East with Marnie. We had a normal day. We served 33 lunches. I had to

use the bathroom and the women from the office in East offered to take me with them to the gas

station when they went because the water is shut off at East due to the construction. There are

real nice people in Butte.

Marnie told me ghost stories about the mining museum, the cabbage patch (the ghost's name is

Tess), and her own house. Her son is a high school history teacher and knows lots about Butte.

She said they both have seen and heard things/ghosts/spirits. Lots of people in Butte believe in

ghosts and have stories to tell.

I drove the beast! (the van)

Wednesday 06/23

Location: Drive along with Barry

Did Kathy's route with her to JFK Park in the Drives. I had to learn the route to do it myself on

Friday. She delivers meals to one family on her way back to Butte High if the mom is not home

in time from work to pick up the lunches herself. This is a great example of the community creating networks to help each other out informally.

Barry picked me up to refill other sites that had called him saying they were running low or were out. There were many; he spends the entire 2 hours (11-1) driving around and refilling/checking in on sites!

- Today we went to Butte High, West, Longfellow, Whittier, and East
- We picked up and dropped off Webster's worker. Barry takes him to and from work each day. He lives in a trailer park and Barry shared with me his sad circumstances, tough life, but those will remain confidential. There are some difficult circumstances in Butte. It is nice of Barry to go out of his way to help this kid stay employed and get some good experience, as well as have something positive to do during the week.

Thursday 06/24

Location: Ride along with Doug

Doug's route goes out to Ramsay from West Kitchen (about 15 mins each way, so he leaves a little earlier than the other drivers). The town of Ramsay is *very* small. Only about 40 houses on a couple streets, and one school with a playground. Lunches are left at the school but are not always monitored all day I think (this is approved though). The cooler and meals count sheet are picked up the next morning and swapped out for new ones, so Doug doesn't have to go to Ramsay twice a day. A woman from the school keeps them locked up in the school after 1pm. They never have extra lunches.

Doug was telling me about a 'Loves' truck stop going in off the exit in Ramsay, and the townspeople are very upset about it. This will dramatically change their landscape and way of life in Ramsay. There will be lights and noise 24/7, possibly more crime, and definitely more people. Ramsay is in Silver Bow county. It does not look very poor, but is definitely very rural and set apart from the city, where most/all resources.

Then we went to the Legion Oasis preschool (we only provide meals to their preschoolers, not an open site). Legion Oasis is low-income. Then we went to Margaret Leary School (there are no windows in the school! Weird!).

Finally we stayed at Longfellow, which is pretty close to Legion Oasis. I met Doug's family because they came to visit him (sister, niece & nephew, and dad). More nice Butte people! Love to talk about Butte.

Friday 06/25

Location: Kathy's route! JFK Park

I drove the van all by myself. Emerson → Whittier → JFK Park (aka "the Drives")

I gave out 20 meals, some ladies in the neighborhood babysit for their family members so they take a bunch. Sat with Lacey for a bit because she was my helper in the van. She works in the East kitchen during the school year but does summer meals in the summer (this is her first summer) to keep getting paid over summer months. Barry picked her up half way through the day Usually Kathy drops off lunches with a mother who isn't always home from work in time to pick them up herself, but her car wasn't in the driveway so I didn't drop them off. Kathy said she won't do it if nobody is home because she doesn't want to leave the lunches out. Community helps each other!

One lady tried to donate \$20 to me, but I told her to give it to Action Inc. somehow else

Week 2 Reflection

- -Drove to lots of new sites, haven't really been able to determine any sites to be poorer or in worse conditions than any others.
- -This program and the city of Butte in general is full of *really* good people (employees, volunteers, clients, outsiders)
- -The Butte community is very friendly, understanding of each others circumstances and of the difficult circumstances faced by many in their community in general, and are very helpful/benevolent/compassionate. Struggle is understood and somewhat normalized (in a way that it is not alarming or surprising), and people are very eager to help each other.
- -We were 3 people short on Friday, all giving notice only that morning that they weren't coming to work! Yikes!
- -Everyone talks about job abundance in Butte, how everywhere is hiring. Most likely because so many people are on unemployment due to the pandemic. Also lots of people just don't want to work.

Week 3

Monday 06/28

Location: Marnie's route

Marnie did not come to work today so I got to take her route. "Got van, big clunker

weatherization one."

Holy Spirit → Clark's Park → East Middle School

Gave out 32 meals. A woman thanked us for what we are doing, she said this program really

helps her family out during the summers. It is nice to hear that the program really is useful to

people in need!

Tuesday 06/29

Location: East Middle School with Chris

Did Marnie's route again. Gave out 32 lunches today. We had 9 more lunches than we did bags,

but Barry brought us more bags. This program is run by people so it isn't always perfect! Lots of

children pick up their own lunches at this location (I don't know about all locations) without an

adult. Many bike or walk. The locations are spread out to be accessible for people walking and

biking in most neighborhoods. This seems pretty successful. Lots of people still do come by cars,

but those are typically adults (some with children, some alone).

Wednesday 06/30

Location: East with Chris again

I went to the bathroom at Butte High and when I came out all the vans had left without me!

Oops! We all had a good laugh about it. I followed Chris with my car and met him at Holy Spirit.

He had gone to Clark's first, so I was there when he got there and got to talk with our volunteer.

It is Steve from Action Inc.'s mom! Lots of family networks, this program and community aid in

Butte in general seems to be a family affair.

I then got lost going from Holy Spirit to East in my own car, but I passed Whittier; I realized that

these sites are relatively close together and so must be JFK Park and Emerson. Improving my

mental map of Butte and meal sites!

• There must be several sites concentrated in that general area on the flats. There are fewer

uptown and a few farther out on the flats.

• Do these site locations reflect population concentration? Or poverty? Or what? How are

site locations determined?

We served 32 lunches again. Clark's Park ran out (which happens to them a lot! Popular site! But

there is a water park in Clark's Park so many those kids come over for lunches). Holy Spirit had

2-3 left.

Thursday 07/01

Location: Marnie's route; East Middle School

Marnie may have quit so now her route is mine. Lacey was my helper in the van, but she had to

stay at Holy Spirit because the volunteer did not show up. I think they eventually did, and that

Barry picked Lacey up but I am not positive.

I found a dog at East! The man who lives across the street and takes a stroll around the school

everyday around 11:30am said it followed him from a few blocks away. The dog stayed with me

and I held onto her most of the day so she would not go in the busy street. Tiny little 1lb thing,

but cute and friendly. Barry and I called the name on the tag, but there was no answer so he went

to the address. The lady said her bigger dogs knock the fence over and the little dogs run away.

She came to get the dog toward the end of the day, she was crying and said I saved its life, and

then gave me \$20.

I had to put gas in the van! That was an adventure.

Served 35 meals.

Friday 07/02

Location: Marnie's route; East Middle School

Only 26 meals given out today. But all volunteers showed up on time- yay! Very normal day.

Week 3 Reflection

-Marnie quit unexpectedly so I get her route from now on! I get to drive the weatherization van

and do the Holy Spirit, Clark's Park, East Middle School route.

-I will need to do some census matching to see which sites are in which areas (high/low

population density, poverty, etc.)

-Many of the same families/adults/children come every day, "regulars." Some are new/different

everyday.

-One old lady we think is collecting several lunches from multiple sites. But not sure.

-This is such a great job, and I work with such great people!

Week 4

Monday 7/5

No Summer Meals today- Day after 4th of July

Tuesday 7/6

Location: Marnie's route: East Middle School

Normal day today! I cannot remember how many meals I did today, but I have the master meal counts sheets so please refer there. We have started dropping off coolers at Clark's Park before Holy Spirit, since volunteers were not usually there early enough. This also makes much more

sense for a driving route.

Wednesday 7/7

Location: Marnie's (now my) route

I followed Eric (the other boy from West kitchen) today because the previous way we had been driving to and from Clark's park made no sense. He showed me a much faster, more intuitive drive.

Only gave out 18 lunches! Much fewer than our norm.

Eric sat at East while I went to the bathroom at the gas station on Continental Dr., then he stayed there again while Barry drove me to Mick's.

• I asked if anyone knows of a good mechanic because my driver's side door stopped opening. Travis called his friend who owns Mick's, Barry drove me there so I knew where to go when I got off work and offered to do my lights for me. Butte is a small town where people know and help each other. They even look out for a new girl from New York like me! I feel very lucky. Connie says I must have a Butte guardian angel.

I met Connie after work to talk about paperwork that I need to help them with. It relates to the racial/ethnic data counts that I'll use to show likely how many children from each racial/ethnic group are served at each site.

• She said I fit in really well ©

I <3 Action Inc. and my coworkers and my job!

Thursday 7/8

Location: Monitoring at Holy Spirit → East → Clark's Park

Today I was one of three monitors going to sites to check on staff/volunteers and make sure things are running smoothly. I had sheets to fill out at each site for quality assurance. Things like do the lunches consist of the correct nutritional requirements, are they kept in the cooler, are volunteers doing the paperwork right, etc.

All sites were running smoothly.

Katrina filled in at Holy Spirit. There were the two volunteers who man Clark's Park weekly, Chris was at East. It was really nice to visit with the volunteers and hear about how people enjoy doing this job, how it makes them feel good, how it is a good way to spend a few hours a week, how they enjoy helping out their fellow community members in Butte.

Then I went and checked-in with Connie at Action. Then I went home and worked on the census racial/ethnic data paperwork.

Just extrapolating the # of each child served based on % for that site's census tract using
 American Community Survey 5-year data

Week 4 observations reviews happening next week by the state so we have to have all of these numbers and facts and papers ready for them to review.

Friday 7/9- State Audit today

Location: Marnie's/my route

Dropped Clark's Park and East first, then did Holy Spirit to get there as close to 11am as possible. Connie covered East while I was not there. Two women from the state were staying at Holy Spirit all day to observe the program with our volunteers there.

Mike helped me with delivery, following in his own car.

Barry said get there as close to 11am as possible b/c technically only supposed to serve lunches between 11-1. I picked everything up at the end of the day. They asked about the cooler temperatures, but I didn't know what temp. they were supposed to be at. Went back to Connie's office quickly, then Allison and Bryn came to visit!

No reflection recorded this week.

Week 5

Monday 7/12

Day off

Tuesday 7/13

Location: East, My route

Very average day, nothing new

Same regulars came, some new people too.

Wednesday 7/14

Location: East, My route

Normal day delivering and driving.

Thursday 7/15

Location: East, My route

Normal day! Normal week. Delivering and driving my route. It has become very comfortable. I get to read a lot at work.

Friday 7/16

Day off: Fly back to NY \rightarrow ME for next 2 weeks

Weeks 6-7 on vacation (NY & ME)

July 16-30

Will return to work Monday Aug. 2nd

Week 8

Monday 08/02

Location: East route, w/ Chris

-Kathy said she missed me :,). First day back from vacation.

-Rained! Finally. It has been so smokey for the last month.

-We ran the food site out of the back of the van. A little bit sketchy looking; handing out meals

to kids from the back of a white van with a sign that says "free meals for kids!" We still gave out

25 lunches! Not back considering its raining. I thought that would deter people from coming.

Bute if you need food you need food!

-I thought rain would keep people away, especially because some walk and bike, but nope!

People still biked and walked, but mostly they drove. Maybe this shows that people in Butte

really do rely on this program. If they did not come get these meals, maybe they would have

nothing else to eat.

-All the sites did well, only Clark's Park did abnormally low numbers. Maybe it was the water

park not being as popular on a rainy day.

-Rain did not hinder the program, people have to eat!

-I also so people getting on the bus with grocery bags at Walmart, so people must use the public

transportation to do shopping.

Tuesday 08/03

Location: East route, w/ Chris

-Two new guys working with Summer Meals. Zane and Will, younger/teenage guys. Both sat

with us at East today b/c Barry dropped them off. That made too many of us. I sat in the van.

-We set up the red tent and a tarp for the first time. There is no shade at East, and the tent was

great! We continued to set it up for the rest of the summer.

-Pretty much a normal day.

Wednesday 08/04

Location: East route, w/ Chris

-New guys not with us today. Normal day!

Thursday 08/05

Location: East route, w/ Chris

- -Chris and I have been taking turns driving this week.
- -The route goes much more quickly with two people, versus doing all the loading/unloading yourself.

Friday 08/06

Location: Doug's route. Stay at Longfellow.

- -Doug's mother passed so he was out today. So sad. I met his family earlier this summer, and they mentioned a bit that she was not doing well.
- -I did a day with Doug earlier this summer, so I knew his route and got to cover for him today.
- -I could tell that there are regulars at Longfellow, even though I myself did not recognize them personally. Some just knew exactly what was going on/what to do. A brother and sister brought a bucket and a backpack to carry home 12 lunches between the two of them. They seem to have it down to a habit.
- -Connie brought some visitors from the state (MTFB Network, and someone from some government office I think) to introduce me and show them what the program looks like. I told them about my internship and thesis. They were very nice and my research seemed well received. We took some pictures and I have her card to ask for them. They also want to see my thesis when I am done!
- -There is no karate on Fridays at Longfellow so less meals were handed out. During the rest of the week there is a karate camp and those children come pick up lunches from Doug's van. Went back to West, then returned the minivan to Action. A good week ©.
- -P.s. West kitchen is so much nicer and more fun. They were all making and learning origami and eating donuts from Town Talk when I got there! Vanessa is a great boss.
- -Action Inc. really is like a family. People are kind and compassionate to each other, and are comfortable at work. It is an excellent work environment. Apparently, that was the work of Margie (CEO). She is awesome, and so is Action Inc.!

Week 9

Monday 08/09

Location: Covering at Silver Bow Village (on Ed's route, usually a volunteer)

- -Apparently this is a lower-income. The place does not look bad, it looks very well taken care of by the caretaker. But the little girl who hung out with me who lives there (she always hangs out with the Summer Meals person) told me some scary/sad/poverty-sounding stories.
 - Told me that her neighbors moved out and didn't lock the door so a couple and their 6 year old kid squatted last night. They screamed and fought all night, cursing and yelling and hitting the walls.
- -A little girl who lives in Silver Bow Village hung out with me almost as soon as I got there. She said she hangs out with the Summer Meals person everyday (she's bored in the summer). She sometimes is a helper and helps hand out lunches.
- -Cold today! First cold day all summer. I hung out in my car the second half of the day because it was warmer.
- -Did 29 of the 30 meals
- -Ed loves to talk. Told me about his life and his ex wife and new wife.
 - Later I found out that he was lying??? He told me his ex wife cheated on him but actually he cheated on her. Idk why he did that because I didn't even ask to begin with. I do feel bad for him though b/c his grandson (nephew?) just got his leg amputated.
- -Down on the Flats, walking-ish distance to gas station off Harrison, close to Stodden Park.

Tuesday 08/10

Location: East route with Will

- -Barry is gone today. Chris and Max (guy from West kitchen) are filling his on-call roll.
- -Both of our volunteers were late today on my route. Max sent one of the West kitchen ladies, but when she arrived I had to send her back to the kitchen because the volunteer for Holy Spirit showed up. The volunteer for Clark's showed up late as well.
- -Kathy told me her really sad life story. She has been through some incredibly difficult times. Things have happened to her that are enough trauma and sadness for a lifetime. She is one tough an nails lady. She is glad her husband is dead.
- -Did all the lunches at East.

-Will: "Everyone and their dog drank in Butte."

-I drove Will back to his house in the van. His 2nd grade teacher just adopted him at age 17- how

sweet!

Wednesday 08/11

Location: East with Sarah- advisor field visit!

-Normal East route, just with Sarah as my helper. She was late though, as her friend was in town

from out of state and they got breakfast. But we sat at East together and discussed my internship

and field work and summer and life and random things! Connie came down and met her too, and

they had a nice talk. Barry stopped by briefly too because we needed to be refilled. He was

annoyed that she was late to visit me. But things happen, and this was not necessarily a formal

visit.

• Sarah, Connie, Barry and I talked about Butte and ghost stories

• Connie: "There are so many ghosts in Butte because they think they're in Heaven."

-Sarah and I got coffee at Oro Fino after, and then visited at the Miner's Hotel. They showed us

their new speakeasy under the hotel, which used to be a fur vault for expensive fur trading. So

cool! I need to interview the owner of the Miner's Hotel. He is very knowledgeable about Butte

history.

-Sarah was impressed and pointed out the volunteerism and community effort in Butte to put this

program on is impressive and astounding.

• "Compassion is radical"

-Butte is quite a compassionate community! It has been this way for a long time. It is ironic and

interesting since from an outside perspective, Butte is known for being tough and gritty and hard-

working and dirty and downtrodden. But from inside, it is clear that there is a strong sense of

community and compassion and willingness/desire to help one another out. This likely stems

from its history, and the suffering and tough times in Butte's legacy.

Thursday 08/12

Location: East with Will and Zane

-Normal day. We did 27 lunches (all plus a refill).

- -Second to last day! Bittersweet. I have had numerous conversations with coworkers on this job about how much they love this job, it makes them feel good and they know it is a good thing for the community. Many said they will miss it. Most employees do this as a summer job, and have other jobs during the school year though (teachers, bus drivers, lunch ladies, students, etc.). They get 2 weeks off before going back to work, and they certainly deserve it!
- -But that also leaves 2 weeks between the end of this program and the start of the school year. There will be some families without their typical depended on hand-out meal.

Friday 08/13

- -Location: East with Chris.
- -Last day of Summer Meals and my internship \odot .
- -We got refilled three times at East! And still did all. 40 of 25. Wow. We went out with a bang.
 - Everywhere else on our route ran out too.
- -Cleaned and packed things up at Butte High. Put coolers, signs, boxes, materials, etc. away for the year.
- -Met with Margie & Connie at 2 (right from cleaning up). Got lots of good info and had a great conversation. They are such wonderful people. They also got me an end-of-internship goodbye present: a zip-up hoodie from 5508 designs! So sweet. I love the Action Inc. family.

Meeting w/ Margie & Connie Friday 08/13

- -Butte community surely struggles but helps each other
- -Margie & her family are from Butte. She grew up on Lewisohn!
 - Her great uncle is John the Yank (a Butte legend). She wrote a biography about him.
- -Action Inc. dedicated to helping all people. They recognize trauma and suffering
- -Everyone seems to know everyone in Butte. Very close-knit community in this way.
- -Substance abuse & mental health problems in Butte are serious. This is historically rooted, and are a source of pride for some. Butte can drink and Butte can party! Work hard, party hard.
- -Connie said Barry likes me! Apparently that doesn't happen very often so I am flattered ⊚.
 - He came in and thanked me. He said I am very helpful and that I was a go-to this summer.
- -They want me to come back for Mining City Xmas- yay!

- They start around October, but really picks up around Holiday time. Another all hands on deck program that they run.
- -Margie said that the work that Action Inc. does is the kind of work that makes all boats float at once
 - A nice analogy. Pulling people out of poverty, increasing self-sufficiency, reducing hunger, etc.
- -Action Inc. had an archeological dig before the new building went up. 60,000 artifacts were found. It is located in China Town. Most of these artifacts are now in the Mai Wai museum just up the street.
- -Close to 40% of people in Butte are low-income
- -There is not much community gardening taking place in Butte, but there are more individual efforts than seem to be recognized.
 - SIFT Farm, Park St. Garden, Action Inc.'s Garden are really the only 3
- -NCAT seems disconnected from the community/town
- -Novel recommended by Margie: Buster's Midnight Café by Sandra Dallas. It takes place in Butte and reminds Margie of what she imagines her mother's childhood looked like here.

Appendix H: Field Notes Analysis

Field Notes Analysis Internship-Based Participant Observation Summer 2021- Action Inc. Butte, MT

Major themes:

- Compassionate community, good people (GP)
 - o Mentioned 20 times
 - o GP: 1, 2, 4, 5, 6, 6, 7, 9, 11, 14, 16, 17, 17
 - o Comm: 5, 6, 7, 10, 14, 17, 17,
- This program (and others like this) are useful to the community
 - o Use: 7, 9, 12, 13, 14, 14, 17
- Community networks/relationships/connections (NTWRK)
 - o NTWRK: 2, 5, 5, 8, 17, 18
- Food System (FS)
 - o FS: 1, 2, 3, 4, 11, 14
- Geography (GPHY)
 - o GPHY: 1, 2, 3, 5, 6, 8, 10, 15
- Income/poverty
 - o Pov: 2, 2, 3, 3, 5, 6, 7, 7, 15, 15, 17, 17, 18, 18
- History (H)
 - o H: 4, 5, 16, 17, 18
- Barriers to food security (barr)
 - o Barr: 2, 3, 7, 8. 13, 13, 18, 18