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We Eat, We Live, We Repeat: Reimagining Food Heritage through Foodways and Sustainable Food Practices

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We Eat, We Live, We Repeat: Reimagining Food Heritage through Foodways and Sustainable Food Practices in St. Louis

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Abstract

The purpose of this co-authored, mixed methods descriptive research study was to examine how the intersection of foodways and sustainable food practices helps define the food heritages of St. Louis area residents. While prior research examines these concepts separately, and even shows connections with other factors such as health and discrimination, none look at all of these concepts together—a gap this research fills. To that end, this dissertation describes the intersection of cultural foodways and connection to sustainability in seeking a definition of food heritage and a path towards sustainable food heritage for St. Louis residents. Purposeful sampling using the Food Heritage and Sustainability Survey, completed by 621 St. Louis area residents, and interviews from 14 community leaders provided the dataset for this study. Survey results were analyzed using both univariate and multivariate statistical tests and interview transcripts were interpreted using thematic analysis. The quantitative results showed that an egoistic value orientation played a major role in how food heritage is defined. The qualitative results produced three major themes: *Foodscapes and foodways are founded upon inequity*, *Food is about human connection*, and *Sustainable food practices help people reimagine their food heritage*. When taken together, the quantitative and qualitative results both showed that actions surrounding sustainable food practices and awareness of foodways, including food injustices, were major contributors to St. Louis residents' definition of food heritage. However, the qualitative and quantitative results differed in their conclusions of whether foodways influenced food heritage or vice versa. These results provide substantial material for future research, including a further examination into the

connection between an egoistic value orientation and food heritage, and using heritage-aligned interventions to increase sustainable food practices.

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Caitlin Crain

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Amy Roznos

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Britt Tate Beaugard

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There have been arguably hundreds of people who have supported me through my long academic journey to this end. Dr. Theresa Coble convinced me to switch doctoral programs after a week-long adventure in Forest Park. Dr. Lisa Overholser pushed me to tears on several occasions in efforts to make sure I knew what I was talking about. Dr. John Trevathan remained stoic many times as I was freaking out or wandering off topic.

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Doctoral work is not for the faint of heart. Man I hope someone reads all of this paper. It is long. I am tired. If you have gotten this far, please try to read at least 30 pages of it, just in case no one else does.

Darius Williams

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mean to me. This dissertation will sit on a shelf and become a distant memory, but the memories we've made throughout this process will live on with us. I love you with every ounce of my heart and forevermore.

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Altruistic Value Orientation: "People with a social-altruistic value orientation will base their decision to behave pro-environmentally or not on perceived costs and benefits for other people" (de Groot & Steg, 2007, p. 333-4).

Biospheric Value Orientation: "people with a biospheric value orientation will mainly base their decision to act pro-environmentally or not on the perceived costs and benefits for the ecosystem and biosphere as a whole." (de Groot & Steg, 2007, p. 333-4).

BIPOC: Black, Indigenous, People of Color

Cultural Food Systems: the memories, communal, familial, traditions, relations, and ethnicity identities formulated around shared food choices and experiences (Alexis, 2021).

Cultural Sustainability: values and attitudes that can be maintained or improved despite external influences (Jeffrie, 2021).

Egoistic Value Orientation: "People with an egoistic value orientation will especially consider costs and benefits of [environmentally significant behavior] for them personally: When the perceived benefits exceed the perceived costs they will have an environmentally friendly intention and vice versa" (de Groot & Steg, 2007, p. 333-4).

Environmental Injustice: the disproportionate exposure of communities of color and the poor to pollution, and its concomitant effects on health and environment, as well as the unequal environmental protection and environmental quality provided

through laws, regulations, governmental programs, enforcement, and policies (Mantaay 2002).

Environmental Justice: the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, concerning the development, implementation, and enforcement of environmental laws, regulations, and policies" (United States Environmental Protection Agency, 2021).

Family Household: Under the U.S. Census Bureau definition, family households consist of two or more individuals related by birth, marriage, or adoption, although they also may include other unrelated people. (*Subject definitions*, 2021)

Foodscapes: the places and spaces that one acquires food, talks about food or generally gathers meaning from food (MacKendrick, 2014).

Foodways: "Foodways refers to the [*current*] cultural and social practices that affect food consumption, including how and what communities eat, where and how they shop and what motivates their food preferences" (Alkon et al., 2013).

Food Apartheid: a system of segregation that divides those with access to an abundance of nutritious food and those who have been denied that access due to systemic injustice (Food Apartheid | Project Regeneration, 2022).

Food Culture: the attitudes, beliefs and practices that surround the production and consumption of food. Food Culture incorporates one's ethnicity and cultural heritage and provides a communication mechanism with others externally and within families and communities (Coates, 2021).

Food Choice Motivation: "eating behavior as a complex function of biological, learned, sociocultural, and material-economic factors" (Renner et al., 2012).

Food Heritage: the connection between products, practices, and perspectives learned, inherited, and attributed to food and food systems, which is used to co-construct one's individual, social, cultural, and ethnic identity (Davis, 2013; Kapelari, 2020). The key difference between foodways and food heritage is the individual and group's agency and desire to *preserve and cherish* food and food culture.

Food Inequities: the adverse effects of both the production and distribution of food that marginalized communities face (Elsheikh & Barhoum, 2013)

Food Insecurity: "a household-level economic and social condition of limited or uncertain access to adequate food" (U.S. Department of Agriculture, 2022

Food Justice: "a holistic and structural view of the food system that sees healthy food as a human right and addresses structural barriers to that right" (*FoodPrint.org*, 2021)

Food Practices: includes food access and acquisition, food preparation, food preferences, and eating behavior; akin to *foodways*, the term used in food studies to describe food and meal preparation, religious and symbolic uses of food, and gardening, among other activities (Walters, 2021). For the purposes of this research, food choice motivation is also housed under this definition.

Food Sovereignty: "the natural right to have and choose healthy food as cultivated through sustainable modes and culturally defined systems" (Block et al., 2012)

Food Sustainability: proactive sustainable food practices and viewpoints where the consumer, community and/or culture at large is committed to protecting the environment and its interconnected systems (Nguyen, 2018; Hawken, 2018)

Low-Income: an individual whose family's taxable income for the preceding year did not exceed 150 percent of the poverty level amount.

Notions of Sustainability: individual/community ideas of what practices and attitudes encourage sustainability (i.e., using reusable bags, driving a hybrid car, conserving energy, etc.) (Nguyen, 2018; Hawken, 2018)

Poverty: individuals are considered in poverty if their resources with others in the household are insufficient to meet basic needs (*Subject definitions,* 2021)

Sustainability: the underlying pattern of human health, resilience, and adaptability that maintain this planet in a condition where life as a whole can flourish (Wahl, 2021)

Sustainable Food Heritage: honoring food heritage through the lens of food sustainability and *sustainable food practices* (researcher definition below)

Sustainable Food Legacy: simultaneously feeding a more populous world in a way that aligns with their food food heritage, while fostering development and poverty reduction, and mitigating climate change and other environmental damage (Searchinger et al., 2018)

Sustainable Food Practices: buying local, seasonal, fresh/unprocessed food, eating less meat, vegetarianism, veganism, and purchasing products with less or no packaging (Brons & Oosterveer, 2017). Examples of practices within the three dimensions of a sustainable food system: social, economic, and ecological (Griffin & Sobal, 2013).

Sustainable Food Systems: a food system that delivers food security and nutrition for all so that the economic, social and environmental bases to generate food security

and nutrition for future generations are not compromised. (Food Systems | Food and Agriculture Organization of the United Nations, 2018).

St. Louis (Metropolitan) Area/Region: According to the U.S. Office of Management and Budget, "the St. Louis, MO-IL metropolitan statistical area (MSA) includes the City of St. Louis; the Illinois counties of Bond, Calhoun, Clinton, Jersey, Macoupin, Madison, Monroe, and St. Clair (known collectively as the Metro East); and the Missouri counties of Crawford (only the City of Sullivan), Franklin, Jefferson, Lincoln, St. Charles, St. Louis (separate from and not inclusive of the city of St. Louis), and Warren" (2015).

Chapter One: Introduction

We live, We eat, We repeat

Planet Earth is home to 7.5 billion people. It is where we gather for dinner, where we dance and sing when we are happy, where we play with our children, where we find our place, our meaning, our purpose. It is also where we grow our food, where we inhale oxygen, where we receive vitamin D from sunshine, where we build shelter, where we die, and where we are buried. The Earth is needed to sustain life, and more specifically, it is an intricate web of ingredients that allow life to exist (Choi, 2012). Without Mother Earth, our platform for conversations, rallies, storytelling, demonstrations, and all forms of change and exchange simply would not exist. The Earth is what unites us; it is the fragile thread that binds us to others and weaves our communities together. Unfortunately, fragile may be an understatement.

Nearly all climate scientists agree that the Industrial revolution kick-started global warming, having begun perhaps as early as the 1830s (McGregor, 2016; Weart, 2021). Since then, the world has inched ever closer to irreversible climate consequences due to steadily increasing carbon emissions. A newly installed, scientifically-backed Climate Clock in New York City gives the world just under seven years (at the time of this writing) to become carbon neutral before we reach the point of no return (*The Climate Clock*, 2020; Moynihan, 2020). Unfortunately, along with irreversible damage to the Earth come several forms of environmental injustices. According to the Environmental Protection Agency, “environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws,

regulations, and policies" (United States Environmental Protection Agency, 2021). Environmental justice activists observe that minority and low-income communities often bear a disproportionate amount of environmental harm in society (Buchanan, 2010). Environmental injustices overwhelmingly take place against marginalized groups throughout the world: a planned escape from ecological threats for affluent people in the Philippines leaving lower income populations abandoned (Ajibade, 2019), inequities in noise exposure in Europe (Dreger et al., 2019), higher air pollution rates in impoverished communities in Sweden (Flanagan et al., 2019), and the impact of slum conditions on a community's well being in Brazil (Gillam & Charles, 2019), to name a few. Environmental injustice occurs when sustainable development, defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (*Sustainable Development*, n.d.), is neglected by producers and consumers.

The United States has displayed some effort to curb the effects of environmental injustice. Ten states have adopted environmental justice laws and 13 others have legislation pending; Missouri, however, has not implemented any laws surrounding environmental justice (Bruce, 2021). On a more local level, some cities have taken action (Shandas & Messer, 2008); however, holes and gaps in the work remain, mainly in the area of sustainability. Although some states have advanced legislation, injustices such as water contamination (Schaider et al., 2019), energy poverty (Xu & Chen, 2019), environmental pollution (Allen et al., 2019), and food apartheids (Brones, 2018) occur throughout the United States. Furthermore, communities affected by environmental justice issues are often at the forefront of more than one current social justice issue

(Solomonian & Di Ruggiero, 2021). Thus, community involvement is necessary everywhere. To repair these holes and gaps, we need to understand why community members choose to engage or disengage with everyday choices such as plant-based diets, urban agricultural efforts, and supporting local food growers. With further research on how people in affected communities choose to engage with their environment, future generations will have a better chance of sustaining the environmental repair to their food supply, water quality, and air, to name a few (Hornik et al., 2016; Killcreas, 2012).

Choosing to engage in the everyday actions mentioned above go hand in hand with food justice. The Institute for Agriculture and Trade Policy defines food justice as "the right of communities everywhere to produce, process, distribute, access, and eat good food regardless of race, class, gender, ethnicity, citizenship, ability, religion or community" (*Draft Principles of Food Justice*, 2012). Food justice advocates fight to bring attention to disparities embedded in the larger food systems. They work to resolve economic inequality, poverty, and structural racism within the food system from production to the distribution and consumption of food. Fighters for food justice seek to find accessible and successful strategies to change unjust systems, such as food insecurity, which the United States Department of Agriculture (USDA) defines as "a household-level economic and social condition of limited or uncertain access to adequate food" (2022). The highest rates of food insecurity are within low-income households, those with children led by single parents, and those with people identifying as Black, Indigenous, and People of Color (BIPOC) (Horst, McClintock, & Hoey, 2017). Knowing where food insecurity is highest, advocates create strategies and efforts such as place-

based projects (community gardens, food co-ops, additional grocery stores) to political change efforts. The St. Louis Food Policy Coalition (STLFPC), which consists of:

> a group of nonprofit organizations, governmental agencies, and passionate individuals, [who are] working together to address the food system needs of the Greater St. Louis area. The STLFPC bridges the many local efforts addressing hunger, food access, sustainable agriculture, nutrition, social justice, community, and economic development to form a coordinated local food system (Missouri Coalition for the Environment, 2021).

Some of the organizations we worked with during the course of this study (New Roots Urban Farm, Heru Farms, The International Institute Farm, and Seed St. Louis (formerly Gateway Greening) are all members of the STLFPC. Each is centered around urban agricultural efforts to create a more just food system in St. Louis.

From an outsider's perspective, St. Louis' food heritage is defined by toasted ravioli, gooey butter cake, bread-sliced bagels, and Imo's Pizza for lunch (or even cold the next morning for breakfast). Closer inspection reveals that St. Louisans of every ethnicity and race have a much deeper connection to food that has traveled through generations of cultural experiences. The "so St. Louis" traditions that many St. Louisans tend to ignore are rooted in the marginalization and disenfranchisement of people of color. In St. Louis City, neighborhoods house food-insecure populations where nearly one in five residents do not have consistent, reliable access to healthy foods (*Feeding America*, 2020 as cited in Shelton, S., 2020). These neighborhoods exemplify the notion of *food apartheid*, limited access to large grocery stores and an abundance of fast-food restaurants (Sevilla, 2021). Communities experiencing food apartheid have limited

shopping options and require further distances to travel than those in the more traditionally White neighborhoods (Alkon et al., 2013; Garth & Reese, 2020). As a result, low-income community members historically create new foodways. They work to maintain the food heritage passed down to them and incorporate that with where they live and shop. (Aneez, 2020).

Although the term food heritage might be unfamiliar to many, most consumers acknowledge that there is a link between food, culture and heritage. In addition to culture and heritage, food also is key in many aspects of consumerism and capitalism. According to Moore, "Food—in capitalism as for all civilizations—is a crucial nexus of … humans and the rest of nature, co-producing wealth, life, and power" (2015). As food has links to monetary components, it also has strong links to culture and identity. Leaning on UNESCO's 1972 and 2003 definitions of tangible and intangible cultural heritage (UNESCO World Heritage Centre, 1973; UNESCO Intangible Cultural Heritage, 2003), our team has defined heritage as the products, practices, and perspectives learned, inherited, and attributed to cultural and ethnic groups' identities. The soul food of Black communities across the nation, the cuisine of recent immigrants, and traditions and holidays that revolve around certain foods are just a few examples of how culture and food interweave to create a beautiful tapestry of food heritage: a tapestry where each thread is as unique as it is important.

Recent research shows that the world's food heritage tapestry is quickly unraveling due to the unsustainable lifestyle to which many have succumbed. This lifestyle, fraught with unsustainable meat production, excessive plastic in packaging, and global transportation of food, has severe consequences for our world in terms of

agricultural practices and land use (Mont, Neuvonen, & Lähteenoja, 2014). Of the world's habitable land, 37.6% is utilized for agriculture with the rest being either infertile or host to human dwellings, shopping malls, parking garages, and the like (Ritchie, 2019). The United States uses 44.36% of its land for agriculture (Trading Economics, 2022), whereas the state of Missouri uses 63% (Garino, 2019). However, land distribution for rearing livestock and growing crops for human consumption is wildly unequal (Ritchie, 2019). According to Ritchie and Roser (2019), "While livestock takes up most of the world's agricultural land, it only produces 18% of the world's calories and 37% of total protein." The world's growing desire for animal flesh not only causes enormous environmental and sustainability issues, but it also hastens the end of some of this world's unique cultures either through climate events such as heat waves or through hunger (Wallace-Wells, 2019, p. 153). Hunger prevails in many places around the world, and global food insecurity is on the rise (FAO et. al, 2020). Food insecurity in St. Louis mimics this global trend, especially during the COVID-19 crisis. Food insecurity in the United States is estimated to have doubled overall and tripled among households with children during the COVID-19 pandemic (Schanzebach & Pitts, 2020). St. Louis journalist Liz Miller writes, "For people who were just scraping by before the pandemic, unemployment worsened existing problems related to food insecurity and housing instability" (2020). Although major companies and corporations are primarily to blame for the current climate predicament (Wallace-Wells, 2019), research to date offers simple, sustainable solutions for individuals that range from urban agriculture to consumer actions to making changes to our consumption habits: eating locally sourced food,

practicing vegetarianism, veganism, and having a vegetable garden (Siegner, Sowerwine, & Acey, 2018).

Although eating your fruits and vegetables may seem inconsequential, according to Paul Hawken, editor of *Drawdown: The most comprehensive plan ever proposed to roll back global warming*:

> Zen master Thich Nhat Hanh has said, making the transition to a plant-based diet may well be the most effective way an individual can stop climate change. Recent research suggests he is right: Few climate solutions of this magnitude lie in the hands of individuals or are as close as the dinner plate (2018, p. 40).

In fact, four of the top ten ways to reverse climate change are food related and a plant-rich diet comes in at number four (Hawken, 2018). "Animal foods demand a greater input of resources like water, fuel and land, and contribute to deforestation and biodiversity loss, than plant-based foods. For example, the carbon cost of beef is about 20 times more per gram of protein than it is for beans" (Kevany, 2020). However, in what seems like a vast oversight, according to Alkon et al. (2013), "there are few, if any, contemporary systematic studies of the food worlds of the poor in the US" (p. 128). The importance of food in the fight for our world juxtaposed with the lack of research into the foodways and foodscapes of that same world's poor is at once terrifying and irresponsible. The scarce existing research ignores the cultural relevance of sustainable solutions and different populations' ability (i.e., affordability, accessibility, etc.) to make sustainable changes (Davenport & Mishtal, 2019).

Background and Statement of the Problem

How and what we eat has moral, economic, ecological, and ethical implications (Eckstein & Young, 2018). In turn, why we eat what we eat cannot be separated from culture and heritage. In their introduction to *Black Food Matters*, Ashanté M. Reese and Hanna Garth assert that "a focus on Black food culture...allows us to illuminate the variety of ways in which Black cultural forms come up against other dominant (White) culture... Food allows that entry point into understanding the complexities of Blackness" (2020, p. 13-4). It logically follows that food will also allow an entry point to understand the cultural motivations of low-income, BIPOC, and other social groups. Understanding unique cultures is imperative to sustainability (Kapelari et al., 2020). Cultural heritage has a "'living' quality, wherein the past is constantly recreated, remade and redescribed to align with present conditions and sensibilities" (Samuels & Rico, 2015, p. 21). To that end, Vladimir Hafstein suggests that cultural heritage can promote sustainability: "the major use of heritage is to mobilize people and resources, to reform discourses and to transform practices" (2012, in Bendix & Hasan-Rokem, 2012, p. 502). Yet existing research on sustainability and food, for the most part, examines the food choices and dietary trends of the White majority (Davenport & Mishtal, 2019; Uhlmann et al., 2018), whereas current research surrounding low-income and BIPOC cultural food habits focuses on health, weight, and medical concerns (Carter & Alexander, 2020; Davis, 2013; Graves, 2015; Sims et al., 2008). Limited research shows how culturally defined foodways, locally constructed foodscapes, and current sustainable solutions intersect to drive consumer food choice (Moore, 2020; Paddock, 2016; Steptoe, 1995). This study was born out of a desire to rectify this lapse in the research.

For this study, *foodways* refers to "the [*current*] cultural and social practices that affect food consumption, including how and what communities eat, where and how they shop and what motivates their food preferences" (Alkon et al., 2013). We define *foodscapes* as "the places and spaces where you acquire food, prepare food, talk about food, or generally gather some sort of meaning from food" (MacKendrick, 2014, p. 16); *food sustainability* is the category of practices through which the consumer commits to protecting the environment and its living communities; and *sustainable food practices* is buying local, seasonal, fresh/unprocessed food, eating less meat, vegetarianism, veganism, and purchasing products with less or no packaging (Brons & Oosterveer, 2017). Each of these examples of sustainable food practices are within the three dimensions of a sustainable food system: social, economic, and ecological (Griffin & Sobal, 2013). The existing research fails to explore what various communities know about the relationship between foodways and sustainable practices. Our inquiry determines the level of concern and awareness for more sustainable food systems in such communities, asking whether current foodscapes and foodways make such practices feasible or faithful to cultural integrity for St. Louis communities.

As previous research shows, stakeholders and community organizations often invest in historically marginalized communities to address sustainable food and environmental solutions at a local level through food pantries, community gardens, and neighborhood clean-up events (Genuis et al., 2014; Holkup et al., 2004; Hornik et al., 2016; Shandas & Messer, 2008). However, most local organizational efforts pay little attention to the voice and the choice of the community members who could identify legitimate concerns and areas for environmental growth. Such was the case at City

Gardens in Orlando, Florida, where outsiders started urban gardens with the good intentions of improving the lives of those inside the community: “Though their efforts may have been well-intended, good intentions did not necessarily translate into good outcomes" (Davenport & Mishtal, 2019, p. 63). Additionally, many outside organizations simply insert themselves (usually in majority-BIPOC areas) to improve an aspect of an affected community, without providing means to maintain programs or sustainably enhance the future (Annecke, 2002; Fakier, 2018; Killcreas, 2012; Swaminathan, 2017). These affected communities, often battling multiple levels of disenfranchisement, may have limited means to create sustainable change from within. Historically, they live their daily lives in a systemically harmful environment, one that is often imposed upon them by those outside their community (Alt, 2011; Fakier, 2018, Willett et al., 2020). Webster (2017) reminds us that “marginalized peoples often are first harmed by environmental degradation and then may be forced to bear the costs of mitigation or adaptation as well if legal requirements do not protect their interests, grassroots movements, or powerful non-governmental organizations" (p. 6). It is essential to create knowledge and solutions with community members and support them with the changes they desire to combat environmental injustices within their community. This research lays the groundwork for those changes. One distinct American ideology — the emphasis on the individual over the community — accounts for lackluster community engagement in most parts of the United States (Putnam, 2001; Hawken, 2017; Pancer, 2014). Current research has not connected this individualistic mentality to environmental justice and sustainability, and many questions remain (Hultgren, 2017). Is it possible to change American ideology (i.e., individualism, exceptionalism, etc.) to look at environmentalism in a more collective or

community-based way? Can cultural identity propel an idea forward or maintain the status quo? In other words, can someone's heritage influence their everyday choices and practices, such as food? In addition to the limitations of ideologies found at the core of our cultural identity, our current political climate necessitates new and creative ways to combat environmental injustices and sustainability (Hultgren, 2017).

Research has identified a positive correlation between knowledge and activism (Hornik et al., 2016; Killcreas, 2012; Rickenbacker et al., 2019). Knowledge combines with core values to become an ideological accelerator toward change (Kohls, 1984). Activism within the food justice movement emphasizes empowerment, food as a human right, and self-determination (Scanlan and Regas, 2018). However, rarely have these lenses centered on St. Louis. Many might know about environmental issues on a global scale but do not focus on these same issues in their communities, especially regarding food access (Vos, 2007). In addition, low-income and BIPOC community members may be aware of discrimination and lack of support for more significant, or existing, sustainable solutions but do not equate these injustices to the ones taking place within their immediate environment (Hoover, 2013). Historically, St. Louis has a reputation for pushing low-income and BIPOC communities into environmentally dangerous and abandoned neighborhoods (*Environmental Racism in St. Louis*, 2019), and yet St. Louis communities and governments have yet to take serious action.

The lack of serious action should not be taken to mean that there is no action at all. However, more often than not, the actions of government or independent organizations can seem somewhat inconsequential and pretentious: dropping off products (Fakier, 2018) or installing a common communal space (Meenar & Hoover, 2012)

without actively investigating what would improve the environment for community residents. Understanding the intricacies of identity, culture, and environment related to food choice and food practices can propel sustainability and fill a gap in the literature. In one recent study of sustainable practices, researchers discovered an unexpectedly strong link between the cultural heritage dimension of food and sustainability, suggesting that including both sociocultural and food heritage aspects leads to more inclusive, and thus more effective, food security policy change (Kapelari et al., 2020). This research study aims to continue the scant research on cultural foodways and sustainable food systems, focused on our home city of St. Louis.

Past research into community engagement has used quantitative, qualitative, and mixed methods. A mixed-method approach allows researchers to focus on the personal views of various people within the community through qualitative measures. However, adding quantitative figures to support additional correlations and connections results in a more robust, complete description (Creswell, 2015). In an effort to explore food heritages, our team took a closer look at the role sustainability and sustainable food practices play in preserving the foodscapes designed and the foodways desired by communities in St. Louis. The ultimate goal is to use the defined food heritages of St Louis area residents to help support sustainable education and information to move toward a sustainable food heritage. We explored whether low-income communities can prioritize environmental issues in the context of systemic racism. Through collecting quantitative survey data and decoding interviews with community leaders and stakeholders, we employed multiple lenses to explore community knowledge of and the need for environmental justice and sustainability concerning food. The results we present

will, we hope, drive dialogue toward a culture of change with foodways and foodscapes at a local level, both in St. Louis and other cities and areas of similar size and demographics. This descriptive research study seeks to inform governmental policy, environmental nonprofit organizations, food justice advocates, and community members to drive sustainable education and practices within larger low-income, food-insecure communities as well as more affluent, food secure areas. A better understanding of St. Louis' cultural foodways and notions of sustainability helps inform local and urban food justice initiatives and push policy forward in community fights to maintain food security and heritage, and create sustainable food systems in urban areas. In order to create sustainable food heritages, we look at how sustainability and food heritage have interacted in the past and present. Analyzing this intersection will help to provide a foundational baseline to create the changes needed to and lay the groundwork for future research in supporting sustainable solutions for a food legacy. The hope is that understanding the food heritages of St. Louisans today will contribute to sustainable food heritages in the future. That is, a food heritage that remains true to ancestral roots all while being more sustainable — a mutually inclusive relationship. As discussed later, these two often go hand in hand.

Purpose of the Study

The purpose of this mixed-methods study was to investigate how food heritage is defined through explicit and implicit connections to the sustainable food practices and foodways of communities in the metropolitan areas of St. Louis, Missouri. In other words, we sought to understand how sustainable food practices and foodways continuously shape and inform food heritage. Although some (explicit) heritage markers

such as behaviors can easily be observed, some of the underlying (implicit) value systems and thought patterns will take further inquiry to more completely understand (Hall, 1989). By investigating this relationship through surveys ("Food Heritage & Sustainability Survey") and interviews of fourteen of community leaders and stakeholders of varying ages, genders, ethnicities, and backgrounds, this study unearthed present-day and historically-held perspectives, action, and awareness surrounding food heritage and how it shaped concurrent, localized food practices. Such food practices may include but are not limited to food choice motivation, traditional eating, sustainable food practices, and community gardens. Furthermore, by examining the perspectives of various populations in the St. Louis area, this study can catalyze deeper conversation, criticism, and innovation on both an academic and systemic level around culturally correlated sustainable food heritages in Greater St. Louis.

Research Questions

Unifying question:

- How do foodways and sustainable food practices contribute to the definition of food heritage for St. Louis area residents?

Sub-questions:

- What are various stakeholders' attitudes toward sustainable food heritages in St. Louis?
- How do sustainable food practices and food heritage intersect in terms of food practices for St. Louis area residents?
- How do foodways and food heritage intersect in terms of food practices for St. Louis area residents?

Assumptions and Limitations

Upon completing this study, we believed that St. Louis stakeholders, community activists, and future researchers would better understand sustainable food practices and where those practices intersect with the priority of heritage food selection. In simple terms (with no pun intended), we believed that St. Louis communities currently have bigger fish to fry in their lives than food sustainability practices. In looking toward sustainable food heritages, our team was curious about where knowledge of sustainable food practices could intersect with food heritage and the reasoning behind motivation for, or lack of, implementation in practice. We hoped that themes would emerge upon completion of this research.

In addition to these assumptions of the study, it is also important to note our limitations. First and foremost, our study occurred in the middle of the COVID-19 global pandemic; therefore, it looked different than previous research. We did not enter people's homes to experience their environments, document their cooking practices and eating habits, or interact with them in their territory. Instead of relying on the rich description practices that we can provide as researchers, we depend on the probing and follow-up questions to provide glimpses of our participants' foodways, food practices and food heritages.

Once we had obtained the initial dataset, we wanted to inspect our data for ideal candidates to participate in the qualitative portion of our study. However, our study design had to be shifted due to time constraints. Instead, we chose to interview community leaders and stakeholders to add richness and narrative to our quantitative data. The quantitative data set a baseline for the entirety of our study. We then compared

our qualitative data collected through interviews of community leaders and stakeholders in the St. Louis area to this baseline.

Because of the edited research design, we could not dive deeper into survey answers in our interviews, as we did not expand on surveys already taken. One desire was to obtain narrative from participants from a range of value orientation options within the survey: egoistic, altruistic, and biospheric. This information would have changed some of the results, or at the very least provided some insight into motivations behind food choice and sustainable practices. For many other questions, we were unable to understand the *why* or even the *how* behind a certain set of responses from survey participants. As we were able to understand the viewpoints of our stakeholders, the stakeholders themselves have deeper roots in food justice and sustainable initiatives in the St. Louis area. For this reason, our responses and analysis are limited.

In addition to the narrow expertise of the stakeholders interviewed, we also had a slightly smaller sample size of survey respondents than originally desired (n=621) and initially, we utilized social media as one of the ways to gain the public's insights. We realized that there were large groups missing from our dataset, hence the shift to purposeful sampling at in-person locations. This is listed as a limitation, as we could not gather widespread data throughout the St. Louis area via social media, educational institutions, and community partners alone. We believe that this could be because of a digital divide and Internet accessibility within St. Louis communities, as well as a lack of time to complete a survey online. Even though we believe that we encapsulated a dataset with participants relative to the makeup of the St. Louis area, we also felt that this is a limitation of our survey sample.

Initially, we had designed our study to reflect Community-Based Participatory Research, in order to maintain participant's voices. To stay true to the *C* in Community-Based Participatory Research, our study aimed to involve the participants as active members in the research being done in their community. To that end, our team decided that an additional component to our research would be centered on Photovoice, however we were unable to implement this due to time constraints, the COVID-19 pandemic, access to digital cameras, etc. By utilizing Photovoice, the participants would take pictures of various aspects of their lives, which would help the researchers illustrate the full range of these life aspects (Wang & Burris, 1994). According to Lin, Morgan, and Coble (2012), having participants employ Photovoice in a study allows them to understand the meaning of the content, even though it can be difficult to pinpoint within the photography occasionally. Ideally, at the second interview, the household should have taken at least 20 photos, including photos of five typical meals for their household, five food-shopping experiences, and a more formal/family meal (if possible).

Finally, as we began to design our research and structure our study, we had trouble finding studies that connected foodways and foodscapes with notions of sustainability and sustainable food practices to food heritage. Because of this lack of research connecting these variables, we aimed to conduct research that was first exploratory, then explanatory in nature. In addition, through data analysis, we discovered survey questions that were missing and that could have allowed us to have a better understanding of current situations, practices, and beliefs (i.e. household size question, food choice motivation question linked to past/future food habits as well as the desire to preserve foodways, which would lead to food heritage, etc.). This survey was created

using existing survey questions, however, our Food Heritage and Sustainability Survey should be considered novel due to the order of the questions, the categorization of variables, etc. The researchers believe that each question is appropriately categorized and justified. We do however recognize that different biases, education and lived experiences may lead others to disagree. With this in mind, we assume that the survey tool will be reinforced and refined in future research. With all of these considerations in mind, we understand the limitations of our data collected and would hope that future research would continue to explore these topics addressing the limitations of this current study.

Chapter Two: Literature Review

In their 1995 hit single "Soul Food," the Southern rap group Goodie Mob ingeniously balances the concept of food heritage with their cultural and food environments. CeeLo Green's lyrics describe it best:

> *A heaping helping of fried chicken / Macaroni and cheese and collard greens / Too big for my jeans / Smoke steams from under the lid that's on the pot / Ain't never had a lot, / but thankful for / The little that I got / Why not be? / Fast food got me feeling sick / Them crackers think they slick / By trying to make this bullshit affordable / I thank the Lord that my voice was recordable* (Goodie Mob, 1995).

Alongside his groupmates, Green's lyrics incidentally tap right into this paper's core exploration: food heritage. Wherein, this paper explored how food heritage was defined by foodways and sustainable food practices—which, in turn, are informed and influenced by foodscapes and notions of sustainability respectively. As a result of this exploration into food heritage, as also embodied in the lyrics of Green, there seems to be a future-oriented connection too as well as desire for the idea of sustainable food heritage.

Food Heritage

Food heritage is the connection between products, practices, and perspectives learned, inherited, and attributed to food and food systems, which is used to co-construct one's individual, social, cultural, and ethnic identity (Davis, 2013; Kapelari, 2020). Within this definition, the authors seemed to imply a personal agency. The "products, practices, and perspectives learned" all highlighted this notion of personal engagement around and exposure to food traditions, foodscapes, and systems that make up a person's

given food heritage. From food products, practices like family holiday dinners, to cultural perspectives on what foods to cook and eat, all seemed to converge into the idea of food heritage. Uhlmann et al. states that "food is a symbol of personal and group identity, thereby playing an essential role within most cultures" (2018). In the recent Kapelari et al. study centered on how food heritage knowledge can inform education for sustainable food choices, researchers present the idea that "eating food invokes memories, incites senses and emotions and offers experiences that bind people together through space and time, creating local, regional and national/ethnic identities and connecting the past with the present" (2020). From these studies, the authors argued that the products, practices, and perspectives of a given community is what tends to inform their personal sense of identity. From this perspective, the saying *you are what you eat* and its opposite *you eat what you are* held true.

This second perspective is magnified best in Dindyal & Dindyal (2003). These scholars argued for the impact of culture and ethnicity on a person's food preferences. Specifically, they highlighted how religious practices around Buddhism, Islam, and Jainism forbade their followers to eat certain food; whereas Christianity and non-religious lifestyles such as Atheism did not have restrictions (Dindyal & Dindyal, 2003). The products, practices, and perspectives of these groups were moreover defined their "individual, social, cultural, and ethnic identities" (Davis, 2013; Kapelari et al., 2020). This held true beyond religious traditions. In the article *Food heritage makes a difference: The importance of cultural knowledge for improving sustainable choices*, Kapelari et al. (2020) presented cultural identification as the key indicator of one's food heritage. In their study, these scholars highlighted specifically how cultural identity

played a role in the products, practices, and perspectives. Their research identified three major factors (natural concerns, sociability and traditional eating) for influencing food choice and consumer preferences. These results showed a high connection between culture and food preference. Additionally, this intersection was where the notion of one's food heritage seemed to take shape. Interestingly, the process of defining food heritage is contextualized by the relationship between cultural food systems and food choice motivation.

Cultural food systems were best defined as "the memories, communal, familial, traditions, relations, and ethnicity identities formulated around shared food choices and experiences" (Alexis, 2021). Renner et al. cited Food Choice Motivation as "eating behavior as a complex function of biological, learned, sociocultural, and material-economic factors" (2012). The relationship between these two is co-dependent and interwoven. They stand as equals and necessary for the other concept to exist by itself. Brian Graves (2015) best explained this relationship in his article "You Are What You Beat":

> Perhaps in no other work of rap is the significance of food as a symbol of southern Black identity articulated more poignantly than in Goodie Mob's title track for *Soul Food*. To get a deeper understanding and appreciation for how images of food function in the song, and how the song both reflects and extends larger African American literary and oral traditions, this study compares food motifs in Soul Food with those of three landmark twentieth-century works of African American literature, Ralph Ellison's Invisible Man (1952), Zora Neale

> Hurston's Mules and Men (1935), and Richard Wright's Native Son (1944). (p. 125)

Graves argued that the food choice motivation of Ceelo Green described by Goodie Mob's Soul Food was directly related to his cultural food system. For example, as rapped by Green, an American treasure like fried chicken is stereotypically and historically linked to popular Black food culture *("A heaping helping of fried chicken"*). Nevertheless, it is also inextricably linked to higher cardiovascular, diabetes, obesity, and cancer-related mortality rates in these same communities of color (*"Too big for my jeans"*) (Goodie Mob, 1995; Davis, 2013). Similarly, sugar-sweetened beverages, high sodium, and fast foods, as well as other high-caloric food choices associated with Black food culture ("*Macaroni and cheese and collard greens / […] fast foods")* do not just show this inextricable link to the health as mentioned above deficits; they further reveal food choice motivation in that they favor ingredients that are cheap to purchase, as is often the case with "soul food" (DiSantis et al., 2017; Goodie Mob, 1995; Davis, 2013). Graves (2015) defines soul food in multiple ways from it being "shaped out of the necessity for rural poverty-ridden southerners to use every bit of food available" while also highlighting soul food as "a symbol of modern crisis of southern Black identity." Interestingly, the cultural food system that Ceelo Green described did not care for these health deficits outright. Rather, Graves argued that the food choice motivation of Green is tied to the Black Southern cultural food systems described in the great American literary works of Ellison, Hurston, and Wright (2015). In turn, when Ceelo Green rapped those health issues, he framed them in a Black Southern cultural food system. Through these literary works ground this perspective when Graves described how Black Southern food

traditions moved with Blacks during the Great Diaspora (2015). Meaning, food choice was a participatory act of authenticity and performative group membership. These cultural food systems were overwhelmingly centered around fried, high caloric foods derived from the slavery food traditions of their ancestors—one that forced slaves to cook and eat the scraps and leftovers of the crops and animals (Davis, 2013). As Graves pointed out, Green acknowledged how his cultural food system led to food choice motivation and, therefore, his idea of food heritages (2015). Nevertheless, the research called back our original definition in consideration of how "the individual co-constructs their food heritage" (Davis, 2013; Kapelari, 2020) and took this relationship in consideration of food sovereignty.

Food sovereignty is "the natural right to have and choose healthy food as cultivated through sustainable modes and culturally defined systems" (Block et al., 2012). In context, scholars argued that ethnicity, religion, traditions, occupations, social class, geographic location, age, group personality, political or social viewpoints, and/or common health concerns (or cultural systems) holistically framed, determined, and predicted the food choice motivation of a given individual and/or community (Dindyal, 2003; Vainio, 2016). These are identities that the studies' participants self-identified with when these case studies were conducted. The act of self-identification is where the idea of food heritage is defined through the relationship of food choice motivation and cultural food systems. More specifically, Vainio (2016) found the Finnish society's move from "animal to plant proteins" was directly connected to six different cultural food system factors: natural concerns (environmental justice), health and wellbeing, sociability, social image, price, and previously established diet (familial, ancestral); predominantly founded

upon matters of environmental justice like climate change and cultural values of health longevity (pp. 92-93). Here, the concept of food sovereignty is revealed because these cultural food systems were defined by food practices designated by the society's desire for plant-based proteins (Vainio, 2016; Macdiarmid et al., 2015). This Finnish study stood in juxtaposition to their national neighbors where meat consumption in Western and Central European food environments "steadily *increased* over the decades" (Vainio, 2016, pp. 92-3). Meaning, while meat consumption upsurged in neighboring European markets, Finnish individuals instead embraced plant-based protein outright. Their food choice motivation resonated with their cultural food system, this relationship was cultivated by their sense of food sovereignty, and eventually defined their food heritage—one that rejected meat consumption and favored plant-based alternatives (Vianio, 2016, p. 92-3). And it is here that food choice motivation and cultural food systems became an act of co-creation in and of itself within the realm of food sovereignty. Cultural food systems began to become more blurry when judged against the background of an ever-increasing diverse and complex world not presented by these isolated and monolithic cultural framings (i.e. Black American for Graves, 2015 and White Finnish European for Vainio, 2016). It was here that literature pointed to how foodscapes and foodways played a core role in understanding and contextualizing these concepts of cultural food systems, food choice motivation/practices, and food sovereignty as they moved toward holistically defining food heritage.

Foodscapes and Foodways

Foodscapes and foodways seem similar on the surface. Foodscapes specified "the places and spaces that one acquires food, talks about food or generally gathers meaning from food" (MacKendrick, 2014). Similarly, foodways is defined by "the [current] cultural and social practices that affect food consumption, including how and what communities eat, where and how they shop and what motivates their food preferences" (Alkon, 2012). The difference here is subtle yet essential. Foodscapes deals with places and spaces while foodways are framed by how foodscapes, cultural food systems, and/or social structures all contextualize community-based food choice motivations. In this way, foodways were partially constructed by foodscapes while concurrently critiquing and defining them through the lens of other social systems and food choice motivations. The foodscapes and foodways of the 21st century Americans are uniquely framed by capitalism and the growth economy that comes with it. "Capitalism, understood as a world-ecology that joins accumulation, power, and nature in dialectical unity, has…an astonishing historical capacity to produce, locate, and occupy cheap natures external to the system" (Moore, 2015). This societal framework of wanting more as cheaply as possible defines "our growth-orientated civilisation [which] suffers from the delusion that there are no environmental limits to growth" (Alexander, 2014).

The idea of "more is better" constantly accosts Americans in their daily lives, and food is no exception. For instance, K. DiSantis, S. Kumanyika, L. Carter-Edwards, D. Rohm Young, S. Grier and V. Lassiter conducted a qualitative case study of Black adults who were exposed to mainstream marketing tactics (2017). These participants were given insight into how foodways were both informed and created by marketing practices. These

insights included targeted locations, socioeconomic status, stereotypical sensory appeal, known African American food traditions, and other identity symbolisms like music, foods, etc. (DiSantis et al., 2017). It was through these Black cultural and social practices, as highlighted by food systems, social systems, and foodscapes that marketers justified racist and stereotypical images used in marketing efforts. In turn, these marketing campaigns informed major food corporations where to and where not to place a restaurant or grocery store—which resulted in more health-harming foodways framed by fast food joints (foodscapes) (DiSantis et al., 2017). DiSantis et al. made this especially apparent when they were made aware of the foodways of *other* racial communities (2017). The implication is that the foodscapes (fast-food joints) are determined by the foodways (fast-food joints as the predominant food option due to food apartheid produced out of the corporate marketing). At first glance, the two concepts seem interchangeable. However, DiSantis et al. argued that it was not until participants saw past the fast-food joint and were exposed to why that fast food joint was in their neighborhood as opposed to White-facing communities that enraged her participants. It was in this realization, when they were made aware of their foodways, that the participants declared their right to food sovereignty, and denounced their unjust foodways (DiSantis et al., 2017). In this case, the fast-food joint was the foodscape while the social and systemic reasons behind why that fast-food joint was in a predominantly Black community in comparison to other cultural food systems is the idea of foodways. This relationship was further explored in literature around indigenous populations.

A recent participatory photovoice study by Rebecca Hanemaayer et al. (2020) explored First Nations traditional foods and perceptions of Native Canadian female youth

of the Haudenosaunee descent. Hanemaayer (2020) found these Haudenosaunee women more often saw traditional First Nations foods as "integral to their positive physical, cultural, nutritional, and spiritual health and well-being" (p. 1). While several of the young women differed on what classified as "traditional First Nations foods," they came to consensus around what was considered Haudenosaunee foods (Hanemaayer, 2020, p. 5-8). Furthermore, the study found their specifically Haudenosaunee familial upbringing, traditional food experiences, and community cultural and spiritual traditions primarily influenced their food preferences (Hanemaayer 2020, p. 8-11). Again, the literature showed the concepts of cultural food systems and food choice motivation and their interaction. However, these concepts were contextualized through foodways because Hanemaayer also reported that food choice motivations of these young Haudenosaunee was also in rejection of White Canadian foodscapes (2020). The implication being that these Haudenosaunee women did not frequent Canadian restaurants, grocery stores, and the like, and instead opted for foodscapes run by native populations. While the story of food heritage is framed initially by food choice motivation and cultural food system, it is then undergirded by the idea of foodways (as informed by foodscapes).

Nonetheless, while the literature seemed to point to foodscapes and foodways to better frame food heritage, other literature seemed to argue that sustainability and sustainable food practices better completed the definition of food heritage.

Notions of Sustainability and Sustainable Food Practices

The literature also defined food heritage by notions of sustainability and sustainable food practices through the lens of cultural food systems, food choice motivation, and food sovereignty. Wherein, the relationship between notions of

sustainability and sustainable food practices was one of *influence*. Notions of sustainability was summarized as "individual/community ideas of what practices and attitudes encourage sustainability (i.e., using reusable bags, driving a hybrid car, conserving energy, etc.)" (U.N. Department of Economic and Social Affairs, 2018; Hawken, 2018). Sustainable food practice was defined by demonstrable actions or lifestyles such as buying local, seasonal, fresh/unprocessed food, eating less meat, vegetarianism, veganism, and purchasing products with less or no packaging (Brons & Oosterveer, 2017); in which, sustainable food practices are actions and lifestyles that categorically fit within the three dimensions of a social, economic, and/or ecological food system (Griffin & Sobal, 2013). The core difference between the two is that *notions of sustainability* was defined on a conceptual level while *sustainable food practices* was defined by practical demonstrations.

The United Nations (UN) officially defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs," while also refining that definition through seventeen specific sustainable development goals practices (United Nations, 2018; World Commission On Environment and Development, 1987). Through this framing, the sustainable development goals were a practical roadmap for the UN to convey the areas where sustainable changes were most needed, would have the highest impact, and would be most achievable. In context, within the UN's notion of sustainability were sustainable food practices. For example, within the concept of "Zero Hunger," the UN specifically called for its nations to develop sustainable agriculture systems such as urban farms and gardens (United Nations, 2018). Another example comes from the book *Drawdown*, where Hawken produced an

accessible action plan to resolve global warming (Hawken, 2018). Sustainability ideas such as limiting food waste were practically resolved by a series of specific localized and systemic sustainable food practices like transitioning to a plant-rich diet, farmland restoration, using clean cook stoves, agroforestry, regenerative agriculture, rethinking farmland irrigation, and composting (Hawken, 2018). In both examples, sustainability as a concept *influenced* sustainable food practices. Ironically, the literature moved beyond the conceptualization of the relationship between these definitions and towards more practical understanding how they may define food heritage.

In her case study of post-Katrina New Orleans, Passidomo (2014) directly addressed the intersecting purpose of "contemporary economic, cultural, and emotional needs of citizens" and concurrent activism around food justice:

> "Food Justice activism in New Orleans has developed space with efforts throughout the United States to generate diverse and sustainable food systems that provide adequate nutritious food for all people" (p. 385).

Nutritious food for all people. The word "nutritious" sat in defiance of cultural food systems not defined by sustainable food practices. Equally, Passidomo argued that food justice and food sovereignty efforts "generated diverse and sustainable food systems." In context, Passidomo spent most of her article arguing how White-facing foodways disregarded the cultural food systems and Black heritage of New Orleans' residents (Passidomo, 2014). In sum, they set up shop in Black foodscapes and then forced racist and assimilation practices upon these communities. Passidomo then proceeded to argue that sustainability initiatives and food practices executed by Black, Brown, and Indigenous populations more readily sustained their cultural heritage (2014).

For Passidomo, the idea of food sovereignty is central to moving beyond White-facing cultural food systems and towards food choice motivation within foodways—one rooted by sustainable food practices that reflect their food heritage. This argument was addressed in other case studies conducted in cities including Chicago, St. Louis, and New York City (Bleasdale et al., 2016; Block et al., 2012; Braswell, 2018; Pettygrove & Ghose, 2016; Schmelzkopf, 1995). These case studies argued that while sustainability influenced sustainable food practices, it was the sustainable food practices that produced (and reproduced) food heritage. Furthermore, these sustainable food practices worked in conjugation to their concurrent foodways. This relationship was also found in a case study of Native Americans.

Bringing the literature full circle, while Hanemaayer (2020) seemed to argue that while foodscapes and foodways primarily defined the food heritage of Haudenosaunee natives, McCune et al. (2019) cited sustainability and sustainable food practices as the predominant reason for some Native American communities connection to their food heritage. They also reported that the 2017 Native American Nutrition Conference concluded that their cultural food systems and food choice motivations must be rooted in sustainable food practices and initiatives (McCune et al., 2019). In this examination, the Conference gathered Native knowledge around ancestral methods of agriculture; led out community projects that produced rural and urban farms (owned and controlled by Native communities); and increased access to these locally sourced plants through new sustainable programming (McCune et al., 2019). In short, they leveraged sustainability and sustainable food practices through food sovereignty to preserve their understanding of their food heritages. From this perspective, the idea of food sovereignty in action

shined light on how some populations may leverage sustainable food practices to influence and/or reimagine their foodways. Here we see how sustainable food practices and foodways influence one another to conceptualize food heritage.

Pro-environmental Behaviors and Value Orientations

The 21st century faces many layers of environmental challenges from climate change, air pollution, and reduction in resources. Studies have been conducted worldwide to measure the role human behaviors and attitudes have in contributing to these challenges and the potential for solutions. Markle states "the dilemma lies in transforming rational individualistic behavior into socially beneficial group behavior and this necessitates individual behavioral change on a large scale" (2013). She points out that research supports how to facilitate change, but brings attention to the lack of consistency in previous research to measure pro-environmental behaviors of consumers. With the goal of supporting policy and legislation on environmental issues, Markle developed the Pro-Environmental Behavior Scale (PEBS), "an empirically derived, comprehensive, yet concise, instrument that can be utilized to more consistently measure the important and frequently studied variable, pro-environmental behavior" (2013).

With emphasis on the environmental issues that pose the greatest threat (air pollution, global warming, habitat alteration, and water pollution), three types of consumer activities were identified (transportation, food and household operations) as responsible for the bulk of these problems (Markle, 2013) (Brower & Leon, 1999). Markle developed the PEBS questions to assess the most pertinent and high priority actions needed to better understand consumer attitudes towards the environment. Additional questions were added to measure environmental citizenship behaviors such as

belonging to organizations or making donations to organizations (Markle, 2013). Markle argues that "all environmental behavior measures are not equal" and believes that the PEBS does a consistent job of identifying "the degrees to which people engage in environmentally significant behavior and the types of behaviors they do perform" (2013). She even mentions a trend in which participants with high levels of pro-environmental behaviors tend to put forth effort to reduce their consumption of meat (Markle, 2013). Markle expresses the hope that the PEBS will be used in the future on more diverse populations to help determine "strategic and effective interventions to aid the mitigation of anthropogenic environmental degradation" (2013).

While researchers like Markle and Dunlap et al. have worked to study how to measure environmental behaviors, de Groot and Steg argue that "there are three relevant value orientations to explain beliefs and intentions related to environmental behaviors (2007). They define these as egoistic, altruistic and biospheric value orientations. De Groot and Steg (2007) highlight the significance that value has on explaining specific beliefs and behaviors and therefore can be used to predict attitudes and behavioral intentions (Stern, 2000). Taking the lead from Rokeach (1973), they go on to state that values provide an "economically efficient instrument for describing and explaining similarities and differences between persons, groups, nations and cultures" (de Groot & Steg, 2008). These three value orientations are believed to be a direct connection to influencing the ways people formulate their beliefs on the environment (Ryan & Spash, 2012). "People with an *egoistic* value orientation will especially consider costs and benefits of [environmentally significant behavior] for them personally: When the perceived benefits exceed the perceived costs they will have an environmentally friendly

intention and vice versa" (de Groot & Steg, 2007, pp. 333-4). De Groot and Steg define *social-altruistic* value orientation as people basing their decision to behave pro-environmentally or not on perceived costs and benefits for other people" (2007, pp. 333-4). Lastly, those who align with a *biospheric* value orientation will mainly "base their decision to act pro-environmentally or not on the perceived costs and benefits for the ecosystem and biosphere as a whole." (de Groot & Steg, 2007, pp. 333-4). Ryan and Spash (2012) believe that "an individual is assumed to be more receptive to certain information, depending on their value orientation, which then casually influences their beliefs." While investigating environmental behaviors and things can inform change to reverse degradation, these value orientations can "feed into a policy process and influence regulatory design" (Ryan & Spash, 2012). In order to direct policy change, create potential solutions, and formulate interventions to support environmental action, we have to understand the relationships between beliefs, values, intentions and behaviors (de Groot & Steg, 2007).

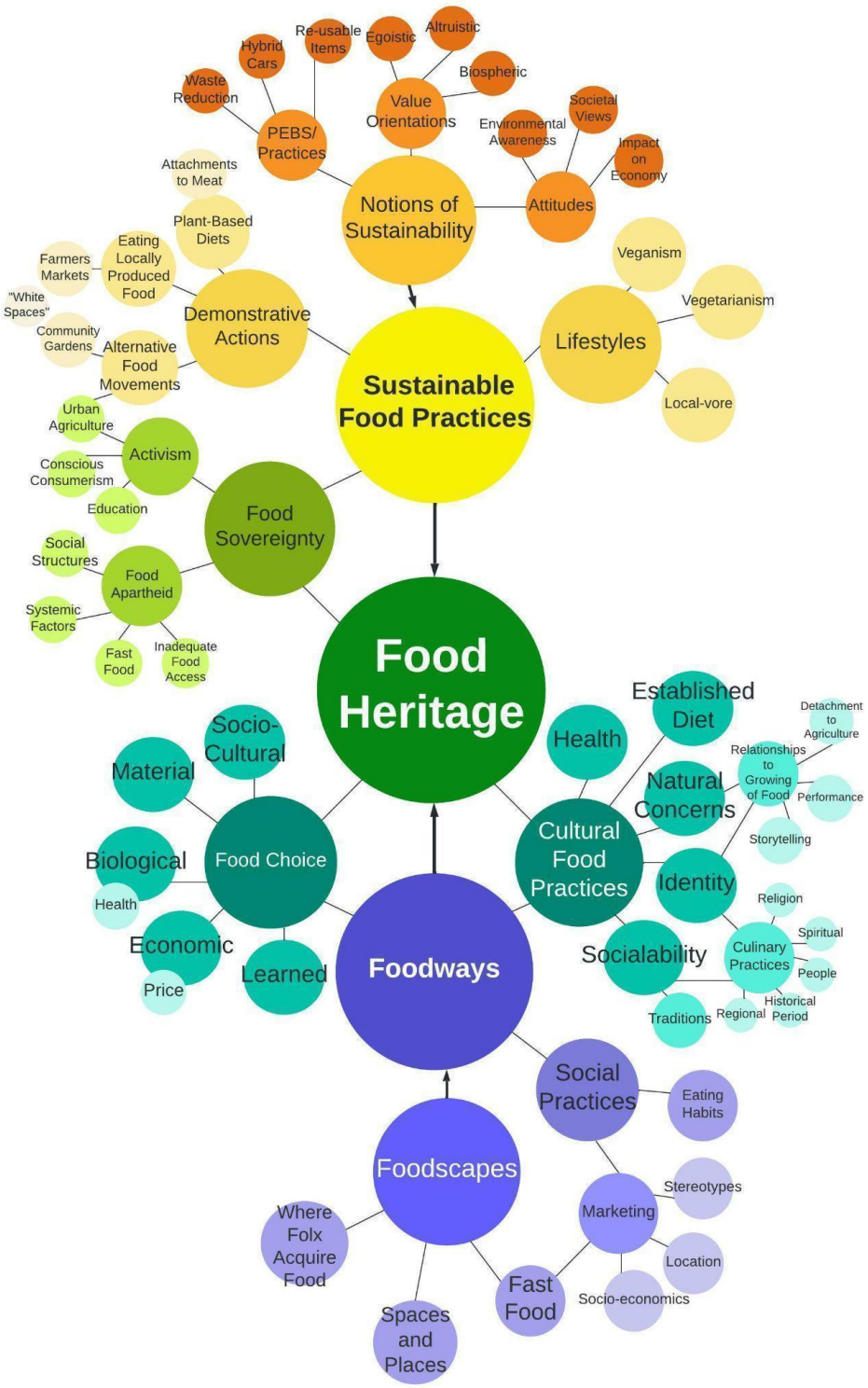
Summary of Literature Review

The literature considered for this research seemed to frame cultural food systems, food choice motivation, and food sovereignty around two organizing concepts: (a) notions of sustainability influence sustainable food practices and (b) foodscapes inform foodways. From here, the sustainable food practices and foodways of a particular community seemed to result in some conceptualization of food heritage within an individual. Furthermore, woven within these threads is this notion of a sustainable food heritage—one that works to connect together the two core concepts (sustainable food practices and foodways) and conceptualize food heritage as co-equals. In Figure 2.1, we

mapped out the connections between all components of the literature reviewed in this chapter. In addition, we created a literature table to organize the literature reviewed for our study (see Appendix A). In order to create a tool to best measure foodways, sustainable food practices and the influence it can have on food heritage, literature was needed to support the construction of our instrument and how to best analyze the data. It was through the literature review that the researchers proposed their Theory of Change.

Figure 2.1

Literature Map



Conceptual Model: Theory of Food Heritage through Foodways and Sustainable Food Practices Model

Using the literature about sustainable food practices, including sustainability as a whole, as well as foodscapes and foodways, our team discovered a need to better understand how people define food heritage. We believed that if we could see the connections that St. Louis residents have with their sustainable food practices and their foodways, we could begin to better articulate the definition of food heritage in St. Louis. While our model displays larger goals for current and future research, the data collected for our study was only analyzed in an effort to define food heritage for St. Louis residents. The research team hopes to see future research discover what heritage-aligned and sustainable interventions could be added to eventually obtain a sustainable food heritage.

Food and heritage are inextricably intertwined and environmental sustainability relies in many ways on the foods we consume. The research sought to establish the baseline for the unidentified, under-researched link between food heritage, sustainable food practices, and foodways. The researchers postulated that that link could be found in social constructivism, i.e., the belief that "reality is socially constructed and a product of the group and cultural life" (Littlejohn, 2002, p. 27). This means that the current sustainable food practices and current foodways of St. Louis residents are profoundly impacted by their foodscapes and notions of sustainability. Through this study, the researchers found correlations between a connection to and understanding of one's food heritage and knowledge of sustainable food practices and sense of foodways. Does attachment to food heritage and sustainable food practices have a positive proportional

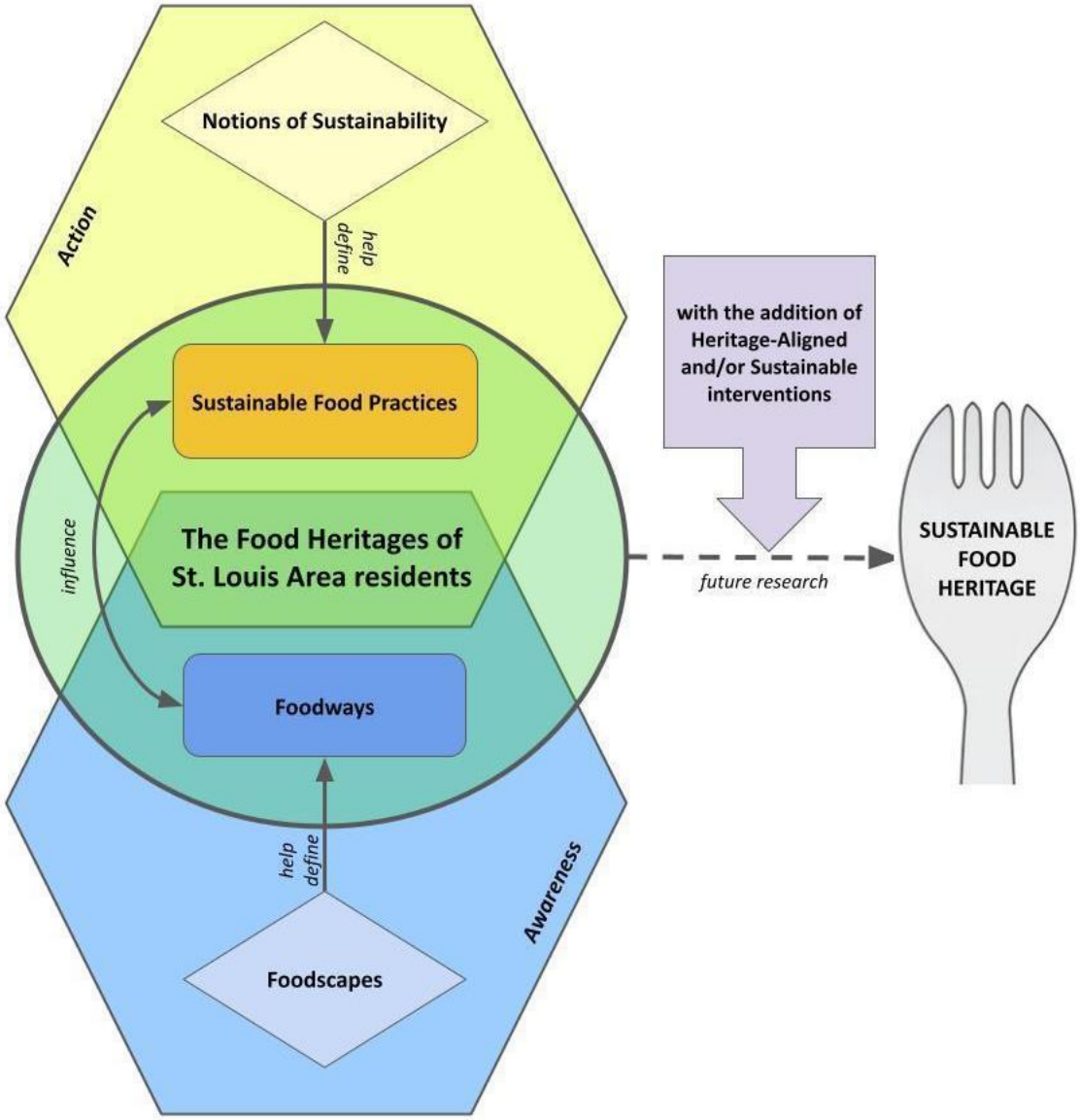
relationship, meaning more knowledge and commitment in one of these variables results in the same for the other? Additionally, do attachment to food heritage and connection to foodways have a positive proportional relationship? Initially, the researchers hypothesized that a high level of knowledge and commitment in both heritage and sustainability would lead to a future sustainable food heritage. Baseline data leading to this relationship is mapped out on the three charts below, beginning with our theory of change model.

We cannot move any further in our discussion of this study without presenting the theory of change model. This model guided our research questions and design. It was instrumental in choosing the statistical tests the researchers ran and in how they chose to analyze the data, as well as being used consistently as a guide to drive conversations surrounding data analysis and implications. It is not going too far to say that this theory of change was the bedrock of this study.

This theory of change highlights the importance of sustainable food practices and foodways in defining food heritage, as outlined in the conceptual framework in Figure 2.2, is reminiscent of the confluence of the two rivers that frame the city of St. Louis.

Figure 2.2

Theory of Food Heritage through Foodways and Sustainable Food Practices Model



As St. Louis relies on and is born from the confluence of the Missouri and Mississippi rivers, so too is food heritage born from the joining of sustainable food practices and foodways. Due to the lack of current research connecting cultural foodways and their foodscapes to notions of sustainability and sustainable food practices, our

research focuses on the leftmost figure of the conceptual framework. The researchers define food heritages of St. Louis area residents through these four lenses, more specifically the two inside of the larger food heritage circle. Additionally, we recognize the link to action that surrounds sustainable food practices and notions of sustainability. Although sustainability used to be a given in all food practices, in today's world it appears as more of a conscious action, whether in one's personal life, or in trying to influence one's community. Whereas sustainability manifests as actions, connection to foodways manifests as awareness. We believe that before change can occur, awareness of foodways (sometimes including food injustices) must be realized. This action surrounding sustainable food practices and the awareness of current foodways united is what leads to an understanding of food heritage. In short, a roadmap to food heritage cannot be built appropriately and successfully until the current foodways and sustainable food practices of St. Louis families are understood. This baseline research is where the bulk of our research resides, with occasional forays into the intersection of sustainable food heritage and food heritage, as well as projections for future research.

Chapter Three: Research Design

Consumer food choice is no new concept for researchers. The desire to figure out what people want to eat is evident in the vast amount of research that exists. Much current research links consumer food choice to health, finances, availability, and advertising. Quantitative data exists to monitor diet trends, food access and feelings on price. As stated above, there is a gap in the research to convey how culturally defined foodways, locally constructed foodscapes, and current sustainable solutions intersect to drive consumer food choice (Moore, 2020; Paddock, 2016; Steptoe, 1995). A better question might be, do these concepts intersect at all? In order to better inform food justice and sustainability efforts in the St. Louis area and beyond, there was a clear need for more research.

This chapter describes the methods behind this research in detail. We begin with our research type and philosophy. We then discuss both the quantitative and qualitative aspects of the study including the survey used and the interview protocol. Participants and setting, our data collection methods and our sampling strategy and methodology will be described in detail in the upcoming sections. Finally, we discuss how we analyzed our data and present each researcher's positionality.

Research Philosophy

Positivism and interpretivism are two common pillars of theoretical stances in social human research. Each theory analyzes human behavior in society in order to inform social research. For our mixed methods research, we employed both a positivist and interpretivist philosophy in our data collection and analysis. Using both approaches allowed us to co-construct data from our survey based on previous research and a deeper

dive into participants' perceptions of their reality through more in-depth interviews (Crotty, 1998). For our study, we chose to start with the positivism approach with our larger quantitative portion (QUANT) and interpretivism with our smaller qualitative portion (qual).

Positivism assumes that, through the lens of scientific methods, researchers can understand the social norms that are at the foundation of human behavior. Positivist researchers favor quantitative methods such as structured questionnaires, social surveys, and statistical data analysis procedures (Crossman, 2019). Positivist researchers continuously generate theories and hypotheses, which drive the study's structure, data collection methods, and analysis. These researchers test said theories and hypotheses through collection of direct observations, or empirical research. The data created from these scientific methodologies is objective, can be generalizable, and usually trustworthy (Crossman, 2019).

Interpretivism, however, argues that humans are complicated, complex beings whose behavior cannot be defined or explained by such rigid and concrete scientific methods. The thought behind interpretivism is that individuals experience the same reality in different ways based on their lived experience, which results in different corresponding behaviors (Hepler, 2022). According to many scholars, qualitative studies are more appropriate in human behavior analysis through participant observations and unstructured interviews. Since there is less control over varying perspectives of participants, interpretive research becomes subjective. Interpretivism argues that the researcher is an observer of the participant's world and can only subjectively try to understand their unique reality (Hepler, 2022).

Since our research includes both quantitative and qualitative data (i.e. a mixed methods study), we must include both positivism (surveys) and interpretivism (unstructured interviews) in our data collection and analysis procedures. Using both approaches, we examined St. Louis area residents' realities with their food heritage, sustainable food practices, and cultural and local foodways. We believe we are able to define food heritage through this co-constructive approach. Because of our belief that humans are not just data points, we aimed to gain a deeper understanding of the quantitative survey data through interviews with community leaders and stakeholders. We believe that these interviews helped us better understand why St. Louisans eat what they eat, which in turn, helped us create a definition of food heritage for St. Louis.

Mixed Methods Social Justice Descriptive Research

This social justice research was multilayered and built out of mixed methods (QUANT/qual). The purpose of this study was to understand the current intersection between sustainable food practices and the food heritage of St. Louis residents. Relevant existing research had used quantitative, qualitative, and mixed methods to study community engagement with a variety of variables related to food, heritage, and sustainability. This study began with a (QUANT) survey to gain an initial understanding of the current landscape of food sustainability, foodscapes, and foodways in the St. Louis area. For the purposes of this study, *foodways* is defined as "the [*current*] cultural and social practices that affect food consumption, including how and what communities eat, where and how they shop and what motivates their food preferences" (Alkon et al., 2013), whereas *foodscapes* is defined as "the places and spaces that one acquires food, talks about food or generally gathers meaning from food" (MacKendrick, 2014). The

(qual) interview portion of the study allowed researchers to focus on the personal views of various people within the community (Yin 2018). The quantitative and qualitative methods combined, resulted in a more robust, complete description (Creswell, 2015; Creswell & Clark, 2017). More specifically, our team implemented a Social Justice Design using explanatory-sequential mixed methods to have a deeper understanding of community members involved. Explanatory-sequential research process is distinguished by using the qualitative data, gathered second, to further clarify the quantitative data, gathered first (Edmonds & Kennedy, 2016; Creswell, 2015). Furthermore, by collecting qualitative data after quantitative, we were able to see “the quantitative data and results [that] provide a general picture of the research problem," followed by "more analysis, specifically through qualitative data collection...to refine, extend, or explain the general quantitative picture” (Creswell, 2015, p. 545).

To best understand the trends and experiences with food heritage for St. Louisans, our team constructed this descriptive study. According to Aggarwal and Ranganathan “a descriptive study is one that is designed to describe the distribution of one or more variables, without regard to any causal or other hypothesis” (2019). The goal of this research is to better describe how foodways and sustainable food habits relate to food heritage in the St. Louis area. We are able to do this through a cross-sectional study of our quantitative and qualitative data. In order to create a “snapshot” of food heritage we created a cross-sectional survey to collect data examining current attitudes, beliefs, opinions and practices in 2022 in the St. Louis metropolitan area (Cresswell 2015). Using this method gave us the advantage of best understanding how residents feel about their food practices in almost real time as we watched data roll in from our survey.

The team developed the *Food Heritage and Sustainability Survey (FHSS)* by combining and adapting the The Eating Motivation Survey (TEMS), the Pro-Environmental Behavior Scale (PEBS), and the Value Orientation Scale (Renner et al., 2012; Markle, 2013; de Groot & Steg, 2007). This survey instrument asked questions pertaining to food choice, thoughts on sustainability, values orientation, and cultural heritage (outlined further in Table 3.1). Our research team analyzed a robust quantitative dataset (survey results) to gain a big-picture perspective. We then homed in on individual voices in the St. Louis communities using qualitative, coded interview data. Using this approach, our research team was able to explain and expand upon phenomena discovered during our initial data collection while retaining voices of community leaders and stakeholders in the research process.

The quantitative data collected in this study stands on its own, but in order to get a better snapshot of the St. Louis food practices, a series of interviews were conducted. This qualitative research is rooted in grounded theory, as it was important to us to retain community voices and perspectives. According to Creswell (2015), "grounded theory design is a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic" (p. 426). During the process, we gained insight into foodways, food heritage, and food sustainability practices using data to ground our study's theory upon completion.

As researchers, we took an inductive approach to understand the link between food heritage and sustainable food systems in St. Louis. Using an inductive approach and combining previous literature and research, we were able to create a testing instrument (FHSS) that would best collect the data needed to begin to define food heritage for St.

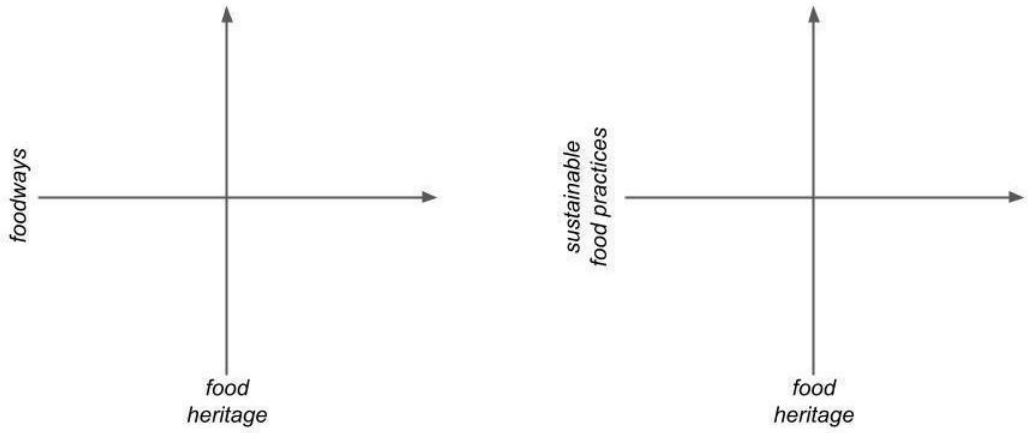
Louis residents. After collecting the data from surveys, we were able to form several testable hypotheses and begin exploring the concept of food heritage through the lenses of sustainable food practices and foodways. But, as with most social research, our study is not entirely inductive. In order to weave a better understanding of food heritage in St. Louis, we needed to observe the voices and experiences of stakeholders and obtain confirmation of our survey findings with personal narratives. Through these unstructured interviews, we were able to piece together trends threaded through many St. Louis communities to better inform our survey results. This inductive-deductive approach created a more powerful data set and better perspective on participants' connection to their food heritage and sustainable food practices through their foodways.

Our group decided to adopt a transformative research approach to assist the research process and interpretation of data. With our targeted group participants and our research questions in mind, we adopted the transformative paradigm because it “is a framework of belief systems that directly engage members of culturally diverse groups with a focus on increased social justice” (Mertens, 2009, 2010; Mertens, Harris, & Holmes, 2009, as cited in Mertens, 2010, p. 470). The researchers believe that research can not only be used, but also is necessary, to facilitate social change. The future that society must strive for, per the researchers, is centered on sustainability and an appreciation of unique foodways. Thus, this research aims to do just that: using the lens of academic research to focus on participant voice. Although our work was not centered around one specific perspective, this transformative paradigm was at the heart of this entire study. We have outlined the literature used to shape our study in Appendix B. The

hope is that our study can inform our community partners, food sustainability stakeholders, as well as families and individuals in the St. Louis region.

Figure 3.1

Predicted Quadrant Intersections of Sustainable Food Practices and Food Heritage & Foodways and Food Heritage



The data from the FHSS establishes where connections to food heritage, foodways, and sustainable food practices lie for St. Louis area residents. As seen in Figure 3.1, we predicted that as people's commitment to sustainable food practices increased, their connection to their food heritage would also increase. Subsequently, we believed that as people's connection to their foodways increased, their connection to food heritage would also increase.

Research Questions

This study used both quantitative and qualitative research methods to answer the following research questions:

Unifying question:

- How do foodways and sustainable food practices contribute to the definition of food heritage for St. Louis area residents?

Sub-questions:

- What are various stakeholders' attitudes toward sustainable food heritages in St. Louis?
- How do sustainable food practices and food heritage intersect in terms of food practices for St. Louis area residents?
- How do foodways and food heritage intersect in terms of food practices for St. Louis area residents?

Settings, Sampling Strategies and Participants

The goal of this mixed methods research study was to first gain an understanding of current foodways, connections to food heritage, and sustainable practices both with food and in other capacities. Our team decided to engage St. Louis area community members in a survey prompting them to respond to their motivations for eating certain foods, their current sustainable practices, and their connection to their foodways and food heritage. The goal was to survey and interview a cross-section of the population in St. Louis and the surrounding area that matched the population make-up. Using the Food Heritage and Sustainability Survey developed by the research team, participants answered these questions on their cell phone, mobile device, laptop/computer, or through a provided iPad.

In order to be able to generalize our results to a larger population, we had to ensure that our sample was able to accurately represent the St. Louis area (*Generalizability and Transferability*, 2022). In order to do this, our team needed to have

a firm grasp and understanding of the demographic make-up of the population. The St. Louis metropolitan area is an urban and suburban area that spans across two states (Missouri and Illinois) and multiple counties covering an area of 7,864 square miles (Census Reporter, 2020). The city of St. Louis is at its center, independent of St. Louis County, which surrounds it. Approximately 2.8 million people inhabit the metro area with a population density of 356.9 people per square mile. Across the region, 61% of the population is between the ages of 18-64, and 17% make up the age group of 65 and above, with a mean age of 39.5. Of the population, 51% identify as female and 49% male. The race and ethnicity breakdown is 73% White, 18% Black, 3% Asian, 3% two or more races, and 3% Hispanic. The household income in the St. Louis area is broken down as follows: 38% make $50,000 or less, 31% make $50-$100,000, and the remaining 30% make more than $100,000. The median household income is $65,725. As far as education, 92.5% hold a high school diploma, and 35.4% hold a Bachelor's degree or higher. English is the dominant language of the region, with 93% of homes with adults speaking it, even though the other 7% of languages spoken include Spanish (2%), Indo-European languages (2%), and Asian/Islander languages (2%). Almost 5% of the population is foreign-born, with the majority of this population coming from Asia (46%) (Census Reporter, 2020). In addition, Missouri's first congressional district, which includes most of St. Louis on the Missouri side, has 17% of the population receiving SNAP benefits (United States Department of Agriculture, 2020).

In order to generalize our results, the quantitative portion of the research had a goal of 750 survey participants above the age of 18 in the St. Louis area that represented the demographics of the area mentioned above. As a team, we started data collection

through social media postings on our personal pages on Facebook, as well as St. Louis neighborhood groups and targeted Facebook groups that related to either communities, food, or sustainability within the St. Louis area. At the same time, the researchers shared the survey with community partners. The team monitored the survey participants during the entire process, noting any areas of low participation in our survey numbers. The team noted low participation from African Americans, Latinos, the immigrant population, and people with incomes lower than $50,000. In order to have a sample that was more representative of the St. Louis metropolitan area, the researchers targeted these populations through two methods. First, the team translated the survey into Arabic, French, and Spanish and distributed it to speakers of those languages through local immigrant organizations such as Immigrant Home English Learning Program (IHELP), Welcome Neighbor STL, and through foreign language faculty at UMSL and with local- and state-level foreign language teaching associations, such as Foreign Language Association of Missouri (FLAM) and Foreign Language Teaching Association (FLTA). We also used procured sampling in the College Hill, JeffVanderLou and Penrose communities of North St. Louis at three local schools: Bryan Hill Elementary, Columbia Elementary, and City Academy. By doing this, we were able to obtain a sampling of a diverse population within the St. Louis metropolitan area.

Our data set originally consisted of 643 participants; however, 22 survey participants were located outside of the St. Louis area. Once these survey respondents were eliminated from the data analysis, 621 participants remained. Of the data collected, there were over twice as many females (n=425) than males (n=182). There were eight non-binary participants, and the remainder (n=6) preferred not to share their gender

identity. Caucasians represented slightly over half of our respondents (n=369), while the other 40% of participants were African- American (n=172), Latino/a (n=12), Asian (n=5), and Multi-racial (n=51). Twelve participants chose not to answer the question of ethnicity. As is common in many surveys our participants were top heavy in their education levels with almost 34% of them having Master's/Doctorate/Professional level degrees (n=210). Bachelor's degree closely followed (n=166) with some college/Associate's (n=101) making up the next highest representation of participants. The remainder of participants selected High School/GED (n=87), some Upper School (n=31), Trade School (n=21), some elementary (n=1) and a few preferred not to answer (n=4). Based on census data related to the St. Louis metropolitan area we potentially over-sampled females and participants with higher-level degrees, which tends to be indicative of who usually responds to surveys of this type.

The second portion of our research included interviews with various community leaders and stakeholders in the St. Louis region. For clarity, the researchers define stakeholders as persons directly involved in and connected to food in a way that somehow impacts and connects to the St. Louis region. In determining interviewees, the researchers first sought community survey partners (Welcome Neighbor STL, Heru Farms, International Institute, Immigrant Home English Learning Program [or IHELP], New Roots Urban Farm, St. Louis City Office of Sustainability, Seed St. Louis). These partners were the first touch point due to their proximity and connection to the survey data collection process. From there, the researchers leveraged these community partners' networks to solicit other potential interviewees in closely related food fields. After reaching out to 25 community stakeholders over the course of four weeks, the researchers

were able to interview fourteen in total. Such interviewees included local gardeners, urban farmers, activists, business owners, non-profit leaders, chefs, restaurant owners, educators, food service workers, pantry owners, and others in food related fields. Of the total number of stakeholders, seven identified as female and seven identified as male. Five of the interviewees were racially White and the other nine were racially Black. There were no participants who identified in any other gender or racial/ethnic categories. The setting for twelve of the interviews were virtually set and recorded via Zoom. The other two interviews were conducted in person and recorded through a recording device. Each interviewee was given the IRB-approved interview questions ahead of time. And before the interview was conducted, each interviewee gave verbal consent which was recorded. After each interview, a transcript was created for the purposes of data collection.

Our team's research started with deep roots in Community-Based Participatory Research (CBPR). According to Tremblay et al., "CBPR is an approach to research that involves collective, reflective, and systematic inquiry in which researchers and community stakeholders engage as equal partners in all steps of the research process with the goals of educating, improving practice, or bringing about social change" (2018). We believed that partnering with community partners and members, especially with marginalized populations, could create respectful group relationships, resulting in positive social change for both the group and the individual. Even though existing research utilizes CBPR primarily concerning health issues and marginalized communities (Tremblay et al., 2018; Holkup et al., 2004; Minkler et al., 2018), we believed that CBPR could apply to our research of food heritage and sustainable food practices. We believed

that CBPR was an ideal way to explore these factors while maintaining the cultural integrity of the participants as well as inform stakeholders of food heritage and food sustainability practices within the St. Louis area. However, because of time and research constraints caused by a global pandemic, our group pivoted towards a descriptive research study. Descriptive research is explanatory at its core, without capabilities of identifying causal relationships. This type of research can initiate hypotheses for future research and can identify basic relationships (or lack thereof) between variables (*Child care and early education research connections*, n.d.).

With the ultimate goal of our research being able to inform future change for sustainability and food justice fights in the St. Louis area, we implemented a transformative participatory social justice design. Social justice design is a mixed-methods design (QUANT/qual) with an added factor to inform change (Creswell, 2015). Our research is influenced by the sustainability research framework. Fisher, Poonam, Chen, Rhee, Tempest, and Dahlia describe this framework as being comprised of three key components: (1) the ability of humans to meet their basic needs; (2) the importance of having a large range of choices to meet their potential; and (3) issues of generational equity implicit (and at times explicit) in our understanding of well-being, all within the constraints of current environmental capacity (2021). Our hope is that using both QUANT/survey data in combination with qual/interview data we will be able to better explain the experiences St. Louis residents have within their food systems and sustainable practices.

Because our team was committed to honoring voices, we decided to retain the approach for the qualitative portion of our research. Original survey data collection gave

respondents the options to leave their contact information for optional interviews. Investigating community organizations involved in sustainability, food justice, and the overall health of the St. Louis community, we were able to create a master list of community leaders and stakeholders that would be ideal for the interview portion. Some stakeholders on the list had even completed our survey and assisted in sharing the survey with their professional networks. Even though there was less involvement from the survey participants, we desired to have a perspective from a variety of St. Louis residents that are connected to food, heritage, and sustainability in the St. Louis region. Through direct communication with community leaders and stakeholders, we were able to gain valuable viewpoints through various lenses.

Quantitative Sampling Strategy & Methodology

As outlined above, our research team strove to fully and accurately represent the responses of St. Louisans. In other words, the goal of the study was to be generalizable to the St. Louis area. However, since we were unable to execute a true random sampling of people, we relied on purposive (or purposeful) and typical sampling techniques to obtain survey participants that were representative of the St. Louis population and could best help us understand our variables. According to Creswell, "in purposeful sampling, researchers intentionally select individuals and sites to learn or understand the central phenomenon" (2015, p. 205). Purposive sampling is a type of non-probability sampling where the researchers identify potential survey participants based on their own judgment (Jordan, 2021).

Since all of the researchers live within the St. Louis area and interact regularly with people within the population that are 18 years and older, we began by posting the

survey on our personal Facebook profile and on the social media groups with which we were associated. The researchers also reached out to community leaders and asked them, after meeting to discuss the purpose of the study, to share the survey to their organizations. In all of the surveys sent out, typical sampling was used as a way to obtain survey results. Typical sampling is when the researchers are "looking to investigate a phenomenon or trend as it compares to what is considered typical or average for members of a population" (Jordan, 2021). Initially, our survey was conducted completely online, through emails, social media outlets, and certain diverse subsets of web channels.

After two months of purposive sampling, the researchers examined the demographic information provided by all of the survey respondents at the time. We discovered that certain communities and areas of St. Louis were non-responsive and not represented in our data set of participants. Then, in an effort to obtain survey participants that were typical to the St. Louis region, the researchers turned to purposeful sampling in which they posted the survey to social media groups that were aligned with the demographics that were missing in the survey respondents up to that point, and physically went to different areas in St. Louis to find survey respondents. In the end, using purposeful and typical sampling provided data that was both more robust and more closely aligned to the demographics of the St. Louis metropolitan area.

Qualitative Sampling Strategy and Methodology

For the purpose of the qualitative data, the researchers used purposive sampling to determine interviewees. Also known as purposive and selective sampling, the principle of purposeful sampling is to be intentional about who participates in a given interview for the purpose of more in-depth expertise on the researchers given topic (Creswell, 2015).

For this specific study, through purposeful sampling we primarily sought stakeholders invested in various food-related occupations and served BIPOC communities. The criteria for our purposive sampling was:

1. Must work and serve St. Louis community in a food-related fields at any systemic level -- with a preference for, but not limited to, directly serving low-income Black, brown, immigrant, and poor White communities
2. Must be a St. Louisan themself, wherein they live and work in St. Louis city and/or county

The result of our purposeful sampling was a diverse interview pool with fourteen out of twenty-five confirmations—making a 56% response rate. Of the fourteen interviewees, there was a 50/50 split between male and female identification. Of note, no non-binary stakeholders participated. With regards to race/ethnicity, eight identified as Black and six as White. Of the eight that identified as Black, four were identified as female and four as male. Of the six that identified as White, three identified as female and three as male. No other racial group participated in the final pool. Exactly 50% of our stakeholders worked directly in St. Louis' lowest socioeconomic area codes. Thirteen stakeholders served low-income populations regardless of race and place. One stakeholder's business caters to the middle to upper class, but their profits generously support other businesses that directly serve low-income communities. Seven of our stakeholders serve predominantly Black and brown populations. Two stakeholders serve predominantly immigrant communities. One exclusively serves low-income women and their families.

The food-related industries represented by our stakeholders are urban farming and gardening, restaurant business, education sector, activism, food services and distribution (i.e. pantry, etc.), social services, midwives and doulas industry, and non-profit sector. The roles held by stakeholders within these industries were founders, CEOs, chefs, farmers, mentors, educators, managers, doulas, activists, board members, program coordinators, and directors. Within these roles, twelve (86%) were considered currently employed, one was a retired active volunteer, and another was retired outright. While most stakeholders were in their early 30s-mid 40s, all had been working in their respective field for at least five to ten years.

Data Collection

In order to obtain a robust dataset, the team chose to utilize both survey data and qualitative data from interviews with participants in the St. Louis area. Partnering with community organizations, we had an initial set of people to survey in order to obtain demographic information, food practices, and attitudes surrounding notions of sustainability. After obtaining an appropriate sample size that reflected an accurate representation of the St. Louis population, the team shifted to finding participants to interview for the qualitative portion of data collection. Interview participants were chosen based on their involvement in organizations throughout the St. Louis community. They provided an experiential and personal narrative that is reflective of all of the questions central to our research. The amount of participants for both qualitative and quantitative sets of data were largely successful because of the protocol implemented to ensure response rates.

Once the team received final IRB approval from the university, the FHSS went live on January 11th, 2022. We started with survey collection first in the hopes of collecting some early data to better inform who we selected to interview for our qualitative analysis. By March of 2022 the team had the survey translated into Arabic, French and Spanish and amended the IRB paperwork. With final approval on April 11th, the three translated surveys each went live for data collection. At the same time, the team began compiling lists of participant options for the interview portion of our research. The survey was officially closed on April 18th, 2022 with over 640 respondents completing the FHSS. We began contacting potential community stakeholders in early April to set up interviews. Interviews began in mid-April and ended on May 5th, 2022 with fourteen total interviews being completed. The team then quickly set out to code, test and analyze all quantitative and qualitative data.

Quantitative Data Collection

In order to complete this task, we have chosen to adapt The Eating Motivation Survey (TEMS), and the Values, Beliefs, Behavior & the Environment Survey (VBBES)—acronym added by the researchers—to obtain crucial information from community members (Renner et al., 2012). TEMS is a survey geared towards understanding the reasons that drive food consumption on the individual level. The VBBES was used by our professor to gain information for a statistics course in which all of the researchers participated. The heart of VBBES includes pro-environmental behavior and habits that are self-identified by the survey participant, as well as value orientation in relation to sustainability and environmentalism. After looking at the data, the questions, and the levels of measurement for environmental behavior this survey included, the

researchers decided to use parts of the survey to obtain critical information surrounding our research questions. To expand further, the VBBES included questions from the Pro-Environmental Behavior Scale (PEBS), Biospheric, Altruistic, and Egoistic Values Measurement Items (Value Orientations), New Ecological Paradigm (NEP) Scale, the Awareness of Consequence Scale (ACS), and the Ascription of Responsibility and Personal Norms Measurement Items (Markle, 2013; Steg et al., 2007; Dunlap et al., 2000; Ryan & Spash, 2012). After reviewing the selection of questions used in all of these surveys, the researchers added questions in the style of TEMS, the PEBS, and the Ascription of Responsibility and Personal Norms Measurement Items in order to better address our research questions surrounding foodways, foodscapes, food heritage, notions of sustainability, and sustainable food practices. Many of the questions that the researchers added targeted food sustainability and food heritage perspectives from participants. Of the value orientation questions, we included 11 of the 12 original questions posed. The research team also modified some questions from the TEMS, PEBS, NEP scale, and the Ascription of Responsibility and Personal Norms Measurement Items in order to gain more information about food choice motivation and self-identified notions of sustainability from participants. In addition to the TEMS and the VBBES, we added questions based on the U.S. Census regarding demographics of the potential participants in our study. Additionally, the researchers added questions about Free and Reduced Lunch and SNAP/WIC/EBT benefits to obtain enhanced information surrounding foodways with the demographic data of the population surveyed.

The FHSS consists of 128 questions adapted from the TEMS and VBBES surveys, including demographic questions. Researchers selected questions from each

existing survey that correlated with the main research goal for this paper. Eighteen questions taken from those surveys were edited to collect data relevant to our dependent and independent variables. An additional thirteen questions were written and added by the research team in the style of the TEMS questions. Questions were randomized to prevent any questions potentially influencing other answers. The original survey was created and formatted in Google Forms and consisted of 13 pages of questions, including an opening page and final page collecting demographic information. The survey was later translated into Arabic, French and Spanish. Each language was assigned its own Google Form and data was collected separately. Google Analytics were attached to all four survey instruments to collect response rate data.

The FHSS was a semantic differential scale survey that asked participants to select where they fall between two bipolar adjectives. Most questions asked participants to rate responses between “never” and “always.” Eleven questions asked respondents to rate their environmental values between “NOT at all important to my life” and “ of supreme importance to my life.” Fifteen questions fell between the options of “ strongly disagree” and “strongly agree.” The survey also collected demographic information to help the team get a better picture of who was taking the survey and how their self-identification informs food heritage. Participants were asked their age, gender identity, ethnicity, education level, languages spoken, household income, if any household members received Free/Reduced lunch, and if they have ever qualified for SNAP/EBT/WIC benefits. The latter questions were asked to help inform all food practices for St. Louis area residents.

This research began during the winter of 2019-2020. In the spring of 2020 the entire world shut down as a result of the spread of the COVID-19 virus. In an effort to still complete human research at a time when human interaction was very limited, our research team adapted our research plan and began challenging the way research has been conducted. Due to COVID restrictions, health concerns, and the general mood of the country, the team employed a multi-modal recruitment strategy to collect survey data in the greater St. Louis area. We combined traditional survey recruitment methods with internet based recruitment methods to create a multi-modal strategy. The multi-modal approach employs a mix of recruitment methods to strategically balance the pros and cons of traditional recruitment methods. Using multiple approaches such as social media, population sampling, and email blasts, we were able to cover broader demographic and geographic areas (McRobert et al., 2018). Through creative strategies discussed below, we were able to include those with limited internet and without internet access. By creating a user-friendly online survey instrument we were able to take advantage of professional networks/groups within the field of food justice and sustainability, and share with relevant professionals in various groups on Facebook. The team created QR codes that could be scanned at participants' leisure, offered Wi-Fi iPads with the survey pre-loaded for in-person sampling, and used Google Analytics to track all survey clicks and QR scans.

As using social media as a research tool is fairly new in academia, our team began researching previous studies that use social media as a technique for survey collection. Although the University of Missouri—St. Louis does not have explicit guidelines when it comes to conducting research over social media, many of the other Institutional Review

Board (IRB) standards apply just the same as in-person research. Thus, the researchers began designing the online aspect of the study with a mind focused on protecting "the rights and welfare of humans participating as subjects in the research" (U.S. Food and Drug Administration, 2019). Although not part of the IRB process itself, Indiana University outlines the "dos and don'ts" of conducting research using online tools and mobile devices (Indiana University, 2021). In addition, they also offer guidance for using social media as a participant recruitment tool, which our research team decided to utilize. The researchers also decided to follow in the footsteps of McRobert et. al (2018) whose "strategy involved identification of most relevant societies, organizations and individuals and sending of targeted research invitations…via social media (Twitter, Facebook, Google+ and LinkedIn) and traditional methods" (p. 15). McRobert et. al (2018) found that this method, (i.e. multi-modal, traditional and social media research) "offers a pragmatic, easy to use strategy that can be used in future studies" (p. 15). A final reason the researchers decided to pursue using social media to send out surveys was to reach populations that may be underrepresented. "About two-thirds of Americans say the statements 'social media highlight important issues that might not get a lot of attention otherwise' (65%) and 'social media help give a voice to underrepresented groups' (64%) describe social media very or somewhat well" (Auxier & McClain, 2020). We specifically outlined our tactics and contact methods to the IRB, citing Facebook as our primary social media tool for recruitment. We designed a social media post template that could easily be copied and pasted into the researchers' Facebook pages, which included a brief summary of the purpose of the study and our eligibility requirements (St. Louis resident and above the age of 18). The link provided on the social media post included

our team's splash page which included information about each researcher, contact information, consent (which contained the time commitment, benefits to the participant, eligibility criteria, etc.), and a link to the Food Heritage and Sustainability Survey (Appendix C). Screenshots of Splash Pages can be found in Appendix F.

Although more concerned with response bias, in order to track the response return rate—i.e. "the percentage of questionnaires that participants return to the researcher" (Creswell, 2015, p. 393) — the researchers used Google Analytics. Google Analytics is a Google-based tool, which tracks the views and interactions of a given website. The researchers added Google Analytics to the Survey Splash Page and to the websites of each translation of the survey. These statistics were reviewed and added to the results of the study.

Although social media was a start, the Facebook pages of four academic researchers was not going to reach the depth of population our research needed to be valid. The researchers partnered with New Roots Urban Farm, Heru Farms, Welcome Neighbor STL, Immigrant Home English Learning Program, UMSL Sustainability, St. Louis City Office of Sustainability, and Seed St. Louis. Each community partner sent out the digital Food Heritage and Sustainability Survey developed by the research team to portions of their members, mailing lists and social media followers (Survey attached in Appendix C, Annotated Survey attached in Appendix G). In addition, we leaned on community outreach organizations to share the digital Food Heritage and Sustainability Survey on their social media platforms, through email lists, and group text threads. Community outreach organizations include alder people, churches, specialized organizations, to name a few. The research team also shared the survey in social media

groups (e.g. neighborhood groups, community pages, etc.) and their personal social media pages to gain more insight into food heritage and sustainability in St. Louis. A more detailed list of groups used is outlined in Appendix I.

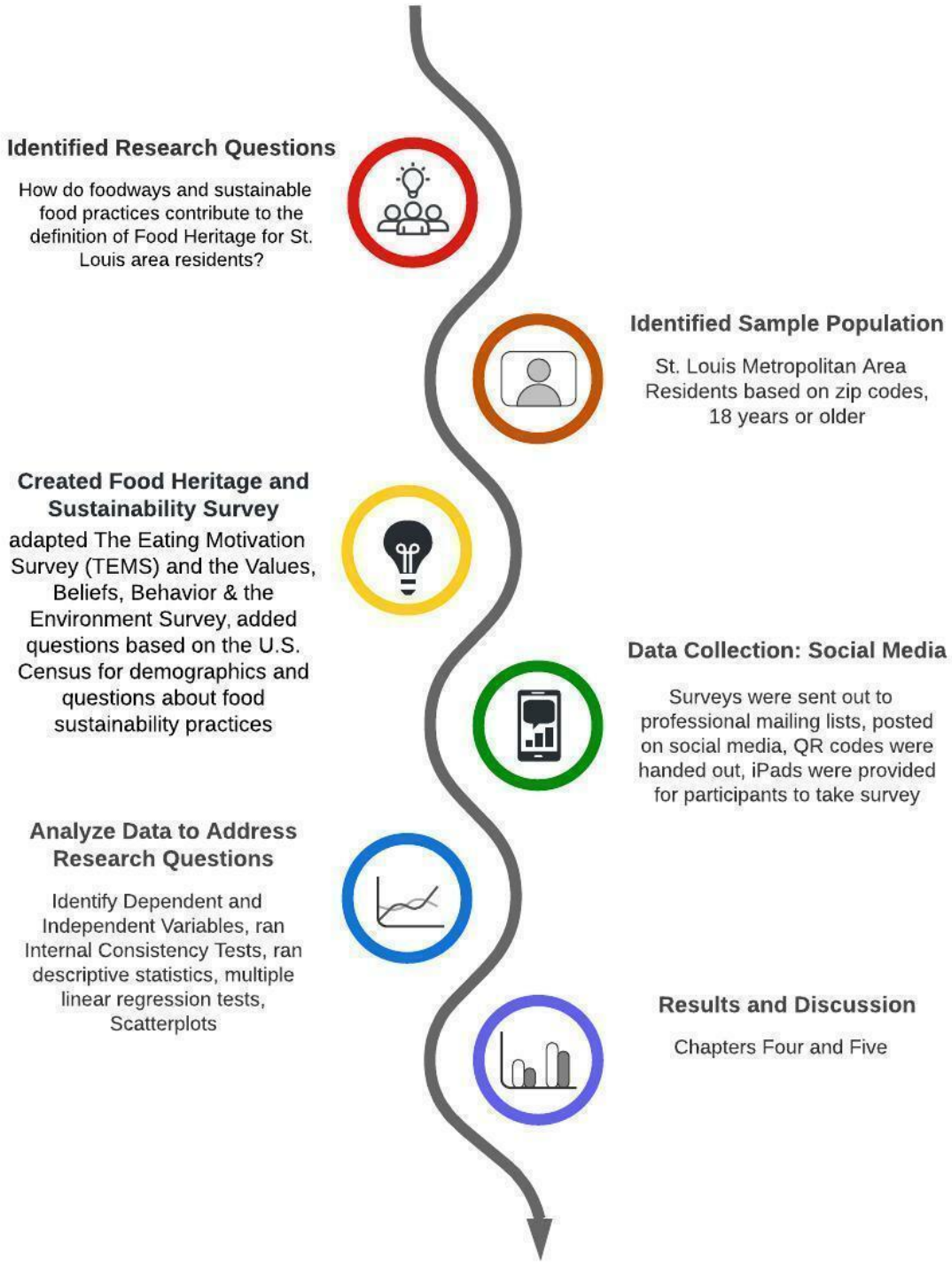
In March of 2022, two months after the research team began collecting surveys, the team noticed that the surveys were majority completed by middle class White women. In an effort to broaden the demographic makeup of the survey respondents to best represent the population of the greater St. Louis area, QR codes to the survey were handed out at a variety of locations around St. Louis: libraries, St. Louis schools, community events, etc. After an additional few weeks, it was apparent that the QR codes were also not getting us the responses we needed so the team began approaching residents in-person with the QR code and asking them to take the survey on the spot. This was when it was brought to the attention of the team that many people had limited internet on their phones or phone minutes available to take the survey. Back to the drawing board again, the team was able to procure several iPads with built-in WiFi and use a cell phone to create a hotspot for respondents to take the survey without interfering with their digital limitations. In order to track response return rate for the surveys collected in person, each researcher kept a log of how many people they approached to take the survey, how many said they would and how many surveys were actually completed. Through collecting surveys on social media and in-person with portable Wi-Fi, the team was able to collect a robust sampling of the St. Louis area population.

In a final attempt to garner survey responses that reflected the demographic makeup of the St. Louis area, the researchers decided to translate the survey into three other languages, Arabic, French and Spanish. As of 2019, “6.72% of St. Louis, MO

citizens are speakers of a non-English language" which includes 60,367 Spanish-speakers, 5,568 French-speakers and 5,432 Arabic-speakers (*St. Louis, MO | Data USA*). The researchers chose these three languages due to the number of speakers in the St. Louis area and also to reflect more recent immigration trends. One of the researchers on the research team is a Spanish-speaker and one researcher a French-speaker. Thus, these translations were first translated by the researchers. Then, in order to gain IRB approval, each survey was then re-translated back into English. The Spanish survey was re-translated by a member of the UMSL Spanish Faculty. The French survey was re-translated by a St. Louis area French teacher and the students of an UMSL French translation course. These translations and retranslations were submitted to the IRB to gain approval before they were sent out. The survey was translated into Arabic by the RushTranslate Company who provided a Certificate of Translation Accuracy. This survey and the certificate were submitted to the IRB to gain approval before the survey was sent out. IRB approval and the translated survey can be found in Appendices E and H. Figure 3.2 provides a visual representation of the quantitative methodology that we utilized.

Figure 3.2

Quantitative Data Methodology



Response Rate. The response rate in relation to a quantitative data collection is extremely important. According to Creswell, "survey researchers seek high response rates from participants in a study so that they can have confidence in generalizing the results to the population under study" (2015). Traditionally, a response rate of 50% or more is ideal. For the purposes of our study**,** we had two separate ways of determining this rate, via Google Analytics through our team's Splash Webpage and tracking of QR code distribution at in-person locations towards the latter portion of data collection. The QR codes were used at in-person locations; however, they were linked to the same Webpages used when shared digitally. The first portion of data collection began digitally using three different Splash Webpages for the various types of survey sharing: Community Partners, Educational Institutions, and Social Media. Google Analytics was added to monitor the amount of unique users and engaged sessions each Webpage received. The research team primarily shared the Social Media Webpage in Facebook groups outlined in Appendix K. In addition, we shared the Educational Institution Webpage with UMSL Foreign Language professors, UMSL Global, UMSL Sustainability, UMSL's Soul Food Celebration, Foreign Language Association of Missouri, Foreign Language Teachers Association, and through other school related social media accounts and direct emails to parents and teachers in districts throughout St. Louis. The Community Partner Webpage was shared with members of Welcome Neighbor STL, Heru Farms, International Institute, Immigrant Home English Learning Program (IHELP) New Roots Urban Farm, St. Louis City Office of Sustainability, and Seed St. Louis. Once the research team noticed discrepancies between the demographic makeup of survey participants as compared to that of the St. Louis Metropolitan area, there was a shift to include some in-

person survey collection in order to capture a more diverse group of survey participants. At various locations, we asked individuals around St. Louis to participate in our survey using devices provided by the research team. The team used one Webpage (Community Partners) to collect in-person surveys. Because of the duality with survey collection, we used the number of users on the Social Media and Educational Institutions Webpages and the number of engaged sessions on the Community Partners Webpage. Even though our response rate is directly related to the engagement on each Webpage, we also kept note of the number of QR codes that were handed out at in person locations. One-hundred and one QR Codes were handed out at various libraries around the St. Louis area (see Appendix I), and people were asked to complete the survey using researcher-provided devices at Bryan Hill Elementary School, Columbia Elementary and City Academy School in St. Louis. Of the people asked to complete the survey using a device at these schools, 11 people said no to the researcher conducting the surveys.

Taking into consideration the various methods of data collection, there were a variety of numbers to consider in our final count. Although traditional survey methods include noting how many people were asked to take a survey and refused, this is not as easy in digital survey collection. When it comes to social media, it was impossible for the researchers to know how many people saw a post about our survey on a social media site and decided to simply scroll on. Thus, our response rate is built from the data from Google Analytics; that is, we looked at interactions on our survey splash pages and compared those to the number of surveys actually completed. First, we took the unique users for the Social Media (1413) and Educational Institution (148) Webpages and added them to the engaged sessions of the Community Partners Webpage (123). Even though

we noted the number of surveys distributed via QR code in person, we felt that having the analytics of each individual Webpage was sufficient in gaining the appropriate information for the response rate. After adding the total number of users and engaged sessions (1684), we divided the number of responses of the English survey to arrive at a 36.99% response rate.

Unfortunately, we were unable to have an accurate response rate for our surveys translated into Arabic, French, and Spanish. The research team added Google Analytics onto each language survey form page; however, it was not successful. Because of this error, we did not include any survey taken in another language in our response rate calculation. Additionally, since the link was live on a variety of social media groups/pages and sent to a variety of people in the St. Louis area, the response rate succumbed to snowballing, therefore outside of these numbers, the total response rate is unknown.

Qualitative Data Collection

While the surveys and quantitative data were bountiful data sets, the researchers realized that gaining the perspective of experts in food-related fields would be invaluable. The reasoning for this decision is rooted in the fact that food-related industry stakeholders have a varied and holistic perspective on the food systems, industry, and culture in St. Louis. In addition, these stakeholders are St. Louisans themselves. Meaning, these stakeholders have a food-related investment in the Greater St. Louis community both on a systemic and personal level. In other words, they not only see how St. Louisans may define their food heritage as it pertains to sustainable food practices and foodways, but they also participate in the process of defining it for themselves.

Therefore, in order to gain a personal perspective on our research, each interview followed a set of IRB-approved, predetermined questions. Researchers employed additional probing questions and follow-up questions as follow-ups to the interviewees' responses. This allowed for some deviation from the original line of questioning as long as both the questions and answers remained on track with the research questions. To conclude each interview, each community stakeholder was asked to provide one-sentence answers to three questions:

1. How do you feel about the food that you eat personally?
2. Overall, how do you feel about food in St. Louis?
3. How does food connect you and the community you serve to what matters most?

The data collected from the qualitative portion of our study provided insight into the general dataset drawn from the surveys in the first portion of data collection. Through data triangulation, i.e., using multiple data sets to more thoroughly understand phenomena (Rossman & Wilson, 1985), the team was able to obtain more valid and robust results and conclusions. All of the data, transcripts, and recorded media were uploaded into Google Drive and Dedoose software before they were examined using notes, codes, and descriptors. As it relates to work beyond this dissertation, the researcher affirms that these results help to lay the groundwork for future studies. Figure 3.3 provides a visual representation of the qualitative process.

Figure 3.3

Qualitative Data Methodology

The team designed this qualitative interview process to complement the quantitative data collected from the FHSS. Questions were written to correspond with general survey themes and variables: food heritage, foodscapes, foodways, sustainability, and sustainable food practices. Once the interview protocol was written, questions were fleshed out, and the IRB approved the methodology. Afterwards, the researchers began identifying potential participants. To identify potential stakeholders, the researchers first reached out to survey partners and then were connected to their personal network. After reaching out via social media, email, and phone to twenty-five stakeholders, fourteen interviews were officially conducted to inform this research. Data was collected through

ZOOM audio recording or in-person through a voice recording app. While ZOOM was originally recorded in both video and audio format, the video portion of each interview was deleted and the audio was kept. Each recording was audio-enhanced to the highest possible quality for the purpose of converting the mp3 to otter.ai.doc transcripts because the higher quality allowed the conversion program to better represent the literal words said in each interview. Each interview began with an IRB-approved verbal consent agreement in which all interviewees orally agreed to take part in the study, have their names and titles in the publication, and to be recorded. This portion of the interview was also recorded. Of note: all interviewees were given the option to withdraw consent at any point during the interview.

Interviewees were given several questions from an IRB-approved script and general expectations at least 24 hours in advance of the formal interview. Interviewees were given an abbreviated version of the full question script for simplicity's sake via email or in-person prior to the interview. All questions in the script were considered, but not all questions were asked except for the final three summative questions. During the actual recording interview process, interviewees could opt to see the questions on screen for clarification. For the record: No interviewees recanted their consent. Most interviews lasted between 30 and 45 minutes. Some interviews had to pause due to various interruptions, but all resume points were times and stated at the restart of the recording.

To address potential points of criticism, the researchers first made sure that all interview procedures were IRB standardized. Regarding the length of the interviews being only around 30-45 minutes as well as the total number of interviews being one per stakeholder, the researchers acknowledge that these interviews are relatively short and

there possibly should be more total interviews. The purpose and methodological process is created to (a) supplement and enhance the quantitative data, and (b) to truly pull out the highest quality and connections from each interview. To accomplish this purpose, the researchers systematically created interview questions that were centered around the dependent and independent variables as well as probing and focus questions that created intersectionality. Through a systematic coding and descriptor process, the researchers also determined connections and inferences found within the interviews. The researchers felt confident about that choice due to these purposes: there were not pending need to increase the length or total number of interviews. Additionally, as it may pertain to criticism of the total number of interviewees, the researchers chose stakeholders who were gendered, racially, and occupationally and demographically diverse. There was a 50/50 split as it relates to female and male genders. While non-binary participants were asked to be part of the interview portion of the research, they either rejected the offer or were unresponsive to the invitation. The researchers also sought to interview more people of color than White leaders to intentionally fill in the gaps potentially left by the qualitative data as it pertains to non-White persons. Lastly, the researchers sought to interview at least two stakeholders from various food-related fields from diverse racial and gendered backgrounds. Yet, the resulting fourteen interviews still represented diversity across occupation, race, and gender in spite of eleven non-compliant participants.

Post interview, all recorded data was captured and audio enhanced as an mp3 through GarageBand software. All recorded data and content was left unaltered during this process in accordance with IRB standards. The enhancement of the audio to “highest

quality" was for clarity of words for the transcription process. All recorded data was transcribed into otter.ai.docx format from mp3 and made into readable transcripts. These transcripts were left unaltered, however, some words had to be clarified though comment of memo for clarification via Dedoose software. Once completed, all transcripts and recordings were uploaded to both Google Drive and Dedoose software.

Interview Questions. The researchers framed the qualitative interview portion of the study around a set of questions that were asked during the interview portions of our study (see Appendix D). Not all questions were asked, as we had a bank of questions that we adapted and selected from based on what participants had emphasized or where there were gaps in information or to delve deeper into some phenomena. Examples of these questions include:

1. Often, we find food isn't just about meals. Please share a memorable experience that involved food or a meal. Perhaps one that has inspired your work in the St. Louis community.
2. Thinking about everything we have talked about so far, how would you define your own food heritage?
3. Naming some sustainable practices as outlined by the U.N. (review below), to what extent do you (or don't you) see these practices in the communities you serve? Please explain why or why not.

However, after a series of core interview questions, there were three questions that every interview participant was required to answer in around one sentence:

1. How do you feel about the food that you eat personally?
2. Overall, how do you feel about food in St. Louis?

3. How does food connect you and the community you serve to what matters most?

The purpose of these one-sentence summaries was to generate succinct quotables and thread each interview together.

There were questions that were omitted or not used if the direction of the interview did not require that particular data to be collected. Furthermore, the questions that were asked were often related to the field of focus of a particular stakeholder. For example, for urban farmers, there may have been more conversation around how locally sourced food is specifically connected to the concepts of foodways and sustainable practices. Additionally, the researchers often asked participants to explain in greater details and those details required adjusting our question positioning to preserve the flow of the interview. They also were used to focus the conversation and explore potential connections to food heritage. These questions were either probing questions (PQ) or focus questions (FQ).

The questions follow a simple format, closely outlined by the literature review and reflective of the theory of change model. Starting with food heritage, the core questions were designed to be more personable in nature to allow the stakeholders to open up naturally. The probing questions then allowed the conversation to connect to the work they are doing in their respective fields and communities as it relates to food. Interestingly, these probing questions were intentionally designed to make connections to the other topics: foodways, foodscapes, sustainability, and sustainable food practices. Each stakeholder was given a version of the IRB-approved questions for the sake of clarity and readability. Each interview more often emphasized questions pertaining to the respective stakeholder's field while also having each stakeholder answer three summative

questions in one sentence. While the probing and focus questions were exemplified and highlighted on the IRB-approved document, these questions were not presented to the participants in advance. Additionally, the probing and focus questions may have been modified in the flow of conversation and not stated verbatim in the actual interview process. To clarify, the PQs and FQs were merely guiding and connecting questions for the researchers that pointed the data set back to the core exploration of defining food heritage and its independent variables.

Data Analysis

This being a QUANT/qual study, we will first present the data analysis procedures of our quantitative data followed by the data analysis of our qualitative data.

Quantitative Data Analysis

The responses for the quantitative portion of the study (the Food Heritage and Sustainability Survey) populated automatically from the Google Form into a Google Sheet (similar to an Excel Spreadsheet). Once the survey was closed, the researchers manipulated the data in a few ways. As stated above, the survey was available in 4 different languages, English, Spanish, French, and Arabic. Each survey produced a different Google Sheet and, thus, the first step in the process was to combine the data from each Google Result Sheet into one. The first process was to delete responses that did not fall within the St. Louis area. This was done by reviewing the zip codes provided by the respondents as part of the demographic information collected. Out of 643 surveys collected, 22 were deleted on the basis of their zip code falling outside of the St. Louis metropolitan area. Researchers then turned their attention to questions in the survey where respondents were allowed to write in a response and/or select multiple responses.

The next step to prepare the data was to make it purely numerical in order to run statistical tests. Many of the questions in the survey had words attached to them. For example, many of the Likert scale questions were originally coded in the Google Results Sheet as "1-Never" or "7-Always." In those cases, the words were simply removed. Some questions in the survey required respondents to answer with a "Yes" or "No." For those questions, the researchers used the find and replace function in Google Sheets to assign each word a numerical value. Finally, each demographic question needed to be changed into a numerical value. For most of the demographic information collected, this was as simple as assigning a number to each category. For example, for the question that recorded respondents' education, "Some elementary" was represented by the number 1 and "Elementary School" was a 2, etc. For most demographic questions, this process was straightforward. However, for three demographic questions, the researchers played a bigger role in categorizing responses.

For the demographic questions concerning gender identity, ethnicity and languages spoken, survey respondents were prompted to either choose one of the options listed or type in another choice. Researchers carefully examined the variety of answers written in by respondents and decided on which category best fit each answer and, in some cases, created new categories to categorize the data. As questions about gender identity and ethnicity are both delicate and of extreme importance for personal identity, the researchers were sure to examine each response with the respect that they deserve. While it would have been wonderful to review and test each response individually, time and the capabilities of the statistical tests being used required that unique responses be categorized and grouped somehow. For example, on the "gender identity" question, one

respondent typed in the response “What?!” The researchers decided to group this response into the “Prefer not to answer” category and coded it accordingly. The question about ethnicity also had a variety of answers written in such as “Latino/arab-tino” and “Caucasian, Syrian & Armenian diaspora.” Again, in the interest of statistical analysis, responses such as these were recorded as “Multiracial/Other.” Additionally, one survey participant selected “Unknown” for their ethnicity. The researchers coded this respondent as “Prefer not to say.” Finally was the issue of coding the “Languages spoken” category. The original survey provided seven languages to choose from as well as “Prefer not to say” and a write-in “Other” option. From these selections, the researchers ultimately decided to code the data into 4 separate languages and one “Multilingual” category. As responses, two survey participants selected “Prefer not to say” for this question. As these respondents had taken the English version of the survey, we coded them as English speakers. Additionally, three participants chose “Other” for the language question. As they had also taken the English version of the survey, the researchers coded their responses as “Multilingual.”

Finally, the researchers grouped questions by dependent and independent variables. Before the survey began, the researchers categorized each question as lending data to either the dependent variable (food heritage) or one of the independent variables (IV1 - notions of sustainability, IV2 - sustainable food practices, IV3 - foodscapes, and IV4 - foodways). After examination of the survey questions and the variables mentioned above, we divided each question into a variable, as seen in Table 3.1.

Table 3.1

Variables, Survey Questions, and Cronbach's Alpha

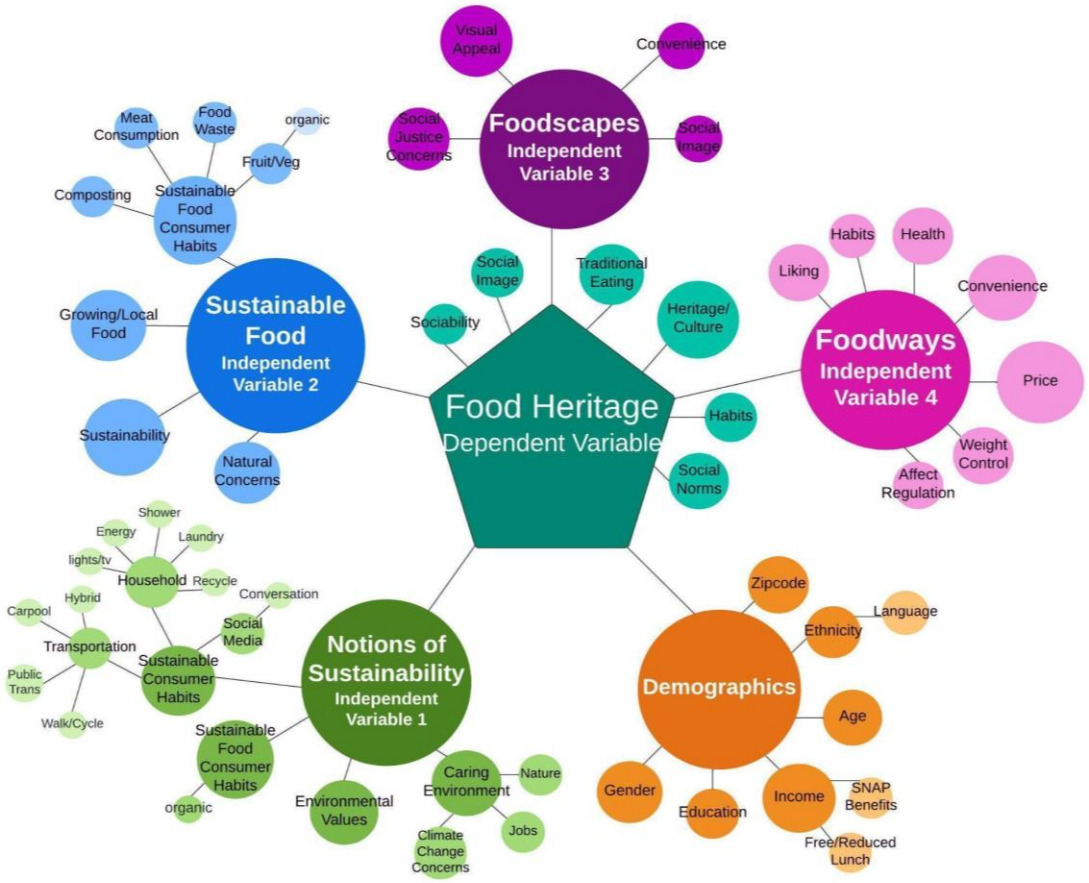
Variable & Survey Questions	Cronbach's Alpha
Dependent Variable: Food Heritage	.882
I eat what I eat because I am accustomed to it.	
I eat what I eat because I am familiar with it.	
I eat what I eat so that I can spend time with other people.	
I eat what I eat because it makes social gatherings more enjoyable.	
I eat what I eat because it would be impolite to not eat it.	
I eat what I eat because my doctor says I should eat it.	
I eat what I eat because it is provided at a celebration.	
I eat what I eat because it is in harmony with my religious views.	
I eat what I eat because it is important to my current household culture.	
I eat what I eat because it reminds me of my childhood.	
I eat what I eat because it is what people eat where my family comes from.	
I eat what I eat because heritage and culture are of no concern to my food choices (reverse coded).	
I eat what I eat because it is important to my personal culture.	
I eat what I eat because it belongs to certain situations.	
I eat what I eat as part of family traditions.	
I eat what I eat as part of holidays.	
I eat what I eat as part of special occasions.	
I eat what I eat because it is considered to be special.	
Independent Variable 1: Notions of Sustainability	.818
How often do you bring reusable grocery bags to the store?	
How often do you recycle?	
How frequently do you watch television programs, movies, or internet videos about environmental issues?	
How often do you talk to others about their environmental behavior?	
How often do you turn off the lights when leaving a room?	
How often do you cut down on heating or air conditioning to limit energy use?	
How often do you turn off the TV when leaving the room?	
How often do you limit your time in the shower in order to conserve hot water?	
How often do you wait until you have a full load to use the washing machine or dishwasher?	
How often do you wash your clothes with cold water?	
During the past three years, how often have you car-pooled?	
During the past three years, how often have you used public transportation?	
During the past three years, how often have you walked or cycled instead of driving?	
Have you ever considered purchasing an electric or hybrid vehicle?	
If you own a vehicle, is it hybrid or electric?	
Humans have the right to modify the natural environment to suit their needs (reverse coded).	
When humans interfere with nature, it often produces negative consequences.	
Humans will figure out a way to avoid the consequences of climate change.	
Humans are not taking care of the environment.	
The earth has plenty of natural resources (reverse coded).	
The dangers of climate change are exaggerated (reverse coded).	
Protecting the environment will threaten jobs for people like me (reverse coded).	
Environmental protection benefits everyone.	
Laws to protect the environment limit my choice and personal freedoms.	
I feel like I should think about the environment on a daily basis.	
I feel better about myself when I save energy.	
I wish I could do more to reverse climate change.	
If I had more resources (money, time, energy, etc.), sustainability and sustainable practices would mean more to me.	
Independent Variable 2: Sustainable Food Practices	.905
I eat what I eat because it is produced in a way that is humane to animals.	
I eat what I eat because it is produced in a way that is respectful to animals' rights.	
I eat what I eat because it is organic/fair trade.	
I eat what I eat because it is natural.	

I eat what I eat because it contains no harmful substances (pesticides, pollutants, antibiotics, hormones, etc.)	
I eat what I eat because it has environmentally friendly packaging.	
I eat what I eat because it has traveled less than 50 miles from where it was grown.	
I eat what I eat in order to help the environment by avoiding animal products.	
I eat what I eat in order to avoid food waste.	
I eat what I eat because it is what my community garden grows or what my neighbor/friend grows in their garden.	
I eat what I eat because it is important to eat food that I've grown myself.	
I eat what I eat because I enjoy gardening.	
I eat what I eat because I prefer to shop at local food markets.	
I eat what I eat because I know the farmer/grocer.	
I eat what I eat because I prefer to protect the environment.	
How often do you compost food waste?	
Over time, have you decreased the amount of beef you consume?	
Over time, have you decreased the amount of pork you consume?	
Over time, have you decreased the amount of poultry you consume?	
Over time, have you decreased the amount of fish/seafood you consume?	
Over time, have you increased the amount of fruits and vegetables you consume?	
Over time, have you increased the amount of organically grown or locally grown fruits and vegetables you consume?	
I do not feel guilty at all when I buy vegetables and fruit from other states or other countries (reverse coded).	
I feel guilty when I have to throw food away/waste food.	
I eat what I eat because it is important to my legacy (future generations).	
Independent Variable 3: Foodscapes	.768
I eat what I eat because it is the most convenient.	
I eat what I eat because the packaging is appealing.	
I eat what I eat because it spontaneously appeals to me or a household member.	
I eat what I eat because it is nicely presented or advertised.	
I eat what I eat because I recognize it from advertisements.	
I eat what I eat because it is a name brand.	
I eat what I eat because I prefer to support minority or immigrant owned businesses.	
I eat what I eat because I want to support smaller/local businesses.	
I eat what I eat because I prefer to shop at businesses who support social platforms I believe in (BLM, LGBTQIA+, etc.)	
Independent Variable 4: Foodways	.876
I eat what I eat because I think it is delicious.	
I eat what I eat because I am craving it.	
I eat what I eat because it tastes good.	
I eat what I eat because I eat it regularly.	
I eat what I eat because it is an intentional part of my diet.	
I eat what I eat because I am hungry.	
I eat what I eat because it is healthy.	
I eat what I eat in order to fulfill my needs for nutrients, vitamins, and minerals.	
I eat what I eat to maintain a balanced diet.	
I eat what I eat because it is quick and easy to prepare.	
I eat what I eat because it is easy to prepare.	
I eat what I eat because it is readily available.	
I eat what I eat in order to reward myself.	
I eat what I eat because I enjoy trying new foods.	
I eat what I eat because it is worth spending extra money for higher quality.	
I eat what I eat because it is inexpensive.	
I eat what I eat because it is on sale.	
I eat what I eat because it is good value for the money.	
I eat what I eat because it is free.	
I eat what I eat because it is covered by EBT, SNAP, and/or WIC benefits.	
I eat what I eat because I want to lose weight.	
I eat what I eat because it is low in calories.	
I eat what I eat in order to maintain/achieve my ideal weight.	
I eat what I eat as a distraction.	
I eat what I eat because I'm trying to make myself feel better.	

To ensure that the data and the statistical tests reflected these variables, the researcher created five new columns in the Google Sheet, one for each variable. The researchers used a code in each column to find the average of the questions that pertained to that variable. As the survey, and thus, the Google Results Sheet, was not in order of the DV and IVs, this meant that the researchers typed in the individual columns that aligned with each variable in the "Average" code. These new columns recorded the average rating of each respondent's answers to all of the questions in the DV and each IV. These new "Average" columns were used to run the statistical tests explained below. Figure 3.4 shows a map of the variables and the themes associated with each.

Figure 3.4

Map of Dependent and Independent Variables



With the data prepared, the next step was to run initial Internal Consistency Tests. The researchers first uploaded the data spreadsheet into SAS Studio. For those unfamiliar, SAS Studio is a virtual computer used to "manage and report your data, to create graphs and reports, and to perform most of the statistical tasks performed by biostatisticians" (Cody, 2016, p. 1). As mentioned above, the questions from the survey came from five existing surveys. Additionally, 18 of the questions were modified by the research team to reflect a more modern and more easily understandable language. Finally, 13 of the questions were added by the researchers in the style of the other surveys used. Due to the nature of both the survey construction and the construction of the dependent

and independent variables (DV & IV), the research team ran Internal Consistency Tests, specifically, Cronbach's Alpha tests to ensure that the questions in each grouping were closely related. In short, the researchers ran the internal consistency test to show the reliability of each variable.

After the data was prepared (i.e. questions were categorized into either the dependent, independent, or classification variable, and responses deleted of participants that did not meet our quantitative inclusion criteria—18 years or older and from the St. Louis area), the researchers first used Cronbach's alpha to determine if the survey questions included for the dependent variable (DV) and each independent variable (IVs) were closely related. Cronbach's Alpha is one of the most common ways to measure internal consistency. On a scale of zero to one, a Cronbach's alpha (α) of ≥.7 is universally accepted as acceptable, an α of ≥.8 is good, and an α of ≥.9 is excellent. Below, we discuss the alpha score for each variable in the study. Each α is based on the 621 responses to the survey.

The DV consisted of 18 items (α = .882). IV1 (notions of sustainability) consisted of 29 items (α = .788). IV2 (sustainable food practices) consisted of 25 items (α = .904). IV3 (foodscapes) consisted of nine items (α = .768). IV4 (foodways) consisted of 26 items (α = .876). Per the guidelines listed above, these alpha scores are all above the required .7 and thus all acceptable. It is worth noting that Cronbach's alpha for the independent variable Sustainable Food Practices fell within the excellent range. Based on each of the α above, the DV and each of the IVs show good internal consistency.

Next, the researchers used SAS Studio to run descriptive statistics. We calculated basic summary statistics for the DV and each IV. These summary statistics provided the

mean, standard deviation, minimum and maximum of each variable. The researchers also calculated the frequencies of all the demographic information by conducting a One-way Frequency Analysis. Each One-way Frequency Analysis produced a table with each demographic category (for instance, which age category respondents selected), the frequency of each category and the percent that category represents of total respondents.

The next step in the statistical analysis was to run one-way ANOVA tests in SAS Studio to compare how each demographic group was represented in terms of the DV - food heritage. The researchers tested each demographic area separately and produced a box and whisker chart where the means of each demographic category (for instance, language 1-5) could be compared. Besides the visually-pleasing box and whisker chart, the one-way ANOVA tests also provided tables showing any statistically significant differences in the means of each demographic category.

With the results of the One-way ANOVA tests in hand, the researchers moved on to perhaps the most important tests in the entire data analysis process: multiple linear regression tests. The purpose of multiple linear regression analysis is to "predict the value of a variable based on the value of two or more other variables" (*SPSS Statistics Tutorials and Statistical Guides*, n.d.). For this study, the researchers ran these tests to predict the value of the DV - food heritage using each of the four IVs (foodscapes, foodways, notions of sustainability, and sustainable food practices). In total, the researchers completed 11 multiple linear regression tests, one for each demographic data point collected from survey respondents (not including zip code) and one for each value orientation. When setting up the data to be analyzed, the researchers used the largest group in each demographic category to be the reference point. For example, in the case of

gender, we chose the category of "female" (n=425) to be the point to which all other gender responses were compared. In the analysis, researchers paid special attention to the analysis of variance tables, p values in parameter estimates tables and fit diagnostics charts produced by SAS Studio. More specifically, the researchers examined the Adjusted R Square to ensure it met the acceptable benchmark of .33; they examined the p values in the parameter estimates tables to ascertain if any of the values were statistically significant (below .05); and they performed a visual evaluation in the fit diagnostics to look for constant variance, close fitting plots on the Q/Q chart and a histogram that follows a bell curve.

Finally, researchers used SAS Studio to create two final, simple scatterplots. The first compared the DV with IV2 - sustainable food practices. The second simple scatterplot compared the DV with IV4 - foodways. These two independent variables were chosen to mimic this study's theory of change in which foodways and sustainable food practices are more closely linked to the DV than the other two IVs. The use of these scatterplots is three-fold; according to Laerd Statistics, simple scatterplots are beneficial to "(a) determine whether a relationship is linear, (b) detect outliers and (c) graphically present a relationship between two continuous variables" (n.d.). Accordingly, the researchers visually examined both scatterplots to determine linear relationships and detect outliers. Both scatterplots served as a final assurance of a linear relationship in conjunction with the multiple linear regression tests.

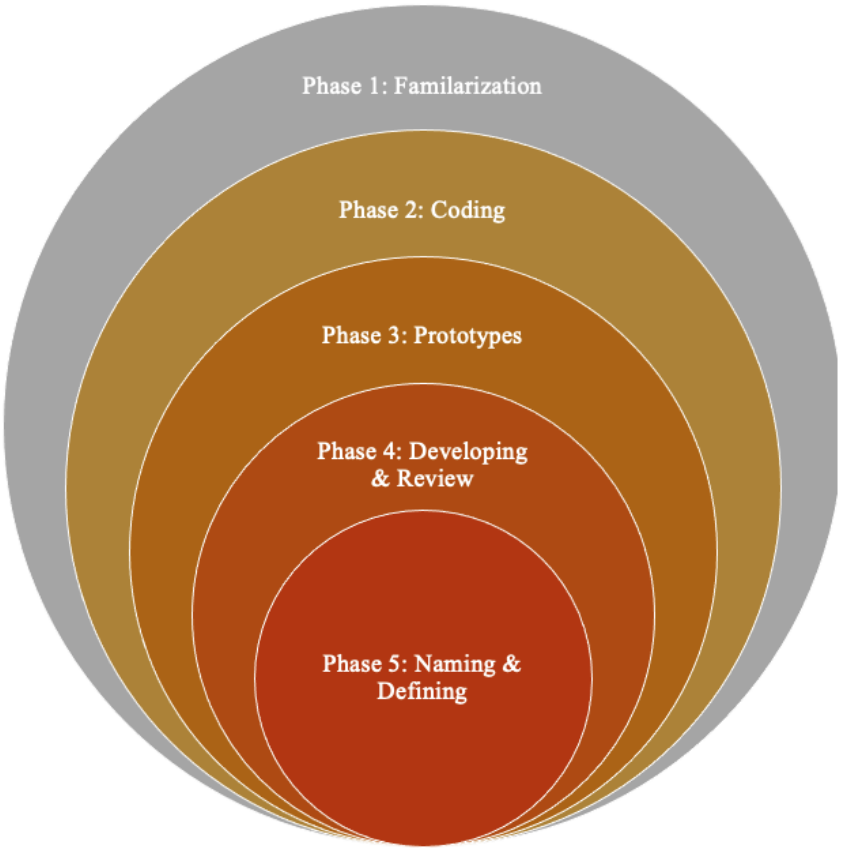
Qualitative Data Analysis

For qualitative data analysis, the researchers used a reflexive thematic approach within our interpretivism research philosophy. Reflexive thematic analysis is designed to

be interpretative through its ongoing and overlapping phases (Terry & Hayfield, 2021). As Terry & Hayfield (2021) recommend, it was in this reflexive process we inserted ourselves into each phase through the lens of our own positionalities, research questions, and theoretical literature (p. 10). This approach saw us work through the five interlocking phases as detailed by Figure 3.5 below.

Figure 3.5

Thematic Analysis Phases Diagram



After creating the transcripts for the interviews, we started phase one with familiarization notes. Terry and Heyfield (2021) characterize familiarization notes as the

initial observations captured by engaging the transcripts numerous times in a free-flowing way to capture thoughts (p. 31). Thus, during this phase, the researchers re-engaged each transcript and recording multiple times and took copious notes. We referenced our research questions and theoretical literature throughout this process. These notes included considerations of initial connections between interviews, quotes verbatim, paraphrase points, and follow-up questions. In general, the researcher's note-taking purpose was to note initial emerging ideas. The researcher's note taking purpose was to find core themes coming out of the interview and make connections to themes that arose out of other interviews. The familiarization notes required the researchers to first create transcripts of each interview. After the transcripts were created, the researchers then considered these transcripts while listening to the audio recording of each interview and through taking notes. The researchers also made sure to note any good and noteworthy quotations for analysis. During the familiarization and Dedoose memoing process, we also made sure to correct via comment any quotations that were transcribed incorrectly through referencing the audio of each interview. Overall, the result of the notetaking process produced depthful initial understanding and contextualization of the interviews.

Phase two was coding—which is best described as (a) adding meaning to excerpts and (b) reducing the total amount of text (Terry & Hayfield, 2021, p. 35). Each transcript was then coded in Dedoose software for the purpose of data analysis. Throughout this process, we referenced our familiarization notes, research questions, and theoretical literature to create codes. Codes made up of our key terms and specific phrases were used to highlight concepts that emerged from the transcripts. These codes are used across transcripts to show cross-interview conceptual connections. Codes are generally

categorized as parent and child codes. Nonetheless, the coding process went as follows: highlight an excerpt and insert an appropriate code. Coded excerpts are synthesized as either a word, partial phase, whole sentence, or extended paragraph. Some of these codes were highlighted and referenced within another coded excerpt. For example, one word or sentence is highlighted and coded *within* another coded paragraph. All coded data was then analyzed in Dedoose through analysis tools. These tools allowed us to examine how the codes connected across transcripts.

Phase three is where prototype themes are considered. According to Terry & Hayfield (2021), these prototype themes are meaningful patterns that go beyond a code description (p. 44). Throughout this process, familiarization notes and codes were utilized to help us create these prototype themes. Specifically, the researchers clustered codes together to consider how concepts may or may not connect with one another. Sticky notes of all 71 codes were generated by the researchers to begin thinking through how these codes clustered around either a new concept or another code itself. These sticky notes were created and this process was completed through Google Jamboard software. Once the researchers completed initial code clusters, formal diagrams were created through Microsoft Word software for more thorough analysis. Additionally, we created thematic maps for prototype themes that began to emerge that showed how these codes connected underneath a respective concept. Finally, the researcher created a thematic table of all the prototype themes and their respective codes.

Phase four is about developing and reviewing prototype themes (Terry & Hayfield, 2021). It is during this phase that we create a thematic diagram showing thematic connections between the prototype themes that help us narrow our themes

down. Additionally, we reference familiarization notes, codes, and a series of organizing questions to develop and review the prototype themes (Terry & Hayfield, 2021, p. 56-7). When considering these questions, the researchers went through several rounds of reporting, criticizing, reviewing, and revising the prototype themes. It was in this phase that we then consolidated and made a more in-depth analysis of the prototype themes through the lens of our positionalities, research questions, and theoretical literature. We also clearly define inclusive and exclusive criteria and boundaries for each theme to show how they are separate from one another. Both during and after such scrutiny, the researcher develops new thematic maps to illustrate this process.

Phase five is the final phase between reflexive thematic data analysis and our results where we finally name and define the core themes of the transcripts (Terry & Hayfield, 2021). During this phase, we start by defining the themes. According to Terry & Hayfield (2021) defining themes are useful for (a) refining themes further, (b) to confirm story-telling depth, and (c) allow the overall story of your themes to become clearer (60-61). Then we move on to naming themes. For this process, we "ground" our themes in direct quotes from our stakeholders to capture a central organizing concept (63). It is here that subthemes also are named to compliment said themes. Lastly, we define each theme to show proof that the theme reveals a clear narrative. It is through those narratives that the results were then produced.

Researcher Positionality

Positionality refers to the inherent perception that any person has on a concept based on intersectionality. It makes up a person's identity. It is ingrained. It is inevitable. As a researcher, it is imperative to identify positionality to look at biases and

misinterpretations of content discovered due to their identity and participation. According to Mauthner and Doucet (2003), a researcher has many aspects that influence their decision-making process regarding their project. Not all of these are rooted in academia or intellect. “The interpersonal, political and institutional contexts in which researchers are embedded also play a key role in shaping these ‘decisions’” (Bell & Newby, 1977; Bell & Roberts, 1984, as cited in Mauthner & Doucet, 2003, p. 421). Researchers are people that identify with various groups also, just as their participants do. Biases and influences are in us all, and if not self-identified, could cause a misrepresentation or misconception by the researcher and/or the participant(s). Our group chose to study the intersectionality of food heritage, sustainability, and foodways of St. Louis area residents. Our group consists of three White females and one Black male, all of who have a tie to education. We all have connections to food growing, plant-based diets, and consumerism surrounding food. In addition, we all have unique food heritages that contain a variety of influences: socioeconomic status, race, ethnicity, travel, etc.

Caitlin Crain

Like most people, food has been a large part of my life ever since I can remember. However, I think that my food experiences and practices differed from most. I had dynamic food experiences as a child, food limiting experiences as an adolescent and as an adult due to health concerns and desire for weight loss, and a broadening of my foodscape as an adult working in the food service industry and as a world traveler and bilingual person. As these food experiences occurred, I also learned about the grave state of our world and consistently reflected on how I could do better. My personal positionality is one that includes influences from my immigrant family, my job as a

World Languages teacher, and my experiences with sustainability growing up with my parents.

I am very aware of my food heritage, reflecting on my experiences with food in a family of immigrants (my mother was the firstborn in the US in her family from Germany). My grandmother was known for maintaining her food heritage with her family and friends. Some of her practices included buying her meat products at the local German butcher, baking sour cherry tarts for my mom's birthday, and making Rouladen for Christmas Eve dinner, a tradition my family still maintains today, fifteen years after her death. I remember her saying frequently that food was better in Germany. I guess that's why she tenderized meat from the American butcher by running it over with her car in the driveway. As a child, Liverwurst (liver paté) and garlic dill pickles were an absolute delight and a true treat, even with the side-glances from my classmates. Upon turning 15 years old, she shared her wine glass with me at dinner. Every sandwich made had butter and the only jam present was apricot. Sauerkraut was made with apples, everything was creamed, and the dumplings were potato only. Going to her house was a sliver of another world carved right into the United States.

I believe that my awareness of other cultures early in my life influenced my desire to dedicate my life to world language and culture through learning and teaching. I have been known to say that food is the soul of a culture. I have seen the intricate and unique ties that a culture has to their food in so many ways, but most importantly how the culture interacts with their foodways. I am more aware of this for others around the world, as this is something that I actually include in my instruction. As a language teacher, I am aware of the importance of food as a cultural product, however, it also relates to cultural

practices and deeper cultural perspectives. Since I teach about this concept and have done considerable reflection as a bilingual and multicultural person, I know that I may insert myself into the research more than I would like.

I am aware of various notions of sustainability that were ingrained in me as a child, whereas others may not be as well versed in these notions. My parents were and are dedicated to combating climate change. I had a wallpaper border in my childhood room that had “Reduce, reuse, recycle” and constantly did projects surrounding preserving the planet’s resources throughout my school career. My mother washed solo cups to reuse them at parties and my father reused items for future projects. I am conscious of my footprint on this earth, and I know that comes almost directly from my upbringing.

I have a very privileged foodway as a White, middle-class female, something that some of our participants may not experience. Even though I do have privilege within my foodway, much of that has occurred because of access to reliable transportation and an awareness of foodways and food heritage. As a lifelong St. Louis resident, I know that this access and awareness does not occur for all, due to systemic issues, racial divides, and biased structures that occur within and throughout the entire metropolitan area. I know that I am also still learning, growing, and reflecting on food heritage, foodways, and sustainability, specifically what that means to my fellow St. Louisan.

I believe that there is no one-size-fits-all answer for any phenomena in the world, so I believe that I align more closely to the constructivist epistemology standpoint (Patel, 2015). With constructivism and qualitative research, I do believe that powerful intersections can be made between a variety of people's perspectives, interpretations, and identities. I have to be committed to hearing the voices of others, without inserting my

own. I also know that my background in research up to this point was in action research, which occurred in my classroom, where I had autonomy over the climate and landscape of the environment.

Amy Roznos

I am a 32-year-old White woman who grew up in the suburbs of St. Louis with two parents, one brother and one half-brother. Although I grew up middle-class, both my parents came from lower-class families. My mother was a single parent from the ages of 20-26 and often struggled with making ends meet. Neither side of my family is very connected to a nationality of origin. Growing up I did eat many "Southern comfort" foods from my mom's side of the family, and some German foods that were popular where my dad grew up in Wisconsin. My mom was the one in charge of our food; she did the grocery shopping, the cooking and the cleaning up afterwards. Three kids all with busy schedules meant that our meals were often based on convenience. My family was not one to branch out and try a lot of new foods, so college was the first time that I was exposed to many foods from around the world and even some that grow in the St. Louis area. It was not until I was in my mid-20s that I really began to think about the healthiness of the foods I ate and not until my late-20s that I began to consider the sustainability of my food choices.

I believe that food is one of the main ways we identify ourselves and understand other cultures. At the age of 22, I moved to France for a little under a year. There I learned about using food as an identity marker. After all, the Gastronomic meal of the French is a UNESCO Intangible Cultural Heritage, one I got to experience during a seven-course Christmas celebration meal at the school where I worked. While living

abroad I experienced new foodways: buying bread fresh every day at the local bakery, eating school lunches with metal silverware in lieu of plastic sporks, and following the advice of a French friend to “Take at least as long to eat your meal as it took to prepare it.” Through these experiences and more, I learned how important food is to one’s identity and what my food said about me. I consider these experiences and the lessons I learned as one of the greatest privileges of my life.

My positionality concerning this area of research contains additional areas of privilege, one of which is my education. My Master’s degree afforded me the opportunity to conduct an action research study and my Doctorate degree allowed me to learn about the research process in greater depth. Specific to this area of research, food, I also have experienced privilege. For instance, I have never gone hungry or worried about whether or not I would eat on a given day. There was a grocery store one mile away from my house growing up and the same is true of where I live today. I have access to as many fresh foods as I want/need. As my group's research focuses on perspectives different from my own, I have seen that many have very different perspectives—ones that I can never truly understand although I may attempt to empathize. These are biases that I worked hard to acknowledge before and during our research. It is only through really listening to these unique perspectives and addressing my own implicit biases that I was able to help construct a clearer picture of Food Heritage in St. Louis.

Britt Tate Beaugard

I am a middle-class White woman who walks into a kitchen several times a day to find a fully stocked refrigerator and pantry. I can find all the foods I like easily at almost any grocery store in my area. I have my own transportation to get to any store I like. My

bank account is not overflowing, but I can always buy more than what my family needs to eat each week. My desire to do this research is rooted in my knowledge that I benefit daily from White privilege in St Louis, Missouri.

Several years ago, I began to evaluate the daily consumption and waste patterns in my life. I sought out to learn better sustainable solutions and strategies for both my home and my job. As an art educator, my classroom can consume and create a large amount of recyclable waste. Through years of training, webinars, seminars, books, conversations, camps, and classes, I have become increasingly aware of the dangers that lie ahead for our planet if drastic changes are not made toward sustainable solutions. As I sat through coursework and went out of my way to create more sustainable systems in my house, I realized again that I was greatly benefiting from privilege. I have the luxury of time and energy to spend on recycling, purchasing plastic-free items, switching to plant-based options, and driving a hybrid truck.

The intersection of my food systems and sustainability is paved with privilege, access, and convenience. I can easily order plastic-free toilet paper to be delivered monthly to my house. I can afford avocados out of season for my toast. And I can hop in my car and drive all over town to get the ingredients I need for specific cravings or recipes. These are things I tend to take for granted and was not hyper-aware of before this research and the work involved.

As an educator in north St. Louis, it is hard not to notice a lack of nutritional options in convenient stores, which are the primary source of local grocery options in my school neighborhoods. There is a lack of grocery stores, farmer's markets, and healthy restaurant options in the multiple neighborhoods I drive through daily. I can also not help

but notice the Styrofoam and plastic trash that has blown into neighborhoods due to inadequate trash removal or the lack of green spaces and trees to provide a canopy of shade and oxygen to my students. While I do my best to advocate and create change, the major players in change making do not have boots on the ground. They prefer to sit behind computers and literature to dictate policy and create systems of change. So here I am, researching to take the voices of everyday people who live in neighborhoods in St. Louis, putting their story into a highly regarded document hoping that those in power will find value in their narratives.

Darius Williams

In this world's great need for sustainability and personal food legacy, my connection to my food heritage parallels that of CeeLo Green: I know fried chicken and Styrofoam plates are terrible for my health and for our environment, but I choose those things because I was raised on fried chicken and on the idea of "saving the good dishes for special occasions." In other words: there is a massive gap between my head knowledge and my actual food practices. Or, as my mom would put it, "You don't practice what ya preach boy!"

My food choice motivations and practices are undoubtedly influenced by my food heritage and cultural food systems—which is why our paper's research findings and hypothesis hit home on a different level. I was raised lower-class Black in a neighborhood whose skyline was outlined by drug stores, liquor stores, churches, and fast-food restaurants. Our lone grocery store garnered a reputation of willingly selling expired foods, offering low-quality goods, and being outrageously overpriced. The only other grocery stores we had were Dollar Tree, Dollar General, and Family Dollar.

Instead, for our groceries, we had to travel miles to the nearest Walmart due to our neighborhood's foodways that lead to general lack of food access. Frankly, due to transportation inequity, many people in my area couldn't afford to do the same. I never necessarily felt the full weight of food inequity and insecurity upon my life because my parents ensured me and my siblings had full bellies instead of the newest pair of Jordan brand shoes like my peers; we always had a full pantry, but never a Christmas tree full of presents. But the quality of our food was never all that great regardless. While we didn't eat out as often as my peers, we indulged in soul food—high fat, high caloric, fried. My favorite foods tend to be directly associated with my culture: fried chicken, collard greens, macaroni and cheese, and the like. For me, just like our research, taste is only part of the reason why soul food is my favorite. Instead, my favorite foods are a reminder of some of the most joyful times in my life. Growing up in a neighborhood overrun by violence, crime, and poverty, my favorite foods were always at the epicenter of my peace—family reunions, block parties, church gatherings, and community events. It was at these places that the violence of my daily reality took a pause, and the collective memory of my heritage was forged. My aunt's delicious, iced tea reflects our family's hope amid the stories of *sweet* triumph over a world where our innate being was constantly rejected by Western cultural norms and White supremacy. My uncle's fried catfish is a subtle reminder of my family's diaspora from slavery and sharecropping from the Deep South during the Roarin' 20s. Grandma's insistent plea for me to "take home a to-go plate" is the everlasting legacy of my great-grandmothers—who made sure everyone and anyone (regardless of race, gender, creed, sexuality, etc.) who entered their houses left with an overwhelming feeling of generosity, provision, and the love of God.

However, those truths don't necessarily justify my responsibility to mankind when viewed through the lens of sustainability.

I, too, am a man who is challenged by the questions, research, and hypothesis posed by this paper around sustainable food practices, food heritage, and food legacy. My aunt's tea is delicious, but it is filled with unnecessary amounts of sugars and sadly represents my family's long-held legacy of diabetes. My uncle's fried catfish tastes sublime yet represents a history of obesity that has led to the deaths of numerous family members both recently and historically. And my grandma's heart for people cannot be undersold (she truly was one of the most influential people in my life and for my compassionate worldview today), but I'm now acutely aware of how our family's longtime use of Styrofoam plates and cups hold a small yet significant part in the destruction of our planet. I enter this paper as a researcher; however, in all frankness, I relate to the participants of our surveys on lifestyle-, socioeconomically-, and racially-relatable levels. My biases, cultural norms, and food practices have been challenged in every step of this dissertation because as a researcher I'm trained to only concern myself with the truth behind the facts and statistics. I know my personal connection to my food heritage needs to answer the worldwide call of food sustainability. And I know my perspective on how to establish a sustainable food legacy for my future family and sphere of influence is already being changed for the better because of the clarity found in research like ours. Nevertheless, this process has been a difficult journey—one that has made me reinterpret and reimagine my personal food heritage altogether.

Research Design Summary

This research was built out of a deep passion for food, sustainability, and honoring the diverse heritages of St. Louisans. This QUANT/qual, mixed methods study employed the use of both a survey and one-on-one interviews with community stakeholders to build a robust definition of food heritage through the lenses of foodways and sustainable food practices. Through both simple random sampling and purposeful sampling, the researchers in this study made every effort to garner a survey sample that is truly representative of people in the St. Louis metropolitan area. The researchers employed both emerging social media survey collection as well as more traditional "boots on the ground" survey collection. The careful selection and execution of statistical tests using SAS Studio proved to be instrumental in transforming raw data into finessed, understandable results. The addition of community stakeholder interviews tethered these numerical results to real-world people, organizations and communities. All of this research design, instrument development, and data collection has produced the results you find below.

Chapter Four: Results

The results of this study are presented below in two parts. First, the quantitative results from the survey are discussed. Second, we present a thematic analysis of the interviews conducted with St. Louis area stakeholders including but not limited to urban farmers, business owners, chefs, and activists. The results in this chapter will be presented and analyzed separately, however, there will be a synthesis of both in our final chapter.

Quantitative Survey Results and Analysis

To begin we review some of the descriptive and inferential statistics in our data set. Then, we present the results of the multivariate statistics tests we ran. The dependent variable (DV) in the narrative below refers to food heritage, whereas the independent variables refer to notions of sustainability (IV1), sustainable food practices (IV2), foodscapes (IV3), and foodways (IV4). Our team decided to maintain a 90% confidence interval for this explanatory dependent variable. As we are an explanatory study, we have decided to use a 90% confidence interval because we are more comfortable with a Type I Error, saying that there is a connection when there may not be, occurring within our study. As this is an emerging field, our team preferred to explain more connections than have a lack of explanations of connections between our variables (Hair et al., 2009; Hazelrigg, 2009; Wasserstein & Lazar, 2016).

Descriptive Statistics

The first step in making meaning with the raw data is describing it. The researchers performed two types of descriptive statistical tests: summary statistics used to describe the DV and IVs, and one-way frequencies used to describe demographic

information provided by the survey respondents, as well as the value orientations categories of egoistic, biospheric, and altruistic (de Groot & Steg, 2007). The value orientation categories were self-identified based on answers to 3-4 questions in our survey and were added to gain insight into beliefs related to environmentally significant behavior (de Groot & Steg, 2007). The results of each test are presented in the charts below with a brief explanation.

One-way Frequencies. The results of the demographic data collected are presented in Table 4.1. The table displays the name of the demographic category, the descriptions survey respondents chose from, the frequency of that response and the percent of the whole (N=621) that specific response represents.

Table 4.1

Demographics of survey participants

Variable	Category or Descriptive Results	Frequency	Percent
Age	18-24	49	7.89
	25-34	132	21.26
	35-44	195	31.40
	45-54	119	19.16
	55-64	81	13.04
	65 and over	45	7.25
Gender	Male	182	29.31
	Female	425	68.44
	Non-binary	8	1.29
	Prefer not to answer	6	0.97
Ethnicity	Caucasian	369	59.42
	African American	172	27.70
	Latino/a	12	1.93
	Asian	5	0.81
	Multiracial	51	8.21
	Prefer not to answer	12	1.93
Education	Some elementary	1	0.16
	Some Upper School	31	4.99
	High School/GED	87	14.01
	Some college/Associate's	101	16.26
	Bachelor's Degree	166	26.73
	Master's/Doctorate/Professional	210	33.82
	Trade School	21	3.38
	Prefer not to answer	4	0.64
Income	Less than $10,000	21	3.38
	$11-20,000	61	9.82
	$21-30,000	64	10.31
	$31-40,000	59	9.50
	$41-50,000	43	6.92
	$51-60,000	37	5.96
	$61-70,000	42	6.76
	$71-80,000	21	3.38
	$81-90,000	27	4.35
	$91-100,000	38	6.12
	More than $100,000	170	27.38
	Prefer not to answer	38	6.12
Free & Reduced Lunch*	Yes	197	31.73
	No	206	33.17
	Prefer not to answer	13	2.09
	No one in my household is in school	205	33.01
SNAP/EBT/WIC	Yes	155	24.96
	No	288	46.38
	Prefer not to answer	41	6.60
	Never Applied	113	18.20
	Unsure if I/we qualify	24	3.86
Language	English	514	82.77
	Spanish	5	0.81
	Arabic	3	0.48
	French	2	0.32
	Multilingual	97	15.62

**Note: All Missouri students received free & reduced lunch during the time of this survey due to the COVID-19 pandemic. Numbers may not be reflective of a normal school year.*

The data sample was somewhat representative of the demographics in the St. Louis area. The mean age in St. Louis is 39.5 years and our largest age sample was the 35-44 age group, which is similar to the age breakdown in the area. In addition, 51% of the St. Louis population is female, whereas females made up 68% of the survey participants. Traditionally, women are more associated with food and perhaps the survey was more appealing to them or was passed onto the females from another household member to complete. In addition to the slight oversampling of females, we also oversampled people of color. Caucasian people consist of 73% of the metropolitan population, however our sample included only 59% Caucasian respondents. The ethnic breakdown of the remainder of our data sample included 27% African American (St. Louis = 18%), 2% Hispanic (St. Louis = 3%), <1% Asian (St. Louis = 3%), and 8% multiracial (St. Louis = 3%). The ethnic breakdown of our respondents was somewhat similar to the St. Louis region as a whole; however, we are cautious to make generalizations because the data is not produced from random sampling. On the other hand, the participants within our data sample were representative of the income ranges in the St. Louis area. For the participants, 39% of households made $50,000 or less or preferred not to answer (St. Louis = 38%), 27% made $50-100,000 (St. Louis = 31%), and 27% made over $100,000 (St. Louis = 30%). However, in terms of education, 35.4% of St. Louis residents hold a Bachelor's degree or higher and 60% of the people we sampled held the same degrees. Traditionally, people who are willing to participate in survey research typically have more education (Spitzer, 2020). This seems to be on par with the participants in our data set as a whole. In St. Louis 93% of households speak English at home; however, we sampled 83% of monolingual English speakers. We placed

many people in the multilingual category, as 15 percent self-identified as speakers of other languages besides English. Since our wording is not the same as the wording in the Census, it is difficult to know if we indeed oversampled the multilingual people, or in fact sampled the appropriate number of English speaking households. Because of this, our team again hesitated to draw conclusions from the language sample of the survey respondents. Finally, 25% of survey participants self-identified as qualifying for SNAP/EBT/WIC benefits, whereas only 17% percent of households in Missouri District 1 (a portion of the St. Louis region) qualified for SNAP benefits. Because of the COVID-19 pandemic, the researchers could not expand further on Free and reduced lunch in our sample size compared with the region because all students in the state of Missouri qualified this year by default.

Table 4.2 shows the frequency and percentage of the whole for each of the value orientations collected (egoistic, altruistic and biospheric). These value orientations, used to describe the intentions behind human behavior are more completely explained by de Groot and Steg (2007). According to these authors,

> People with an egoistic value orientation will especially consider costs and benefits of [environmentally significant behavior] for them personally: When the perceived benefits exceed the perceived costs they will have an environmentally friendly intention and vice versa. People with a social-altruistic value orientation will base their decision to behave pro-environmentally or not on perceived costs and benefits for other people. Finally, people with a biospheric value orientation will mainly base their decision to act pro-environmentally or not on the perceived costs and benefits for the ecosystem and biosphere as a whole. (p. 333-4).

In this table, a response of 1 refers to an answer of "Not at all important to my life," and a response of 7 reflects the answer "Of supreme importance to my life."

Table 4.2

Value Orientations of survey participants

Value Orientation	Description	Frequency	Percent
Egoistic	1 - Of no importance to my life	8	1.29
	2	57	9.18
	3	101	16.26
	4	168	27.05
	5	165	26.57
	6	99	15.94
	7 - Of supreme importance to my life	22	3.70
Altruistic	1 - Of no importance to my life	0	0
	2	2	0.32
	3	6	0.97
	4	43	6.92
	5	114	18.36
	6	250	40.26
	7 - Of supreme importance to my life	206	33.17
Biospheric	1 - Of no importance to my life	2	0.32
	2	15	2.42
	3	49	7.89
	4	122	19.65
	5	197	31.72
	6	152	24.48
	7 - Of supreme importance to my life	84	13.53

Summary Statistics. Table 4.3 displays the mean, standard deviation, minimum and maximum value for the DV and IVs. As stated above, each number is based on our survey sample size of 621.

Table 4.3

Summary Statistics of Dependent and Independent Variables

Variable	Mean	Std Dev	Minimum	Maximum	Number
DV1_FoodHeritage	3.816	0.925	1.722	6.556	621
IV1_NotionsofSustainability	4.559	0.664	2.364	6.121	621
IV2_SustainableFoodPractices	3.070	0.969	1.040	5.760	621
IV3_FoodScapes	3.308	0.912	1.222	7.000	621
IV4_FoodWays	4.256	0.747	1.519	6.111	621

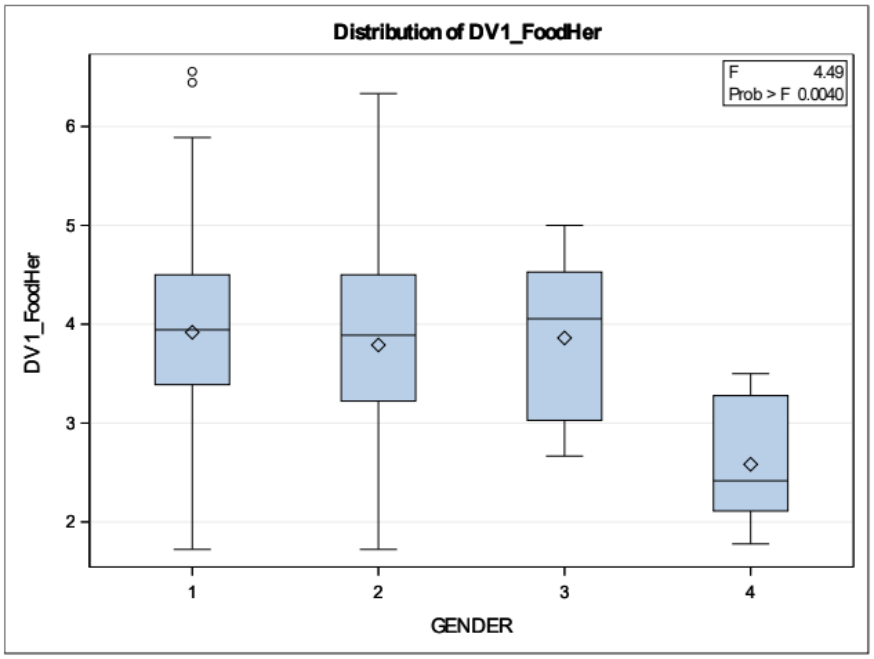
This table reveals that the standard deviations are all below 1.000, which shows low variance from the mean. As a team, we have decided to include three digits after the decimal point in any of our numerical data. Since .001 is commonly seen in statistics, we implemented this rule to all of our data analysis moving forward. With the numbers as they are, we can assume that little variability exists for each individual item within the variables themselves.

Inferential Statistics

The researchers next ran One-way ANOVA tests to determine if a statistically significant difference existed in the means of any of the classification variables (value orientation and all demographic information except zip code). Our category of age ($p=.215$) was the only classification variable that did not show statistical significance in our Univariate Statistics. Here we present only the One-way ANOVA tests that showed a statistically significant difference ($p\leq.1$). There was a statistically significant difference between values of food heritage in the gender grouping as determined by one-way ANOVA ($p = .0040$) in Figure 4.1 (1=Male, 2=Female, 3=Non-binary, 4=Prefer not to answer).

Figure 4.1

Food Heritage and Gender One-way ANOVA

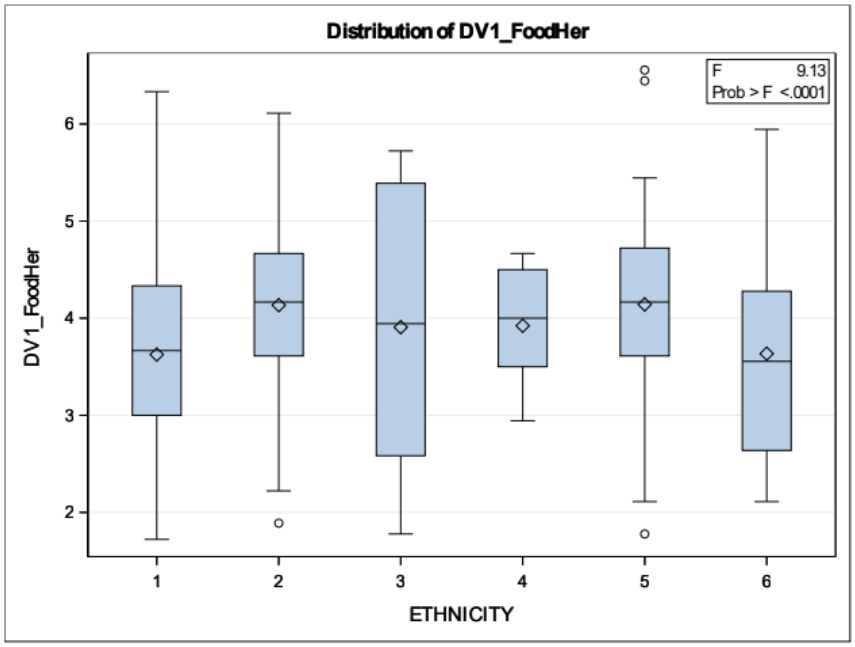


We believe that females had the largest spread because they were by far the most surveyed (n=425). Females also traditionally have more connection to food and food experiences in homes. This change in status in modern society may be another explanation for the spread of responses. The categories of non-binary (n=8) and prefer not to answer (n=6) had a combined number of 14 responses and less of a data spread. This may be because of the low sample size or because these people may have less of a connection to their food heritage as they could be exploring new identities and their place in the world.

There was a statistically significant difference between values of food heritage in the ethnicity grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.2).

Figure 4.2

Food Heritage and Ethnicity One-way ANOVA



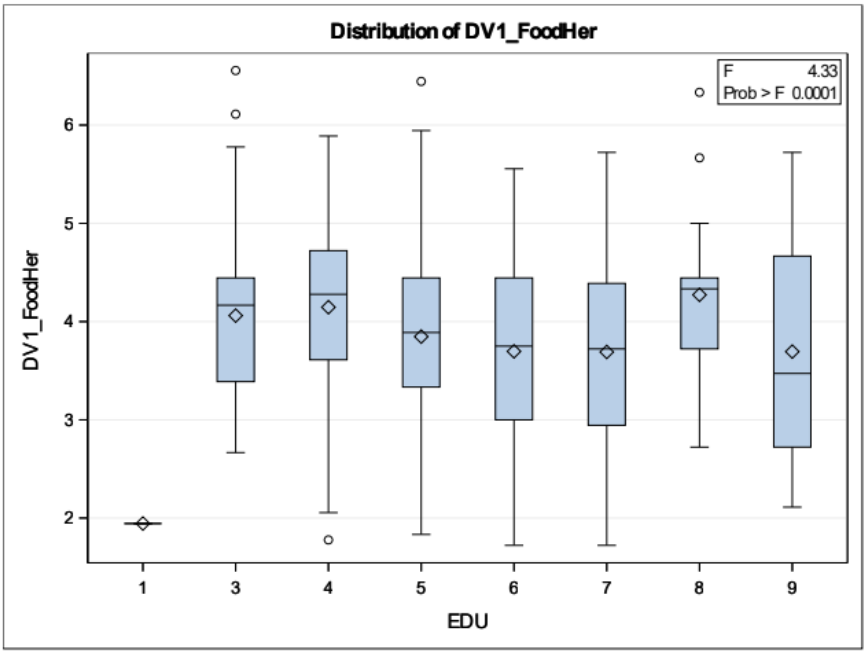
Caucasians (n=369) by far had the widest spread. The researchers believe this may be due in part to the "melting pot" and, more recently, the "salad bowl" of the United States. In the past, immigrants tended to assimilate into the mainstream culture of the United States, commonly referred to as the "melting pot." In more modern times there is a greater focus on being an American while maintaining as much connection as possible to the culture of your ancestors, incorporating yet maintaining your cultural identity ("salad bowl"). The next category, African American (2) (n=172), has a slightly smaller spread but a higher, yet smaller overall box spread. The top portion of the whisker plot is lower than the Caucasian group; however, it seems that there is less variance of the middle 50% of the sample. The mean and median are higher than the Caucasian group, which could mean that they have a higher connection to their food heritage than others do. Latinos (n=12) have the largest middle 50% spread of connection

to food heritage than any other ethnicity. Asians (n=5) have the smallest spread in the whisker and box plots in relation to their food heritage. This could mean that there is a more tightly connected understanding of food heritage for this group of people. Multiracial people (n=51) have the second smallest range of responses for connection to food heritage. This could be because this group has a wide variety of food experiences to draw upon, resulting in a deeper understanding and connection to their food heritage within their various ethnicities. In the prefer not to answer category (n=12), there was a fairly large spread of connection to food heritage, however, since these participants elected not to disclose their ethnicity, we cannot make any assumptions about this spread.

There was a statistically significant difference between values of food heritage in the education grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.3). As we looked at this data, we decided to look at education in two different categories: having a Bachelor's degree or higher, or having another sort of education. In Figure 4.3, this breakdown looks like Some Upper School (3), High School/GED (4), and Trade School (8), in comparison to people having some college or an Associate's degree (5), a Bachelor's Degree (6), or an advanced degree (7).

Figure 4.3

Food Heritage and Education One-way ANOVA



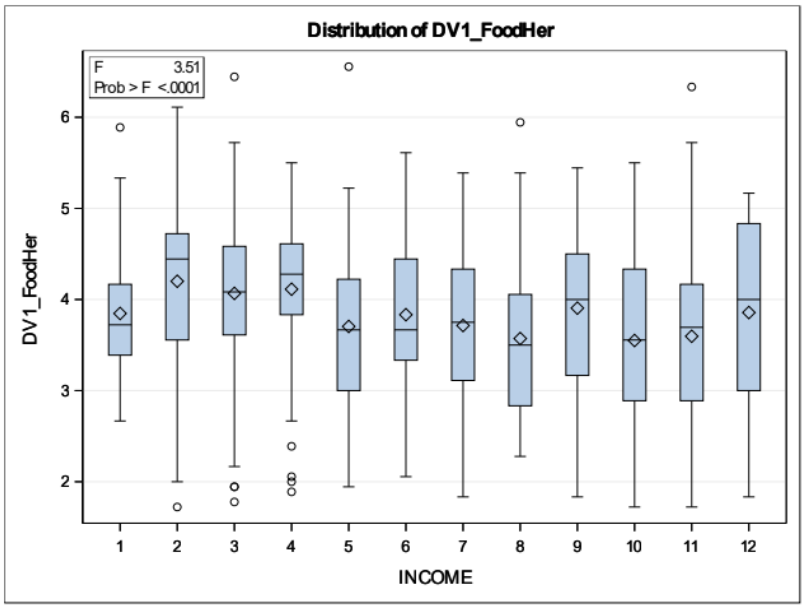
There was only one respondent with “some elementary” education. Although this respondent has a low connection to food heritage, it is impossible to make generalizations with such a low sample number. Categories 3 (n=31), 4 (n=87), and 8 (n=21), when grouped together, seem to point to the conclusion that less post-traditional high school education points to a higher connection to food heritage. Per categories 5 (n=101), 6 (n=166) and 7 (n=210) as education increases, connection to food heritage decreases. As with previous categories, it is difficult to discuss the results of respondents who selected prefer not the answer.

There was a statistically significant difference between values of food heritage in the Income grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.4). For the purposes of data analysis, we looked at income in three different categories,

households that make $50,000 or less (1-5 (combined n=248)), households that make $51-100,000 (6-10 (combined n=165)), and households that make more than $100,000 (11 (n=170)).

Figure 4.4

Food Heritage and Income One-way ANOVA

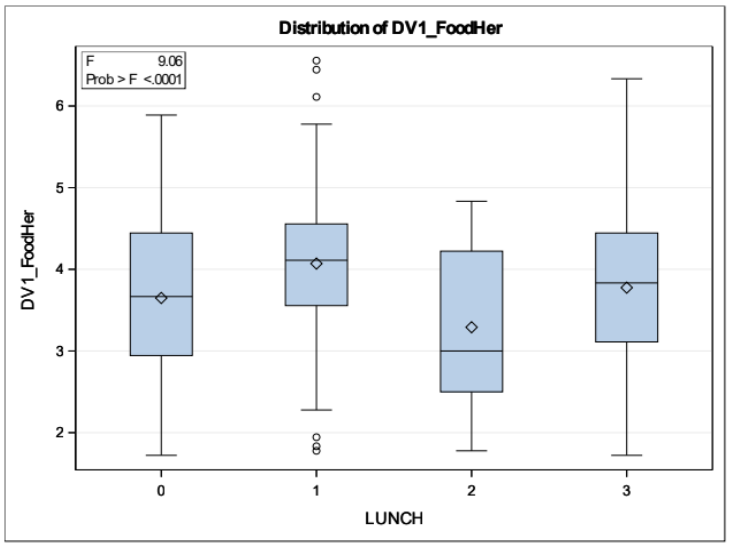


Interestingly, no income category stands out to the researchers as being something that can be generalized.

There was a statistically significant difference between values of food heritage in the Free and reduced lunch grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.5). The categories in Figure 4.5 are No one in my household receives Free/Reduced Lunch (0) (n=206), Yes, Someone in my household receives Free/Reduced Lunch (1) (n=197), Prefer Not to Say (2) (n=13), and No one in my household is in school (3) (n=205).

Figure 4.5

Food Heritage and Free and Reduced Lunch One-way ANOVA

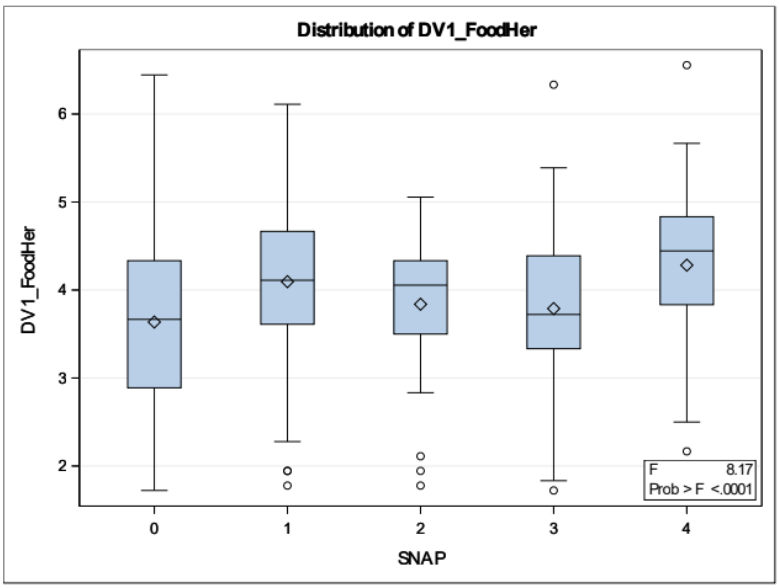


From this figure, it would appear that those in households where someone receives Free and reduced lunch have a higher connection to food heritage than those in households where no one receives Free and reduced lunch. However, because every student in the state of Missouri received Free and reduced lunch for the past two years due to the COVID-19 pandemic, the researchers are hesitant to elaborate further on this concept.

There was a statistically significant difference between values of food heritage in the SNAP benefits grouping as determined by one-way ANOVA ($p < .0001$). In Figure 4.6, the numbers along the X-axis correspond to the following: 1=Yes, 0=No, 2=Prefer not to answer, 3=Never applied, 4=Unsure if we qualify.

Figure 4.6

Food Heritage and SNAP Benefits One-way ANOVA

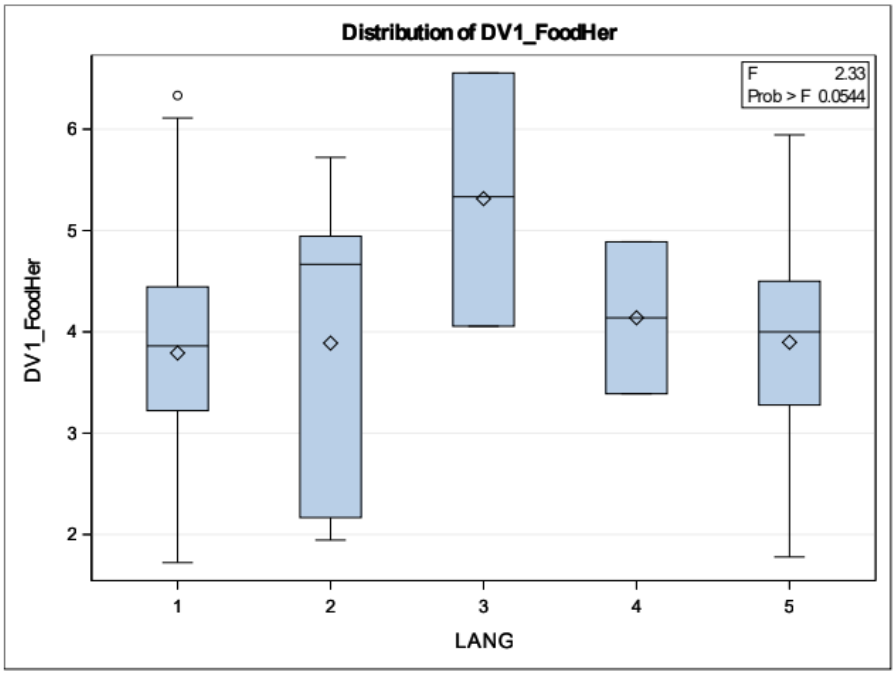


Of note is that those who qualify for SNAP benefits (n=155) and those who are unsure if they qualify (n=24) have a higher connection to food heritage than those who selected that they do not qualify (n=288) for SNAP benefits.

There was a statistically significant difference between values of food heritage in the language grouping as determined by one-way ANOVA ($p < .0544$) (Figure 4.7). In Figure 4.7), the languages captured were, 1=English (n=514), 2=Spanish (n=5), 3=Arabic (n=3), 4=French (n=2), 5=Multilingual (n=97). There were two survey participants that selected “Prefer not to say” for this question. We decided to place those into the English category since these participants took the survey in English. Of the survey participants, three chose “Other” for this question. As they also took the survey in English, we placed them into the “Multilingual” category.

Figure 4.7

Food Heritage and Language(s) Spoken One-way ANOVA



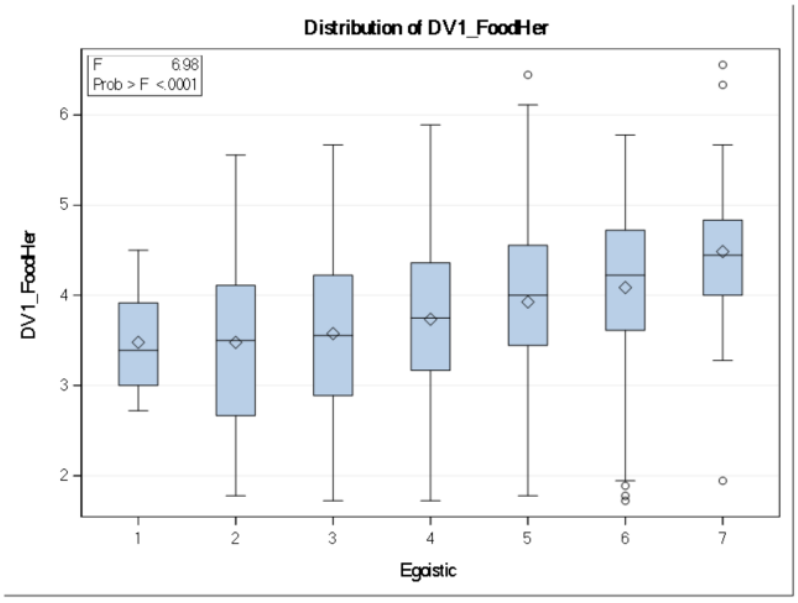
English and multilingual people are fairly similar in their distribution. Spanish had the largest box spread and the second to highest median. This could be because there is a wide variety of countries of origin with the people sampled. However, with such a small sample size (n=5) it is difficult to make more generalizations. Additionally, people who speak Arabic have the highest connection to food heritage, however, with n=3, it is difficult if not impossible to make generalizations based on this result.

Each of the three value orientations tested in the survey also serve as classification variables in this study. The researchers averaged the scores of the value orientation questions from our survey to obtain a score for each participant. Each category included either three (egoistic) or four (altruistic and biospheric) survey questions. Then, those averages were rounded to the nearest whole number before being analyzed as a classification variable with the dependent and independent variables. There

was a statistically significant difference between values of food heritage in the egoistic value orientation grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.8). The egoistic scale ranged from low (1) to high (7).

Figure 4.8

Food Heritage and Egoistic Value Orientation One-way ANOVA

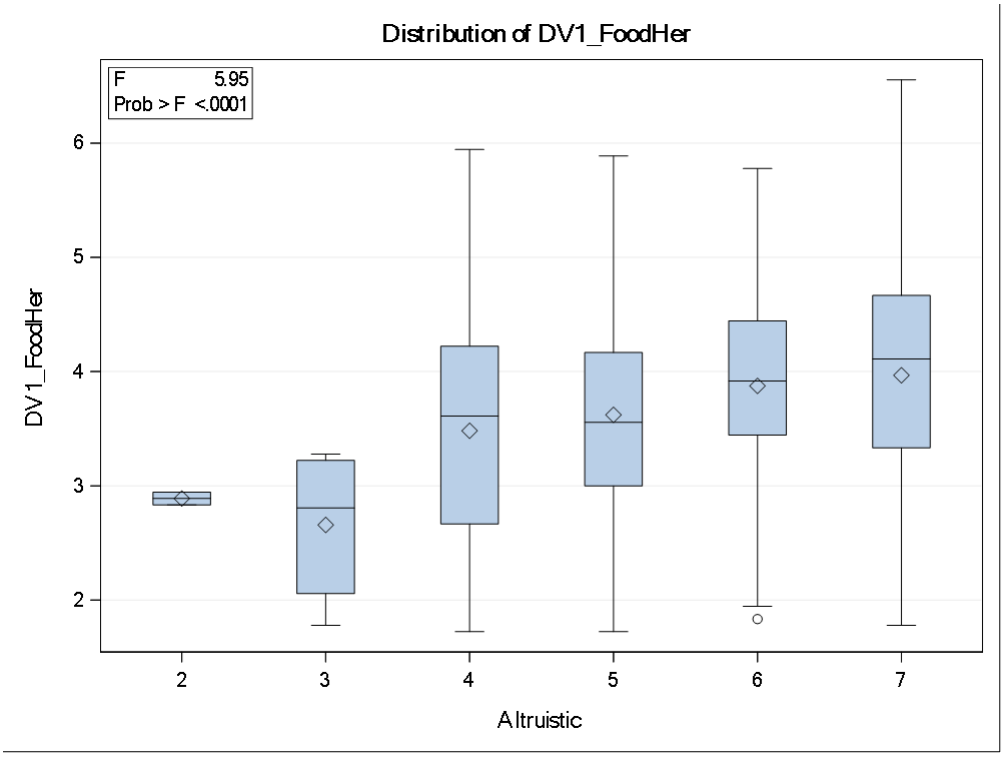


Based on these One-way ANOVA results, it appears that as one's egoistic value orientation increases, so does their connection to food heritage. This result suggests that people who are more egoistic have higher concern for themselves and their own personal food heritage.

There was a statistically significant difference between values of food heritage in the altruistic value orientation grouping as determined by one-way ANOVA ($p < .0001$) (Figure 4.9). The altruistic scale ranged from low (1) to high (7).

Figure 4.9

Food Heritage and Altruistic Value Orientation One-way ANOVA

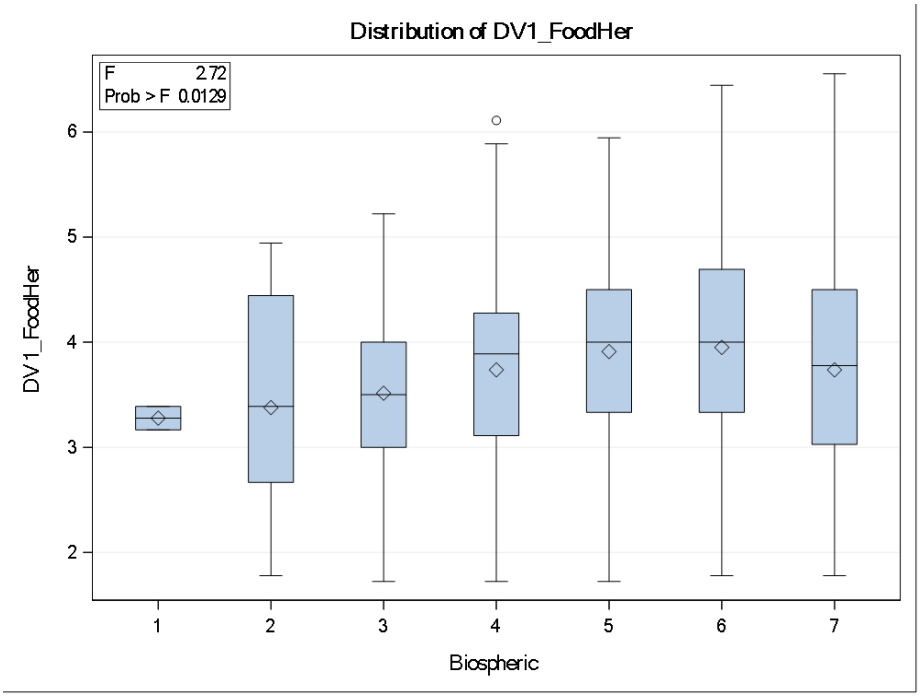


Interestingly, as with egoistic value orientations, in general, as one's altruistic value orientation increases, so does their connection to food heritage. As an altruistic value orientation is nearly synonymous with connection to community, it is easy to understand why the data appears this way. Low connection to a community could lead to a low connection with the food heritage associated with that community. Conversely, a high connection to a community aligns with a high connection to the food heritage of that community.

There was a statistically significant difference between values of food heritage in the biospheric value orientation grouping as determined by one-way ANOVA ($p = .0129$) (Figure 4.10).

Figure 4.10

Food Heritage and Biospheric Value Orientation One-way ANOVA



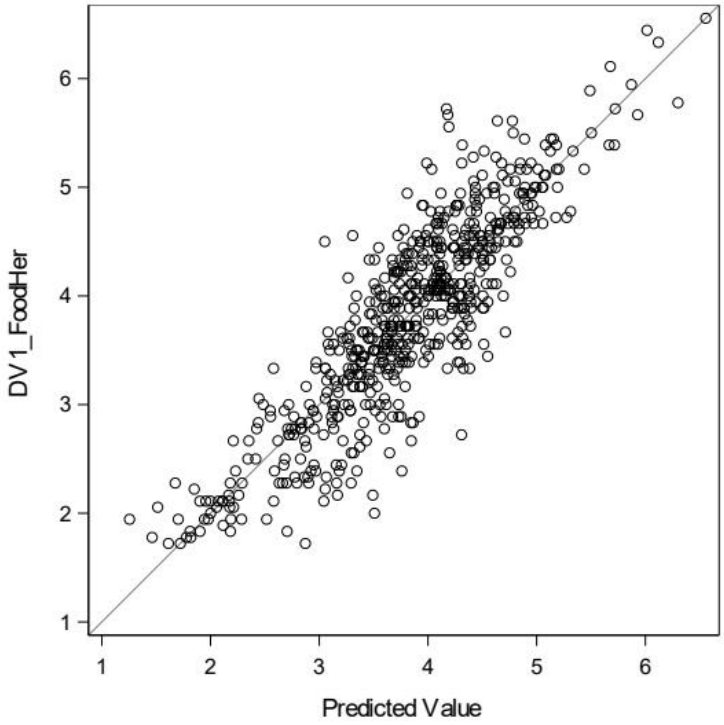
By looking at Figure 4.10, the researchers noted that as biospheric value orientation increases, connection to food heritage also increases. The spread overall increases, however the lower portion of the spread stays fairly constant, with respondents who were a 1 (n=2) being outliers. Since there are only two respondents, we cannot make any generalizations about this group. However, as the biospheric value orientation increases, the top portion of each whisker plot increases as well. This could be because people who have a higher biospheric value orientation also have a higher connection to their community and their environment. Like previous research, the altruistic and biospheric value orientations showed similar spreads in the data collected (de Groot & Steg, 2007).

Multivariate Statistics. In total, the researchers ran a multiple linear regression test, with the dependent variable, all four independent variables, and each different classification variable. Each demographic category excluding zip codes (N=8) was used

as a classification variable as well as each value orientation examined (N=3). These collectively are referred to as the classification variables. The adjusted R^2 values indicated that the independent variables (notions of sustainability, sustainable food practices, foodscapes, and foodways) explained over 57.2% of the variability in the dependent variable (food heritage) for each classification variable. After completing a visual inspection of the fit diagnostics for the dependent variable of food heritage for each multiple linear regression test run, the researchers determined that each test displayed a normal distribution. We carefully inspected the Q-Q plots, the histograms, and the studentized residual graphs. In each test, the Q-Q plots were in a straight line, and the histograms resembled bell curves which supports the assumption that the residuals are normally distributed. The studentized residual graph indicates constant variance with few plot points lying above 2 or below -2. Additionally, the overall model test was significant <.0001 indicating the four independent variables are significantly related to the dependent variable. The overall fit for our model is shown in Figure 4.11.

Figure 4.11

Overall Food Heritage Model Fit Chart



We approached the parameter estimates of the multiple linear regression with the question: Is IV1-4 (notions of sustainability, sustainable food practices, foodscapes, and foodways) a good predictor of DV (food heritage)? Additionally, we asked, are the demographic and value orientation classification variables good predictors of the DV? We examined each p-value to determine if the independent variables were a good predictor of our dependent variable. For this data analysis, we held our 90% confidence interval and only looked for p-values of <0.1.

As food heritage increases, notions of sustainability (β=3.144), sustainable food practices (β=4.165) & foodscapes (β=1.043) increase because of the positive slopes (β). However, only connection to foodways (p = .042) and sustainable food practices (p=.066)

are statistically significant. Sustainable food practices has a positive slope, indicating that as a connection to food heritage increases, so does a connection to sustainable food practices. However, the independent variable foodways has a negative slope (β=-13.903) which means that as a connection to food heritage increases, a connection to foodways decreases.

As notions of sustainability and foodscapes are not statistically significant with a confidence interval of 90%, either we did not know how to measure this concept yet or sustainability was not a major factor for people. There is a possibility that the research tool needs to be tweaked, reworked, or added to in the future to better understand these two concepts in relation to food heritage. In addition, defining food heritage with these parameters is a new concept; therefore, it is possible that the method of measurement is not accurate. Furthermore, the COVID-19 pandemic can also be a factor, as people may have other concerns that outweigh their thoughts about food choice motivation and food practices in these aspects.

Even though two of our independent variables were not significant in comparison to food heritage, the other two independent variables were significant. Sustainable food practices (p=.066) was statistically significant with a positive slope. Therefore, as sustainable food practices increase, connection to food heritage also increases. As a reminder, part of the definition of *food heritage* is the "individual and group's agency and desire to *preserve and cherish* food and food culture" (Kapelari, 2020). Food heritage has deep roots in cherishing and preserving food practices and food culture, just as sustainable food practices has roots in cherishing and preserving the Earth and its resources. Both of these variables are inherently more future-focused, with the ideas of

preservation of the Earth and one's own heritage at the forefront. In addition, there is an importance of and for future generations and one's legacy, and a respect for all living things in the process. For both variables, there are more connections to elements outside of the individual, which aligns to how connection to food heritage and sustainable food practices are positively related.

According to our data, as food heritage increases, foodways decreases (p=.042). We see that this category is statistically significant and has a negative relationship with the slope. This means that the more connection people have to their foodways, the less connection they have to their food heritage. This seems counterintuitive, but after much consideration, we believe that if someone is attached to foodways, their food heritage becomes less important. If you can transcend your foodways, your food heritage is able to become more important. In other words, if you can become less dependent on the current practices of the community in relation to food, you can begin to develop a co-constructed identity with your food heritage.

Egoistic value orientation (EV) is also significant in every category breakdown (EV2 p=.027, EV3 p=.025, EV4 p=.031, EV5 p=.029, EV6 p=.020, EV7 p=.029) suggesting that egoistic value orientation is a good predictor of food heritage. Additionally, all of the egoistic value orientation categories showed a negative slope, meaning that identifying as egoistic has a negative relationship to food heritage. When comparing the questions related to the egoistic value orientation to the survey questions related to food heritage, there is a vast difference between more individualistic-oriented questions and preservation-oriented questions. If a person has an egoistic value orientation, one can assume that they are concerned with themselves in relation to the

world as the survey questions answered dealt with influence, wealth, and authority. In the food heritage category, themes in survey questions emerged such as personal/household culture importance, politeness, and food's connection to traditions/celebrations. When juxtaposed, the individualistic nature of the egoistic questions contrasts sharply with the community-focused questions in the food heritage category. Thus, the negative association is understandable.

The altruistic value orientation (AV) has a positive slope overall, and categories 4-7 are significant (AV4 p=.025, AV5 p=.016, AV6 p=. 016, AV7 p=.02). As altruistic values increase above 3, connection to food heritage increases. It seems that a higher connection to the altruistic values from the survey such as being helpful, a world at peace, equality, and social justice (4+ on the scale), results in a higher connection to traditions, familial gatherings, and group cultures with food as the focal point.

No biospheric value orientations are significant. Therefore, we cannot make any assumptions or generalizations about this classification variable and food heritage. The lack of significance in this relationship could be a lack of understanding of food sustainability or a prioritization of other environmental concerns with this group of people surveyed. In contrast, age group 7, which included all people 65 or older, is statistically significant (p=.070) and has a positive relationship according to the slope. This suggests that people 65 and older have a higher connection to food heritage when compared to the reference group of 35-44 year olds. Traditionally, older people are more nostalgic and have more knowledge about their heritage as a whole, since they have more life experiences to draw upon.

Within the gender classification variable, the only group that showed significance were the people who chose not to divulge their gender identity (p=.072). The “prefer not to answer” group also had a negative slope with their connection to food heritage in comparison to the reference category of female. This could be explained by concerns for privacy in self-identifying on their survey translating to other aspects of their self-reporting their connection to food heritage. Finally, this group only consisted of six people, which is too small a sample size to make meaningful inferences.

When looking at the ethnicity category, Asian is statistically significant (p=.074) and has a positive relationship in the slope. This means that the Asian people in our sample have a higher connection to food heritage than the reference group, Caucasians. Even though the rest of the ethnicity categories are not significant statistically, it is interesting to mention that African Americans and Latinos have a positive slope, whereas multiracial and prefer not to answer folks have a negative slope in comparison with the reference category. Since there is no significance with p-values, the researchers could not make any conclusions about this difference, but felt it was worth noting.

Two other demographic classification categories worth noting is the amount of education and income in relation to connection to food heritage. Level of education is not significant in any category and the slopes are both negative and positive in the variety of categories that were identified. Therefore, we cannot say that education is an accurate indicator of a person’s connection to their food heritage. Income was similar in the spread of lack of significance, however, income 12 (Prefer not to say) is statistically significant (p=.067) with a negative slope. This negative association with food heritage could be

again because of apathetic views towards survey completion or a low sample in this category (n=38).

In looking at the significance of the Free and reduced lunch and SNAP/EBT/WIC categories, only Free and reduced lunch 3 is significant ("No one in my household is in school"). Its p-value is significant (p = .045) and has a negative slope, which again means that there is a lower connection to food heritage than the reference category, which is "No". Since the reference category also includes the absence of Free and reduced lunch benefits, there is more of a focus on whether the household has children. The category is only significant without children present in the household, one could make the assumption that connection to food heritage decreases in households without children. By definition, food heritage involves the same components as foodways; however, the key difference is cherishing and preserving these food products, practices, and perspectives to co-construct what one's food heritage is. Lower food heritage in the category where no children are present would make complete sense, as there may not be the same desire, or better yet, commitment to maintaining their food heritage since younger generations are not present.

Finally, we did not see any significance with food heritage and the language classification variable. Even after many attempts to include a more diverse set of languages represented in our data set, we were not successful. The immigrant perspectives are difficult to obtain in both quantitative and qualitative research. This can be attributed to larger outside factors inhibiting their ability to be available for research, such as a language barrier, a fear of disclosing documentation status, or difficulties navigating societal norms and pressures (Relias Media, 2007; Fête et al., 2019). In

addition, concepts within research and the survey instrument itself may not be easily translated or understood in other languages, even if the document was translated through the appropriate channels. Since there are so many different dialects and cultural norms within one language, it could be difficult to take a survey that was originally written in another language. There are amazing tools that can assist immigrants with the language of the survey, such as Google Translate, however, those tools can only go so far with understanding and comprehension. Since Google Translate can be used on any website and Google product, the researchers cannot be sure that the participants of the English survey only spoke English. Of the 621 responses that we were able to use, only 21 respondents took a translated survey in Arabic, French, or Spanish. Of the 21 respondents, only 10 total listed the language of the survey as their only language they spoke, therefore the remaining 11 were placed in the multilingual category for data analysis. Since we had a small sample size of speakers of Arabic, French, Spanish or other languages, we were unable to find any significance between the language spoken in comparison to the English-speaking sample.

After examining each of these categories, the researchers narrowed their focus even further and examined the p-values of each variable against the individual categories within each classification variable. We used Analyses of Covariance to further investigate the question, “is the effect each of the independent variables has on the dependent variable due to a specific category within each classification variable?” In other words, what could possibly be driving this effect? Due to the large number of independent variables and classification variables that were compared in this multiple linear regression test, the researchers decided to only consider classification variables and their

two-way interactions that were significant when compared to IV2-sustainable food practices and IV4-foodways, which excludes IV1-notions of sustainability and IV3-foodscapes.

The inspection of these crossed variables showed four statistically significant results with sustainable food practices and five statistically significant results with foodways. We first discuss the classification variables that were statistically significant with sustainable food practices, two of which were positive, Asian ethnicity (p=.072) and biospheric value orientation 2 (p=.051). This result suggests that for Asian people, sustainable food practices are an important factor in determining their food heritage. Figure 4.12 shows the relationship between food heritage, sustainable food practices and ethnicity and Figure 4.13 shows the relationship between food heritage, sustainable food practices and biospheric value orientation.

Figure 4.12

Analysis of Covariance for Food Heritage, Sustainable Food Practices and Ethnicity

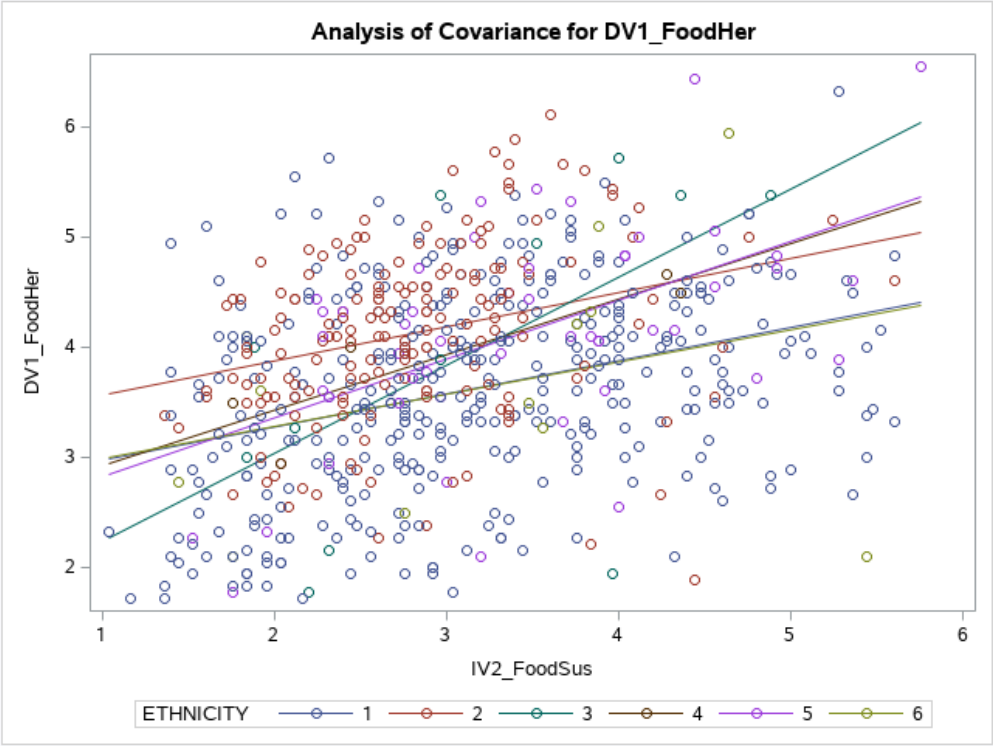
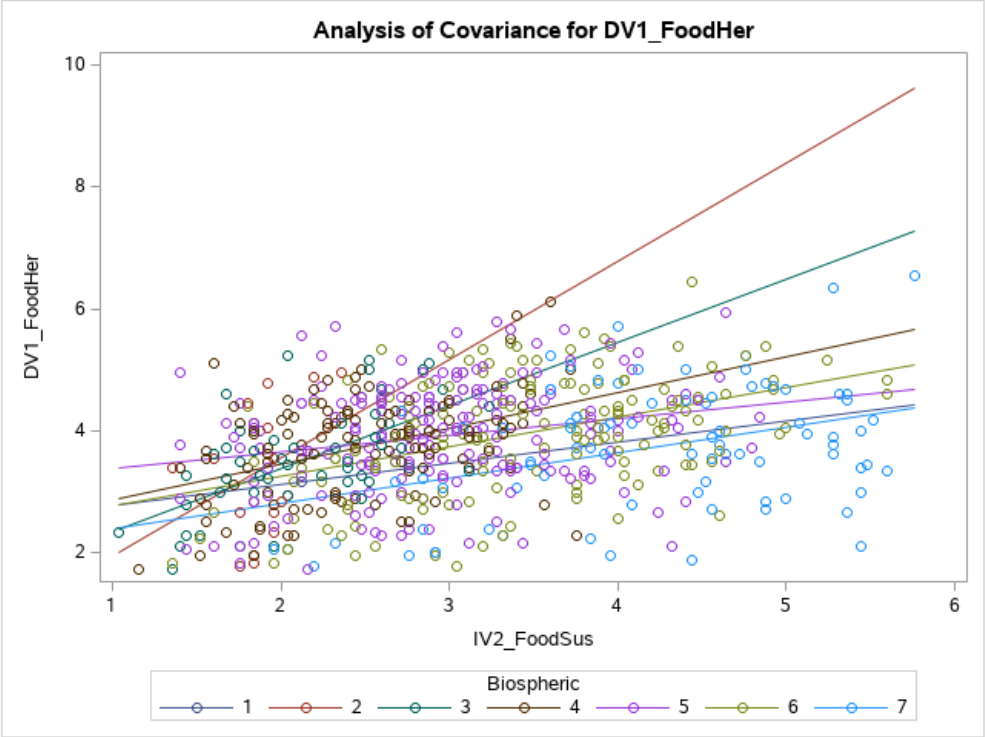


Figure 4.13

Analysis of Covariance for Food Heritage, Sustainable Food Practices and Biospheric Value Orientation



It is interesting to note that biospheric value orientation 2 is the only biospheric Value that is significant when compared to the reference category of biospheric value orientation 1. All of the biospheric Values were positive indicating that ascribing to these values is a positive factor in sustainable food practices influence on connection to food heritage. The reason for biospheric value orientation 2 being the only one that shows significance seems to be beyond the scope of this study.

Two classification variables negatively affected sustainable food practices: those who indicated that there were no school-aged children in the household when questioned about their Free and reduced lunch status (p=.059) and each of the egoistic value orientations (category 2 p=.046, category 3 p=.071, category 4 p=.075, category 5

p=.075, category 6 p=.062, category 7 p=.093). This result suggests that the sustainable food practices for survey respondents who had no school aged children has a significant effect on their overall connection to food heritage (Figure 4.14). Lunch category 3 corresponds to the answer “No one in my household is in school” on the survey.

Figure 4.14

Analysis of Covariance for Food Heritage, Sustainable Food Practices and Free and Reduced Lunch Status

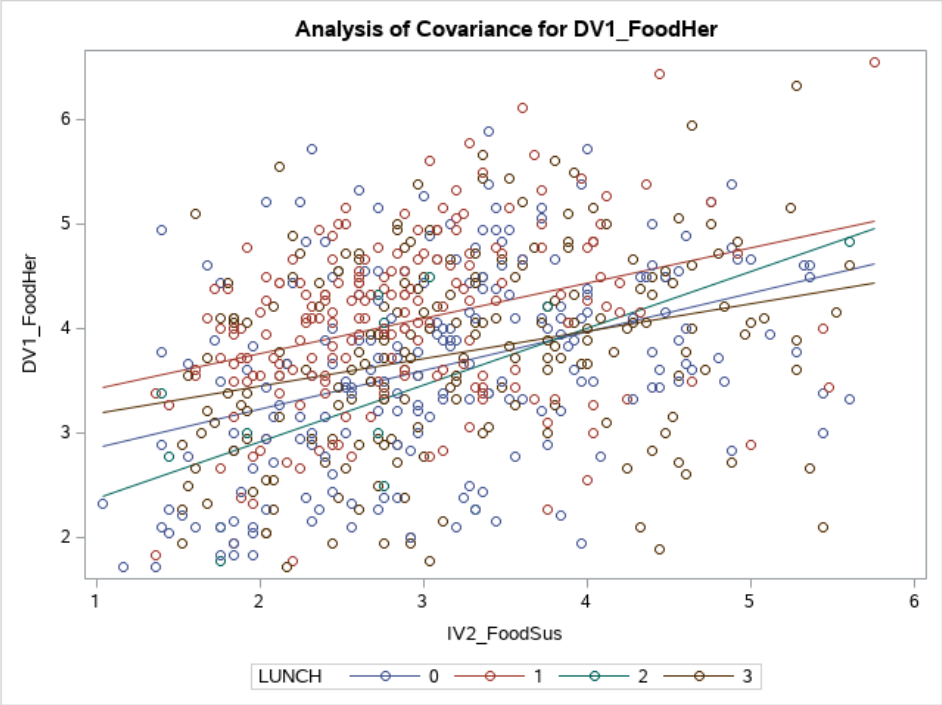
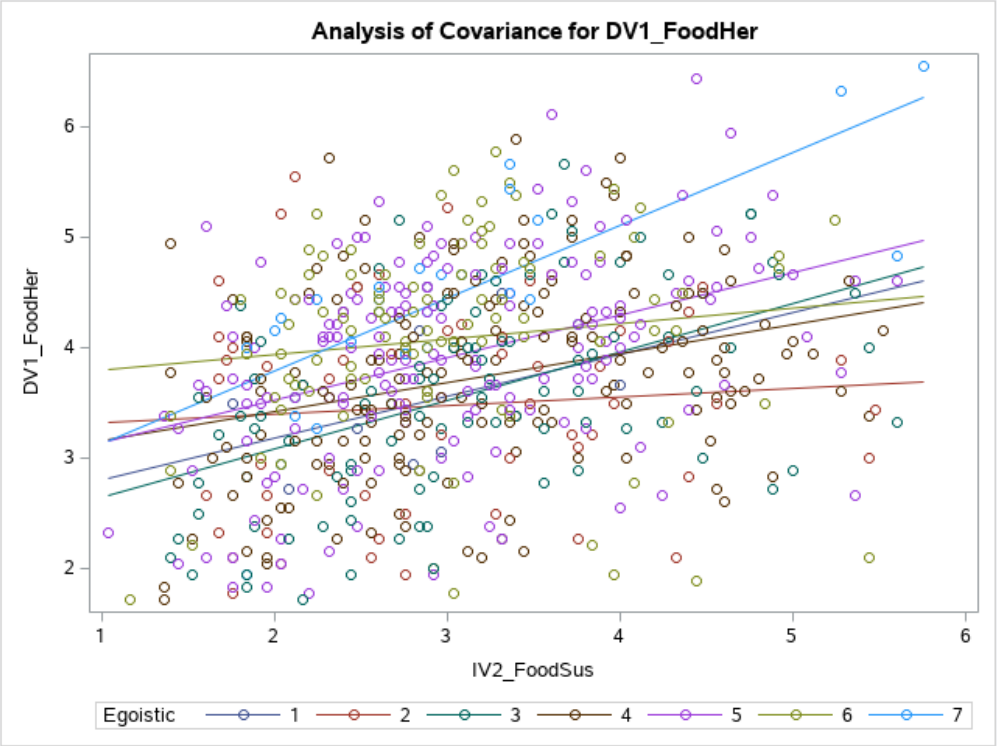


Figure 4.15

Analysis of Covariance for Food Heritage, Sustainable Food Practices and Egoistic Value Orientation



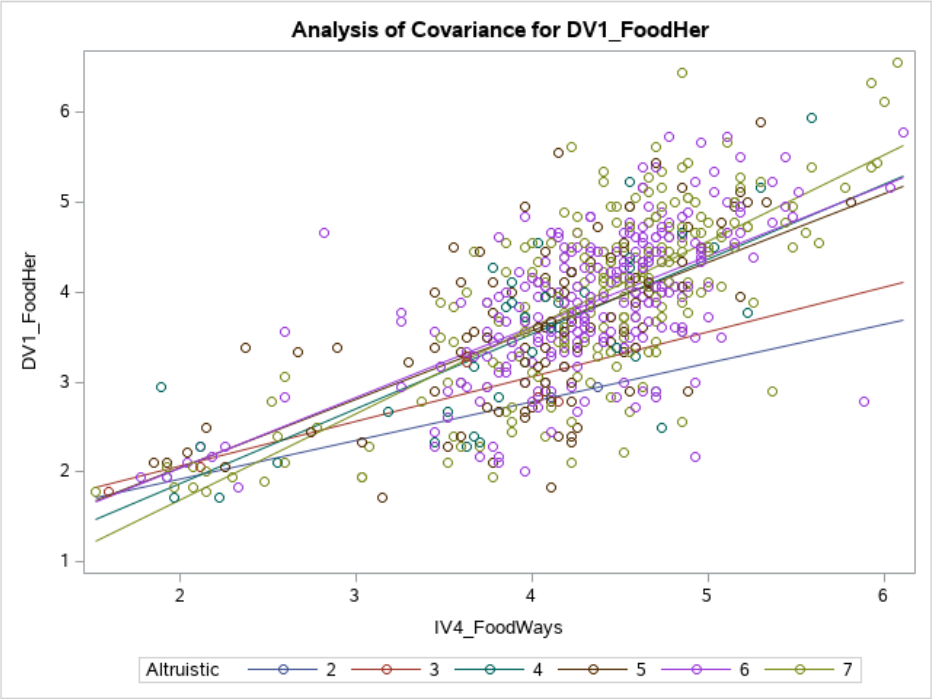
The fact that each of the egoistic value orientation categories is significant in comparison to the reference category (egoistic value orientation 1) is especially interesting to the researchers. This result appears to show that any egoistic value orientation has a significant negative effect relative to the reference category EV1 on how sustainable food practices influence the connection to food heritage. In other words, the reference category (EV1) has the greatest positive slope, which is why the other slopes are negative. Figure 4.15 provides a more detailed look at this effect.

A closer examination of the second significant independent variable, IV4-foodways, shows that five specific categories show statistical significance, one negative and the rest positive. The one negative area of statistical significance was altruistic value

orientation, category 3 (p=.060). Much as with the biospheric value orientation 2 discussed above, the fact that only one altruistic value orientation shows significance is interesting. The different categories within altruistic value orientation as compared to foodways have both positive and negative slopes indicating that foodways has different degrees of effect on food heritage depending on the level of altruistic value orientation. This combined with the fact that only one of the categories is significant might point to a need to reassess the efficacy of using these questions to measure altruistic value orientation. Conversely, this may simply point to low correlation between altruism and foodways. Figure 4.16 provides a visual representation of this phenomenon.

Figure 4.16

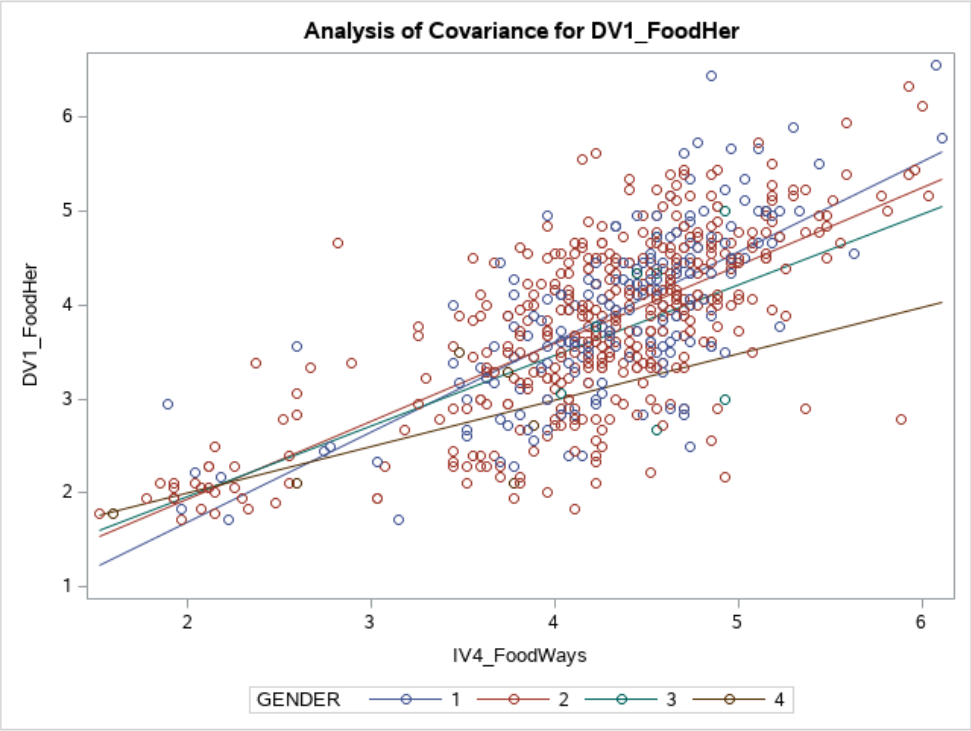
Analysis of Covariance for Food Heritage, Foodways and Altruistic Value Orientation



Gender category 4 (prefer not to answer), although it has a positive slope, has similar significance (p=.082) and perhaps similar meaning. The low sample size of the respondents who chose “prefer not to answer” (N=6) makes it difficult to draw much meaning from these results. Regardless, Figure 4.17 provides an interesting look at these responses.

Figure 4.17

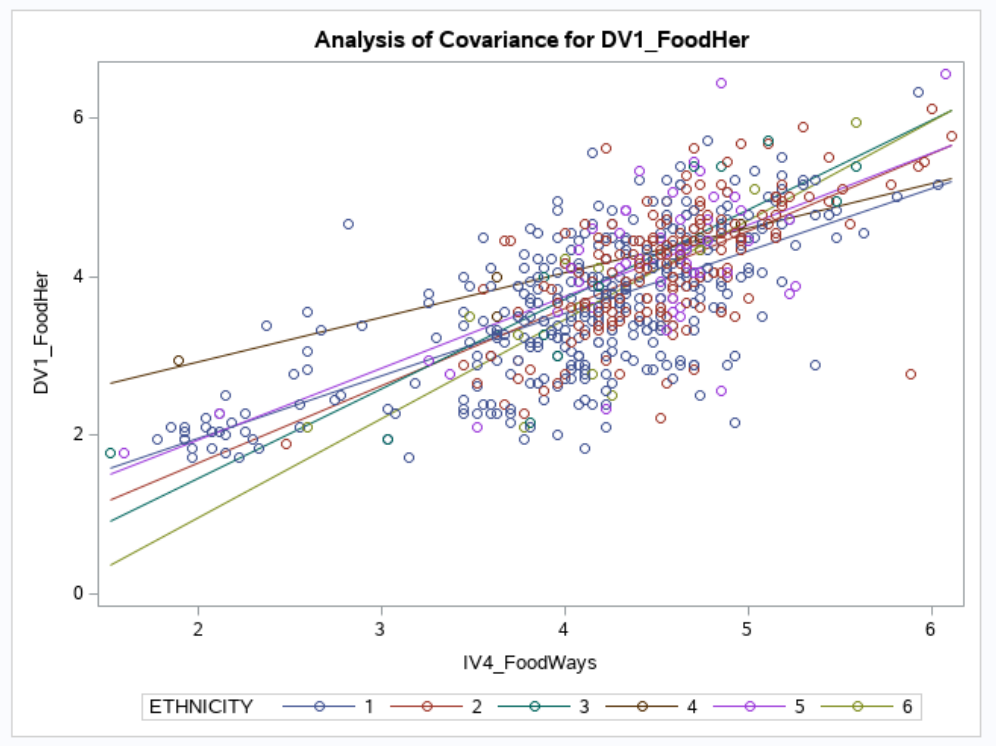
Analysis of Covariance for Food Heritage, Foodways and Gender



Two of the categories within ethnicity were statistically significant in conjunction with foodways, Asians (p=.092) and African Americans (p=.047). When food heritage and foodways are isolated, both of these categories showed a positive correlation, leading the researchers to believe that the Asian and African American populations of St. Louis have the greatest influence in how much foodways influences food heritage.

Figure 4.18

Analysis of Covariance for Food Heritage, Foodways and Ethnicity



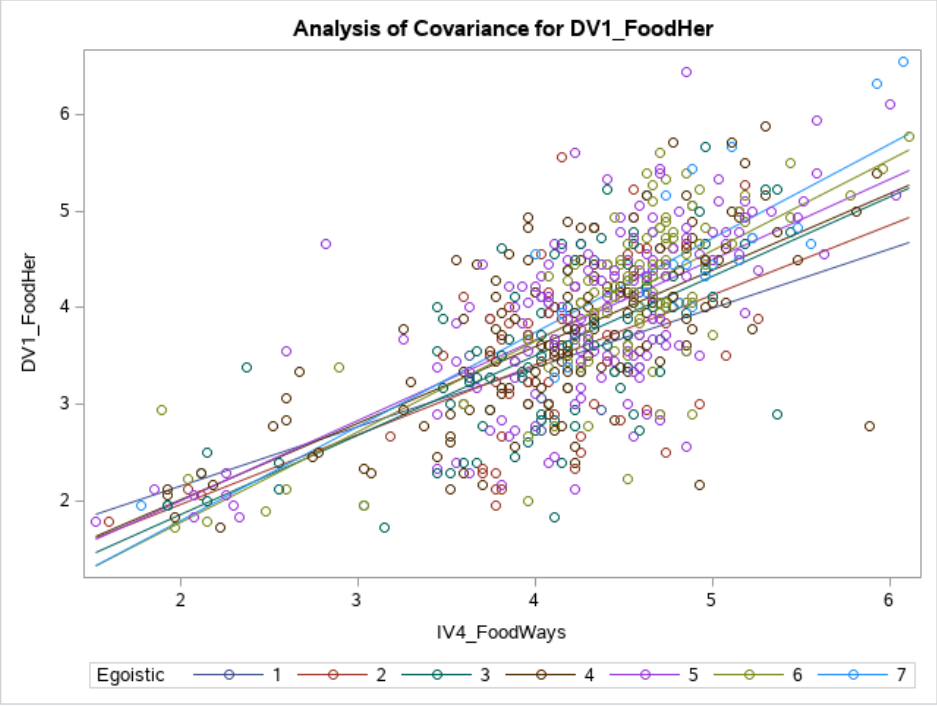
In Figure 4.18, ethnicity 2 corresponds with African American respondents and ethnicity 4 corresponds with Asian respondents.

Perhaps the most interesting significant correlation with foodways is that of the egoistic value orientation in each category when compared to the reference category (egoistic value orientation 1): Category 2 (p=.034), category 3 (p=.031), category 4 (p=.031), category 5 (p=.035), category 6 (p=.035), category 7 (p=.031). Each of these categories within this categorical variable are positive. This data seems to suggest that egoistic Values in these categories contribute more to foodways' overall influence on food heritage than the egoistic value orientation reference category (EV1). Additionally, this data appears to show that any egoistic value orientation has a significant effect on

how foodways influences the connection to food heritage. In other words, the reference category (EV1) has the least positive slope, which is why the other slopes are positive. Figure 4.19 provides a more detailed look at this relationship.

Figure 4.19

Analysis of Covariance for Food Heritage, Foodways and Egoistic Value Orientation



Scatterplots. The final statistical test run by the researchers were Scatterplots. Figure 4.20 presents the scatterplot comparing the DV and IV2. Figure 4.21 presents the scatterplot comparing the DV and IV4. The red arrows in Figures 4.20 and 4.21 were added by the researchers to identify connections between food heritage and sustainable food practices/foodways in the quadrants listed in Figure 3.1 in chapter three.

Figure 4.20

Food Heritage & Sustainable Food Practices Scatterplot

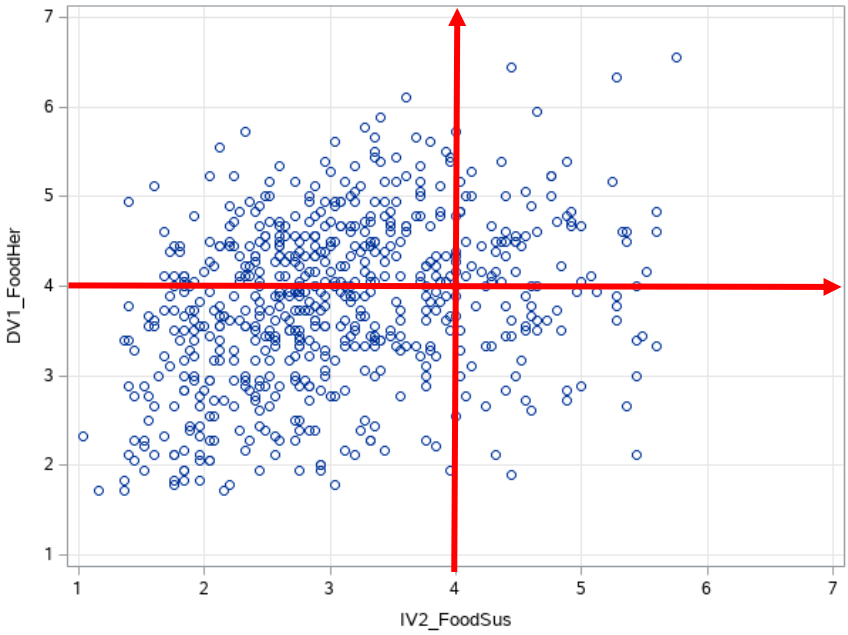
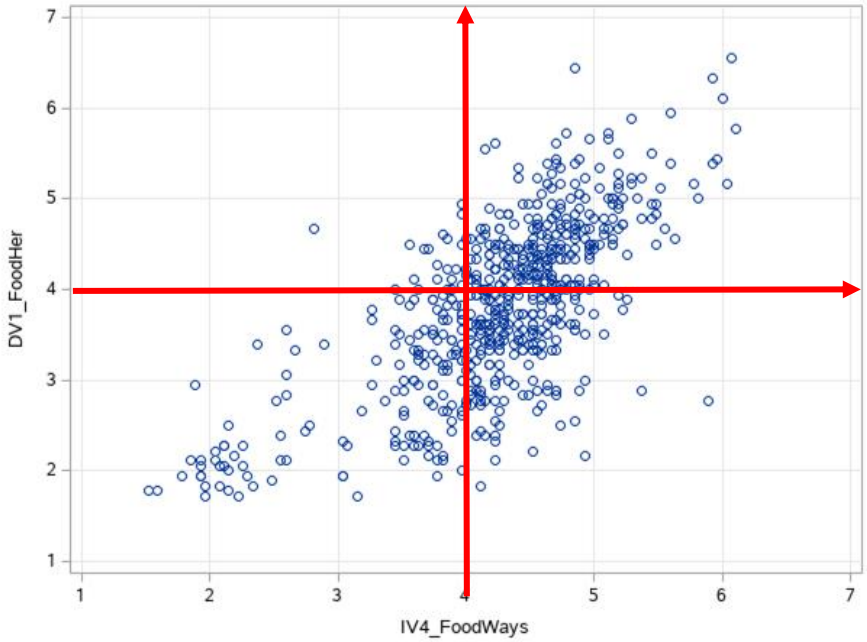


Figure 4.21

Food Heritage & Foodways Scatterplot



Upon visual inspection of these scatterplots, the researchers identified a clear, positive, linear relationship between food heritage (DV) and foodways (IV4). Although the plots between food heritage (DV) and sustainable food practices (IV2) show a somewhat positive relationship, it is considerably less linear than foodways.

Qualitative Interview Results and Analysis

After rigorous analysis and review of the data sets over the course of several months, working through the thematic analysis phases, the researchers resolved three core themes. In this section, coupled with excerpts from the transcripts and supporting literature, the researchers reported their results using a reflexive thematic analysis, rhetorical and illustrative analysis, and an interpretivism framework.

Phase One & Two: Thematic Analysis Results

Following thematic analysis processes outlined by Terry & Hayfield (2021), phase one produced familiarization notes and phase two codes. While notes were compiled in a journal and through Dedoose memoing tools, phase two produced 71 final codes (Appendix J). Of those 71 codes, only 70 were considered for data analysis purposes because the "Good quotes" code was generated to purely keep track of noteworthy quotations from the stakeholders. These codes were analyzed through Dedoose's packed code cloud, code co-occurrence, code application, and code presence analysis tools. Of those codes, Awareness of food (in)equity (53), Food connects people (51), Importance of food education (48), Food stereotypes (44), Sustainable food practices connected to foodways (42), Food heritage (39; tie), and Right to healthy food (39; tie) were the top seven most individually coded phrases. However, key concepts such as food heritage, sustainable food practices, and foodways were coded multiple

times across several different codes. For instance, food heritage was referenced across six different codes for a total of 123 mentions. These codes were *Food heritage*, *Food heritage connected to trauma*, *Food heritage defined*, *Food heritage defined by sustainable food practices*, *Food heritage defined by unjust foodways*, and *Redefining food heritage through sustainable food practices*. Some of the codes also highlighted overlap of key terms and concepts such as *Redefining food heritage through sustainable food practices, Food heritage defined by unjust foodways*, and *Sustainable food practices connected to foodways*. In total, the 71 codes were applied 1448 times to 405 different excerpts across fourteen transcripts.

Phase Three: Thematic Analysis Results

Through analyzing these codes and our familiarization notes, we began phase three by clustering codes, considering emerging themes, and producing prototype themes. Using 70 different sticky notes, the transcripts, and familiarization notes, we considered each code in-depth and in connection to one another. We used Dedoose analyzation tools, code connections and familiarization notes, and to then cluster codes together around prototype themes. The five prototype themes produced were: Food is about human connectedness, Sustainable food practices reimagine food heritage, Sustainable food practices as social intervention, Food education helps one understand food heritage, and foodscapes and foodways are founded upon inequity. Figure 4.22 breaks down the codes originally clustered to produce prototype themes, which are displayed as a thematic table.

Figure 4.22

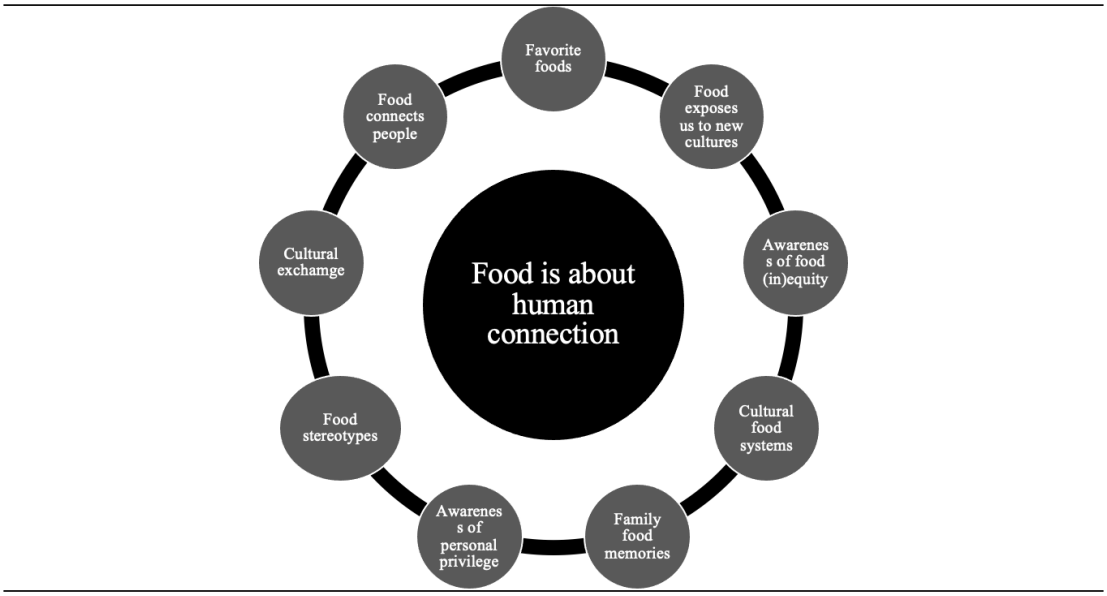
Five Prototype Themes and Codes

Theme 1: Food is about human connection	Theme 2: Sustainable food practices reimagine food heritage	Theme 3: Sustainable food practices as social intervention	Theme 4: Food education helps one understand food heritage	Theme 5: Foodscapes and foodways are founded upon inequity
• Favorite foods • Food exposes us to new cultures • Awareness of food (in)equity • Cultural food systems • Family food memories • Awareness of personal privilege • Food stereotypes • Food connects people • Cultural Exchange	• Food heritage defined by sustainable food practices • Sustainable food practices as health benefitting • Sustainable food practices as empowering • Food heritage connected to trauma • Food heritage defined by unjust foodways • Redefining food heritage through sustainable food practices • Food stereotypes • Spiritual/religious connection to food	• Educating through sustainable food practices • Importance of food education • Awareness of food (in)equity • Sustainable food practices as empowering • Food related medical / health benefits • Food heritage defined by unjust foodways • Food (in)equity • Food choice as empowering • Food access • Sustainable food practices connected to foodways • Pandemic-related (in)equity	• Importance of representation in sustainable food practices • Food heritage defined by sustainable food practices • Food choice as empowering • Spiritual/religious connection to food • Importance of food education • Food history • Food-based programming • Food traditions • Favorite foods • Food stereotypes • Food culture	• Systemic (in)justice • Pandemic-related (in)equity • Poverty • Low income • Food-related medical / health issues • Food heritage defined by unjust foodways • Food (in)equity • Food (in)justice • Food (in)security • Environmental (in)justice • Environmental racism • Right to food (in general) • Right to healthy food • SNAP/WIC

Prototype theme one was *Food is about human connection.* As we looked at codes, their corresponding excerpts, and familiarization notes, we noticed that there was a concept emerging around food and human connection as seen in Figure 4.23.

Figure 4.23

Clustered Codes Diagram #1: Food is About Human Connection

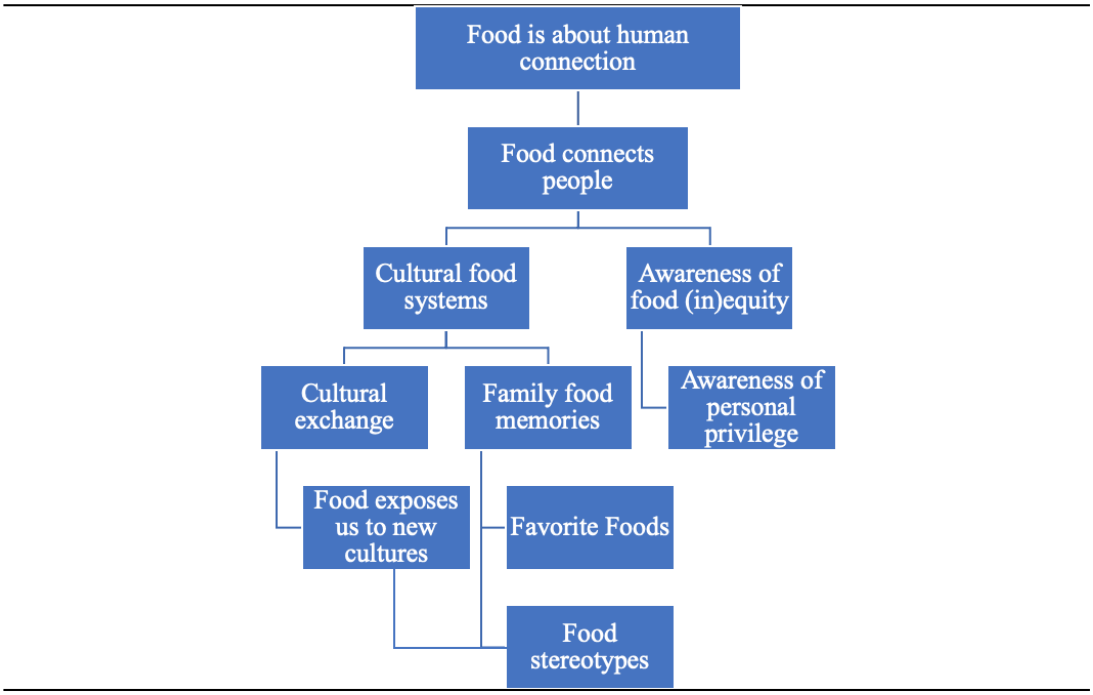


While they seemed to connect to one another, we eventually noticed that the codes truly seemed to follow a path to the code *food connects people*. By itself, through its connected excerpts and familiarization notes, *food connects people* showed how food connections happen most frequently through engaging diverse cultural food systems as well as through self-awareness of inequities around the food practices of others. In terms of *cultural food systems*, there were two dominant factors that merged into this code: *cultural exchange* and *family food memories*. For instance, the stakeholders frequently told stories around their family food memories by emphasizing favorite foods and food stereotypes. Equally, these stakeholders shared how cultural food exchanges always exposed them to food cultures beyond their own. Both of these concepts dealt with engaging cultural food systems both familiar and foreign. On the other side, stakeholders

found that awareness of personal privilege led them to become acutely aware of those without privilege. This awareness led them to feel more connected to others through realizing, denouncing, and advocating against those food inequities. Figure 4.24 illustrates how these concepts led us to the prototype theme.

Figure 4.24

Prototype Thematic Map #1: Food is About Human Connection



However, while everything seemed to line up, we realized that *Food connects people* was insufficient to the holistic narrative told by these codes. While they do reveal how food connects people, cultural food systems and awareness of food inequity also showed that food was inherent to what it fundamentally means to know, feel, and be human beyond ourselves. Thus, *Food is about human connection* became a prototype theme.

Our second theme *Sustainable food practices reimagine food heritage* emerged out of codes that blended awareness and action around the central idea of food heritage. Specifically, this blend seemed to happen at the intersection of sustainable food practices. Figure 4.25 shows how these codes began to cluster around this emerging concept.

Figure 4.25

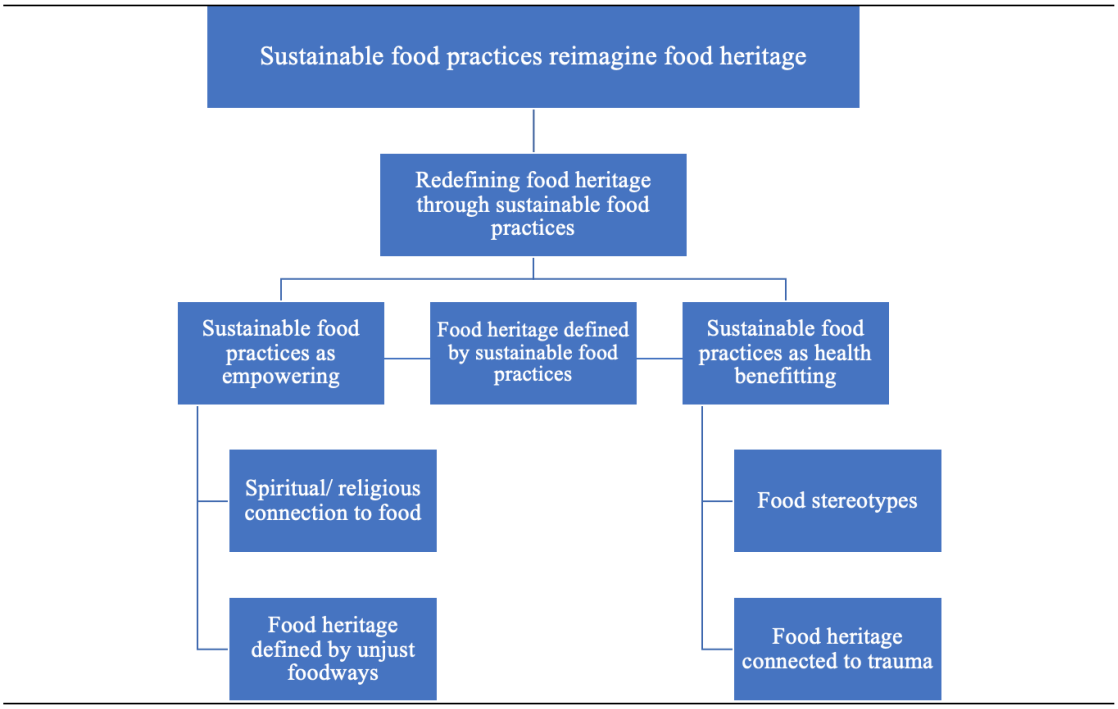
Clustered Codes Diagram #2: Sustainable Food Practices Reimagine Food Heritage

The prototype theme *Sustainable food practices reimagine food heritage* truly started and ended with the evolving relationship around food heritage and sustainable food practices. Transcript codes and excerpts showed a movement from social and ancestral awareness of unjust foodways and spiritually tied food connections to personal empowerment through actionable sustainable food practices. Equally, it is in the psychological and physiological awareness around personal health deficits due to trauma and stereotypical foods that stakeholders moved towards actionable sustainable food

practices that were health benefiting. Some of these sustainable food practices were already defining their food heritage. However, both in empowerment and health benefits, sustainable food practices were tied to a stakeholder's food heritage in new ways. Thus, *Redefining food heritage through sustainable food practices* emerged as the connecting piece. Yet, the term *redefining* felt insufficient in telling the full narrative of these coded connections because it calls one to define something differently and definitely by definition (Oxford Languages, 2022). However, our theoretical literature and transcripts pointed us away from food heritage as a finite definition and towards personal revelation. A revelation that evolves through a series of personal awareness and action experiences. Thus, the term *reimagine* came to the forefront.

Figure 4.26

Prototype Thematic Map #2: Sustainable Food Practices Reimagine Food Heritage



As shown in Figure 4.26, the prototype theme *Sustainable food practices reimagine food heritage* best connected to the narrative told by these codes altogether. The word *reimagine* means to rethink, reconsider, and reinterpret (Oxford Languages, 2022). Within this definition, reimagine better illustrates what sustainable food practices can do to food heritage. It does not define it outright, rather sustainable food practices make us rethink, reconsider, and reinterpret our food heritage. In addition, this reimagination happens through both self-awareness of and participation in sustainable food practices. Thus, the second prototype is brought to the forefront.

Our third prototype theme—*Sustainable food practices as social intervention*—was developed around the emerging relationship between education and sustainable food

practices also at the intersection of awareness and action. Figure 4.27 shows how these codes are clustered and began to conceptualize this prototype theme.

Figure 4.27

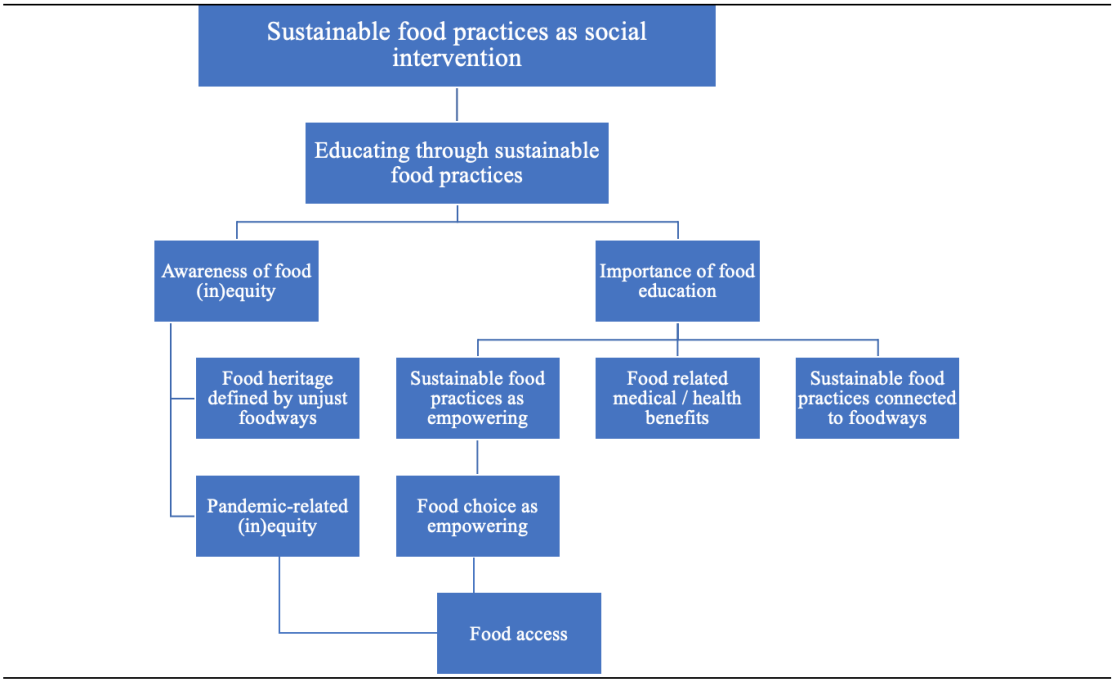
Clustered Codes Diagram #3: Sustainable Food Practices as Social Intervention

At its roots, the relationship between education and sustainable food practices starts with meeting basic needs before moving towards interventions. Whether caused by inherent foodways or COVID-19 caused deficits, the codes showed that stakeholders' communities enter their foodscapes to get food first and foremost—which is an issue of food access. It was out of access to food that there appeared to be two branching ideas: inequity and empowerment. Awareness of food inequities become apparent to both stakeholders and communities whenever they mutually engage within a foodscape. It is in

this mutual engagement that stakeholders and communities begin to assess St. Louis foodways as just or unjust in general. Concurrently, when communities engage stakeholder foodscapes, they undergo a food education process. This food education shows the communities how sustainable food practices can give them power within their foodways as well as over their own personal health. As shown in Figure 4.28, both *Awareness of food (in)equity* and *Importance of food education* merge at the code *Education through sustainable food practices*.

Figure 4.28

Prototype Thematic Map #3: Sustainable Food Practices as Social Intervention



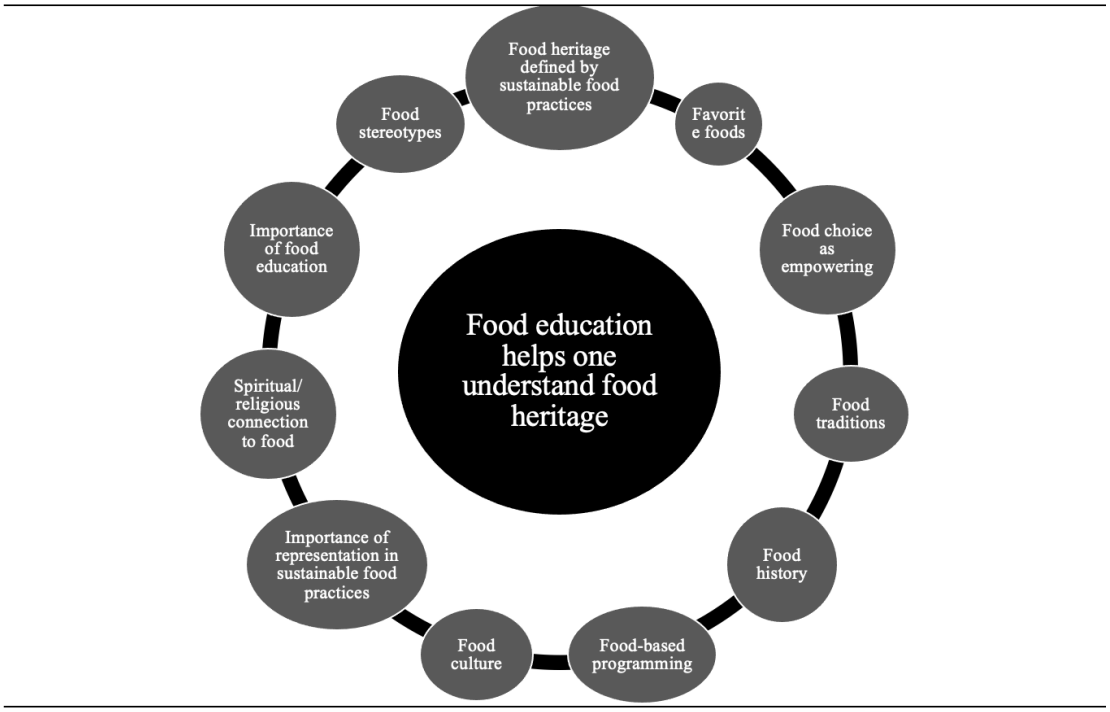
Sustainable food practices as social intervention transcends and synthesizes the narratives that lead to *Educating through sustainable food practices* because it reveals the relational purpose of education and sustainable food practices. For the stakeholders, using

participatory sustainable food practices through food education mechanisms is to enact social interventions that benefit their communities. Wherein, social interventions are designed to deliver specific social benefits where there are deficits within a disenfranchised community (VGG Communications, 2019). Sustainable food practices are therefore used by stakeholders to deliver direct social benefits to their communities.

The fourth prototype theme was *Food education helps one understand food heritage*. These codes cluster around this concept of connection through demonstration and education as shown in Figure 4.29.

Figure 4.29

Clustered Codes Diagram #4: Food Education Helps One Understand Food Heritage

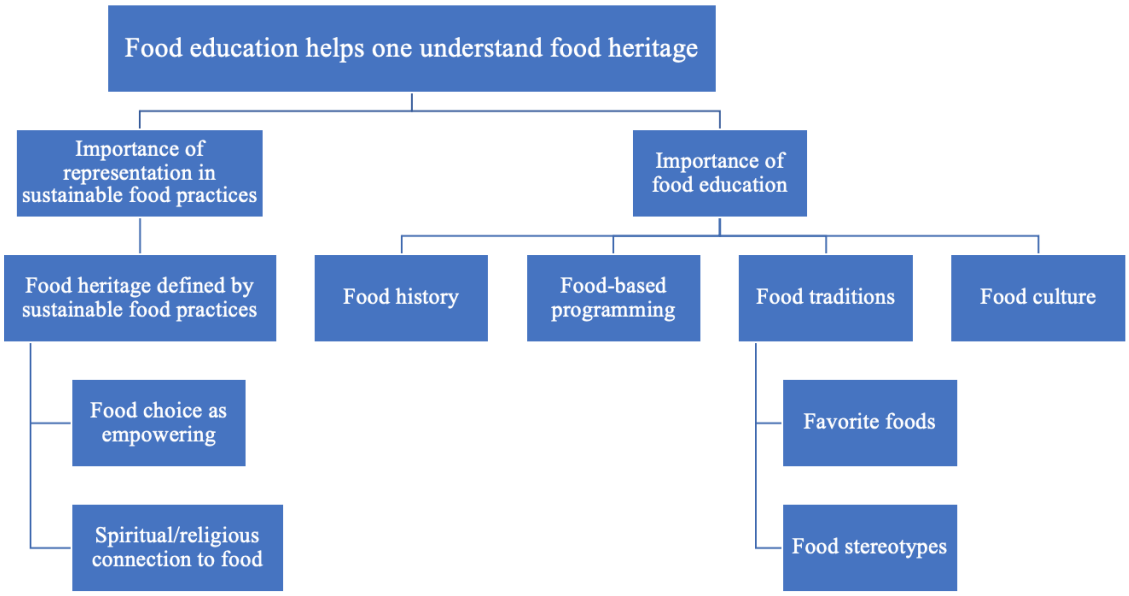


Here, the codes begin with different entry points to food connections before moving into this concept demonstration and education. For instance, the codes *Food*

choice as empowering and *Spiritual/religious connection to food* are rooted in demonstrated experiences at specific foodscapes such as urban farms and pantries. Whereas, the codes *Favorite foods* and *Food stereotypes* are rooted in learning environments such as holiday dinners and potluck dinners. In these public-facing foodscapes, communities are shown food connections through experiences connected to one's food practices and food heritage. Contrarily, stakeholders posit that within more private or home-oriented environments people learn food connections. Whether a lesson, program, tradition, or helping cook a meal, it is here that people formally and informally learn about their food heritage. In the end, the codes all lead to this idea of representation within the initial concepts of demonstration and education. And it's the idea of representation that became the key connector between the codes *Importance of representation in sustainable food practices* and *Importance of food education* to prototype theme shown in Figure 4.30.

Figure 4.30

Prototype Thematic Map #4: Food Education Helps One Understand Food Heritage



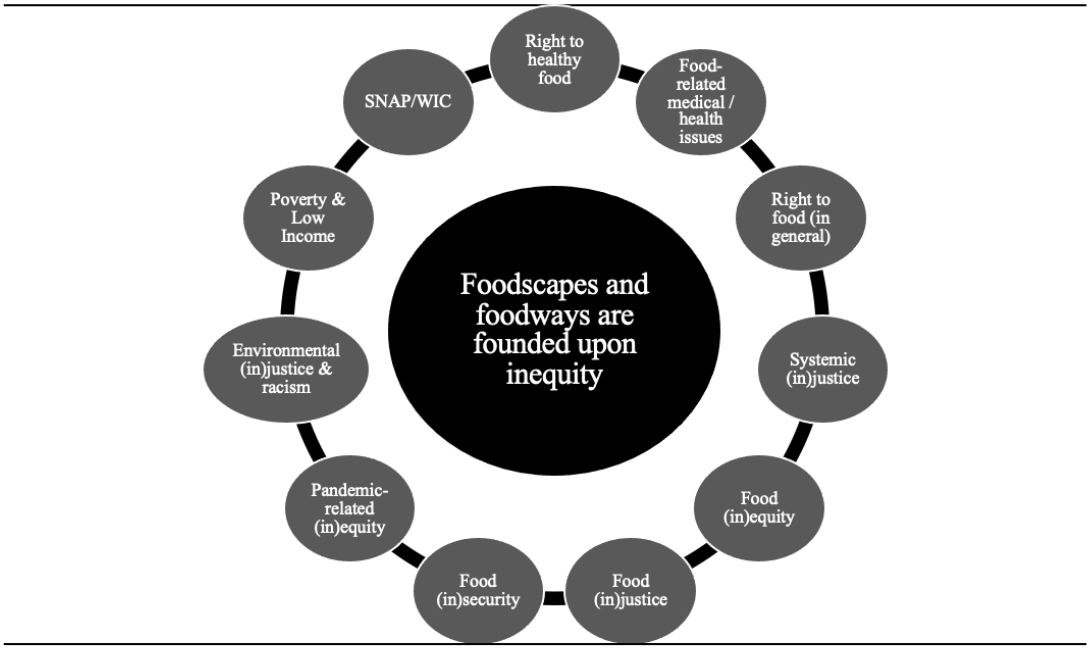
Whether it was in demonstration or education experiences, representation was central to the theme *Food education helps one understand food heritage*. In this case, *representation* is best described as a depiction or model that creates a sense of likeness and leads to reproduction (Oxford Languages, 2022). Additionally, food education is a blanket term that indicates both the formal and informal education happening within shown and learned environments. The codes point to how representation (i.e. depictions and models) within these shown and learned environments is core to one creating their own sense of likeness while reproducing that likeness. To the stakeholders, within this sense of likeness and acting upon this likeness is where *understanding of one's food*

heritage happens. Thus emerges this prototype theme: *Food education helps one understand food heritage*.

The fifth and final prototype theme is *Foodscapes and foodways are founded upon inequity*. The clustered codes shown in Figure 4.31 point to two main ideas—injustice and one's food rights.

Figure 4.31

Clustered Codes Diagram #5: Foodscapes and Foodways are Founded Upon Inequity



All of the codes related to injustice and inequity were considered, connected, and organized. The codes for *Food (in)security* and *Food (in)justice* were related to but generally functioned underneath the predominant code of *Food (in)equity*. Likewise, *SNAP/WIC* functionally operated within the greater concept behind the codes *Poverty* and *Low income*. However, *Food (in)equity*, *Pandemic-related (in)equity*, *Environmental*

(in)justice, *Environmental racism*, *Poverty*, and *Low Income* all told the story of *Systemic (in)justice*. In isolation, this code was one of general awareness; however, when considered alongside other codes, *Systemic (in)justice* actually rooted the code *Right to food (in general)* because of how it dealt with inequitable concepts such as food access, food barriers, and food apartheid. From here, the code *Food-related medical / health issues* modifies *Right to food (in general)* because it coupled personal inequitable stories to systemic-related inequities. Thus, the code *Right to healthy food* encompassed the story of inequity told by the codes altogether. Nonetheless, this code wasn't promoted because it didn't fully capture the story in a succinct theme.

Figure 4.32

Prototype Thematic Map #5: Foodscapes and Foodways are Founded Upon Inequity

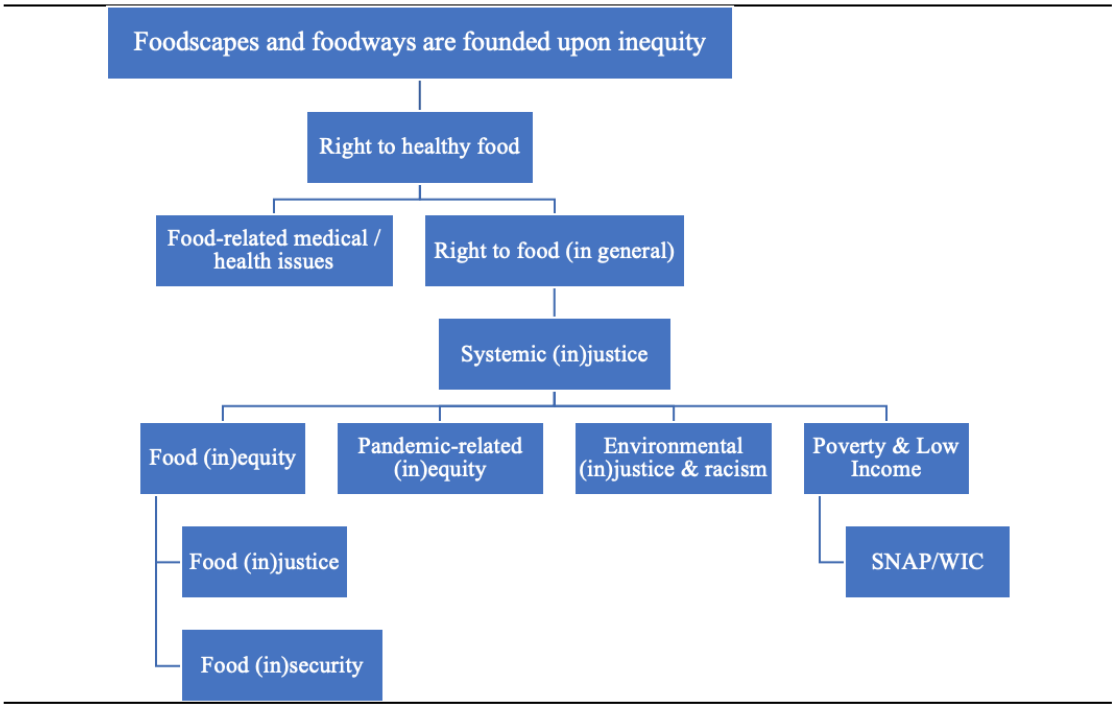


Figure 4.32 shows that *Right to healthy food* led us to the prototype theme *Foodscapes and foodways are founded upon inequity*. Having a right to something is inalienable to the American experience. While these codes spoke of how systemic inequities take away the human right to food generally, it also declared the inalienable human right to *healthy* food. They narratively declare *the reason why things are this way today is because of how things were designed yesterday*. *Foodscapes and foodways are founded upon inequity* emerged as the fifth prototype theme because it more precisely pronounces that declaration within the ideas of inequity and one's food rights.

Phase Four: Thematic Analysis Results

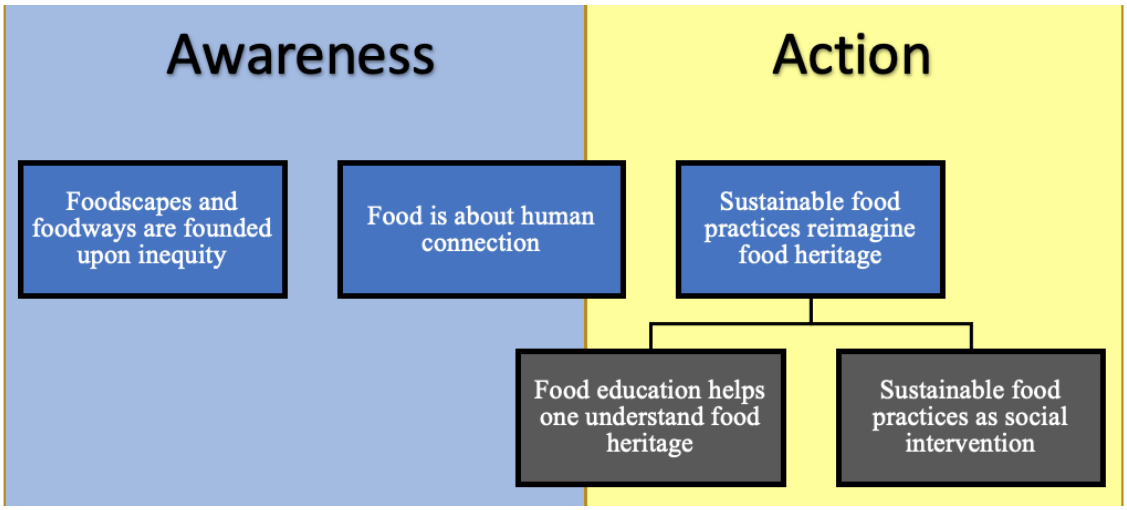
In creating the original five prototype themes, we then began a period of developing and reviewing each one through a reflective questioning process that is best modeled by Terry & Hayfield (2021, p 56- 7). Essentially, we utilized the following questions as a guide to review and develop each prototype theme:

1. Is this more than just a code? Is it a theme in that multiple codes are able to cluster around its central organizing concept?
2. What does this prototype tell us about the data set and our research question?
3. What does this prototype theme include and exclude? What are its boundaries? Are those boundaries permeable (is there overlap with other themes)?
4. How much data is there to support this prototype? Would too much need to be made of too little? Are there good exemplars of data evident that could be used?
5. How broad is the theme? Does it contain a strong central organizing concept, or is the data too diverse, suggesting it is a domain summary rather than a theme?

As each theme underwent criticism, the reflexive approach allowed the researchers to concurrently look at each theme through the lens of the transcripts, theoretical literature, research questions, familiarization notes, and positionality. As a result, as illustrated in Figure 4.33, the themes followed the conceptual framework of *awareness* and *action*, which served as thematic boundaries in the review process.

Figure 4.33

Thematic Map of Prototype Themes Review #1



Foodscapes and foodways are founded upon inequity passed the review and fell in line with awareness. Specifically, the summary of the review process results via the aforementioned questions were as follows:

1. Yes, this prototype is more than a code and has multiple codes that cluster around it.

2. This theme tells us about inequity and one's food right which is aligned with how foodscapes and foodways contribute to the definition of food heritage in the core research question.
3. This theme includes foodways, foodscapes, and food inequity and excludes notions of sustainability and sustainable food practices in general. Specifically, its boundaries are set at the *awareness* level of and around food inequity, and does not venture into *action*. It is not permeable with other themes.
4. There is enough data to support this theme as well as promising quotations and evidence.
5. While broad as a general concept, the interviews clearly craft a focused narrative that leads to *Foodscapes and foodways are founded upon inequity* especially through the thread of *one's food rights*.

Food is about human connection also passes the review, but saw some conceptual overlap between awareness and action. We felt this overlap was crucial to its ability to pass the review as explained here:

1. Yes, this prototype is more than a code and has multiple codes that cluster around it.
2. This theme tells us about food and its relationship to human connection. Specifically, it tells how food and human connection are highlighted by awareness within foodways and actions around sustainable food practices through this notion of cultural malleability. In the end, this leads us closer to understanding how the foodways and sustainable food practices contribute to the definition of food heritage.

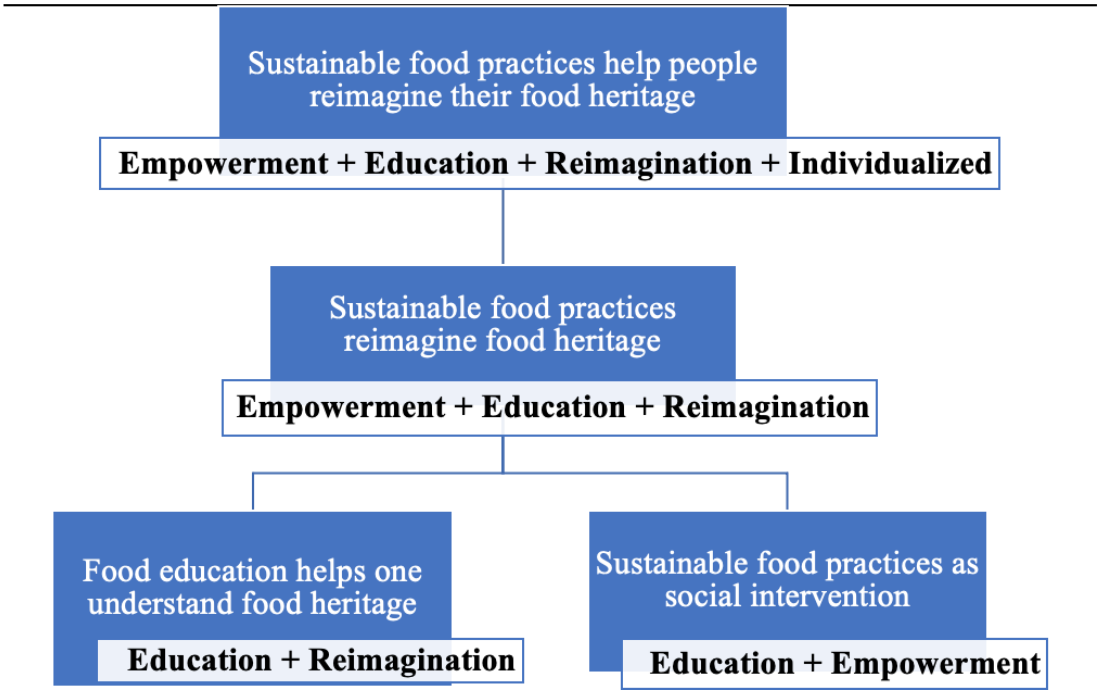
3. This theme includes foodways and foodscapes as well as notions of sustainability and sustainable food practices. However, it excludes a deep dive into food inequities found in the theme *Foodscapes and foodways are founded upon inequity*. Equally, it also excludes the speaking in terms of sustainability and sustainable food practices in a systemic and/or personable-specific way found in the themes *Sustainable food practices reimagine food heritage*, *Food education helps one understand food heritage*, and *Sustainable food practices as social intervention*. Therefore, while it does dip its toes in both awareness and action, it also never goes fully in-depth with them either. This theme instead engages and minimizes this overlap to more specifically explore a philosophical viewpoint of humanity. Thus, it is not permeable with other themes.
4. There is enough data to support this theme as well as promising quotations and evidence.
5. The interviews leverage personal narratives that led us to see *Food is about human connection* through a universal lens.

Sustainable food practices reimagine food heritage, *Food education helps one understand food heritage*, and *Sustainable food practices as social intervention*, all initially failed the review phase because they all were permeable with each other. Specifically, they dealt with the idea of *action* through the lens of education and empowerment at some level. After revisiting familiarization notes and transcripts, we noticed that each of these prototype themes were centered on three core concepts: reimagination, education, and empowerment. Regarding the themes, reimagination is consistently reiterated through the idea of food heritage found in the prototypes

Sustainable food practices reimagine food heritage, *Food education helps one understand food heritage*. Empowerment is emphasized in S*ustainable food practices reimagine food heritage* and *Sustainable food practices as social intervention*. And education is highlighted by all three. While again referencing notes, transcripts, and theoretical literature, we then developed a thematic map showing how these prototype themes connected to each other as well as these three concepts. As shown in Figure 4.34, *Food education helps one understand food heritage* and *Sustainable food practices as social intervention* consolidates into the prototype theme *Sustainable food practices reimagine food heritage*.

Figure 4.34

Develop and Review Thematic Map: Sustainable Food Practices Help People Reimagine Food Heritage



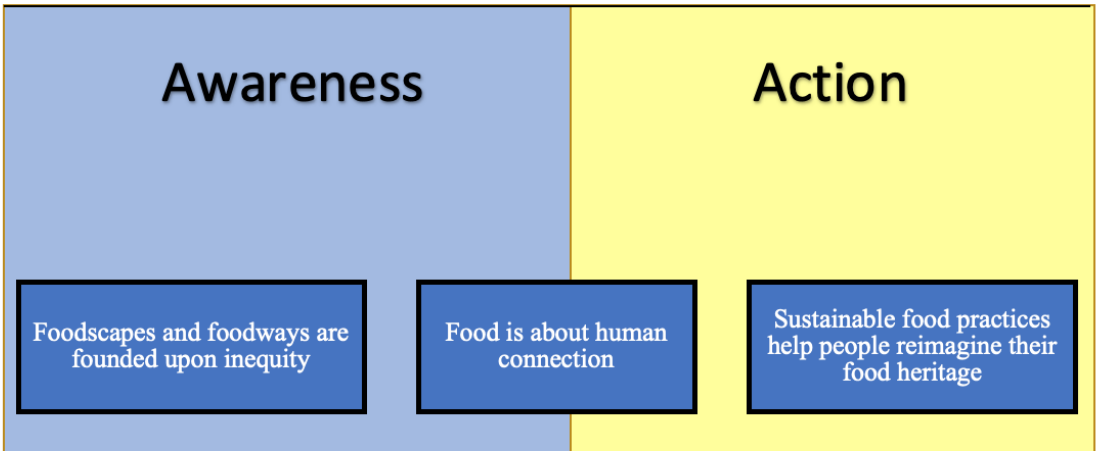
Then, upon reviewing this consolidation in accordance to Terry and Hayfield (2021) guidelines, we quickly realized the concept *Sustainable food practices reimagine food heritage* was still too unfocused and disconnected from the individualization of food heritage. As also illustrated by Figure 4.34, we then added the phrase "help people" as well as the word "their" to more definitively reflect our academic framing of food heritage.

As a theme, *Sustainable food practices help people reimagine their food heritage* passes our phase four review while falling in line with the conceptual framing of *action*. The summative results are as follows:

1. Yes, this prototype is more than a code and has multiple codes that cluster around it.
2. This theme tells us about how the relationship between education, empowerment, and reimagination contribute to the definition of food heritage as outlined in the research question.
3. This theme includes sustainable food practices as it relates to foodways and foodscapes within the boundary of *action*. It excludes these concepts when they move into the boundary of *awareness*. Therefore, it is not permeable with other themes.
4. There is enough data to support this theme as well as promising quotations and evidence.
5. The interviews emphasize how action narratives develop the theme see *Sustainable food practices help people reimagine their food heritage*.

Figure 4.35

Thematic Map of Prototype Themes Review #2



As illustrated by Figure 4.35, in all, phase four narrowed down our prototype themes from five to three: *Foodscapes and foodways are founded upon inequity*, *Food is about human connection*, and *Sustainable food practices help people reimagine their food heritage*. Two of those themes compacted underneath one before that theme eventually becoming more focused on the individual and resulted in *Sustainable food practices help people reimagine their food heritage*. Figure 4.35 also shows how each theme functions within the conceptual framing of awareness versus action.

Phase Five: Thematic Analysis Results

Phase five is where we finally name and define our themes. Figure 4.36, Figure 4.37, and Figure 4.38 all show how the themes *Foodscapes and foodways are founded upon inequity*, *Food is about human connection*, and *Sustainable food practices help people reimagine their food heritage* are defined:

Figure 4.36

Thematic Definition #1

Foodscapes and foodways are founded upon inequity

This theme identifies the relationship between inequity and one's right to healthy food—specifically through the lens of awareness within foodscapes and foodways. Within the context of foodscapes and foodways, there's an informative movement through awareness shown by the stakeholders as they describe how food injustices lead to food inequities. Then the interviewees show how these food inequities pronounce human rights around food itself. The stakeholders outline a specific human right: the right to *healthy* food. In all, this assertation bridges awareness to an even more unsettling systemic reality: that foodscapes and foodways are founded upon inequity in and of itself.

Figure 4.37

Thematic Definition #2

Food is about human connection

This theme examines the relationship between food and human connection—specifically through how awareness and action generally lead to this philosophical revelation. Food is a cornerstone of cultural identity. This claim can be quickly deducted through common food stereotypes and favorite foods (i.e., fried chicken = Black Americans, unseasoned foods = White Americans, etc.). While these stereotypes may or may not be true, awareness of them often set cultural expectations when someone enters both familiar and foreign cultural food systems. However, it's in the action of engaging these cultural food systems (and around their foods) that human connection both leans into and transcends these cultural expectations while moving people closer to defining their food heritage. Likewise, when humans have consistent cross-cultural relationships, they become aware of one another's personal privileges and communal food inequities. Out of this relational proximity, humans again move towards human connection and closer to defining food heritage through food practices rooted in cross-cultural advocacy. Of note: This process is greatly influenced by the notion of cultural malleability.

Figure 4.38

Thematic Definition #3

Sustainable food practices help people reimagine their food heritage This theme explores the relationship between education, empowerment, and reimagination—specifically through the actionable lens of sustainable food practices. Formal and informal educational experiences (i.e., food programming, etc.) afford stakeholders the opportunity to expose their communities to alternative food practices. It is within this educational process that people become liberated and empowered to reconsider how they engage their foodways through sustainable food practices such as repurposing, gardening, and urban farming. Equally, food heritage is then reimagined within the individual when they engage these educational and empowering food practices (i.e., kids garden grows collard greens in predominantly black neighborhood).

From there we then distinctly name each theme by grounding it in quotations that best summarize our results. We also add sub themes to contextualize each named theme. These named themes are outlined in Figure 4.39 as found here:

Figure 4.39

Theme and Subtheme Names for Qualitative Analysis

Theme 1: "Food apartheid is when it's deliberately done. It's deeper than just food, they create this type of disadvantage for us."—foodscapes and foodways are founded upon inequity *Subthemes:* (a) Types of food inequities, (b) Right to healthy food, (c) Foodways & Foodscapes
Theme 2: "Food helps to bring togetherness, collaboration, entertainment, and a sense of being."—food is about human connection *Subthemes:* (a) Food stereotypes, (b) Cultural malleability, (c) Cross-cultural connection
Theme 3: "If you ask the child where this plant came from, they'd say from the grocery store, and it didn't occur to them that it grew in the ground, or that they could grow it themselves."—sustainable food practices help people reimagine their food heritage *Subthemes:* (a) Food programming, (b) Educational interventions, (c) Empowerment experiences, (d) Reimagination

We then moved from phase five into thematic write-ups that used excerpts and reflexive narrative to expand the results of these defined and named themes.

Foodscapes and Foodways are Founded Upon Inequity. To our stakeholders, food inequity is to St. Louis as breathing is to human survival. Breathing is an unconscious bodily activity. To breathe is ingrained in the very fabric of our being. However, awareness of breathing causes us to pause and consider it on a conscious level. It is here that we contextualize the awareness of breathing through what necessitates it: the physical need to live. To breathe is to live at a biological level. One simply cannot exist separately from the other.

Likewise, our stakeholders consistently view food inequity as ingrained within the very fabric of our city. To become aware of food inequity is to know St. Louis at a systemic level. As a Black urban farmer put it: “I feel that St. Louis itself is a big food apartheid area, and I don't feel very good about that.” Here, this farmer describes St. Louis as “a big food apartheid area” in a matter-of-fact way. In fact, all four urban farmers shared this level of “matter-of-factness” regarding food apartheid as synonymous to St. Louis itself. Like food apartheid, other stakeholders use food inequity-related terms to matter-of-factly describe St. Louis. “Food insecurity” through “food access” and “food barriers” is described by several stakeholders as they consider their foodscapes and foodways. A White activist who runs several community gardens describes St. Louis’ food inequities through noting the “lack of grocery stores” in predominantly BIPOC, low-income communities. Two Black urban farmers agreed with this woman, noting that “gas stations” and “dollar stores” replace these grocers. Furthermore, an urban farmer and chef both noted food inequity within those limited grocery stores as well as around

"organic" products. In which "organic" food is either lower quality and expensive or not for purchase at all. In full circle, our White activist magnified this when she plainly said, "I wish that our grocery stores in underserved neighborhoods had more fresh vegetables."

Additionally, an executive director flat-out states what several stakeholders mention: "laws are a barrier… several municipalities don't allow you to farm in your front yard." This stakeholder gives a specific example of how many St. Louis' laws around food inherently limit private food access such as farms, gardens, and the like. She states this casually in a way that is simply understood. In examples like hers, there's an image of St. Louis painted by its own food inequities. To these stakeholders, St. Louis is described by its own food access, food barriers, and food apartheid are these inequities. And all of these food inequities are connected on a systemic level—or, as summarized by a Black urban farmer: "It's deeper than just food, they create this type of disadvantage for us."

Yet the idea of "created disadvantage" (inequity) moves within and beyond St. Louis itself. Several stakeholders express that while food inequity and systemic injustice are ingrained into St. Louis, it is a mere reflection of "food inequity in America." One managing director for a food distribution company outright claims that "St. Louis is a landscape of food inequity nationwide." Her working experience deals with food networks both in and beyond the greater St. Louis area. Therefore, she sees how ingrained and interconnected food inequity is across American regions on a daily basis. Similarly, an operations director describes environmental racism and poverty through visiting a poor Caribbean village and "seeing food cooked with flies flying on it and all around." This food narrative transformed this man's life, making him fully aware of his

personal privilege when confronted by food inequity on a global scale. In the context of that story, he frames it by stating they were in an “underdeveloped area,” thus noting the “created disadvantaged” of this town on a systemic level. Several other stakeholders also shared similar perspectives about how both American and global systemic injustice cause these food inequities.

This awareness of food inequity as connected to systemic injustice leads our stakeholders to another claim: the right to healthy food. An urban farmer speaks into this claim by contextualizing it in a statistic: “Over 150,000 people in the St. Louis Metro area don't have sustainable healthy produce within a half mile.” Awareness of systemic injustice around these foodscapes and foodways (i.e. “lack of grocery stores,” “lack of organic options,” “laws as food barriers”) ultimately lead our stakeholders to awareness of food rights. Two stakeholders who work with immigrants and an urban farmer talk about the importance of the right to healthy food in the context of “being poor being hard enough.” A pantry owner affirms this sentiment when he describes watching his immigrant families “struggle” to find access to the locally sourced produce they need for their food practices. An activist matter-of-factly declares, “There's no food… there's no good food.” In which “good” is better described contextually as “healthy” when talking about food access in BIPOC communities.

A culinary directory describes this right to healthy food through comparing today’s foodways to the foodways of the 1980s. He uses the term “whole food cooking” to illustrate how people would go to the local grocery store daily instead of purchasing fast foods. In these 1980s foodscapes, the local grocer sold what they got from the local farms so everything was “organic” and affordable. He says “whole food cooking” was

embodied by shopping locally sourced and eating at home—or as he says, "you knew what in your meal." He (and several other stakeholders) then express how the foodways of our society have been infiltrated by foodscapes such as "fast food, restaurants, and grocery stores" that "sell us crap and put crap into our bodies." Or as a Black urban farmer put it: "They ship across the nation… they sitting on a truck with a spraying gas to keep produce looking fresh, but it lost all it nutrients already." This farmer describes how even the produce that *does* manage to make it to the shelves of the limited grocery stores or gas stations within low income communities are no longer nutritious.

Here, through awareness, these stakeholders build a case that foodscapes and foodways are fundamentally founded upon inequity. Through their matter-of-fact statements and narrative criticisms, these stakeholders see food inequity as ingrained in the fabric of St. Louis as well as within American and global systems. As this Black urban farmer summarizes: "Food apartheid is when it's deliberately done. It's deeper than just food; they create this type of disadvantage for us."

Food is About Human Connection. One of the inherent questions shared across human consciousness is the question of purpose. Our stakeholders engage in this philosophical dialogue across these transcripts—one that seeks to answer humanity's most natural questions around purpose. Specifically, our stakeholders consider the question of purpose through the lens of food and human connection.

Through descriptions of food-related stereotypes, stakeholders consistently told the stories of their food traditions. For Black stakeholders, there was a commonality to their food practices through the lens of food stereotypes. "Fried chicken, mac-n-cheese, chitlins, and collards" were frequently present at "holidays" and "meals" within their

Black cultural food systems. However, many of these stereotypes are either formally or currently food favorites of these Black stakeholders. For example, two Black stakeholders both describe embarrassment when purchasing their favorite food "chitlins" (cooked pig intestines) at a local, majority White grocer because of its stereotypical and ancestral roots in Black food traditions. One Black woman born in Canada recalls fond food memories full of more traditionally "Black American foods." Another Black stakeholder expressed "dislike" of "watermelons" before he had one grown by a fellow Black urban farmer. Now he's "obsessed."

This theme of food traditions connected to food stereotypes was also found within the narratives of White stakeholders. Several stakeholders affirm a White stakeholder's joke about "boring White people" food—in which, one woman raved about how much she loved "bread." Yes, just plain ol' bread. One White chef laughs about how "White people don't season." One White non-profit director even complained about "all the meat and potatoes" she had growing up. While the stereotype of "White people food is boring and bland" emerges from these narratives, there was another White food stereotype found: cultural malleability with others' food culture.

A White woman joyfully describes how her current food practices and preferences evolve around "spicy, ethnic foods" more commonly associated with the immigrants she serves. A White chef incorporates Native and regional food practices to create unique restaurant experiences for his customers. A White culinary director has found both freedom and "seasoning" when learning how to "properly" prepare collards to better serve his Black families. All of these stories are centered around food stereotypes (i.e. "spicy foods," "Native foods," "collards"), but highlight a cultural malleability

across food culture. When these White stakeholders either enter someone else's cultural food systems or have someone enter into their own, they find what the White culinary director illustrates as "freedom." Freedom to conform any food culture to their will and reconstruct them for their self-defined purpose (i.e. "to serve my clients or families," "to create unique restaurant experiences").

Some Black stakeholders also describe freedom within this notion of cultural malleability. Two Black urban farmers rave about how incorporating kale and bok choy into their food practices has positively impacted their "mind, body, and spirit." As one puts it, kale is commonly associated as a "White people thing" while bok choy is "native to China." However, these stakeholders rave about it being a "superfood" that has changed the way they "think about food now." Others talk more generally about how moving to a vegan and/or vegetarian diet has had "positive health benefits." One urban farmer even described the importance of their "monthly no meat week" for her family's food culture. Another stakeholder worked a long time with a lover and visionary who was Indian. Soon after, her food practices and preferences reflected Indian food culture. Even after a break-up and years of retirement from her work, she still has a "great fondness for Indian food" to this day. Each of these Black stakeholders joyfully and willingly incorporate foods, diets, and practices of other cultures into their daily lives.

It's here that we begin to ask… *why?* And to better understand this *why*, we have to compare narratives around both White and Black cultural malleability experiences. We find both racial groups view the action of cultural malleability positively, but only when it is done through the lens of personal awareness.

While cultural malleability happens within cultural food systems, and it is their self-awareness within those spaces that allows them to find no fault with the concept itself. Coming full circle, it boils down to a common question of purpose: What is my reasoning behind it? For example, a White non-profit director loves "spicy, ethnic foods" because her purpose is to serve her immigrant families. She associates the food with the people. By eating their food and engaging their cultural food systems, there is a connection that happens between herself and her clients. This connection is especially prevalent when she self-identifies as a "White woman in an immigrant space." For a stakeholder like her (i.e. a White woman in a culturally unfamiliar space), she willfully partakes in immigrant foods because of her purpose to connect with the immigrants themselves. Consequently, in engaging this cultural food system, she then finds herself liking their food in and of itself over time.

From another perspective, the White culinary director realized that many of the families served through his organization come from predominantly Black and low-income communities. These are Black women that come into his White cultural food system. Therefore, this culinary director took it upon himself to enter into Black cultural food systems to learn under Black chefs. He wanted to learn how to cook in a way that "sustains Black food culture, practices, and preferences." Now when these Black women enter into his White space, they are greeted with a "diverse cultural plate" that includes stereotypical Black foods like collard greens. He laughs about how "they can't believe he can cook collards like that" while emphasizing the great conversations he has been able to have because of those same collards. His laugh comes from the heart behind his why: to better serve and connect with the Black women through food.

Equally, Black stakeholders also show that the why behind their cultural malleability is also akin to the White stakeholders and this purpose to connect. For many of our urban farmers, foods such as bok choy and kale were introduced to them within White cultural spaces. Instead of rejecting these foods, these Black stakeholders allow these cultural exchanges with White actors to produce cultural malleability. By connecting with White farmers, these stakeholders then take these "superfoods" back to their farms to introduce them to their predominantly Black constituents. The food becomes a connection point between Black and White cultural food systems as well as within their majority Black communities. For these urban farmers, the why for their cultural malleability was to connect themselves across different communities for the sake of food equity while also connecting the people within Black communities with one another. Equally, when it comes to dietary practices, these Black stakeholders are introduced to veganism and vegetarianism through exposure to other cultural food systems. Coupled with their personal awareness of its health benefits, they willingly alter their own dietary practices (i.e. "monthly no meat week"). The dietary practice then becomes a connection point across cultural experiences.

One retired program director describes her relationship with her "Indian lover who changed her life." She met this man early in her career, and she fell in love with Indian food through their romance. In other words, it was through her desire to connect with her partner that she discovered Indian food and truly fell in love with the food itself. Again, food is the means and connection is the cause. Another Black stakeholder talks about going out of his way to frequent an Afghan restaurant. When asked why, he simply replied: "Because supporting marginalized groups goes a long way." This is a Black man

who goes out of his way to frequent an Afghan restaurant because he is made aware of their marginalization through their friendship. Out of that relational connection point, he continues to support their livelihood even if it costs a little extra gas money.

Our theme *Food is about human connection* is best summarized by our Black operations director's relationship with a White colleague. He talks about how his White colleague's lifestyle revolves around cultural malleability. For example, when his friend has him over for dinner he "only cooks the foods of other cultures." In addition, when he has international friends over, he "goes out of his way to cook their cultural foods." This colleague has so normalized cultural malleability, that the White friend even questioned his own Black food practices when our stakeholder hosts a dinner with predominantly Black guests: "Where's the strawberry sodas? You got to have strawberry sodas." Naturally, the Black stakeholder took offense to the stereotypical request, but then they talked through it. It was in that conversation that this stakeholder said his mindset around food stereotypes "changed forever." When this Black stakeholder asked why he requested strawberry soda, the White colleague's answer was straightforward: "because the folks coming love strawberry soda." Here, his White colleague simply desired to connect with his friends by ensuring their favorite foods were present. From that point forward, food for this stakeholder was about those intimate human connections. So much so that he later emotionally resolves how he now finds "it hurts people when you don't eat the foods that they place in front of you."

Here we resolve our theme. Narrative after narrative shows our stakeholders describe the ultimate purpose of food: human connection. In fact, eleven of the fourteen interviewed stakeholders specifically cite "connection to other people/community" when

asked the summative question “How does food connect you to what matters most?” The other three stakeholders clearly prove this theme within the narratives they share throughout their interviews. With the best summary coming from the Black operations manager after our long conversation: “Food helps to bring togetherness, collaboration, entertainment, and a sense of being.”

Sustainable Food Practices Help People Reimagine Food Heritage. The stakeholders show us that sustainable food practices require education, produce empowerment, and inspire reimagination within people regarding their own food heritage. Wherein, the reimagination process helps people to define their food heritage through participatory food practices.

Across their food industries, our stakeholders meet their constituents' food needs through food programming. We find this true with a White activist, who leverages something as simple as a school garden to create “snacking and lunch alternatives” for low income Black students. With a non-profit director, who produces “hundreds of boxes of food multiple times a week” for his low-income and immigrant families. And with an urban farmer, who has led “organizational restructuring” to support and feed families throughout the COVID-19 pandemic with “pay-as-you-can farm stands.” These programs are among numerous examples provided by our stakeholders. Yet, while all of these programs are built to meet immediate food needs, they also serve as educational interventions.

For instance, a distribution manager created “farm-to-table” lunch programs that introduce healthy meals to the local students. This program also educates students and staff through highlighting the importance and accessibility of “healthy eating habits.” A

restaurant owner's entire restaurant model is built around the concept of "taste and learn" experiences. When his customers enter his "closed door experiences", they are educated and exposed to Ozark and Native foraging, cooking, and folklore traditions, techniques, and food practices. In addition, a social worker co-developed food programming for juveniles that taught "Indian spiritual and sustainable food practices" as a part of their work release in-between. Within these programs, we find that these educational interventions are both formal and informal.

One managing director and urban farmer thinks of these educational interventions as the central description of her job: "I think with the work that I do is educating people in what foods they can grow themselves and can have access to." For context, her urban farm is intentionally structured as farm school. So naturally, her "pay-as-you-can farm stand" program incorporates food education through formally teaching her families how to "harvest their own vegetables." Inherently, her job is to both "feed and teach" participants sustainable food practices so they can feed themselves. Additionally, our activist and volunteer uses formal educational interventions through her gardening program. She first teaches her students about the garden tools before teaching them how to "plant, cultivate, and harvest." Within this structure, she also teaches them how to build their own raised beds so that these students can reproduce this process at their own homes. Two directors use "potlucks" and "meal-sharing" to teach their constituents the *how, where,* and *why* behind given foods. This trend was also witnessed through informal means as well.

Informal educational interventions were best illustrated through "opportunities" centered around teaching sustainable food practices. The urban farming stakeholders and

several of the non-profit employees all talked about using their spaces as spontaneous "mentorship opportunities" or for "communal lunches or dinners." Within these spontaneous interventions, they taught generally through "conversations." For our pantry director, he talks about intentionally having "conversations with his families, volunteers, and donors" around their food practices as a way of both informing and staying informed. As we consider all these educational interventions together, we begin to ask if there deeper reason for these educational interventions.

Out of these educational interventions, we slowly began to see stories of people feeling empowered by sustainable food practices. For our stakeholders, these empowerment moments were most often produced out of the immediate food needs caused by COVID-19. It is as they encounter these educational interventions during COVID-19 that they are empowered to use sustainable food practices for themselves. For instance, our gardening activist talks about how the pandemic forced some of her students and their families to become gardeners themselves: "Until COVID-19, people weren't trying to grow their own food and I think more people started gardening because of the pandemic." After she spent years of dedicated work in participatory food justice efforts and educational interventions, it was not until her students and their families encountered the food barriers caused by COVID-19 that "they really began to grow their own food."

A foraging expert and two urban farmers all relayed a similar sentiment. The restaurant owner utilized his educational interventions and expertise around forging to help his local community and neighbors to "eat wholesome meals off the land itself." The chef describes his neighbors as "grateful" and "amazed" when they realize how much they can harvest just off the land. One stakeholder's urban farm and non-profit gave away

food for almost all of 2020. The following year, his non-profit was “more profitable” and he had “increased his volunteer numbers” (created new urban farmers) because his constituents were so “grateful” and “just wanted to get involved.” Another urban farmer taught people how “to grow their own food, harvest it, and cook it” for themselves during the pandemic. Each empowerment moment was forged through the fires of COVID-19 and educational interventions. Each empowerment moment produced liberated communities who were now owners over and co-creators in sustainable food practices. It is in this feeling of empowerment that our stakeholders begin to describe this idea of reimagination in relation to food heritage and sustainable food practices.

On a personal level, our operations director considers his own reimagination process through a simple reflection: “Are we gradually finding ourselves moving away from the very culture or very food brought up in our heritage? Are we now changing our heritage because we're finding that the food is just bad for us?” It is soon after this point, the interview ends, but within these questions, he rethinks and reconsiders how he defines his heritage. This reimagining is happening because of his newfound empowerment through sustainable food practices. In the context of the interview, he says he once rejected “the dirt” because he felt it was too closely tied “slavery”—which he outright hates. However, after he experiences the benefits and empowerment of gardening, he now actively “connects to his ancestral roots” through this new association with “the dirt.” Several stakeholders felt this personal reimagination through gardening and/or farming, which was best summarized by one urban farmer:

> “You create your own heritage. Some of these teachings or ways of doing things are old and outdated. In my head, I think about the history, my ancestors, what’s

> passed down out of that heritage. Then I make it new, I guess. Or reinvent, evolve, like that."

In context, this urban farmer describes how farming is a "spiritual" and "ancestral" connection, and how that sustainable food practice allows him to "reinvent," "evolve," and reimagine his food heritage constantly. However, he also discusses it beyond his own personal reimagining process. He shares several stories of how his mentees have reimagined their food heritage through working on his farm. How he went from "that farm guy" to "OG"—which in Black communities is a term of respect and endearment. Now he has a steady group of young men who feel empowered by working his farm and have "grown to see their food heritage similar" to how this urban farmer views his own.

Time and time again, we see stories of stakeholders' constituents moving from empowerment to reimagination. Whether it is through immigrant and low-income families proactively choosing fresh produce and proteins at the local pantry, to volunteers becoming farmers and showing others how to produce meals within their food traditions, or neighbors foraging together and sharing regional meals together. Our gardener and activist expresses this similar sentiment best when talking about her students: "If you ask the child where this plant came from, they'd say from the grocery store, and it didn't occur to them that it grew in the ground, or that they could grow it themselves." She talks about this in hindsight and within a context that describes students who were already educated and empowered. Out of these processes, the kids realize that "they could grow vegetables themselves" and how it was a "life altering" revelation for some. One that had them reimagine their food heritage through sustainable food practices for the first time ever.

Chapter Five: Discussion, Conclusions, and Recommendations

This study was built from a desire to better understand food heritage's connections to foodways and sustainable food practices in the St. Louis Metropolitan area. This study is mixed-methods and contains data from both quantitative survey results and qualitative interviews. The survey data allowed us to establish baseline data that describes both St. Louisans across the board and as broken down into demographic categories. The addition of the interview data provided us the opportunity to home in on specific themes that stakeholders and community leaders have noticed through their work with the communities they serve. The results of this study, as analyzed in this chapter, provide deeper insight into the connection between food heritage, foodways, and sustainable food practices. We examine the results separately at first (qualitative, then quantitative) and then explore how they work together. As is nearly always the case with research of any kind, the results also pose queries that we hope are explored and answered in future research. Ultimately, the purpose of this research is to serve as a catalyst for a change towards a more just, more sustainable food culture for all St. Louisans.

Research Questions

Before discussing the results of the study, we would like to remind the reader of the research questions that guided the research. We answer these questions in this chapter.

Unifying question:

- How do foodways and sustainable food practices contribute to the definition of food heritage for St. Louis area residents?

Sub-questions:

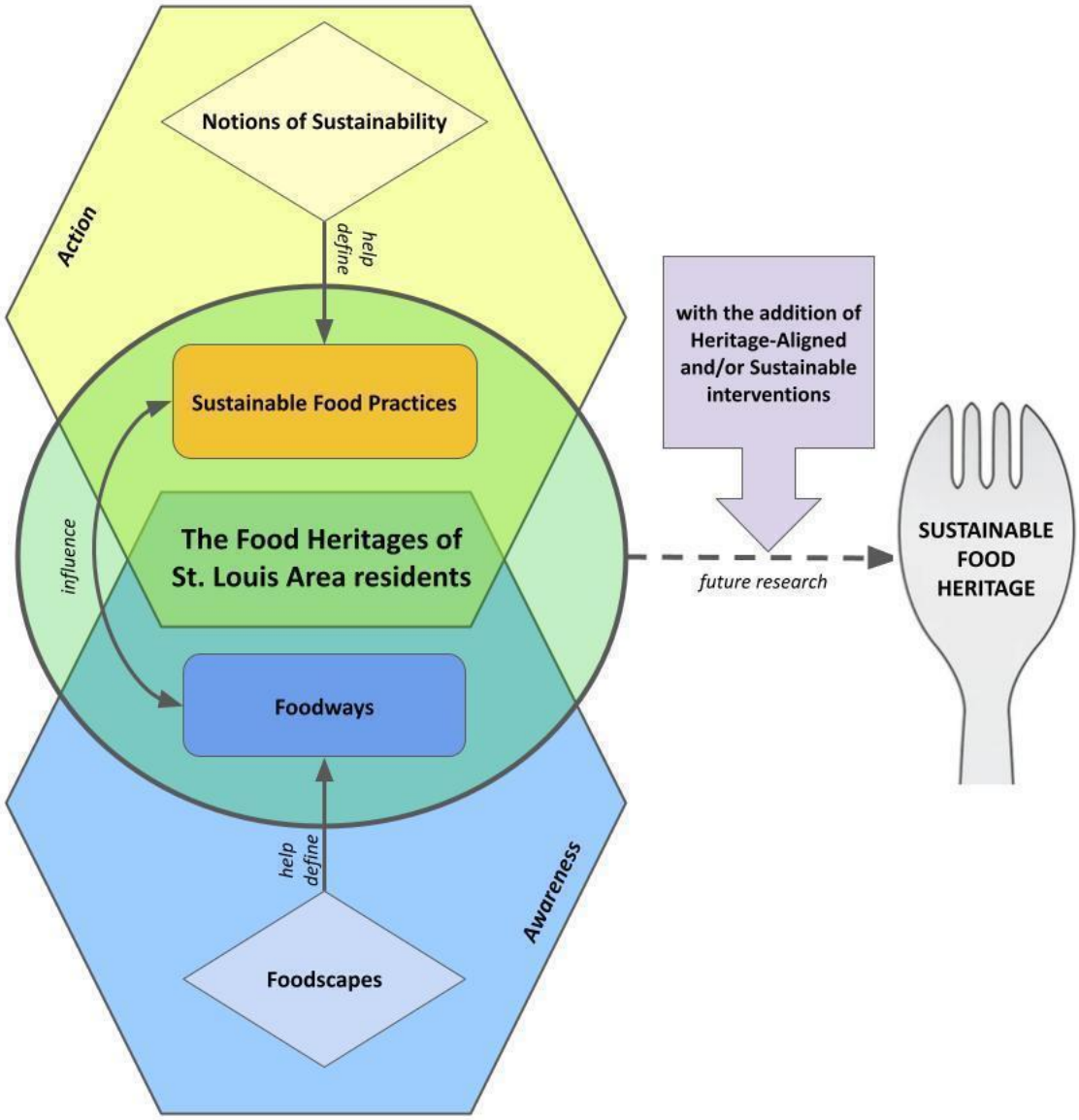
- What are various stakeholders' attitudes toward sustainable food heritages in St. Louis?
- How do sustainable food practices and food heritage intersect in terms of food practices for St. Louis area residents?
- How do foodways and food heritage intersect in terms of food practices for St. Louis area residents?

Revisiting the Theory of Food Heritage through Foodways and Sustainable Food Practices Model

Along with the research questions, we would like to take a brief moment to recall the conceptual model used for this research. This conceptual model outlines the structure used when interpreting our findings. Although this model, and how the research aligns with it, will be discussed in great detail throughout this chapter, in short, it shows how an awareness of foodways combined with the actions surrounding sustainable food practices combine to define the food heritages of St. Louis residents. The right-half of this model (i.e. the interventions and the spork of sustainable food heritage) will be discussed later in the chapter in the implications and future research sections. The model, as it appears in chapter two is shown again below in Figure 2.2.

Figure 2.2

Theory of Food Heritage through Foodways and Sustainable Food Practices Model



Interpretation of the Findings

Within the scope of this study, the researchers were able to define, refine, and reimagine the idea of food heritage with the lenses of sustainable food practices and

foodways in mind. We gained firsthand knowledge and expertise about sustainable food heritages from various stakeholders, which was also supported by the data collected from completed Food Heritage and Sustainability Surveys by St. Louis area residents. In addition, we discovered the consumer food choice intersections between food heritage, foodways, and sustainable food practices. Through careful consideration of the various influences on food choice and food practices, as well as value orientations and sustainable practices of survey participants, understandings of food heritage and sustainable food heritage began to emerge. Presented below are these findings, beginning with qualitative, then quantitative, and then a synthesis of all findings together.

Qualitative Results Interpretation

Throughout the entire process, we committed to recognizing, understanding, and appreciating individuals' perspectives. To begin, we interpret the results from the qualitative portion of our study, using these stakeholders' points of view to frame the rest of the interpretations. It is important to the researchers to honor and provide a platform for voices in our community. To honor this, the three themes that emerged from the interviews will frame the discussion to follow.

Foodscapes and Foodways are Founded on Inequity. According to our definition, *foodways* "refers to the [*current*] cultural and social practices that affect food consumption, including how and what communities eat, where and how they shop and what motivates their food preferences" (Alkon et al., 2013). Discussion surrounding foodways dominated and drove conversations in the interviews. From remembering past experiences in participants' foodways to assessing one's privilege or awareness of food injustices with their foodway or foodscape, participants made it very clear that foodways

were key to their experience as a human navigating the world. During the interviews, memories of food initiated all discussions of food heritage. The interviewees had to go back before they could go forward. These memories, positive or negative, allowed the interviewees' to create an awareness of their foodways. Foodways, by nature, are rooted in the present; however, one can look into the past to gain an understanding of a foodway. In many ways, looking to the past is key to having an awareness of foodways. It is not possible to understand one's present without knowing of one's past: how foodways have changed, have evolved, been broken, or been disrupted. When we reflect on our foodways, both with privilege and with injustice, we are able to accept them, reject them, or reimagine them, which could result in an understanding of food heritage and sustainable food heritage.

Food injustice and privilege were two sides of the same (chocolate) coin that emerged throughout the interviews, resulting in acceptance, rejection, and reimagination of foodways, and eventually understanding food heritage. On one side, food privilege can allow cultural malleability, moving food practices between and within diverse foodways as well as across cultures and social structures/systems (Moroney, 2017). On the other side, food injustices can further cultural segregation, forcing food practices within one's foodscapes and foodways (Worsley et al., 2019). However, either of these situations could be the opposite as well. Food privilege also allows people to become stagnant and stubborn within their foodways, and food injustice could encourage, and maybe force, conversations around and ideas to change current foodscapes and foodways. These injustices and privileges surrounding food either carved away or added to an individual's ideas surrounding their definition of food heritage. In fact, we believe that when a

foodway is threatened or honored, people are able to foster food heritage, as their fight or flight response is triggered. When people arrive at this crucial intersection, they become the actor on their foodway. It is through this active role that the foodways of stakeholders became fluid. One day they could be accepted and perhaps the next day rejected; therefore the definition of their food heritage is ever evolving and changing.

Knowledge and awareness of the inequities of foodways and foodscapes is the foundation of one's definition of their food heritage. However, one's understanding of food heritage also brings knowledge and awareness to someone's own foodway and the foodways of others. Foodways and food heritage are bound to each other, intertwined and interwoven, much like humans are to food, each an inextricable, integral part of the whole. Their relationship is cyclical and cannot be siloed. We cannot have one without the other. Therefore, we cannot define food heritage without first acknowledging the inequities that exist within current foodways and foodscapes.

Food is About Human Connection. Food is an innately human experience. All animals eat for energy, for nourishment, for repair. However, food is nearly always something different for humans, something more. A dish can transform someone, a shared meal can provide acceptance, and a new spice can invigorate unknown taste buds and feelings towards others. We have certain stores we prefer to shop at, ways in which we cut onions or peel bananas, even favorite flavors of chips. Many of our most important memories with family and friends surround food practices. All of these items are part of our foodways, which in many ways are unique to each individual person and community. Our foodways are a part of who we are: a structured, complex, evolving part of our identity as human beings. Foodways is an identity marker, foodscapes are where

we can share these markers with others, and food heritage is where we become the agents to preserve and cherish these identity markers (Williams-Forson, 2014; Graves, 2015).

Foodways as an identity marker can often lead to stereotypes. Culture, more often than not, is first shared through food. Take any country in the world and consider how many people cannot name its capital, describe its government, or even name its historical figures, but they can name its traditional, national and favorite dishes. While this example shows food's influential nature, it also demonstrates its diminutive power (Sharpless, 2015). So easily, entire cultures boil down to cultural foods stereotypes: all Black people like fried chicken, all Latinos eat spicy food, White people don't know how to season their food, and so on. True or not, these stereotypes set up expectations when we enter a cultural space. In-grouping and out-grouping are well documented facets of human behavior (Giles & Giles, 2013). Thus, although these initial judgements and categorizations may be impossible to prevent, they can be overcome.

As seen throughout the course of this paper, as well as throughout human history, awareness leads to action. In a kind of chicken and egg scenario, awareness of stereotypes leads to action to change those stereotypes, however one can only become aware by actively engaging in those communities (Passidomo, 2014). In any case, engaging with people of different cultural backgrounds and food from different places around the world will lead to a deeper understanding of the origins of stereotypes and a more profound connection with the peoples and cultures those stereotypes attempt to describe. We propose here that food can be the gateway to that human connection and thus, change. This change can manifest as taking action towards food justice or a reimagining of one's own food heritage. A shared meal can make the world smaller,

challenge stereotypes, and enhance one's own understanding of their food heritage. Conversations around the dinner table can lead to realizations of personal privilege and food inequities. Comparing similarities and differences, especially when it comes to food justice, inevitably leads to advocacy for one another, and a more complete understanding of the diverse food heritages of all.

Sustainable Food Practices Help People Reimagine Their Food Heritage. Food heritage and foodways are often synonymous in a person's mind. What distinguishes *food heritage* from *foodways* is the larger emphasis on a personal preservation and cherishment of a connection to past and future food practices within foodways (Williams-Forson, 2014). Even though these two concepts are so similar, it was evident that awareness and assessment of all aspects of foodways, past and present, allowed the interviewees to self-define their food heritage practically. Through reflecting on their food heritage, these interviewees identify food traditions and their evolutions. There was a desire to reimagine these food practices, but, at the same time, cherish and preserve the positive aspects surrounding their foodways and foodscapes.

Our stakeholders leverage sustainable food practices through food justice and educational interventions to eventually create liberation for their communities. The stakeholders intentionally set up their organizations and businesses to position their students, constituents, and communities as participatory actors in their own food justice (Passidomo, 2014). These participatory food justice efforts looked like students running a school garden, immigrants rejecting canned goods in favor of fresh produce, and neighbors receiving groceries from a pay-as-you-can farm stand, among others. Within these efforts, the community members often were not self-aware of how they were

affecting food justice. Instead, these participatory community members entered these stakeholder-managed foodscapes almost exclusively to meet their immediate food needs. However, it was in these spaces that these people encountered formal and informal educational interventions designed by the stakeholders. Formal educational interventions took the shape of food, sustainability, financial programs, and the like. Whereas informal educational interventions looked more like a series of general conversations and spontaneous food experiences. For these stakeholders, these formal and informal interventions were integrated into the fabric of their gardens, farms, and businesses because it was through the spaces and educational opportunities that their people were moved towards liberation. Liberation was contextualized as moments where a given community member took ownership over these sustainable food practices while becoming aware of their personal foodways. This idea of liberation through food practices is not something new. Throughout the United States,

> organic, urban, community-assisted and guerrilla agriculture are still small parts of the picture, but effective ones—a revolt against what transnational corporate food and capitalism generally produce. This revolt is taking place in the vast open space of Detroit, in the inner-city farms of West Oakland, in the victory gardens and public-housing of Alemany Farm in San Francisco, in Growing Power in Milwaukee and many other places around the country. These are blows against alienation, poor health, hunger and other woes fought with shovels and seeds, not guns. At its best, tending one's garden leads to tending one's community and policy, and ultimately becomes a way of entering the public sphere rather than

> withdrawing from it. (Solnit, 2008; Alkon & Agyeman, 2011, as cited in Moore, 2015, pp. 39-40)

As other organizations and stakeholders are doing this work in the United States, it is also happening in St. Louis to provide these communities and their members with just, sustainable courses of action that benefit not only themselves, but their communities and the St. Louis region as a whole.

This movement from participation to education to liberation through sustainable food practices produced the core theme: *Sustainable food practices help communities reimagine food heritage*. A core motivation for these stakeholders was to create alternative food practices for their constituents. Stakeholders believe that meeting the immediate food needs of their communities is an important, initial act of food justice because it provides food access and breaks down food barriers. They then leverage educational interventions (i.e. food programming, sustainable food practices) to cultivate greater awareness of these food injustices within their participants. And, even if it was just one person, these stakeholders repeated these processes to create liberation. It was in these liberation moments that their constituents became aware that they could have power over their foodways through participating in sustainable food practices. Likewise, these liberated people began defining their food heritage and foodways through sustainable food practices.

The results revealed what happens when sustainable food practices and foodways work in tandem. The literature and resulting Theory of Change, seemed to point to two separate relationships that eventually lead to one's definition of food heritage (Zocchi, 2021). Though connected by concepts like cultural food systems, food sovereignty, and

food practices, these ideas seemed entirely separated in their journey towards defining food heritage. However, this theme revealed that while that may hold true for lay people, these stakeholders viewed sustainable food practices and foodways as irrefutably linked to food heritage—particularly as it related to affecting food injustice and promoting sustainable foodways. In other words, to have a sustainable food heritage, one needed sustainable food practices to become the disruptive agent. The key to unlocking this interconnected relationship was education through sustainable food practices as connected by a general awareness of one's foodways. Through the stakeholder interviews and the exploration of this theme, it became apparent that this connected process comes to reimagine one's food heritage.

Quantitative Results Interpretation

In the following sections, we interpret the results of the quantitative data following the model of the statistical test results. We discuss our four independent variables (notions of sustainability, sustainable food practices, foodways, and foodscapes) as they connect to our dependent variable (food heritage). Then, we examine the results of each value orientation in conjunction with food heritage. For egoistic value orientation, we also discuss its relation to sustainable food practices and foodways. Finally, we offer some overall conclusions about the statistical data in this study.

Notions of Sustainability Discussion. Although the independent variable notions of sustainability showed an overall positive association when compared to the dependent variable food heritage, the results were not statistically significant. However, given the small p-value of notions of sustainability (p=.151), had we chosen to use a higher confidence interval due to the newness of this field of research, the results would

have been significant. We urge future researchers to take this into consideration. It is possible, however, that the survey tool we used does not properly measure notions of sustainability, in which case, future research can examine the survey questions themselves and recalibrate, refine or even replace questions that we used. A final, additional explanation for the lack of statistical significance with notions of sustainability may be that it actually has no bearing on food heritage for St. Louis residents. We believe this is the most plausible explanation. If many St. Louisans equate sustainability with things like recycling and using less plastic, perhaps these actions really do not correlate to their food heritage. Thus, we believe, the connection between notions of sustainability and Sustainable Food Actions deserves a closer examination.

Sustainable Food Practices Discussion. The second independent variable, sustainable food practices, had both a positive and statistically significant (p=.066) relationship with food heritage. This is directly in line with our first prediction for this research, outlined in Chapter 3, that as commitment to sustainable food practices increases so does connection to food heritage. The most basic interpretation of this result is that perhaps St. Louisans who are concerned with cherishing and preserving their food heritage are also concerned about cherishing and preserving the Earth. Our conceptual model frames sustainable food practices as actions taken by individuals/community members. This association, reinforced by our qualitative data, lends itself to the view of cherishing and preserving food heritage as an action someone takes. However, we believe that this connection goes much deeper than simply loving nature. Older, more traditional culinary and agricultural practices tend to be much more sustainable than current practices. This forces us to ask the question, are sustainable food practices a by-product

of an interest in food heritage or does a commitment to sustainable food practices lead one to investigate and subsequently invest in their food heritage? The data clearly shows that these concepts go hand in hand and there are plenty of real-world examples to back this up. Take for example the evolution of vegan options in St. Louis from small restaurants geared towards White clientele to a wide array of restaurants closely tied to specific and diverse food heritages. We can also consider the recent push for more local food markets and more community and school gardens. Even the appearance of dinosaur shaped Impossible brand nuggets at St. Louis grocery stores links sustainable food practices and the nostalgia of food heritage. This wealth of examples still cannot answer the question of which comes first, which influences which, and which should future efforts and future research focus on? We consider here both possibilities and the implications of each.

If sustainable food practices is influencing food heritage, we believe that many of the current interventions should continue. After all, an interest in sustainable food practices means action: exploring things like backyard gardens, eating locally, eating a plant-based diet, composting, and recycling — to name a few. Engaging in these practices may remind people of their childhoods or encourage them to reconnect with older generations and, thus, reconnect with their food heritage. If this is the case, we believe that the current work of current community leaders and current researchers simply needs to continue. The effort to connect with communities and to better understand how to form that connection is already happening. Perhaps we just need to understand that connection better.

If, however, food heritage is causing sustainable food practices to increase, many current practices should be flipped on their heads. It is not too far-fetched to believe that Heritage in general is of supreme importance to St. Louisans. The United States is a country of immigrants and the search for connection to Heritage is evident in websites like Ancestry.com, television shows like “Who do you think you are?” and even DNA tests like “23andMe.” We wonder if perhaps this search for heritage extends to food. And since foods that are prepared “just like Momma used to make” are most likely prepared in a more sustainable way from a more sustainable source, a high connection to food heritage may naturally lead someone to be more sustainable. If true, the implications of this influence would be huge—and it would mean changing tactics that have been used for years.

Much current practice focuses solely on sustainability. Ask someone why they should use reusable bags and they will commonly say that it is good for the Earth, not that it is what their parents and grandparents did. Perhaps this is because that is the message they have received from their foodscapes and their education. Saving the Earth for future generations may be something that is too abstract, too far away, or, simply, too focused on others to become a goal for many St. Louisans. If these actions were reframed as a way to connect with family, ancestors and heritage, perhaps they would feel more attainable and more enticing. It took almost no time at all for the researchers to come up with personal examples of sustainable food practices that were born out of a larger connection to heritage: paper plates exchanged for real plates because they are reminiscent of family dinners, growing tomatoes from grandma’s tomato seeds in search of childhood flavors, the absurd number of butter tubs in the refrigerator full of

Thanksgiving leftovers in an effort to reuse plastic, and beginning to garden collards and watermelons as a growing family legacy. It just may be, although future research is needed, that invoking nostalgia of food heritage is the key to creating a stronger connection to sustainable food practices, leading, ultimately, to a sustainable food heritage.

Foodscapes Discussion. As is the case with notions of sustainability, independent variable two, foodscapes, was not significant (p=.541) in relation to food heritage although its effect was overall positive. Upon close examination of the data and much discussion, we believe this result came from two main reasons. First and foremost, the questions tied to food heritage in the survey involved images of culture and family celebrations, (e.g. "I eat what I eat because it is in harmony with my religious views," and "I eat what I eat as part of family traditions."). This is a far cry from foodscapes, the places and spaces that one acquires food, talks about food or generally gathers meaning from food (MacKendrick, 2014). It may be because the survey did not ask participants to think deeply about the connection between the two that that link never formed. Alternatively, it may be that many St. Louisans have simply never imagined a life outside of their own foodscapes. After all, per our conceptual model, food heritage is tied to foodscapes through awareness. A lack of awareness of foodscapes will fittingly lead to a lack of connection with food heritage. A second meaning that can be drawn from this lack of significance is that while foodscapes is certainly a part of defining food heritage, it is nowhere near as integral as foodways (discussed next). It is much easier to alter one's foodscapes than it is to alter foodways. We offer for your consideration that the transient nature of foodscapes makes it an unreliable factor in determining food heritage.

In any case, as with notions of sustainability, the link between foodscapes and food heritage deserves another, more focused examination.

Foodways Discussion. At the onset of this study, we predicted that as St. Louisans' connection to foodways increased, their connection to their food heritage would also increase. An awareness of one indicates an awareness of the other. The results of our survey showed that although foodways is significant (p=.042) it has a negative correlation with food heritage, proving our prediction false. In simpler terms, this means that St. Louisans with a lower connection to foodways have a higher connection with their food heritage. We interpret these results to mean that if someone is caught up in their present-day foodways, they most likely have not spent the necessary time and energy reflecting on their past and their heritage to create that deep connection to their food heritage. A good frame for this concept is thinking of foodways as the *what* and the *how* surrounding the foods and food choices we make on a daily basis, whereas food heritage is a connection to and an awareness of the *why*. Thus, transcending your foodways is synonymous with exploring food heritage. We acknowledge that the reasons for being stuck in the *what* and the *how* of foodways are as varied as they are unjust. Some are content to accept their foodways as presented to them by society. Some may be fearful of stepping outside of their comfort zone and prefer to go with what they know. Still others may be unable to give the time and energy necessary to examine foodways as they are more concerned with bigger issues like social or racial injustice, working multiple jobs, etc. Therefore, in some cases, food heritage may be a metonym for privilege.

This privilege of connecting to one's food heritage extends far beyond the social and economic inequalities of the St. Louis Metropolitan Area. As the effects of climate change rage on, the global north is beginning to feel the threat on food heritage that those in the global south have felt for years. Hotter temperatures, more violent storms, forced immigration and assimilation into majority culture all threaten foodways. For maybe the first time, some populations are realizing that the loss of foodways goes hand in hand with the loss of food heritage. The scramble to save this food heritage epitomizes the adage "You don't know what you have till it's gone," which, for the purposes of our study becomes "You don't realize the importance of your food heritage until it is threatened."

Foodways and food heritage being so intimately connected yet negatively correlated makes it difficult to tease out the solutions. If you are apathetic about your food heritage, you will be driven by your foodways whether you are aware of it or not. Conversely, investing the time into seeking a connection with your food heritage is not a price everyone can pay. Future research is needed to investigate this relationship in more depth. Is there only a connection to one or the other? Is a happy medium possible? Must either foodways or food heritage be put on the back burner for the other to thrive? Where do we start and what interventions are possible to create a Sustainable Food Heritage and Legacy for all?

Biospheric and Altruistic Value Orientation Discussion. In addition to the data surrounding the four independent variables, we will take a moment here to discuss the value orientations (biospheric, altruistic and egoistic) as they connect with food heritage. We will first examine the value orientations that showed little significance within our

regression model: Biospheric and altruistic. As a reminder, “people with a social-altruistic value orientation will base their decision to behave pro-environmentally or not on perceived costs and benefits for other people,” and “people with a biospheric value orientation will mainly base their decision to act pro-environmentally or not on the perceived costs and benefits for the ecosystem and biosphere as a whole” (de Groot & Steg, 2007, p. 333-4).

Biospheric value orientation showed no significance when compared to food heritage but did show one significance in category 2 (p=.051) when compared to sustainable food practices. The non-significance in comparison to food heritage is an expected result based on the results of notions of sustainability. If notions of sustainability is not significant when compared to food heritage, it follows that a biospheric attitude is not linked to food heritage either. A look at the individual questions used to measure biospheric value orientation makes the reason behind these missing links easier to understand. Rating issues such as “Preventing pollution” and “Protecting the environment: preserving nature” as being “Of extreme importance to my life” or “Not at all important to my life” is very similar to general ideas around sustainability, but a far cry from anything at all related to food. Going from purely biospheric values to how those values are reflected in food habits may have been too much of a leap for respondents. A survey tool that can more accurately measure biospheric value orientation through the lens of food heritage is a worthy idea for future researchers.

Similar to biospheric value orientation, altruistic was positive overall when compared to the dependent variable. Unlike biospheric value orientation, altruistic value orientation was significant in 4 categories compared to food heritage. Simply stated, these

results suggest that an altruistic, community-minded person is more likely to be connected to food heritage. It seems almost obvious that this would be the case. Being people-centric in general goes hand in hand with a higher connection to food heritage because food itself is very people-centric. When compared to the independent variables, altruistic value orientation is only significant in a few categories. We believe that this may be due to the nature of the questions that measure this value orientation, much like the biospheric questions. For instance, just because someone feels that "A world at peace: free of war and conflict" is important to their life does specifically tie to their Food values. As with biospheric value orientation, we would love to see future research that examines altruism through the lens of food heritage with a survey tool specifically tied to that.

Egoistic Value Orientation Discussion. Egoism is a value orientation that was examined alongside altruism and biospherism. However, it is there that the similarities end. Per de Groot and Steg (2007), "people with an egoistic value orientation will especially consider costs and benefits of [Environmentally Significant Behavior] for them personally: When the perceived benefits exceed the perceived costs they will have an environmentally friendly intention and vice versa" (p. 333). The survey measured this value orientation with questions that asked how significant things like wealth, authority and being influential were to the respondent. When examining the results of the multiple linear regression tests, we first looked at how egoistic value orientation compared to food heritage as a whole: All categories were both significant and negative. This suggests that egoistic Values decrease connection to food heritage. As mentioned above, food and heritage are essentially about others whereas egoism is about self. We also postulate that

heritage relates to the past whereas egoism focuses more on the present and future. Thus, a negative association is to be expected.

This negative association continues when egoistic value orientations are compared to sustainable food practices. In fact, each category was both significant and negative when compared to the reference category. This is no surprise to the researchers simply because it matched previous research. De Groot and Steg (2007) also found that "in general pro-environmental beliefs, intentions, and behavior appear to be…negatively [related] to egoistic values" across their three studies (p. 334). Through this research, and specifically the egoistic value orientation results compared to sustainable food practices, we believe that we answer de Groot and Steg's (2007) call for future research to "further validate the value instrument" (p. 350). Besides these explanations, the fact that egoism values self above all is reason enough to accept these results as presented.

All egoistic value orientation categories were also significant when compared to foodways, although each was positive. This data suggests egoistic Values amplify the effect foodways has on food heritage. As we have suggested before, both egoistic values and foodways are tied to the present and both seem to be more concerned with the *what* and the *how* of food and less with the *why*. An additional reason we offer for why egoistic value orientation is so significant in this category is COVID-19. This survey was given during the pandemic and during the height of the omicron variant in St. Louis. Perhaps people are more egoistic and more tied to their foodways during a pandemic. We are after all more isolated in a pandemic and left to fend for ourselves. If awareness of mental health issues rose during the pandemic, does it not logically follow that egoism would also rise? This forces us to ask, would future research outside of the pandemic find the

same results in terms of foodways? Or perhaps, egoism is more of an American attribute than in other countries. Americans do often value the individual and their rights over the rights of the communities (University of Portland, 2022). Understanding these values and using them to form heritage-aligned, sustainability interventions may be the key to moving toward a sustainable food heritage.

Qualitative and Quantitative Results Discussion

"For many people, eating particular foods serves not only as a fulfilling experience, but also as a liberating one - an added way of making some kind of declaration." Sidney Mintz, Tasting Food, Tasting Freedom, 1996

Foodways and sustainable food practices work as the two main concepts in the food heritage discourse of this research. Both in the qualitative and quantitative data, a relationship between foodways and sustainable food practices are influential to food heritage for residents of the St. Louis metropolitan area. Within our own qualitative and quantitative data there is a discrepancy between the role that foodways plays in defining food heritage. The quantitative data collected from the Food Heritage and Sustainability Survey (FHSS) illustrates that foodways negatively affect food heritage. When St. Louisans have a strong attachment to their foodways, they have less of an attachment to their food heritage. Conversely, the qualitative data collected from stakeholder interviews tells the story of food heritage being defined through foodways. This contradiction could stem from our stakeholders' occupational bias towards evolving foodways in an effort to reimagine food heritage for community members. Clearly, our stakeholders, who have been working in the field of food justice for some time, are vested in shaping foodways over time to align them with food heritage and sustainable food practices. Yet the

population as a whole is not experiencing that same connection. Perhaps current efforts by stakeholders, food activists, and food educators are not resonating with the average St. Louisan. Could it be that there are positive and negative or privileged and non-privileged foodways when it comes to food justice and sustainable practices that make it difficult to understand the viewpoints of the other side? Do community activists need to take a different approach to supporting the reimagining of food heritage in St. Louis?

Current community stakeholders, champions, and advocates are working to change sustainable food activism in St. Louis. There are efforts in place to refine current foodways to better match with residents' food heritage. From political movements and curbing the number of liquor store licenses to urban agricultural experiences popping up all over the city, people are working to change their foodscapes. These foodscapes feed into the foodways of St. Louis residents to better support reimagined food heritage or all community members. Although the qualitative data shows that foodscapes are intimately connected to foodways, our quantitative data suggests that the current work may not be enough.

The everyday St. Louis survey respondents showed that in order to reconnect with their food heritage they need to detach from their foodways. As connection to food heritage went up, the data showed that respondent’s connection to foodways decreased. This data calls for more efforts to bring awareness to current foodways in the interest of making those foodways more compatible with the food heritages of community members. This data supports some efforts that stakeholders currently take to reimagine their foodways and the foodways of the communities they serve, but shows that the current work is not enough to establish that connection for the everyday resident. The survey data

shows that food heritage is important, but cannot be a priority until attachment to foodways is reduced. Perhaps the solution, and the happy medium between the qualitative and quantitative data, is using educational interventions to bring food heritage and sustainable food practices to the forefront to allow for the evolution of the foodways of the St. Louis metropolitan area.

The data from our research shows that sustainable food practices, foodways and food heritage are all intimately connected. Sustainable food practices and foodways influence each other, which in turn ultimately influence food heritage. These results support the importance of being aware of one's foodways in order to make the move towards sustainable food practices and connection to food heritage. At the same time, our data also supports that sustainable food practices can help to reimagine existing foodways to create a better attachment to an individual's food heritage. The qualitative data brought up the importance of people knowing how and where people get their food as well as what food they acquire in order to better understand and reimagine their food heritage. There is a link between knowing the history of certain foods and the history of those food sources in order to better understand the *how* and *what* particular communities in St. Louis eat. Organizations, educators, stakeholders, activists, and community members need to have a strong understanding of both current foodways and food heritages in order to educate community members on how to leverage sustainable food practices. This first step in educating people about sustainable food practices can support future heritage-aligned/sustainable interventions. This effort of getting people invested in engaging in sustainable food practices to reexamine their foodways, can ultimately rekindle an attachment to food heritage.

A question for future research might be to investigate this relationship between sustainable food practices, foodways, and food heritage more in depth. Is there only a connection to one or the other? Is there a thread that binds the three? From the qualitative and quantitative results, we formulated the analogy of foodways being the stage and food heritage being the actor that makes it come to life, interacting with the set and the other actors on stage. Simply living in your foodway can be an "ignorance is bliss" kind of moment. When you first start to investigate food heritage the depth and breadth of your food heritage becomes apparent, implying that food heritage is an ever-evolving relationship, much like an actor continually hones his craft.

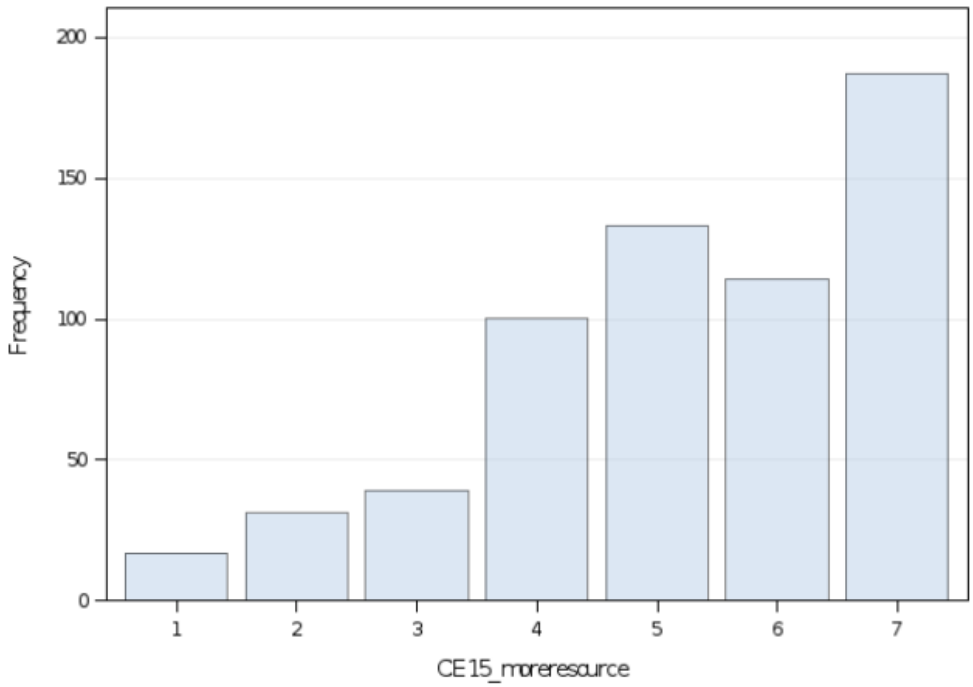
An interesting point that arose from this mixed-methods study is the idea that food heritage is a privilege. Connecting with food heritage takes time and dedication. With current food trends, food production, and the overwhelming amount of resources required to feed the planet, foodways have evolved to honor convenience, ease, and food practices that are not sustainable. In the United States, there is this value placed on time, and that value breeds the need for convenience (University of Portland, 2022). This forces us to ask, is our need for convenience threatening our food heritage? The current food trends are very consumer driven and, consequently, focused on the individual. The American value of individual needs above all is ultimately damaging our chances at a sustainable future and injuring our relationships to food heritage, which requires "communal knowledge," according to an urban farmer interviewed. A closer connection to and awareness of food heritage is ultimately more sustainable—reverting back to historical food heritage and the practices associated with it is more sustainable than what we are doing now. However, this connection to food heritage and learning about the

sustainable food practices that goes with them may often take a backseat to more important issues, such as putting food on the table. This idea of food heritage being a privilege would mean that many do not know what they have food heritage-wise until it has been threatened or challenged.

This privilege of honoring one's own food heritage all while being more sustainable is clearly reflected in the data. Although individual questions were not considered on their own analysis, the three questions examined below can be considered as hallmarks of St. Louisans' thoughts surrounding sustainable food practices, foodways, and connection to food heritage. Figures 5.1 through 5.3 present these three questions and the survey responses.

Figure 5.1

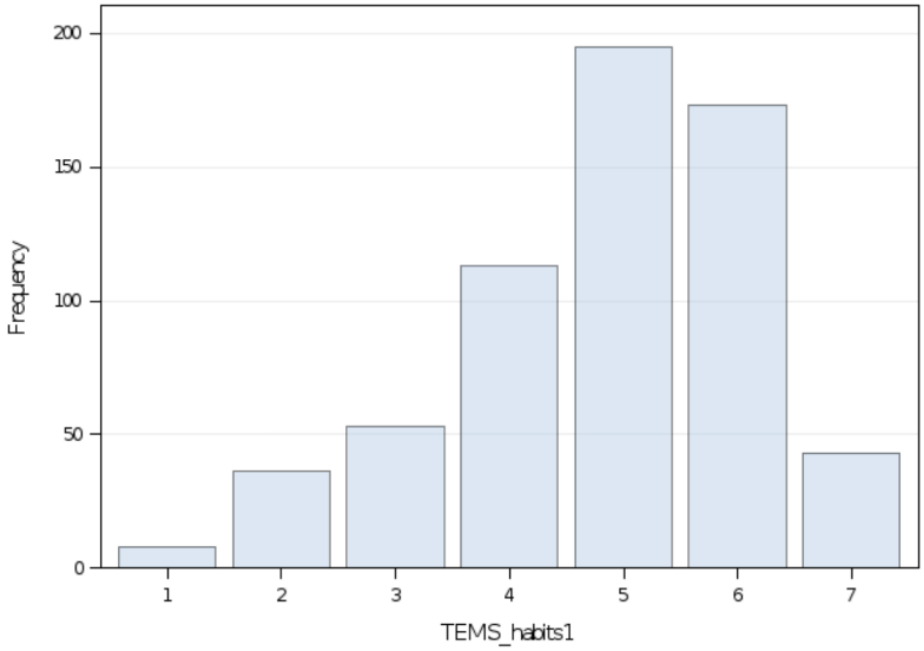
One-Way Frequency "More resources" Responses



Above are the responses to “If I had more resources (money, time, energy, etc.), sustainability and sustainable practices would mean more to me,” where a response of one indicates “Strongly disagree” and a seven indicates “Strongly agree.”

Figure 5.2

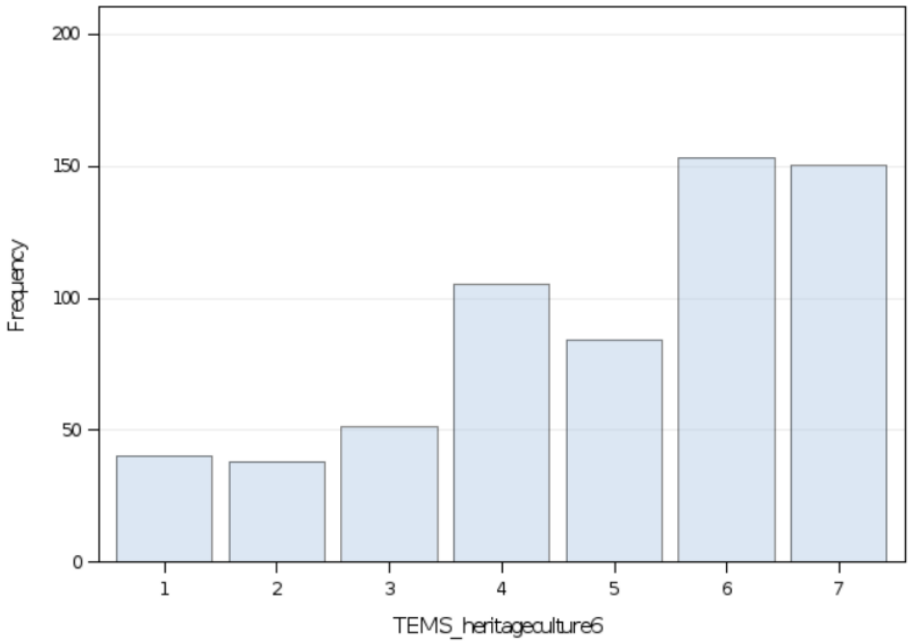
One-Way Frequency “I eat it regularly” Responses



Above are the responses to “I eat what I eat because I eat it regularly,” where a response of one indicates “Never” and a seven indicates “Always.”

Figure 5.3

One-Way Frequency "Heritage and culture are of no concern to my food choices" Responses (Reverse-coded)



Above are the responses to "I eat what I eat because heritage and culture are of no concern to my food choices." Although this is how the question was presented in the original survey, this question was reverse-coded. Accordingly, a response of "1" should be read as "heritage and culture are never of concern to my food choices" —i.e. low connection to food heritage, and a response of "7" should be read as "heritage and culture are always of concern to my food choices"—i.e. high connection to food heritage.

The responses to the questions presented above clearly show that privilege is tied to each of these three main concepts (sustainable food practices, foodways, and food heritage). Figure 5.1 indicates that the average St. Louisan wants to care about sustainability but may be more concerned with more pressing matters like getting "another couple of meals for [their] family" as noted by one of our stakeholders. Perhaps

people do not eat more sustainably because they are too connected to their foodways as shown in Figure 5.2, whether or not they are aware of that connection. Williams-Forson (2014) states “food habits are often too hard to change because food has important psychological associations with place, family, community, and other forms of identity” (p.74). It is possible that this connection to foodways is as simple as the way a business owner puts it: “people like what they like, and they like eating what they like.” Whether life has afforded them the privilege of acting sustainably and being aware of their foodways or not, it is clear that St. Louisans have a deep concern for connecting to their food heritage (Figure 5.3). However, that food being accessible and affordable is a different issue altogether. As a pantry director notes after all, “some of the food items that are more traditional with particularly the immigrant families are very expensive.” Our results define the current realities of St. Louisans and set the stage for current professionals working in this arena and for future research. Working together, we can achieve a St. Louis where every resident can feel the way an immigrant program manager feels: “I feel lucky that I can eat the way I want to.”

Implications

From the onset of this study, the research team hoped that this research would accomplish three goals: contribute to the growing body of research centered on food heritage, provide a baseline definition of food heritage for St. Louis residents, and serve as a springboard for further actions in St. Louis to promote Sustainable food heritage. Although all of the ideas in this study can be further enhanced and refined by future research, the implications of the findings within this study are great.

From the quantitative results, we can conclude that egoistic value orientation is a driving factor in defining food heritage for St. Louisans. Exacerbated by COVID-19 or not, egoism is too significant of a finding to ignore. When tied directly to food heritage and when acting in conjunction with foodways and sustainable food practices, this research shows that egoistic values greatly contribute to connection to food heritage. Although egoism is typically seen as a negative trait, St. Louis communities and stakeholders have the opportunity to harness this power and knowledge for the betterment of food practices. Egoism has its benefits in society such as increasing productivity, assisting people in becoming self-sufficient and oftentimes when people act on an individual basis it can benefit a larger society (Global Awareness UG, 2021). Perhaps community leaders can learn to use egoistic values as a crux to turn one towards a sustainable food heritage. The individual agency egoism defines could be a major player in the reimagination of food heritage. Over time, we may even witness a change in value orientations from egoistic to altruistic in the St. Louis area residents. How this might be accomplished is a task we now pass onto community leaders/stakeholders and future researchers.

Our qualitative results lead us to conclude that foodways are a major contributing factor for defining the food heritage of St. Louis residents. Our quantitative results support that there is a connection, but show that community leaders already working hard in this field may need to expand and adapt their efforts to support stronger relationships between the current foodways and local food heritages of the communities they serve. Both sets of results imply that there is an importance in the work many of them have been doing for years. In personal experience and through the interview process we are familiar

with the people putting in the time and effort to educate their communities on sustainable food practices in order to innovate and curate foodways to uplift food heritage. It has been our pleasure to learn from the current work in St. Louis and it is our calling to now join them as active participants.

Although the current work happening in the St. Louis Metropolitan area is impressive, the biggest implication of this research challenges that very work. The qualitative data, all from community leader and stakeholder perspectives, showed a clear penchant for encouraging and teaching sustainable food practices as a way to influence foodways and reimagine food heritage. The quantitative results, drawn from a wide pool of survey participants, show that a strong attachment to foodways corresponds with less of an attachment to food heritage. In an about face from current practice, we believe that community leaders should put food heritage at the forefront of education and intervention in order to reach a greater number of St. Louisans and to affect more profound change. Whether these interventions are best used alone or in conjunction with current sustainability education and interactions is, again, a subject for future research and future experimentation. In order to fulfill a promise made to many community leaders/stakeholders we worked with throughout the course of this study, we created a succinct, easy-to-digest version of these results with these implications clearly laid-out. It is our sincere hope that our results will lead to more productive professional practice in the future.

Future Research

This research and its results are built on the work of many researchers that came before. Fittingly, this research is not meant to stand alone. Rather it acts as a jumping-off

point for future research and, then, future change. The following sections are intended to provide suggestions for future research surrounding the intersections of foodways, sustainable food practices, and food heritage.

Foodways & Food Heritage

The researchers felt the results laid the groundwork for future research to investigate the relationship between foodways and food heritage. The quantitative research showed that the *less* connected one is to their foodways, the higher their connection to food heritage. The qualitative research showed that the *more* connected one is to their foodways, the higher their connection to food heritage. While both the quantitative and qualitative research showed a significant relationship between foodways and food heritage, the results were contradictory. While the researchers resolved why in their findings and conclusion, future research would be able to explore this relationship more in-depth. Specifically, future research would possibly explore whether or not food heritage is more reliant on foodways or vice versa, or perhaps, critically consider them moreover under the framework of sustainable food heritage. Privileged and non-privileged foodways when it comes to connecting with and honoring food heritage could also play a major role in current food practices. A study exploring this possible connection could provide even more significant results and produce practical, impactful implications for stakeholders and community partners. We suggest future studies that apply different methods of measurement and research methods that pointedly ask those types of questions—even one that takes our research and expands it to consider the implications of privilege, sustainability and the systems within those relationships.

Sustainable Food Heritage

As it defines sustainable food heritage, the connection between sustainable food practices, foodways, and food heritage is the most natural next step in this research. It should more succinctly and intentionally define sustainable food heritage while it examines how ideas such as interventions may intersect conceptually. For instance, this research considered food and educational interventions as critical to the theme *Sustainable food practices help people reimagine their food heritage,* but it is not fully fleshed out by the quantitative or qualitative data due to innate data set limitations. Meaning, the questions of the surveys and interviews were designed not to expound upon and criticize interventions of sustainable food heritage; rather, they were designed to understand what defined food heritage itself. In that process, however, the importance of these interventions were eventually discovered through rigorous thematic and survey analysis. While these food interventions were not central to the research questions proposed by this paper, they seemed to play a significant role in framing sustainable food heritage. This exploration could be a powerful point of entry for future research especially when considering which types of interventions would be a more impactful connector to food heritage itself. These future researchers could propose questions such as: How do heritage-aligned interventions lead communities to sustainable food heritage? What other types of interventions would be important? Food education programs or ones that drew upon nostalgia? Such research would move beyond defining food heritage and more specifically towards defining *sustainable* food heritage.

Revised Tools & Methods Suggestions

Another point of entry to future research would be the tools and methods used to collect and measure the data. For example, notions of sustainability and foodscapes were not statistically significant at a confidence interval of 90% suggesting that possibly the survey tools did not appropriately measure these variables. Perhaps the solution is as easy as future researchers retooling, recalibrating, and refining the current survey questions, or simply adding additional questions. Regardless, future researchers could remodel and restructure these questions to more properly measure these two concepts in connection to food heritage and/or sustainable food heritage.

Another point of entry could be future researchers developing a survey tool that more accurately measured egoistic, altruistic, and biospheric value orientations through the lens of food heritage. Ryan and Spash (2012) mention the difficulty in measuring environmental scales because the issues related to the environment are inherently complex, and involve multiple perspectives and plural values (p. 2506). Altruistic and biospheric value orientations did not show statistical significance in many areas in this study. Although egoistic value orientation was significant nearly across the board, the questions to measure all three value orientations come from studies that were focused on Pro-environmental Behavior, not food heritage specifically. Future studies that examine these value orientations and their connection to food heritage is a natural extension of this work. With a modified survey tool, the researchers could better understand the relationship between food heritage and the three value orientations.

Additionally, this raises the question on how the value orientations interact with each other. Can you change an egoistic value orientation to become more altruistic or

biospheric? Ryan & Spash (2012) bring attention to previous literature that suggests that people prefer to do nothing, as opposed to performing an action (p. 2515). Future research could tell us how to rectify this preference or if it even *can* be rectified. We also ask if these value orientations and the significance of egoism is unique to the American ideology of individualism. Future research using these value orientations, through the lens of food heritage, is needed in a vast amount of places and spaces to understand the scope of how these value orientations interact with food heritage, and even *sustainable* food heritage.

Non-pandemic Analysis

The pandemic played a significant role in the researchers' ability to analyze survey and interview data. Surveys were seldom completed in-person and relied heavily on social media. Most interviews were held virtually, which may have restricted access to certain stakeholders. Therefore, future research could reproduce these surveys and interviews by having stakeholders take the survey and having non-stakeholder survey participants undergo interviews—all of which would be easier due to access in a non-pandemic world. An integrated data set such as this one may have cemented our findings and/or redirected them. While we cannot definitively know how the pandemic impacted our data at this point, future researchers could expand on these results with non-pandemic data.

CBPR Approach

Community-Based Participatory Research (CBPR) has been discussed in this dissertation already as a limitation. We feel it deserves to be discussed again here. Had we conducted this study outside the constraints of time and COVID-19, CBPR would

have been an integral part of the study design. As our second qualitative theme shows, food is about human connection and a CBPR approach exemplifies that connection and amplification of community voice. CBPR gives the community a voice and a stronger human connection to the data findings. The addition of CBPR could also support further findings to explain the discrepancies between the quantitative and qualitative results from this study. If future researchers use our study design and survey instruments in the future, we urge them to consider a CBPR approach. This could include partnering with community leaders to alter the survey questions in an attempt to garner more useful information, targeting specific communities for more specified results, and interviewing community members who took the survey in lieu of stakeholders. With the voice of the community at the forefront, the usefulness of the results would be incalculable.

Conclusion

This mixed-methods study was born from a desire to understand how the foodways and sustainable food practices of St. Louis area residents inform their food heritage. Prior research shows that both sustainable food practices and foodways are two core concepts in food heritage but no research to this point combines all three of these concepts. This realization led us to create our theory of change and to outline our study. Upon its completion, this study included both quantitative surveys and qualitative interviews, which were both inspected for themes and results.

As predicted, the results of this study clearly indicate that both foodways and sustainable food practices are both significant and important contributors to the food heritages of St. Louis area residents. The survey results, more representative of the lay people of St. Louis, show that foodways are important to the detriment of food heritage: a

high association with foodways indicates a low association with food heritage. This implies that for future research, the key may lie in creating an awareness around current foodways and in inciting food heritage to produce more sustainable food practices, possibly leading to a sustainable food heritage. Additionally, this is something that we encourage current community stakeholders and leaders to take into account. Data taken from the interviews with stakeholders shows that current practices rely on community action to teach and create sustainable food practices that influence foodways—ultimately leading to reimagining food heritage. This reimagined food heritage is one that we can build for ourselves. One that honors some past traditions and forsakes others in the name of sustainability. Although the future is impossible to predict, it is clear that a focus on foodways, sustainable food practices, *and* food heritage must be a part of the present if we are to ever reach a sustainable food heritage in the future. With the power of foodways, sustainable food practices, and food heritage combined, we can redefine foodways, reimagine food heritages, and rewrite our future into one that is more sustainable, more just, and more future focused.

After all, what starts in St. Louis, can lead to a world of good.

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Appendix A

Literature Table

**indicates that an article appears in two sections.*

	APA Bibliography	Quick Summary of Article and/or Study	Key Findings (& PAGE #) & [***Connections to IVs***]	Other Connected Key Terms
DV: FOOD HERITAGE	*Alkon, A. H., Block, D., Moore, K., Gillis, C., DiNuccio, N., Chavez, N. (2013). Foodways of the urban poor. Geoforum, 48, 126–135. https://doi.org/10.1016/j.geoforum.2013.04.021*	A combination of 5 independently conducted studies examining daily food practices of urban poor (two in Oakland, CA and 3 in South and West Chicago). A total of 581 low-income people of color spoken to and surveyed about access to food and thoughts about living in a food desert.	The primary barrier to obtaining desired foods was lack of income, not proximity or lack of knowledge. (134) [*Foodways, Foodscapes*] Current programs are not geared toward promoting the "right to healthy food." (133) [*Sustainable Food Practices*] Supplying grocery stores in these neighborhoods is not enough. (133-4) [*Foodways, Foodscapes*]	Food Access, Sustainable Food Legacy Food Access, Sustainable Food Legacy n/a
	Dindyal, S., & Dindyal, S. (2004). How personal factors, including culture and ethnicity, affect the choices and selection of food we make. The Internet Journal of Third World Medicine, 1(2). https://doi.org/10.5580/2231	The impact of culture and ethnicity, derived from a set of shared values, assumptions, customs, perceptions, and conventions (food heritage), has an effect on the food choices of that person.	Religion plays a significant cultural and ethnic role in food choices of certain societies. For example, Hindu and Buddhist religious artifacts and customs find it blasphemous to consume pork and beef (Dindyal 1). [*Notions of Sustainability, Foodscapes*] Jain religion doesn't allow its followers to eat meat as well as any vegetables grown underground (Dindyal 1). [*Notions of Sustainability, Sustainable Food Practices, Foodscapes*] Some religious and non-religious groups, such as certain Christian denominations and Atheists, don't have strict practices and therefore food choice is not as readily impacted (Dindyal	Food choice, Food practices, Cultural food systems Food choice, Food practices, Cultural food systems Food choice, Food practices, Cultural food systems Food choice, Food practices, Cultural food systems Low-income, Poverty, Food aparteheid, Food insecurity, Food inequity Food practices

			1-2). [*Notions of Sustainability*, *Foodscapes*] "Pattern of eating" influences food choices such as time of day, type of food, and amount of people. Traditional eastern culture tend to eat at specific times, different types of food throughout the day, and in large groups; whereas, western cultures tend to vary in time, may eat the same foods throughout the day, and in more individualistic ways (Dindyal 2). [*Foodscapes*] Occupation and social class influences food choices due to food access. Lower class persons tend to have less access to food in general than middle and especially upper class (Dindyal 2). [*Foodways*] Mood, how one feels emotionally or mentally, influences food choice (Dindyal 2). [*Notions of Sustainability*, *Foodscapes*]	
	Kapelari, S., Alexopoulos, G., Moussouri, T., Sagmeister, K. J., & Stampfer, F. (2020). Food Heritage Makes a Difference: The Importance of Cultural Knowledge for Improving Education for Sustainable Food Choices. Sustainability, 12(4), 1509. https://doi.org/10.3390/su12041509	Findings from Big Picnic project in Europe. Study highlights the importance that culture holds for understanding food choices and consumer preferences. Uses the TEMS		Food heritage Cultural knowledge Sustainable eating Food choice Food education

	Zocchi, D. M., Fontefrancesco, M. F., Corvo, P., & Pieroni, A. (2021). Recognising, Safeguarding, and Promoting Food Heritage: Challenges and Prospects for the Future of Sustainable Food Systems. Sustainability, 13(17), 9510. https://doi.org/10.3390/su13179510	This study/lit review aims to shed light on the strengths and limitations of food heritagization regarding the improvement of the socio-cultural sustainability of the food system. The analysis highlights cross-cutting risks, namely the omission of tangible and intangible elements of the local food system, and the exclusion of key stakeholders from the recognition and institutionalization of food heritage. The review highlights the strict interdependence between intangible and tangible elements during food heritagisation, and assesses how local and global interactions can activate and shape this process. It sheds light on the need to pay more attention to the factors, actors, and relationships underpinning the emergence and recognition of food and food-related elements as part of the local heritage.		Food heritage Heritagisation Social and cultural sustainability
IV1: Notions of Sustainability	**APA Bibliography**	**Quick Summary of Article**	**Key Findings & <u>Connection to variable</u> (& PAGE #)**	**Connections to CODED VARIABLE NAME**
	de Groot, J., & Steg, L. (2007). Value Orientations to Explain Beliefs Related to Environmental Significant BehaviorHow to Measure Egoistic, Altruistic, and Biospheric Value Orientations. Environment and Behavior - ENVIRON	Value Orientations (Egoistic, Altruistic, Biospheric)	Using these value orientations as classification variables for the quantitative	Sustainability Sustainable practices

	BEHAV, 40, 330–354. *https://doi.org/10.1177/0013916506297831*			
	Vos, R. O. (2007). Defining sustainability: A conceptual orientation. Journal of Chemical Technology & Biotechnology, 82(4), 334–339. *https://doi.org/10.1002/jctb.1675*	This paper presents several archetypes of sustainability that are useful for classifying and understanding existing definitions. Definitions that emphasize one part or another of the core concept of sustainability will be necessary at varying scales and in different contexts. This paper presents a conceptual guide that contrasts a dominant paradigm of economic growth and development with 'thick' and 'thin' versions of sustainability. Definitions of sustainability are explored in terms of their orientation to the ontology of nature, substitutability of resources, economic growth, population growth, role of technology, and social equity.		Sustainable development Theories of sustainability Limits to growth
	United Nations Development Programme/ *Sustainable Development Goals*	17 goals designed by the United Nations in 2015 to end poverty, protect the planet, and ensure peace and prosperity. Goals are integrated (each goal affects the other goals).	2 = Zero Hunger 6 = Clean water 13 = Climate action	Global goals sustainable development climate action eradicating hunger
	Hawken, Paul/ *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*	List of 100 ways to reverse global warming ranked by the number of gigatons of carbon dioxide reduced. Separated into 7 categories. Total net cost and operational savings as well as number of jobs created are listed for each solution. 20 "coming attractions" with future technology are also listed.	Of the top 10 ways to reverse global warming, 3 are food based (Reduced Food Waste, #3; Plant-Rich Diet, #4; Silvopasture, #9) and 2 have a connection to food (Refrigeration, #10; Tropical Forests, #5). The food based options are extremely cheap comparatively. Of the 20	

			"Coming attractions," 8 are food based.	
	Davenport, S. G., & Mishtal, J./ *Whose Sustainability? An Analysis of a Community Farming Program's Food Justice and Environmental Sustainability Agenda*	A critical examination of the sustainability initiatives and practices of urban farming program "City Gardens" in Florida. 10 months of ethnographic research, 13 semi-structured interviews, 16 informal interviews, fieldnotes on City Gardens employees and volunteers.	The "City Gardeners' limited understandings of how Fremont's social, economic and political contexts formed, make their food security initiatives ineffective." Racial understanding is part of the problem as well as avoiding political talk.	Environmental justice White Saviorism subaltern communities social justice political ecology food and environmental sustainability urban anthropology
IV2: Sustainable Food Practices	**APA Bibliography**	**Quick Summary of Article**	**Key Findings & <u>Connection to Food Heritage (DV)</u> (& PAGE #)**	**Other Connections to Key Terms**
	Graça, J., Oliveira, A., & Calheiros, M. M. (2015). Meat, beyond the plate. Data-driven hypotheses for understanding consumer willingness to adopt a more plant-based diet. Appetite, 90, 80–90. https://doi.org/10.1016/j.appet.2015.02.037	A shift towards reduced meat consumption and a more plant-based diet is endorsed to promote sustainability, improve public health, and minimize animal suffering. However, large segments of consumers do not seem willing to make such transition. This study provides an in-depth exploration of how consumer representations of meat, the impact of meat, and rationales for changing or not habits relate with willingness to adopt a more plant-based diet.		
	Macdiarmid, J. I., Douglas, F., & Campbell, J. (2016). Eating like there's no tomorrow: Public awareness of the environmental impact of food and reluctance to eat less meat as part of a sustainable diet. Appetite, 96, 487–	The aim of this study was to explore public awareness of the environmental impact of food and their willingness to reduce meat consumption. Twelve focus groups and four individual interviews were conducted with adults from a range of socio-economic groups living in both rural and urban settings in Scotland. Public understanding of the		Sustainable diets Meat Attitudes Culture Climate change Focus groups

	493. *https://doi.org/10.1016/j.appet.2015.10.011*	link between food, environment and climate change was explored, with a focus on meat and attitudes towards reducing meat consumption.		
	Kloppenburg, J., Lezberg, S., De Master, K., Stevenson, G. W., & Hendrickson, J. (2000). Tasting Food, Tasting Sustainability: Defining the Attributes of an Alternative Food System with Competent, Ordinary People. Human Organization, 59(2), 177–186. JSTOR.	This study explores the attributes of food system sustainability with 125 persons representing a cross section of the food community. Participants were asked what the characteristics of a sustainable food system would be. Participants envisioned a sustainable food system as relational, proximate, diverse, ecologically sustainable, economically sustaining, just/ethical, sacred, knowledgeable, seasonal, healthful, participatory, culturally nourishing, and sustainably regulated.		Sustainable agriculture Alternative agriculture Food systems
	Nguyen, H. (n.d.). Sustainable food systems: Concept and framework. 8.			
	Prosperi, P., Allen, T., Padilla, M., Peri, I., & Cogill, B. (2014). Sustainability and Food & Nutrition Security: A Vulnerability Assessment Framework for the Mediterranean Region. *SAGE Open*, *4*(2), 2158244014539169. https://doi.org/10.1177/2158244014539169	Using the lens of a broad sustainability approach, this conceptual article aims at developing a multidimensional framework to evaluate the sustainability of food systems and diets, applicable to countries of the Mediterranean region. Derived from natural disaster and sustainability sciences, a vulnerability approach, enhanced by inputs from the resilience literature, has been adapted to analyze the main issues related to food and nutrition security. Through causal factor analysis, the resulting conceptual		Food systems Sustainable diets Environment Resilience Metrics

		framework improves the design of information systems or metrics assessing the interrelated environmental, economic, social, and health dynamics of food systems.		
	Vainio, A., Niva, M., Jallinoja, P., & Latvala, T. (2016). *From beef to beans: Eating motives and the replacement of animal proteins with plant proteins among Finnish consumers. Appetite*, *106*, 92–100. https://doi.org/10.1016/j.appet.2016.03.002	The aim of the study was to examine how eating motives were associated with self-reported changes in the consumption of beef, beans, and soy products, i.e., changes related to reducing animal and increasing plant proteins. The study analyzed a survey of an adult population living in Finland (N = 1048). The eating motives were measured with the Eating Motivation Survey (TEMS), which distinguishes between 15 eating motives. The results suggest that eating motives play an important role in changing towards more sustainable food consumption patterns in which meat/beef is replaced with plant proteins.		Motivation Food Choice Consumers Sustainable food consumption Vegetable proteins
	Griffin, M., & Sobal, J. (2013). Sustainable Food Activities Among Consumers: A Community Study. *Journal of Hunger & Environmental Nutrition*, *8*(4), 379–396. https://doi-org.ezproxy.umsl.edu/10.1080/19320248.2013.816995	Consumers engage in many types of sustainable activities. A mail survey of 663 adults in one community examined the practice of sustainable food activities. Respondents participated in an average of 3 of 13 types of sustainable food activities, with women, older, and more educated consumers participating more frequently. These findings suggest that par- ticular demographic categories of individuals and health problems may lead to greater involvement in		Sustainable Consumers Health Food Environment Community Organic Farmer's market

		sustainable food activities		
IV3: Foodscapes	**APA Bibliography**	**Quick Summary of Article**	**Key Findings & <u>Connection to Food Heritage (DV)</u> (& PAGE #)**	**Connections to CODED VARIABLE NAME**
	Gregory, C. A., Mancino, L., & Coleman, A. (n.d.). Food Security and Food Purchase Quality Among Low-Income Households: Findings From the National Household Food Acquisition and Purchase Survey (FoodAPS). 42.	This study focuses on the food quality purchases made by low-income food insecure households over the course of one week. Food-insecure households spend less per adult equivalent on all food, but food at home in particular. Additionally, there are significant differences in dietary components not purchased or purchased in excess by these households: food-insecure households are much more likely to have no fruit, dairy, or protein, but large amounts of refined grains in their total purchase basket. Taking food spending and purchase quality into account, food-insecure households purchase about half of the fruit per adult equivalent and about three-fifths of the protein foods per adult equivalent in comparison with food-secure households.		Healthy Eating Index, FoodAPS Food security Food purchase
	Goodman, M., Lyons, S., Dean, L. T., Arroyo, C., & Hipp, J. A. (2018).	Racial residential segregation affects food landscapes that dictate residents' food		Residential segregation Body mass index Food

	How Segregation Makes Us Fat: Food Behaviors and Food Environment as Mediators of the Relationship Between Residential Segregation and Individual Body Mass Index. Frontiers in Public Health, 6. https://doi.org/10.3389/fpubh.2018.00092	environments and is associated with obesity risk factors. This study examines if food behaviors and environments mediate the association between segregation and body mass index.		environment Health Behavior Mediation
	MacKendrick, N. (2014). Foodscape. Contexts, 13(3), 16–18. https://doi.org/10.1177/1536504214545754	Article defines foodscapes		Foodscapes Healthy eating
	Belon, A. P., Nieuwendyk, L. M., Vallianatos, H., & Nykiforuk, C. I. J. (2016). Perceived community environmental influences on eating behaviors: A Photovoice analysis. Social Science & Medicine, 171, 18–29. https://doi.org/10.1016/j.socscimed.2016.11.004	People's perceptions of local food environments influence their abilities to eat healthily.Using a socioecological framework, emergent themes were organized by type and size of environment. Findings show that, while availability and access to food outlets influence healthy eating practices, these factors may be eclipsed by other non-physical environmental considerations, such as food regulations and socio-cultural preferences. This study identifies a set of meta-themes that summarize and illustrate the interrelationships between environmental attributes, people's perceptions, and eating behaviors: a) availability and accessibility are interrelated and only part		Eating behavior Diet Food Environment Photovoice CBPR

		of the healthy eating equation; b) local food is synonymous with healthy eating; c) local food places for healthy eating help define community identity; d) communal dining (commensality) does not necessarily mean healthy eating; e) rewarding an achievement or celebrating special occasions with highly processed foods is socially accepted; f) food costs seemed to be driving forces in food decisions; g) macro-environmental influences are latent in food decisions.		
	Gravlee, C. C., Boston, P. Q., Mitchell, M. M., Schultz, A. F., & Betterley, C. (2014). Food store owners' and managers' perspectives on the food environment: An exploratory mixed-methods study. BMC Public Health, 14(1), 1031. https://doi.org/10.1186/1471-2458-14-1031	Neighborhood characteristics such as poverty and racial composition are associated with inequalities in access to food stores and in the risk of obesity, but the pathways between food environments and health are not well understood. This article extends research on consumer food environments by examining the perspectives of food-store owners and managers.		Food stores Food environment Health inequities Formative research
IV4: Foodways	**APA Bibliography**	**Quick Summary of Article**	**Key Findings & <u>Connection to Food Heritage (DV)</u> (& PAGE #)**	**Connections to CODED VARIABLE NAME**
	Williams-Forson, P. (2014). "I Haven't Eaten If I Don't Have My Soup and Fufu": Cultural Preservation through Food and Foodways among Ghanaian			

	Migrants in the United States. Africa Today, 61(1), 69–87. https://doi.org/10.2979/africatoday.61.1.69			
	The coronavirus broke the food supply chain. Here's how to fix it. | Grist. (n.d.). Retrieved July 3, 2020, from https://grist.org/food/coronavirus-food-grocery-store-empty-farm-food-waste-solution/		"We have a food system that has a lot of challenges, even in good times," said Broad Leib. "This pandemic has really shown those frayed edges."	Covid 19 Food Supply Chain
	Davis, O. I. (2013). Barbershop Cuisine: African American Foodways and Narratives of Health in the Black Barbershop. International Journal of Men's Health, 12(2), 138–149. https://doi.org/10.3149/jmh.1202.138	Exploring foodways as part of a cultural system of the Black barbershop, points to the ways in which community considers dietary behavior, ascribes meanings associated with food, constitutes the social structure and material culture affecting food, and instantiates the historical factors that contribute to the persistence or change in food behavior. By centering the role of foodways in the performativity of Black men's food habits of acculturation, this paper illuminates cardiovascular screening as a health literacy intervention in Black barbershops. The role of health in the sustenance of Black men reveals unique dimensions of the intersections of food and performance. This paper locates the Black barbershop as a ritualized space of health and healing.		Black men Barbershop Foodways Hypertension Health disparities

		Barbers are redefining their role in the African American community by crafting the barbershop as a critical space for performing health care intervention of treatment and control of high blood pressure among Black men.		
	Alkon, A. H., et. al./ *Foodways of the Urban Poor*	A combination of 5 independently conducted studies examining daily food practices of urban poor (two in Oakland, CA and 3 in South and West Chicago). A total of 581 low-income people of color spoke to and surveyed about access to food and thoughts about living in a food desert.		Foodways food systems food movements food deserts public health
	Uhlmann, K., Lin, B., & Ross, H./ *Who Cares? The Importance of Emotional Connections with Nature to Ensure Food Security and Wellbeing in Cities*	A review of existing literature of foodscapes and biophilia to highlight the need for interdisciplinary research that combines urban agriculture and food literacy to ensure future food security and wellbeing of urban inhabitants.	Reduction of natural areas in cities affects well being and could lead to urban food security issues. There is no existing research on how human connection with nature influences food choice.	Biophilia foodscapes urban agriculture urban foodways cultural iceberg wellbeing

Appendix B

Literature Table (Methods)

Authors	Title	Purpose	Major Themes
Crotty, M., 1998	*The Foundations of Social Research: Meaning and Perspective in the Research Process*	This book links methodology and theory with clarity and precision, showing students and researchers how to navigate the maze of conflicting terminology.	epistemological stances and theoretical perspectives
Crossman, A., 2019	*Positivism's roll in the study of sociology*	Explanation of Auguste Comte general view of Positivism. He theorized that the knowledge gleaned from positivism can be used to affect the course of social change and improve the human condition.	Positivism Auguste Comte Social change
Hepler, 2022	*Interpretivism in Sociology: Definition and Origin*	Interpretivism is a methodology of sociological research. It states that the best way to study an action or event is to analyze it through the perspective of the values of its culture.	Interpretivism definition and examples
Yin, R.K., 2018	*Case Study Research and Applications: Design and Methods*	The book overall is on the construction of case studies. For the purpose of our research, the chapter on the role of theory in research design was utilized.	Research design theory
Creswell, J.W., 2015 and Creswell & Clark, 2017	*Educational Research* and *Designing and conducting mixed-methods Research*	Details multiple mixed-method designs with journal articles illustrating each design	Mixed-methods Research designs

Renner et al., 2012; Markle, 2013; de Groot & Steg, 2007	*Why we eat what we eat: The eating motivation survey (TEMS)* *Pro-environmental behavior: Does it matter how it's measured?* *Value orientations to explain beliefs related to environmental significant behavior*	All three articles helped inform the creation of our quantitative instrument (FHSS)	TEMS PEBS Egoistic, altruistic, and biospheric
Mertens, D.M., 2010	*Transformative mixed-methods research*	Introduces idea of transformative paradigm consisting of a framework of belief systems that directly engage members of culturally diverse groups with a focus on increased social justice	Transformative paradigm Social justice
Research Connections	*Child care and early education research connections*	Explanation of descriptive research studies,	Descriptive research Explanatory Identify relationships between variables
Fisher, J., Poonam, A., Chen, S., Rhee, S., Tempest, B., & Dahlia, S., 2021	*Four propositions on integrated sustainability: Toward a theoretical framework to understand the environment, peace, and sustainability nexus*	Literature review on previous sustainability research in effort to create a theoretical framework for future research	Sustainability research framework
Jordan, M., 2021	*Purposive Sampling 101*	Defining purposive sampling as a non-probability sampling where the researchers identify potential survey participants based on their own judgment	Purposive sampling
Indiana University, 2021	*Research using online tools & mobile devices*	Several studies on the validity and future of using social media, the internet, and mobile devices to collect data	Online research Online sampling

McRobert, C., Hill, J., Smale, T., Hay, E., van de Windt, D., 2018	*A multi-modal recruitment strategy using social media and internet-mediated methods to recruit a multidisciplinary, international sample of clinicians to an online research study.*	Validity in multi-modal, traditional and social media research as a way of sampling survey participants	multi-modal
Cody, R., 2016	*Biostatistics by Example Using SAS Studio*	SAS Studio is a virtual computer used to manage and report your data, to create graphs and reports, and to perform most of the statistical tasks performed by biostatisticians	SAS Studio
Terry, G. & Hayfield, N., 2021	*Essentials of thematic analysis*	Centers around the Essentials of Qualitative Methods series introduce social science and psychology researchers to key approaches to qualitative methods	Thematic analysis Qualitative data

Appendix C

Survey Instrument

Food Heritage & Sustainability Survey

You are invited to participate in a research study about your food culture and practices, as well as your environmental beliefs and practices, through our Food Heritage & Sustainability Survey. The goal of this research study is to understand your thoughts, habits, and opinions about food and sustainability. This study is being conducted by UMSL doctoral students Caitlin Crain, Amy Roznos, Britt Tate, and Darius Williams.

Participation in this study is voluntary. Participating in this study may not benefit you directly, but it will help us learn more about food and sustainability in St. Louis City and County. The information you will share with us if you participate in this study will be kept completely confidential to the full extent of the law. By completing this survey, you are consenting to participate in this study. All of your answers will be kept completely confidential.

The first portion of this survey asks for optional contact information. You need only provide this information if you are interested in continuing with the study into round 2. If you choose to provide our research team with your contact information, that information will be kept completely confidential.

Please be as honest as you can. We expect that this survey will take you about 15-20 minutes to complete.

[redacted] (not shared) Switch account

* Required

What zip code do you live in? *

Your answer

How did you hear about this survey? *

- ◯ International Institute
- ◯ Heru Farms
- ◯ Seed St. Louis
- ◯ New Roots Urban Farm
- ◯ STL City Foodbank
- ◯ Welcome Neighbor STL
- ◯ My alderperson
- ◯ Social Media (Facebook group, a tweet, etc.)
- ◯ My church
- ◯ An educational institution (SLPS, UMSL, etc.)
- ◯ Other: _____

Next Page 1 of 13 Clear form

Never submit passwords through Google Forms.

This form was created inside of UMSystem. Report Abuse

Google Forms

Food Heritage & Sustainability Survey

ccrain@g.fhsdschools.org (not shared) Switch account

* Required

I eat what I eat...

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

I eat what I eat... *

	1 - Never	2	3	4	5	6	7 - Always
because I think it is delicious.	○	○	○	○	○	○	○
because I eat it regularly.	○	○	○	○	○	○	○
because it is quick to prepare.	○	○	○	○	○	○	○
to maintain a balanced diet.	○	○	○	○	○	○	○

Appendix D

Interview Protocol

Researcher: Hi, my name is (name of researcher) and I'm a part of a doctoral team conducting research on food, cultural heritage, and sustainability. It's so great to be here with you today. Though you are a community stakeholder and have potentially heard about the survey portion of our research, I don't want to assume you know what our research is about specifically, so I wanted to take the time to meet in person, tell you about us and our work, and how you potentially would become involved.

To begin, I am part of a group of four doctoral students. We are all passionate about food, heritage, and justice -- particularly as it pertains to the diverse population in the St. Louis area. My teammates and I understand that we do not want to position ourselves as the experts on anyone's experience. The reality is… You are the expert of your own experience and simply put: this portion of our research is designed to have a conversation with stakeholders and learn about food, cultural heritage, and sustainability from the lens of your organization/experience.

[This protocol has a bank of questions that we plan to adapt and select from based on what participants have emphasized or where there are gaps in information or to delve deeper into some phenomenons. There will be questions that are omitted or not used if the direction of the interview does not require that particular data to be collected. At times we may ask participants to explain in greater details and those details may require adjusting our question positioning to preserve the flow of the interview.]

Quick Notes

1. Not all questions may be asked, but all the following questions may be considered for your interview.
2. Express yourself thoroughly and authenticity; however, we ask that you please try to keep answers as concise as possible.
3. Interviews should take around 45 minutes.
4. There is a mandatory Verbal Consent Agreement that will be read before each interview is conducted for IRB as well as general practice and regulatory purposes.
    a. After the agreement is read aloud, you're asked to affirm your (dis)consent with a verbal yes or no.
    b. This process as well as your verbal consent is recorded.
    c. You may opt out of consent at any moment throughout the duration of the interview.

Food Heritage

- Often, we find food isn't just about meals. Please share a memorable experience that involved food or a meal. Perhaps one that has inspired your work in the St. Louis community.

- Can you speak to any food-related stereotypes regarding (your) culture or the culture of those you may work with in St. Louis?
- Thinking about everything we have talked about so far, how would you define your own food heritage?
    - Academic definition of Food Heritage: the connection between one's "social values, beliefs, and experiences with food as well as [your] cultural food system.") Thinking about this definition, is there anything you would add to help define your own food heritage?

Food Preferences & Behaviors

- What are some of your favorite foods to eat and why?
- In what ways may you (or perhaps desire to) serve your clients in consideration of their food preferences and/or personal food heritage?

Foodways, Foodscapes & Food Access

- What are some barriers that your organization faces when trying to feed a person, household, and/or your community?
- Would you say you have access to food from your food heritage in St. Louis? What about the communities your organization tends to serve? (Why and/or why not?)

Sustainability & Sustainable Food Legacy

- When I say the word "environment," what comes to mind and how does that "mental image" positively (or negatively) connect to the community you serve?
- Naming some sustainable practices as outlined by the U.N. (review below), to what extent do you (or don't you) see these practices in the communities you serve? Please explain why or why not.
    - Recycling, composting, reusing grocery bags, reducing waste, gardening, upcycling, repurposing, electricity management, walking, biking, using public transportation to work or running errands, mending clothes, and the like…
- From perhaps both your personal and working perspective… What do you believe it will take for St. Louis families to establish an effective Sustainable Food Legacy?

Answer the following questions in a one sentence summary…

- How do you feel about the food that you eat personally?
- Overall, how do you feel about food in St. Louis?
- How does food connect you and the community you serve to what matters most?

Appendix E

IRB Letter of Approval

UMSL | Research
University of Missouri–St. Louis

November 12, 2021

Principal Investigator: Amy Roznos
Department: Advanced Credit

Your IRB Application to project entitled Low-Income Food Culture Matters: Heritage and the Sustainable Dilemma was reviewed and approved by the UMSL Institutional Review Board according to the terms and conditions described below:

IRB Project Number	2070782
IRB Review Number	338198
Initial Application Approval Date	November 12, 2021
IRB Expiration Date	November 12, 2022
Level of Review	Expedited
Application Status	Approved
Project Status	Active - Open to Enrollment
Expedited Categories	45 CFR 46.110.a(f)(6) 45 CFR 46.110.a(f)(7)
Risk Level	Minimal Risk
Child Category	46.404/50.51
Type of Consent	Consent with Waiver of Documentation Child Assent without Documentation Parental Consent with Waiver of Documentation
Approved Documents	REVISED 11/2/21 - version 3 - SOCIAL/BEHAVIORAL/EDUCATIONAL RESEARCH PROTOCOL for Low-Income Food Culture Matters: Heritage and the Sustainable Dilemma REVISED 11/2/21 - Assent for Round 2 Interviews REVISED 11/2/21 - Consent for Round 2 Interviews Informed Consent for Participation in Research Activities (Round 1 - Survey) Revised 10/5/21 - Round 1 - Survey Revised - Scripts for emails to community partners & social media posts for recruitment Revised - Round 2 Interview Protocol

The principal investigator (PI) is responsible for all aspects and conduct of this study. The PI must comply with the following conditions of the approval:

1. Enrollment and study related procedures must remain in compliance with the University of Missouri regulations related to interaction with human participants following guidance at http://www.umsl.edu/recd/compliance/umsl-guidance-covid19-policy-7.2021.pdf
2. No subjects may be involved in any study procedure prior to the IRB approval date or after the expiration date.
3. All unanticipated problems must be reported to the IRB on the Event Report within 5 business days of becoming aware of the problem. Unanticipated problems are defined as events that are unexpected, related or possibly related to the research, and suggests the research places subjects or others at a greater risk of harm than was previously known or recognized. If the unanticipated problem was a death, this is reportable to the IRB within 24 hours on the Death Report.
4. On-site deaths that are not unanticipated problems must be reported within 5 days of awareness on the Death Report, unless the study is such that you have no way of knowing a death has occurred, or an individual dies more than 30 days after s/he has stopped or completed all study procedures/interventions and required follow-up.
5. All deviations (non-compliance) must be reported to the IRB on the Event Report within 5 business days of becoming aware of the deviation.
6. All changes must be IRB approved prior to implementation unless they are intended to reduce immediate risk. All changes must be submitted on the Amendment Form.
7. All recruitment materials and methods must be approved by the IRB prior to being used.
8. The project-generated annual report must be submitted to the IRB for review and approval at least 30 days prior to the project expiration date. If the study is complete, the Completion/ Withdrawal Form may be submitted in lieu of the annual report.
9. Securely maintain all research records for a period of seven years from the project completion date or longer depending on the sponsor's record keeping requirements.
10. Utilize the IRB stamped consent documents and other approved research documents located within the document storage section of eCompliance. These documents are highlighted green.

If you have any questions, please contact the IRB Office at 314-516-5972 or irb@umsl.edu.

Thank you,
UMSL Institutional Review Board

Amendment to IRB Approval Letter

UMSL | Research
University of Missouri–St. Louis

April 11, 2022

Principal Investigator: Amy Roznos
Department: Advanced Credit

Your Amendment Form to project entitled Low-Income Food Culture Matters: Heritage and the Sustainable Dilemma was reviewed and approved by the UMSL Institutional Review Board according to the terms and conditions described below:

IRB Project Number	2070782
IRB Review Number	375205
Initial Application Approval Date	November 12, 2021
Approval Date	
IRB Expiration Date	November 12, 2022
Application Status	Approved
Project Status	Active - Open to Enrollment
Risk Level	Minimal Risk
Type of Consent	Consent with Waiver of Documentation
Approved Documents	Updated interview protocol to reflect changes from family units/households to community leaders and stakeholders. All updates highlighted in the document. Version Date: 3/30/22 Version 4 of the Food Heritage Research protocol updated to reflect changes from family units/households to community leaders and stakeholders. All updates highlighted in the document. Version date: 3/30/22 Arabic Translation of the Food Heritage and Sustainability Survey with Certificate of Translation Accuracy English re-translation of the French translation of Food Heritage and Sustainability Survey French translation of Food Heritage and Sustainability Survey English re-translation of the Spanish translation of Food Heritage and Sustainability Survey Spanish translation of Food Heritage and Sustainability Survey

The principal investigator (PI) is responsible for all aspects and conduct of this study. The PI must comply with the following conditions of the approval:

1. Enrollment and study related procedures must remain in compliance with the University of Missouri regulations related to interaction with human participants following guidance at http://www.umsl.edu/recd/compliance/umsl-guidance-covid19-policy-7.2021.pdf
2. No subjects may be involved in any study procedure prior to the IRB approval date or after the expiration date.
3. All unanticipated problems must be reported to the IRB on the Event Report within 5 business days of becoming aware of the problem. Unanticipated problems are defined as events that are unexpected, related or possibly related to the research, and suggests the research places subjects or others at a greater risk of harm than was previously known or recognized. If the unanticipated problem was a death, this is reportable to the IRB within 24 hours on the Death Report.
4. On-site deaths that are not unanticipated problems must be reported within 5 days of awareness on the Death Report, unless the study is such that you have no way of knowing a death has occurred, or an individual dies more than 30 days after s/he has stopped or completed all study procedures/interventions and required follow-up.
5. All deviations (non-compliance) must be reported to the IRB on the Event Report within 5 business days of becoming aware of the deviation.
6. All changes must be IRB approved prior to implementation unless they are intended to reduce immediate risk. All changes must be submitted on the Amendment Form.
7. All recruitment materials and methods must be approved by the IRB prior to being used.
8. The project-generated annual report must be submitted to the IRB for review and approval at least 30 days prior to the project expiration date. If the study is complete, the Completion/ Withdrawal Form may be submitted in lieu of the annual report.
9. Securely maintain all research records for a period of seven years from the project completion date or longer depending on the sponsor's record keeping requirements.
10. Utilize the IRB stamped consent documents and other approved research documents located within the document storage section of eCompliance. These documents are highlighted green.

If you have any questions, please contact the IRB Office at 314-516-5972 or irb@umsl.edu.

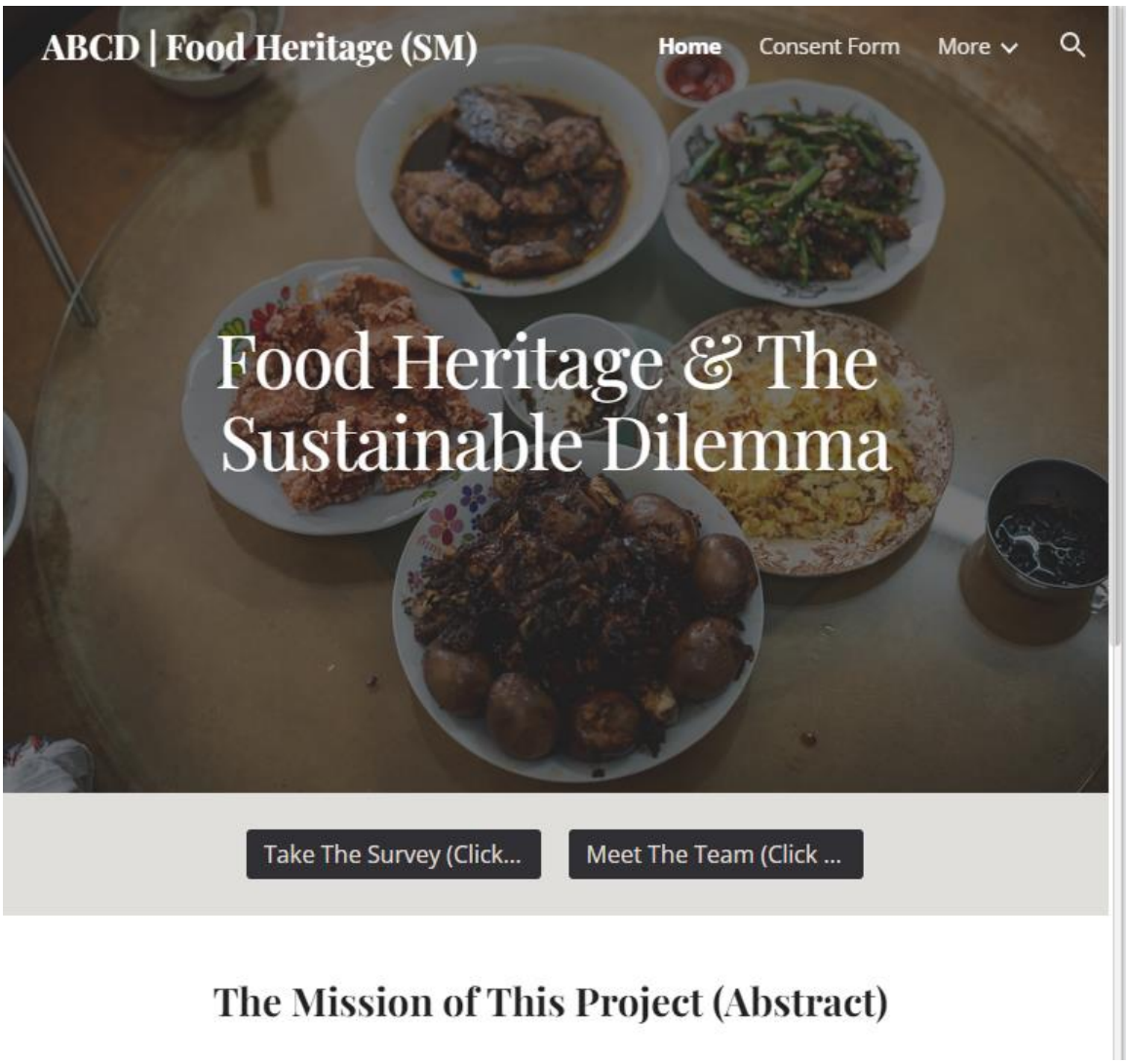
Thank you,
UMSL Institutional Review Board

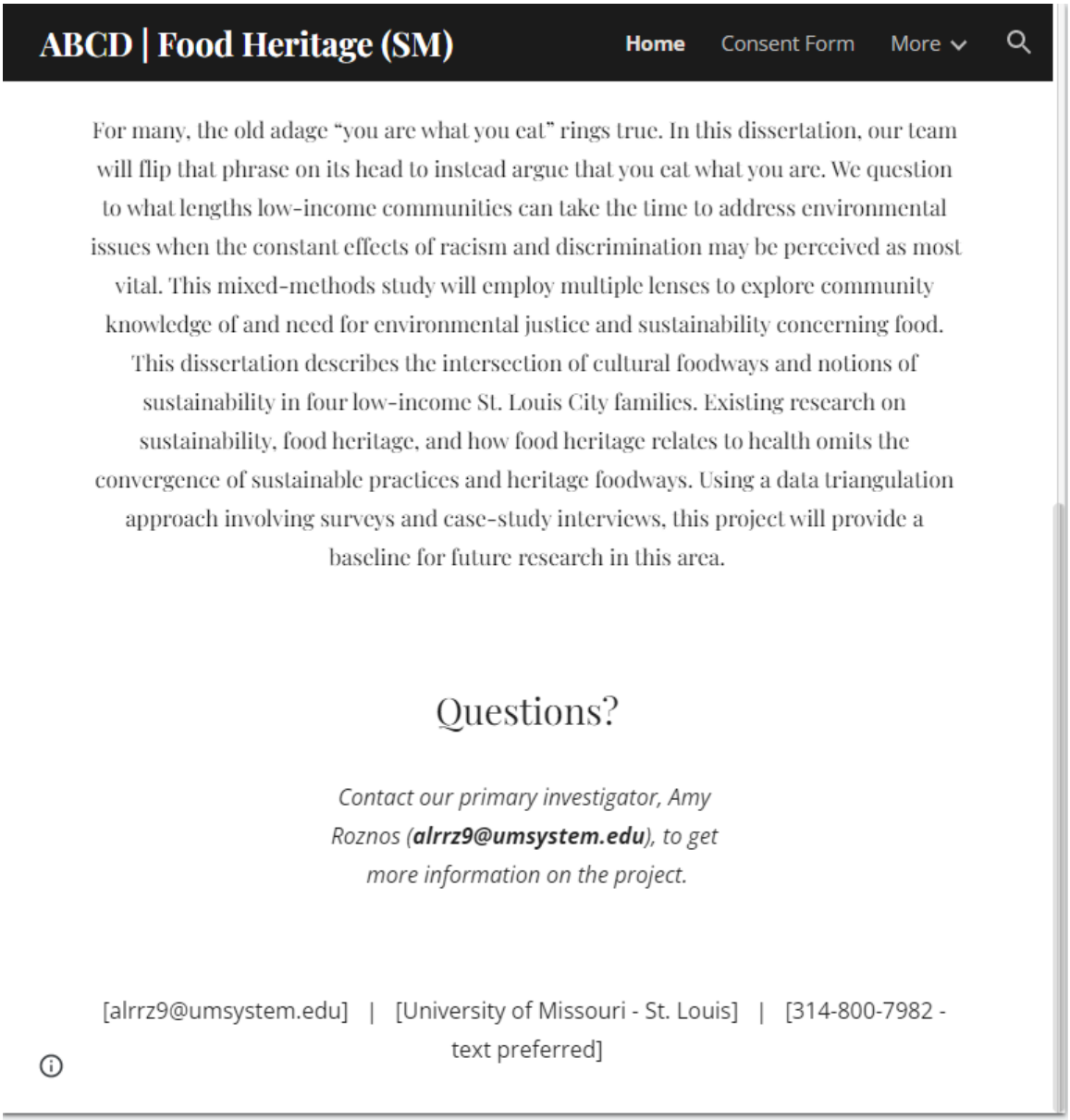
Appendix F

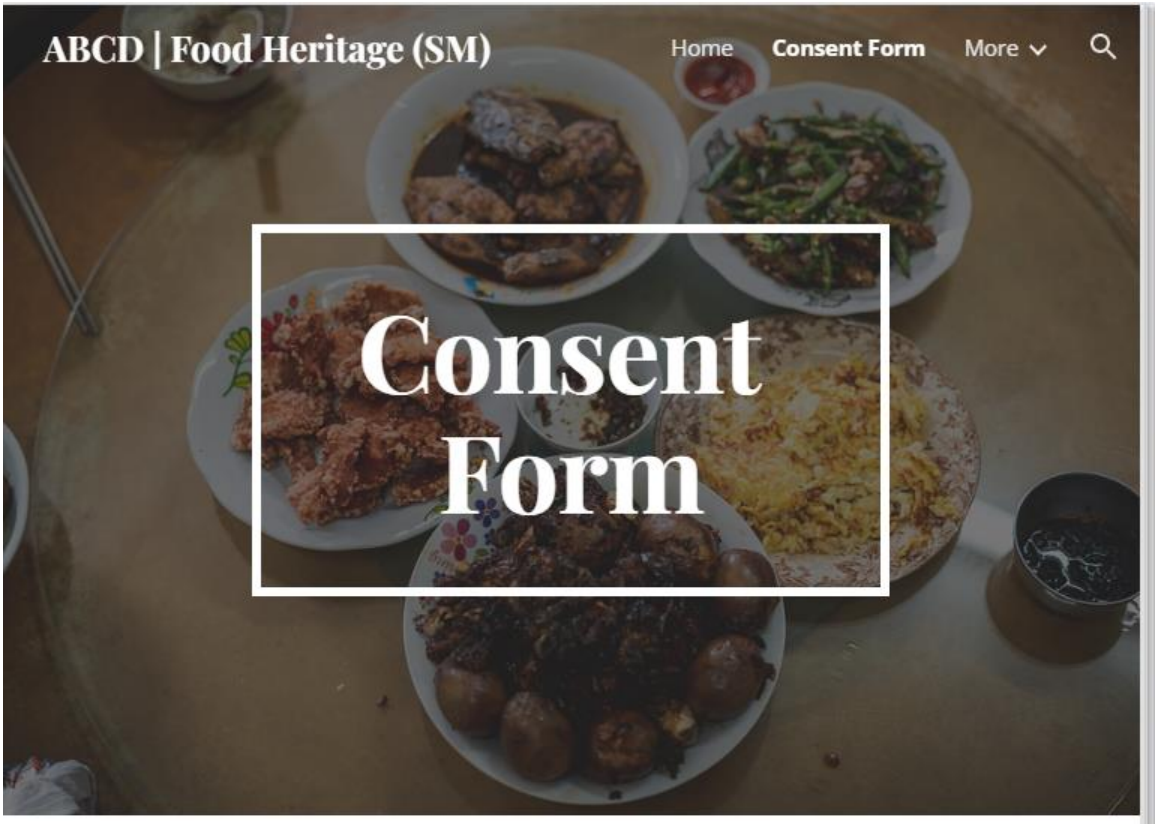
Webpage (Splash Page)

For access to an example Webpage:

https://sites.google.com/umsystem.edu/abcdfoodheritagesm/




ABCD | Food Heritage (SM)
Home
Consent Form
More
For many, the old adage "you are what you eat" rings true. In this dissertation, our team will flip that phrase on its head to instead argue that you eat what you are. We question to what lengths low-income communities can take the time to address environmental issues when the constant effects of racism and discrimination may be perceived as most vital. This mixed-methods study will employ multiple lenses to explore community knowledge of and need for environmental justice and sustainability concerning food. This dissertation describes the intersection of cultural foodways and notions of sustainability in four low-income St. Louis City families. Existing research on sustainability, food heritage, and how food heritage relates to health omits the convergence of sustainable practices and heritage foodways. Using a data triangulation approach involving surveys and case-study interviews, this project will provide a baseline for future research in this area.
Questions?
Contact our primary investigator, Amy Roznos (alrrz9@umsystem.edu), to get more information on the project.
[alrrz9@umsystem.edu] | [University of Missouri - St. Louis] | [314-800-7982 - text preferred]



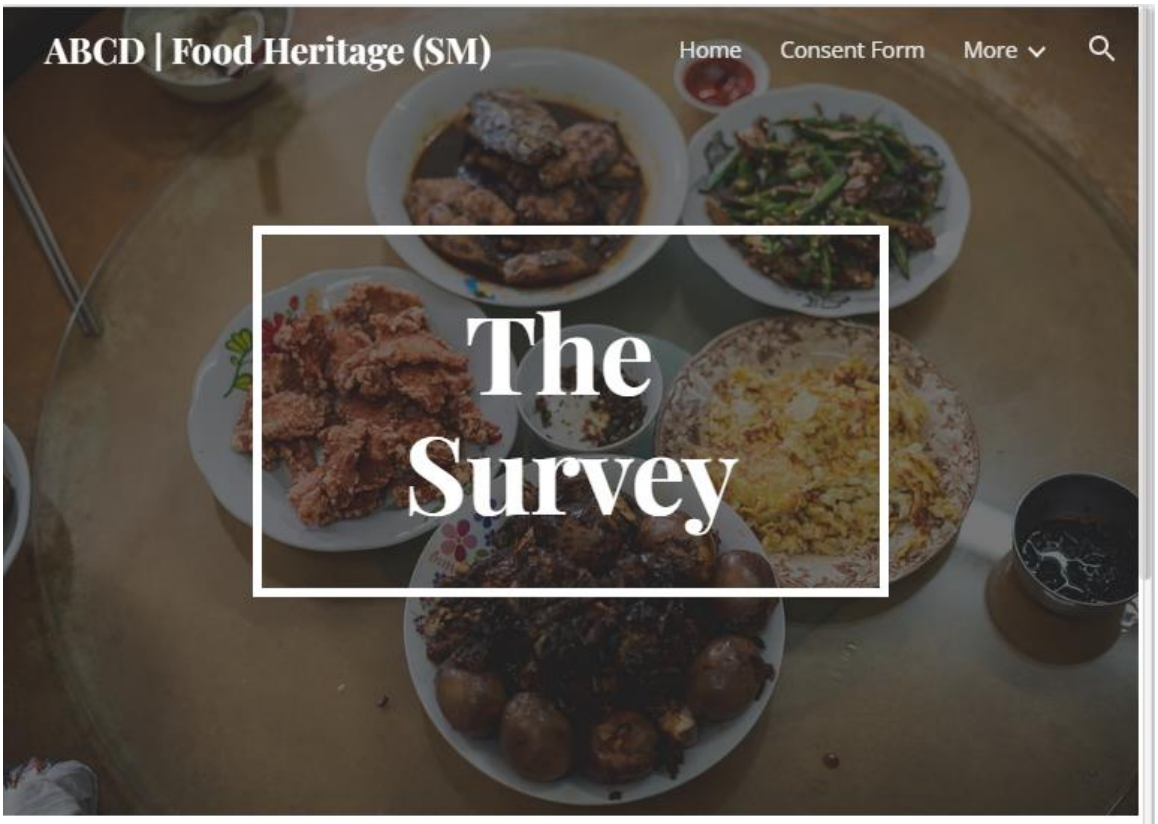
Informed Consent for Participation in Research Activities
Low-Income Food Culture Matters: Heritage and the Sustainable Dilemma

Participant #2070782 _____ HSC Approval Number:

Principal Investigator: Amy Roznos PI's Phone Number: 314-800-7982

Summary of the Study

The purpose of study is to investigate how heritage explicitly and implicitly connects to the food choices and foodways of communities in areas of St. Louis, Missouri. The purpose of this research is to understand the feelings and actions of St. Louis city residents about food, heritage and sustainability.



Food Heritage & Sustainability Survey

The form Food Heritage & Sustainability Survey is no longer accepting responses. Try contacting the owner of the form if you think this is a mistake.

Resume collecting responses (Only form editors can see this link).

Amy Roznos

Amy teachers French in the Francis Howell School District. She loves visiting new countries to experience different cultures and new foods. Originally from St. Louis County, Amy is now a proud resident of St. Louis City and enjoys the authentic Bosnian cuisine in her neighborhood. Besides traveling and eating, Amy enjoys puzzles, plants and a weekend Netflix binge. Amy holds a Bachelor's degree in French and Secondary Education and a Master's in Secondary Education. She is currently pursuing her Ed.D in Heritage Leadership for Sustainability, Social Justice, and Participatory Culture at the University of Missouri-St. Louis. Fun food fact: Amy is allergic to the skin of pecans!

Britt Tate

Britt is the art teacher at both Bryan Hill and Columbia Elementary Schools in the St Louis Public School district. Britt has a passion for urban farming, upcycling, and is a Jack-of-many-trades! Born in Illinois, but making her way to St. Louis through Chicago, Detroit and the Philadelphia area, Britt has nestled in St. Louis with her husband and three children for the long haul. Britt holds a Bachelor's of Fine Arts from Columbia College Chicago and a Master's of Fine Arts from Cranbrook Academy of Art. With the support of the Parson's Blewitt Foundation and SLPS, Britt is able to pursue her Ed.D in Heritage Leadership for Sustainability, Social Justice and Participatory Culture at UMSL. When Tate is not teaching, parenting, and dissertationing, she can be found at the Bryan Hill Outdoor Makerspace and Sound Garden in the College Hill neighborhood of north St. Louis.

Caitlin Crain

Caitlin Crain is a Spanish teacher in the Francis Howell School District. In addition, she sponsors two clubs at her school: Cultural Awareness and Spanish Honor Society. She has also held many leadership roles within the district and has won various awards for presentations at World Language conferences. Caitlin is a born and raised St. Louisan, committed to her city and her people. She is a 2012 graduate of University of Missouri-St. Louis, with a Bachelor's of Arts in Spanish, a Bachelor's of Science in Education, and a minor in Psychology. She also holds a Master's Degree in Secondary Education from the University of Missouri-St. Louis (2015). She is currently pursuing her Ed.D. in Heritage Leadership for Sustainability, Social Justice, and Participatory Culture. She is committed to continuing her learning to be a more inclusive educator, global citizen, and friend. In her free time, Caitlin enjoys spending time with friends and family, finding new creative outlets, and experiencing other cultures through travel. A personal goal of hers is to travel to all of the Spanish-speaking countries... only 13 to go!

Darius Williams

Darius' deep passion for storytelling and social advocacy has compelled him to be a service-oriented leader and active community member throughout his life. Though ever-present, this passion was ignited in undergrad at Wake Forest University where he worked on public policy and traveled as spoken word artist and lecturer. Eventually, Darius taught at an inner city private school in Mobile, AL, while earning his Master's Degree in Secondary Education and ELA from the University of Notre Dame. Today, in this same sense of purpose, Darius is a poet, writer, and speaker while also being the Executive Director of Life Arts Inc, a local arts-forward non-profit that emphasizes educational, therapeutic, and workforce development equity for middle, high-school, and pre-professional youth. In the future, he plans to develop a seasonal storytelling showcase while becoming a professor and public servant by profession. But even more important than that, Darius is a husband, friend, and soon to be father!

[alrrz9@umsystem.edu] | [University of Missouri - St. Louis] | [314-800-7982 - text preferred]

Appendix G

Annotated Survey

ANNOTATED Survey

Food Heritage and Sustainability Survey

You are invited to participate in a research study about your food culture and practices, as well as your environmental beliefs and practices, through our Food Heritage & Sustainability Survey. The goal of this research study is to understand your thoughts, habits, and opinions about food and sustainability. This study is being conducted by UMSL doctoral students Caitlin Crain, Amy Roznos, Britt Tate, and Darius Williams.

Participation in this study is voluntary. Participating in this study may not benefit you directly, but it will help us learn more about food and sustainability in St. Louis City and County. The information you will share with us if you participate in this study will be kept completely confidential to the full extent of the law. By completing this survey, you are consenting to participate in this study. All of your answers will be kept completely confidential.

The first portion of this survey asks for optional contact information. You need only provide this information if you are interested in continuing with the study into round 2. If you choose to provide our research team with your contact information, that information will be kept completely confidential.

Please be as honest as you can. We expect that this survey will take you about 15-20 minutes to complete.

SECTION 1

1. What zip code do you live in? * ***(ZIPCODE) B***
2. How did you hear about this survey? *Mark only one oval. **(Referral 1) C**
   - International Institute
   - Heru Farms
   - Seed St. Louis
   - New Roots Urban Farm
   - STL City Foodbank
   - Welcome Neighbor STL
   - My alderperson
   - Social Media (Facebook group, a tweet, etc.) My church
   - An educational institution (SLPS, UMSL, etc.)
   - Other:

SECTION 2

Optional Round 2 Participation

This portion of this survey asks for optional contact information. You need only provide this information if you are interested in continuing with the study into round 2. Round 2 consists of two interview sessions that will be conducted in-person or virtually.

If you choose to provide our research team with your contact information, that information will be kept completely confidential and will be removed and stored in a different location from your survey answers. If you choose not to provide your contact information, your survey results will be confidential.

1. Are you interested in participating in Round 2?
   - Yes
   - Not at this time.

SECTION 3

Contact Information

Please provide your contact information here and a member of the research team will be in contact when selections for round 2 are made. Thank you so much for your interest in this portion of our study.

1. Name
2. Email Address
3. Phone Number
4. How would you prefer to be contacted?
    - Email
    - Phone Call
    - Text Message

SECTION 4

I eat what I eat ***(Renner et at., 2012, Why we eat what we eat: The Eating Motivation Survey)***

Questions with * were modified from Renner et al.

Questions with ** were added by the researchers

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. because I think it is delicious. ***(Liking 1)***
2. because I eat it regularly. ***(Habits 1)****
3. because it is quick to prepare. ***(Convenience 1)***
4. to maintain a balanced diet. ***(Health 3)***
5. because I am craving it. ***(Liking 2)***
6. because I am accustomed to eating it. ***(Habits 2)***
7. because it is healthy. ***(Health 1)***
8. because it is easy to prepare. ***(Convenience 3)***
9. in order to treat/reward myself. ***(Personal Experience 1)***
10. because it tastes good. ***(Liking 3)***
11. because it is an intentional part of my diet.***(Habits 3)****
12. in order to fulfill my needs for nutrients, vitamins, and minerals. ***(Health 2)***
13. because it is readily available. ***(Convenience 4)***
14. because I enjoy trying new foods. ***(Personal Experience 2)*****
15. because I am familiar with it. ***(Habits 4)***
16. because I am hungry. ***(Needs & Hunger 1)***
17. because it is the most convenient. ***(Convenience 2)***

SECTION 5

I eat what I eat ***(Renner et at., 2012, Why we eat what we eat: The Eating Motivation Survey)***

Questions with * were modified from Renner et al.

Questions with ** were added by the researchers

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. because it is produced in a way that is humane to animals. ***(Natural Concerns 1)***
2. because it is natural. ***(Sustainability 1)***
3. so that I can spend time with other people. ***(Sociability 1)***
4. because it is worth spending extra money for higher quality (organic, supporting local, special occasions, etc.) ***(Price 1)****
5. because the packaging is appealing. ***(Visual Appeal 1)***
6. because it is organic/fair trade. ***(Natural Concerns 3)***
7. because it contains no harmful substances (pesticides, pollutants, antibiotics, hormones, etc.). ***(Sustainability 2)***
8. because it is inexpensive. ***(Price 2)***
9. because it spontaneously appeals to me or a household member. ***(Visual Appeal 2)***

10. because it has environmentally friendly packaging. ***(Sustainability 3)***
11. because it is on sale. ***(Price 3)***
12. because it is produced in a way that is respectful to animals' rights. ***(Natural Concerns 2)***
13. because it has traveled less than 50 miles from where it was grown. ***(Sustainability 4)*****
14. because it makes social gatherings more enjoyable. ***(Sociability 2)***
15. because it is covered by EBT, SNAP, and/or WIC benefits. ***(Price 6)*****
16. because I recognize it from advertisements. ***(Visual Appeal 4)***
17. because it is free. ***(Price 5)***
18. in order to avoid food waste. ***(Sustainability 6)*****
19. because it is nicely presented or advertised (plating, displays, commercials, photographs). ***(Visual Appeal 3)***
20. in order to help the environment by avoiding animal products. ***(Sustainability 5)*****
21. because it is a good value for the money. ***(Price 4)***

SECTION 6

I eat what I eat ***(Renner et at., 2012, Why we eat what we eat: The Eating Motivation Survey)***

Questions with * were modified from Renner et al.

Questions with ** were added by the researchers

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. because I want to lose weight. ***(Weight Control 1)***
2. because it would be impolite not to eat it. ***(Social Norms 1)***
3. because it is low in calories. ***(Weight Control 2)***
4. because my doctor says I should eat it. ***(Social Norms 2)***
5. in order to maintain/achieve my ideal weight. ***(Weight Control 3)****
6. as a distraction. ***(Affect Regulation 1)***
7. because it is provided at a celebration (wedding, party, event). ***(Social Norms 3)*****
8. because I'm trying to make myself feel better. ***(Affect Regulation 2)****
9. because it is in harmony with my religious views. ***(Heritage/Culture 1)*****

SECTION 7

I eat what I eat ***(Renner et at., 2012, Why we eat what we eat: The Eating Motivation Survey)***

Questions with * were modified from Renner et al.

Questions with ** were added by the researchers

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. as part of family traditions. ***(Traditional Eating 2)***
2. because it is important to my legacy (for future generations). ***(Heritage/Culture 2)*****
3. as part of holidays. ***(Traditional Eating 3)****
4. because it is important to my personal culture. ***(Heritage/Culture 7)*****
5. as part of special celebrations and/or occasions. ***(Traditional Eating 4)***
6. because it fits the season. ***(Traditional Eating 5)***
7. because it is important to my current household culture. ***(Heritage/Culture 3)*****
8. because it is what people eat where my family comes from. ***(Heritage/Culture 5)*****
9. because it belongs to certain situations. ***(Traditional Eating 1)***
10. because it reminds me of my childhood. ***(Heritage/Culture 4)*****
11. because heritage and culture are of no concern to my food choices. ***(Heritage/Culture 6)*****

SECTION 8

I eat what I eat

All questions are added by the researchers in the style of Renner et at., 2012, Why we eat what we eat: The Eating Motivation Survey

Indicate the frequency (from 1-7) of your eating habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. because it is important to eat food that I've grown myself. ***(Growing/Local Food 1)***
2. because it is considered to be special. ***(Social Image 2)***
3. because I prefer to support minority or immigrant owned businesses. ***(Social Justice/Conscious Consumerism 1)***
4. because I enjoy gardening. ***(Growing/Local Food 2)***
5. because it is a name brand. ***(Social Image 1)***
6. because it is what my community garden grows or what my neighbor/friend grows in their garden. ***(Growing/Local Food 3)***
7. because I prefer to shop at local food markets. ***(Growing/Local Food 4)***
8. because I prefer to protect the environment. ***(Social Justice/Conscious Consumerism 2)***
9. because I know the farmer/grocer. ***(Growing/Local Food 5)***
10. because I want to support smaller/local businesses. ***(Social Justice/Conscious Consumerism 3)***
11. because I prefer to shop at businesses who support social platforms I believe in (BLM, LGBTQIA+, etc.) ***(Social Justice/Conscious Consumerism 4)***

SECTION 9

Sustainable Consumer Habits (SCH)

Questions 1-3 added by researchers. Questions 4-12 from Markle, 2013 Pro-Environmental Behavior Scale (p. 909). Questions with * have been modified from Markle.

Indicate the frequency (from 1-7) in which you participate in the following activities. IndicSCH3ate the frequency (from 1-7) of your habits and beliefs. If you are completing this survey on a mobile device you may need to scroll or turn your phone landscape to see all 7 options.

1. How often do you bring reusable grocery bags to the store? ***(SCH 1)***
2. How often do you recycle? ***(SCH 2)***
3. How often do you compost food waste? ***(SCH 3)***
4. How frequently do you watch television programs, movies, or internet videos about environmental issues? ***(SCH4)***
5. How often do you talk to others about their environmental behavior? ***(SCH 5)***
6. How often do you turn off the lights when leaving a room? ***(SCH6)***
7. How often do you cut down on heating or air conditioning to limit energy use? (***SCH 7)***
8. How often do you turn off the TV when leaving a room? ***(SCH 8)***
9. How often do you limit your time in the shower in order to conserve hot water? ***(SCH9)***
10. How often do you wait until you have a full load to use the washing machine or dishwasher? ***(SCH10)***
11. How often do you wash your clothes with cold water? ***(SCH11)****
12. During the past three years, how often have you car-pooled? ***(SCH12)****
13. During the past three years, how often have you used public transportation? ***(SCH13)****
14. During the past three years, how often have you walked or cycled instead of driving? ***(SCH 14)****
15. Have you ever considered purchasing an electric or hybrid vehicle? ***(SCH 15)****

SECTION 10

Sustainable and Food Consumer Habits *(SCH_Food)*

Questions 5 & 6 added by researchers. Other questions from Markle, 2013 Pro-Environmental Behavior Scale (p. 909). Questions with * have been modified from Markle.

Indicate the answers to the following questions.

1. If you own a vehicle, is it hybrid or electric? ***(SCH_Food 1)***
    a. Yes

b. No
c. I do not own a vehicle.

2. Over time, have you decreased the amount of beef you consume?***(SCH_Food 2)***
   a. Yes
   b. No
   c. I do not eat beef.
3. Over time, have you decreased the amount of pork you consume? ***(SCH_Food 3)***
   a. Yes
   b. No
   c. I do not eat pork.
4. Over time, have you decreased the amount of poultry you consume? ***(SCH_Food 4)***
   a. Yes
   b. No
   c. I do not eat poultry.
5. Over time, have you decreased the amount of fish/seafood you consume? ***(SCH_Food 5)***
   a. Yes
   b. No
   c. I do not eat fish/seafood.
6. Over time, have you decreased the amount of dairy products you consume? ***(SCH_Food 6)***
   a. Yes
   b. No
   c. I do not eat dairy products.
7. Over time, have you increased the amount of fruits and vegetables you consume? ***(SCH_Food 7)****
   a. Yes
   b. No
   c. I do not eat fruits and vegetables.
8. Over time, have you increased the amount of organically-grown or locally-grown fruits and vegetables you consume? ***(SCH_Food 8)****
   a. Yes
   b. No
   c. I always eat organically grown or locally grown fruits and vegetables, so there has been no increase.

SECTION 11

Environmental Values ***(EV)***

(de Groot & Steg, 2007, Biospheric, Altruistic, and Egoistic Values measurement items)

Indicate the importance of the following in your life. (Likert: 1=NOT at all important to my life [leftmost circle], 2=[2nd circle from left], 3=[3rd circle from left], 4=[4th circle from left], 5=[5th circle from left], 6=[6th circle from left], 7=Of supreme importance to my life)

1. Preventing pollution. ***(EV 1)***
2. Being influential: having an impact on people and events. ***(EV 2)***
3. Being helpful: working for the welfare of others. ***(EV 3)***
4. Protecting the environment: preserving nature. ***(EV 4)***
5. Social justice: correcting injustice, caring for the weak. ***(EV 5)***
6. Equality: equal opportunity for all. ***(EV 6)***
7. Respecting the earth: live in harmony with other species. ***(EV 7)***
8. A world at peace: free of war and conflict. ***(EV 8)***
9. Wealth: having material possessions, money. ***(EV 9)***
10. Authority: the right to lead or command. ***(EV 10)***
11. Unity with nature: fitting into nature. ***(EV 11)***

SECTION 12

Caring for the Environment

Questions 12, 14 & 15 added by researchers

Questions 1-6 (Dunlap et al., 2000, Revised NEP Scale—ecological worldview measurement items)

Questions 7-9 (Ryan & Spash, 2012, The Awareness of Consequence Scale)

Questions 10, 11 & 13 (Steg et al., 2007, Ascription of Responsibility and Personal Norms measurement items)

Questions with * have been modified from the respective researchers

Indicate your level of agreement with the following statements. (1=Strongly disagree [leftmost circle], 2=[2nd circle from left], 3=[3rd circle from left], 4=Neutral/Undecided[4th circle from left], 5=[5th circle from left], 6=[6th circle from left], 7=Strongly Agree [rightmost circle].):

1. Humans have the right to modify the natural environment to suit their needs. ***(CE 1)***
2. When humans interfere with nature it often produces negative consequences. ***(CE 2)***
3. Humans will figure out a way to avoid the consequences of climate change. ***(CE 3)****
4. Humans are not taking care of the environment. ***(CE 4)****
5. The earth has plenty of natural resources. ***(CE 5)***
6. The dangers of climate change are exaggerated. ***(CE 6)****
7. Protecting the environment will threaten jobs for people like me. ***(CE 7)***
8. Environmental protection benefits everyone. ***(CE 8)***
9. Laws to protect the environment limit my choice and personal freedoms. ***(CE 9)***
10. I feel like I should think about the environment on a daily basis. ***(CE 10)****
11. I do not feel guilty at all when I buy vegetables and fruit from other states or other countries. ***(CE 11)****
12. I feel guilty when I have to throw food away/waste food. ***(CE 12)***
13. I feel better about myself when I save energy. ***(CE 13)****
14. I wish I could do more to reverse climate change. ***(CE 14)***
15. If I had more resources (money, time, energy, etc.), sustainability and sustainable practices would mean more to me. ***(CE 15)***

SECTION 13

Demographic Information *(U.S. Census)*

As a reminder, all information shared in this survey will be kept confidential. Your answers to these questions will not affect your current or future government benefits.

1. What is your age? ***(AGE)***

- Under 18
- 18-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65 + years

2. What is your gender identity? ***(GENDER)***

- Male
- Female
- Non-binary
- Prefer not to answer
- Other: _____

3. What is your ethnicity? (Check all that apply.) ***(ETHNICITY)***

- Caucasian
- African-American
- Latino or Hispanic

- Asian
- Native American
- Native Hawaiian or Pacific Islander
- Other: _____
- Unknown
- Prefer not to say

4. What is the highest grade of school or year of college you have completed? ***(EDU)***

- Some elementary school
- Elementary school
- Some Upper School
- High School/GED
- Some college or Associate's degree
- Bachelor's Degree
- Master's, Doctoral or professional degree
- Trade School
- Prefer not to say

5. What is your household income? ***(INCOME)***

- Less than $10,000
- $11,000 - $20,000
- $21,000 - $30,000
- $31,000 - $40,000
- $41,000 - $50,000
- $51,000 - $60,000
- $61,000 - $70,000
- $71,000 - $80,000
- $81,000 - $90,000
- $91,000 - $100,000
- More than $100,000
- Prefer not to say

6. Of those household members in school, do they receive Free/Reduced lunch? ***(LUNCH)***

- Yes
- No
- Prefer not to say

7. Do you currently or have you previously qualified for SNAP/EBT/WIC benefits? ***(SNAP)***

- Yes
- No
- Never applied
- Unsure if we qualify
- Prefer not to answer

8. Languages Spoken (Check all that apply) ***(LANG)***

- English
- Spanish
- Portuguese
- French
- Mandarin
- Arabic
- Other: _____
- Prefer not to say

Appendix H

Translations of Survey Instrument

French Translation

Sondage sur l'héritage alimentaire et la durabilité

Vous êtes invité à participer à une étude de recherche sur votre culture et vos pratiques alimentaires, ainsi que sur vos croyances et pratiques environnementales, en utilisant notre sondage sur l'héritage alimentaire et la durabilité. L'objectif de cette étude de recherche est de comprendre vos pensées, vos habitudes et vos opinions sur la nourriture et la durabilité. Cette étude est menée par les doctorants de l'UMSL Caitlin Crain, Amy Roznos, Britt Tate et Darius Williams.

La participation à cette étude est volontaire. Participer à cette étude ne vous sera pas directement bénéfique, mais cela nous aidera à en savoir plus sur la nourriture et la durabilité dans la ville et le comté de St. Louis. Les informations que vous partagerez avec nous si vous participez à cette étude resteront totalement confidentielles à l'étendue réelle de la loi. En remplissant ce sondage, vous consentez à participer à cette étude. Toutes vos réponses resteront strictement confidentielles.

La première partie de cette enquête demande des informations de contact facultatives. Vous ne devez fournir ces informations que si vous êtes intéressé à poursuivre l'étude dans la deuxième phase. Si vous choisissez de fournir à notre équipe de recherche vos coordonnées, ces informations resteront totalement confidentielles.

Veuillez être aussi honnête que possible. Nous prévoyons que ce sondage vous prendra environ 15 à 20 minutes à remplir.

Dans quel code postal habitez-vous ?

Comment avez-vous entendu parler de cette enquête ?

- International Institute
- Heru Farms
- Seed St. Louis
- New Roots Urban Farm
- STL City Foodbank
- Bienvenue Voisin STL
- Mon échevin
- Médias sociaux (une groupe Facebook, un tweet, etc.)
- Mon église
- Un établissement d'enseignement (SLPS, UMSL, etc.)
- Autre…

« Je mange ce que je mange… »
Indiquez la fréquence (de 1 à 7) de
vos habitudes et croyances alimentaires. Si vous répondez à cette enquête sur un appareil mobile, vous devrez peut-être faire défiler ou tourner votre téléphone au mode paysage pour voir toutes les 7 options.
Aimer

1. parce que je pense que c'est délicieux
2. parce que j'en ai envie
3. parce que c'est bon

Habitudes

4. parce que j'en mange régulièrement
5. parce que j'ai l'habitude d'en manger
6. parce que c'est une partie intentionnelle de mon alimentation
7. parce que je le connais

Besoin & Faim

8. parce que j'ai faim

Santé

9. parce que c'est sain
10. pour répondre à mes besoins en nutriments, vitamines et minéraux

Commodité

11. parce qu'il est rapide à préparer
12. parce que c'est le plus pratique
13. parce qu'il est facile à préparer
14. parce qu'il est immédiatement réalisable (par exemple il est proche, offert par quelqu'un).

Expérience personnelle

15. pour me faire plaisir
16. parce que j'aime essayer de nouveaux aliments

Intérêts naturels

17. parce qu'il est produit d'une manière qui est humaine pour les animaux
18. parce qu'il est produit d'une manière qui respecte les droits des animaux
19. parce qu'il est biologique
20. parce qu'il est commerce équitable

Durabilité

21. parce qu'il est naturel (par exemple, non génétiquement modifié)
22. parce qu'il ne contient pas de substances nocives (par exemple, pesticides, polluants, antibiotiques, hormones)
23. parce qu'il est respectueux de l'environnement y l'emballage
24. parce qu'il a parcouru moins de 50 miles de l'endroit où il a été cultivé
25. pour aider l'environnement en évitant tous les produits d'origine animale
26. pour éviter le gaspillage alimentaire

La sociabilité

27. pour que je puisse passer du temps avec d'autres personnes
28. parce que cela rend une réunion sociale plus agréable

Le prix

29. parce que ça vaut le coup de dépenser de l'argent supplémentaire pour une qualité supérieure (bio, occasion spéciale, supporter du coin)
30. parce que c'est peu cher
31. parce que c'est en solde
32. parce que c'est une bonne valeur pour le prix
33. parce que c'est gratuit
34. parce que c'est couvert par EBT/SNAP /WIC

L'attrait visuel

35. parce que l'emballage est attirant
36. parce qu'il m'attire spontanément/m'attire les membres de la famille (par exemple, situé à hauteur des yeux, couleurs attrayantes)
37. parce qu'il est joliment présenté ou annoncé (placage, présentoirs, publicités, panneaux d'affichage, menus, photographies)
38. parce que Je le reconnais dans les publicités ou je l'ai vu à la télévision

Contrôle du poids

39. parce que je veux perdre du poids

40. parce qu'il contient peu de calories
41. pour maintenir/atteindre mon poids idéal

La régulation d'affect

42. comme une distraction
43. parce que j'essaie de me sentir mieux

Normes sociales

44. parce qu'il serait impoli de ne pas en manger
45. parce que mon médecin dit que je devrais en manger
46. parce qu'il est fourni lors d'une célébration (mariage, fête, fête prénatale, événement)

Héritage/ Culture

47. parce que c'est en harmonie avec mes opinions religieuses
48. parce que c'est important pour mon héritage (pour les générations futures, etc.)
49. parce que c'est important pour ma culture familiale actuelle
50. parce qu'il me rappelle mon enfance
51. parce que c'est ce que les gens mangent là d'où vient ma famille
52. parce que c'est différent de ce que je mangeais dans mon enfance
53. parce que la culture et l'héritage ne tiennent aucun importances dans mes choix alimentaires

Manger traditionnellement

54. parce qu'il appartient à certaines situations
55. dans le cadre des traditions familiales
56. dans le cadre des vacances
57. dans le cadre d'occasions spéciales/célébrations
58. parce que ça correspond à la saison

Cultiver/La nourriture local

59. parce qu'il est important de manger de la nourriture J'ai cultivé moi-même
60. parce que j'aime jardiner
61. parce que c'est ce que mon jardin communautaire fait pousser
62. parce que je préfère faire du shopping au marchés de la nourriture au coin
63. parce qu'un voisin/ami me l'a donné de son jardin
64. parce que je connais l'agriculteur/producteur

Image sociale

65. à cause de son nom de marque
66. parce qu'il est considéré spécial

Justice sociale spéciale/consommation consciente

67. parce que je préfère soutenir les entreprises appartenant à des minorités
68. parce que je préfère soutenir les entreprises appartenant à des immigrants
69. parce que je préfère protéger l'environnement
70. parce que je veux soutenir les petites entreprises
71. parce que je veux soutenir les entreprises locales
72. parce que je préfère acheter chez des entreprises qui soutiennent les plateformes sociales auxquelles je crois (BLM, LGBTQIA+, etc.)

Habitudes de consommation durables . Indiquez la fréquence (de 1 à 7) à laquelle vous participez aux activités suivantes. Si vous répondez à cette enquête sur un appareil mobile, vous devrez peut-être faire défiler ou tourner votre téléphone au mode paysage pour voir toutes les 7 options.

1. À quelle fréquence apportez-vous des sacs d'épicerie réutilisables au magasin ?
2. À quelle fréquence recyclez-vous ?
3. À quelle fréquence compostez-vous les déchets alimentaires ?

4. À quelle fréquence regardez-vous des programmes télévisés, des films ou des vidéos Internet sur des questions environnementales ?
5. À quelle fréquence parlez-vous aux autres de leur comportement environnemental ?
6. À quelle fréquence éteignez-vous les lumières en quittant une pièce ?
7. À quelle fréquence réduisez-vous le chauffage ou la climatisation pour limiter la consommation d'énergie ?
8. À quelle fréquence éteignez-vous la télévision lorsque vous quittez une pièce ?
9. À quelle fréquence limitez-vous votre temps sous la douche afin d'économiser l'eau chaude ?
10. À quelle fréquence attendez-vous d'avoir une machine complète pour utiliser la machine à laver ou le lave-vaisselle ?
11. A quelle fréquence lavez-vous vos vêtements à l'eau froide ?
12. Au cours des trois dernières années, combien de fois avez-vous fait du covoiturage ?
13. Au cours des trois dernières années, à quelle fréquence avez-vous utilisé les transports en commun ?
14. Au cours des trois dernières années, combien de fois avez-vous marché ou fait du vélo au lieu de conduire ?
15. Avez-vous déjà pensé à acheter un véhicule électrique ou hybride ?

Habitudes de consommation durables et alimentaires. Indiquez les réponses aux questions suivantes.

1. Si vous possédez un véhicule, est-il hybride ou électrique ?
a. Oui
b. Non
c. Je ne possède pas de véhicule.
2. Au fil du temps, avez-vous diminué la quantité de bœuf que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de bœuf.
3. Au fil du temps, avez-vous diminué la quantité de porc que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de porc.
4. Au fil du temps, avez-vous diminué la quantité de volaille que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de volaille.
5. Au fil du temps, avez-vous diminué la quantité de poisson/fruits de mer que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de poisson/fruits de mer.
6. Au fil du temps, avez-vous diminué la quantité de produits laitiers que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de produits laitiers.
7. Au fil du temps, avez-vous augmenté la quantité de fruits et légumes que vous consommez ?
a. Oui
b. Non
c. Je ne mange pas de fruits et de légumes.
8. Au fil du temps, avez-vous augmenté la quantité de fruits et légumes issus de l'agriculture biologique ou cultivés localement que vous consommez ?
a. Oui
b. Non
c. Je mange toujours des fruits et légumes biologiques ou cultivés localement, il n'y a donc pas eu d'augmentation.

Valeurs environnementales. Indiquez l'importance des éléments suivants (de 1 à 7) dans votre vie. Si vous répondez à cette enquête sur un appareil mobile, vous devrez peut-être faire défiler ou tourner votre téléphone au mode paysage pour voir toutes les 7 options.

1. Prévenir la pollution.
2. Être influent : avoir un impact sur les gens et les événements.
3. Être utile : travailler pour le bien-être des autres.
4. Protéger l'environnement : préserver la nature.
5. Justice sociale : corriger l'injustice, prendre soin des faibles.
6. Égalité : égalité des chances pour tous.
7. Respecter la terre : vivre en harmonie avec les autres espèces.
8. Un monde en paix : sans guerre ni conflit.
9. Richesse : avoir des biens matériels, de l'argent.
10. Autorité : le droit de diriger ou de commander.
11. Unité avec la nature : s'intégrer dans la nature.

Prendre soin de l'environnement. Indiquez votre niveau d'accord (de 1 à 7) avec les déclarations suivantes. (Le marquage 4 est neutre/indécis.) Si vous répondez à cette enquête sur un appareil mobile, vous devrez peut-être faire défiler ou tourner votre téléphone au mode paysage pour voir toutes les 7 options.

1. L'homme a le droit de modifier l'environnement naturel pour l'adapter à ses besoins.
2. Quand les humains interfèrent avec la nature, il produit souvent des conséquences négatives.
3. Les humains trouveront un moyen d'éviter les conséquences du changement climatique.
4. Les humains ne prennent pas soin de l'environnement.
5. La terre a plus qu'assez de ressources naturelles.
6. Les dangers du changement climatique sont exagérés.
7. La protection de l'environnement menacera les emplois de gens comme moi.
8. La protection de l'environnement profite à tous.
9. Les lois de protection de l'environnement limitent mes choix et mes libertés personnelles.
10. J'ai l'impression que je devrais penser à l'environnement au quotidien.
11. Je ne me sens pas du tout coupable quand j'achète des légumes et des fruits d'autres états ou d'autres pays.
12. Je me sens coupable quand je dois jeter/gaspiller de la nourriture.
13. Je me sens mieux dans ma peau quand j'économise de l'énergie.
14. J'aimerais pouvoir faire plus pour inverser le changement climatique.
15. Si j'avais plus de ressources (argent, temps, énergie, etc.), la durabilité et les pratiques durables signifieraient plus pour moi.

_____

Informations démographiques

Rappellez que toutes les informations partagées dans cette enquête resteront confidentielles. Vos réponses à ces questions n'auront aucune incidence sur vos prestations gouvernementales actuelles ou futures.

Quel âge avez-vous?

- Moins de 18
- ans 18-24 ans
- 25-34 ans
- 35-44 ans
- 45-54 ans
- 55-64 ans
- 65 ans et +

Quelle est votre identité de genre ?

- Masculin
- Féminin
- Non binaire
- Préfère ne pas répondre
- Autre : _____

Quelle est votre origine ethnique ? (Cochez tout ce qui s'applique.)

- Caucasien
- Afro-Américain
- Latino ou Hispanique
- Asiatique
- Amérindien
- Amérindien Hawaïen ou insulaire du Pacifique
- Autre : _____
- Inconnu
- Préfère ne pas dire

Quelle est la plus haute année scolaire ou universitaire que vous avez complétée ?

- Une partie de l'école primaire
- L'école primaire
- Une partie école secondaire
- Lycée / GED
- Une partie de l'université
- Une license de l'université
- Maîtrise, doctorat ou diplôme professionnel
- L'école professional
- Préfère ne pas dire

Quel est le revenu de votre ménage ?

- Moins de 10 000$
- 11 000$ - 20 000$
- 21 000$ - 30 000$
- 31 000$ - 40 000$
- 41 000$ - 50 000$
- 51 000$ - 60 000$
- 61 000$ - 70 000$
- 71 000$ - 80 000$
- 81 000$ - 90 000$
- 91 000$ - 100 000$
- Plus de 100 000$
- Préfère ne pas dire

De ces membres du ménage à l'école, reçoivent-ils libres / réduits déjeuner?

- Oui
- Non
- Préfère ne pas dire

Avez-vous actuellement ou avez-vous déjà rempli les conditions requises pour les allocations SNAP/EBT/WIC ?

- Oui
- Non
- Jamais postulé
- Je ne sais pas si nous sommes éligibles
- Préfère ne pas répondre

Langues parlées (cocher tout ce qui s'applique)

- Anglais
- Espagnol

- Portugais
- Français
- Mandarin
- Arabe
- Autre : _____
- Préfère ne pas répondre

Spanish Translation

Encuesta sobre herencia y sostenibilidad alimentaria

Está invitado a participar en un estudio de investigación sobre su cultura y sus prácticas alimentarias, así como sus creencias y prácticas ambientales, a través de nuestra encuesta sobre herencia y sustentabilidad alimentaria. El objetivo de este estudio de investigación es comprender sus pensamientos, hábitos y opiniones sobre los alimentos y la sostenibilidad. Este estudio está siendo realizado por los estudiantes posgrados de la Universidad de Missouri - St. Louis Caitlin Crain, Amy Roznos, Britt Tate y Darius Williams.

Su participación en este estudio es voluntaria. Es posible que su participación en este estudio no lo beneficie directamente, pero nos ayudará a obtener más información sobre los alimentos y la sostenibilidad en la ciudad y el condado de St. Louis. La información que compartirá con nosotros si participa en este estudio se mantendrá completamente confidencial en toda la extensión de la ley. Al completar esta encuesta, usted acepta participar en este estudio. Todas sus respuestas se mantendrán completamente confidenciales.

Por favor, sea tan honesto como pueda. Anticipamos que complete esta encuesta entre 15 y 20 minutos.

¿En qué código postal vives?

¿Cómo se enteró de esta encuesta?

- Instituto Internacional
- Heru Farms
- Seed St. Louis
- New Roots Urban Farm
- STL City Foodbank
- Welcome Neighbor STL
- Mi concejal
- Redes sociales (grupo de Facebook, un tweet, etc.)
- Mi iglesia
- Una institución educativa (SLPS, UMSL, etc.)
- Otro…

“Yo como lo que como…”

Indique la frecuencia (del 1 al 7) de sus hábitos alimenticios y creencias. Si está completando esta encuesta en un dispositivo móvil, es posible que necesite desplazarse o girar su teléfono horizontalmente para ver las 7 opciones.

Gusto

1. porque creo que es delicioso
2. porque tengo antojos
3. porque sabe bien

Hábitos

4. porque lo como regularmente
5. porque estoy acostumbrado a comerlo
6. porque es una parte intencional de mi dieta

7. porque estoy familiarizado con él

Necesito & Hambre

8. porque yo tengo hambre

Salud

9. porque es saludable
10. para satisfacer mi necesidad de nutrientes, vitaminas y minerales

Conveniencia

11. porque es rápido de preparar
12. porque es el más conveniente
13. porque es fácil de preparar
14. porque está fácilmente disponible (p. ofrecido por alguien)

Experiencia personal

15. para darme un gusto
16. porque disfruto probar nuevos alimentos

Preocupaciones naturales

17. porque se produce de una manera que es humanitaria para los animales
18. porque se produce de una manera que respeta los derechos de los animales
19. porque es orgánico/de comercio justo

Sostenibilidad

20. porque es natural (p. ej. no modificado genéticamente)
21. porque no contiene sustancias nocivas (p. ej. pesticidas, contaminantes, antibióticos, hormonas)
22. porque es respetuoso con el medio ambiente y empaque
23. porque ha viajado menos de 50 millas desde donde se cultivó
24. para ayudar al medio ambiente evitando todos los productos animales
25. para evitar el desperdicio de alimentos

Sociabilidad

26. para poder pasar tiempo con otras personas
27. porque hace que una reunión social sea más agradable

Precio

28. porque vale la pena gastar dinero extra en calidad superior (orgánico, ocasión especial, local de apoyo)
29. porque es económico
30. porque está en oferta
31. porque tiene un buen valor por el dinero pagado
32. porque es gratis
33. porque está cubierto por los beneficios de EBT/SNAP/WIC

atractivo visual

34. porque el empaque es atractivo
35. porque espontáneamente me atrae a mí/miembros del hogar
36. porque está bien presentado o anunciado (platos, exhibiciones, comerciales, vallas publicitarias, menús, fotografías)
37. porque lo reconozco de los anuncios o lo he visto en la TV

Control de peso

38. porque quiero perder peso
39. porque es bajo en calorías
40. para mantener/alcanzar mi peso ideal

Regulación

41. como una distracción
42. porque estoy tratando de hacerme sentir mejor

Normas sociales

43. porque sería descortés no comerlo
44. porque mi médico dice que debo comerlo

45. porque se proporciona en una celebración (boda, despedida, fiesta, evento)

Herencia/ Cultura

46. porque está en armonía con mis puntos de vista religiosos
47. porque es importante para mi legado (para las generaciones futuras, etc.)
48. porque es importante para la cultura de mi hogar actual
49. porque me recuerda a mi infancia
50. porque es lo que come la gente de donde viene mi familia
51. porque es diferente de lo que comía en mi infancia
52. porque la herencia y la cultura no son de importancia en mis elecciones de alimentos

Comida tradicional

53. porque pertenece a ciertas situaciones
54. como parte de las tradiciones familiares
55. como parte de las festividades
56. como parte de celebraciones/ocasiones especiales
57. porque encaja la temporada

Cultivo/Alimentos locales

58. porque es importante comer alimentos que he cultivado yo mismo
59. porque disfruto de la jardinería
60. porque es lo que cultiva mi jardín comunitario
61. porque prefiero comprar en el mercado de alimentos locales
62. porque un vecino/amigo me lo dio de su jardín
63. porque conozco al agricultor/cultivador

Imagen social

64. por su marca
65. porque se considera especial

Justicia social/consumismo consciente

66. porque prefiero apoyar negocios poseídos de minorías
67. porque prefiero apoyar a los negocios poseídos de inmigrantes
68. porque prefiero proteger el medio ambiente
69. porque quiero apoyar a los negocios más pequeños
70. porque quiero apoyar a los negocios locales
71. porque prefiero comprar en negocios que apoyan las plataformas sociales en las que creo (BLM, LGBTQIA+, etc.)

Hábitos de consumo sostenibles . Indique la frecuencia (del 1 al 7) con la que participa en las siguientes actividades. Indique la frecuencia (del 1 al 7) de sus hábitos alimentarios y creencias. Si está completando esta encuesta en un dispositivo móvil, es posible que deba desplazarse o girar el paisaje de su teléfono para ver las 7 opciones.

1. ¿Con qué frecuencia lleva bolsas de supermercado reutilizables a la tienda?
2. ¿Con qué frecuencia reciclas?
3. ¿Con qué frecuencia composta los residuos de alimentos?
4. ¿Con qué frecuencia ve programas de televisión, películas o videos de Internet sobre temas ambientales?
5. ¿Con qué frecuencia habla con otros sobre su comportamiento ambiental?
6. ¿Con qué frecuencia apaga las luces al salir de una habitación?
7. ¿Con qué frecuencia reduce la calefacción o el aire acondicionado para limitar el uso de energía?
8. ¿Con qué frecuencia apaga la televisión al salir de una habitación?
9. ¿Con qué frecuencia limita su tiempo en la ducha para conservar el agua caliente?
10. ¿Con qué frecuencia espera hasta tener una carga completa para usar la lavadora o el lavaplatos?
11. ¿Con qué frecuencia lava su ropa con agua fría?
12. Durante los últimos tres años, ¿con qué frecuencia ha compartido coche?
13. Durante los últimos tres años, ¿con qué frecuencia ha utilizado el transporte público?

14. Durante los últimos tres años, ¿con qué frecuencia ha caminado o andado en bicicleta en lugar de conducir?
15. ¿Se ha planeado alguna vez adquirir un vehículo eléctrico o híbrido?

Sustentabilidad y Hábitos de Consumo Alimentario. Indique las respuestas a las siguientes preguntas.

1. Si tienes un vehículo, ¿es híbrido o eléctrico?
a. Sí
b. No
c. No tengo vehículo.
2. Con el tiempo, ¿ha disminuido la cantidad de carne de res que consume?
a. Sí
b. No
c. No como carne de res.
3. Con el tiempo, ¿ha disminuido la cantidad de carne de cerdo que consume?
a. Sí
b. No
c. No como carne de cerdo.
4. Con el tiempo, ¿ha disminuido la cantidad de aves de corral que consume?
a. Sí
b. No
c. No como aves de corral.
5. Con el tiempo, ¿ha disminuido la cantidad de pescado/marisco que consume?
a. Si
b. No
c. No como pescados/mariscos.
6. Con el tiempo, ¿ha disminuido la cantidad de productos lácteos que consume?
a. Sí
b. No
c. No como productos lácteos.
7. Con el tiempo, ¿ha aumentado la cantidad de frutas y verduras que consume?
a. Sí
b. No
c. No como frutas y verduras.
8. Con el tiempo, ¿ha aumentado la cantidad de frutas y verduras cultivadas orgánicamente o cultivadas localmente que consume?
a. Sí
b. No
c. Siempre como frutas y verduras cultivadas orgánicamente o cultivadas localmente, por lo que no ha habido un aumento.

Valores Ambientales. Indique la importancia de lo siguiente (del 1 al 7) en su vida. Si está completando esta encuesta en un dispositivo móvil, es posible que deba desplazarse o girar el paisaje de su teléfono para ver las 7 opciones.

1. Prevención de la contaminación.
2. Ser influyente: tener un impacto en las personas y los eventos.
3. Ser útil: trabajar por el bienestar de los demás.
4. Proteger el medio ambiente: preservar la naturaleza.
5. Justicia social: corregir la injusticia, cuidar a los débiles.
6. Igualdad: igualdad de oportunidades para todos.
7. Respetar la tierra: vivir en armonía con otras especies.
8. Un mundo en paz: libre de guerras y conflictos.
9. Riqueza: tener posesiones materiales, dinero.
10. Autoridad: el derecho de dirigir o mandar.

11. Unidad con la naturaleza: encajar en la naturaleza.

Preocupación por el medio ambiente. Indique su nivel de acuerdo (del 1 al 7) con las siguientes afirmaciones. (Marcar 4 es neutral/indeciso). Si está completando esta encuesta en un dispositivo móvil, es posible que deba desplazarse o girar el paisaje de su teléfono para ver las 7 opciones.

1. Los seres humanos tienen derecho a modificar el entorno natural para adaptarlo a sus necesidades.
2. Cuando los humanos interfieren con la naturaleza, a menudo producen consecuencias negativas.
3. Los seres humanos encontrarán una manera de evitar las consecuencias del cambio climático.
4. Los seres humanos no están cuidando el medio ambiente.
5. La tierra tiene muchos recursos naturales.
6. Los peligros del cambio climático son exagerados.
7. Proteger el medio ambiente amenazará los trabajos de personas como yo.
8. La protección del medio ambiente beneficia a todos.
9. Las leyes para proteger el medio ambiente limitan mis opciones y libertades personales.
10. Siento que debería pensar en el medio ambiente todos los días.
11. No me siento culpable en absoluto cuando compro verduras y frutas de otros estados o de otros países.
12. Me siento culpable cuando tengo que tirar/desperdiciar comida.
13. Me siento mejor conmigo mismo cuando ahorro energía.
14. Ojalá pudiera hacer más para revertir el cambio climático.
15. Si tuviera más recursos (dinero, tiempo, energía, etc.), la sustentabilidad y las prácticas sustentables significarían más para mí.

_____

Información demográfica

Como recordatorio, toda la información compartida en esta encuesta se mantendrá confidencial. Sus respuestas a estas preguntas no afectarán sus beneficios gubernamentales actuales o futuros.

¿Cuál es su edad?

- Menor de 18 años
- 18-24 años
- 25-34 años
- 35-44 años
- 45-54 años
- 55-64 años
- 65+ años

¿Cuál es su identidad de género?

- Masculino
- Femenino
- No binario
- Prefiero no contestar
- Otro: _____

¿Cuál es su origen étnico? (Marque todo lo que corresponda.)

- Caucásico
- Afroamericano
- Latino o hispano
- Asiático
- Nativo americano
- Nativo de Hawái o de las islas del Pacífico
- Otro: _____
- Desconocido
- Prefiero no especificar

¿Cuál es el grado escolar o año universitario más alto que ha completado?

- Parte de la escuela primaria
- Escuela primaria
- Parte superior
- Escuela secundaria/GED
- Parte de la universidad o título de asociado
- Licenciatura
- Maestría, doctorado o título profesional
- Escuela
- Prefiero no responder

¿Cuál es el ingreso de su hogar?

- Menos de $ 10.000
- $ 11.000 - $ 20.000
- $ 21.000 - $ 30.000
- $ 31.000 - $ 40.000
- $ 41.000 - $ 50.000
- $ 51.000 - $ 60.000
- $ 61.000 - $ 70.000
- $ 71.000 - $ 80.000
- $ 81.000 - $ 90.000
- $ 91.000 - $ 100.000
- Más de $ 100.000
- Prefiero no decir

de esos miembros del hogar en la escuela, ¿reciben gratis / reducido? ¿comida?

- Sí
- No
- Prefiero no decir

¿Califica actualmente o calificó previamente para los beneficios de SNAP/EBT/WIC?

- Sí
- No
- Nunca apliqué
- No estoy seguro si calificamos
- Prefiero no responder

Idiomas hablados (encierre en un círculo todos los que correspondan)

- Inglés
- Español
- Portugués
- Francés
- Mandarín
- Árabe
- Otro: _____
- Prefiero no decirlo

Arabic Translation

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ata
MEMBER #263976

استبيان حول التراث الغذائي والاستدامة

انت مدعو للمشاركة في دراسة بحثية حول ثقافتك وممارساتك الغذائية، إلى جانب معتقداتك وممارساتك البيئية، من خلال إجابتك على هذا الاستبيان حول التراث الغذائي والاستدامة. الهدف من هذه الدراسة البحثية هو فهم أفكارك وعاداتك واختياراتك فيما يتعلق بالغذاء والاستدامة. يتولى إجراء هذه الدراسة البحثية طلاب الدكتوراة بجامعة ميسوري سانت لويس: كيتلين كرين وإيمي روزنوس ويريت تيت وداريوس ويليامز.

المشاركة في هذه الدراسة البحثية تطوعية، وقد لا تعود مشاركتك فيها عليك بفائدة مباشرة، لكنها ستساعدك في معرفة الكثير عن الغذاء والاستدامة في مقاطعة ومدينة سانت لويس. ستحفظ البيانات التي سنزودنا بها عند مشاركتك في هذه الدراسة في سرية تامة إلى أقصى حد يسمح به القانون. جدير بالذكر ان إكمالك لهذا الاستبيان يعني موافقتك على المشاركة في هذه الدراسة، وجميع إجاباتك سيتم الاحتفاظ بها في سرية تامة.

هذا الجزء الأول من الاستبيان يتطلب تزويدنا ببيانات اختيارية للتواصل معك. ينبغي عليك استكمال هذه البيانات فقط إن كانت لديك رغبة في الاستمرار في هذه الدراسة والانتقال للمرحلة الثانية، وفي حال اخترت تزويد فريقنا البحثي ببيانات للتواصل معك، فإن هذه البيانات سيتم الاحتفاظ بها في سرية تامة.

من فضلك التزم الأمانة قدر المستطاع. من المتوقع أن يستغرق استكمال هذا الاستبيان حوالي 15 - 20 دقيقة.

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* حقل إلزامي

1. ما هو الرمز البريدي للمنطقة التي تعيش فيها؟ *

_____

2. كيف عرفت بشأن هذا الاستبيان؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ( ) المعهد الدولي
- ( ) مزارع هيرو
- ( ) سانت لويس للبذور
- ( ) مزرعة نيو روتس أوربان
- ( ) بنك طعام مدينة سانت لويس
- ( ) منظمة ويلكم نيبرس سانت لويس
- ( ) عضو المجلس المحلي
- ( ) وسائل التواصل الاجتماعي (مجموعة فيس بوك، تويتر، أو غيرها.)
- ( ) كنيستي
- ( ) مؤسسة تعليمية (مدارس سانت لويس العامة، جامعة ميسوري سانت لويس، أو غيرها.)
- ( ) غير ذلك: _____

اختياري: مقابلات المرحلة الثانية

هذا الجزء من الاستبيان يتناول بيانات اختيارية للتواصل معك. ينبغي عليك استكمال هذه البيانات فقط إذا كانت لديك رغبة في الاستمرار في هذه الدراسة والانتقال للمرحلة الثانية. تتكون المرحلة الثانية من مقابلتين يتم إجراؤهما بحضورك شخصيًا أو عبر الانترنت.

في حال اختيارك تزويد فريقنا البحثي ببيانات للتواصل معك، فإن هذه البيانات سيتم الاحتفاظ بها في سرية تامة وسيتم تفلها وتخزينها في مكان مختلف عن إجاباتك في الاستبيان. إذا اخترت عدم تقديم بيانات التواصل معك، فستكون نتائج استبيانك سرية.

3. هل أنت مهتم بالمشاركة في المرحلة الثانية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

نعم. *انتقل إلى سؤال رقم 4*

ليس الآن. *انتقل إلى سؤال 8*

بيانات التواصل

يُرجى إدخال بيانات التواصل معك هنا وسيقوم أحد أعضاء فريق البحث بالتواصل معك عند اختيار المشاركين في المرحلة الثانية. شكرًا جزيلاً لك على اهتمامك بهذا الجزء من الدراسة.

4. الاسم*

_____

5. البريد الإلكتروني: *

_____

6. رقم الهاتف*

_____

7. ما هي طريقة التواصل التي تفضلها؟ *

ضع علامة أمام جميع الأجوبة المناسبة

☐ البريد الإلكتروني

☐ الاتصال الهاتفي

☐ الرسائل النصية

أنا أتناول ما أتناوله ...

حدد وتيرة عاداتك ومعتقداتك الغذائية (باستخدام مقياس من 1- 7). إذا كنت تكمل هذا الجزء باستخدام الهاتف المحمول، فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

8. أنا أتناول ما أتناوله... *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

أنا أتناول
حدد وتيرة عاداتك ومعتقداتك الغذائية (باستخدام مقياس من 1- 7). إذا كنت تكمل هذا الجزء باستخدام الهاتف المحمول، ما أتناوله ... فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

	1- أبدًا	2	3	4	5	6	7- دائمًا
لأنني أعتقد أنه لذيذ.							
لأنني آكله بانتظام.							
لأنه سريع التحضير.							
للحفاظ على نظام غذائي متوازن.							
لأنني أهتم بتناوله.							
لأنني معتاد على تناوله.							
لأنه صحي.							
لأنه يسهل إعداده.							
من أجل المتعة /مكافأة نفسي.							
لأن مذاقه جيد.							
لأنه جزء أتعمد وجوده في نظامي الغذائي.							
من أجل سد احتياجاتي من العناصر الغذائية والفيتامينات والمعادن.							
لأنه يسهل الحصول عليه.							
لأنني أستمتع بتجربة طعام جديد.							
لأنه طعام مألوف بالنسبة لي.							
لأنني أشعر بالجوع.							
لأنه أكثر طعام متاح.							

9. أنا أتناول ما أتناوله... *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	-1 أبدًا
لأنه يصنّع بطريقة تتسم بالآدمية في التعامل مع الحيوانات.	☐	☐	☐	☐	☐	☐	☐
لأنه طبيعي.	☐	☐	☐	☐	☐	☐	☐
حتى أتمكن من قضاء بعض الوقت مع أشخاص آخرين.	☐	☐	☐	☐	☐	☐	☐

لأن الأمر يستحق إنفاق المزيد من المال من أجل الحصول على طعام بجودة أعلى (عضوي أو لدعم الإنتاج المحلي أو لمناسبات خاصة أو ما شابه)	☐	☐	☐	☐	☐	☐	☐
لأن العبوة جذابة.	☐	☐	☐	☐	☐	☐	☐
لأنه عضوي /تجارة عادلة.	☐	☐	☐	☐	☐	☐	☐
لأنه لا يحتوي على مواد ضارة مثل (المبيدات الحشرية أو الملوثات أو المضادات الحيوية أو الهرمونات أو غير ذلك).	☐	☐	☐	☐	☐	☐	☐
لأن ثمنه معقول.	☐	☐	☐	☐	☐	☐	☐
لأنه يجذبني أو يجذب أحد أفراد أسرتي المعيشية بشكل عفوي.	☐	☐	☐	☐	☐	☐	☐

لأنه معبأ في عبوات صديقة للبيئة.							
بسبب وجود خصم عليه.							
لأن هذا الطعام يصنع بطريقة تتسم باحترام حقوق الحيوان.							
لأنه نُقل مسافة أقل من 50 ميل من مكان زراعته.							
لأنه يضفي المزيد من المتعة على اللقاءات الاجتماعية.							
لأنه يستفيد من امتيازات (تحويل المنافع الإلكترونية أو برنامج المساعدات الغذائية التكميلية و/أو برنامج التغذية التكميلية للنساء والرضع والأطفال							
لأنني عرفت بشأنه من الإعلانات.							
لأنه مجاني.							
من أجل تجنب إهدار الطعام.							

لأنه يقدّم أو يُعلن عنه بطريقة لطيفة (طريقة تقديمه في الأطباق أو طريقة عرضه أو إعلاناته التجارية أو صوره).							
من أجل مساعدة البيئة من خلال تجنب المنتجات الحيوانية.							
لأنه يمثل مقابل جيد للمال.							

أنا أتناول ما أتناوله ... حدد وتيرة عاداتك ومعتقداتك الغذائية (باستخدام مقياس من 1- 7). إذا كنت تكمل هذا الجزء باستخدام الهاتف المحمول، فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

10. أنا أتناول ما أتناوله... *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1- أبدًا	2	3	4	5	6	7- دائمًا
لأنني أريد فقدان الوزن.							
لأن تناوله لا يعد أمرًا مهذبًا.							
لأنه منخفض السعرات الحرارية.							
لأن أطبائي نصحوني بعدم تناوله.							
من أجل الحفاظ على /الوصول إلى الوزن المثالي.							
على سبيل الإلهاء.							
لأنه يقدّم في المناسبات الاحتفالية (حفل زفاف أو حفلة أو حدث).							
لأنني أحاول تحسين حالتي المزاجية.							
لأنه يتماشى مع آرائي الدينية.							

11. أنا أتناول ما أتناوله... *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1- أبدًا	2	3	4	5	6	7- دائمًا
كجزء من التقاليد العائلية.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأن له أثر كبير في إرثي (من أجل الأجيال القادمة).	⬭	⬭	⬭	⬭	⬭	⬭	⬭
كجزء من العطلات الرسمية.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأنه جزء مهم من ثقافتي الشخصية.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
كجزء من المناسبات و/أو الاحتفالات الخاصة.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأنه مناسب لهذا الفصل من السنة.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأنه جزء مهم من الثقافة الحالية لأفراد أسرتي المعيشية.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأن هذا ما يتناوله الناس في موطن عائلتي الأصلي.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأنه يخص مواقف محددة.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأنه يذكرني بطفولتي.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
لأن التراث والثقافة لا علاقة لهم باختياراتي الغذائية.	⬭	⬭	⬭	⬭	⬭	⬭	⬭

أنا أتناول ما أتناوله ...

حدد وتيرة عاداتك ومعتقداتك الغذائية (باستخدام مقياس من 1- 7). إذا كنت تكمل هذا الجزء باستخدام الهاتف المحمول، فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

12. أنا أتناول ما أتناوله... *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1- ابدًا	2	3	4	5	6	7- دائمًا
لأنه من المهم تناول الطعام الذي أزرعه بنفسي.							
لأنه يعتبر مميزاً.							
لأنني أفضل دعم الأقليات أو المهاجرين الذي يمتلكون أعمال تجارية.							
لأنني أستمتع بزراعة البساتين.							
لأنه اسم تجاري معروف.							
لأن هذا ما يزرع في البساتين في المجتمع الذي أعيش فيه أو ما يزرعه جيراني /أصدقائي في بساتينهم.							
لأنني أفضل التسوق في أسواق الاطعمة المحلية.							
لأنني أفضل حماية البيئة.							
لأنني أعرف المزارع /البقّال.							
لأنني أريد تشجيع الأعمال التجارية المحلية /الصغيرة.							
لأنني أفضل التسوق في الأماكن التجارية التي تدعم المنصات الاجتماعية، أنا أؤمن بحركات (حياة السود مهمة ومجتمع الميم وغيرها.)							

عادات المستهلك المستديمة

حدد وتيرة مشاركتك في الأنشطة التالية (باستخدام مقياس من 1-7).
حدد وتيرة عاداتك ومعتقداتك الغذائية (باستخدام مقياس من 1- 7). إذا كنت تكمل هذا الاستبيان باستخدام الهاتف المحمول، فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

13. ما معدل إحضارك لأكياس التسوق القابلة لإعادة الاستخدام إلى المتجر؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

14. ما معدل قيامك بإعادة التدوير؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

15. ما معدل قيامك بتحويل مخلفات الطعام إلى سماد؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

16. ما معدل مشاهدتك لبرامج تلفزيونية أو أفلام أو مقاطع فيديو على الإنترنت تتعلق بقضايا البيئة؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

17. ما معدل حديثك مع الآخرين حول سلوكهم البيئي؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

18. ما معدل إطفائك للضوء عندما تترك الغرفة؟

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

19. ما معدل خفضك للحرارة أو تقليلك من تكييف الهواء للحد من استخدام الطاقة؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

20. ما معدل إطفائك للتلفاز عند تركك الغرفة؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

21. ما معدل قيامك بتقليل وقت الاستحمام من أجل الحفاظ على الماء الساخن؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

22. ما معدل انتظارك حتى اكتمال حمولة غسالة الملابس أو غسالة الأطباق؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

23. ما معدل استخدامك المياه الباردة لغسل الملابس؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

24. ما معدل قيامك بتقاسم السيارة خلال الأعوام الثلاثة الماضية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

25. ما معدل استخدامك للمواصلات العامة خلال الأعوام الثلاثة الماضية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

26. ما معدل استبدالك القيادة بالمشي أو ركوب الدراجة خلال الأعوام الثلاثة الماضية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

27. هل فكرت يومًا في شراء سيارة هجينة أو كهربائية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
أبدًا	◯	◯	◯	◯	◯	◯	◯	دائمًا

الاستدامة وعادات المستهلكين الغذائية

حدد إجاباتك على الأسئلة التالية.

28. 1. إذا كنت تمتلك مركبة، فهل هي مركبة هجينة أم كهربائية؟*

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ◯ نعم
- ◯ لا
- ◯ ليست لدي مركبة.

29. 2. هل قللت من كمية اللحم البقري التي تستهلكها بمرور الوقت؟*

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ◯ نعم
- ◯ لا
- ◯ لا أتناول اللحم البقري.

30. 3. هل قللت من كمية لحم الخنزير التي تستهلكها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- لا أتناول لحم الخنزير.

31. 4. هل قللت من كمية الدواجن التي تستهلكها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- لا أتناول الدواجن.

32. 5. هل قللت من كمية الأسماك أو المأكولات البحرية التي تتناولها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- لا أتناول الأسماك أو المأكولات البحرية.

33. 6. هل قللت من كمية منتجات الألبان التي تستهلكها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- لا أتناول منتجات الألبان.

34. 7. هل زدت من كمية الفواكه والخضروات التي تستهلكها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ( ) نعم
- ( ) لا
- ( ) لا أتناول الفواكه أو الخضروات.

35. 8. هل زدت من كمية الفواكه والخضروات العضوية و/أو المزروعة محليًا التي تستهلكها بمرور الوقت؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ( ) نعم
- ( ) لا
- ( ) أنا أتناول دائمًا الفواكه والخضروات العضوية و/أو المزروعة محليًا، لذلك لم تحدث أي زيادة في استهلاكي لها.

القيم البيئية

حدد أهمية الأمور التالية في حياتك (باستخدام مقياس من 1-7). إذا كنت تستكمل هذا الجزء باستخدام الهاتف المحمول، فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

36. منع التلوث. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	له أهمية كبيرة جدًا في حياتي

37. أن تكون مؤثرًا: أن يكون لك تأثير على الأشخاص والأحداث. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	ذا أهمية كبيرة جدًا في حياتي

38. أن تكون نافعًا: أن تعمل من أجل تحقيق المنفعة للآخرين. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	ذا أهمية كبيرة جدًا في حياتي

39. حماية البيئة: الحفاظ على الطبيعة. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	ذا أهمية كبيرة جدًا في حياتي

40. العدالة الاجتماعية: تقويم العدالة والاهتمام بالضعفاء. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	ذا أهمية كبيرة جدًا في حياتي

41. المساواة: منح فرص متساوية للجميع. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	( )	( )	( )	( )	( )	( )	( )	ذا أهمية كبيرة جدًا في حياتي

42. احترام الأرض: العيش في انسجام مع مختلف أنواع الكائنات الأخرى. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	⬭	⬭	⬭	⬭	⬭	⬭	⬭	ذا أهمية كبيرة جدًا في حياتي

43. عالم يسوده السلام: خالٍ من الحروب والصراعات. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	⬭	⬭	⬭	⬭	⬭	⬭	⬭	ذا أهمية كبيرة جدًا في حياتي

44. الثراء: أن تكون لديك ممتلكات مادية وأموال. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	⬭	⬭	⬭	⬭	⬭	⬭	⬭	ذا أهمية كبيرة جدًا في حياتي

45. السلطة: الحق في القيادة أو السيطرة. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	⬭	⬭	⬭	⬭	⬭	⬭	⬭	ذا أهمية كبيرة جدًا في حياتي

46. التوحد مع الطبيعة: التواؤم مع الطبيعة. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
أمر غير مهم على الإطلاق في حياتي	⬭	⬭	⬭	⬭	⬭	⬭	⬭	ذا أهمية كبيرة جدًا في حياتي

الاهتمام بالبيئة

حدد مستوى اتفاقك مع العبارات التالية (باستخدام مقياس من 1-7) اختيار رقم 4 يعني أنك محايد /متردد.
إذا كنت تستكمل هذا الاستبيان باستخدام الهاتف المحمول فقد تحتاج إلى إدارة الهاتف وتحويل الشاشة للوضع الأفقي لكي تتمكن من مشاهدة الخيارات السبعة.

53. حماية البيئة تشكل تهديدًا على وظائف أناس مثلي. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

54. الحماية البيئية تعود بالنفع على الجميع. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

55. قوانين حماية البيئة تحد من اختياراتي وحرياتي الشخصية. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

56. أشعر أنه ينبغي عليّ التفكير في البيئة يوميًا. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

57. لا ينتابني أي شعور بالذنب عندما أشتري الفواكه والخضروات من بلدان أو دول أخرى. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

58. أشعر بالذنب عندما أضطر إلى التخلص من الطعام /بقايا الطعام. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	7	6	5	4	3	2	1	
لا أوافق إطلاقًا	( )	( )	( )	( )	( )	( )	( )	أوافق تمامًا

59. ينتابني شعور أفضل حيال نفسي عندما أوفر في الطاقة. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
لا أوافق إطلاقًا	◯	◯	◯	◯	◯	◯	◯	أوافق تمامًا

60. أتمنى لو كان بمقدوري فعل المزيد لعكس آثار التغير المناخي. *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
لا أوافق إطلاقًا	◯	◯	◯	◯	◯	◯	◯	أوافق تمامًا

61. إذا كان لدي المزيد من الموارد (المال والوقت والطاقة وغير ذلك)، كانت الاستدامة والممارسات المستديمة ستصبح أكثر أهمية بالنسبة لي.*

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

	1	2	3	4	5	6	7	
لا أوافق إطلاقًا	◯	◯	◯	◯	◯	◯	◯	أوافق تمامًا

البيانات الديموجرافية

على سبيل التذكير، يجدر الإشارة إلى أن جميع البيانات التي قدمتها في هذا الاستبيان سيتم حفظها بسرية تامة، وإجاباتك على هذه الأسئلة لن تؤثر على مساعداتك الحكومية الحالية أو المستقبلية.

62. ما هو عمرك؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- ◯ أقل من 18
- ◯ 24-18
- ◯ 34-25
- ◯ 44-35
- ◯ 54-45
- ◯ 64-55
- ◯ 65 فأكثر

63. ما هي هويتك الجنسية؟ *

ضع علامة بداخل شكل واحد فقط من الأشكال البيضاوية التالية:

ذكر
أنثى
غير منتمي للثنائية الجندرية
أفضل عدم الإجابة
غير ذلك: _____

64. ما هو انتماؤك العرقي؟ (ضع علامة أمام جميع الأجوبة المناسبة.) *

ضع علامة أمام جميع الأجوبة المناسبة

☐ قوقازي
☐ أمريكي أفريقي
☐ لاتيني أو إسباني
☐ آسيوي
☐ أمريكي من السكان الأصليين
☐ أحد سكان هاواي الأصليين أو جزر المحيط الهادي الأخرى
☐ متعدد الأعراق
☐ أفضل عدم الإجابة
☐ غير معروف
غير ذلك: ☐ _____

65. ما هو أعلى صف دراسي أتممته في سنوات الدراسة بالمدرسة أو في الكلية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

بعض صفوف الدراسة الابتدائية
المرحلة الابتدائية
بعض صفوف الدراسة الإعدادية
المرحلة الثانوية /دبلومة المعادلة العامة
بعض سنوات الدراسة الجامعية أو درجة الدبلوم الجامعي
درجة البكالوريوس
مدرسة مهنية
درجة الماجستير أو الدكتوراة أو أول درجة مهنية
أفضل عدم الإجابة

66. ما هو دخل أفراد الأسرة المعيشية؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- أقل من 10.000 دولار
- 11.000 - 20.000 دولار
- 21.000 - 30.000 دولار
- 31.000 - 40.000 دولار
- 41.000 - 50.000 دولار
- 51.000 - 60.000 دولار
- 61.000 - 70.000 دولار
- 71.000 - 80.000 دولار
- 81.000 - 90.000 دولار
- 91.000 - 100.000 دولار
- أكثر من 100.000 دولار
- أفضل عدم الإجابة

67. هل يحصل أحد من أفراد أسرتك المعيشية الذين يدرسون بالمدرسة على وجبة غداء مجانية /مخفضة؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- أفضل عدم الإجابة
- لا يدرس أحد من أفراد أسرتي المعيشية في المدرسة

68. هل أنت الآن مصنف /صُنفت من قبل ضمن المستحقين للاستفادة من برنامج المساعدات الغذائية التكميلية أو تحويل المنافع الإلكترونية أو برنامج التغذية التكميلية للنساء والرضع والأطفال؟ *

ضع علامة بداخل شكل واحد من الأشكال البيضاوية التالية:

- نعم
- لا
- لم ينطبق أبدًا
- لست متأكدًا إن كنت /كنا مستحقين
- أفضل عدم الإجابة

69. اللغات المتحدثة (ضع علامة أمام جميع الأجوبة المناسبة) *

ضع علامة أمام جميع الأجوبة المناسبة

- ☐ اللغة العربية
- ☐ اللغة البوسنوية
- ☐ اللغة الإنجليزية
- ☐ اللغة الفرنسية
- ☐ اللغة الصينية المندرينية
- ☐ اللغة البرتغالية
- ☐ اللغة الإسبانية
- ☐ أفضل عدم الإجابة

غير ذلك: ☐ _____

هذا المحتوى لم يتم إنشاؤه او اعتماده من قبل جوجل

نماذج جوجل

Appendix I

Groups on Social Media and Locations of Surveys Done In-Person

- Facebook
    - The Crossings Church Membership Page
    - The Crossings Church St. Charles County
    - The Crossings Church Innerbelt
    - The Crossings Church Collinsville
    - Crossway Church
    - Ferguson, Missouri Friends & Neighbors.
    - Personal Page (Darius Williams)
    - Latinos en Saint Louis
    - Eventos St. Louis Missouri
    - Los maestros del STL
    - Hispanos Latinos en St. Louis Missouri
    - Mercado Latino St. Louis Missouri y Illinois
    - Venta de todo en St. Louis Missouri
    - Mexicanos en St. Louis Missouri
    - Latinos en Compro y Vendo en St. Louis
    - Hispanos en St. Louis Missouri
    - Personal Page (Caitlin Crain)
    - French connections cultural center at Washington University in St. Louis
    - UMSL students of French
    - Personal Page (Amy Roznos)

    - Personal Page (Britt Tate)
    - STL Womxn in Sustainability
    - St. Louis Sustainable Gardening
    - Shaw Neighborhood Group
    - St. Louis American Facebook Page
    - Heru Farms Facebook Page
    - Ujima Facebook Page
- Reddit
    - r/StLouis
- Libraries
    - Handed out 27 QR codes at Julia Davis Library
    - Handed out 34 QR codes at the Divoll
    - 40 QR codes at…
        - Prairie Commons Branch
        - Florissant Valley Branch
        - Natural Bridge Branch
        - Ferguson Municipal Public Library
- Elementary/Secondary Schools
    - Francis Howell Central High School (38 parents total)
    - SLPS: Bryan Hill Elementary & Columbia Elementary
    - City Academy
- UMSL
    - Soul Food Celebration at UMSL (2/28/2022)

- UMSL Foreign Language Professors
- UMSL Global

Appendix J

Alphabetical List of 71 Codes for Qualitative Data Analysis

1. Access to international foods
2. Awareness of food (in)equity
3. Awareness of personal poverty
4. Awareness of personal privilege
5. Composting
6. Cultural exchange
7. Cultural food system
8. Educating through sustainable food practices
9. Environment defined
10. Environmental (in)justice
11. Environmental racism
12. Family food memories
13. Favorite foods
14. Food (in)equity
15. Food (in)justice
16. Food (in)security
17. Food access
18. Food apartheid
19. Food barriers
20. Food choice
21. Food choice as empowering

22. Food connects people
23. Food culture
24. Food defines one's culture
25. Food dismantles systems
26. Food evolves taste buds
27. Food exposes us to new cultures
28. Food heritage
29. Food heritage connected to trauma
30. Food heritage defined
31. Food heritage defined by sustainable food practices
32. Food heritage defined by unjust foodways
33. Food history
34. Food policy as a barrier
35. Food sovereignty
36. Food stereotypes
37. Food traditions
38. Food-based programming
39. Food-related medical / health benefits
40. Food-related medical / health issues
41. Foodscapes
42. Foodways
43. Foraging
44. Good quotes

45. Importance of food education
46. Importance of representation in sustainable food practices
47. Lack of care for sustainability
48. Language as a food barrier
49. Limiting waste
50. Locally-sourced food
51. Low-income
52. Pandemic-related (in)equity
53. Personal dietary habits
54. Poverty
55. Rain catchment system
56. Recycling
57. Redefining food heritage through sustainable food practices
58. Repurposing
59. Right to food (in general)
60. Right to healthy food
61. SNAP/WIC
62. Spiritual/religious connection to food
63. Survival mentality
64. Sustainability
65. Sustainable food practices
66. Sustainable food practices as empowering
67. Sustainable food practices as health benefiting

68. Sustainable food practices connected to foodways

69. Sustainable practices

70. Systemic (in)justice

71. White-funded food systems