Food Security Infrastructure Framework:

The Cases of Leeds, England, and Fresno, California During Covid-19

Kelli Kennedy

PhD

University of York
School for Business and Society

December 2023

# Abstract

One's surrounding political, policy, programme and societal environment can influence many factors of wellbeing and living, including food security. These multiple, varied environmental factors engage and interact with each other to create structures facilitating or impeding one's ability to be food secure, with Covid-19 demonstrating how swiftly and dramatically these structures can change. This thesis adapts Bartfeld and Dunifon's 2006 State Food Security Infrastructure framework into a revised theoretical framework of food insecurity in multiple global north contexts through a multi-case study. While originally designed as a mixed-methods case-study thesis, in practice it utilises semi-structured interviews with 23 participants in 2021from two case locations – Leeds, England and Fresno, California – to inform the development of the adapted food security framework. Findings highlight the complexity and interconnectedness of influencing structures onto their food security status during the Covid-19 pandemic, finding nine common themes throughout both case locations, with an additional theme in Fresno. The adapted theoretical framework is presented as a mappable visual framework tool for future research use, while the data from the cases shines critical insight into food insecurity during the Covid-19 pandemic.

# Acknowledgements

To Brindley Meredith – this thesis and my degree would have never happened without you.

To Professor Carolyn Snell – this thesis and my degree would have been a pile of flaming garbage without you.

To my research participants – this thesis and my degree would lack meaning without you.

# Author's Declaration

I declare that this thesis is a presentation of original work, and I am the sole author. This work has not previously been presented for a degree or other qualification at this university or elsewhere. All sources are acknowledged as references.

# Contents

# 1 Chapter 1: Introduction

Food insecurity is a pervasive problem in the global north, despite its wealth and progression (Loopstra, 2018; Reeves, Loopstra and Stuckler, 2017; Nord, 2014; Wilde, 2011). Concern for food security, or lack thereof, was traditionally centred upon food supplies (Wilde, 2011). The early 20th century understanding of this was demonstrated in a 1921 League of Nations address, where Norwegian refugee commissioner, Fridtjof Nansen, stated: 'Argentina is burning its grain surplus; America is letting its corn rot in its silos; Canada has more than 2 billion tons of leftover grain – and yet, in Russia, millions are dying of hunger' (Jac hertz and Nützenadel, 2011, p. 102 citing Eckart, 1999, p. 16). Following this, agricultural and economic initiatives were taken by individual countries, the League of Nations, and the International Labour Organization to address the global-level imbalance of food distribution (Jachertz and Nützenadel, 2011). A 1930s study by British physiologist John Boyd Orr established a newfound basis for food in relation to societal conditions (1936). The findings informed the League of Nations' 1935 foundational report, which addressed global food shortages, hunger and malnutrition, acknowledging society's role in creating these issues (Simon, 2012; Jachertz and Nützenadel, 2011; Shaw, 2007).

This multidimensional approach to food security – covering aspects like food supplies, agriculture, and nutrition amongst other angles – set a precedent for how food (in)security is thought of today, through a multi-pronged approach. Food security, as the term started to be recognised, is not simply about producing or procuring food but additionally considering nutritional quality. This adoption of nutrition as part of food security shapes today's understanding of the term. Per George-André Simon's analysis, food security was, in essence, multidisciplinary (2012, p. 10).

Food insecurity is a dynamic, multidisciplinary problem throughout the global north with many moving parts, as to be discussed throughout the subsequent chapters. Combining this highly multifaceted issue with a pandemic, Covid-19, makes the issue pressing and in need of further research. This thesis offers space to explore these important issues.

This study draws upon the multidimensional approach and view of food insecurity outlined above and its prevalence in the global north (discussed further in Chapter 2). This understanding of a multidimensional approach is translated into viewing food insecurity *holistically* – here meaning with appreciation for the direct and indirect issues, topics and factors that can interact to create food insecurity. This holistic view, in layperson's terms, leads into the purpose of this thesis: to review what factors and contexts make it easier or harder to be food secure. Given this goal, this thesis is conceptually broad in scale, covering many related topics to food insecurity, such as housing and health. As will be shown in this thesis, many areas of life are deeply connected to whether it is easier

or harder to be food secure; thus, it covers an array of policy topics to give the most holistic view possible.

The global north is the focus here due to the inherent irony between typically rich nations featuring food insecurity and similarities in policy and approaches (discussed in Chapter 3). One aspect in the global north literature and of the multidimensional patterns in food insecurity is an emphasis on crisis points – indeed, the 2008 financial crisis was especially prevalent in the literature when work on this thesis began in 2019 (discussed further in Chapters 2 and 3). As demonstrated in Part 1 of this thesis (Chapters 1–4), the financial crisis was a major crunch point for increasing food insecurity in the global north, exposing the intersecting weak points and issues.

While writing this thesis a new, pressing crisis arose: Covid-19. Covid-19 led to its own host of factors and determinants to food insecurity, with varying knowledge and insights into this as the pandemic unfolded. Unsurprisingly, Covid-19 has had a huge influence on food insecurity in the global north and has acted as the 'new' crisis, building upon the effects of the 2008 financial crisis, thus becoming a critical area for specific review in this research. Given this thesis's timing, this research aimed to, and successfully captured empirical, real-time data recording of what made it easier and harder to be food insecure during the pandemic. This valuable data not only informed the outcomes of this thesis but holds inherent merit in being a record of people's experiences of Covid-19.

Given the thesis's goals – to devise a way to discuss what makes it easier or harder to be food secure particularly in a pandemic – it builds upon an existing theoretical framework by Bartfeld and Dunifon (2006) that examines the policies, programmes and other factors related to food insecurity called the State Food Security Infrastructure (State FSI). This thesis takes inspiration from that framework and looks to apply it outside of US states to other global north locations with direct attention to the Covid-19 crisis. The research questions are:

1) What are the main contextual conditions affecting a person's ability to become or remain food secure in a particular location?

2) Are the primary contextual conditions affecting a person's ability to become or remain food secure the same in different locations?

3) How did the context of Covid-19 affect a person's ability to become or remain food secure in a particular location?

4) From a household perspective, do some contextual conditions matter more than others?

5) Can the adapted FSI theoretical framework be workable in multiple global north locations, and if so in what form?

To address these research questions, two case studies were conducted in Fresno, California, and Leeds, England. Due to Covid-19 and a cyberattack (see section 6.3.1), the nature of the study evolved from a mixed-methods approach to one primarily based on qualitative data. Given the timing of the data collection being during Covid-19, this data is a unique insight into the expressions and factors of food insecurity during this crisis. Therefore, the thesis has multiple avenues of value, including documenting the research process during a pandemic, recording the effects of Covid-19 on food insecurity and giving a framework to discuss what factors make it easier or harder to be food secure in general – something that can be so broad and interconnected it is difficult to do succinctly.

This thesis is broken down into three parts. Due to the unfolding nature of the pandemic, the thesis similarly has a disrupted, unfolding structure reflecting what was known at what points in the research. Structuring it in this way demonstrates the story of how the research project evolved and in what stages, and it is an alternative to re-writing the literature review and methodology on the basis of Covid-19. Part 1 focuses on pre-Covid-19 research and during the initial outbreak; Part 2 reflects the research and writing conducted during the height of the crisis; and Part 3 shows the case study's findings and reflects the more recent knowledge and insights known about Covid-19's impact on food insecurity (which were not present during the writing of Parts 1 and 2).

Part 1, conducted primarily prior to the height of the pandemic (2019 to early 2020), includes a general literature review of food insecurity with a focus on the issues of affordability and accessibility (Chapter 2). Chapter 3 offers a holistic review of policies and policy contexts that affect food insecurity, ranging from political environments to social security. Chapter 4 discusses the styles of food insecurity responses, including governmental direct programmes, such as free school meals, to the responses from the third sector, such as emergency food assistance.

Part 2 moves into the period at the height of Covid-19, primarily written in 2020–2022. Chapter 5 discusses State FSI and the opportunities for adaptation – importantly, addressing two weaknesses of the model: being solely based on quantitative data and the lack of addressing emergency food assistance. Emergency food assistance here refers to the short-term food-based intervention food-insecurity measures typically delivered by the charitable sector, such as food bank parcels. Chapter 6's methodology includes explanations for what had to be adjusted in the research to account for Covid-19 disruptions and a cyberattack (see section 6.3.1).

Part 3, written largely in 2023, begins with Chapter 7 and shows the empirical research from the Leeds case study, Chapter 8 showcasing the data from Fresno, whereas Chapter 9 offers discussion of the findings and reveals an adapted FSI framework. Chapter 10's conclusion highlights the contributions of the work and its potential applications.

Part 1: Pre-Covid-19 and the Emerging Crisis

Literature Review

## 2   Chapter 2: Food Insecurity Review

As an introductory note, this chapter was written prior to the Covid-19 pandemic. Therefore, its scope features literature prior to this crisis. Rather than update the chapter, it is vital to ensure that the established literature is not overlooked or overshadowed by the new, emerging research of food insecurity related to Covid-19. Doing so does a disservice towards a long-range broad understanding of food insecurity and, moreover, by focusing on pre-Covid-19 the literature can inform us about the previous crises that affected food insecurity, notably the 2008 financial crash.

In the wake of the 1970s food crisis in (FAO, 2009b), a different understanding of international food security was developed by the United Nations (UN) Food and Agriculture Organization (FAO) (Simon, 2012; FAO, 2003). At the 1974 World Food Conference, the FAO's response to the global food crisis leaned on an agricultural supply-side, production-based definition of food security (Overseas Development Institute, 1997). In 1983, food insecurity debates developed further, moving the emphasis from food supply to food access; importantly, there grew emphasis on the vulnerability of affected people as well as nutritional value (FAO, 2003; Hussein, 2002; Overseas Development Institute, 1997).The FAO definition encompassed this sentiment stating food security as (2003, p. 27):

> *Ensuring that all people at all times have both physical and economic access to the basic food that they need.*

At the 1996 World Food Summit, the term further evolved, building upon both the 1974 conference proceedings and the updated 1983 definition (Overseas Development Institute, 1997). This 1983 definition introduced the notion of access, but the 1996 summit solidified the acknowledged relationship between poverty and food insecurity (Martin, 2010; Overseas Development Institute, 1997) (FAO, 1996, p. 1):

> *Food security, at the individual, household, national, regional and global levels [is achieved] when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.*

As part of the 1996 summit, the FAO recognised three dimensions of food insecurity: availability, stability of supply, and access for all (Overseas Development Institute, 1997, p. 2). Through this 1990s understanding of food security, food insecurity was an easily adaptable term, which is now applied as the standard.

The FAO has developed a nuanced understanding of food insecurity, further distancing itself from a

production and supply concern to an emphasis on how people engage with shortcomings in food access and agency. The organisation utilises various sub-definitions: food security, moderate food insecurity and severe food insecurity, as indicated in Figure 1 (FAO et al., 2019, p. 5).

*Figure 1: FAO Food Insecurity Levels. Definitions as per Sustainable Development Goal Target 2.1.2*



FOOD SECURITY
Adequate access to food in both quality and quantity

MODERATE FOOD INSECURITY
People experiencing moderate food insecurity face uncertainties about their ability to obtain food, and have been forced to compromise on the quality and/or quantity of the food they consume

SEVERE FOOD INSECURITY
People experiencing severe food insecurity have typically run out of food and, at worst, gone a day (or days) without eating

SDG INDICATOR 2.1.2
The prevalence of moderate or severe food insecurity in the population based on the FIES

SOURCE: FAO.

The movement towards complex definitions of food (in)security has emerged as more data has been collected and as food insecurity in developed countries has become an emphasised discussion (FAO, 2019a). As part of the UN Sustainable Development Goals (SDG) framework, the FAO created the Food Insecurity Experience Scale (FIES) in 2017 through which various levels of food (in)security are explored (FAO et al., 2019). The measure, known as SDG Target 2.1.2, serves as an accompaniment to the FAO's traditional Prevalence of Undernourishment measure (PoU), which is aimed at measuring hunger (FAO et al., 2019).

The FAO is not the only organisation to develop a definition; by the 1990s there were over two hundred acknowledged definitions (Maxwell et al., 1992). Authors have debated the ever-evolving terminology, assessing what attributes must be met to be food secure and free from food insecurity (FAO, 2003). As surmised by Coates and colleagues (Coates et al., 2006), food insecurity literature contains the following primary themes:

- uncertainty and worry
- inadequate quality
- insufficient quantity

- social unacceptability.

Food insecurity is defined separately from hunger. The FAO first began reporting on the prevalence of hunger in 1974, aligned with their addressment of food security (2019b). Today they adopt this definition (FAO, 2019b):

> *Hunger is an uncomfortable or painful physical sensation caused by insufficient consumption of dietary energy. It becomes chronic when the person does not consume a sufficient amount of calories (dietary energy) on a regular basis to lead a normal, active and healthy life.*

Hunger and food insecurity have been linked to conversations regarding malnutrition and obesity. The FAO, World Health Organisation (WHO), World Food Program, American Society for Clinical Nutrition, Environmental Audit Committee and individual researchers such as Loopstra have found that countries with higher rates of severe or moderate food insecurity have an increased prevalence of adult obesity (Environmental Audit Committee, 2019; FAO et al., 2019; Loopstra, 2018; Drewnowski and Specter, 2004). In relation, those in food-insecure households in upper-middle to high-income countries face higher levels of obesity as well, expanding beyond adults to school-aged children and adolescents (FAO et al., 2019, p. 42). The FAO acknowledges obesity as a form of malnutrition (FAO, 2019b; FAO et al., 2019). Both obesity and malnutrition reside within the SDG goals and are explored as part of hunger and food (in)security.

Addressing poverty while discussing food insecurity is important in that in some cases those who are food insecure may or may not qualify as poor using poverty metrics (Wight et al., 2014). Based on circumstances and how the two concepts are defined, some may experience food insecurity while in poverty, others may not. Poverty's interaction with food insecurity will be a running theme throughout this thesis as the concepts are so intertwined.

An ongoing debate revolves between the terms food insecurity and food poverty. It is debated whether food insecurity should be viewed as an individual issue rather than a subset of poverty (Crossley, Garthwaite and Patrick, 2019; Sosenko et al., 2019). The phrases are often used in tandem or interchangeably (NHS Health Scotland, 2018; Caraher and Coveney, 2016; Purdam, Garratt and Esmail, 2016; Dowler and Lambie-Mumford, 2015a, 2015b; Garthwaite, Collins and Bambra, 2015; Livingstone, 2015; Dowler and O'Connor, 2012; Dowler, Turner and Dobson, 2001). Caraher and Coveney justify their use of the term food poverty, arguing that it exemplifies the reality of food scarcity; thus, word choice affects understanding (2015).

Some authors disagree, stating that poverty should not be compartmentalised or fragmented (Crossley, Garthwaite and Patrick, 2019). Proponents of this argue that by focusing on subset

categories of poverty, such as food insecurity or period poverty, the overarching issues of poverty, such as inequality and unequal justice, are overshadowed and introduce the classic poverty arguments of the 'deserving' and 'undeserving' poor (Crossley, Garthwaite and Patrick, 2019; Sosenko et al., 2019; Mitton, 2011). Through this, it would invoke a ranking system within poverty by subset of insufficiency, which could contribute to the false prioritisation of some groups (the deserving) over others (the undeserving) based on the validity assigned culturally and politically to one subgroup over another. Further, it allows society to participate in the judgement over people's poverty experiences by topic subjugating the conversation to cherry-picking and not considering one's poverty experience as intersectional and multifaceted.

A counter to this narrative is that not all in poverty experience food insecurity; so by minimising this attribute as a part of poverty, it ignores the individual experience of the food-insecure person (Sosenko et al., 2019; Widdison, n.d.; Caraher and Coveney, 2016; Burns, 2004). Also by only referring to food insecurity issues within general poverty, one risks silencing the specific issues surrounding food in public rhetoric, potentially reducing support (Widdison, n.d.). By isolating a specific experience in poverty, targeted solutions become available and can directly address the food security problem, even if only in an emergency capacity (Broca and Stamoulis, 2003; Broca, 2002); this ensures that those impacted by structural issues that have left them in poverty are not forgotten even if their personal experience does not fall within popular narrative.

Furthermore, the specific issues surrounding food insecurity can be trivialised or forgotten when the entirety of the problem is categorised as a non-distinguishable facet of poverty. Numerous areas contribute to why and how food insecurity is experienced at the household level, including: climate change, agricultural practices, food production and distribution, globalisation of food, markets and economics, 'Big Food', and cultural and societal food norms (Carimentrand et al., 2015; Stuckler and Nestle, 2012; Brooks and Loevinsohn, 2011; Thornton et al., 2011; Offer, Pechey and Ulijaszek, 2010; Rocha, 2007; Schmidhuber and Tubiello, 2007; Gregory, Ingram and Brklacich, 2005; Okuneye, 2002). While the debate continues, the term food poverty has become entrenched within the literature, particularly in the UK.

## 2.1   Measuring Food (In)Security

According to Pérez-Escamilla and Segall-Corrêa (2008, p. 17) there are five main measurement approaches to food (in)security, as outlined in Table 1.

*Table 1: Derived and Fundamental Food Insecurity Measures*

| Method | Principles | Advantages | Disadvantages |
|---|---|---|---|
| *Derived measures* | | | |
| Calorie deprivation indicator (FAO Method) | - Outcome: national calories available per capita per day<br>- Inputs: food balance sheets, energy intake coefficient of variation, single cut-off point to estimate at-risk population | - Inexpensive<br>- Applied worldwide on annual basis | - Does not identify at-risk households or individuals<br>- Dietary quality not taken into account<br>- High measurement error<br>- Low standardisation on data collection methods across countries<br>- Evidence-base of cut-off point is questionable |
| Household expenditure surveys | - Outcomes: caloric intake per capita per household, dietary variety score<br>- Inputs: money spent on food and other needs, foods consumed and market value, reference time period, food composition tables to convert food expenditures and consumption energy | - Identifies vulnerable households<br>- Can take into account dietary quality<br>- Used for evaluating national anti-poverty and assistance programmes | - Measures food available but not necessarily consumed during period of interest (periodicity bias)<br>- Difficult to standardise methodology across countries<br>- Expensive and logistically difficult<br>- Data usually not available annually |
| Dietary intake | - Outcomes: individual's food group intake counts, nutrient intake<br>- Inputs: 24-hour recalls, FFQ, food records, food composition tables, known nutrient requirements, reference time period | - Measures actual food consumption<br>- Can assess short-, medium- and long-term food intake<br>- Deals with both dietary quality and quantity<br>- Identifies at-risk households and individuals | - Memory 'recall' bias<br>- High intra-subject variability in food and nutrient intakes<br>- Difficult to assess portion sizes<br>- Food composition tables need to be of high quality and culturally appropriate<br>- Uncertain about human requirements for most nutrients<br>- 24-hour recalls in national surveys<br>- National data unavailable |
| Anthropometry | - Outcome: % population malnourished<br>- Inputs: weight, height, other body dimensions | - Highly standardised<br>- Evidence based cut-off points<br>- Inexpensive<br>- Frequently applied in national surveys | - Nutritional status indicator<br>- FI-obesity relationship difficult to interpret |
| *Fundamental measure* | | | |
| Experience-based food insecurity scales | - Outcome: household level of food insecurity<br>- Inputs: scale containing items representing the conceptual and multidimensional nature of FI, algorithm to convert scale score into FI categories | - Fundamental measure of FI<br>- HFSSM and adaptations valid across diverse socio-cultural settings<br>- Captures the physical and psycho-emotional dimensions of FI<br>- Low cost allowing for decentralisation | - Does not capture food safety dimension<br>- Different reference time periods and frequency response options needed in different settings<br>- Difficult to standardize cut-off points across regions/countries<br>- "Benefit" bias |

FFQ: food frequency questionnaire; FI: food insecurity; HFSSM: US Household Food Security Measure; FAO: Food and Agriculture Organization
Adapted table from Pérez-Escamilla and Segall-Corrêa (2008, p. 18)

The main approaches all have advantages and disadvantages and additional conditions for success depending on where they are implemented (Pérez-Escamilla and Segall-Corrêa, 2008). For example, high-wealth, developed countries may not find the calorie per capita measurement or calorie deprivation indicator as productive as an experience-based food-insecurity measurement scale (Headey and Ecker, 2013; Pérez-Escamilla and Segall-Corrêa, 2008). That said, not all countries adopt a food-insecurity measurement, raising issues around comparison.

Each technique also has its own track record of use, with the calorie per capita deprivation indicator being one of the oldest and most prominent, utilised by the World Bank and the FAO (Headey and Ecker, 2013). Until recently, the FAO only adopted an estimated calories per capita, national-level approach to food insecurity and hunger. In 2017, the UN General Assembly adopted two indicators: the traditional PoU and the FIES (both under SDG Indicator 2.1.1) (FAO et al., 2019). The two indicators are designed to measure the separate but related issues of hunger and food insecurity.

Different measurement techniques utilise unique indicators and tactics that are open to critique. Headey and Ecker evaluate food-insecurity measurement methods across multiple countries, compiling the indicator score sheet seen in Table 2 (2013, p. 339).

*Table 2: Usefulness of Food and Nutrition Indicators in Gauging the Impacts of Shocks – a Score Sheet*

| Criterion | Usefulness of indicators: 'limited'=0 points; 'potentially'=1 point; 'useful'=2 points | | | |
| | Calorie availability | Poverty | Dietary diversity | Subjective/experiential |
| --- | --- | --- | --- | --- |
| **Cross-section** | | | | |
| Across countries | Potentially | Useful | Potentially | Limited |
| | Usefulness limited by concerns over accuracy of FAO methods | | | Constrained by response biases and lack of common reference frame |
| Within countries | Useful | Useful | Useful | Limited |
| | | | | Constrained by response biases and lack of common reference frame |
| **Inter-temporal** | | | | |
| Gauges welfare trends? | Potentially | Useful | Useful | Limited |
| | Limited by changing calorie requirements and low-calorie demand elasticities | | Further research on cross-country comparisons required | Constrained by response biases and lack of common reference frame |
| Gauges impacts of shocks? | Limited | Limited | Potentially | Potentially |
| | Not collected frequently; limited to simulation analysis | Not collected frequently; limited to simulation analysis | Cheap to collect, so can be measured at high frequency | Cheap to collect, so can be measured at high frequency |
| **Nutrition** | | | | |
| Measured at the individual level? | Limited | Limited | Useful | Useful |
| | Lack of individual data | Lack of individual data | Can be asked of individuals as well as households | Can be asked of individuals as well as households |
| Micro and macronutrients | Potentially | Potentially | Useful | Potentially |
| | Macronutrients only | Micronutrients needs not yet specifically incorporated | Can be asked of individuals as well as households | Can ask about quality of diet, but lack of common reference frame |
| *Total score (14)* | *5/14 (36%)* | *7/14 (50%)* | *11/14 (79%)* | *5/14 (36%)* |

The US Department of Agriculture (USDA) Household Food Security Survey Module (HFSSM) is frequently replicated or referenced as a potential model of measurement by organisations and countries alike, including Portugal, Australia, England, and Northern Ireland (Loopstra, 2018; Cafiero, 2014; Coates et al., 2006). The HFSSM consists of 18 questions utilising different indicators of food insecurity and measures both its severity and prevalence while also recording household demographics (Coleman-Jensen, Rabbitt and Gregory, 2016; Bickel et al., 2000). There are drawbacks to the measure (e.g. being unable to account for differences between responses by married men and women when in similar circumstances), but generally the survey is viewed positively for its qualitative focus (Loopstra, 2018; Nord, 2014; Skinner, Hanning and Tsuji, 2013).

## 2.2    The Prevalence of Food Insecurity in the Global North

Although the global north tends to have wealth and is often referred to as rich, many struggle with food insecurity (FAO et al., 2019; Loopstra, 2018; Reeves, Loopstra and Stuckler, 2017; Nord, 2014; Wilde, 2011). Academic literature tends to be framed over the past decade around the 2008 financial crash. While there are certainly individual reasons and particular circumstances driving the rise, plateau, or fall of food insecurity in each nation, following the 2008 financial crash there was a rise in food insecurity rates (Gundersen and Ziliak, 2018; Loopstra, Lambie-Mumford and Patrick, 2018; Davis and Geiger, 2017; Reeves, Loopstra and Stuckler, 2017; Stuckler et al., 2017; Loopstra et al., 2016; Caraher and Coveney, 2015; Ruckert and Labonté, 2014; Rada, 2013). To put the crash into perspective, gross domestic product (GDP) declined in real terms for all EU countries except Poland, at a mean rate of 4.3 percent (Stuckler et al., 2017). Economic output only returned to its pre-crash levels in 2016 (Stuckler et al., 2017).

Secondary analysis of the European Quality of Life Survey shows the Netherlands, Ireland, Finland, Austria, the UK, Spain, France and Hungary, amongst others, saw increases in food insecurity in 2011 (Davis and Geiger, 2017). The steepest rise occurred in Anglo-Saxon regimes, whereas eastern European nations had the highest levels overall (Davis and Geiger, 2017). In the US, from 2001–2007 food insecurity rates consistently measured approximately 12 percent (17 percent for children), increasing to 30 percent in the wake of the financial crisis and only in the late 2010s began to achieve pre-crisis levels (Gundersen and Ziliak, 2018). Even after a country's economic recovery, food security improvements can display delays, as seen in previous crashes (Ruckert and Labonté, 2014; Sell and Zlotnik, 2010).

Due to the significance of the crash on food security this discussion of food insecurity in global north countries pays particular attention to this timeframe, exploring its wider implications on current food insecurity trends. While it cannot be said that that every global north nation experienced the precise patterned result of increased food insecurity following the crash, notably in social democrat and corporatist regimes food insecurity increases were at least somewhat mitigated (Reeves, Loopstra and Stuckler, 2017; Loopstra, Reeves and Stuckler, 2015; Ruckert and Labonté, 2014). The general trend rings true and thus allows for generalisation of the issue amongst high-income, global north nations.

At various points through the 21st century, 12 percent of the EU27 population was food insecure (2005), 14.9 percent in the US (2011), and 12.6 percent in Canada (2011–12) (Coleman-Jensen, Rabbitt and Gregory, 2016; Loopstra, Reeves and Stuckler, 2015; Tarasuk, Mitchell and Dachner, 2014). In the EU27, following 2005, when food insecurity was at its height, an incremental decline in

food insecurity occurred (0.5 percent per year) until 2010 (Loopstra, Reeves and Stuckler, 2015). The reversal in this trend has been associated with the 2008 financial crisis and the recession-associated unemployment, debt and hardship (Loopstra et al., 2016; Caraher and Coveney, 2015; Loopstra, Reeves and Stuckler, 2015). The crash affected the food insecurity prevalence substantially, as depicted by Loopstra and colleagues (2016, p. 46) (see Figure 2).

*Figure 2: Prevalence of Food Insecurity in 2009 and 2012 in 21 EU Countries*
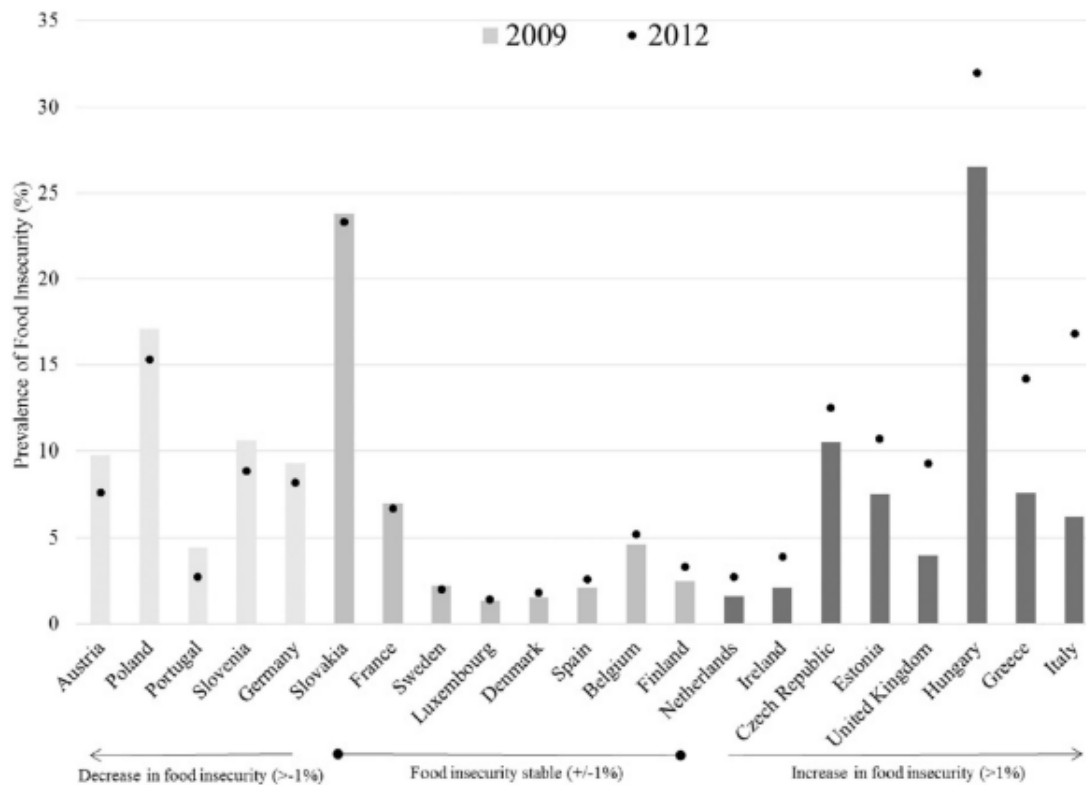


As Figure 2 indicates, there is a marked difference in how certain EU27 countries experienced food insecurity post-crash. Certain nations did not adhere to the marked trend, including Germany, Poland, Slovenia and Austria (Davis and Geiger, 2017; Loopstra et al., 2016). In Germany, food insecurity declined from 11 percent in 2005 to 8.2 percent in 2012, which coincides with the narrative that Germany was one of the top performers in the financial crash (Davis and Geiger, 2017; Kaitila, 2014). In the US, the Great Recession, a term for the financial crash, also played a role in food insecurity rates, as outlined in Figure 3 (Coleman-Jensen, Rabbitt and Gregory, 2016, p. vi).

*Figure 3: Rates of Food Insecurity by Household in the United States 2000–2015*
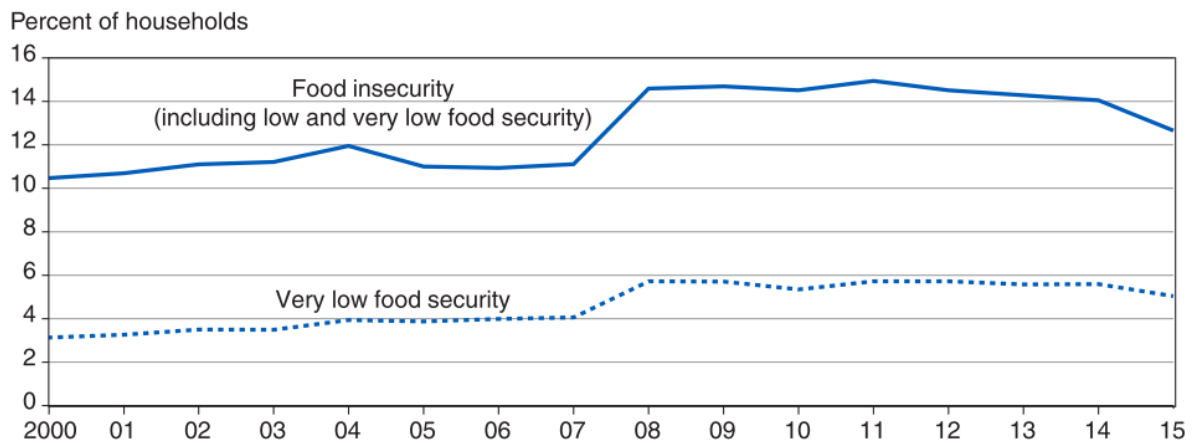


Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey Food Security Supplement.

Only in 2019 has the US's food insecurity prevalence returned to pre-crash rates of 11.1 percent (Coleman-Jensen et al., 2019b). One explanation of the declining trend is that low-income households are starting to experience the benefits of the economic recovery and related measures (Keith-Jennings, 2016). Reduced food-price inflation, falling of oil and gas prices and lower levels of overall inflation has allowed households more flexibility in their food budgets (Keith-Jennings, 2016).

Rates of childhood food insecurity are comparable or higher than those of the average population (FAO et al., 2019; Ministry of Health, 2019; UNICEF, 2017b; Wight et al., 2014; Tarasuk, Mitchell and Dachner, 2014). In 2012, one in six Canadian children was classified as food insecure, while 19 percent of children in New Zealand (NZ) in 2015–16 experienced moderate to severe food insecurity (Ministry of Health, 2019; Tarasuk, Mitchell and Dachner, 2014). In 2014–5, UNICEF found the food insecurity rates amongst children in rich nations seen in Figure 4 (UNICEF, 2017a, p. 17).

*Figure 4: Percentage of Children below the Age of 15 Living with a Respondent Who Is Food Insecure, 2014–15*
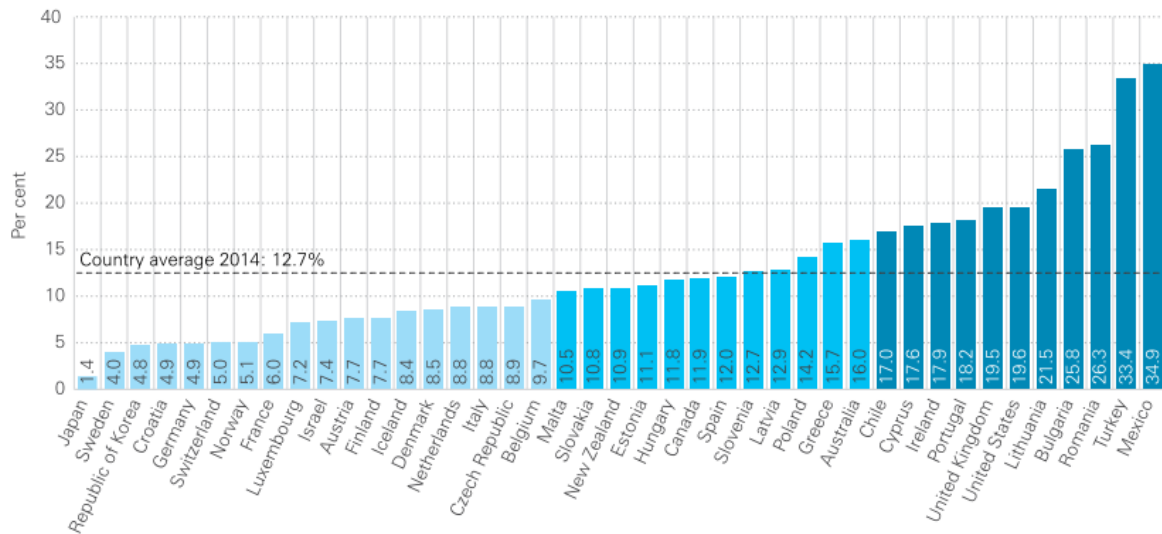


Food insecurity affects different populations within countries. As a generalisation, race, parenthood, income level, education attainment, employment status and benefit receipt are the most common indicators of food insecurity (Loopstra, Reeves and Tarasuk, 2019; Coleman-Jensen et al., 2019b; McIntrye et al., 2016; Sriram and Tarasuk, 2015; Alvares and Amaral, 2014; Ramsey et al., 2012; Lallukka et al., 2007; Tapogna et al., 2004; Sarlio-Lähteenkorva and Lahelma, 2001; Rose, Gundersen and Oliveira, 1998; Davis and Tarasuk, 1994). The impact of each socio-determinant varies based on the country's inequality levels, welfare system, economic performance, food pricing structure, historical contexts and, essentially, the fabric of society. The importance of how these factors intertwine and their relation to how food insecurity is experienced within a country cannot be underemphasised.

## 2.3   Explanations for Food Insecurity

The primary reasons cited for food insecurity in the global north – while acknowledging the factors previously discussed such as weather, pricing etc. – are insufficient household income and a lack of proficient social security policies and programming (Loopstra et al., 2016; McIntrye et al., 2016; Richards, Kjærnes and Vik, 2016; Garthwaite, Collins and Bambra, 2015; Livingstone, 2015; Taylor-Jones, 2015; Ramsey et al., 2012; Wiig Dammann and Smith, 2009; Rocha, 2007; Furness et al., 2004; McIntyre, 2003). This in turn supports justification of the review of related policies and literatures seen in Chapter 3, as well as a generalised holistic approach taken throughout this thesis.

To begin, the economic element of food insecurity is a fundamental cause of the problem. McIntrye and colleagues summarise this (2015, pp. 83–84):

*Although other factors such as gender and social position can influence access to food, food insecurity at the household level can be understood primarily as a problem of economic access to food, transcending how individuals and households manage their food expenditures and make dietary choices.*

In nations including Australia, Denmark, the US, Canada, the UK, Ireland and much of mainland Europe, low income and stagnant wages that cannot adapt adequately to inflation and rising costs of living are strongly related to food insecurity (Healy, 2019; Stuckler et al., 2017; Loopstra, Dachner and Tarasuk, 2015a; Livingstone, 2015; Haddad, 2012; Ramsey et al., 2012; McIntyre, 2003). When households have less to spend on food, quality, quantity and consistency of access suffer, which are associated with a higher likelihood of becoming food insecure (Gundersen and Ziliak, 2018; Garthwaite, Collins and Bambra, 2015; Wiig Dammann and Smith, 2009; Furness et al., 2004; Power, 2005a). With food prices rising following the 2008 crash while wages stagnated, families were forced to increase their food expenditure or re-evaluate their budget's purchasing power (Reeves, Loopstra and Stuckler, 2017; Stuckler et al., 2017; Loopstra, Dachner and Tarasuk, 2015a; OECD, 2014).

While low income is a primary predecessor to food insecurity, changes in income and economic status are also powerful indicators. Life-altering events such as employment loss, gaining a new member of the household or developing a disability can plunge households into a precarious food status (Loopstra, Lambie-Mumford and Fledderjohann, 2019; Loopstra et al., 2016; Gundersen and Ziliak, 2014; Sarlio-Lähteenkorva and Lahelma, 2001; McIntyre, 2003; Gundersen and Gruber, 2001). Income shocks, such as unexpected material hardships like a car breaking down, and negative income volatility, meaning lesser funds than expected, have a proven link to food insecurity for those with low asset-to-income ratios (Leete and Bania, 2010). Literature commonly indicates that general poverty, as form of economic disparity, is one of the strongest predictors of food insecurity (Gundersen and Ziliak, 2018; McIntrye et al., 2016; Grobler, 2016; Riches, 2011; Rocha, 2007; Power, 2005a; Burns, 2004; Chen and Che, 2001).

As stated, the 2008 economic downturn made it difficult for families to remain food secure (Caraher and Coveney, 2015; Dowler and Lambie-Mumford, 2015a; Loopstra, Reeves and Stuckler, 2015; Carney, 2012; Zedlewski, Waxman and Gundersen, 2012; United Nations, 2011). Householders were forced to adjust their lifestyles, make tough choices regarding food and household expenses, and navigate a changing economy and food landscape to strive for or obtain food security (Coleman-Jensen, Rabbitt and Gregory, 2016; Cooper, Purcell and Jackson, 2013). The struggles to remain or gain food security can be classified under accessibility and/or affordability.

### 2.3.1   Affordability

Without adequate incomes it becomes increasing difficult to avoid food insecurity or maintain a substantial diet. From 2005 to 2010, the number of people reporting they had the ability to afford meat or a suitable vegetarian alternative every second day – a requirement of food security as part of the EU Survey on Income and Living Conditions (EU-SILC) – declined by 0.5 percent each year (Loopstra, Reeves and Stuckler, 2015). In Catalan households, there was a 1.7 percent increase in the number of families unable to meet this condition from 2008–11 (Rada, 2013). In 2011, the prevalence of Catalan households that could not afford meat or fish at least once every two days was 9.8 percent, a proportion that is almost six times higher than in 2008 (Rada, 2013).

The UK's Food Foundation found that for the lowest income to meet the dietary guideline national standards (Eatwell Guide), households would have to spend on average 73 percent of their disposable income (Scott, Sutherland and Taylor, 2018). A 2009 Australian study found to engage in healthy diets, welfare-dependents families would have to spend 40 percent of their disposable income (Kettings, Sinclair and Voevodin, 2009). Similar high expenditures of discretionary income on foods were found in Ireland and the US (Healy, 2019; Headey and Alderman, 2019; Friel and Conlon, 2004).

A 2012 UK longitudinal study tracked food prices from 2002–12 finding that healthy foods were consistently more expensive than cheaper, processed goods while the price gap between the food types expanded over that timeframe (Jones et al., 2014, p. 4):

*Figure 5: Mean Price of Foods by Eatwell Food Group, 2002–12*
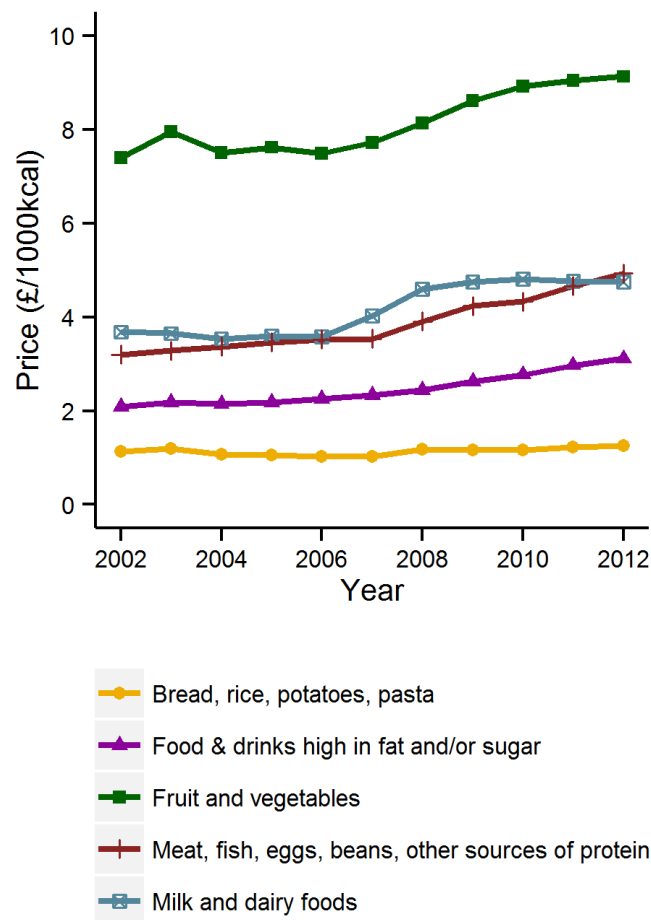


As outlined, healthy foods typically have higher costs than energy-dense foods impacting what households may purchase in times of economic despair (Sarlio-Lähteenkorva and Lahelma, 2001). One's socioeconomic standing can dictate what food they can afford, and as sugary, fatty foods often have higher in caloric density and a more advantageous price-to-calorie ratio (Darmon and Drewnowski, 2015), they are more realistic purchases in low-income households (Cooper and Dumpleton, 2013; Kettings, Sinclair and Voevodin, 2009; Lee et al., 2013; McCabe-Sellers et al., 2007; Lallukka et al., 2007). Healthy, low-energy-density diets are likely to contain higher amounts of nutrition-per-calorie than unhealthy diets consisting of fats and sugars (Monsivais and Drewnowski, 2007). Nutrition research widely agrees that, globally, refined grains and added sugars are cheaper per calorie than nutritionally dense foods (Headey and Alderman, 2019; Darmon and Drewnowski, 2015; Maillot et al., 2007).

While those in food insecurity often, at least theoretically, desire healthy foods, the foods they consume do not always align with this (Darmon and Drewnowski, 2015; Garthwaite, Collins and Bambra, 2015; Drewnowski and Specter, 2004). High sugar and fat content make cheaper food more palatable, and their low cost makes them an appealing option; this defies the nutritional argument

that seeking nutrient-dense food should be the primary purchase goal (Darmon and Drewnowski, 2015; Drewnowski and Specter, 2004). Drewnowski and Specter found that a lower diet expenditure in general 'leads to high-fat, energy-dense diets that are similar in composition to those consumed by low-income groups' (2004, p. 6).

Lack of economic freedom due to low funds and high prices of healthy foods progresses to enacting coping mechanisms by buying cheap, unhealthy foods, buying less of them, while still, in the case of the UK, spending a higher percentage of one's income on food than richer people (Garthwaite, Collins and Bambra, 2015). Those with the purchasing power in a household are not able to freely make dietary choices when cost issues are introduced into the purchasing process, leading to the alteration and essential trade-off between dietary requirements/desires and affordability. By this logic, any alterations to accommodate required forced expenditure can be classified as a coping mechanism; although not all coping mechanisms are adeptly informed. Some of the coping mechanisms that could be employed to stretch expenditure further (e.g. cooking rather than purchasing pre-made meals, cooking practices in general, substituting costlier ingredients for cheaper alternatives), may not be enacted due to lack of food, resources and nutritional education (Gaines et al., 2014; Wiig Dammann and Smith, 2009; Broughton et al., 2006; Meldrum and Willows, 2006; McLaughlin, Tarasuk and Kreiger, 2003; Lang and Caraher, 1998).

While low-income families may understand the importance of purchasing healthier foods and aspire to purchase more when possible, price or the perception of cost is the most pressing consideration (Darmon and Drewnowski, 2015; Gaines et al., 2014; Lee et al., 2013; Carney, 2012; Waterlander et al., 2010; Hampson et al., 2009; Hitchman et al., 2002). A public health faculty member of the UK's Royal College of Physicians summarised the overall issue of dietary choices for low-income households saying (Cooper and Dumpleton, 2013, p. 7):

> *In the UK, the poorer people are, the worse their diet, and the more diet-related diseases they suffer from. This is food poverty.*

Accessibility is a concern in tandem (discussed further in section 2.3.2) with affordability towards food (in)security. For people to access healthy, socially acceptable foods they must be in an economic position to do so. A fundamental aspect of affordability is freedom from economic deprivation and access to disposable income. Free-flowing funds that could be allocated towards foods and related goods may be impacted by issues such as wage loss or wage stagnation, rising cost of living or, if on benefits, their reduction, delay or elimination (Loopstra et al., 2018a; Reeves, Loopstra and Stuckler, 2017; Loopstra et al., 2016; Dowler and Lambie-Mumford, 2015a; Nielsen, Lund and Holm, 2014; Nord, 2014; Cooper and Dumpleton, 2013; Cooper, Purcell and Jackson, 2013;

Carney and Maître, 2012; Young, 2008; Power, 2005b). Due to the inflation following the 2008 crash, many households decreased their food expenditure (Dowler and Lambie-Mumford, 2015b; Griffith, O'Connell and Smith, 2013; Carney, 2012). Coping mechanisms to combat this are discussed in section 2.3.3.

## 2.3.2 Accessibility

Accessibility is most easily thought of as having the food or resources to achieve a healthy, active life (Coleman-Jensen, Rabbitt and Gregory, 2016). It is crucial to view accessibility as access within socially acceptable means, a concept embedded within many definitions of food security (FAO et al., 2019; Lambie-Mumford, 2014; Dowler, Turner and Dobson, 2001). If a person is obtaining foods through socially unacceptable means (i.e. food pantries, food banks, dumpster diving, stealing, buying food on credit without the ability to repay it) then it does not qualify as acceptable food acquisition (Carolsfeld and Erikson, 2013; Eikenberry and Smith, 2005; Hamelin, Habicht and Beaudry, 1999).

The existence of locations where healthy, reasonably priced foods can be obtained is the epitome of food access. Socially acceptable access to food is commonly associated with access to supermarkets. Areas where there is a lack of access to supermarkets, which are presumed to sell healthy and varied foods at a competitive price, are frequently named food deserts (Helbich et al., 2017; Shannon, 2016; Ver Ploeg et al., 2009; Latham and Moffat, 2007; Cummins and Macintyre, 1999; Lang and Caraher, 1998). The term tends to be applied to low-socioeconomic areas where food choice is limited to costlier grocery stores, discount shops and convenience stores. Research includes a range of areas and populations affected including communities of colour, elderly people, and rural and urban regions (Cooper, Purcell and Jackson, 2013; Williams et al., 2012; Carolan, 2011; Beaulac, Kristjansson and Cummins, 2009; Ver Ploeg et al., 2009; Winkler, Turrell and Patterson, 2006; Cliff, Clarke and Eyre, 2004; Morland et al., 2002; Lee et al., 2002; Chung and Myers Jr, 1999). Utilising supermarket access as an indicator for food security accessibility comes with its own implications (Helbich et al., 2017; Jiao et al., 2012). Zenk and colleagues acknowledge these complexities stating (2005, p. 1):

> *Although the presence of supermarkets may not always be beneficial for neighborhood residents (e.g., if supermarkets displace smaller stores with owners who had positively contributed to and invested in the neighborhood), such large stores can be neighborhood health resources providing generally better availability and selection, higher quality, and lower cost of foods compared with smaller food stores.*

The concept of food deserts has become a prominent debate surrounding food accessibility in wealthier countries such as Australia, Ireland, the UK, Canada and the US, although with varied results (Loopstra, 2018; Shannon, 2016; Ghosh-Dastidar et al., 2014; Beaulac, Kristjansson and Cummins, 2009; Ver Ploeg et al., 2009; Hickman, 2007; Winkler, Turrell and Patterson, 2006; Friel and Conlon, 2004; Guy, Clarke and Eyre, 2004; Hitchman et al., 2002; Morland et al., 2002; Cummins and Macintyre, 1999). While research is prominent in these areas, its universality and definition has been challenged (Helbich et al., 2017; Beaulac, Kristjansson and Cummins, 2009; Apparicio, Cloutier and Shearmur, 2007).

Directly tied to this discussion surrounding where these supermarkets and grocery stores are located is how accessible they are for consumers. Many households may struggle to reach supermarkets, such as those without cars or with disabilities and/or mobility issues, those in rural areas with limited transport links or who cannot afford bus fare or childcare, or those with young children for whom the walk may be too far (Jiao et al., 2012; Shaw, 2012; Ver Ploeg et al., 2009; Latham and Moffat, 2007; Dowler, Turner and Dobson, 2001; Cummins and Macintyre, 1999; Lang and Caraher, 1998).

Part of the transportation issues are a lack of transportation facilities; if on foot, it is the ability to carry an adequate amount of shopping home (Shaw, 2012; Winkler, Turrell and Patterson, 2006; Lang and Caraher, 1998). These constraints can mean that families are potentially unable to take advantage of buying in bulk, completing their shop in a single trip or having to pay more for food closer to home to supplement their main shopping. While there are advantages of a single shopping trip – only one instance of travel fares, one payment towards childcare, time saved by only shopping once – data from a 2012 California study found that those who shopped less often [every 15 days] bought fewer fresh foods than those who shopped more regularly (Carney, 2012). Access to sufficient and timely transportation can mean a difference in the products obtained and frequency of procurement.

Contrary to the accessibility debate surrounding food deserts and transportation access, proximity to a supermarket and transportation does not solely determine where a user shops – price is the premier determinant of food-purchase location (Ghosh-Dastidar et al., 2014; Carney, 2012). Evans and co-authors describe this phenomenon based on qualitative research, stating (2015, p. 6):

> *Cost of food was the dominating factor affecting food-purchasing decisions [and] the distance to a supermarket or large grocery store that carried higher quality products was also a major concern for participants.*

A California-based study mirrors this sentiment, with participants expressing they were willing to travel farther in search of lower-priced foods and goods (Carney, 2012). While accessibility is an important facet of food insecurity, affordability appears to hold precedence, when possible, over convenience of access.

### 2.3.3 Coping Strategies and Impact

Coping strategies can be individualist, within one's household, or as an engagement with others via personal relationships or the public domain. The prevalence and regularity of accessibility and affordability issues led to community outreach and charity programmes such as community kitchens, food pantries and food banks in countries such as Canada, Australia, the US and UK and mainland Europe (Loopstra, 2018; Power et al., 2018; Lambie-Mumford and Green, 2017; Ronson and Caraher, 2016; Loopstra et al., 2015; International Federation of Red Cross and Red Crescent Societies, 2013; Eikenberry and Smith, 2005; Riches, 2002; Dowler, Turner and Dobson, 2001). Users often utilise these services alongside purchasing what food they can for themselves, accepting meals or foods from their personal network of family, friends and religious groups, and using food banks in addition to government programmes such as free school meals or income assistance (Dowler and Lambie-Mumford, 2015a; Gundersen and Ziliak, 2014; Williams et al., 2012; Eikenberry and Smith, 2005).

Available household funds must be balanced against increasing food prices (Reeves, Loopstra and Stuckler, 2017; De Schutter, 2010) with families forced to 'squeeze their budgets' to afford all of life's necessities (Garthwaite, 2016a; Dowler, 2014; Mcbride and Purcell, 2014; Cooper, Purcell and Jackson, 2013; Williams et al., 2012; Young, 2008). While most costs of living are predetermined (council tax, licensing bills, utility costs, rent etc.), household food budgets are adjustable based on economic conditions (Garthwaite, 2016a; Cooper, Purcell and Jackson, 2013; Griffith, O'Connell and Smith, 2013; Williams et al., 2012).

When budgets become restricted, families may engage in a 'heat or eat' debate – meaning they can afford either groceries or heating/fuel but not both, fully, forcing householders into making budget evaluations (Lambie-Mumford and Snell, 2015; Mcbride and Purcell, 2014; Zedlewski, Waxman and Gundersen, 2012). While household budgets do hold elasticity allowing for such decisions to be enacted, it is vital to recognise that rationing of both is a coping mechanism commonly utilised, challenging the rhetoric (Lambie-Mumford and Snell, 2015).

With smaller budgets, families bargain hunt for the lowest prices, which may mean crossing town for the budget supermarket, waiting until products are discounted or settling for poorer-quality products – such as fast food and processed foods (Power et al., 2018; Dowler and Lambie-Mumford, 2015b; Cooper and Dumpleton, 2013; Carney, 2012; Carolan, 2011; Ver Ploeg et al., 2009; Coates et

al., 2006; Burns, 2004). This all is exacerbated in low-income communities, where often residents are exposed to the poverty premium – meaning the average price of food products, amongst other commodities, is higher in poorer neighbourhoods than in affluent ones (Hirsch, Padley and Valadez, 2016; Mcbride and Purcell, 2014; Cooper and Dumpleton, 2013). The poverty premium applies to foods as, even when they are available, they may not be accessible to the purchaser due to the associated additional costs. A 2012 Oxfam study reported the poverty premium cost people around £1,170 per year in the UK (Haddad, 2012).

Related to food insecurity, inadequate quality, increased pricing, non-access and non-usage are the primary concerns for poorer consumers. While many consumers may be able to mitigate the perils of the poverty premium by travelling farther for cheaper food products or purchasing discounted goods to stretch their limited expenditure, not all can. For those tangled in the issues of non-access or non-usage, individualised coping strategies may need to be enacted to avoid destitution.

Commonly, when these strategies prove insufficient, people resort to more individualistic coping strategies such as skipping meals, eating less often than necessary or for parents – particularly mothers – going without so children can have a full meal, essentially removing themselves from market transactions as a coping response (Sosenko et al., 2019; Coleman-Jensen, Rabbitt and Gregory, 2016; Dowler and Lambie-Mumford, 2015a; Gundersen and Ziliak, 2014; Nielsen, Lund and Holm, 2014; Coates et al., 2006; Wunderlich and Norwood, 2006; Power, 2005b; Burns, 2004; Collins, 2004; Maxwell, 1996).

The gendered cost of food exposes itself in the shopping trips per week, food preparation, resource securement and food choice (Carney, 2012). Low-income women face the physical and mental burden of food insecurity, both from a planning perspective and in their tendency to ensure others are fed before themselves (Flagg et al., 2013' Carney, 2012; Martin and Lippert, 2012; Carter et al., 2011; Ivers and Cullen, 2011; Collins, 2004; Hamelin, Beaudry and Habicht, 2002; Lang and Caraher, 1998; DeVault, 1991). As a subset of the gendered effect of food insecurity, the traditional, arguably archaic notion of childcare as 'women's work' feeds into this allocation of the responsibility of food management to mothers (DeVault, 1991).

Psychological difficulties of food insecurity are a common experience (Loopstra, 2018; Dowler and Lambie-Mumford, 2015a; Williams et al., 2012; Melchior et al., 2009; Coates et al., 2006; Dowler, Turner and Dobson, 2001; Hamelin, Habicht and Beaudry, 1999). The stress of not knowing where one's next meal may come from or how they will obtain it can affect mental health (Barker et al., 2018; Tarasuk et al., 2018; Siefert et al., 2004; Power et al., 2016; Shildrick et al., 2012; Carter et al., 2011; Sarlio-Lähteenkorva and Lahelma, 2001). Power and colleagues suggest that women who are

food insecure during pregnancy experience worse mental health than their food-secure counterparts (2016). Additionally, the physical toll of an insufficient diet can contribute to overall poor health and lifestyle, including leading to mental health issues such as depression (Siefert et al., 2004).

Food insecurity is strongly link to poor physical health due to an inadequate, nutritious diet (FAO et al., 2019; Scott, Sutherland and Taylor, 2018; Ghosh-Dastidar et al., 2014; Gundersen and Ziliak, 2014; Ver Ploeg et al., 2009; Burns, 2004; Siefert et al., 2004; Sarlio-Lähteenkorva and Lahelma, 2001). Primarily, obesity is a condition associated with food insecurity stemming from the price of and access to healthy foods (FAO et al., 2019; Healy, 2019; Barker et al., 2018; Church Action on Poverty, 2018; Loopstra, 2018; All Party Parliamentary Group (APPG) on Hunger and Food Poverty, 2014; Ghosh-Dastidar et al., 2014; Ver Ploeg et al., 2009). A 2004 study found that food-insecure women face an increased risk of obesity by 20–40 percent across the US, Europe, and Australia (Burns, 2004). A Finnish study explained this phenomenon, indicating obese people were more likely to purchase cheaper foods due to economic anxiety than those of a normal weight (Sarlio-Lähteenkorva and Lahelma, 2001). The dynamics of this relationship between food insecurity, obesity and malnutrition are displayed in Figure 6 (FAO et al., 2018, p. 30).

*Figure 6: Pathways from Inadequate Food to Multiple Forms of Malnutrition*
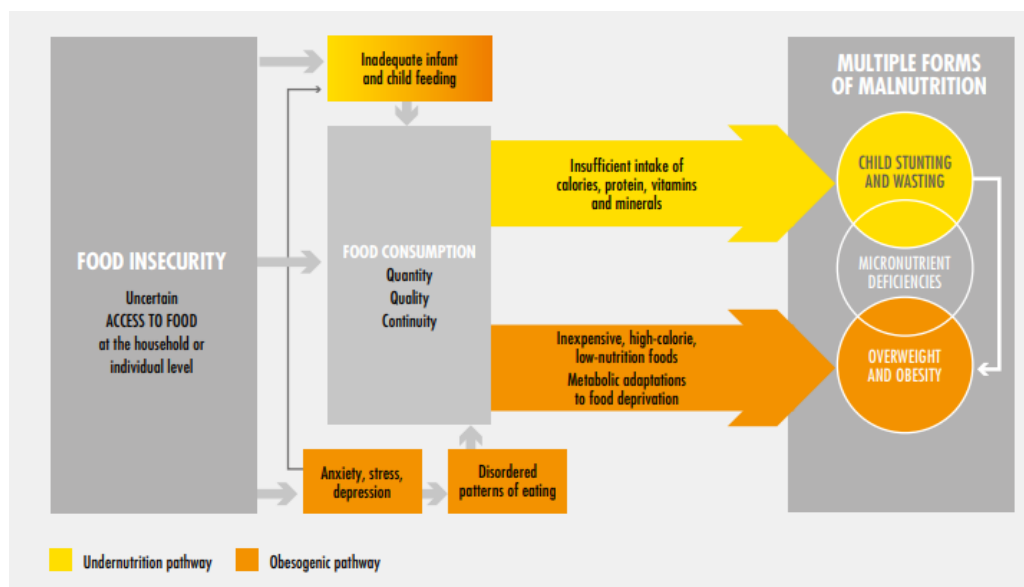


The Bread for the World Institute, in relation to the US but applicable to many global north nations such as the UK, Europe and Australia (see Burns, 2004), states (2016, p. 19):

> *The prevalence of obesity does not discredit the fact that the United States has wide-scale food insecurity: the same person can be suffering from both obesity and hunger. This is because conditions that are common in food-insecure households – episodic food*

*shortages, reliance on high energy- dense foods to stretch food dollars, stress and*

*depression – are all risk factors for weight gain.*

Outside of obesity, in a 2014 US-based study of seniors classified as food insecure found that 22 percent were more likely to experience limitations to their daily activities including bathing, eating and dressing (Feeding America, 2014). A large-scale 2017 study identified individual-level food insecurity correlated with poorer mental health in all global regions even when accounting for socioeconomic factors (Jones, 2017).

*Figure 7: Relationships between Food Security, Dietary and Health Outcomes*
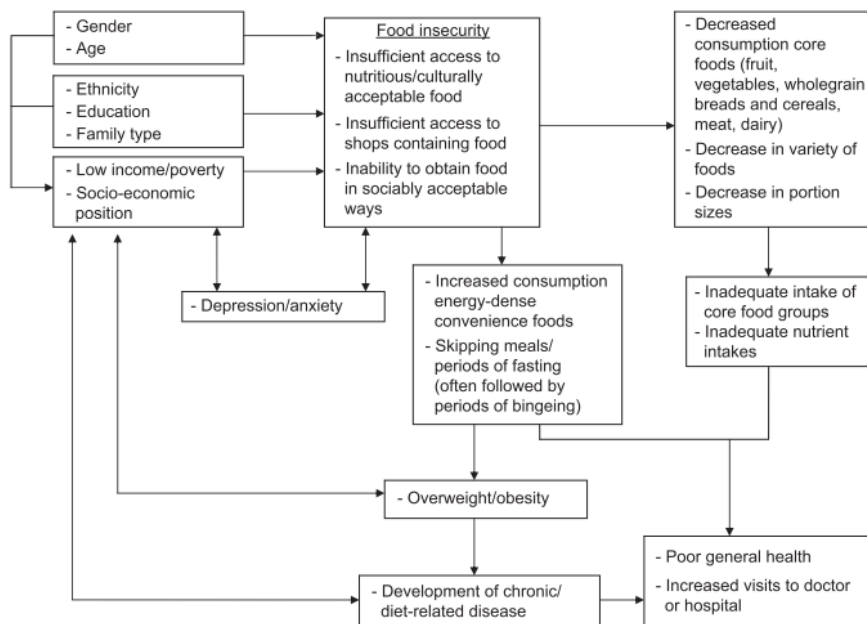


Complimenting this, a USDA study found that those with lower food security had a higher likelihood of developing hypertension, coronary heart disease, hepatitis, stroke, cancer, asthma, diabetes, arthritis, chronic obstructive pulmonary disease and kidney disease (Gregory, 2017, p. i). Chronic conditions in adults in low-food-security households occurred at an 18 percent higher rate than in highly food-secure households (Gregory, 2017). Those with chronic illnesses in food insecurity are at higher risk of skipping or taking lower medication doses to make it last longer to save money (Men et al., 2019; Afulani et al., 2015; Herman et al., 2015a; Berkowitz, Seligman and Choudhry, 2014; Bengle, 2009).

Health risks associated with food insecurity are a common yet pivotal part of the status in addition to the issues of access and affordability. Health problems can also impact coping strategies in that once hunger is reached, options may become limited potentially eliminating options such as walking as a primary mode of transportation for food shopping or the ability to carry home larger bags from food banks or other food providers.

These coping strategies and impacts all signpost towards the importance of a holistic approach to food insecurity – its implications and reach are far beyond food. By viewing food insecurity broadly and inclusively, the issue can be more comprehensively understood and therefore more comprehensively addressed. Chapter 3 serves as a broad-level examination into the various areas and policies related to food insecurity.

### 2.3.4    Discourses

Of additional note, discourse regarding food insecurity not only informs individual rhetoric and views but impacts the ideological debates and political rhetoric. Should food insecurity be a topic of discussion or debate, the way in which the topic is depicted and conversed about greatly shapes the forthcoming results (Pollard and Booth, 2019). Two discourses include food insecurity as personal responsibility versus the right to food, which feed into the wider policy areas discussed in Chapter 3 and the styles of responses in Chapter 4, and additionally feeding into the discussions in Chapter 9.

A popular rhetoric surrounding food insecurity is that individual responsibility – or lack thereof – is the primary reason why some households become food insecure and others do not (Glaze and Richardson, 2017; Garthwaite, 2016a; Grobler, 2016; Purdam, Garratt and Esmail, 2016; Richards, Kjærnes and Vik, 2016; Garthwaite, Collins and Bambra, 2015; Knezevic et al., 2014; Dowler, Turner and Dobson, 2001). Lack of financial management and budgeting, poor cooking skills, lack of work ethic and an unethical reliance on the benefits system are often cited by those who argue that food insecurity is a lifestyle or choice (Power et al., 2018; Glaze and Richardson, 2017; Garthwaite, 2016a; Purdam, Garratt and Esmail, 2016; Garthwaite, Collins and Bambra, 2015; Knezevic et al., 2014).

The idea of assisting with food insecurity comes under scrutiny with the neoliberal 'pull yourself up by your bootstraps' argument, stemming from the historic rhetoric of the deserving and undeserving poor (Lambie-Mumford and Green, 2017; Garthwaite, 2016a; Garthwaite, Collins and Bambra, 2015; Lambie-Mumford, 2014; Shildrick et al., 2012; Mitton, 2011; Power, 2005b). This ideology morphs into blaming and shaming of those who rely on both informal and formal food assistance. The arising stigma originates both from those not experiencing food insecurity and those in its depths. Particularly, stigma surrounding food banks is well documented across several countries (Loopstra, 2018; Power et al., 2018; Garthwaite, 2016a, 2016b; Purdam, Garratt and Esmail, 2016; Williams et al., 2012; Tarasuk and Beaton, 1999). The perception from the food insecure of shame, self-blame and receptiveness to accept stigmatic otherness indicates that the individual responsibility rhetoric is internalised and reproduced (see section 9.2.1.9) (Dowler and Lambie-Mumford, 2015b; Livingstone, 2015; Williams et al., 2012; Hamelin, Beaudry and Habicht, 2002; Riches, 2002).

Alternatively, the right to adequate food is well established as a human rights initiative. In the 1948 Universal Declaration of Human Rights, a non-binding but universally recognised document, the right to food was recognised via the right of an adequate living standard (United Nations for Human Rights, 2010; Söllner, 2007; UN General Assembly, 1948). More recently, the UN Special Rapporteur on the right of food expands on the defined right to food as (United Nations for Human Rights, 2010, p. 2):

> *The right to have regular, permanent and free access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensures a physical and mental, individual and collective, fulfilling and dignified life free of fear.*

The 1966 UN International Covenant on Economic, Social and Cultural Rights (ICESCR), included the right to food in Article 11, although, as Söllner assesses, the binding element did not receive prominent attention for a long time after its conception (2007; Mechlem, 2004). The mandatory, principal obligation outlined by the ICESCR is 'to [undertake] steps … with the view to achieving progressively the full realisation of the rights recognised in the present Covenant (Article 2 Paragraph 1)' (Mechlem, 2004, p. 639). As of 2011, 160 nation states, notably not the US, have ratified the right to food by participating in international laws and treaties (Riches, 2011; O'Connor, Cantillon and Walsh, 2008). Nation states that have ratified the right are subject to ICESCR oversight to ensure its expeditious and effective enactment within their maximum available resources (Committee on Economic Social and Cultural Rights, 1999) although whether this happens in practice is debatable.

In summary, this literature review highlights understandings and measurements of food insecurity, as well as targets the two main areas within which food insecurity is commonly categorised: affordability and accessibility. The final aspect this chapter includes a review of two major discourses around food insecurity. With this understanding, Chapter 3 expands beyond food insecurity itself to discuss the wider policy it sits within.

# 3   Chapter 3: Policy Environments, Contexts and Responses Review

This section was started in early 2020, then primarily completed at the outset of Covid-19, adding value by tracking emerging policy and programmes during the first part of the pandemic. This timing offers an opportunity to demonstrate how programmes and policies fit within the literature without fully knowing Covid-19's outcomes. As stated in the introduction, there is tremendous value in using

this thesis to tell the research and experience story of food insecurity during Covid-19, when so much was unknown. By keeping this chapter intact without updating it retroactively with more recent literature, it shows how Covid-19 policies and academic research unfolded at the pandemic's peak. More recently published Covid-19 research is shared in Part 3. This chapter begins by discussing the wider policy sphere of food insecurity, then Chapter 4 presents direct food insecurity policies and responses.

Food (in)security is helped or hindered by the policies and policy environments a community, region or country is positioned within. Examining these is of particular interest in this thesis given the emphasis on a holistic understanding of food insecurity and gives context to what makes it easier or harder to be food secure. Gregory et al. state (2015, p. 78):

> *Risks increase if households have weak social or public support systems; these include social networks through friends and relatives and also cash and in-kind public assistance programs … if their circumstances frequently leave them near the subsistence or food security thresholds… this increases the chances that a given shock will knock them below the thresholds.*

Policies and interventions also arise from sources other than governments, such as the third sector; often the two sectors converge to create food insecurity responses and programmes. Of equal importance, the contextual elements surrounding policies, programmes and approaches are critical to review to understand how they exist, their role in food (in)security and crucially link to the State FSI concept (introduced in Chapter 5). These policy spheres of food (in)security are explored below.

## 3.1 Policy Spheres of Food (In)Security

Outside of direct food insecurity policies and the third sector, there are a host of policies and programmes that act as an indirect response to food insecurity. Numerous policies and policy sectors entangle themselves in the creation of the conditions, which influences the issue. Within a person's existence, there is a full ecosystem of policies and provisions that makes achieving or maintaining food security easier or harder. Comprehensively mapping this policy system is beyond the remit of this thesis. Still, based on the literature, there are numerous policy sectors that greatly influence food (in)security status. Figure 8 provides a broad outline based on a review of the literature.

*Figure 8: Food Insecurity Policy Summary*
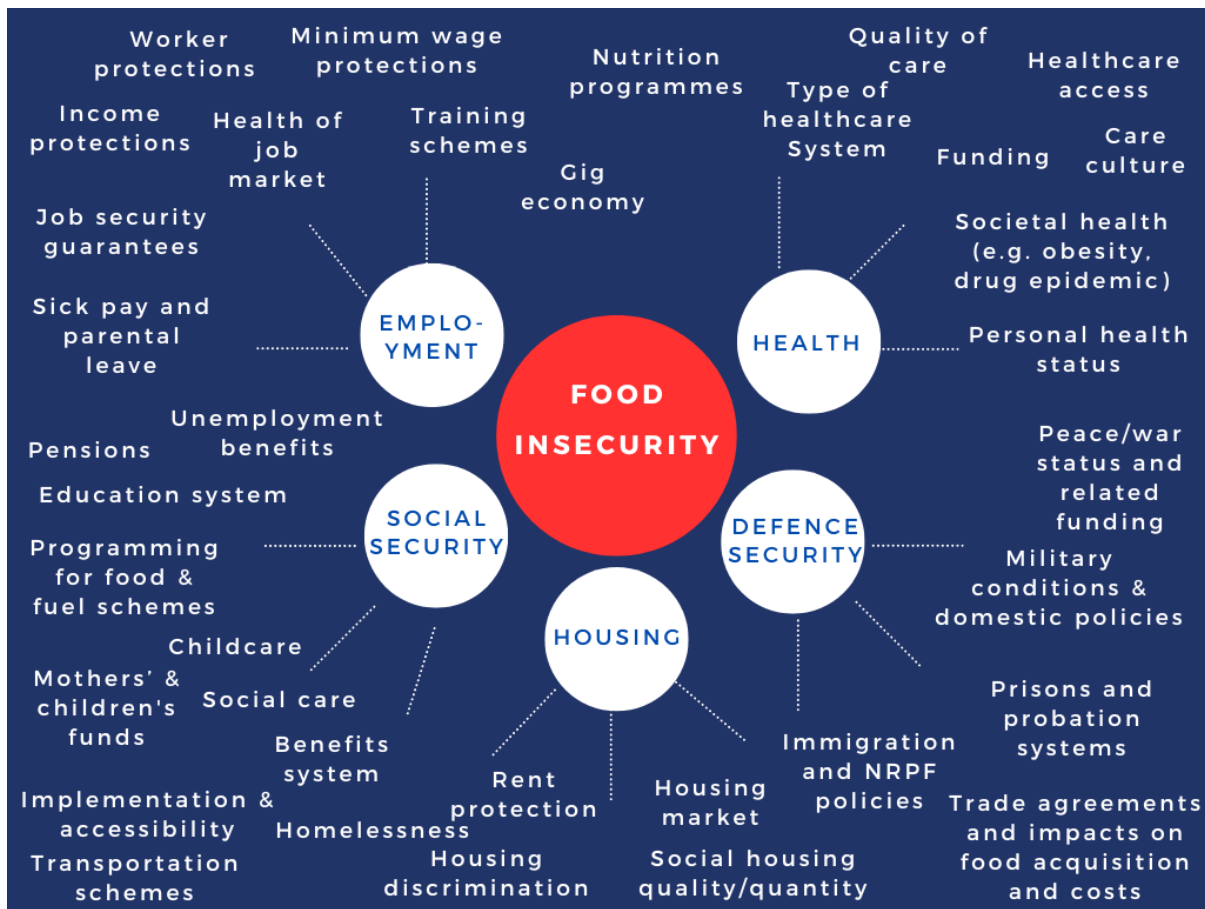


Source: Author's summary of food insecurity literature

The sectors of employment, social security, housing, defence security (and foreign affairs) and health have demonstrable impacts on food insecurity. Within these areas, represented as circles in Figure 8, exist a variety of policies that may affect food (in)security. Examples include prison and probation systems, universal childcare, or lack thereof, prescription drug prices, social housing systems and minimum wage protections. Importantly, these topics occur within an exterior frame of the political environment and culture, outlined in Figure 9.

*Figure 9: Political Environment and Culture Framing Structure Surrounding Food Insecurity Summary*
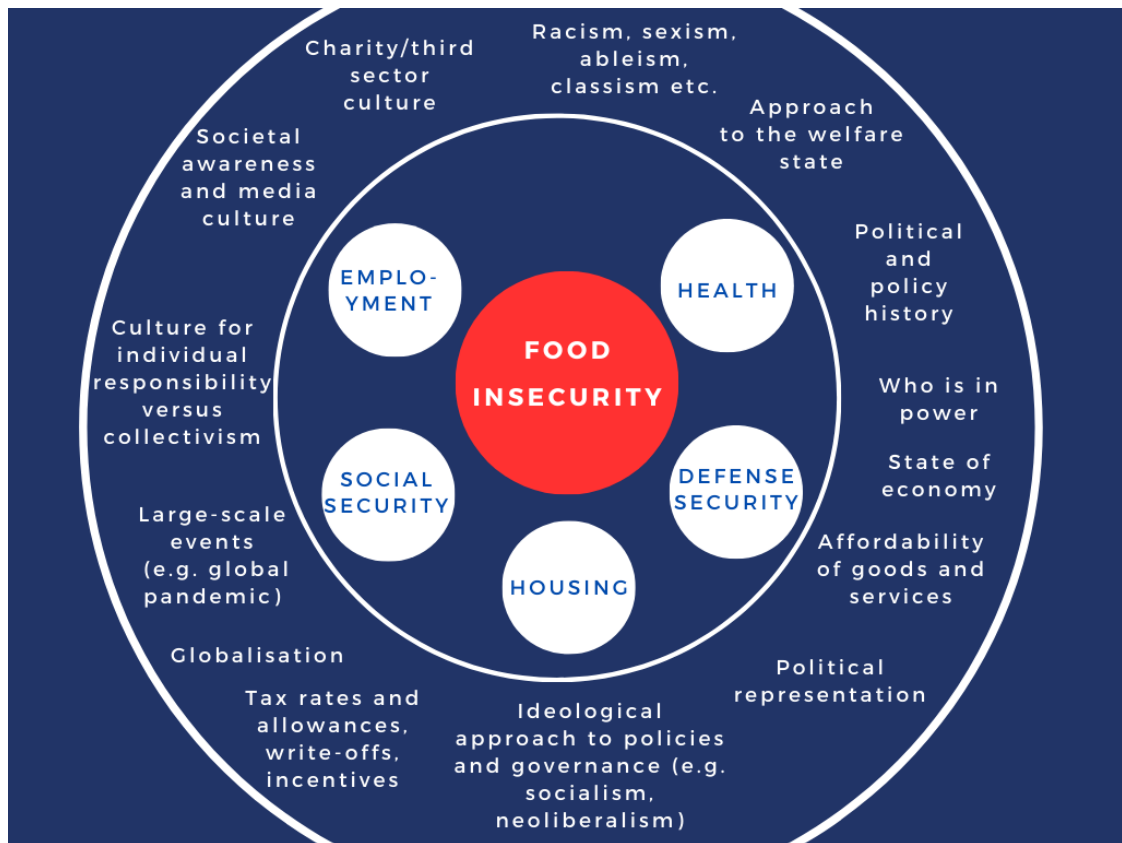


*Source: Author's summary of food insecurity literature*

The connections between the policy areas are extensive and too vast to list here; however, consideration of potential relationships is critical. Policy sectors do not exist in a vacuum and the structures, impacts and changes of one area have a rippled influence throughout the policy ecosystem. For example, restrictions on those leaving prison in different employment areas (e.g. teaching school children), limits their economic options, which could make it more challenging to be food secure. The crossover between the two sectors' policies – security and employment – offers insight into the complexities of policy and food (in)security.

The implementation and cultural understanding of policies is also fundamental – simply listing policies that engage with one another redacts nuance. For example, the US Internal Revenue Service (IRS) has the autonomy to audit whoever they select and conduct investigations. Reporting for 2019 uncovered that the IRS had drastically reduced the number of wealthy people they audit, dropping from 8 percent in 2011 to 1.6 percent in 2018 (Kiel, 2019). Comparatively, the auditing rate for those receiving earned income tax credits remained relatively steady. The change in audit patterns is attributed to the ease of auditing those in receipt of the earned income tax credits versus wealthier

taxpayers, as the process is easier to implement, mostly automated and done by mail rather than in person (Kiel, 2019).

The following section discusses the broader political environment and culture as represented by the exterior frame in Figure 9, which can influence the ease with which food security is achievable within a society. Subsequent sections (sections 3.1.2–3.1.6) discuss the internal-circle categories of employment, defence security and foreign affairs, housing, public health and social security.

### 3.1.1 Political Environment and Culture

Encompassing all the discussed policy areas is the political environment, culture and context through which they exist. Considerations such as the history of food (in)security rates and food (in)security interventions, the discrimination against some populations over others, and the status state of the economy sit within this outer ring and influence food security. Policies do not exist within a vacuum and analysing the contextual elements that shape their existence is crucial to understanding food insecurity. A vital aspect of the political environment and culture is the chosen welfare regime, which is where this section begins.

#### 3.1.1.1 *Welfare Regimes*

Launching the modern understanding of the comparative welfare state, Esping-Andersen set the course for welfare regime typology (1990). With the 'three worlds of welfare', Esping-Andersen categorised welfare states as 'Liberal', 'Conservative' (conservative-corporatist), and 'Social Democratic' (1990). Liberal regimes exhibit lower levels of state intervention and a more free-market approach to social security, (e.g. Australia, the UK and the US). Conservative welfare states offer more generous protections under a pay-in insurance model (e.g. Germany and France). Social Democratic regimes provide the most generous benefits and highest levels of intervention by the state (e.g. Sweden, Norway, and Denmark) (Esping-Andersen, 1990). This typology gives basis to more modern comparisons of the welfare state, including interpretations of food (in)security and welfare regimes.

Davis and Geiger in their discussion of food insecurity in Europe following the 2008 crash describe how food insecurity relates to welfare regimes (2017). The researchers anticipated – correctly so – that the varied 'social consequences' of the crisis, including unemployment, underemployment and poverty, amongst regions and welfare regimes would be reflected in the food insecurity rates (Davis and Geiger, 2017). They conclude that the ideology underpinning the welfare regime had an influence on food (in)security, stating Anglo-Saxon welfare regimes that adopted austerity policies and a free-market approach exacerbated food insecurity (David and Geiger, 2017). Their findings

demonstrated that eastern European countries had the highest food insecurity rates, but that Anglo-Saxon regimes' food insecurity was most significantly impacted by the crash (Davis and Geiger, 2017).

Reeves et al. also studied welfare regimes in Europe following the crisis, focusing on food prices, wages and the impact a regime may have in stabilising the relationship (2017). Their research revealed the more generous welfare regimes, specifically Corporatist and Social Democrat, were able to protect more impoverished populations from the potential disconnect between food prices and wages (Reeves, Loopstra and Stuckler, 2017). Reeves and colleagues, similarly to Davis and Geiger, found Anglo-Saxon, eastern European, and Mediterranean welfare regimes featured a prominent disconnect between wages and food prices (2017).

Comparisons amongst welfare states have also been made specifically to the existence, or rise, of food charity (Lambie-Mumford and Silvasti, 2020). Lambie-Mumford and Silvasti offer comparisons between different welfare states and regimes, articulating the rise of food charity in Europe (2020). They demonstrate that typologies are not stringent: a regime can exhibit atypical behaviour for its category. They summarise the welfare regime changes and its contribution to the rise in emergency food assistance, notably based on economic recessions (Finland), neoliberal policies (Germany, Slovenia, Spain and the UK), and austerity measures (Italy) (Lambie-Mumford and Silvasti, 2020, pp. 233–234). Despite the different welfare typologies, all the above mentioned countries experienced a rise in food charity and emergency food assistance, demonstrating that even the most generous welfare regimes are not immune to issues with food insecurity.

### 3.1.2    Employment

Employment policies and the status of the labour market influence food (in)security in a unique way. Employment not only leads to income but how employment is gained, maintained, formatted and protected can critically impact one's ability to be food secure (McIntyre, Pow and Emery, 2015; McIntyre, Bartoo and Emery, 2014). The Canadian food insecurity research hub PROOF reported in 2017–18 that 65 percent of food-insecure households relied on employment wages as their primary income source (Tarasuk and Mitchell, 2020). This statistic prompts thought about how employment links to food insecurity, not merely a lack thereof.

Employment does not shield households from every stressor that may lead to food insecurity. Even those in work are not immune to income shocks that can affect their status (Temple, 2018). Many life events, such as divorce, death and income shocks such as a broken heater or refrigerator, all impact food (in)security regardless of employment status (Leete and Bania, 2010). Employment is

not an infallible safety net in and yet is such a key attribute of State FSI (discussed in Chapter 5), so it is worth exploring how food (in)security specifically affects those in work.

This section aims to highlight selected topics to broaden the understanding of how employment and food (in)security are linked.

### 3.1.2.1    Characteristics of Employment

The type of employment one has, the allotted hours per week, the stability of work and the sector all may lead to various levels of food (in)security (Baskin, 2020; Loopstra et al., 2019; McIntyre, Bartoo and Emery, 2014; Wirth, Strochlic and Getz, 2007). Those in precarious or insufficient work situations may find themselves still falling near or below poverty lines: the 'working poor' often experience food insecurity (McIntyre, Bartoo and Emery, 2014, p. 50). Underemployment or unstable work also put households into a vulnerable food position (McIntyre, Pow and Emery, 2015), resulting in some using resources such as emergency food assistance (Loopstra and Lalor, 2017). Here the labour market structure can act as a barrier or an opportunity, in accompaniment to raising incomes.

Food bank statistics are useful in understanding how prevalent those in work seek help for food insecurity. Seventy-one percent of UK independent food banks reported those in part-time employment made up a large proportion of their clientele, with 62 percent of food banks citing those on zero-hours contracts making up a large portion of their client base (Loopstra et al., 2019). At Trussell Trust food banks in the UK, one in six households had someone in part-time work or were self-employed (Loopstra and Lalor, 2017). Households under full-time or equivalent employment were least likely to face food insecurity, but it could still occur (McIntyre, Bartoo and Emery, 2014).

McIntrye et al. discovered those working in accommodation and the food service industry in Canada had the highest rates of food insecurity, whereas those working in public administration and education had the lowest (2014). Their work also showed that although increased levels of education were generally associated with lower food insecurity, this was not a correlated relationship in every instance (McIntyre, Bartoo and Emery, 2014). Of those with a high school level of education, there was a distinction amongst who was food insecure based on industry (McIntyre, Bartoo and Emery, 2014). Those in the healthcare sector were less likely to be food insecure than those working in mining, oil and gas, wholesale and retail market, and accommodation and food service sectors (McIntyre, Bartoo and Emery, 2014).

### 3.1.2.2    Wage Stagnation

Over the last 30 years, neoliberalist approaches to social policy and employment have reshaped the workforce and work protection landscape (Blanton and Peksen, 2016). Shifts in the labour market

include globalisation, reduction in labour rights and union influence, and a business-friendly approach resulting in inadequate protections for low- and middle-income workers (Stewart, Stanford and Hardy, 2018; Blanton and Peksen, 2016).

Following the 2008 crash, the real value of a typical wage for a UK worker fell 8–10 percent behind inflation by 2014 (Blanchflower and Machin, 2014). Blanchflower and Machin compared this to US statistics as a warning sign, indicating the UK could be on track to replicate US wage stagnation, as illustrated in Figure 10 (2014, p. 2).

*Figure 10: Real Median Wage Growth, Full-time Weekly Wages, US and UK, 1988–2013*
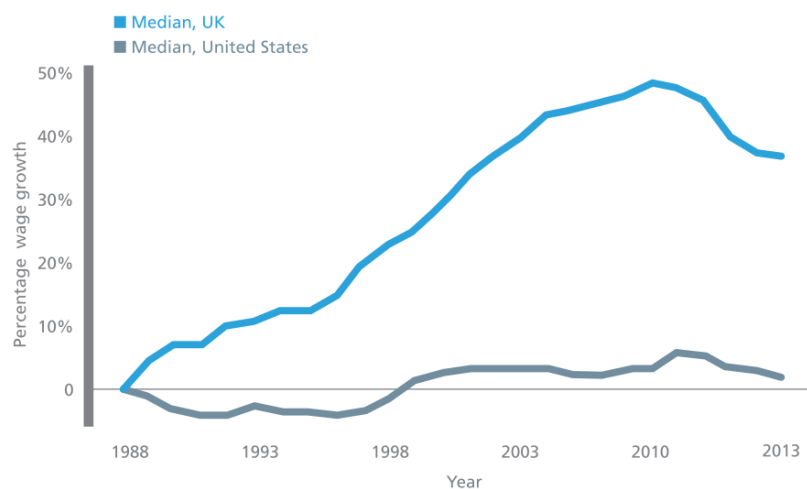


**Source:** UK data from New Earnings Survey/Annual Survey of Hours and Earnings from Gregg et al, 2014; US numbers from Current Population Survey, Bureau of Labor Statistics.

Wage stagnation has been significant in other countries as well. Since 2013, in Australia nominal wages have grown approximately 2 percent per year, the slowest sustained growth since World War II (Stewart, Stanford and Hardy, 2018). The rise has not aligned in tandem with consumer prices and has left real earnings and disposable income in decline (Stewart, Stanford and Hardy, 2018). When wages fail to keep up with the cost of goods and food, food insecurity can occur, as confirmed by Reeves et al.'s European analysis (2017). Following the crash, wages stagnated in Europe, which coincided with increases in food prices; in some countries, food prices exceeded wage stagnation sevenfold (Reeves, Loopstra and Stuckler, 2017, p. 1415).

### 3.1.2.3   Maternity Leave Policies

Policies that accompany employment can impact a household's ability to be food secure. Research linking maternity leave and food insecurity is not a developed area of the literature. Primarily, studies into this area revolve around breastfeeding and the food security of the child (Gross et al., 2019; Wong et al., 2019; Venu et al., 2017; Salmon, 2015). While the studies show mixed results

about whether breastfeeding significantly reduced food insecurity for the child (Gross et al., 2019; Wong et al., 2019; Venu et al., 2017; Salmon, 2015), the literature is still expanding.

Paid maternity policies and countries with parent-friendly labour protections and practices may prevent interruptions or the elimination of employment income, allowing for more immediate food security. Wage disruption around childbirth certainly can be viewed as an income shock and, as previously discussed, can lead to food insecurity (Kang, 2020; Gross et al., 2019; Leete and Bania, 2010).

Gross et al.'s US qualitative work with low-income Hispanic mothers during pregnancy and breastfeeding summarises the situation well. A key emerging theme was that financial strains were common, including job instability, difficulty to meet basic needs, and compounding issues with their immigration status (2019). A second emerging topic was the mothers' concern around the health implications for their child when they were unable to afford a healthy, quality diet (Gross et al., 2019).

### 3.1.3 Defence, Security and Foreign Affairs

While arguably the most off-topic circle in Figure 8, this policy sector serves an important role. Fundamentally, this sector influences food (in)security, both from a macro and micro analysis perspective. Defence and security, alongside foreign affairs, influence spending priorities and trade agreements. These affect the price of goods and foods, impacting household budgets as well as how policies may target some groups over others in ways that make food security achievable (Barlow et al., 2020; FAO, 2009a; Rocha, 2007).

Some areas of literature are more developed than others. For example, there is a substantial body of work on immigration status and the prison system (Carney, 2020; Tarraf, Sanou and Giroux, 2013; Weigel et al., 2007; Wirth, Strochlic and Getz, 2007). One's immigration status, experience with the prison and probation systems, and policies such as anti-social behaviour regulations all have significant impacts on which social security resources are available to them. In the UK, those who have anti-social behaviour violations may be excluded from receiving some welfare benefits (Rodger, 2012), which could impact their ability to be food secure.

#### 3.1.3.1 Prisons

An emerging policy connection is amongst those who have interacted with the prison and probation systems and food insecurity (Scott et al., 2020; Dong et al., 2018a, 2018b; Wang et al., 2013). Engaging in either or both can lead to a loss in income, issues in gaining employment, and potential medium- to long-term impacts such as being banned from living in certain areas and restricted

access to welfare schemes (Cox and Wallace, 2016). A US study of probationers in Rhode Island found 70.4 percent experienced food insecurity, compared to the 12.8 percent food insecurity rate within the state at the time (Dong et al., 2018a). Cox and Wallace found that having a family member incarcerated in households with children in the US is 'universally positively correlated with household food insecurity' (2016, p. 1073).

Issues also include the role of food within prison systems. Discussion ranges from the power dynamics that result from who feeds whom within the food system, where those incarcerated consume their food, the dietary standards of the food served, and the agency tool of hunger strikes (Earle and Phillips, 2012). Serving unappetising food, restricting consumption and using food as a punishment tool are historically commonplace (Smoyer and Lopes, 2017). Smoyer and Lopes found issues in women's prisons included women having to cook and consume foods out of garbage bags, being denied food upon intake, having little time to consume their food, illogical and unhealthy menus, lack of empathy towards the inmates' food needs, and degradation and humiliation through food (2017).

### 3.1.3.2    Immigration

Immigration and legal status have important ties to food insecurity (Carney, 2020, 2015b; Tarraf, Sanou and Giroux, 2013; Wirth, Strochlic and Getz, 2007). Canadian statistics confirm a higher rate of food insecurity amongst recent immigrants at 17.1 percent, whereas those who had immigrated longer than five years previously experienced food insecurity at 13.8 percent; this compares to the Canada-born rate of 12.2 percent over the same 2017–18 period (Tarasuk, Mitchell and Dachner, 2016). Tarraf et al. highlight the intersection of food insecurity with higher rates of unemployment and low income amongst immigrants, and specific food-related issues such as instability in accessing culturally appropriate foods (2013). A Toronto study found that 56 percent of the Latin American immigrants studied faced food insecurity, with the main correlations being around food bank usage, social assistance as the primary income source and limited literacy in English (Vahabi et al., 2011).

An issue this study raised was how immigrants fared against food insecurity when they had restrictions on the public funding and social services they could access. UK welfare policies restrict non-citizens' access to public funds, known as no recourse to public funds (NRPF) (O'Connell and Brannen, 2019; Shaw and Sharpe, 2016). Generally, NRPF is thought of as a restriction to the large safety net programmes like Universal Credit (UC). However, in practice it also limits access to local authority services such as homelessness services and council housing, reduced employment services, secondary National Health Service (NHS) healthcare, and requires approval for support for children via the Children Act 1989, such as free school meal vouchers (O'Connell and Brannen, 2019).

Without access to these sorts of funds, many families of various legal statuses, including refugees, asylum seekers, those without documentation or those with temporary work visas, may face issues of income and access associated with food insecurity (Carney, 2020; Maynard et al., 2019; O'Connell and Brannen, 2019).

US research often focuses on immigrant farmworkers, highlighting the irony of so many farmworkers experiencing food insecurity while their work enables the food security of others (Weigel et al., 2007; Wirth, Strochlic and Getz, 2007; Kasper et al., 2000). A study of low-income, Latino, Vietnamese and Cambodian immigrant farmworkers with legal status and documentation across California, Texas and Illinois revealed 81 percent of their households were food insecure, with 14 percent experiencing the most severe measure of food insecurity (Kasper et al., 2000). Wirth et al. found that the documentation status of farmworkers was a significant predictor of food insecurity in Fresno County, California, a predominantly agricultural region (2007). Migratory status also matters, with 43 percent of non-migratory respondents being food insecure as opposed to 55 percent who migrated to follow the crop seasons (Wirth, Strochlic and Getz, 2007).

### 3.1.3.3  Defence and Military Spending

Looking at the US, the Department of Defense (DOD) does not have an inherent stake in food (in)security, but due to the government's strategic initiatives and military assistance, food security efforts may be required by law (Katsos, 2017). This claim is justified by the notion that without food security the political, economic or social stability of a society may be impacted, so military intervention may be reasonably involved in securing what the government refers to as 'human security' (Katsos, 2017). Furthermore, the government rationalises that national security can be impacted by food insecurity both domestically and on foreign ground, working with other countries to achieve food security in their nations too (Katsos, 2017).

Three interesting points help to see how the DOD operationalises this goal. The DOD is extremely well-funded compared to other departments, with a staggering US$700 billion-plus 2020 budget (Macias, 2020). In comparison, the USDA, which oversees the Supplemental Nutrition Assistance Program (SNAP) – a food benefits programme – faced a budget decrease from US$155 billion to US$146 billion, with US$25 billion earmarked for SNAP (USDA, 2020a). These budgets depict that the DOD has the capacity for more programmes than other government sectors and demonstrates the DOD's power (Katsos, 2017). Politically, media pundits and activists call for reallocation of the massive DOD budget towards domestic issues such as housing and benefits (Hartung, 2020; Koshgarian, 2018; Friedman, 2017).

A second intersection comes with foreign occupation. When the DOD occupies foreign areas, it triggers legal responsibilities, including protecting humanitarian workers' food distribution efforts and aid to the community occupied, to ensure food availability and access (International Committee of the Red Cross [ICRC], 1949). Third, military households themselves experience food insecurity, with nearly one in seven families reporting so (Wax and Stankorb, 2016). Wax and Stankorb attribute this to a series of factors, including the limited employment of military spouses putting families close to the poverty line, being junior within the military hierarchy, and the high rate (40 percent) of military families having children (2016). Research on veterans of the Iraq and Afghanistan wars shows this group faces economic issues that lead to food insecurity (Widome et al., 2015). Widome et al.'s 2012 survey revealed that one in four veterans had experienced food insecurity over the previous year, with 12 percent classified as having very low food security (2015).

### 3.1.4    Housing

Research linking food insecurity to housing is a burgeoning topic, particularly in the UK and North America (Clair et al., 2019; McIntyre et al., 2016a; Loopstra and Tarasuk, 2012; Kirkpatrick and Tarasuk, 2011; Kushel et al., 2006). As food insecurity has root causes in a lack of income, the general logic is that if housing is affordable, this allows for more money to be budgeted consistently towards food (Kirkpatrick and Tarasuk, 2011). Canadian research has consistently found that those who are without permanent housing, in social housing, or high expenditure housing costs (over 30 percent of one's income) are more likely to be food insecure (Tarasuk, Mitchell and Dachner, 2016; Kirkpatrick and Tarasuk, 2011). This section explores how asset-based welfare has impacted housing and food insecurity, as well as how homelessness engages with the issue.

#### 3.1.4.1   Asset-Based Welfare

The UK's contemporary issues with the housing market and its connection to food insecurity are traceable. Former suitable social housing provision has been replaced with an asset-based welfare system through Margaret Thatcher's Right to Buy housing system. The transition from state-provided financial support through social benefits to asset-based support has transformed into a system where one's assets and one's own individual responsibilities such as homeownership are the reliable safety nets rather than the traditional welfare safety net (Lowe, Searle and Smith, 2012).

Clair et al. attribute these changes and their lasting effects on the UK housing market (e.g. reduced creation and maintenance of affordable and social housing) as part of food insecurity (2019). Their study of food bank users revealed many have problems with housing costs and precariousness, poor housing conditions, and were most likely to live in rented or temporary accommodation (Clair et al., 2019). The study fits within the narrative of the personalised, asset-based safety net, as owner–

occupier food bank users were a very small population of their sample (Clair et al., 2019). Research from Scotland adds depth to this, reporting that those in deprived communities who used food banks were more likely to live in social rented housing, struggle to make rent payments, and have changes in their housing benefits (MacLeod, Curl and Kearns, 2019).

Asset-based welfare can most readily be applied to homeownership. In Canada, food insecurity amongst homeowners in 2009 was at 3.9 percent, whereas non-homeowners had a food insecurity rate of 17.9 percent (McIntyre et al., 2016a). Other research found that one in four Canadian households in rented accommodation were food insecure, while only 7.2 percent of households that were owner-occupied faced food insecurity (Tarasuk, Mitchell and Dachner, 2016). Fletcher et al. give further context to this phenomenon, finding that young US families near the poverty line with children in rented accommodation were more likely to become food insecure when housing costs increased versus low-income homeowners (2009). In an asset-based welfare system, the protection of homeownership extends past the conceptual element of providing one's own welfare safety net, and in the moment acts as a mitigating factor against food insecurity.

### 3.1.4.2   Homelessness

While logic may presume that food insecurity and homelessness are inherently connected, this connection cannot be assumed. Gundersen et al. describe this relationship as some may risk homelessness to ensure food consumption, while other households may take the opposite approach: rent first, then the remaining funds go on food (2003). That said, research suggests that those who have the experience of homelessness, particularly in households with children, find that food insecurity is present (Whitbeck, Chen and Johnson, 2006; Gundersen et al., 2003; Dachner and Tarasuk, 2002). A study of homeless runaways in the Midwestern US found that approximately one-third have experienced food insecurity in the previous 30 days (Whitbeck, Chen and Johnson, 2006). An Australian qualitative study found a common theme of persistent hunger and anxiety surrounding food acquisition (Crawford et al., 2014); the authors identified the themes of food insecurity and homelessness, illustrated in Figure 11 (2014, p. 74):

*Figure 11: Primary and Secondary Themes of Homeless and Food Insecurity within Australian Study*
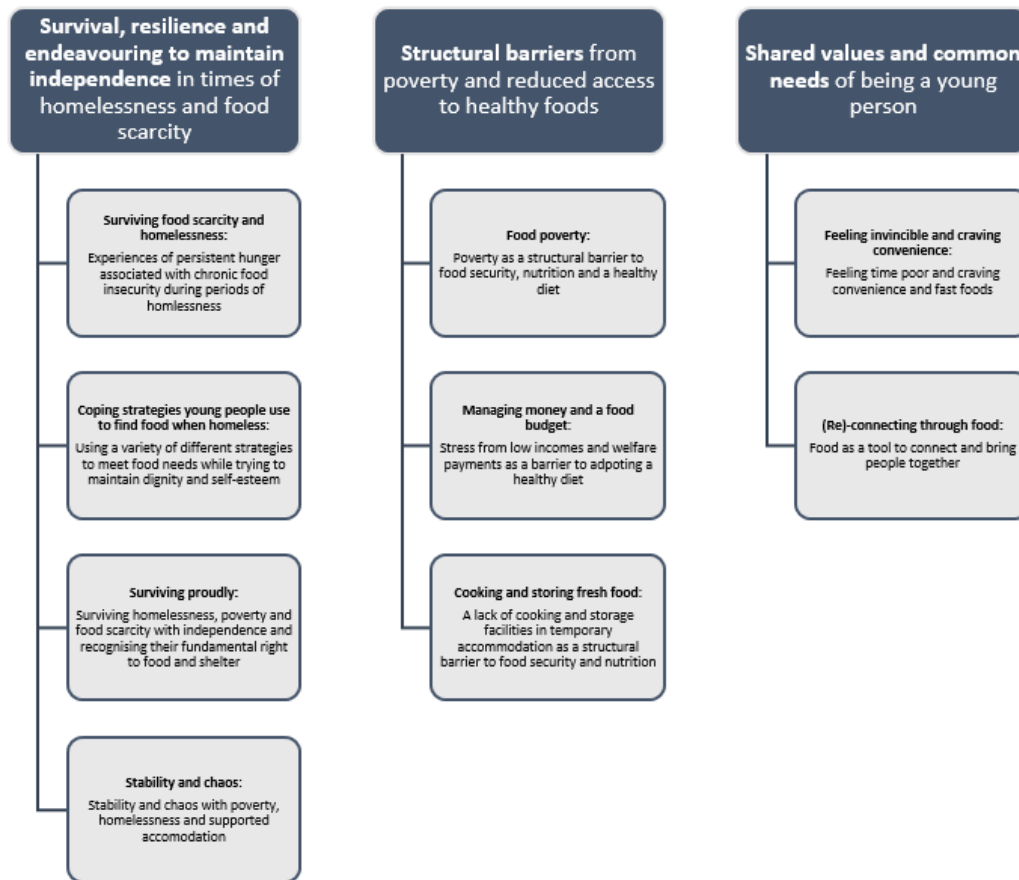


Gundersen and colleagues suggest that policies targeting homelessness, such as relaxing housing codes and cash transfer programmes, can be thought of in terms of food insecurity relief measures (2003); this aligns with this thesis's approach of holistic evaluation of food insecurity. Other ideas about homelessness services linking to food insecurity services appear to be mainstream in the charity sector, such as shelters signposting to food banks or serving hot meals, but policy connections remain relatively limited.

### 3.1.5    Public Health

As previously discussed, personal health and the healthcare sector are greatly influenced by food insecurity and can contribute to one's ability to be food secure. This section will use the example of prescription drug pricing and its potential influences on food insecurity.

#### 3.1.5.1    Prescription Drugs

Public health policies regarding prescription medicines vary amongst global north nations. Comparatively, the US is an outlier to other industrialised countries, using market-driven policies,

restricting price negotiations and creating longer monopolies on drug formulas (Kang et al., 2019a). The market-driven approach heavily relies on sharing the cost of prescription drugs with the user, whereas across Europe there is little or no cost sharing in the system (Kang et al., 2019a). This policy approach affects drug prices. Kang et al. compared 76 brand-name drug prices in the US with those in Canada, Japan and the UK, finding on that average drug prices were 220–310 percent higher in the US (after any rebates) than in the other country (2019b). For specific drugs, the price differences varied from 30 percent to 6,910 percent (Kang et al., 2019b). Based on the substantial burden of drug prices in the US, this section focuses on this connection.

Prescription costs can contribute to difficult budgetary decisions and coping techniques both with medicine and food for those with low incomes (Men et al., 2019; Knight et al., 2016; Afulani et al., 2015; Herman et al., 2015b). Cost-related medication nonadherence (CRN) is a coping technique used by patients to address these high costs. CRN includes not following one's treatment regime due to the inability to afford medication, missing doses or stopping medicines, taking smaller doses to ensure the medicine lasts longer, and avoiding, delaying or skipping refilling a prescription due to cost (Men et al., 2019). With food, other coping mechanisms and other debates emerge about where to reduce expenditure, what type of food to purchase and the use of food aid or other programmes (see Chapter 2). Akin to the heat or eat dilemma (see section 2.3.3), there can be a nuanced combination of rationing strategies in both, rather than a stark trade-off (Snell, Lambie-Mumford and Thomson, 2018).

Herman and colleagues' study found food insecurity to be a risk factor to CRN, confirming a relationship between the two areas: the odds of participating in CRN increased with the severity in food insecurity (Herman et al., 2015b). Researchers found that those 65 and older who used CRN techniques such as medicine underuse increased with the level of food insecurity severity (Afulani et al., 2015). Sattle and Lee identified that participants who exhibited CRN tended to be younger, have a low income and be in poorer health, offering some additional context (2013).

The need to decide between food or medication or an insufficient combination of both can lead to intensified symptoms of diseases, as well as short- and long-term health problems, potentially furthering the need for medication and healthcare treatments (Knight et al., 2016). US research found 18.9 percent of people with diabetes reported one or more CRN behaviours, with 45.6 percent of food-insecure diabetics participating in the practice (Knight et al., 2016). Other work found 42.9 percent of food-insecure diabetics had used less insulin than prescribed, had significantly higher HgbA1c levels and struggled with glycaemic control (Nhoung et al., 2020). Insulin costs on

average US$210 per month in the US, compared to countries such as the UK where it free to the user, giving insight into why diabetes is studied against food insecurity (Prasad, 2019).

### 3.1.6 Social Security

Documentation on the impacts of the social security system on food insecurity exists across multiple countries (Brown and Tarasuk, 2019; Temple, Booth and Pollard, 2019; Loopstra et al., 2018b; Coleman-Jensen, Rabbitt and Gregory, 2016; Duffy and Zizza, 2016; Li, Dachner and Tarasuk, 2016; Schmidt, Shore-Sheppard and Watson, 2016; Gregory, Rabbitt and Ribar, 2015; Power, Little and Collins, 2015; Bartfeld et al., 2006; Riches, 2002). Any programme or policy that acts in the interest of building the social security net could be considered part of a food insecurity scheme, whether directly related or not.

Factors that can contribute to food insecurity include insufficient generosity of benefits, such as with the US's SNAP amounts (Rosenbaum and Keith-Jennings, 2016; Gregory, Rabbitt and Ribar, 2015). Issues can stem from poorly designed benefit systems such as the UK's UC, which includes a five-week minimum wait between benefit approval and receipt (End Hunger UK, 2018). Other issues consist of the general approach to welfare, including devising social security measures under a welfare-to-work approach, which features numerous hurdles and obligations, making the welfare conditional (Richards, Kjærnes and Vik, 2016). Research indicates that if welfare programmes are generous enough, they can reduce food insecurity, as Schmidt et al. discovered in the US; their study revealed a US$1,000 increase in cash or benefits could reduce food insecurity by 33 percent (2016).

Welfare reform shines a light onto how social security influences food (in)security. Not only does a programme's original design affect how it interacts, but its implementation, engagement and any alterations can also have a significant effect – for example, UK welfare sanctioning led to an increase in the rate of the adults utilising food banks (Loopstra et al., 2018b). In Australia, food insecurity amongst low-income single parents increased due to changes in welfare eligibility (McKenzie, 2017).

Many programmes and policies feature throughout this thesis, but there are a few noteworthy areas that are worth examining specifically. This section focuses on three social security areas – pension programmes, disability benefits, and the Poverty Reduction Strategy in Newfoundland, Canada – as examples of how social security can be used to reduce food insecurity (Loopstra, Dachner and Tarasuk, 2015b).

#### 3.1.6.1 Disability Benefits

Disability has the potential to engage with food insecurity on multiple fronts, and often does. In their scoping review, Schwartz and colleagues consistently found that people with disabilities faced a

higher likelihood of food insecurity (2019). Huang et al. summarised the potential drivers as follows (2010, pp. 112–113):

- Households with a disabled person(s) may have more economic strain, as there is lower labour participation;
- Disability may create additional household expenditures (e.g. out-of-pocket healthcare costs); and
- Coping strategies may be more limited for those with disabilities due to limited education, typically low-skilled job experience and cognitive impairments, which could eliminate options such as manipulating budgets and food expenditure.

For many, disability may not be a permanent status but transient, effecting potentially sudden changes in income, the ability to work, employability and economic conditions (Huang, Guo and Kim, 2010). This complicates the relationship with food (in)security, making it challenging to measure fully, although not impossible (Huang, Guo and Kim, 2010). Research consistently shows that households with a person with disabilities are more susceptible to food insecurity (Schwartz, Buliung and Wilson, 2019; Loopstra and Lalor, 2017; Huang, Guo and Kim, 2010). Those with disabilities are particularly vulnerable to poverty more generally; for example, 27 percent of families with a disabled household member were in poverty in the UK in 2013–14 compared to 19 percent for families without a disabled household member (Macinnes et al., 2015).

Disability benefits can prove extremely important in regulating food insecurity amongst disabled populations but often are not enough to prevent it. Australian disability benefits, Disability Support Pension (DSP), are available to those 16 and older but below the pension age threshold, who cannot be employed or undergo training for the next two years, and are contingent on a definable, qualified disability (Temple, Booth and Pollard, 2019). Research by Temple et al. revealed that 12 percent of those receiving DSP were food insecure, significantly higher than the 1.3 percent in the study who not receiving welfare benefits (2019).

UK research identifies links between disability and food insecurity (Ryan, 2019; Loopstra and Lalor, 2017). This is somewhat unsurprising as people with disabilities have faced some of the most substantial impacts of the austerity measures (O'Hara, 2014). Austerity led to reductions in disability benefits for many and placed further hurdles on proving disability status, including inadequate fit-to-work tests and medical examinations (Haddad, Perry and Hadfield-Spoor, 2017). A 2017 Trussell Trust report showed that half of households using food bank included a person with a disability, over-represented in low-income food bank users threefold (Loopstra and Lalor, 2017). Disability benefits could potentially mitigate the potential drivers of food insecurity, if generous enough, but

throughout nations such as Australia, the UK and the US this does not occur (Schwartz, Buliung and Wilson, 2019; Loopstra and Lalor, 2017; Huang, Guo and Kim, 2010).

### 3.1.6.2    Pension Programmes

Pension programmes offer insight into how benefits engage with food insecurity. As there is often a defined age threshold, analysis can review experiences with food (in)security once the threshold is met and pensions implemented. In Canada, those aged 55–59, right before pension benefits are allocated, experienced food insecurity at a rate of 43 percent (Tarasuk, 2017). Once Canadians reach pension age (65 or older) food insecurity drastically reduces to 16 percent (Emery, Fleisch and McIntyre, 2013). Emery et al. confirm that the stable, adequate income that comes with a pension reduces food insecurity (2013). However, pensions are not a cure-all to food insecurity. Issues can arise from altering pension programmes, such as raising the eligibility age. Emery et al.'s research showed that if the pension age threshold in Canada increased to 67, food insecurity would extend for those in low income by two years, potentially doubling the rate for those 65–67 years old (2013).

Problems also arise when private pensions become vital income for elderly people. UK Office for National Statistics (ONS) data showed that 1.8 million pensioners lived below the poverty line in 2016, with 9 percent in persistent poverty (Purdam, Esmail and Garratt, 2019). This aligns with austerity cuts to state benefits and reduced services for elderly people, placing greater importance on private pensions, general savings and coping mechanisms such as food bank usage (Purdam, Esmail and Garratt, 2019). Food insecurity amongst this population is lower than in other groups, such as single mothers, but it is a trend emerging from changes to the welfare system (Loopstra and Lalor, 2017).

### 3.1.6.3    The Poverty Reduction Strategy: Newfoundland, Canada

Canada provides a unique example of how altering social security schemes can lead to reduced food insecurity (Tarasuk, 2017). A 2007– 012 regional poverty reduction scheme in Newfoundland tested what impact social security changes could make, in turn potentially affecting food (in)security (Loopstra, Dachner and Tarasuk, 2015b). The programme was formed to lift those in poverty and receiving benefits out of the position of needing government support. This included increasing health benefits for those on social assistance, measures to decrease and subsidise rent, increasing affordable housing, and tax reductions for low-income households (Loopstra, Dachner and Tarasuk, 2015b).

In 2007, Newfoundland had the highest rate of food insecurity of Canada's provinces at 15.7 percent, but by 2011, rates dropped to 10.6 percent (Loopstra, Dachner and Tarasuk, 2015b).

Reductions were also seen in households receiving social assistance (Tarasuk and Mitchell, 2020, p. 1), as seen in Figure 12.

*Figure 12: Prevalence of Food Insecurity among Households in Newfoundland and Labrador Reporting Income from Social Assistance*



**Prevalence of food insecurity among households in Newfoundland and Labrador reporting any income from social assistance**

**Key Interventions in NL poverty reduction strategy:**
↑ income support rates indexed to inflation
↑ earning exemptions
↑ health benefits
↑ low-income tax threshold
↑ affordable housing
↑ liquid asset limits

**Data Source:** Statistics Canada, Canadian Community Health Survey (CCHS) , 2007-2012

While the programme was not designed to address food insecurity, its overall impact of reducing social assistance needs and, presumably, increased income, aligns with the known benefits of increased income and liquid assets (Tarasuk, 2017). This demonstrates social security changes can translate to lower food insecurity, registering with the holistic approach to food insecurity reduction. It also shows that when social security schemes and policies are retracted or altered, food insecurity can return. Data from 2017–18 reveals that 14.7 percent of households in Newfoundland were food insecure, with 65 percent of households who rely on benefits being food insecure (Tarasuk and Mitchell, 2020).

This chapter reviewed many of the related policy contexts and policies that influence food insecurity, which is vital to a holistic understanding of the issue. The following chapter introduces direct policy and community responses to food insecurity from a range of actors.

## 4 Chapter 4: Styles of Food (In)Security Responses

Governments can directly intervene with food (in)security policy, programmes and legislation. Options range from in-kind programmes directly providing food to financing the procurement of food through cash benefits (Schmidt, Shore-Sheppard and Watson, 2016; Power, Little and Collins, 2015; Hidrobo et al., 2012). The two primary approaches in the global north include distribution in

schools (school-based meals, and breakfast and lunch schemes) and benefit schemes that account for food. Benefits that feature food often are part of benefits that aim to offer comprehensive support, such as those targeted at new parents, such as Canada's Prenatal Nutrition Program (CPNP) and the UK's Healthy Start (Lucas, Jessiman and Cameron, 2014; Public Health Agency of Canada, 2023). Healthy Start gives free food and vitamin vouchers through accepted retailers to qualifying persons who are pregnant or have children under the age of four; similarly, CPNP's support includes food and food coupons (NHS, n.d.; Lucas, Jessiman and Cameron, 2014; USDA Food and Nutrition Service, 2013).

The purpose of this chapter is to explore the direct policy and community responses to food insecurity, which are the most direct forms of action and response taken. Chapter 2 reviewed food insecurity's existence, Chapter 3 reviewed the broad areas that affect food insecurity and Chapter 4 narrows down how food insecurity is addressed in the global north.

## 4.1    Examples of Styles of Responses

### 4.1.1    Vouchers: Supplemental Nutrition Assistance Program (SNAP)

This section focuses on exploring the US's SNAP as a generalised policy option – and why it is not replicated in other nations – before discussing school meal programmes that are more widely used in section 4.1.2.

Originally called food stamps, SNAP was introduced to repurpose the food surplus produced by farmers, delivering it to impoverished urban families (Poppendieck, 1998). This programme sets path dependency, and explains why the US continues to use large-scale food assistance programmes over indirect food insecurity relief measures, such as strict cash assistance programmes (Poppendieck, 2014). While local councils and regions in other countries such as Canada and the UK have explored or piloted food voucher measures, none have been executed federally in the US outside of a school setting (Power, Little and Collins, 2015).

SNAP provides vouchers, commonly in the form electronic benefit transfer (EBT) debit cards, for low-income Americans to obtain food (Poppendieck, 2014; Carney, 2015a). The programme is counter-cyclical: to increase the number of benefits (vouchers) issued during economic downturns and reduce benefits (vouchers) allotted during economic booms (Hanson and Oliveira, 2012; Canning and Stacy, 2019). SNAP benefits ranges are shown in Figure 13 (Center on Budget and Policy Priorities, 2019, p. 1).

*Figure 13: SNAP Benefits by Household Size*

TABLE 1
## SNAP Benefits by Household Size

| Household Size | Maximum Monthly Benefit, FY 2019 | Estimated Average Monthly Benefit, FY 2019 |
|---|---|---|
| 1 | $192 | $131 |
| 2 | $353 | $239 |
| 3 | $505 | $365 |
| 4 | $642 | $448 |
| 5 | $762 | $506 |

Note: Estimated average benefits are calculated using fiscal year (FY) 2019 income eligibility standards and deductions and FY 2017 SNAP Quality Control Household Characteristics income and expense data, inflation-adjusted to FY 2019.

Source: U.S. Department of Agriculture, "SNAP Fiscal Year 2019 Cost-of-Living Adjustments" (https://fns-prod.azureedge. net/sites/default/files/snap/COLAMemoFY19.pdf), FY 2017 household characteristics data, and cost of food plans. SNAP benefits in Alaska, Hawaii, Guam, and the Virgin Islands are higher than in the other 48 states and D.C. because income eligibility standards, maximum benefits, and deduction amounts are different in those states and territories.

The 2018 federal spending on the programme was US$68 billion, with 92 percent allocated to benefit distribution (Center on Budget and Policy Priorities, 2019). The graphs in Figures 14 and 15 depict that since the Great Recession participation has fallen in recent years but so has spending on the scheme (Center on Budget and Policy Priorities, 2019, p. 1).

*Figure 14: SNAP Participation 2006–18*

## SNAP Participation Rose Due to Recession But Now Is Falling

Number of SNAP participants in average month in fiscal year

Source: Department of Agriculture

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG
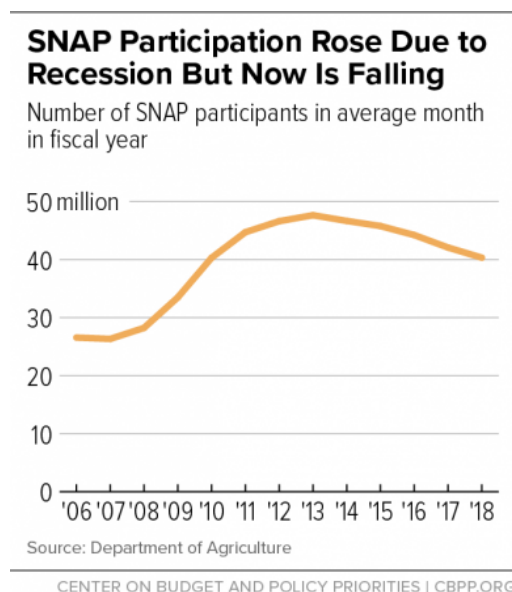
*Figure 15: Projected SNAP Participation 1995–2029*



**SNAP Costs Falling, Projected to Fall Further**
Spending as a share of gross domestic product

Note: Dotted line indicates CBO projection.
Sources: Department of Treasury, Office of Management and Budget, Bureau of Economic Analysis, and Congressional Budget Office May 2019 baseline.

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG
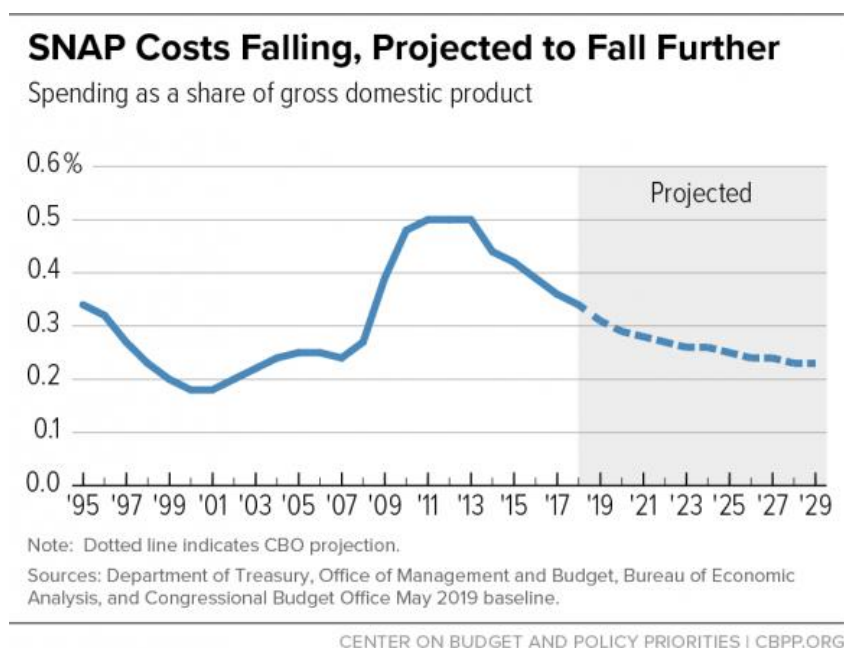
During the Trump administration, SNAP benefits' generosity was rescinded and narrower eligibility requirements were introduced (Luhby, 2018; Cohen, Poppendieck and Freudenberg, 2017). Concerning general enrolment rates, certain groups were not eligible for SNAP including undocumented and documented immigrants, most university students and those with certain savings and assets despite a low income (Center on Budget and Policy Priorities, 2019). Historically, there has been a distinct concern of eligibility versus participation in SNAP, meaning large amounts of people who qualify for the programme and do not enrol (Poppendieck, 2014).

Despite reforms, issues with accessibility and the ease of enrolling into and obtaining SNAP benefits still plays a critical role in under-enrolment. Akin to the accessibility and affordability aspects of food (in)security mentioned in Chapter 2, SNAP, like most food aid programmes, has hidden participation costs: travel time, transportation fares to SNAP office/SNAP accepted food markets, time spent enrolling/renewing benefits, and childcare costs (Gundersen, Kreider and Pepper, 2011). If the advantages of enrolment do not outweigh these costs, those eligible may choose to not participate. The enrolment process includes completing long forms, substantial documentation requirements, and convoluted rules and stipulations (Finkelstein and Notowidigdo, 2019).

Research has indicated that increased informational and assistance services for SNAP increased enrolment by elderly people, a typically low enrolment community, by 9 percent after nine months, but this came at a US$60 cost per enrolee (Finkelstein and Notowidigdo, 2019). To outweigh these costs, the benefits must be high enough to counteract them. Other disadvantages of SNAP include

that benefits are not tied to local food costs, meaning their effectiveness and potential generosity is not universal (Coleman-Jensen et al., 2019a). Before the crash, benefits were not always high enough for families to decide it was worth the stigma and hassle to participate (Gundersen, Kreider and Pepper, 2011).

Power et al. researched the potential implementation of a SNAP system in Canada (Power, Little and Collins, 2015). This comparison demonstrated whether the SNAP model was inherently successfully and worth replicating, or if it should just be considered a US solution. Power et al. concluded that a SNAP programme in Canada would have damaging implications (2015). They wrote that while data suggests SNAP did reduce rates of poverty and food insecurity, food insecurity and poverty were higher in the US despite SNAP compared to Canada and would not eliminate the systemic causes within the Canadian context (Power, Little and Collins, 2015). Power and colleagues offered general criticism of the SNAP model, stating the programme was paternalistic in nature, reducing the autonomy of its participants, and created stigma (2015). A powerful disadvantage the authors noted in their analysis was that food insecurity remained high in the US even with this large-scale programme (2015). One could argue that if the programme successfully lifted people from poverty and food insecurity, enrolment should be decreasing and previous users would no longer need food welfare schemes.

### 4.1.2    In-Kind Government Support: School Meals Programmes

Schools is one of the areas with which governments directly engage for food insecurity relief. Food insecurity affects academic performance through lack of concentration, lack of proper nutrition to support cognitive function, stress and anxiety regarding where food will come from next, and strained peer relationships (Rodgers and Milewska, 2007). US studies found food insecurity amongst six- to 12-year-olds was associated with poorer maths scores, absenteeism, anxiety, aggression, increased likelihood to repeat an education year, psychological dysfunction, tardiness and difficulties in socialising with others (Jyoti, Frongillo and Jones, 2005; Kleinman et al., 1998; Murphy et al., 1998). Research from Australia, the UK and continental Europe shows similar findings across all school-age groups, although to varying degrees (Kellogg's UK, n.d; Petralias et al., 2016.; Ramsey et al., 2012, 2011).

School-based meal programmes take on different forms, including breakfast programmes, reduced-price or free lunches for those who qualify, universal free school meals, take-home meals, snack packs and taking home food supplies and ingredients (Ministry of Education, 2020; Kuhn, 2018; Gundersen, Kreider and Pepper, 2012; Haldeman and Ribar, 2011; Simon, 2006). School-provided meals prove to be a unique initiative due to their specific recipient, the student, who typically is not

in control of what other food insecurity relief measures their household participates in. While not all family members directly benefit from the school food programmes (i.e. they do not consume the school meals themselves typically), the schemes influence a household's broader food security. All the benefits, relief measures and food charity initiatives used in a household intersect with school meal programmes forming a web of support for households (Kuhn, 2018).

The stabilising effect of having school meals ensures a more regular meal consumption for students throughout the benefits cycle (Kuhn, 2018). However, the impacts of school closures were still recognisable (Kuhn, 2018). The combination of benefits and school meals, when in sync, is demonstrated in Kuhn's work (2018). Figure 16 illustrates the flawed nature of school meal programmes in that they typically are only beneficial when schools are open (2018, p. 30),

*Figure 16: Consumption Trends by School Status for Children Receiving School Meals*
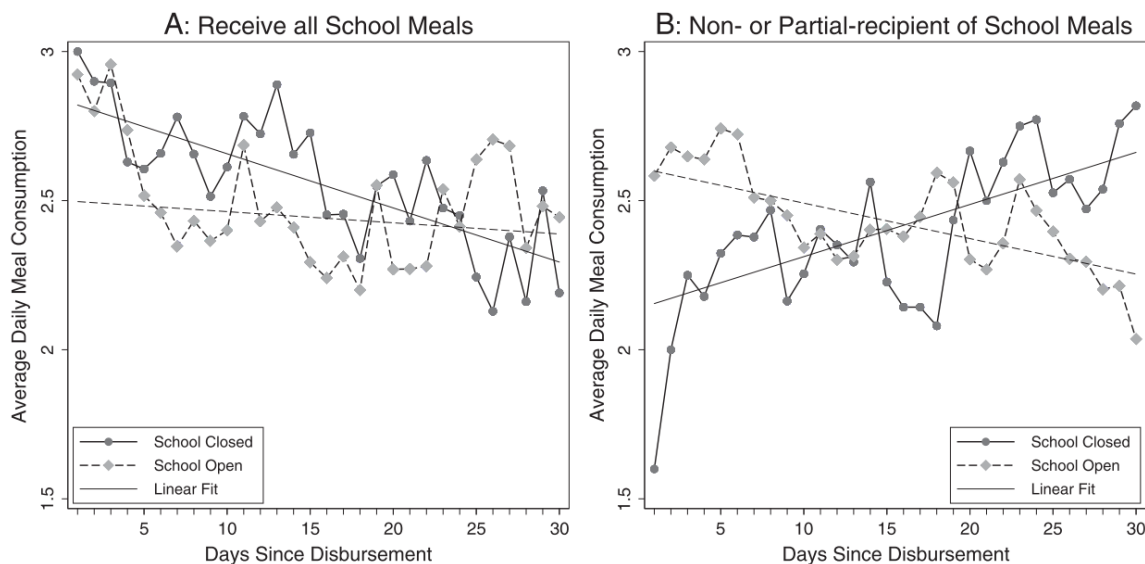


While forms and success vary, school-based food programmes can be a positive intervention tool. Benefits can include weight reduction for obese children, healthier eating habits, improved mental and psychological health, better academic performance, lower absenteeism rates, and a notable reduction in school dropout rates (Petralias et al., 2016; Brug et al., 2010; Belot and James, 2011; Blössner, 2011; Brown, Beardslee and Prothrow-Stith, 2008; Jansen et al., 2008; Kristjansson et al., 2007; Doak et al., 2006).

A key pillar of school meal schemes, at least in rhetoric, is to provide nutritionally balanced options or support (Whitacre and Burns, 2010). US federal schemes include: the National School Lunch Program (NSLP), which provides cash subsidies and food donations to schools and school districts to

serve free or reduced-price lunches to those who meet the criteria, and the smaller Summer Food Service Program, designed to combat holiday hunger (Whitacre and Burns, 2010). The UK offers free school lunches depending on income and age group but lacks a concrete strategy for holiday hunger (Forsey, 2017). However, Covid-19 led to political traction for change on this gap in provision (Andersson, 2020; Oostindjer et al., 2017). Sweden and Finland offer free meals for all children, an effort to de-stigmatise food support (Oostindjer et al., 2017; Kirkendall, House and Citro, 2013; Haldeman and Ribar, 2011). Canada does not offer a national school meals programme due to fears of stigmatisation of those in poverty or in need of assistance (Oostindjer et al., 2017).

School breakfast programmes (SBP), also called breakfast clubs, are an option that some governments may explore. After a successful pilot scheme in 2014, Wales introduced legislation ensuring that if an eligible student requested an SBP in their local authority-run school, it must be provided (Lambie-Mumford and Sims, 2018). Other breakfast schemes do receive government funding or support but operate externally, such as in Victoria, Australia, where the government-backed FoodBank Victoria runs a programme for 500 schools with AU$3.7 million in funding (Macdonald, 2019). Summarising the literature, Turner and Chaloupka report that SBPs work well if students participate for long durations of time, but often lack consistent take-up (2015). US SBP take-up research suggests that only 52 percent of those qualified enrolled in the scheme studied (Turner and Chaloupka, 2015; Food Resource and Action Center, 2014). Lack of participation reasons range from difficulties in the morning timing of the programme, prohibiting attendance, and stigma (Turner and Chaloupka, 2015).

Universal SBPs are perceived more favourably than restricted access programmes, with consistent increased attendance amongst all student groups (Haldeman and Ribar, 2011; Murphy et al., 2011; USDA, 2004). Haldeman and Ribar found that when a North Carolina county removed its universal SBP and reverted to an eligibility-based one in 2008–9, participation rates fell substantially, including from those who still qualified (2011). Universal SBPs still face many barriers to success, notably funding and accessibility problems, such as inconsistent school transport and set start and finish times, but are viewed as a more substantive model to the qualified SBP schemes (Haldeman and Ribar, 2011).

Like SBPs, school lunch programmes (SLP) operate either on a universal or a conditional basis, providing either free meals or reduced-fare lunch. The Free and Healthy School Lunches in NZ aimed to pilot a study in 2021, serving up to 21,000 students, proposed as a food insecurity reduction policy (Ministry of Education, 2020). Greece's regionally trialled 2012–13 Food Aid and Promotion of Healthy Nutrition Program, DIATROFI, led to a statistically significant drop in food insecurity amongst

participants, from 64.2 percent of families enrolled in the scheme to 59.1 percent, with teens benefitting the most (Petralias et al., 2016). Statistics revealed families in more severe poverty benefited the most from DIATROFI (Petralias et al., 2016). The programme was the first significant school feeding programme in Greece, incorporating food aid, health promotion and built-in research initiatives, and was embraced by the school community (Petralias et al., 2016). The programme ran under a nutrition-based framework, but the research itself was one of few that illustrated results around insecurity reduction.

The literature on the health impacts of SLPs, similarly to SBPs, typically is structured within a nutritional context rather than around food insecurity. Studies remain varied in their understanding of dietary outcomes from the meal programmes, including contradictory studies on weight, body mass index (BMI), nutrition quality and health outlooks for participants (Gundersen, Kreider and Pepper, 2012; Gleason and Dodd, 2009; Fox, Hamilton and Lin, 2004). One comparative study found that regular SBP participation leads to lower BMI, but the same was not reported for SLP (Gleason and Dodd, 2009). Lunch programmes often must meet national or regional guidelines for nutrition, which potentially improves schemes in terms of nutrition outcomes (O'Connor, 2011). When the aims of the programmes vary between food insecurity and nutrition, the measure of success may vary, making programme evaluation complex.

While these programmes can be helpful, they are limited in how they can help families outside of term time. Community or school-led projects do exist to help fill the gap, often widening the scope of the project to include other activities such as games, crafts, sports or arts to combat stigma (Forsey, 2017). Covid-19 disruptions in 2020 led to intense advocacy in the UK over the lack of direct action for students going without food while attending school from their homes (Geraghty and Harris, 2020). England's Department for Education announced they would not continue the school voucher schemes over the 2020 summer break, while Wales declared those eligible would continue to be supported until school resumed after the summer term (Hawkins, 2020). How school-based meals operate already faced changes under Covid-19, but it appears expansion of the programmes outside term time was a policy option. Outside the UK, suggestions for how to address holiday hunger include specialised debit cards to financially help fill the gap, local government programming or charitable intervention (Gooseman, Defeyter and Graham, 2020; Kuhn, 2018).

The lack of conclusive data regarding the generalised effects of school meal programmes creates difficulties for policy evaluation and comparison. Regardless, the potential influence on food insecurity these programmes have for families is an attractive policy option for many governments. The varied planning and implementation of programmes is likely to depend on budgets, politics and

lobbying, school demographics, community engagement, existing infrastructure and access to resources (Institute of Medicine, 2010; Simon, 2006). The lack of programme-reflection studies creates barriers to effectively evaluating which programme approaches are the most successful. Research confirms many positive attributes of school meal programmes, but the overall comparative literature for generalised approaches remains insufficient and often is short term-ist in its evaluations (Oostindjer et al., 2017).

## 4.2   The Third Sector and Emergency Food Assistance

An additional avenue for food insecurity relief is emergency food assistance, or food charity. In this context, emergency food assistance describes short-term, emergency food-based support typically administered via the charitable sector. Emergency food assistance takes multiple shapes and arguably can be applied to multiple strategies and policies, e.g. a council administering a cost-of-living crisis grant, the term here narrowly refers to food-based emergency, short-term support which we commonly associated with the charitable section, such as food banks.

While academics and food advocates acknowledge that food charity and the third sector do not solve the causes of food insecurity, the charitable sector has grown to be a relied-upon avenue for immediate relief (Middleton et al., 2018; Riches, 2014; Caraher and Furey, 2017). Dependence on the charitable sector varies amongst countries, and often fills gaps within a nation's food (in)security approach; one example being the UK, which significantly relies on food charity and emergency food aid (Lambie-Mumford and Silvasti, 2020). In contrast, in Nordic countries the adoption of food charity addresses lesser direct need but still exists and is growing (Silvasti and Tikka, 2020; Silvasti and Karjalainen, 2014). The level of charitable dependence is contingent on the existing social safety net, cultural values, welfare regimes, as well as how normalised food aid and charity is within the area (Lambie-Mumford and Silvasti, 2020). Even in those regions that have strong welfare regimes and protections, food charity can still become embedded, as Silvasti and Tikka argue has happened in Finland (2020).

Across the global north, food charity and emergency food assistance are seen in a variety of forms, from religiously affiliated soup kitchens to local community-led pay-what-you-feel cafes and markets, and from luncheon clubs to large-scale food bank organisations. Formats and terminology may evolve and differ: the phrase 'breadline' is no longer commonly used to describe food distribution programmes; and the term 'food pantries' is common in the US, whereas food banks is preferred in the UK (Lambie-Mumford and Silvasti, 2020; Riches, 2018; Lindberg, Lawrence and Caraher, 2017; Riches and Silvasti, 2014b).

This section will focus on food charity under neoliberalism, with additional reflections on the 2008 financial crash and emergence of Covid-19. As Power and colleagues summarise, food charity aligns with the goals of a neoliberal political economy (2018). Food banks in particular work within free-market fundamentalism rather than fighting against it, with individual responsibility at the centre; food security exists as a personal rather than a government responsibility (see section 2.3.4) (Power et al., 2018; Cloke, May and Williams, 2017; Lambie-Mumford, 2017).

While academics widely research the prevalence and impacts of food charity in the global north (Lambie-Mumford and Silvasti, 2020; McIntyre et al., 2016b; Riches, 2018; Riches and Silvasti, 2014a; Gentilini, 2013; Poppendieck, 1998), there is no precise data about how many food charity schemes and emergency food assistance programmes are operating within these nations. Large networks of food banks and their affiliates, such as Feeding America, the Trussell Trust and Food Banks Canada, give the statistics of their far reach. Still, it is difficult to find a realistic estimate of the number of food charities due to the varying sizes of operations and networks. However, it can be deduced based on these organisations' number of facilities and number of users that the scope is extensive. Feeding America alone has a network of 200 food banks and 60,000 food pantries[1] (Waite, 2019). Food Banks Canada works with 10 provincial associations and over 500 food banks (Food Banks Canada, 2020a). The Trussell Trust counts 1,200 food banks within their network, which they estimate is roughly two-thirds of all emergency food banks in the UK (The Trussell Trust, 2020).

As the global north becomes richer and inequality increases in many countries, the normalisation of food insecurity represents the roughest form of capitalism for the least well-off; the responsibility for feeding the household is ultimately one's own duty, and any support is simply generosity (see section 2.3.4) (Riches, 2018). This deferral of responsibility onto the individual alleviates government groups from shouldering the task of ensuring their people are food secure. As Rocha (2007) argues, food insecurity can be viewed as market failure, with the individual-responsibility model undermined by the high prevalence of food insecurity in the global north.

However, as rich countries face food insecurity, it is a difficult argument to make that food charity should not be a tool to provide relief. Families use services such as food banks and soup kitchens to make ends meet, supplement insufficient income, tide them over until their benefits are allocated; alternatively, they are one of the only sources of aid for some groups, such as undocumented immigrants (Jitendra, Thorogood and Hadfield-Spoor, 2018; Fisher, 2017).

---

[1] Feeding America differentiates food banks from food pantries, with food banks being viewed as warehouse facilities for foods that may be distributed personally or through food pantries (Waite, 2019).

An important aspect of this is the religious ties many food charities have (Poppendieck, 1998). While food banks and other groups may not widely announce their religious affiliations, such as the Trussell Trust, their philosophical basis raises questions about the universality of the charity form. An example of this is that the TGNC community[2] may be alienated from the food charity sector. The utilisation of emergency food assistance may be a different experience for this population, as many religious food community groups may not always be accepting (Russomanno, Patterson and Jabson, 2019). A 2020 article of the same US study further expands on not wanting to utilise religious-group food pantries, with a participant stating, 'Everybody [at the religiously affiliated food pantry] stares, whispers of "what is that", "she's just confused"' (Russomanno and Jabson Tree, 2020, p. 7). These views tap into broader questions about who in practice has reliable access to these services and whether there is an issue with a religious agenda tied to food relief (Sammet and Erhard, 2018; Salonen, 2016).

Public perception of food charity is that it feels justified; that when there are people who are without there is a moral imperative to step in (Fisher, 2017). There is a reason food aid and concepts involved in the UK's Big Society are acceptable and moral, as in the US's War on Poverty started by the Johnson administration (Fisher, 2020; Ronson and Caraher, 2016; Poppendieck, 1998). The promotion of community involvement, localised responsibility, and the idea of 'caring for one's own' is symptomatic of a failing system (whether by choice or not is another debate) (Strong, 2018; Caraher and Coveney, 2015). Although the emergence and entrenchment of food charity and emergency food assistance, as discussed below, display significant flaws, a core issue is raised: what is an immediate alternative?

A 2015 Oxfam poll revealed that 82 percent of people in Scotland and 75 percent in the rest of Great Britain believed 'there is something fundamentally wrong in our society if people have to use food banks' (Oxfam Scotland, 2015, p. 1). The same poll found that 73 percent of people in Scotland stated it was either 'important' or 'extremely important' that the UK Government respond to the issue of food banks within the year (this was supported by 70 percent across Great Britain) (Oxfam Scotland, 2015). Despite this, volunteers do millions of hours of free work, propping up charitable systems (The Trussell Trust, 2017). A 2017 study reported that volunteers contribute over 4 million hours of unpaid work to UK food banks, which when calculated at the National Living wage of the time (£7.50/hour for over 25s) resulted in at least £30,883,482 of free labour (The Trussell Trust, 2017).

---

[2] TGNC refers to transgender and gender-nonconforming people and includes a variety of gender-related labels (Russomanno et al., 2019, p. 90).

The inherent problems with food charity – reliance on donations and volunteer labour and a limited service and operation capacity – were exposed in the Covid-19 crisis resulting in charities being unable to meet demand (Butler, 2020; Dilonardo, 2020). The panic buying early in the pandemic made it hard for food charities to keep stock, the decline in available volunteers made operations difficult, and expanding demand for food charity made it so they were unable to adequately serve as a patch or stopgap in the social safety net (Booth, 2020; Dilonardo, 2020; Goodwin, 2020; Pendleton, 2020; Stuart, 2020). In rural, less-connected regions such as Alaska and Northern Canada, food banks and food charity support could be challenging to implement. The Food Bank of Alaska saw a 75 percent rise in food bank demand since Covid-19, but the issues of using mostly imported foods to distribute to a geographically large state created distribution and logistical challenges, making food banks non-operational as a crisis relief measure (Friedersdorf, 2020). Durr of Food Bank Alaska told *The Atlantic* (Friedersdorf, 2020, p. 1) that:

> *Recently a prominent air carrier, RavnAir, declared bankruptcy and ceased operations.*
> *So there's concern from smaller communities about how they're going to get goods …*
> *Other airlines have step[ped] up to fill some gaps [in food distribution], but there's not a*
> *lot of wiggle room in these systems.*

Food charities are typically designed to be for emergency use only; hence, emergency food aid is synonymous with food charity, but as food charity becomes engrained the schemes respond beyond the point of emergency use, filling holes in systems that require political reform (Haddad, Perry and Hadfield-Spoor, 2017). So much so, the UK Job Centres, which help with (un)employment benefits, previously referred users to food banks, until the practice was banned due to criticism in 2019 (Bulman and Somerville, 2019). As charitable food services continue to be used to plug the gaps in the social welfare system, their role becomes further normalised and accepted (Riches and Tarasuk, 2014). While emergency food assistance schemes typically aiming to neither exist nor become long-term enterprises, reliance on them undermines this ambition. The more these charitable organisations serve a needed purpose in the social safety net, the easier it is to increase reliance upon them and expand them beyond emergency use only. As Riches and Tarasuk explain in the Canadian context, food charity is limited by the emergency function it operates within (2014). Parcels with a limited number of days' worth of food do not prevent hunger – its use and availability are restricted, and it is not always used by those who are food insecure due to stigma, or lack of desire and knowledge of the resource inhibit the system from operating at the level society asks of it (Riches and Tarasuk, 2014).

An inherent problem is that food charity does not allow those in need to obtain food in a dignified, independent manner – leftover or unwanted surplus food does not qualify as a dignified method of acquisition (Riches and Silvasti, 2014a). For the responsibility to fall onto the individual person or household, it must be ensured they have the resources to do so. Anything dependent upon charitable giving does not meet a threshold of dignified acquisition and verges with the deserving versus undeserving notions of what poor people deserve (Caraher and Furey, 2017).

This section will review small-scale food charity, then discuss large-scale food bank operations followed by a discussion of food bank entrenchment

### 4.2.1    Small-Scale Charitable Initiatives

St. Mary's Food Bank in Arizona in the US, often cited as the first food bank, opened in 1967 (European Food Banks Federation, 2020). Food banks operate by collecting, storing, then redistributing surplus, wasted or donated food to hungry people in need (Riches, 2011, p. 771). Food banks operate in an emergency capacity by design, to fill the gap in food needs for its users, and are a feature worldwide, including in NZ, Canada, Mexico, South Korea, Nordic nations, France and Germany (Riches, 2018; Gentilini, 2013). Restrictions often dictate who can use food banks or food charity based on context, such as in the UK where there is commonly a limit placed on food bank usage via a voucher referral system (Connolly, 2018).

Outside of food banks, social supermarkets (SSM) are another food charity scheme. Holweg et al. explain that food banks and SSMs are similar in social intention and in many operational facets, such as reliance on volunteers and distribution of surplus food and donations, but differ in their use of symbolic pricing to reflect the user's cost of living (2010). SSMs have operated throughout Europe since the 1980s and use donated surplus foods that would not be saleable within mainstream supermarkets (Patnaik Saxena and Tornaghi, 2018; De Renobales, Escajedo San-Epifanio and Molina, 2015). In 2013, SSMs operated sporadically throughout the global north, including in countries such as France with approximately 700 estimated SSMs and Germany with 640 SSMs (Schneider et al., 2015).

SSMs often are classified as a more dignified form of food charity as they replicate a retail environment (Patnaik Saxena and Tornaghi, 2018; De Renobales, Escajedo San-Epifanio and Molina, 2015). SSMs require a small payment rather than being pure donations, with some degree of independence and choice for users (Patnaik Saxena and Tornaghi, 2018; De Renobales, Escajedo San-Epifanio and Molina, 2015). There are arguments that SSMs are a better form of charity in terms of nutrition, as users can choose their diets purposefully rather than receive an assigned amount of goods that may include many sweets or unhealthy goods (De Renobales, Escajedo San-Epifanio and

Molina, 2015). Food banks and SSMs both frequently provide other services such as financial planning, food preparation skills classes, welfare system advice, and signposting to other services (Patnaik Saxena and Tornaghi, 2018; Garthwaite, 2016a; Schneider et al., 2015).

This said, there is limited research available on specific food charity initiatives outside of food banks. The amount of analysis focusing on user experience and demographics is more abundant than that on structural issues or policy implications (Middleton et al., 2018). Food charity research, and food insecurity research more generally, has mostly developed out of North America, but in the last decade there has been a growth in research in Europe (Lambie-Mumford and Silvasti, 2020; Loopstra, Lambie-Mumford and Patrick, 2018; Thompson, Smith and Cummins, 2018; Lindberg, Lawrence and Caraher, 2017; Garthwaite, 2016a; Riches and Silvasti, 2014a; Riches and Tarasuk, 2014; Riches, 2011; Tarasuk and Eakin, 2003; Poppendieck, 1998). As food charities become a more prominent resource to governments and communities, understanding their workings is critical to evaluate their capacity and appropriateness as a food insecurity relief source.

### 4.2.2    Large-Scale Operations: Food Banks

Many of the charitable food assistance schemes previously discussed have scaled to large organisational levels in the global north. The most overtly influential has been and continues to be, food bank organisations. Foodbank Australia services over 2,400 charities enabling them to feed 815,000 Australians per month (2020, p. 1); the Trussell Trust distributed 1.6 million three-day emergency food parcels between April 2018 and March 2019 (2020); Food Banks Canada through their 638 affiliated food banks serve 1.1. million Canadians per month (2020b, p. 1); and Feeding America through their food banks and food pantries have served one in seven Americans in their over 40-year history (2020, p. 1).

Not all countries that use food banks have adopted a centralised food bank coordinating body, such as in Finland where churches, unemployment associations and health charities often coordinate care (Silvasti and Karjalainen, 2014). While food bank organisations exist at a national level, international bodies also exist, often working in tandem. The Global FoodBanking Network works with more than 40 countries, offering training and knowledge exchange, building capacity initiatives and partnering with new food banks (n.d., p. 1). The European Food Banks Federation provides the model shown in Figure 17 (2020, p. 1).

*Figure 17: European Food Banks Federation Model*



European Union, producers, retailers, individuals...

Donate food

Sorted and stored in warehouse

Collected by food banks

Distributed to charities

Researchers Booth and Whelan outline the large Australian-scale food bank model in Figure 18 (2014, p. 1398).

*Figure 18: Australian Large-Scale Food Bank Model*
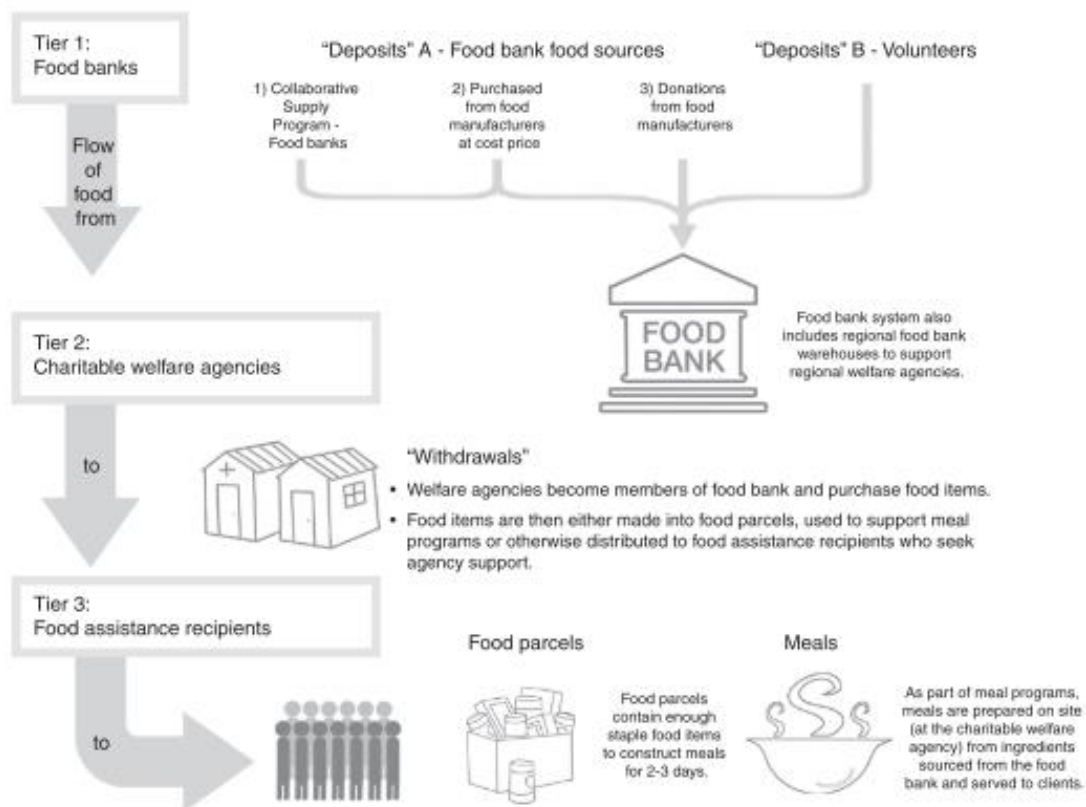


In comparison to small-scale food banks, the large-scale organisations benefit from wider name recognition and regional and national coordination, often a more extensive infrastructure, commonly under a franchise model, and more resources. The differences in resources and infrastructure can lead to a different service than that of independent food banks. In Scotland, many

independent food banks emphasised that their clientele is different from Trussell Trust-affiliated food banks (Sosenko, Livingstone and Fitzpatrick, 2013). The formalised voucher system Trussell Trust food banks use results in few self-referrals and fewer 'traditional' food bank users such as those who are homeless, asylum seekers, and those with long-standing, constant food insecurity (Sosenko, Livingstone and Fitzpatrick, 2013, p. 11). A difference in clients changes the need of the food bank services, resulting in independent food banks offering other primary services such as hot meals, clothing and emotional support (Sosenko, Livingstone and Fitzpatrick, 2013). While food banks partnered with large food bank bodies do operate similar services, independent food banks often view their services as a necessity for their clients to suitably support them (Sosenko, Livingstone and Fitzpatrick, 2013).

For example, Houston Food Bank, a member of the Feeding America network, offers numerous side services alongside being the biggest food bank by distribution measures in America. Services include distribution of fresh food, meats and non-perishables, serving hot meals and offering a catering service and conference centre, community kitchen job training scheme, benefits and healthcare assistance programmes (Houston Food Bank, 2020).The food bank offers an afterschool kids café, a food pantry, nutrition education schemes, a senior food parcel subscription programme, and a school supplies parcels initiative for low-income schools (Houston Food Bank, 2020). Their expansive service list reaches well beyond the typical scope of a food bank (Houston Food Bank, 2020). Arguably, this vast list of services only operates thanks to their wide network of community partners, extensive access to finances and their association with Feeding America (Houston Food Bank, 2020).

Corporate sponsorships, research funding and policy advocacy are often beyond the scope of a church-run food bank or university student pantry. Food bank bodies can build their impact beyond each food bank's small community connection into a more comprehensive web, built in through accreditation by their organisation (Poppendieck, 1998). For example, the Trussell Trust franchises food banks, allowing them to name and market their food banks as a Trussell Trust food bank for a fee (Sosenko, Livingstone and Fitzpatrick, 2013). For independent food banks, it can prove difficult to gain public recognition versus the 'name brand' food bank system, which has knock-on effects on aspects like donation, sponsorship and grant funding (Sosenko, Livingstone and Fitzpatrick, 2013). While some organisations aim to tackle this problem through knowledge sharing and research coordination, such as the UK's Independent Food Aid Network (IFAN) (2020), the differences in what can be achieved in small-scale versus large-scale operations are substantial.

For large-scale food banks, corporate engagement and partnership are often key features, particularly with supermarkets and international conglomerates. While there is no doubt the funding

and access further the surface-level support of food banks, the corporations that food bank organisations partner with may prove problematic to the goal of alleviating the root causes of food insecurity. Notably, Big Food – that is, large-scale supermarkets and food producers – participate in food bank and food insecurity schemes for reasons less altruistic than marketed. The benefits to Big Food include increased sales of their products by encouraging customers to donate goods at their stores, a financially beneficial arrangement for discarding excess or expiring products, and positive public relations. Corporate social responsibility, food waste redistribution as a win–win for all involved, and 'doing good' all are framed as reasons for their engagement but can be viewed as a way to mask their contribution to the problem (Garthwaite, 2019; Independent Food Aid Network, 2018; Riches, 2018; Smith, 2018; Kasperkevic, 2014; Simon, 2014). Using the previously mentioned food bank organisations as examples, Food Banks Canada has a 'visionary partnership' (the premier level of partnership listed) with Walmart and the Walmart Foundation, and the Trussell Trust holds a partnership with Tesco, Cisco, Asda, Delta, Unilever and more. Feeding America's corporate alliances notably include many organisations that do not provide a living wage, such as Amazon, Walmart and Smithfield (Fisher, 2020).

Perhaps unsurprisingly, Big Food invested in the food charity and food banking system during the Covid-19 outbreak. Morrisons announced a £10 million stock donation to the Trussell Trust and independent food banks (Goodwin, 2020). Woolworths in Australia announced a partnership with Meals on Wheels in March 2020 to deliver essentials to elderly people, alongside Coles, which donated AU$1 million a week in food and groceries to Australians facing hardship due to Covid-19 (Mortimer, 2020). The positive public relations around these initiatives seemed abundant (Mortimer, 2020), but their contributions arguably supported a food charity system not equipped to be such a large part of the Covid-19 response system. Questions arose over whether this contribution was sustainable.

### 4.2.3    Food Bank Entrenchment

Demand for food charity ebbs and flows depending on a multitude of factors, including time of year – such as summer, with a high demand due to school holidays – changes to welfare systems, and the overall economic climate at the time (Sosenko et al., 2019; Forsey, 2017). Following the 2008 crash and subsequent rise of austerity, food charities saw an increase in demand as countries around the world faced deteriorating economies (The Trussell Trust, 2016; Garthwaite, 2016a; Riches and Silvasti, 2014b; Rioux, 2013).

As discussed in previous chapters, the 2008 crash was a significant event, which impacted food insecurity. The reaction to increased insecurity brought varied responses and many countries leaned

to various degrees on food banks as an alleviation measure, with the UK being a prime example of heavy dependence (Middleton et al., 2018). The Trussell Trust saw a marked increase in food parcel distribution following the crash, as seen in Figure 19 (2020, p. 1).

*Figure 19: Trussell Trust Parcel Distribution by Year*
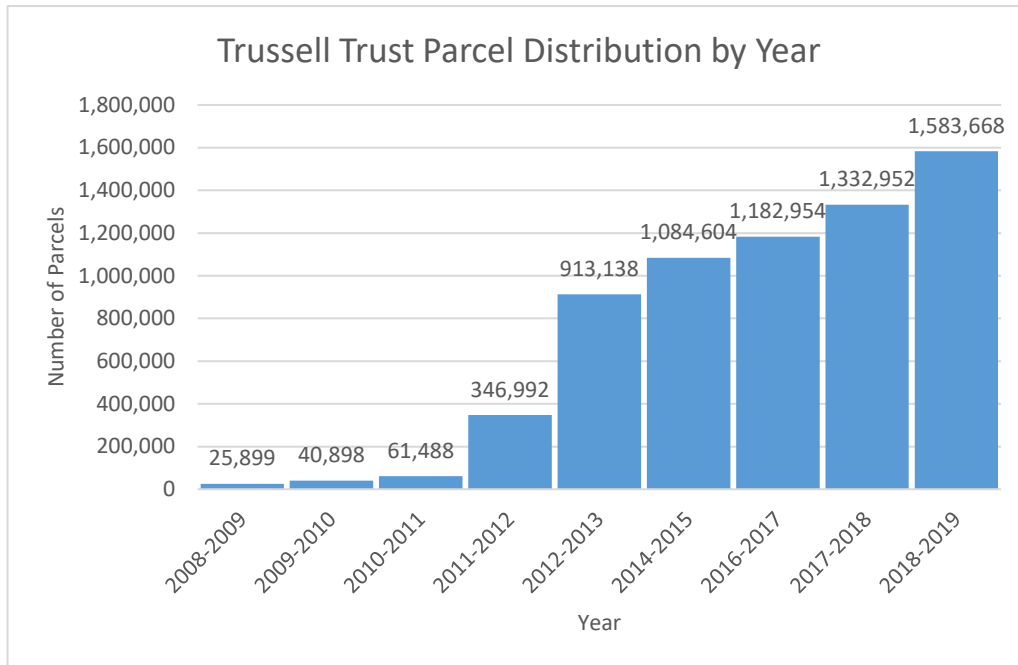


Uptake in food bank usage was not exclusive to the UK. One hundred percent of food banks responding to a Feeding America survey saw an increase in food bank demand in 2008, with demand increases varying from 28.6–37.7 percent (DoSomething.org, n.d.). Other forms of food charity also emerged from austerity; SSMs in Britain gained traction in 2013, with 10–20 percent operating in the most deprived neighbourhoods (Patnaik Saxena and Tornaghi, 2018). According to Food Banks Canada, the number of people using food banks rose 31 percent between 2008 and 2012 (The Canadian Press, 2012).

Rioux argues that increases in food banks and other charitable food insecurity relief schemes represented a 'pseudo-recovery' of the US and UK economies, masking the lingering issues of the crisis (Rioux, 2013). The two governments provided state intervention for Wall Street, big business and the economy, while poorer and more vulnerable people were not similarly assisted – their recourse was primarily the charity sector rather than their governments (Rioux, 2013). The use of food banks following the crisis created an environment where food banks became embedded within a state's social safety net as a widely available option and resource (Riches, 2018). Rightfully so, fears loomed that the emerging Covid-19 crisis would have similar impacts (Goodwin, 2020).

Immediately following the outbreak of Covid-19, food charities were overwhelmed by soaring demand. IFAN saw a 59 percent increase in food bank demand compared with February and March in 2019, with 7 percent of their food banks seeing a tripling in demand; the Trussell Trust delivered 40,000 more food parcels during March 2020 than in 2019 (Butler, 2020; Goodwin, 2020). In Egg Harbor, New Jersey, food banks used a discreet drive-thru service system, with cars queuing for a mile and an estimated 1,500 turned away (Tully, 2020). Egg Harbor's food bank distribution centre provided food for 2,500 families across four counties in New Jersey, up from 1,000 families prior to the pandemic. FoodCloud, the largest food aid organisation in Ireland, reported that demand more than doubled in April 2020 compared with 2019 (Holland, 2020). Through a series of interviews conducted by *The Guardian*, the graph of American food banks shown in Figure 20 was produced (Lakhani, 2020, p. 1).

*Figure 20: US Covid-19 Food Bank Increases*
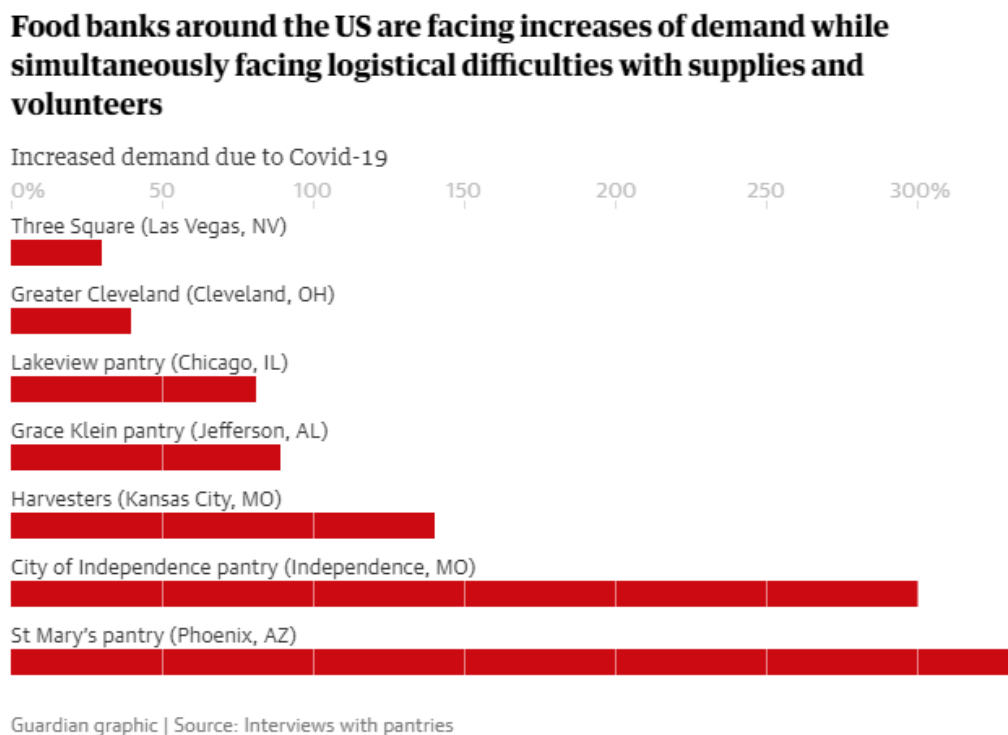


The vast increases in food bank usage overwhelmed their capacity banks in the US and elsewhere.

Food banks and food charities were being used as a crucial resource during the crisis, but throughout the west, the system was reaching its limits (Friedersdorf, 2020). Covid-19 is 'a perfect storm impacting food banking as we know it', according to a spokeswoman for Feeding America (Lakhani, 2020, p. 1). Feeding America's CEO stated (Dilonardo, 2020, p. 1):

> This year [2020], the COVID-19 crisis is driving more of our neighbors into food insecurity
> and putting a strain on food banks to provide more meals. Never has the charitable food

> *system faced such tremendous challenge, and we need all the resources we can get to*
> *help our neighbors during this terrible time.*

The UK Government announced in May 2020 they would allocate £16 million to at least 5,000 frontline food charities (Department for Digital Culture Media & Sport, 2020). Similarly, the Scottish Government transferred £500,000 to the food aid organisation FareShare (Goodwin, 2020). The UK Government's one-off efforts reinforced their lack of direct action on the causes of food insecurity and instead looked to entrench the temporary, symptom-reduction solution. Goodwin of IFAN voiced concern, stating (2020, p. 1) that:

> *The COVID-19 crisis shines a spotlight on the immense inequalities in our society, but*
> *funding the distribution of more emergency food parcels will never prove a real solution*
> *to those people deserving the dignity to be able to afford to buy food for themselves.*
> *And worse, this default reaction could very well embed food banking into our society for*
> *good.*

Canada saw similar announcements in funding support, with British Columbia's Government committing CA$3 million to assist food banks (Power, Black and Brady, 2020). Prime Minister Trudeau promised to invest CA$100 million in food banks and similar organisations (Power, Black and Brady, 2020). The US took a slightly different approach, where the USDA committed to purchasing US$3 billion in fresh produce, dairy and meat during the crisis with the intention of distributing them to food banks and other charities for food insecurity relief (USDA, 2020b). Additionally, two US laws following the pandemic outbreak – Families First Coronavirus Response Act, and Coronavirus Aid, Relief and Economic Security (CARES) Act – provided US$850 million for food bank administrative costs and USDA purchases while (as of June 2020) US$873.3 million was to be used to purchase agricultural goods for food banks through Section 32 funding (USDA, 2020b). The US model primarily tied itself to agriculture policy and relief for ranchers and farmers, offering food supply chain waste reduction and a funding mechanism for food banks. This approach countered a social welfare approach, with those in need centring the conversation, as we recognise in the Canadian response outlined above.

The funding of food banks and emergency food assistance as a response risk embedded them into the social fabric of each country. The funding responses of governments of using their systems as a source of relief undermined the concepts of the right to food (see section 2.3.4) and failed to address the root causes of food insecurity, particularly in times of crisis. Over the next decade, research will investigate the lasting causes of these decisions, but in the immediate wake of the pandemic, fears already loomed over the potential consequences (Goodwin, 2020).

## 4.3 Part One Conclusion

Food policy design, implementation and engagement can all have various levels of influence on food (in)security based on a multitude of factors, as discussed in this chapter and in Chapter 3. Various policy sectors work in tandem to formulate a society's map of how food insecurity is prevented, sustained or determined. By mapping out these sectors, as done in this section, a narrative is established for examining the collective policy sphere in relation to food (in)security, rather than taking a piecemeal analysis. For research purposes, this is paramount to creating a holistic vantage point on food (in)security.

Part 1 (Chapters 1–4) reviewed food insecurity from various angles. From reviewing food insecurity, its existence, and policy implications and causes, it is clear it is undoubtedly a complex issue that is difficult to fully grasp. While the literature reviewed touches upon many of the contexts that affect food insecurity, there was a distinct gap in theoretical frameworks and understandings to enable viewing of the issue holistically. Conceptualising these contexts holistically is difficult, although some expressions of this exist within sections of food insecurity matters, including Rocha's imagining of food insecurity as market failure and Blake's food ladder conceptualisation (Blake, 2021; Rocha, 2007; Bartfeld and Dunifon, 2006). Viewing food insecurity holistically with the broadest lens in an inclusive way can be important, as it allows for comprehensive understanding: this thesis seeks to do just this. The literature followed a trend of drilling into the different areas of food insecurity and its related topics rather than create a framework to talk about it as a broad issue. While deep investigation into subtopics is extremely valuable and conceptualisations of sub-issues such as those by Blake and Rocha are vital, there is a gap in the literature that allows a bird's eye view of this complex topic. This thesis explores this further in the next section.

Another, perhaps obvious, gap in the literature is the lack of research – what has yet to be published or conducted on food insecurity related to Covid-19. This inherent gap in the literature will dwindle as time goes on and more research is published, and this work can contribute towards filling this gap. This thesis has the rare timing of being conducted during a pandemic; therefore, taking specific account of how the pandemic affected food insecurity is a tremendously valuable gap to address in the literature. In Chapters 7 and 8, Covid-19 literature is introduced and placed into context against this study's findings.

The following chapter introduces a theoretical framework for understanding food insecurity and offers suggestions for how to adapt it for wider use; it also moves the thesis into Part 2, which was written at the peak of the pandemic and, as a result, is significantly affected by that context.

Part 2: Mid-Covid-19 Crisis

Theoretical Framework and Methodology

# 5 Chapter 5: State Food Security Infrastructure (FSI) Framework and Research Questions

As established in Chapters 3 and 4, policy sectors and interventions do not always target food security directly. While there are direct interventions, such as cash benefits or in-kind benefits like SNAP, how general social protection policies act as food security policies is debatable. Loopstra describes interventions for food security as being (2018, p. 273):

> *Classed as any programme or policy aimed at addressing household food insecurity, from ensuring that households no longer worry about their food running out, to not compromising qualitative aspects of their diets, to not having to go without food. These include social protection policies aimed at ensuring households have the financial means to meet their basic needs.*

Food assistance programmes and policies assist households in multiple ways – by, for example, addressing health issues and housing and energy insecurity (Kirkendall, House and Citro, 2013, p. 85). How households receive assistance from multiple benefits or sources influences household decision-making, which is an area of research interest (Kirkendall, House and Citro, 2013, p. 85). Sheppard commented in 2013 that the effect of non-food safety net programmes is not well established as a research field (Kirkendall, House and Citro, 2013, p. 85). Still, as other social policies and non-food programmes can promote increased resource availability to households and influence households' eligibility for food-based programmes, it merits examination (Kirkendall, House and Citro, 2013, p. 85).

This chapter aims to provide a theoretical standing to analyse these relations. The chosen approach, State FSI by Bartfeld and Dunifon (2006), is explained then reframed for this thesis. In the subsequent section, the research questions are built upon the theory.

## 5.1 State FSI

Food insecurity is attributable to a host of issues typically categorised by accessibility and affordability, as discussed in Chapter 2 (Scott, Sutherland and Taylor, 2018; Coleman-Jensen, Rabbitt and Gregory, 2016; McIntyre, Bartoo and Emery, 2014; Flagg et al., 2013; Lee et al., 2002; Sarlio-Lähteenkorva and Lahelma, 2001). Causes include low income, debt, issues with employment or unemployment, housing issues, including overspending on housing, and general poverty (Clair et al., 2019; Loopstra, Reeves and Tarasuk, 2019; Gundersen and Ziliak, 2018; Loopstra et al., 2016; Sriram

and Tarasuk, 2016; McIntyre, Bartoo and Emery, 2014; Furness et al., 2004; Tingay et al., 2003; Sarlio-Lähteenkorva and Lahelma, 2001). Some demographics are more likely to face food insecurity, including immigrants, those on benefits, those with disabilities, people with lower levels of education, people who have engaged with the probation system, different genders, and those with larger families, amongst others, and interact with policy contexts that make it make difficult to be food secure (see Chapter 3) (Pilkington, 2019; Schwartz, Buliung and Wilson, 2019; Dong et al., 2018a; Huang, Guo and Kim, 2010; Loopstra et al., 2018b; Matheson and McIntyre, 2014; McIntyre, 2003).

While the causes may vary, one's likelihood of being food insecure depends on one's circumstance and the policy spheres they exist within (see Chapter 3), including the policies and programmes addressing food insecurity (see Chapter4). As an avenue to seeing this holistically, it can be viewed that all persons within a society can attribute their food status at least in part to the broader societal system, a so-called food security infrastructure. The term State FSI, originating from Bartfeld and Dunifon in 2006, underpins the idea of how societal interactions on various levels can influence a person's ability to achieve and maintain food security. Bartfeld and Dunifon created this to answer the question: 'What is the association between contextual characteristics and household food security?' (2006, p. 923). The authors explain this (Bartfeld and Dunifon, 2006, p. 923):

> *Our underlying model posits that food insecurity is linked to inadequate household resources, but is also influenced by the strength of what we term the state food security infrastructure [FSI]: a set of programs, policies, and economic and social attributes that affect the availability, accessibility, and affordability of food and the extent to which resources are available to households to meet their food-related needs.*

This notion implies that State FSI impacts each person in a society. The societal forces, policies and culture can shield persons from food insecurity, help them achieve food security and stability, or potentially act as a barrier to this. In Chapter 3, the discussion centred upon which policy areas engage with food (in)security, but State FSI takes this understanding further. State FSI applies a theoretical narrative to explain why and how society influences food (in)security at various levels, creating a theoretical framework. State FSI acknowledges how a societal infrastructure is not always constructed for food security: some of the most significant policies, programmes and inputs that impact food security are not direct food initiatives, such as general income support mechanisms (Schmidt, Shore-Sheppard and Watson, 2016; Bartfeld et al., 2006). This matters in that to address food insecurity comprehensively and effectively, understanding its connected issues and structures holistically is essential to move beyond food insecurity being simplified as a food issue. It also

enables a broader debate on policy solutions to food insecurity, moving away from food-based, in-kind solutions.

Bartfeld and Dunifon iterate that policies, programmes, and social and economic attributes engage with one another and not only vary by country, but regionally; this indicates that a person's State FSI is profoundly individual and occurs at various levels (2006). In the academic literature, often the household-level impacts and the safety net system are discussed but it is less common for the literature to take a holistic, top-to-bottom vantage point of one's food security (Loopstra et al., 2016; Bartfeld and Dunifon, 2006). The gap in the literature can be explained by how difficult it is to holistically view the collaboration of all differing levels at once, without losing the nuance that explains the individualism of how households experience food insecurity.

Bartfeld and Dunifon focus on US state-to-state comparisons, finding that food assistance programmes support food security, but those programmes and policies that leave families with less disposable income negatively affect food security (2006). High tax burdens or high housing costs can reduce disposable income. Importantly, the authors find context matters the most for economically vulnerable families who are not in poverty. Things such as food programmes, lower tax burdens and stronger labour markets all may support this vulnerable population in food security, signalling a need for a holistic understanding of food insecurity rather than food-only conceptualisation of food insecurity.

The authors analyse the dynamic between household resources and contextual factors (Bartfeld and Dunifon, 2006). Using data from the 1998–2001 Food Security Supplements to the Current Population Survey, the authors specifically reviewed households with children (70,942 households in total), acknowledging that these households most prevalently have food insecurity, and what determines or influences food insecurity may vary based on household structure. Their models specifically analysed programmes such as the School Breakfast Program and the Summer Food Program, both of which are nutrition-assistance programmes targeting children. Household variables used included education levels, race, household composition, poverty to income ratios, and housing situation/location. State-level variables included SNAP recipients per 100 poor persons, tax burden rates, median rent, average wages and participation levels in the Summer School Lunch and School Breakfast Programs. An important point is that the variables did not specifically account for household enrolment in food schemes, as they aimed to look at the state level versus less-accessible/used programmes.

Bartfeld and Dunifon's results varied depending on what form of modelling they used, but overall findings showed food assistance programmes when more utilised and available were associated with

less food insecurity (2006). Other findings from their work included that food insecurity was worse due to high costs of living and high tax burdens, leaving families with less disposable income. As previously mentioned, their most surprising finding was that context particularly mattered most for families that were not yet in poverty but were economically vulnerable (Bartfeld and Dunifon, 2006, p. 938). Non-food-related contexts, such as housing costs, were important conditions to food insecurity. The authors describe the implications for policymakers and planners, stating that 'theoretically plausible contextual characteristics, many of which at least to some degree subject to policy influence, are linked to food insecurity, and suggests that food insecurity need not be viewed as an intractable problem' (Bartfeld and Dunifon, 2006, p. 938). With this, they suggest a multifaceted approach to food insecurity, acknowledging that personal and community resources are beneficial in policymaking.

This thesis takes inspiration from State FSI, particularly the notion in that a multifaceted approach is appropriate for addressing food insecurity. Given the research gap identified already that food insecurity is difficult to discuss holistically without losing nuance, this thesis seeks to adapt and expand the theoretical framework started by Bartfeld and Dunifon and examine these contextual conditions beyond the state model.

### 5.1.1 Adapting the Food Security Infrastructure Theory

Often food (in)security is described at the household level, such as a householder's current job position or their current home ownership status. While these individual situations are an important area of study, often the overarching context to which these conditions exist are harder to access. State FSI looks to connect one's context to their overall personal and household-level situations. Household-level happenstance is transient in nature (e.g. a person may be a single mother this year but enter a partnership or marriage the following year), which influences their household income. State FSI considers the wider, imposed contexts a household or person navigates within. The following begins to imagine the concept of FSI beyond the state model.

The top-level, imposed contextual conditions shape the environment in which a person will have to participate to become or remain food secure. Depending on the country and region, these contextual factors will vary categorically, and their impact levels may be a minor, or potentially, a significant contributing factor. One need only think of the economic conditions following the 2008 crash to recall how outside elements can impact food security (Caraher and Coveney, 2015; Dowler and Lambie-Mumford, 2015a; Loopstra, Reeves and Stuckler, 2015; Carney, 2012; Zedlewski, Waxman and Gundersen, 2012; United Nations, 2011). The Covid-19 pandemic reaffirms that the contextual nature food security engages can drastically shift (Baskin, 2020; Goodwin, 2020). By

nature, the overarching contextual conditions are the policies, programmes and outlooks that are beyond the direct reach of the household to change. To alter the conditions, institutional or political change is required to amend the situation.

For example, a nation's healthcare system could be considered a contextual condition. UK advocates fight for a well-funded and functioning NHS, but individuals do not possess the power to significantly alter the single-provider system. A person can choose how they operate within that system – including opting out – but their actions alone cannot override the healthcare system enacted. In the UK system, the person still holds agency at the household level in deciding whether to engage with the NHS, how they engage with it, and how they chose to receive, or deny, care. Structure and agency fit readily within the FSI discussion, as conceptualising where and how agency is possible and positioned towards food-insecurity-related issues is critical.

If an individual is within the private, multi-payer insurance system such as that in the US and has health insurance through their employer, this would be their engagement with healthcare at the individual level. The healthcare system functions as the FSI condition, and their personal-level engagement remains with their individual coverage and healthcare usage. Personal-level and household-level circumstances are more elastic compared to the contextual circumstances they exist within and allow for a level of alteration without changing the wider context. Rather than analyse their current situation of healthcare coverage, FSI-based analysis ruminates upon the idea of whether the healthcare system in place enables or hinders food security.

## 5.2   Gaps in State FSI: Emergency Food Assistance and Covid-19

The original authors identify two gaps their study was unable to address, leaving a space for further investigation: emergency food assistance and the food marketing system. As discussed in section 4.2, food charity is a large and relied-upon actor, with emergency food assistance a used tactic towards food insecurity relief. This thesis narrows in on the emergency food assistance gap, addressing it expressly (see section 9.2.1 and Appendix 1) to strengthen the State FSI approach. Food marketing is not the focus of this research and would require individual attention elsewhere and potentially a different approach.

As stated throughout this thesis, as the Covid-19 pandemic unfolded over the course of this research project, there is a natural lack of research into its effects. This thesis will purposefully address this gap, with the understanding that the last major global north crisis, the 2008 financial crash, is well addressed in the literature (see Chapters 2 and 3). Given the State FSI model was published in 2006, it would understandably not have accounted for a major crisis such as the 2008 financial crash,

which potentially would have been included in the State FSI. This said, food insecurity literature over the past two decades has been framed around crises and, given the impact expected (and realised) from Covid-19, examining the current crisis within the State FSI adaptation process is crucial.

## 5.3   Purpose and Research Questions

Bartfeld and Dunifon offer that the concept of State FSI is relevant at numerous levels, from local to national. This thesis has two aims: to test whether a version of FSI is workable outside the state level – addressing the research gap that there is a lack of frameworks to discuss food insecurity contexts and conditions holistically; and to address two gaps in the State FSI structure: the effects of crises such as Covid-19 and emergency food assistance. This research aims to fill the former gap in frameworks so that researchers can more easily discuss food insecurity and its related contexts holistically – a difficult task given the number of related issues mentioned in the previous chapters. It aims to do this by creating an adapted FSI theoretical framework, expanding it beyond a US state-level study and making it appropriate for multiple global north contexts. To summarise, the research and adapted FSI framework will take specific note of the Covid-19 crisis, addressing the gap of a lack of research into food insecurity during the pandemic, as well as bettering the original framework by including emergency food assistance.

The study seeks to identify the contextual conditions of food (in)security, with consideration of how one's household-level resources and circumstances engage with the contextual influences of their situation, making it easier or harder to be food secure. It shall do this through addressing the following research questions:

1) What are the main contextual conditions affecting a person's ability to become or remain food secure in a particular location?

2) Are the primary contextual conditions affecting a person's ability to become or remain food secure the same in different locations?

3) How did the context of Covid-19 affect a person's ability to become or remain food secure in a particular location?

4) From a household perspective, do some contextual conditions matter more than others?

5) Can the adapted FSI theoretical framework be workable in multiple global north locations, and if so in what form?

Chapter 6 reviews the methodological approach for operationalising the research questions and discusses some of the difficulties that occurred in adapting and answering them within the context of Covid-19.

# 6    Chapter 6: Methodological Approach

As established in the previous chapters, this thesis seeks to look at food insecurity holistically, examining what contexts and conditions make it easier or harder to be food secure. As stated in Chapter 5, this thesis will aim to fill the identified research gap: that it is difficult to discuss food insecurity holistically and there is a lack of frameworks to guide researchers in doing this. The thesis will adapt the existing State FSI theoretical model by Bartfeld and Dunifon (2006) to apply it outside the state-to-state model and make usable in multiple global north locations. Moreover, in the adaptation process the thesis will address two gaps in the State FSI framework: the lack of attention to emergency food assistance/food charity, and the lack of addressing the main crisis at that time – in this case Covid-19.

To best examine the research questions stated in section 5.3, original empirical research is required. The remainder of the chapter details the selected multi-case-study approach taken. This chapter outlines both the rationale and original design of the thesis work and accounts for the issues encountered along the way. It also aims to take a transparent, honest account of research intentions versus practical issues, which are highlighted throughout. Section 6.2 outlines the original research plan, designed prior to Covid-19, then switches to the final research approach from section 6.3 onwards, after making the necessary changes following the emergence Covid-19.

## 6.1    Philosophical Position

While there are many potential approaches, the epistemology and ontology embodied in this thesis are interpretivism and constructivism. Interpretivism, as explained by Corbetta (2011), supports the nature of the research questions posed and builds towards the adapted FSI theoretical framework. It would not be appropriate to design the study and reflections from a place of positivism or realism, as these approaches are rooted in the notions that research can be objective and measure the one explanation of reality (Corbetta, 2011). The thesis does not prescribe to the epistemological models of positivism or realism; instead, it adopts the view that the social world is too far removed from the natural sciences and cannot be approached – at least wholly – from a positivism lens (Corbetta, 2011). That said, the understanding and guidance of interpretivism in this study will be accompanied by mechanisms typically associated with positivism: surveys. Tools typically associated with

positivism can be utilised to exist within a framework of interpretivism, as informed by McChesney and Alridge (2019). Put simply, interpretivism is the foundational understanding behind the work, but there is an adoption of positivist tools to help support that view. One could phrase it as a 'blended approach' that heavily leans towards interpretivism.

Additionally, this thesis rejects that there is but one reality that can be measured and researchers can only aspire to understand reality; it is an incomplete measure and understanding of the full dimensions of reality. As Willis states, interpretivist research is 'a socially constructed activity and the "reality" it tells us about, therefore, is also socially constructed' (2007, p. 96). Understanding reality is by no means objective, as the researcher unavoidably influences the research process. Related to the research questions and adapted FSI theoretical framework, there could be endless contextual factors in force that influence food (in)security, and by necessity the research design will steer the direction of the study to be a manageable interpretation of the work. Henceforth, the unavoidable inclusion of my formed views of potential contexts will shape the reality that is measured. Put simply, as the thesis and research methods will address certain contexts more directly than others, such as in the survey questions, this will influence which contexts are likely to be discussed and discovered in the research. The outcome of the understanding is shaped to the researcher and the research subjects' understandings; the view is complementary to that of a constructionist view (Charmaz, 2008).

A constructionist view underpins this study, as it reflects the thesis's understanding of the social phenomenon of food insecurity, adhering to the view that why and how food insecurity occurs is not of stagnate formulation but is an evolving issue with evolving interpretations – the phenomenon of food insecurity being a deeply personal one and in constant revision, with one's food security status fluctuating in both level and experience. As surmised by Creswell, the social worlds are interpretations of individual and group narratives, are in constant revision, and are shaped by their backgrounds, history, and cultural norms (2008).

Constructivism's understanding is that the subjective views of one's experience is the measurable level social research can access and achieve (Charmaz, 2008); this aligns well with the thesis's interpretivist epistemological choice. As dictated by the research questions, a distinctive focus on contextual food insecurity from the view of those within the situation is needed. The cultural norms, social world, background and history of each participant will shape *their* social world, which by their nature are their distinctive reality. A constructionist interpretation of the research questions, therefore, is most appropriate to illuminate their current, ever-evolving reality.

With this said, pragmatism may seem an alluring option for a thesis such as this, but there are distinct drawbacks that ultimately eliminate it from consideration. Pragmatism is often associated with mixed-methods research (which this research was originally planned as), where consideration of the methods utilised is lesser to the research questions and the consequences that may lie with the research (Kaushik and Walsh, 2019; McChesney and Aldridge, 2019). As a research paradigm, pragmatism is critiqued as more or less ignoring the concerns of paradigm, methods and epistemology, essentially sidelining the philosophical debates to prioritise utility and problem-solving (McChesney and Aldridge, 2019; Creswell and Poth, 2016). The 'anything goes' viewpoint in pursuit of answering the research questions creates opportunities for illogical choices to be made, or ones without a strong foundational epistemological and ontology understanding; therefore, this thesis may not be best supported by pragmatism.

## 6.2   Research Methods, Strategies, and the Case Studies

This study looks to identify and investigate the contextual factors and conditions that make it easier or harder to be food secure, and to create a way to make it easier for researchers to discuss it holistically. Research questions 1, 2, 3 and 4 focus on the contextual elements of food (in)security, while research question 5 is geared towards developing the adapted FSI theoretical framework. To gain understanding of contexts and best answer the research questions, the research method of theory building via multiple case studies has been selected.

### 6.2.1   Case Study Rationale

Within this work, case-study research shall be viewed as a methodology in its own right, supported by data collection approaches that forward the methodology (Simons, 2014; Yin, 2014). As Yin defines, case studies investigate a current phenomenon in-depth, within its real-world context, and are particularly useful when the 'boundaries between phenomenon and context may not be evidently clear' (2014, p. 16). While this thesis agrees with Yin's understanding that case-study research is a substantive research method, this study does not adopt a generalised positivist, quantitative approach. Others have also verified the use of case studies in the social sciences but accept – and even encourage – interpretivist approaches to gain a holistic, in-depth understanding, as informs this thesis (Zainal, 2007; Cavaye, 1996).

Case-study research literature is often disjointed and contradictory. MacDonald and Walker, for example, explain it as (1975, p. 2):

> *Case study is the way of the artist, who achieves greatness when, through the portrayal of a single instance locked in time and circumstance, [s]he communicates enduring truths about the human condition. For both the scientist and artist content and intent emerge in form.*

MacDonald and Walker highlight the creative nature of the research, with a basis on qualitative writings and intent to offer findings in a literary and artistic format (1975). Informed by the literature and writings of Yin, MacDonald, and Walker, amongst others, Simons offers the most appropriate definition of case-study research for this thesis, stating (2014, p. 21):

> *Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institutions, programme or system in a 'real life' context. It is research-based, inclusive of different methods and is evidence-led.*

Simons directly acknowledges the notion of different methods being appropriate within a case study, which this thesis aims to execute (2014). The heart of this thesis is about contextual, real-life experiences of food insecurity; therefore, adopting a case study module that is designed to research this through in-depth exploration while being evidence-led, is appropriate.

Dooley confirms that case-study research 'excels' at bringing together understandings around complex issues and promotes focus on contextual analysis of conditions, events and relationships (2002). These features lend towards theory building and theory testing (Dooley, 2002), which this thesis aims to do, by turning the State FSI framework into an adapted FSI theoretical framework. Flyvbjerg agrees with Dooley, citing that it is a misunderstanding that case studies cannot be used in theory building and are, in fact, a valuable tool to use throughout the theory-building process (2006). Eisenhardt and Graebner highlight that case studies can be used as a basis to inductively develop theory, as they are positioned within and formulated by identifying patterns and relationships both internal and across cases (2007). Specifically, theory building here means empirical case-study evidence lends to the creation of theoretical constructs, midrange theories and propositions (Eisenhardt and Graebner, 2007, p. 25). The authors explain that theory building via case data requires being grounded in the literature but also clear justification why the researchers are theory building rather than theory testing (Eisenhardt and Graebner, 2007).

This thesis does not aim to create a like-for-like replica of Bartfeld and Dunifon's State FSI. If that were the case, creating a closely revised model for a non-US case study would have been more suitable. Rather, this thesis looks to extend and adapt Bartfeld and Dunifon's model – building on the theory, not simply testing theirs in a new environment. In their work, the authors note they were unable to consider the emergency food assistance system in their analysis due to their focus on state-level variables. As they acknowledge, this was a potentially important component of State FSI

that they were unable to investigate, leaving room for further investigation. Furthermore, one of the conclusions from their work was that multifaceted, food and non-food, approaches to food insecurity that acknowledges both personal and community resources is important, which lends itself towards further research.

The findings and data from the fieldwork are viewed and structured with a lens of FSI and the mapping of contextual factors (Rowley, 2000). Rowley as well as Eisenhardt and Graeber propose the need for a basis in either theory or literature, both of which are accomplished in the design of this thesis. Furthermore, case-study research has been utilised in the food (in)security field frequently, offering additional basis for this chosen method (Blake, 2019; Riches and Silvasti, 2014b; Freudenberg et al., 2013; Guy, Clarke and Eyre, 2004).

Linking back to the epistemological and ontological views, case studies can employ various approaches, including an interpretivist approach, as expressed in the literature (Cavaye, 1996). Operating under interpretivism and constructivism, this thesis will opt to use multiple methods of data collection, creating the opportunity for a  mixed-methods study of the case studies and informed by the literature (Cavaye, 1996, p. 229). In part, the mixed methods as originally designed would serve as a form of built-in triangulation and strengthen the grounds for theory building via cases, as suggested by Eisenhardt (1989). Indeed, the planned use of quantitative data can bolster and corroborate the findings of the qualitative research, as well as identify relationships that would not have been exposed via qualitative means alone (Eisenhardt, 1989).

As will be discussed in section 6.3, the planned mixed-methods approach was reimagined into a qualitatively-based approach. Further details about the mixed-methods approach and the decision-making behind that original plan can be found in Appendices 7 and 8.

### 6.2.2    Details of the Multi-Case-Study Approach: Fresno California and Leeds England

This research design is of a multiple descriptive case-study approach, with a focus on revealing patterns and connections between the selected cases that can be applied to adapted FSI theoretical framework. To address the research questions and research aims of the study, utilising two case-study locations is ideal to examine contextual conditions and experiences of food insecurity. Multiple case studies can create more a robust and testable theory than single-case studies alone (Eisenhardt and Graebner, 2007).

With theory building/adaptation being the primary research goal, theoretical sampling of cases is appropriate – cases are selected based on their suitability to identify or highlight relationships and logics within contexts and constructs (Eisenhardt and Graebner, 2007; Eisenhardt, 1989). As we look

to adapt the theory, mirroring some of the same attributes from the original study by Bartfeld and Dunifon helps to ground it. I continued with the US and selected a country with some similar features (e.g. English-speaking, food charity presence and similar culture) as a separate case: the UK. As Bartfeld and Dunifon considered the state-to-state level, the research narrows further to a state and country level: California and England.

Both California and England have multiple governing power sources and defined regions: the devolved nations in the UK and the US state structure. These multi-governance structures engage with some of the same complexities Bartfeld and Dunifon encountered with different federal, state and local-level contexts. Conceptually, this is helpful for theory building, as the research takes a step away from the original location rather than rejecting its origin and pursing vastly different contexts.

In part, these locations were originally considered given my relationship with the two locations, previously residing in California and currently living in England. Given this, there was scope to understand the locations with greater ease and certainty than other potentially suitable case locations. Hantrais (1999) argues that an in-depth understanding of the varying contexts analysed – political, socio-cultural and economic – is a foundational requirement. Additionally, this reflects some practicalities, as this is a thesis with limited time and funds. As contextual understanding is critical to building the adapted FSI theoretical framework, selecting case studies that I had contextual knowledge of was considered a great asset.

Upon consulting the literature, there is precedent for selecting these two locations for the same study, with previous research reviewing the two regions[3] (Van den Heede et al., 2020; Juhasz and Skivenes, 2017; Cook, 2016; Križ and Skivenes, 2013; Sandel et al., 2010; Mcdonald and Roland, 2009; Blinkhorn and Zadeh-Kabir, 2003; Scoppio, 2002; Bushwell, 1958). A table of a sample of existing research involving California and England can be found in Appendix 9.

As both California and England have large populations with varied geographies, studying the entire locations would be beyond the scope of this thesis. For this and the reasons outlined below, two cities were identified: Fresno, California, and Leeds, England. Only two cities were selected so that their contextual factors could be explored in depth, rather than superficially. This methodological choice allowed for rich micro, meso-, and macro-level contextual analysis of each city's participants; this was essential for building the adapted FSI theoretical framework.

During selection, many social policy spheres were considered to select appropriate cities with some similarities, such as education levels and housing demographics. But as De Vaus (2008) articulates, it

---

[3] Region is used a proxy term for a distinctive area, such as a state or devolved nation.

is impossible to report and consider every potential characteristic between two countries, and only considering relevant factors derived from the literature or prior research risks excluding essential aspects. Several cities were considered, but given the goal of theory building, two cities with some similarities but distinct differences were selected, as seen in Table 3:

*Table 3: City Case Study Details*

| City | Popula-tion | Poverty rate | Leading industries | Income and employment | Demographics | Housing |
|---|---|---|---|---|---|---|
| **Fresno,** Central California | 530,093 (2018) | ~25 percent people in poverty based on income before taxes, the Census Bureau measurement (2019)<br><br>Source: (Census.gov, 2019) | Top agriculture county within California and the US overall in 2019.<br><br>Source: (German, 2019) | Median income US$50,432 (£37,206.46) (2019)<br><br>61.8 percent in civilian labour force, total, percentage of population age 16+, 2015–19<br><br>Source: (Census.gov, 2019) | 60 percent white alone; 49.6 percent Hispanic or Latino; 29 percent white alone, not Hispanic or Latino; 13.8 percent Asian alone; 7.4 percent Black or African American; 4.2 percent two or more races; 1.2 percent Native American; 0.1 percent Native Hawaiian or Other Pacific Islander alone; 20.4 percent born outside US<br><br>Source: (Census.gov, 2019) | 46.7 percent owner-occupied; Median gross rent US$1,005 (£741.44 per month);<br><br>53.3 percent rented accommodation<br><br>Source: (Census.gov, 2019) |
| **Leeds,** West Yorkshire | 792,525 (2019) | ~22 percent people in relative poverty AHC (2018–19);<br><br>~20 percent people in absolute poverty AHC (2018–19) | Largest centre outside London for financial and business services, digital, creative, publishing and broadcasting | Median income £26,370 (Nov 2020)<br><br>Source: (Leeds Observatory, 2020c) | 81.1 percent white British; 2.9 percent other white; 4.3 percent Pakistani; 2 percent Black African; 1.3 percent Indian; 1.2 percent other Asian; | 58.2 percent tenure owned (with and without mortgages)<br><br>16.9 percent social rented housing from local authority |

| City | Popul-ation | Poverty rate | Leading industries | Income and employment | Demographics | Housing |
|---|---|---|---|---|---|---|
| | | Source: (Leeds Observatory, 2020b) | Source: (Leeds.gov.uk, n.d.) | | 1.2 percent white and Black Caribbean; 0.9 percent Black Caribbean; 0.9 percent white Irish; 0.8 percent Chinese; 0.7 percent white and Asian; 0.6 percent Other Black; 0.6 percent Bangladeshi; 0.6 percent any other ethnic group 0.5 percent Arab; 0.5 percent other mixed; 0.3 percent white and Black African; 0.1 percent Gypsy; 12.5 percent born outside UK<br><br>Source: (Leeds Observatory, n.d.) | 18.1 percent private renting (2017)<br><br>£594 average rent per month<br><br>Sources: (Brzozowski, 2017; Leeds Observatory, 2020a) |

Fresno and Leeds have a prominent, leading industry for which their economies are known for. Fresno is a major city in California's Central Valley, which is the agricultural breadbasket for the country. Leeds is a former industrial city with a renewed economy in digital, legal and financial services. The difference in industries provides interesting dynamics for what context may result from the industry forms, with agriculture being a sector that Covid-19 could affect differently than the business and financial sectors. Leeds and Fresno also both have collective networks supporting food security: in Fresno, churches and religious organisations focus on the issue, such as running food bank distribution sites, while in Leeds many charitable groups offer support, such as through food

redistribution. The use of these networks was particularly helpful in participant recruitment for the study.

As for income and rent pricing, California in general is an expensive area of the US to reside in, even in the more affordable region of the Central Valley. While the numbers are not directly comparable in terms of housing costs and income, both cities are located in their respective state's and nation's more affordable areas, with the north of England considered similarly affordable to the Central Valley.

While city-level only data was not found, Feeding America estimates that in 2021, 13.6 percent of those in Fresno County were food insecure, totalling 136,560 people, with a child poverty rate of 19 percent (Gundersen et al., 2023). Food insecurity rates varied vastly by race, with rates of 24 percent for Black residents, 17 percent for Hispanic residents and 8 percent for white, non-Hispanic residents (Gundersen et al., 2023).

In Leeds, it was more difficult to source definitive localised food insecurity statistics, as many groups such as the Leeds Poverty Fact Book cite food aid usage as a proxy measure. The cited Leeds Food Aid Network statistics show that in 2020–21, people accessed food banks/parcels by referral 61,137 times, with 153,335 food parcels given out informally during the same time (Leeds Observatory, n.d.).

To put it colloquially, and borrowing the comparison from Boswell et al., with the commonalities identified, this research can adequately describe Fresno and Leeds as comparing apples and oranges rather than elephants and ants (2019, p. 1). As this research develops the adapted FSI theoretical framework, using two cities that are both 'fruit' but not 'citrus' works well as a building ground; there is a mix of similarities and differences for finding overlaps (e.g. similar poverty rates) and differences (e.g. major industries). Both experienced Covid-19 at the same time, so macro-contextual conditions aligned in a way they previously may not have, adding a time-specific element. Belabouring this metaphor even further, while the cities may be apples and oranges, both may have experienced the same extreme weather event during their growing season.

City-based case studies in both locations have previously taken place. Fresno case studies have included work on the challenges of US-based concentrated poverty (Cytron, 2009); community participatory action on climate change in politically unmotivated areas (Moser and Ekstrom, 2011); and an examination of a needle exchange site via a critical social policy lens (Clarke, 2016). Other work includes Wirth et al.'s study of food insecurity amongst farm workers in Fresno County (2007).

The authors found that 45 percent of their respondents were food insecure, and 11 percent were considered food insecure with the sensation of hunger (Wirth, Strochlic and Getz, 2007).

Leeds also has been a case-study location for work that examines contextual conditions and contexts. Leeds case studies cover documenting the lived experiences of a low-income neighbourhood in the city (Wright, 2015); childhood obesity policy implications at the local level (Edwards et al., 2010); and documenting the contextual factors influencing household climate change adaptation (Eberechukwu, Cynthia and Amaka, 2018). Most relevant, two studies focus on Leeds food deserts, with Clarke et al. comparing access to food retailing in Leeds/Bradford and Cardiff (Wrigley, Warm and Margetts, 2003; Clarke, Eyre and Guy, 2002). Through their modelling, researchers found two food deserts and discussed the trade-offs that come with different ways to 'close' these food deserts, such as with a large Tesco (Clarke, Eyre and Guy, 2002).

The cities selected also reflect a choice based on pragmatism and familiarity – an important note for self-disclosure (Dooley, 2002). My familiarity with both cities and the existing connections for recruitment of participants at the time of case-study selection was predicted to be invaluable, having attended university in Fresno and lived in close proximately to Leeds prior to fieldwork. Given that the fieldwork took place during the height of Covid-19, selecting cases where I knew how to navigate these areas while working remotely turned out to be essential, as it was difficult to do even with this first-hand contextual knowledge. Unrelated to this project, I relocated to Leeds in December 2022, thus having lived experience in both case locations. The experience of navigating the cities' policies and contexts allowed for immersion in the case locations before and after the fieldwork in a way that would not have occurred had unfamiliar locations been selected – for example, by engaging with Leeds City Council as a resident, and still receiving alumni updates on Fresno's local initiatives.

### 6.2.3    Case Study Design

Bartfeld and Dunifon theorise the contextualisation of State FSI with attention on economics, policy and social characteristics (2006). This thesis finds there is room both for theory expansion to address unexplored areas and for new methods to be applied. Bartfeld and Dunifon utilised the 2001 Food Security Supplements to the Current Population Survey and ran modelling based on this and available state-level data, including an 18-item food security scale. To extend and adapt the framework, it will neither be easy to address the gaps of emergency food assistance and charitable systems with quantitative data nor to overcome the divergences in state-to-state data, which are highlighted as concerns in Chapters 5 and 6. Moreover, the issues of data comparability the authors noted in their state-to-state quantitative comparisons are only exacerbated when using multiple global north locations. The methods selected within the multi-case-study approach aim to

incorporate their reflections and struggles while theory building towards making an adapted FSI theoretical framework.

A mixed-methods approach within the multi-case-study method was selected, as it bridges the gap between State FSI with a quantitative component and introducing much-needed qualitative research that is required to build out the adapted FSI theoretical framework. Mixed-methods research can provide better understanding of contexts or phenomena, overcome weaknesses or build on the strengths of a single method, address gaps that one method cannot examine, and allow for triangulation of information (McChesney and Aldridge, 2019). Guetterman and Fetters identified two strains of mixed-methods approaches used with case studies: where a case study uses mixed methods (Case Study-Mixed Methods or CS-MM) or where a mixed-methods study includes a qualitative case study against a quantitative component (Mixed Methods-Case Study or MM-CS) (2018). This thesis clearly nests under the CS-MM approach, as the case-study approach employs a mixed-method design.

Practically, this multi-case study featured a preliminary survey with an optional follow-up interview. A survey was selected as: a) it allowed a baseline inclusion of the USDA food security questions for all participants; b) a recruitment strategy for the interviews; c) a form of triangulation against the qualitative data; and d) as an interview tool for the qualitative work. A follow-on semi-structured interview was selected as it: a) can address issues of missing contexts found in State FSI; b) is a format where the contexts that make up food insecurity can be explored naturally and participants can explain contexts in further depth; and c) allows engagement with the participant, asking for more detail or clarifications following the survey; and d) captures the level of contextual information needed to theory build/adapt (Eisenhardt and Graebner, 2007). Critically, due to Covid-19 and execution issues, the full design of how the mixed-methods data was to be used did not come to fruition. This section describes the ideals and how the selection and design process were undertaken rather than how they were used in practice.

As McChesney and Aldridge (2019) assess, a mixed-methods approach is compatible with an interpretivist epistemological stance. The authors summarise arguments of mixed methods and research paradigms, stating various levels of importance to mixed-methods research (McChesney and Aldridge, 2019). Of note, the researchers offer the following assertions, which are incorporated into Table 4, evaluating the merits of this thesis against the principles (McChesney and Aldridge, 2019, p. 235).

*Table 4: Principles of Thesis Approach*

| Guiding Principles by McChesney and Aldridge, 2019 | Key author(s) | Thesis's approach |
|---|---|---|
| That the paradigmatic or philosophical underpinnings of any research study be explicitly stated. | Corbetta, 2011; Charmaz, 2008 | Yes, see this chapter's discussion of epistemology and ontology. |
| That both the paradigm(s) and methods selected be suitable to allow the aims and objectives of the study to be met. | Dooley, 2002; Eisenhardt and Graebner, 2007 | Yes, see this chapter in its entirety. References made throughout. |
| That researchers demonstrate how the research methods and the overall conduct of the study reflect or acknowledge the chosen paradigm(s), making explicit and justifying the decisions involved in designing the study. | McChesney and Aldridge, 2019 | Yes, see this chapter's discussion of epistemology and ontology and mixed-methods rationale. |

These guiding principles, as well as their distinct consideration for the verbs used in research questions, underpin this thesis. Due to this similar mixed-methods structure and matching approaches of interpretivism and constructivism, adopting similar verbiage considerations as McChesney and Aldridge apply is logical; in essence, a thoughtful, justified reflection of the research methods and paradigm approach can allow for success in interpretivism and mixed methods, as the authors were able to achieve in their own study (McChesney and Aldridge, 2019).

To achieve this, this thesis undertook a review of the language and terms used in the research aims to coordinate with the consideration offered by McChesney and Aldridge. Table 17 in Appendix 10 displays the research questions and formed research aims, and identifies the terminology utilised from McChesney and Aldridge. As noted by the authors, the verbs *measure* and *evaluate* were avoided due to their connotations with positivism (McChesney and Aldridge, 2019). The research aims stated, based on their recommendations, offer logical scope to a mixed-method, case-study approach as will be explained in later in this chapter.

To further inform the study's design and conceptual approach, literature and sources were consulted and compiled (De Vaus, 2013). To evaluate the field of secondary data, five sources were utilised to gather data: gov.uk, UK Data Service, Harvard Dataverse, the Inter-university Consortium for Political and Social Research (ICPSR), and data.gov. The former two sources focus on UK datasets, whereas the latter three are US-based resources. These sources were selected due to their wealth of nationwide datasets, well-established surveys, and prominence of use. Some US sources proved more challenging to access, as university resources, like ICPSR, often required affiliation with US-based universities for certain datasets.

Secondary datasets were located and identified based on search terms related to the field of study (e.g. food insecurity), as well as by selecting commonly used surveys and datasets within the social sciences (e.g. the Family Resources Survey) suggested by the repository. Excel sheets were created to track each survey used that was deemed of relevant value, and appropriate questions or variables were added to the Excel document. This process was undertaken to ensure traceability back and to track the thought patterns that inevitably inform the formation of indicators and decisions based on included data. Theoretical contributions towards definitions were also consulted to formulate definitions of the concepts. For example, Bircher and Kuruvilla's theoretical discussion of defining 'health' offered value to the process (2014).

Upon consultation of the research questions, the foundation concept of FSI is the umbrella term to explore related concepts and their interrelation, including circumstances, support, income, food (in)security and experiences with food. Defining these topics as concepts allows their operationalisation for the purpose of the study. For absolute clarity, the defined concepts adopted within the study are shown in Table 5.

*Table 5: Definitions*

| |
|---|
| Food security infrastructure: 'A set of programs, policies, and economic and social attributes that affect the availability, accessibility, and affordability of food and the extent to which resources are available to households to meet their food-related needs' (Bartfeld and Dunifon, 2006, p. 923). |
| Food insecurity: 'A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life' (FAO, 2019b, p. 1). |
| Health: 'A structural, functional and emotional state that is compatible with effective life as an individual and as a member of society' (McCartney et al., 2019, p. 1). |
| Circumstances: The surrounding and confounding factors, conditions and/or details that modifies, effects, causes or hinders a situation, event or person (author's own). |
| Support: The combination of the formal and informal safety nets and measures that are intended to buffer instability or lack of resources (author's own based on Nowell et al., [2017]; Lincoln and Guba, [1985]). |
| Income: Formal or informal receipt of money from any source, including from employment and/or benefits (author's own). |
| Experiences with food: The emotional, physical, and psychological relationship and practices related to food acquisition and consumption (author's own). |

These concepts, such as for health drawn from McCartney et al. (2019), were assessed in both quantitative and qualitative aspects of the research.

Moving from concepts to indicators for the survey, or 'descending the ladder of abstraction' (De Vaus, 2013, p. 45), included activities such as concept mapping and well-established indicators already used in social sciences. Functional equivalence was sought in all concepts and their relevant indicators, which is necessary for international research (Hantrais, 2009); although this research is not location-comparative, functional equivalence is important to ensure the survey meets transferable standards for triangulation. More to the point, so that the terms were location

appropriate to meet the concepts, two versions of the survey were created: a US and a UK strand, which are discussed in Appendix 7.

Feedback was also solicited on the topic guide (see section 6.3.3.), which influenced the direction of the follow-up interviews, ensuring the same concepts were addressed and aligned with the indicators selected for the survey. I engaged in pilot interviews with US and UK contacts to check that the concepts and survey indicators translated into productive interviews and adjusted the topic guide accordingly.

This study's criteria required participants to be a resident of one of the selected cities and to self-identify as struggling with food over the course of the previous 12 months, taken from the survey's six-month activation period (April–September 2021). I did not pre-screen applicants to evaluate whether they are or were food insecure by our selected standard – the USDA measure previously mentioned. Fresno residents were defined as living within the City of Fresno, whereas Leeds was defined by postcode (LS1– LS21, LS25–LS27, LS98). The definitions of locations looked to be both broad and selective, in that while there were some distinctions in who could participate, based on location, there was ample room for participants to be involved from numerous contextual conditions that could influence food insecurity.

As Covid-19 became the prevalent contextual condition at the time of survey design and fieldwork in 2020 and 2021, many of the potential limitations or requirements that could be considered (e.g. limiting participation by income bracket) would neglect how such a mass event potentially changed one's circumstances. In this research, requirements about income or any other factor may have been ineffectual or deterred many participants who thought they did not meet the requirements but in fact did. Instead of rigid criteria, the survey targeted those who had struggled with food issues over the previous 12 months but did not necessarily identify as being food insecure, even if that were the case. Full details of the survey's design can be found in Appendix 7 and details of the qualitative research design – and its evolution – can be found in section 6.3.3.

## 6.3   Adapted Research Approach: Moving to Qualitative Research

This section outlines the issues of the original research project, namely the survey, then relays the qualitative research approach taken forward in the project. These changes resulted from the difficulties encountered due to Covid-19 and a bot cyberattack, and are highlighted to give insight into the research process during a pandemic.

### 6.3.1 Survey Administration and Issues

The survey, whose design is described in Appendix 7, launched in April 2021. Original recruitment strategies included reaching out to academics and community groups to promote the survey, such as food insecurity researchers in Leeds and food charities in both locations. Local governments and council groups were contacted, such as the Leeds Council benefits team and those leading the City of Fresno community engagement activities. Social media groups that may have been interested in the survey, such as food insecurity support groups on Facebook, were contacted and asked if the survey link with relevant information could be shared. In-person recruitment through speaking to community groups and disseminating flyers was planned but due to the pandemic all recruitment had to be done remotely. I temporarily paused active recruitment activities in May 2021 due to the stresses of the pandemic and my wellbeing. When online recruitment resumed in July 2021, this including posting to Facebook groups. Unfortunately, a cyberattack caused by a bot or some form of automatic survey-taking software,[4] was created by an unknown party, which led to over 550 false Fresno survey responses.

Originally, the only indication that there were false entries was that almost all the incoming surveys were completed outside Fresno, California, as indicated by Qualtrics. With the first few entries, this was not viewed as detrimental but simply questionable. Once over 30 entries were discovered to be from outside Fresno, I combed through all responses from the time the activity was noticed and identified patterns, such as answering question 15 with the same response. Many of the answers also were nonsensical – such as when asked the number of people in their household and entering a nonsensical email address rather than a number. About three weeks into the false entries being made, Qualtrics showed that while the surveys were being taken in Fresno, they in fact had many of the same nonsensical answers previously identified. It became impossible to distinguish between false and real entries by December 2021 when the survey closed.

To combat this problem, academic literature and academics at workshops over 2021–23 were consulted. Feedback regarding what to do with the corrupted data was formally sought through conference presentations as well as through seminars and individual consultation with senior academics. Most literature directly related to online survey data fraud was preventive or diagnostic rather than solutions-orientated, but it was universally acknowledged that it was a serious problem requiring careful consideration (Godinho, Schell and Cunningham, 2020; Dupuis, Meier and Cuneo, 2019; Buchanan and Scofield, 2018). Godinho et al. describe installing or paying for automatic checks by the platform or requiring registered accounts for survey taking as barriers, in addition to manual

---

[4] Software here refers to a set of coding or means to automate actions rather than a specific platform.

checks for fraud (2020). Dupuis et al. discuss amongst other things how imposters can bypass some checks such as CAPTCHA-type questions then run the auto-filling software, putting the strength of such tests into doubt (2019). While survey bots may sound like a peculiar or unique issue to encounter, automated form-completion software is relatively easily available and programmable, although unanticipated in this research (Buchanan and Scofield, 2018). An inherent risk with online surveys, false entries threaten data validity (Dupuis, Meier and Cuneo, 2019).

The most applicable resource was by Storozuk et al., whose paper provided practical solutions to dealing with bots (2020). The authors outlined their strategies for mediating their study's issues with bots, most effectively screening email addresses, reviewing open-ended answers for clarity and comprehension, reviewing survey completion time/speed, and not sharing the link publicly particularly on social media (Storozuk et al., 2020). Other strategies, such as CAPTCHA challenges, reviewing IP addresses and inserting attention-check questions were seen as moderately effective, while the least helpful strategies the authors found were 'honeypot questions', which are designed to catch out bots, and text presented as images tests (Storozuk et al., 2020). To formally decide which survey responses in this thesis should remain in, many of these strategies were employed originally informally – for example, reviewing open-ended answers – but then for rigour were applied formally – such as reviewing survey completion time/speed. Using these tactics, blatantly false entries were deleted; however, over 50 remained that could not be confidently ruled out as false.

Due to the risk to validity, I decided that any surveys not taken by a person interviewed for the survey cannot be certainly viewed as valid. The, well was poisoned, as it were, and outside of using it as a tool for interviews, it was not usable research for analysis. While this may be the most severe answer to the problem, I could not in good conscience attempt to apply statistical meaning to the findings. While I felt that there was a clear date when the bot was created, this is truly unknowable and basing validity on a feeling was deemed too risky.

The survey data that was reviewed throughout multiple analysis stages was the surveys of the interview participants. This survey data still proved a valuable tool for the research, particularly in the interview stage.

### 6.3.2    Case Study Adaptation

Following extensive, unreversible issues with the quantitative data (see above), this was rendered unusable. As such, it was the qualitative data from the interviews that was used to inform the theory building and data analysis. While designed as a mixed-methods piece, in practice the thesis is a

qualitatively informed multi-case study aimed at theory building. While not the original intent, there are some strengths to this mode.

As Eisenhardt states, qualitative work is formed on immersion into multiple types of data and, while some prefer certain data sources over others, the multiple sources help reveal the phenomenon (Gehman et al., 2018). While the qualitative interview data was the primary source, further literature review took place to ascertain if any other similar research in the case locations took place during this Covid-19 period. Moreover, informal desk-based scene-setting research was conducted to find out more about the general contexts, policies and programmes that the case locations experienced during Covid-19. Primarily, this followed the leads provided by the interview data, and the research gave a fuller picture and triangulated the research findings. A straightforward example is that in the interviews an increase in CalFresh food benefits was mentioned, which then led to informal desk-based research to review what that increase was and its duration.

Stakeholder interviews with charity groups and local city workers were considered as part of gaining further local context. However, as the UK quickly leaped from the Covid-19 crisis into the cost of living crisis in 2022, priorities quickly moved on for these stakeholders. It was decided that interviews in 2022 and 2023 about this Covid-19 period would be impractical, and the current crisis would influence the answers of stakeholders too severely. Asking stakeholders to ignore current circumstances or time lapsed did not feel useful for either party in order to adapt theory. As part of the scene setting, local charity group documents during this period were identified to gain information, such as the account published by the Leeds Food Aid Network that summarised local programming during Covid-19 (2022).

The survey, in practice, served only to reliably gain information from interviewees in the first instance, being done so prior to the interview, then to inform the interview itself. The survey results were not included in any formal analysis form. The data was very specifically only used to assess whether interviewees would be classified under the USDA – whose questions were included in the survey – as food insecure. This was done to ascertain whether there was any difference in the self-assessment of food insecurity versus its measurability under the USDA standard; all participants met the standard of food insure. While limited, this technically classifies as an additional data source.

As the goal was theory adaptation, it was not detrimental that data was not used in its original, intended form and was supplemented with outside scene setting. The theoretical framework development could still take place and the research questions were still substantially addressed. The following sections discuss the qualitative work in more detail.

### 6.3.3    Qualitative Research Design

Given the change in methodology, this section discusses the qualitative research method – interviews – in more detail, as well as the shift away from generalisability and Hellström's notion of interpretivist generalisation (see Appendix 8) to Lincoln and Guba's understanding of transferability.

#### 6.3.3.1    Interview Design

Interviews are a common data collection method in the social sciences and can be used successfully in combination with other forms of data (Gilbert and Stoneman, 2015; Robson, 2002). Interviews can be most appropriate when looking to discuss the meaning of a phenomenon, personal accounts of how a phenomenon developed, and for triangulation with quantitative study (as was originally designed – see section 6.2) (Robson, 2002; King, 1994). Interviews have the advantage of following up and investigating research answers further, which the quantitative element of this study would not allow (Robson, 2002); this is a key need for this study to answer the research questions about contextual conditions holistically (Hennink, Hutter and Bailey, 2020).

While there are numerous types of interviews, semi-structured interviews were utilised. Semi-structured interviews consist of the interviewer asking the same major questions each time while adapting the sequence, probing, and following up questions as appropriate in each interview (Fielding and Thomas, 2015). The semi-structured format allows for similarity in the main research questions while maintaining the flexibility needed in a multi-case study of two global north cities.

Interviewing does have some fundamental issues, particularly when done remotely. Over the telephone or via an online app such as Zoom without the camera on, many non-verbal cues could be missed that could better inform the data (Robson, 2002). Other concerns include the lack of standardisation that arises when the interviews are flexible in nature, although this can be resolved. Bias may also play a part in the interview, which influences the results (Robson, 2002).

Interviewing during a pandemic comes with a host of issues outside of remote interviewing. With work patterns being suddenly shifted seemingly across all sectors, people were working from home and facing new environmental pressures that may have not existed a year before – the 'remote' environment was not the same. The mental strain from lockdowns, with health concerns related to catching Covid-19, and furlough, work patterns and hours in limbo, all created difficult interview environments. It is important to acknowledge that at least in this research project any potential benefits of online work and remote interactions being normalised were counterbalanced by the strains associated with Covid-19.

That said, interviews could still be done in a way that was useful and beneficial to the research. To ensure the interviews were of high quality and led to quality data, a general topic guide was created to first inform the topics of the interview – see Figure 21.

*Figure 21: Topic Guide*



The topic guide was constructed from the mapping of contexts graphic, based on Chapters 2 and 3. Utilising the mapping of the food insecurity contexts was critical to ensure the topics covered all possible relevant contexts the interviewee may experience, while understanding there were topics that could arise from these areas not specifically mentioned in the topic guide. The topic guide was also built to complement the survey the interviewees had completed prior to the interview. As the interview was framed as a follow-up to the survey, integrating answers and creating linkages to the specific questions asked was key. Additionally, a generic interview guide was created to ensure some standardisation within the interviews and act as a memory tool for the interviewer (Hennink, Hutter and Bailey, 2020; Robson, 2002) – reproduced below:

*Table 6: Topics and Probes*

| Topics | Follow-ups and probes |
|---|---|
| **Questions around experiences with food** | |
| Can you tell me about your experiences with food over the last year? | Relationship with food |
| How has it been trying to get food over the past year? | Pre- versus post-Covid-19, access, variation in food |
| Are you able to get all the food you need for your household? | Supermarkets, food prices, types of retailers, locations they shop from |
| Has your household changed the way it shops or eats over the past year? (If yes, ask about it.) | Pre- versus post-Cost-19, variation within household, quality |
| Do you feel there has been any judgement or stigma about your household's food consumption over the past year? | Location of acquisition, quality, access, stigma/shame |
| **Questions around circumstances** | |
| Tell me about how the past year has been for you. | Pre- versus post-Covid-19, circumstances, employment |
| Have your circumstances changed over the last year? If so, can you please explain the changes in your household over the past year? | Employment, prison/probation, immigration, childcare, education, housing, health, pre- versus post-Covid-19 |
| Are there some things that have been harder to deal with than others? | Employment, prison/probation, immigration, childcare, education, housing, health, Covid-19 |
| In the survey, we asked questions about if any circumstances have made it harder to have enough food, so things like healthcare, employment, immigration. Are there any circumstances in your life that feel like it makes it harder to have enough food? | Immigration, prison/probation, healthcare, housing, disability, welfare/benefits, family changes to household, Covid-19 |
| **Questions around income** | |
| Tell me about your income over the last year in your household. | Sufficient income, changes in income, employment, loans |
| Have your circumstances changed over the last year? What has changed? | Sufficient income, job loss/gain, income loss, benefits , employment |
| How are you meeting your current household bills/ expenses? Has this changed over the last year? Does this impact your ability to have enough food? | Heat or eat, overdraft, bills, coping strategies |
| How has your income impacted how you access food? | Sufficient income, acquisition, food quality/quantity |
| **Questions around support utilised** | |
| Tell me a bit about what how you've managed with everything over the past year. | Coping mechanisms |
| Have you or anyone in your household applied for benefits or support? What's been your experience with that? | Welfare, stigma, benefits sufficiency, income, benefits process |
| Have you used any charity support or anything from the community? What about family or friends, have you reached out to them for support at all? | Religious groups, community groups, coping mechanism, charity, food banks |
| How has it felt? What's it been like reaching out for help? | Stigma, levels of support, coping mechanisms |
| Is there anything we haven't covered that we should know? | N/A |

Once a participant had completed the survey and the interview was arranged, I created research notes based on their answers and how they would fit within the topic guide and interview notes. Notes were integrated into Table 6 for each participant as a preparation tool for the interview and to ensure that specific follow-up questions could be asked related to each topic.

In practice, it proved easier to refer to a PDF of participants' survey answers in the interview rather than the notes. While a useful preparation exercise, the survey with the answers along with the topic guide image allowed for easier referencing and kept the interviews semi-structured. A drawback from this was that I lent on the survey form too often to stimulate conversations rather

than steering participants more naturally from the ongoing dialogue. Overreliance on the survey reduced over time as I became more confident, but referring to the survey answers in the interview proved a positive addition to the topic guide overall.

Post-interview, reflective research notes were taken to account for my feelings and to note anything that could be useful later in the process; however, these notes proved unnecessary. This practice functioned as a decompressing moment.

Upon completion of the interview, participants were given a thank-you payment: a £20 or US$25 voucher to a supermarket retailer of their choice in their respective country.

### 6.3.3.2 *'Transferring' from Generalisability to Transferability*

In the original thesis design, this thesis ascribed to Hellström's notion of interpretivist generalisability (see Appendix 8). In part, this was selected due to the inclusion of a survey in the research design, which meant that more traditionally qualitative views on generalisability being too grounded in positivism were dismissed and rebutted. Given that this thesis research has had to be adapted due to the cyberattack and issues related to Covid-19, following Hellström's approach was no longer best suited to the work or the adapted FSI theoretical framework. As this thesis is now primarily grounded in qualitative data, it moves towards transferability rather than interpretivist generalisability.

Transferability is the qualitatively framed notion of generalisability and embraces the realities of qualitative research. Transferability only concerns case-to-case transfers and is heavily dependent on the framework user applying logic and deciding if the framework (in this case the adapted FSI theoretical framework informed by qualitative thematic analysis) is workable in a new case location (Nowell et al., 2017). As it is likely unknowable how and where the framework may be utilised, the onus is on the researcher who is applying it to judge whether it is truly transferable and applicable to the new case (Nowell et al., 2017). This said, there is a strong emphasis on thick descriptions so that the framework's user has the necessary information to successfully evaluate if it is indeed transferable (i.e. generalisable) to their case.

### 6.3.4    Interview Outcomes

It proved exceedingly difficult to recruit for both the survey prior to the cyberattack and the interviews in general. It cannot be understated how difficult recruitment felt during this period – felt being a purposeful word, as it was a very trying emotional circumstance with Covid-19 as well as logistical circumstance for all involved. As the interview was a follow-on for the survey, no interview-only specific recruitment techniques were created. In response to the low number of respondents, I

hired two agencies, one based in Fresno and one in Leeds, to recruit 10 additional participants per location. This number was selected because it was the most I could fund. All recruiter-sourced participants were required to take the survey prior to the interview and meet the original research requirements (see section 6.2.3).

Recruitment companies were selected based on their locality to the case locations, with keen appreciation for strong, transparent ethical protocols and data protection. The Leeds recruitment company had been previously used by University of York's School for Business and Society department with positive result which was another considering factor. Contracts were signed with two recruitment companies and timelines were agreed upon, with all recruitment to be concluded at latest by the end of 2021.

Recruiters were asked to mimic the same study requirements as originally advertised without additional criteria (e.g gender, age, income bracket). Both companies did not provide detailed accounts for how they approached or recruited participants, but based on correspondence it appears the two agencies used differing approaches: Fresno used an existing database of potential participants to draw upon versus, as one participant confirmed, Leeds engaged in 'door-knocking' and new recruitment of participants. What percentage of each strategy was used by each recruitment agency was not provided.

It is unknown the number of potential participants either recruitment company approached. The protocol was that only once participants filled out the preliminary survey, only then were the participant's detailed passed along to me. Once I received the contact details (both companies used password-protected means to send participants' details) I then reached out to the participant and arranged the interview times, interview technologies, and thank you payments. Upon the completion of the interview, I arranged delivery of an e-voucher/e-gift card to a supermarket of the participant's choosing following the interview. Any Leeds-based participants' e-vouchers were sent via the University of York's Department for Business and Society. For Fresno, it proved easier due to website security settings when trying to purchase on US websites abroad for me to securely purchase the Fresno participants' e-gift cards from my US bank account on a US VPN.

With this, the overall dropout rate is difficult to accurately gauge from the entire study, as participants had already significantly invested time and energy by completing the survey by the time I approached them for the interview. Only two participants dropped out from the study after their details had been passed along to me and no participants asked to withdraw their data after the interviews or the survey stage.

In total, 12 US and 11 UK interviews were conducted between March and December 2021.All interviews were conducted via Zoom and all participants agreed to be recorded; all but one interviewee had their camera on. While formal demographic data was collected asking for household make up of adults and children in the survey. Based on observation and self-used pronouns in the interviews, in Fresno there were seven women and five men. In Leeds, there were three men and eight women. Gender balance was not a goal in the recruitment strategy as it was not viewed as imperative to collect a 'balance' of gender, race etc for theory-building. Not collecting this data or recruiting is based on these characteristics are not requirements for theory-building thus it may be more intrusive than required to ask these details as part of the recruitment and interview process. Transcripts were computer generated from the video, then edited by hand to ensure accuracy. Upon completion, thematic analysis began. Table 7 lists the pseudonyms and a summary of their context:

*Table 7: Interviewees Pseudonyms and Contexts*

| Fresno | Description of participant |
|---|---|
| Annalise Beaverhousen | Annalise is a woman over 60 (she stated) who lives with her 'fur kids'. She does not work due to her health issues and disability and is the process of obtaining disability benefits. |
| Chris Donovan | Chris cares for a friend's brother who has a disability in exchange for accommodation, although having his own mental health issues following his mother's death. He is without a formal job but is close to securing a job at 7-Eleven as the manager has promised him a role should it become available. |
| Danny Ramirez | Danny lives with his girlfriend who has stage four breast cancer and his friend who they took in during the pandemic that has unmanaged bipolar. Danny owns his property outright and manages other owned properties. While he receives full disability benefits, Danny works under the table as a tour/sound manager for a band. |
| Elizabeth Arcio | Elizabeth lives in a household with her ex-partner, having taken him in during the pandemic, her adult son and her grandson. During the pandemic she was homeschooling her grandson, and he was over so frequently he started staying over and living with her during the week. She is out of work due to her disability. |
| Francesca Velo | Francesca is a full-time university student and works at a school as well. She lives with her fiancé, who's not in work currently and whose brother was recently murdered, and her young daughter. They recently moved within Fresno to a more expensive area to be closer to the university. |
| Jayden Sanchez | Jayden lives in a household with his wife, having worked at the local arena prior to the pandemic; he's not eager to return due to the heavy physical demand of the role. Now they primarily use benefits and have noted their increased quality of live thanks to uptick in unemployment benefits. |
| Miri Garcia | Miri considers her household herself and her three children, two about to be off to university, but they live with her parents. She mentions they are a Latin Hispanic family and found it hard to find culturally appropriate food in the pandemic. |
| Precious Jackson | Precious lives in her household with her two children. She struggled to keep up with bills particularly PG&E and used food banks and community support to make do. Her two children, attending different schools, both received different pandemic support which she detailed. |
| Ricardo Hernandez | Ricardo lives in a household with his parents and one other unknown adult. He is unemployed as his mental health is in a poor state and his parents are his primary supporters. They also use food banks and other support systems. |
| Rose Lindberg | Rose lives with two other adults and struggles with a mental health disability and struggles to obtain all the benefits she qualifies for. She is about to enter rented accommodation away from her father and ex-partner and will be living alone in government-supported housing. |
| Susie Moralez | Susie lives alone and she is a veteran suffering from PTSD and bipolar. Due to health and disability issues, she has complex dietary needs and difficulties returning to the workforce as she desires. |
| Vonn Ramos | Vonn's household includes two adults and two children. She's had to close her daycare business and is homeschooling her two children but is maintaining side jobs to help make ends meet. She mentioned her Mexican heritage and how that influences the food she cooks. |
| **Leeds** | |
| Andrew Peterson | Andrew is a soon-to-graduate student whom earlier in the pandemic lived with roommates but now lives with his partner. Andrew was furloughed then worked at Covid-19 testing site and was in receipt of benefits for a short period. |
| Amy Hartfield | Amy lives with her husband, a prison officer, and their four children. One of her children struggled with their autism particularly during the pandemic and Amy suffers from her own health issues making her high-risk for Covid-19. Due to her health, she became unemployed due to Covid-19. |
| Harry Wilson | Harry recently graduated from postgraduate university, just now securing a full-time role, and lives with his female partner who is a teacher. During the pandemic they relocated for some time to her family's home where there was more space, but they have now returned to their flat in Leeds. |
| Carla Cross | Carla lives with her three children, working in a school and living in private rented accommodation after quickly leaving her ex-partner. Carla's employer and friends offered her family support during the pandemic. |
| Jamie Nelson | Jamie lives with her three children, having worked in a care home until the isolation rules during the pandemic meant that she was missing too much work to remain employed. She lives in a council flat and has struggled to make payments but after some prompting, the council did offer support and/or relief. |
| Jane Chambers | Jane lives with her husband that they own, who worked in a school until having issues in the role during Covid-19, and her three small children. Jane is a social worker and balanced working from home with home schooling her children/providing care. |
| Sally Davidson | Sally lives with her husband in private rented accommodation but due to her husband's new disability they are struggling greatly with income as they do not receive enough from benefits currently to make ends meet. |
| Priya Bhatt | Priya lives in a household with one other adult and her two children. Due to the pandemic, she lost her jobs as a teaching assistant and at a catering company. Her children suffer from health issues, making diet a core concern for her. |
| Mina Jalal | Mina lives with her two children. Due to Covid-19, Priya stopped working in her role as a debt advise specialist and now works as a parcel sorter during nights. Her uncle provides in-kind and financial support, caring for her children. |
| Linda Jones | Linda lives in a household with her adult daughter, her teen daughter, and her younger child. Before Covid-19, Linda worked at a security guard in nightlife and is waiting to return to work until it is safer; for now using benefits to make ends meet and her older children contribute with their incomes. |
| Eddie Walker | Eddie lives in a household with his female partner and their two children. Eddie works in software testing and notes the struggles of working from home while the kids were homeschooling. |

While saturation is widely accepted (and often expected) in qualitative research, there are inconsistencies in definition and varying approaches, including theoretical, thematic and data-driven

definitions (Low, 2019; Saunders et al., 2018). Many authors implore that saturation, often equating to a large number or interviews until no new data emerges, is essential to give qualitative research quality and rigour assurances (Low, 2019; Morse, 1995). This, however, is not universal; authors such as Boddy argue that sample sizes of one (if appropriately justified) can be justified, and practical research demonstrates that samples as low as 12 in qualitative research of like population groups can be high-quality (2016). Hennink and Kaiser's systematic review of empirical tests found studies tended to be consistent for public health qualitative research, with 9–17 interviews or 4–8 focus groups reaching saturation in narrowly targeted studies (2022). However, this is on the lower end of estimates, as Low summarises (2019). Bearing this literature in mind, thematic saturation which focuses on the emergence of new codes or themes in analysis would have been the most appropriate definition to follow for this research, as the themes are essential to theory building (Saunders et al., 2018).

This study, being constrained by Covid-19 and funding issues, was unable to employ a formal base number of participants and achieve saturation prior to analysis. Furthermore, it was not possible to return to recruitment should any form of saturation not be reached during the analysis process. While this was of concern, as the findings will later show, the data was cohesive with clearly marked repeated themes (see Chapters 7 and 8). While new subcodes may have emerged with further interviews, I was satisfied that enough overlap in the overarching theme provided sufficient trustworthiness (an alternative to the positivist term rigour, discussed further in section 6.3.4.1) (Carminati, 2018). As discussed in section 9.5, trustworthiness was achieved in this study.

As part of the analysis, all research notes, transcripts, participant survey answers and interview preparation materials created throughout the process were reviewed. This ensured the research was not reduced to the transcription but, rather, to the entire journey – from the survey to the ending moments of interview engagement. Taking a holistic view of all research materials in the analysis stage promoted triangulation since the survey answers were directly integrated in the interview phase.

### 6.3.4.1 Thematic Analysis

As for the general analysis approach, a thematical analysis was conducted (Nowell et al., 2017). Nowell et al.'s detailed process for establishing trustworthiness within thematic analysis was used (2017, p. 4). Briefly put, the authors, based on the work of Braun and Clarke (2006) amongst others, outlined six phases, reproduced in Table 8 (Nowell et al., 2017, p. 4).

*Table 8: Nowell et al.'s Phases of Thematic Analysis Interpretation*

| Phases of thematic analysis | |
|---|---|
| Phase 1: Familiarising yourself with your data | - Prolong engagement with data;<br>- Triangulate different data collection modes;<br>- Document theoretical and reflective thoughts;<br>- Document thoughts about potential codes/themes;<br>- Store raw data in well-organised archives;<br>- Keep records of all data field notes, transcripts, and reflexive journals. |
| Phase 2: Generating initial codes | - Peer debriefing;<br>- Researcher triangulation;<br>- Reflexive journaling;<br>- Using a coding framework;<br>- Audit trail of code generation;<br>- Documentation of all team meetings and peer debriefings. |
| Phase 3: Searching for themes | - Researcher triangulation;<br>- Diagramming to make sense of theme connections;<br>- Keep detailed notes about development and hierarchies of concepts and themes. |
| Phase 4: Reviewing themes | - Researcher triangulation;<br>- Themes and subthemes vetted by team members;<br>- Test for referential adequacy by returning to raw data. |
| Phase 5: Defining and naming themes | - Researcher triangulation;<br>- Peer debriefing;<br>- Team consensus on themes;<br>- Documentation of team meetings regarding themes;<br>- Documentation of theme naming. |
| Phase 6: Producing the report | - Member checking;<br>- Peer debriefing;<br>- Describing process of coding and analysis in sufficient detail;<br>- Thick descriptions of context;<br>- Report on reasons for theoretical, methodological, and analytical choices throughout the entire study. |

Utilising these phases ensured that issues related to trustworthiness as thought of by Lincoln and Guba (1985) – credibility, dependability, transferability, confirmability – were addressed. Credibility meaning how the respondents' views link to the author's interpretation of them, and whether the two align; dependability in that there is a clear pattern and documentation of the research process, or an audit trail; transferability as in how generalisable the research is, with an emphasis on thick descriptions so that those looking to transfer findings have the information to do so; and confirmability as in when all these phases are achieved and the findings are clear from the data and all interpretations and conclusions can be traced back to it (Lincoln and Guba, 1985; Nowell et al., 2017). See Appendix 12 for this thesis's audit trail.

Transcripts and organising documents of quotes have been retained, so any questions of credibility and confirmability can be checked if necessary. Quotes help establish a narrative and ensure the participants' voices are presented, rather than simply interpreted then relayed through the author. That said, some nuances from the interviews were excluded in the transcription process (e.g. humorous tones), so additional notes and memos helped record narrative and thematic accounts.

One example is that for many of the interviews, children or others were around. While I checked interviewees were comfortable having people present and followed ethical protocols to ensure all

were safe – and all were – this influenced interview questions and answers. For example, one interviewee was visibly exhausted, trying to instruct her children to behave, and at one point paused the interview to reprimand them. While she felt comfortable with this, it led to me want to rush the interview so she could rest and have time to be with her children before her work shift. Ultimately the interview was shortened due to this pressure I applied to not occupy more of their time than strictly necessary to get through the topic guide – both an ethical issue and one of self-reflection. Overall, sensitive subjects were only lightly touched upon or prompted as optional when others were present, but overall due to the living and working situations of many, especially due to Covid-19, others' presence was unavoidable for many.

## 6.4   Ethics

Ethical approval was received from the university prior to beginning the fieldwork. Two major revisions were applied for and awarded during the fieldwork, both for using recruitment agencies to assist with finding participants.

All participants received country-specific information pages or sheets for the survey (see Appendix 1), interview consent forms (see Appendix 2), interview information sheets (see Appendix 3) and data protection sheets (see Appendix 6). As part of the ethics application, a data management sheet was also created outlining the practices needed to keep all study data safe and secure. Explanations about how the study would use pseudonyms, how data would be kept and presented, and participants' rights were explained throughout and can be seen in the documentation. Ethical concerns in this study included the international nature of the research, reliance on online resources, such as Zoom, and the use of recruitment agencies and general recruitment tactics. Of note is that those who qualified and could participate in the study could be considered vulnerable.

By nature, many of the participants in the study may qualify as 'vulnerable'. Vulnerability could and likely includes those experiencing difficult social contexts including poverty, food insecurity, joblessness, homelessness, and experiencing racism, sexism, ageism, xenophobia or stigma from receiving or applying for benefits or charitable assistance. Others may qualify as vulnerable due to their health conditions, such as shielding due to Covid-19 or mental health needs, trauma from poverty or related social contexts, and experiences of Covid-19 more generally. I aimed to handle any issues of distress and vulnerability sensitively, with measures in place to ensure the safety and care of the participants, as seen in Figure 22.

*Figure 22: Consent Guidelines*

- Fully voluntary participation, with the option to withdraw from the study at any point;
- Information provided regarding the purpose of the study, what it entails, how their contributions will be used, the intended outcome of the project, who is running the project, who I am, and how to get in touch with the research team.
- Informed consent on the purpose, usage, and exposure of their data/contributions;
- Anonymity options build into the consent forms, including the agency to select their own pseudonym;
- Confidentiality being clearly stated in the consent form(s);
- Offering outreach to the researcher at any time;
- Local resources listed in the information sheet; and
- 'Thank you' payments to the interview participants for their time, to ensure their time and contribution is valued and not exploited (£20 gift vouchers for UK participants, $25 gift cards for US participants).

All research was handled sensitively and there was great care to plan for distress sensitively and with kindness to make participants feel safe emotionally and physically. No issues of distress or emergency arose, so this was not needed but it is appropriate to acknowledge the approach was from a place of care.

Additionally, ethical challenges may arise from my position as a white, female researcher with no lived experience of poverty or food insecurity. To combat this, I formulated the structure and questions of the survey and interview topic guide to ensure that the participants' voices were central throughout. This built systems so participants had more control over the direction of the research. This was partially done through the opportunity to answer open-ended questions. I also consulted the literature on race and feminist studies and on research ethics to gain cognisance of my place within the research process and assess whether it was even ethical for me to be the researcher on this project. Based on literature search and consultation with my supervisor, I felt confident I could take an informed, sensitive approach to the study, acknowledging my limitations to being able to relate to my participants. My goal was foremost to amplify the participants' voices in a meaningful, safe way with an understanding their narrative may be skewed by the researcher.

In the interviews, I operated from a model of open engagement and aimed to form a collaborative relationship with participants, which was also in the spirit of narrowing the hierarchy.

Acknowledging that I inherently influence the study, I took an open approach to my contribution and worked to form relationships with interview participants rather than operate from a goal of impartiality; this included disclosing or offering relevant information about myself, as applicable – for example, my past in Fresno, why I want to study this issue, etc. Not only was this a strategy for building rapport, but it helped form an authentic interaction. Participants were encouraged to offer insights that they felt related to the topic and ask whatever questions they felt necessary to know the answers to, as long as they were appropriate.

Other issues include that I volunteered from 2018–2021 at a food bank in London, and during my undergraduate degree volunteered sporadically at food pantries, soup kitchens and charities supporting vulnerable populations in Fresno. These connections could introduce a power dynamic of the volunteer versus the person using the service(s). I bore this in mind in fieldwork processes and was prepared to address this ethical conflict (e.g. if an interviewee expresses their distrust of volunteers and their intentions), but that was not required.

Ethical issues also resulted from using recruiters for the thesis. Due to Covid-19, in both case locations it proved necessary to solicit the help of recruiters due to poor turnout. This was not an original recruitment tactic due to financial strain, but was ultimately accepted as a necessary cost for the project to be completed. All ethical measures as dictated by the university's guidelines were met to use these services, but by nature a certain level of control leaves the researcher when using recruiters, which is important to consider. Choosing recruiters that have strict privacy policies and historical presence in the area was essential as an extra check to ensure the most ethical recruitment possible.

## 6.5   Limitations

It is vital to recognise the study's limitations – the most obvious being the lack of quantitative data as originally designed for a fuller reimagining of FSI. The survey data originally planned for would have helped towards triangulation. A second potential limitation is potential sampling issues, which can be thought of as practical and somewhat inherent. Due to the use of recruiters and the financial restraints of the study, the participants from each location were not necessarily in the same circumstances. While variety in experiences is very valuable, it does raise questions about whether a larger sample size with more diverse circumstances would have given additional layers to the study. Given the timing of Covid-19, however, this was not possible, and the sample size achieved was workable for the adapted FSI theoretical framework.

As some time from the outbreak of Covid-19 has taken place, it is worth being reminded of the intensity the pandemic had on academia and academics. Care was taken to make sure this situation was acknowledged for participants, so the same consideration should be apply to me as the researcher and the study generally. For me, and in academia more generally, primarily in 2020–21, this includes emotional distress, mental and physical health issues, and constraints on resources and capacity. Covid-19 is a shared experience amongst all involved in this research and should be remembered as such.

## 6.6   Case Study Checklist

To ensure the thesis's case-study approach is academically rigorous, Mucio Marques et al.'s criteria will be utilised as an evaluative measurement system (2015). Appendix 11 outlines the approach, identifies the criteria for trustworthiness, or rigour, in case studies by Mucio Marques et al., and integrated the analysis of this thesis's methodological approach (2015, p. 34). Some additional methodological comments based on the thematic coding analysis can be found in Chapter 9, summarising the findings from the two case locations.

## 6.7   Part Two Transitioning into Part Three

Part 2 covered the period at the height of the pandemic and detailed in particular the details of the changes to the thesis. Part 3 is positioned following the initial outbreak of the Covid-19 pandemic in early 2020 – when we know more about the crisis but are still experiencing its effects and ramifications – and mostly presents empirical data and literature from 2021 onwards. Given the magnitude of Covid-19, Part 3 heavily focuses on it and reflects the 'shift' in society and research to track and address its impact, including in the food insecurity space, and from here forward primarily focuses on the case countries (UK and US). It should be noted that equal amounts and equivalent contextual data were not obtainable from the two countries, with the UK offering clearer data – particularly at the local and regional level – compared to the US, which had more opaque findings. This directly leads to how the findings are presented and the depth to which the Covid-19 contexts can be discussed in each case.

Chapter 7 presents the cases Leeds and Chapter 8 in Fresno during 2021, offered a brief contextual introduction then a presentation of the fieldwork findings. The data is viewed collectively in the subsequent sections, where Covid-19-related literature is introduced and positioned against the findings in Chapter 9's discussion and Chapter 10's conclusion. As will be seen, the findings are broken down into themes for each location. These themes, while distinct in many ways, do overlap,

attesting to how interconnected these issues are. Topics are not always highly segmented and instead should be viewed as a larger story told through a thematic lens.

Part 3: Post-Initial Covid-19 Crisis

Case Study Findings and Discussion

# 7 Chapter 7: Case Study: Leeds

## 7.1 England/Leeds Covid-19 Context

Covid-19 was a global pandemic but was experienced at all levels differently – regional, national and local. Over 44 million people in the UK caught Covid-19 between April 2020 and February 2022; the BBC reports ONS data showing infection trends, shown in Figure 23 (Data Journalism Team, 2023).

*Figure 23: UK Covid-19 Infections Summary*



**Coronavirus infections**
Estimated average weekly number of people testing positive for Covid-19 in the UK from 3 Oct 2020 to 7 Mar 2023

Source: Office for National Statistics
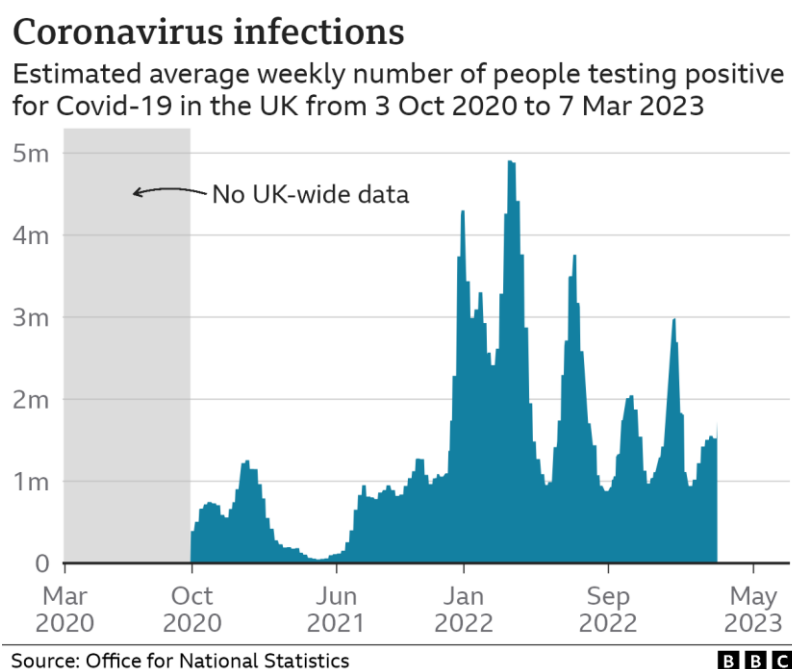
Hospitalisations totalled 1.1 million during the same period across England, Scotland and Northern Ireland, including the prime minister (Data Journalism Team, 2023). Totals show that as of June 2023 227,000 people died in the UK, with Covid-19 listed as one of their causes of death; the highest daily death toll was 1,490 on 19 January 2021 (Data Journalism Team, 2023). Leeds, until mid-June 2023, had a total of 304,886 cases, with 24,598 being re-infections; in Yorkshire and the Humber, 19,647 people died with Covid-19 being a listed cause of death (UK Health Security Agency, 2023).

The Food Foundation found 4.7 million adults and 2.3 million children experienced some level of food insecurity between August 2020 and January 2021 (Goudie and McIntyre, 2021). They identified the four main drivers of food insecurity during the period as not having money (55 percent), isolation (31 percent), lack of supply (23 percent) or other (8 percent) (Goudie and McIntyre, 2021). Separate work using the FAO scale for food insecurity, replicating previous Gallup World Poll data, found that 14.2 percent experienced food insecurity within the previous 12 months, from February 2019, with 3 percent being severely food insecure – up 66.7 percent from the

previous Gallup data (Pool and Dooris, 2022).

The Government first acknowledged the pandemic on 16 March 2020. Between March 2020 and December 2021 the UK implemented a series of policies, including national and localised lockdowns, the creation of social bubbles, where people were allowed a number of regular contacts – the 'rule of six' prohibiting socialising beyond groups of six people – hotel quarantine for those travelling from abroad and social distancing. For a full timeline of policies and regulations during this period, see the timeline in Appendix 4 (Institute for Government Analysis, 2021).

UK welfare policies shifted, including waiving the waiting days for Statutory Sick Pay and Employment and Support Allowance, so they could be paid from day 1, and increasing the generosity of UC and Working Tax Credits (Hick and Murphy, 2021). Local Housing Allowance cuts were reversed, the Minimum Income Floor for the self-employed was eliminated, and eviction protections as well as temporary mortgage holidays were introduced (Hick and Murphy, 2021). The UK also created the Coronavirus Job Retention Scheme (i.e. furlough), which reimbursed companies up to 80 percent of the gross salary of retained workers to prevent redundancies (Hick and Murphy, 2021).

Pertinent to food (in)security, each UK nation took a slightly different response – as Leeds is the case location concerned, this section will focus solely on England. In England the following relevant policies were implemented (see Table 9), as identified by Lambie-Mumford et al. (2022).

*Table 9: Covid-19 Policy Highlights*

| Policies until summer 2021 | Important highlights from Loopstra et al., 2021, unless otherwise specified |
|---|---|
| School food replacements | Free school meal (FSM) replacements were put into place from March–August 2020. Schools could provide food parcels/meals, but nationally there was the FSM e-voucher scheme, worth £15/week per child, redeemable at national retailers. The scheme was extended on 16 June and expanded to include children whose parents did not qualify for public funds.<br><br>Schools were required by the Department for Education to provide meal parcels of some form to students eligible for FSMs who were required to self-isolate.<br><br>As all schools moved to remote learning in January 2021, Government guidance said schools should work with catering companies/existing relationships to provide FSM replacements to students at home, only providing e-vouchers when needed. Due to the backlash about the poor quality and lack of cost-effectiveness of parcels being delivered by companies, the Government U-turned on this guidance, reopening the previous e-voucher scheme. This scheme was not kept open for the February 2021 half-term, as the Government cited the COVID Winter Grant scheme could support families instead.<br><br>The Government expanded the Holiday Activities and Food programme for the Easter, summer, and Christmas 2021 holidays. |
| Emergency finance provision | In June 2020 Defra provided £63 million of funding for local authorities (LAs) for food and other essentials.<br><br>In November 2020, the Government announced £170 million COVID Winter Grant with funds allocated to LAs to be used at their discretion to support vulnerable households with financial support for food and essentials. Additional support came through the COVID Local Support Grant; originally only £40 million in support was announced but this was extended with an additional £160 million and concluded in September 2021.<br><br>£500 was given to those advised to self-isolate, extending the payment to caregivers of children self-isolating in March 2021. |
| Emergency food systems | In April 2020, with the Waste and Resources Action Programme Defra launched a series of grants to support food redistribution. The Covid-19 Emergency Surplus Food Grant awarded £3.8 million to non-profit food surplus redistribution groups, and a further £3 million under the Resource Action Fund Food Waste Prevention Grants (Moore, 2021). For phase three, Defra created a £3.5 million Coronavirus Food Charities Grant Fund in July 2020 (Lambie-Mumford, Loopstra, and Gordon, 2020).<br><br>Defra provided FareShare with £10.5m in June 2020 and £16m in December 2020 to purchase and redistribute ambient foods (Lambie-Mumford, Loopstra and Gordon, 2020). FareShare redistributed 76,000 tonnes of food in England via funding. |
| Shielding grocery boxes | Government gave £32 million in funding to upper-tier councils to support people who were shielding in November 2020.<br><br>The Shielding Grocery Box Scheme provided free food boxes to people on shielding lists from March–July 2020 and was not renewed.<br><br>Defra supported non-government initiatives such as LAs arranging with supermarkets like Tesco and Iceland to give shielders priority online grocery delivery slots. |

Local experiences of Covid-19 and related support varied across England. The Leeds Food Aid Network created a 2022 report outlining Leeds' food insecurity pandemic support – see Figure 24 (2022, p. 1).

*Figure 24: Leeds Food Aid Network Infographic*
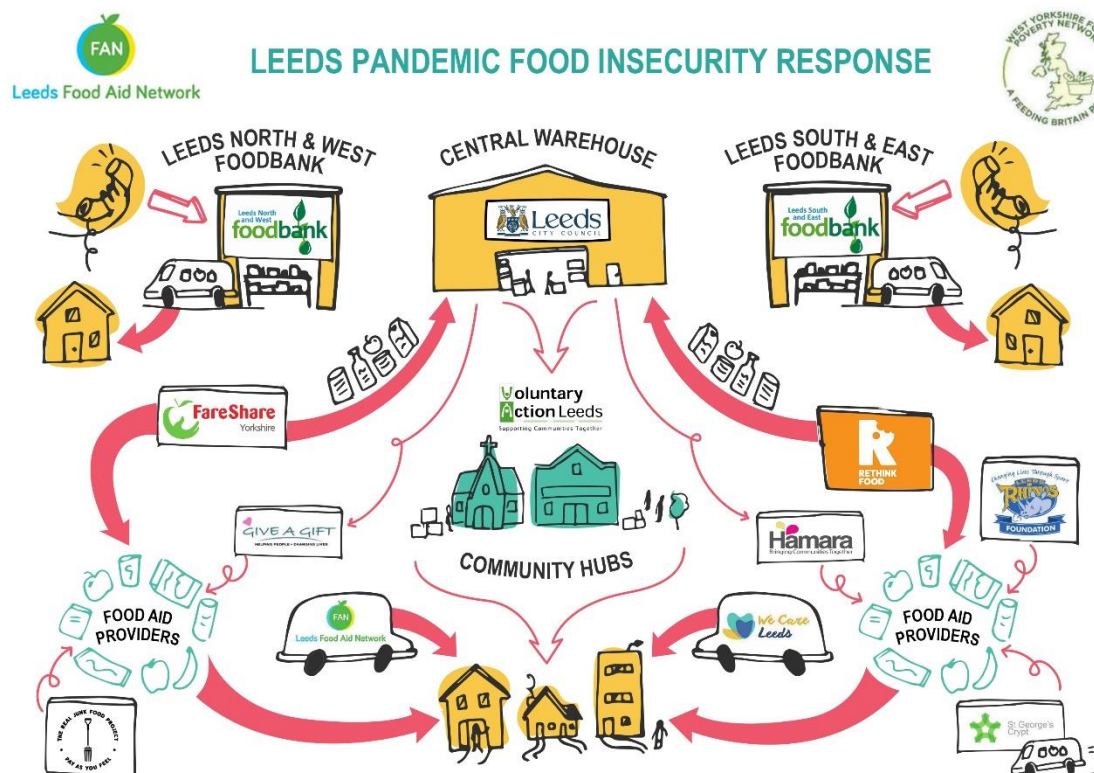


Leeds Food Aid Network outlined, among other things, the children-specific support mechanisms available. The Council, working with schools and Catering Leeds, trialled two distribution mechanisms (2022):

1. Lunch bags, which could be collected from the school by parents/guardians every day, or as weekly food hampers; OR

2. Vouchers to be provided by phone to eligible children, redeemable at eligible supermarkets.

The Leeds Community Foundation funded 31 community organisations to provide Healthy Holidays Covid-19 Response projects, which included delivering food parcels/hampers to students' doors in spring 2020 (Leeds Food Aid Network, 2022).

The Marcus Rashford Free School Meals campaign in autumn 2020 led to the Council working with all schools to provide for all eligible children, and a small number of children deemed otherwise vulnerable, over all holidays from December 2020 to March 2022 (Leeds Food Aid Network, 2022). This Department for Work and Pensions-funded support offered a mix of food hampers and vouchers (Leeds Food Aid Network, 2022).

## 7.2    Participants' Covid-19 Experiences

All participants offered personal experiences of Covid-19. Some Covid-19-specific highlights included the difficulties and fear of catching Covid-19, panic buying in shops, and the difficulties with employment. In one food acquisition example, which is the first theme explored, Eddie spoke to the difference in grocery shopping in the pandemic:

> *When I go to a supermarket now it just feels like a different experience. I don't mind the whole mask wearing thing, and I still wear a mask when I go even though I've been double jabbed, but no one seems to want to talk to anybody anymore… my friends… I'd normally shake their hands [but they] still [keep] the social distance and I think people are a bit wary. I don't think the world will ever return to how it was. Even though we're wanting to go that way, I still think we'll treat each other [as] alien[s].*

Other instances around Covid-19 are interwoven within the nine themes below.

## 7.3    Theme: Food Acquisition

Covid-19's lockdowns and restrictions severely impacted how participants acquired food (e.g. grocery shopping) and modified what was on offer and to whom, such as the rationing of some goods like pasta.

Harry gave an overview of the experience of not finding all the typical food offerings due to Covid-19. His remarks reference specific points but the sentiment mirrored that of many others:

> *Obviously supply chains were hit pretty hard through Covid… There was some times where we couldn't get the fresh fruit and vegetables that we wanted to get and would have to go further afield. Or there would be times actually where we just couldn't get stuff anywhere, like, and we – I feel dead pompous saying this and my working class roots would laugh at me now for saying this – but there was a few times where we would, like, go to, like, a few different shops. We'd try to get butternut squash, just couldn't find [it] anywhere; it was, like, times like that where just things that you take for granted, they just weren't in the shops. But I'm sure that everyone was experiencing that regardless of … circumstance.*

Priya, as others, struggled to find some goods during the initial outbreak of the pandemic and lockdowns. She mentioned, as did others, the struggle to find refrigerated pasta, bread, flour and fresh foods, so she turned to making her own pasta. During lockdowns, there was a cultural touchpoint for making both foods that were difficult to source and foods like banana bread that were relatively easy to make at home if the ingredients could be sourced. Linda described having a

specific need for a product for her son that was difficult to find, including lactose-free milk which was needed due to lactose intolerance.

Priya similarly found the affordable store-brand versions not always being available, citing a story of how she had to buy the more expensive Doritos brand salsa for movie night rather than Tesco's own line.

Linda and others made points around buying in bulk and its advantages. Amy arranged trade-offs in their budget to accommodate this strategy, missing a rent payment to have the funds to buy in bulk. The desire to buy in bulk clashed with the Covid-19 restrictions around many products, like pasta; there was a social, moral counterweight to the financial arguments about buying stock and products in bulk. The morality issue being that if people buy more than they need it takes away from people with a greater need, and the societal pressure during this time to not hoard more than required. That said, not all were able to accommodate purchasing large quantities of goods.

Common points made were around supermarket proximity and variety of goods on offer, particularly framed under a Covid-19 lens. Harry, Andrew and Eddie all moved house during the pandemic, changing which supermarket chain(s) was closest or preferred. For Harry, the closest supermarkets now were smaller with a lower selection. Post-move, Andrew weighed the trade-off between proximity and pricing; Morrisons was closest but he preferred the prices of the discount supermarket chains. Andrew discussed his shopping in relation to the move showing his shopping choices are not always static, saying, 'I'm very much just an impulse shopper. So I go in, I never have a list. It always cost more than I wanted to because I just throw stuff in the trolley… There's never a strategy, which probably should be'.

Eddie alternatively experienced in his previous location how the same chain can have different offers despite being in relatively close proximity. He also touched on justifying buying more than immediately needed, saying:

> *Where I used to live at the start of Covid, I were quite fortunate there was two Aldi's. Well, there were three Aldi's within a ten-minute drive. I had to go to one Aldi to get one thing and then another Aldi to get the other thing… one Aldi was a bit … posher due to the demographics in the area so they catered for the more specialist fruits and stuff [like] persimmons, dragon fruits… Little things… Like, you could get toilet roll in one, but not in the other, skim milk in one, but not in the other. So just that logistical nightmare… [and] a waste of petrol … I found myself buying more than what I needed just to save myself from going out the week after.*

*I started to think I'm becoming like the people that I'm despising because … I [bought] toilet roll in both shops. I'd get it both because you weren't allowed to buy more than [a] 24 pack at a time, so I think if go to the other one that's, like, down the road they won't know me there and I can get more then… I don't want to lose out, but then I feel bad because I kind of think I know better.*

Priya preferred to go to Tesco, which was further from her home, rather than her local Aldi during the pandemic. She shopped at Aldi for her everyday shopping, like milk and bread, but the main source of groceries for meals, like meat and vegetables, was Tesco despite their prices increasing. In part, Priya's choices reflected Aldi's handling of Covid-19-related restrictions and its knock-on effect of long, time-consuming queues.

Linda communicated how her home was near a large shopping complex with multiple stores, but during Covid-19 she had to remain closer to home. Previously she was 'here, there, and everywhere… B&M, Iceland, Aldi', amongst others. During Covid-19, she had to stay closer to home and shop at Morrisons, which 'is more expensive than, say, like, Farm Foods or Aldi or something … So I couldn't get as much for my money'.

Further on pricing, Mina discussed her price-conscious approach to shopping. While she does 'like a good bargain', she said she would be concerned about price regardless of her economic circumstance; there is a distinct trade-off between time and effort spent against price reduction. In part came concerns around not having the funds to top up shopping as normal, Mina saying:

*I was finding that I wasn't able to top it up – I didn't have that spare cash … And then as the weeks go on, you get monthly pay. Weekly, you might need to replace one or two things … I just didn't always have the money to do that. I'd have to buy Smart Price stuff, or cheapo versions and, even then, I still couldn't afford to make it go all the way … Not all stuff. Like for kids' stuff that I wouldn't let them do without. But like, I can buy Smart Price stuff for me that's probably no different.*

Some participants shopped online at some point during the pandemic. Jamie described online shopping as being easier than taking her children to the shops, and it meant you 'don't end up buying loads of [extra] rubbish', and consequentially a lower bill. Jamie did not view it simply as a pandemic-era acquisition approach but as a useful tool. Budgeting became easier by not shopping in-store and the process of shopping became easier without physically taking her children to the shops. That said, Jane called out the irony of in-person shopping: 'But [at] the height of [Covid-19], it

was like, was it safe to go shopping? You know, no one's in school, no one's at work, but we can go to Tesco's?' Later in the conversation, Jane took up the topic again:

*I had an online delivery pass, paid £8 a month and you could have as many deliveries as you wanted. So I would generally have two shops, so your bread and milk wouldn't go off. Trying to shop for a whole week is a bit difficult … I'd have two lots of shopping delivered to my door … I didn't worry about the cost and I knew that I would get my food shopping. [That said] for months you couldn't [get a delivery slot] and then you didn't want to when you could because you thought older people might need the slots.*

Carla also procured groceries online, saying that while she enjoyed shopping online at places like Tesco and Asda, often you had to purchase brand foods, which she said increased her bill by £20 or £30. She did point out a specific flaw, saying sometimes in her online orders she would accidentally order repeat items, increasing her bill – something that would not happen in store. When asked if it was costly to do online grocery shopping, Carla continued:

*There was a lot of, sort of, gaps, where you couldn't actually book anything, they were so, so busy. So I did the click and collect. I used to have to leave [the children] and I think that was the only way we could get food sometimes. I have got friends that would drop food off but… They don't go with you to know what you get, what sort of things, what brands you get and how many different things you need.*

Amy brought up concerns she had during online food shopping in her interview. She commented:

*I can remember, like, doing a Tesco online shop because I kind of like that because a) I didn't trust [Husband] going to the shop to really to get [everything], and I could actually work out how much I'd spend. And me probably thinking in the back of my head, like, if there's no stock on the shelves, how are they actually going to fulfil the order or what have you? So there was that element of, like, what are we actually going to get? …*

While food banks and those support measures are covered in the support structure theme (section 7.5) apps, food-purchasing schemes and subscriptions were mentioned several times, particularly Too Good To Go.[5] Eddie mentioned another scheme:

*But there's one company called the Real Junk Food Project. So they do the magic boxes on there so you can pay, like, 10 quid and then they'll bundle it all together. So during a*

---

[5] Too Good To Go is an app aimed at reducing food waste, where local restaurants and shops can sell their surplus food at highly reduced rates.

*pandemic I were taking advantage of the[m] because there was, like, the milk and all sorts …*
*Obviously it helps them because they're helping saving food waste at the same time. I'm*
*wanting to look after my family so it's a win–win.*

Eddie also turned to Facebook, searching for 'free food' to help save money for better foods like chicken and beef. The free food, typically things like peas and tomatoes, helped free up funds to acquire food by more traditional methods.

Carla used food surplus apps, noting the differences in offerings based on the demographics of the area, with some communities offering more typically African foods and meals while others had more traditionally English offerings. Regardless, she was often able to obtain large quantities of food, such as 50 in-date eggs, or pallets of strawberries where some had moulded but not all. While some foods were out of date, overall Carla found there was a good selection.

Some participants benefited from the food acquisition of others via subscription schemes where they themselves were not the subscriber. While Jane said she wanted to participate herself, as there were quality items like Marks and Spencer's bread up for grabs, the waitlist was very long to participate. Jane elaborated:

> *[My friend] pays £12 a month and she drives to this warehouse in Pudsey and they just … It's*
> *whatever they've kind of got on the day. Often it's food that's either just gone past its sell-by*
> *date or it's food that the supermarkets have overstocked … She got a big boxful and she – I*
> *think she knew that my husband wasn't working – so she'd be like, 'Oh I put all this in for*
> *you. There's so much stuff that they were, like, you've got to take today or it was going in the*
> *bin'.… She knows that we like fruit so she always puts us loads, so it's great.*

Increased cost of food was noted by some participants. Carla noted the mental stress that came from the increased prices while shopping or attending the food bank. Linda said she thought food prices only increased at independent shops, while Eddie and his mum noticed supermarkets were raising prices and price gouging. He said, 'I'm sure supermarkets done bloody well during the pandemic. I'm sure their … net profits [are] amazing compared to … the year before. So why are they putting the prices up?'

Amy and her family experienced food insecurity during the pandemic and she discussed its mental strain. Outside of reducing consumption, buying reduced-price foods and using food banks, they also got food from work to help make ends meet. Amy said:

> *And it got to the point that … [my husband] would go to work and he would actually [eat], it*
> *sounds really bad, the prison's … food. Prison officers aren't meant to take it, it's meant to be*

*for [prisoners], but he would be getting, like, the leftovers so … he didn't really have to eat at home.*

Carla spoke of how her work would send her home with leftover food from events. She recounted a time where her headteacher gave her the leftover sandwiches from the school's fieldtrip that day, noting although they 'were not particularly nice sandwiches' there were many of them. Carla's middle son refused to eat them; her other children agreed to, and it helped meet a need.

Harry's environmental sustainability degree made him prioritise where possible buying local and supporting the local economy – such as buying what minimal meat he did consume from the local butcher. He did note the butcher's fresh products' shelf life was shorter than the supermarket's, but the experience of buying the fresh goods was better. Sally spoke of her allotment and how that allowed her to go outside of the supermarket structure.

*We've had one for about seven years … So we use that to grow some of our food normally. So last year with shield[ing] I wasn't allowed to go to the allotment, so I kind of lost a year. This year I've been trying to do a bit a bit more up there and grow things that will supplement what we eat … My rule for the allotment has always been to grow the things that we like but are expensive to buy.*

Sally was the only participant who mentioned the allotment system and growing her own food, but similar feeling and pride was exhibited by those who tried to bake bread and make pasta during the pandemic. It mirrored Harry's feeling of pride in shopping at the city centre local market and buying from small local businesses. These emotions signal that even through the pandemic, positive emotions around food acquisitions remained.

As a visual summary of the primary codes/data, the stores mentioned as part of this theme are shown in Figure 25.

*Figure 25: Supermarkets and Stores Mentioned in Leeds*
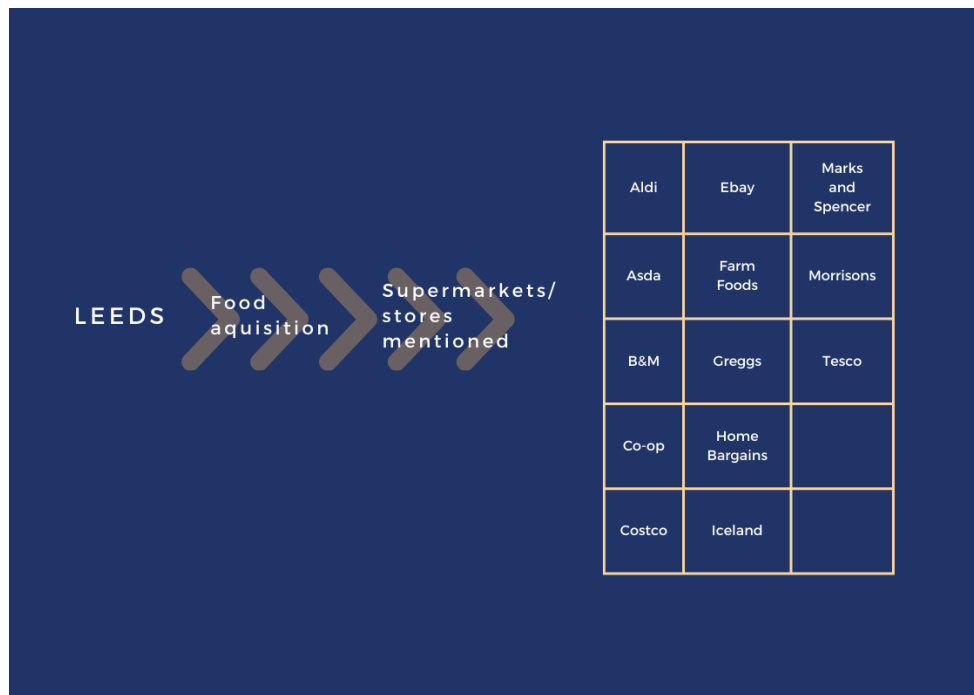


Furthermore, the following second-layer subcodes were created from this theme, shown in Figure 26.

*Figure 26: Summary of Leeds Food Acquisition Subcodes*



## 7.4   Theme: Diet

Diet and food acquisition conversations switched readily between one another, including sentiments reflecting consumption changes based on what participants could acquire. Balancing money, health and preferences were linked for many families. Mina discussed how she reduced meal costs through substitutes when asked if her diet changed over the previous year. In part, she substituted or eliminated meat from meals she traditionally used meat in, such as lasagne, but also kept meals 'simple'. Andrew and Mina both mentioned beans on toast as their cheap go-to when struggling financially.

Mina, elsewhere in our conversation, spoke to health and cheaper food options, tying the two issues together. She said they were eating more fried, tinned and freezer foods, such as frozen vegetables; it was easier to stock up on these items during Covid-19 than fresh ones. This was a departure from her typical diet. Mina surmised:

> [We're not getting a balanced diet] as often as I'd like … If I'm doing four out of seven, I'm
> okay with that. [If] four out of seven nights they've had a good meal, like a decent amount of
> veg, a good proportion of carbs, meat, veg, what have you, I'm okay with that.

Not all choices were meal switches, but product switches. Jamie spoke of switching from branded foods like Warburton's bread to Tesco's own line, Nutella to the generic spread, and of moving to long-life milk over fresh. Jane spoke about the swaps she had been able to make in her household to save money on meals without her children noticing, mentioning:

> *[I buy the cheaper versions of] whatever I can get away with … Tesco's have started doing a range that's, like, really cheap, like about a quarter of the price … So I slipped a couple of cans in [of my] daughter's rice pudding. I just bought one to see if she'd notice – she didn't … I've [done that with] peanut butter, the jam, the chocolate spread, hot chocolate and soup.*

Jamie elsewhere discussed her children's food preferences and how they did not always align, such as liking different sandwich types and fruits, which meant buying multiple products. Commenting further, Jamie offered:

> *They like their yoghurts, raisins … they don't like jacket potatoes and that's … one of the main things that they always used to send home [in the school food hampers] … When they were isolated, I'd rather them have a full cooked meal – then at least I know that they've had [a] nice, warm dinner.*

Carla discussed worrying about the healthiness of the meals, a common concern throughout most discussions with participants about diet. Dually, participants worried about having to cut back on the treats and fun items for their family, like ice creams. Priya said her university-aged daughter returned home during the pandemic, affecting their food shop. With her children having health issues, she tried to purchase healthy options:

> *I like sort of superfoods like berries and the nuts, the oily fish, and things like that but they're so expensive … I lost my job and when other things hit it [affected the food budget]. [Now we're just] trying to fill [the] freezer with fish fingers and that sort of type of food. So it did affect us financially, but also in our actual eating habits; that all changed.*

Priya's daughter's vegan diet, related to her disease, also added to the shopping bill, having to now buy multiples of the same types of products like soya and dairy milk for teas. The increase in food items to be purchased put further strain on both budget and acquisition.

Numerous discussions regarding switches either stemmed from or led to conversations about reduced consumption. Questions about both were posed in the survey, so participants were aware these topics may be touched on. Jane expressed:

*Our food bills are quite high when the kids are at home. They just eat constantly. They're constantly sort of snacking … You don't want to deprive them or worry them … You want to sort of shield them and protect them from that … I was, like, cutting back on what I was eating just to make sure there'd be enough: 'I better not eat any more biscuits', because how am I going to get more biscuits? I'd rather they have them.*

Jane spoke further to this, saying how these foods did not necessarily match her own preferences. The children preferred things like pizza, crisps and vegetarian hot dogs, as their family is pescatarian, whereas she preferred vegetables and tofu. She prioritised her kids' preferences over her own. Carla discussed reducing her consumption and changing her diet to accommodate her children:

*I think [to myself] I can manage more on a slice of toast then they can … If they were going to school, they would need their energy … I would probably just eat their leftovers … They need it more than I do. And if I'm hungry I can have toast, and if they're still hungry, which probably they would be, they would have toast or cereal after [dinner].*

*They would always sort of put a plate out for me. And I said, 'No, it's fine'. … my youngest always use to say, 'Why aren't you sitting and eating with us?' And I would just say, 'Because you need that more than I do, and we've got enough now to last till Friday'.*

Eddie similarly examined changing his diet, skipping proper meals, and drinking coffee instead to keep hunger at bay. He said:

*There're days where I've skipped a meal. The other day I was, I was hungry, and I recently got paid, but it was so close I didn't want to be going borrowing off my mum again 'cause it's embarrassing at 37 saying, 'Mum, can I have, like, £20,' so I've happily just, just not eaten, just drank coffee … I like coffee anyway.*

Similarly, Priya discussed her consumption. Previously she would be able to save back a portion of the evening meal for her lunch the next day, but now with her university-aged daughter back at home that no longer happened. She included how Covid-19 and the inability to safely return to the store multiple times impacted her diet, alongside a lack of flexible income to accommodate changes in her shopping list. She conveyed:

*If there's less food in the fridge, it's, like, 'Oh, I'll just take a banana or I'll take a yoghurt'. You wouldn't have what I would have classed as a meal … It was really hard to predict because although you think to yourself 'I've got this set of money' and you might write your list, and you get to the supermarket and what's on the list isn't there and you've got to buy equivalent products, your budget somehow just changed … It can be quite nerve-racking*

*going up to the counter thinking, 'I hope I have enough money to pay for this. You know it's going to be embarrassing if I have to put something back'.*

## 7.5   Theme: Support Structures

There were various forms of support structures identified, including familial, welfare systems and the third sector. Familial support was divided into in-kind contributions such as buying food or cooking for each other (primarily to the interviewee but not in all cases) or financial support such as loans or gifts. Amy expressed how her mother offered support:

*We have to rely on my mum to bring us 'round food… [and] we've actually [been] borrowing money off my mom to pay for food [during lockdowns]. I think I've only just paid it back actually in the last week, which has been a massive burden. I owed her £1,000 – like a substantial amount of money really when you just think it's just going [to] food.*

One story of family support stood out, with Mina speaking fondly of her uncle who offered childcare and meal support. While her brother supported her financially, her uncle's in-kind support was pivotal to her switch to night shifts in her new job. She counted these support structures as being a crucial strategy, saying, 'Luckily I have got family that helped me … I hadn't needed to reach out to, like, councils or food banks or have that luckily. Touch wood'. Further to this, Mina said:

*I've had a lot more help with my uncle feeding them and looking after them … I'm not guaranteed to be awake for lunch time [due to working nights] or even teatime for making them something. I'm up now because obviously I had to be up [for this interview], but I might have been in bed still till seven or half seven, so they'd need their lunch and their tea [which he helps with].*

Eddie spoke of the reciprocal relationship he had of support with his mother, her lending him money while he went food shopping for her when she was scared to due to fear of Covid-19. He rationalised his actions stating he caught Covid-19 anyway so it was, at least in retrospect, less of a concern for him; he prioritised his mother's health and fears over his own.

Not all family support was both in-kind and financial, such as Linda who borrowed funds from her parents solely. When asked if she had previously borrowed money, she indicated that she had, but for leisure activities such as bingo nights; now that support had to go towards maintaining essentials. Jamie spoke of her extended family, citing how close she is to them, then saying, 'There's always the option of going to their grandma's house or my dad's house [for food]', continuing elsewhere to say her grandmother would come by with a large bag of shopping for them.

In Leeds the most mentioned benefits were UC and Tax Credits, with some mentions of Job Seeker's Allowance and housing support. Also mentioned was relief from Council Tax, the mortgage holiday, and Personal Independence Payment (PIP) for disability. Some participants had changes in benefits, be it switching from Tax Credits to UC, newly qualifying for benefits like Free School Meals, or support schemes ending like the mortgage relief scheme. Amy detailed her positive experience of switching to UC:

> It was really easy. I was expecting the worst myself for since everyone was saying, 'Oh, no, it's horrendous; like, you're without money for so long'. We put the application in and literally that afternoon they called us up to verify [our] identity … Then we were offered an advance … So we thought we would be stupid not to do that … We got the advance and that was literally within, like, a week.

> Then we had our next payment … but it kind of went down to, I think it was, like, £500 that we got. So it was a lot less than what they said that we would get, but it was a lot more than what we were [getting on Tax Credits].

Amy noted that this change allowed her family to get through Covid-19; furthermore, without the pandemic, they may have never made the switch. Counter to Amy's experience, Jane talked about the interaction between childcare support and UC. In part, she mentioned the two-child limit affecting her benefits, not covering her third child, as well as the variation in benefit amounts more generally. She stated:

> I was already claiming Universal Credit and the childcare costs … that was really very helpful. They did say they'd put it up for Covid, but I hadn't really noticed … because it is hard to tell [how much UC money you'll receive], it varies. I don't know how they work it out; it's the most confusing system.

In a complex example, Mina expressed deep frustration around the benefits system and the toll it placed on her. Mina spelled out this complexity:

> When I became a single-parent household, and changed over to Universal Credit, Tax Credits said that they overpaid paid me about £1,500; so they're now taking that money back off every month out of my Universal Credit, and obviously that's gone down as well now with me doing this new job … I was furloughed as well … my benefits went down because my wage were less. I'm sure that they paid me a bit less in Universal Credit, and you would have thought they would have paid you a bit more … [they were] saying I owe them, bloody, £1,500 or something daft, and [they] just take that off you. You don't have a choice in it.

*I were on phone to them other day, Kelli, crying, like, I can't physically afford … this overpayment. I rang Universal Credit; they couldn't help: 'You need to ring Tax Credits'. I rang Tax Credits; they couldn't help me: 'You need to ring DWP'. I'm like, 'You're just passing [me] from pillar to post' If anybody else were on the phone … they would have given up.*

*And that would have been that what they'd wanted you know, just bloody get rid of them; shove them here, there, and everywhere. I ended up breaking down on the phone with the lady in the end. [I said] 'You're make me want to kill myself'. And honestly, I'm sure that's the aim of the game, to put people off, you know, claiming it. But, yeah, she says in the end [she's] changed it to a tenner a month [charge] … That's what you have to do: ring them up balling for them to help you.*

Mina also explained the interactions of nursery charges and how those factored into her benefits/work situation. Previously she was able to provide a nursery invoice and the nursery was paid directly; whereas, now Mina paid the nursery herself then was reimbursed for up to 85 percent of the fees. When she returned to the workforce, Mina struggled to find the £300 she needed so she applied for the flexible support fund from UC. She was denied support, as she already had employment rather than still searching for a job. In the end, she borrowed the money off her uncle, which was difficult to repay with her reduced income.

Navigating the benefits structures during a pandemic had a layered impact for many participants. Waitlists and backlogs proved exceedingly prohibitive for receiving benefits, as Sally found when her husband applied for PIP for the first time and she applied for UC. Sally described their experience as:

*We applied for Universal Credit [via] an online application. They'd simplified it because of [Covid-19] so it was a little bit easier … That took some time to process so we had to apply for an advance in order to carry on … We had to miss a couple of months' rent and then [caught] up later when Universal Credit came through, which, of course, caused its own issues.*

*This year, we've applied for PIP and for low capacity for work-related activity and both of those are way behind. They're saying six months [wait] for an initial assessment without anything else … It's crazy; it's meant to be within 12 weeks.*

One final example of the government benefits support structures is Harry's story. Harry described his short experience of receiving Jobseeker's Allowance, only collecting two payments.

*I had pretty negative preconceptions about the way [the Jobcentre] would be. I was expecting them to be just pushing me into getting any job. But when I spoke to this guy … he looked at my CV … wasn't expecting to see [my qualification]. I told him what [I] was doing …*

> *He was like, 'Well, great … You obviously don't need my help … I'll check in again in three weeks just for the formalities of approving the payments'. I didn't really feel like I needed the guidance that they offered. It was more that I just needed the money to pay the bills.*

Harry built on this towards the end of the interview, admitting the following in relation to his application:

> *I actually had to lie about my living circumstances on my application … If you're living with a partner, you get significantly less money. And I lied. I just said that I was a single person, and we live in a three-bedroom house and at the time my friend was living here as well. There were three names on the contract and I managed to get a single-person amount, which was morally difficult to go with but I thought, you know what, I have paid enough in taxes as we've gone along … I'm just kind of a victim of a bad situation at the moment.*

As all but two participants were parents. School support structures (e.g. school food parcels, meal vouchers and/or FSM) were mentioned frequently in rich detail. Vouchers (typically £15/week) were rolled out during the pandemic, with positive results after a rocky start. Priya noted the kinks in the roll-out she encountered (e.g. delays in receiving the voucher or codes not functioning properly), which she mentioned was an issue – put informally: 'When the fridge is empty and you need immediate support'. Priya continued, saying:

> *When [the] children weren't at school and the whole thing Marcus Rashford thing [happened], they did the school vouchers; so you'd get an email, and each email would have code on it, and you got an email per child.*

> *Once it was set up, it was quite easy. But that initial few months … because you'd get your code and a few times at the beginning the code is not recognised or it'd take 24 hours to process it and things like that …. I got in contact with the school at the very beginning and they actually said it's not uncommon … So they were giving food boxes. They said, 'Just to tide you over until the voucher scheme gets set up correctly'. That did tide us over … At the end of the day it fed us so I can't really complain, but was it a healthy, balanced diet? Not really.*

When asked if the £15/week was a sufficient amount, Priya said:

> *I think it covered what I needed … because prior to Covid, like I said, because of the kids' health conditions, I do try to get, you know, my superfoods … you know, like a bag of walnuts is about £6 or something like that … I probably spend a bit more on quality food before, whereas now I've sort of backed down a little bit. Maybe it would be enough for what a*

*standard family would do? … It still fed us, but it didn't match the quality of food I would*
*have liked to have had.*

Jamie preferred vouchers over food parcels or hampers, as you can 'get a lot more for your money' and could purchase things her children wanted to eat. She noted the £15 could be stretched by buying cheaper brands. Linda cited the home meal delivery scheme as a support scheme she accessed, which appeared to be linked to the Council:

*[We received government parcels hosted out of] a local community centre … The woman*
*that runs it now, she did all sorts of parcels … All the way through the first part of the*
*pandemic, Monday–Friday she were doing a pack-ups … little sandwiches, a fruit and a drink*
*or something like that and getting someone to deliver them for the kids around our area. I*
*think they managed something like 15,000 pack-ups … They were absolutely amazing. They'd*
*just come around every day and leave them on your doorstep … It was quite decent and very*
*varied.*

Not all families qualified (at least at certain times) for FSMs but still received other forms of support. Carla outlined her support saying:

*So [for my son] I did get the £90 over summer … I'm not down for free school meals, but [my*
*boss] knows my other children so we did used to get food and things … My youngest went in*
*Monday … we'd run out of bread, and by 11 o'clock the school rung me up: 'Right, [your son]*
*said you haven't got any bread in'. And we [had] just run out. It [was] just one of those things*
*… I went to [the] school they had, like, three Aldi bags full of, like, cheese [and groceries for*
*me].*

Food banks were not commonly utilised, although some, such as Carla and Sally, discussed using them. Some participants avoided this form of support or expressed relief at not having needed food bank support. Sally spoke the most to this topic and her story (explained below) encapsulates its dynamics.

Sally created a network of strategies and systems to try to make ends meet – something that at the time of our interview her family was struggling to do. She summarised the support structures saying:

*By the time we've done all the essential things from Universal Credit, there just wasn't*
*money left for food … We were using a food bank, but they're restricted in how many parcels*
*they give and for how long. So then after that, it was sort of trying anything. We had some*
*help from church. We borrowed money. We put things on credit, all that kind of stuff. Just*

*trying to get the resources we needed mainly because of the shortfall in the rent allowance, and because Universal Credit was so much lower than wages had been.*

She continued, elaborating on the baseline support she received as part of a local council programme that involved volunteers:

*At first, we had some support because I was asked to shield … the local council were doing shopping for those of us who were shielding, up to £25 per week. They were meant to invoice us to pay it back [but haven't yet] so we've still got that kind of hanging over us … Initially we were able to give shopping lists and somebody went to the supermarkets and got them, up to £25; anything else was community resources. We weren't actually shopping ourselves at all … this is really awful, but the vast majority of the volunteers were middle class or higher who were doing it as a good deed kind of thing. And £25 doesn't go a long way, but it does if you're careful and if you brand down and go for value stuff and so on. I would try and ask them to do that and they wouldn't; they would go for branded stuff and then tell me they couldn't get in on the list because there wasn't enough money for it … so there was that frustration.*

In the discussion about food banks, she explained jokingly:

*The food bank … was giving out parcels of food that had been donated or things that had been collected from shops that were out of date … Things could be extremely random … Our favourite week was when there was a jar of anchovies, an entire pineapple, brie cheese, and some fancy oat crackers … What on earth do you do with that?*

On top of the practicality issues, Sally noted the lack of nutritional value, with parcels often being filled with cakes and biscuits she would never purchase. The conversation on food banks moved away from being light and in jest around the odd combinations of food within the parcels to something more serious when it was taken out of the context of her own situation and made more abstract. Speaking of when she previously had volunteered at a food bank sorting donations, she said that often donations were not helpful: 'And it comes across more like "I had to clear out of things" … Like a harvest festival, when everyone gives the tins from the back of the cupboard they don't want, that they're not eating for a reason'.

A final pivotal point was how this network of support structures she had assembled was now falling apart, as much of the initial support and programmes created at the outset of the pandemic was ending. When asked about her strategies for ensuring they had enough food, she stated:

*Strategies are really difficult. So [my husband] is having a little bit more food because he's not well but for the last couple of weeks I've been on just one meal a day, which is starting to cause a few health issues.*

*We've kind of run out of options. Because we've looked at various different things and various places that we could get help … and a lot of them are restricted to one or two or three kinds of things, and then there isn't any more help. So for us, it's been fuel, it's been gas and electric and food that have been the problems. Fuel because we use it more because of my husband's illness. We use a lot more electricity and things, and food because we're home all day. And that's difficult, and we're still making up the rent shortfall. So, yeah, it's [a] day-by-day thing at the moment. Literally, just get through today and then we'll do it tomorrow and so forth.*

## 7.6    Theme: Money and Budgets

There were clear intersections between this and other themes, such as benefits support amounts and cost of expenses, like housing. Some participants spoke very specifically about their approaches to budgeting, whereas others admitted budgeting was not their strong suit. Andrew, a mature student, spoke of how spending his student maintenance loan pre-pandemic affected him once Covid-19 hit. He said:

*Every sort of aspect financially [has been affected by Covid] like my rent, groceries, paying for my phone bill … 'Cause I had a lot of things to spend my money on before, booking festivals, holidays, I thought I'm going to enjoy the year; I wasn't think[ing] there's going to be a pandemic … I'd thought I can save the money I've spent over the course of the next few months because there is going to be nothing big to pay for.*

Others, like Carla, discussed how Covid-19 made them disregard previous budgeting strategies, as they no longer were fit for purpose. Carla spent more money during lockdowns to combat the initial implications of Covid-19, and was now trying to cut back on spending. Parents, including Amy and Eddie, had increased food expenses due to the children being home more, taking a financial toll. Carla's food bill doubled from £50/week to £100/week to keep up with her 'growing, growing boys' being home more.

There was an emphasis on making money stretch further and on budget strategies. Mina said she would go to multiple stores trying to get better prices on food and other goods. Carla looped her children in on budgeting and household finances, having them contribute to the household finances, and in other cases paying for their own expenditures, like snacks. There was a duality in not wanting

to worry children with concerns about having enough money, particularly for food, but also taking some ownership and having knowledge of their financial status.

As for expenses, a common comment was not having money to top up food shopping trips or to pop out to the shops, as the money was not there to facilitate this. The lack of money came from a myriad factors – covered in all themes – but for some mothers this included their ex no longer providing financial support for the children. In a similar vein, many discussions talked about costs associated with raising children. Jane discussed their situation, finding it hard to pay for some school expenses.

> *I feel less worried [about money], especially now I've been able to up my hours … what's worse is just the kind of, sort of stigma of it really, is that I'm a social worker, he's a teacher and it's, like, how can we be near this risk of losing our home and [can't afford] school trips?*

> *[Do] you go in and say we're struggling, but we're not struggling compared to others? But then others [like us] worried about their food bill, or think, 'Oh my God I've got to find another 40 quid this month for the school residential'. It got near the point of do we say something to [the] school? … It's quite embarrassing … How did we end up in this position?*

All participants were asked in the survey if there were any large, unexpected expenses; the two topics that came up were housing and vehicle expenses. Carla, for instance, had to replace her car's gearbox. Eddie described his situation when his washing machine broke down and how – in his terms – he accessed money at the 'bank of Mum' to replace it. These unexpected and large expenses often took money away from food budgets.

As for bills, many participants including Sally either made partial payments or fully missed a payment. Sally explained:

> *We struggled with gas [and] electric, because usage went up at first because we were at home … We've had a little bit of support from our gas and electric provider. They've let us have gas and electric but put it as a debt onto our account. That has to be paid back at some point, which obviously in future then puts our weekly allowance up because it will be what we're using plus some of the debt … so that has a knock-on effect. But at the time it was the only thing we could do in order to keep the electric on and get through the winter … That was difficult to kind of negotiate with them and to get the help needed. At first, they were great but as time has gone on with Covid, not so much…*

> *We fell behind with [council tax] … At the end of the last council tax year… they did actually give a grant to people who had struggled and they actually cleared the bill, which was*

*wonderful. But then we've fallen behind again this year … what they've done is they've applied to Universal Credit for Universal Credit to pay them directly, which is a little bit higher than we would have been able to negotiate paying to them.*

Many discussed the trade-offs of paying some bills over others – most concluding that housing was the most important bill to pay. Lina deprioritised her water and phone bills to ensure the internet stayed on for her kids' home-schooling. When it came to payments, Mina, as a former debt advisor, offered her expertise on how people should prioritise bills and payments, stating gas and electric were most important whereas credit card repayments could be deprioritised, and one can enter a payment plan to ensure the kids 'remain fed and clothed'.

Concerning food, some things were worth prioritising over others: reducing the children's food was not an option but buying cheaper food to make it stretch was. Skipping what bills they could to make sure some food was available was an option, but some bills felt off limits and too detrimental to neglect. In all there was demonstrable stress about money and how to make all the pieces fit together – and for some, such as Sally, at the time of interview the pieces were not fully fitting together; the money was not stretching far enough.

## 7.7   Theme: Work and Wages

This theme narrows in on the structures of employment (e.g. working from home, career shift) and financial/structural issues specifically tied to wages (e.g. overtime, increasing pay). Leeds participants faced various challenges at work due to Covid-19. It is impossible to overstate how much Covid-19 permeated the workforce and how the participants were required to adjust. With the isolation rules, due to her children being off school at different times, Jamie was off work (unpaid) for 40 days in one stretch, making the job untenable. This had knock-on effects on their food security. When asked about her work conditions and how Covid-19 influenced them, Jamie explained:

> *Covid made a massive impact. It was really hard at first because I wasn't allowed to see my children … They advised us if we were going to go to work that we had to stay in a separate room from kids, so I did have a lot of childcare then … At first I didn't know how bad it was or what effects it were going to have, anything. It was really scary to be honest at first.*

Not all Covid-19-related work situations were like Jamie's. In one case, Covid-19 directly led to Andrew's employment. He was furloughed, then hired at a Covid-19 test centre. In Andrew's case, Covid-19 led to a new role with more hours and higher wages, alleviating food insecurity concerns. Priya's work situation also involved furlough. Priya offered:

> *Pre-Covid I'm a single working mom, I had two jobs – a full-time teaching assistant Monday to Friday, and then I had a weekend job for a catering company… when everything obviously went into lockdown … my school job, that just remained the same … The catering job, that all went to a halt … They got in touch with me and said, 'Would you like to be added to our furlough scheme? You know, to obviously give you some sort of wage?' So that was fine. That was great.*

Amy's husband had specific work incentives offered due to Covid-19 issues, which helped fill gaps once Amy was no longer in employment:

> *When my husband caught Covid it started an outbreak in his work… and loads of members of staff had obviously had to call in and isolate; so they were really stuck for staff … At that point my husband started to get overtime … It was kind of, like, starting to cover what I had lost [by not working] … About the same time they gave them, like, an incentive … If you did so many hours overtime, we'll give you a bonus [of] £4,000 … Maybe you got taxed on it, but kind of at the end of all this, [we had] gone through the stress of obviously having no food and, like, reducing what we were eating.*

Amy's husband's work is a good example of what was shown in other interviews, that there are formal and informal structures and support mechanisms found in the workplace (see section 7.3). Carla's school employer would send her home with leftover food and bring it by even when they were isolating during Covid-19 (see section 7.3). Carla described her work situation in relation to housing benefits, explaining:

> *Where I was in Leeds City Council, I was working 20 hours at the start of lockdown; overnight night, increased it just to 25. [My hours] mean I could take the children to school and pick them up. And the housing and tax credit, I think they're about maybe two months behind so all the sort of backtracked…*

> *Before, when I didn't work, I was getting my rent paid, which was brilliant. When they increased my hours, it was less housing benefit, so I had less income coming in… that [and] not receiving that extra overtime money. I think I bring in £830 now. When I was doing overtime, it would be like £950; it would be a lot more and then I would pay something [with that extra] for food.*

Children's changes in schooling arrangements during the pandemic directly impacted work for many participants. Where children were during the day, how they would be fed and by whom all changed

for families. Eddie, who worked in a corporate technology role, explained his situation working from home with the children as:

> *I don't want to sound like a really bad parent, but I struggled with the home-schooling and doing my work … Then obviously on to the food topic … I can quite happily work though lunch but I have to remember I've got kids in the house … Now three meals a day versus a little bit of breakfast and maybe a little bit of supper and all that sort of stuff has been hard … I kind of miss the school for that part alone.*

More on children being home during Covid-19 is expressed in other themes, but the relationship between work and children at the time was altered for every family involved in the study. Priya discussed how her in-school job with children changed due to Covid-19, saying, 'We weren't teaching. We were realistically babysitting children of key-working parents… a bit like a free-for-all but at the same time, "Don't play with the kids. Keep separate" sort of thing… It was a bit tricky'.

Mina's situation highlights the interconnectedness of work and wages with food acquisition and how her change in work affected food consumption. Below is a discussion of her work situation:

> *I was furloughed from April last year…for about three or four months … I had a change in jobs as well… About a month and a half ago, I've changed jobs from working at a call [centre], like a debt advisor for [a charity], to being a parcel sorter … Mentally, I much prefer it … I've done call centres all my life…and it [is] mentally exhausting… Now I'd rather do the physically exhausting job for a change.*

Mina elsewhere expressed how child support from her uncle allowed for such a transition to take place and the difficulty she had affording nursery care, as previously mentioned. At the end of our conversation, when asked if there were any other things she felt were important to convey, she said:

> *I even wrote to my MP about [the issues with the Flexible Support Fund and childcare] because I was so upset, Kelli. I were fuming. And they didn't care. They [said], 'The Flexible Support Fund is there to help you'. I just got a generic letter back basically; there were no personalisation … Like, I want to work and you're making it impossible for me. [If] I didn't have my uncle to lend me that money I would have had to leave my job. And I would have been asking them: 'Help me find a job, give me some money to help me find a job'. And then they probably would have said yeah – even though I bloody have a job! It doesn't make any sense to me. It's just crackers.*

The pulling tensions, where no choice is perfect nor acceptable in one way or another, was obviously frustrating.

## 7.8    Theme: Family and Children

In discussing family and children, Covid-19, unsurprisingly, came up frequently, with discussions around schooling and children. Jane talked through her experience with home-schooling:

> *Trying to home-school is just impossible because she was then 3, so they're now 10, 8 and 4. Trying to, you just couldn't. My daughter could do bits, but then my son needed quite a lot of support to do home learning. And then you've got a toddler just running around…we kind of gave up a bit on the home-schooling; just did a little tiny bit at home and they watched Horrible Histories [since] that's educational.*

> *It's been worse this last couple of months of term, before we broke up, so July time. Then suddenly all the [Covid] bubbles were bursting and children had to self-isolate … My daughter did 10 days, went back for a day and then did another 10 days … It was worse than lockdown because [at least] in lockdown you could at least go out for an hour.*

Eddie spoke to working from home while home-schooling his children, feeling like he's not been the best dad for how he's prioritised work over some of their educational needs. He struggled, saying:

> *One week…receptions are going to have a class at this time, but Thursday it's a different [time] and I just can't plan my work like that … I had to, but it's been a logistical nightmare. The OCD part of my brain is thinking, 'I've got a set meeting every morning at nine o'clock' and I'm having to, like, juggle that around the day before.*

> *If I don't turn up [to meetings] then the teachers are, like, saying, 'Why aren't they attending?' Well, I've got a job to do … I don't mind doing the [home-schooling] tasks, some of them are, you know, like, arts and crafts and things…when you get glitter everywhere… you kind of think, 'Christ, I could do without doing that' but they need to do it.*

Priya expressed her sorrow for her son missing out on key events from school due to Covid-19, such as not having an open day at high school. At the same time, other parents relished the added time with their children thanks to lockdowns and other Covid-19 measures. Amy felt this, saying:

> *My mum [got us] these massive paddling pools. We spent the whole summer playing outside. Even though it was stressful, we have good memories and that kind of outweighs stress … I mean, it didn't feel it about that time, but it does now, looking back.*

Carla, like others, spoke of the increasing (or changing) expenses and interactions with their families. Notably, Carla commented about the slight relief she felt when her children would inadvertently skip

meals by oversleeping. Mina highlighted how keeping the children entertained during the height of Covid-19 was difficult. Mina said:

> It's [being home has] been boring for [the children] … There's not been nothing to do apart from going for a walk … That's all your option, is to just go out walking in the woods or whatever.

Priya expressed concern for how her son had fared with Covid-19 and his health – a concern others expressed about their own children and that some teachers expressed about their students. Amy touched on this, speaking of how her autistic daughter also struggled with changes in school and particularly the change in routine. The lack of support during this transition in schedule proved difficult in many aspects, including her food consumption and her autism diagnosis.

Increased food costs due to children being home was prevalent amongst many interviewees, many noting how food was a form of entertainment. Eddie stated how his girls were missing their friends as they lived far away during Covid-19. While they enjoyed playing with toys, he felt he was 'chucking [his] money away with food at the moment', further saying, 'It's getting on my nerves. I know it sounds really awful, but it's, like, "I can't answer [their boredom] from the fridge"'.

Some children missed school dinners compared to what parents were offering at home as a substitute. This included Carla's boys; she said:

> They are desperate for school meals but I don't get free school meals anymore because of how many hours [I] work…but [to afford the school meals] they're, like, £3. For both of them, it would be, like, £6 a day for dinner, and that's a lot of money over a week.

Priya expressed similar sentiments: her child preferred the free school meals she got from school, such as the cheesy bakes and baguettes. She would complain about Priya's more standard cheese and pickle sandwiches, comparing them to her preferred school meals. That said, not all children agreed, with Jamie stating her preference for school meals even though her daughter did not:

> She does moan [about school meals] sometimes … She does ask to go on packed lunch, but it is a little bit more expensive…whereas I know at school she's having a hot meal. I'd rather them have a hot meal instead of a sandwich. I just don't think it's the best option to have for a dinner … They do offer three different types of meal every day, but it's not always the best options. Jacket potato's always on the menu and there're not many kids that I know that like jacket potato.

These cost considerations all add strain to the family budget. Amy pre-paid the school dinner fees and lost the money due to Covid-19, as school meals were not served and was not refunded.

While mentioned in other themes, family composition played a role for households. Two mothers in particular spoke about the issues with child support and lack of income from their exes, expressing both resentment and weariness. Some wider families stepped in financially either with loans, such as for Amy and Eddie, while others gave more material support in their daily lives, such as Mina's uncle helping with childcare and meals while she worked night shifts. Jamie spoke fondly of her family, expressing their closeness and how often she saw her parents and grandparent.

Participants also cited stepping in for their relatives during Covid-19. As much as family and friends stepped in to support the participants, the participants were also active in supporting others. As noted earlier, Eddie received loans from his mum but he also supported her in acquiring food during Covid-19. He illustrated this with the following:

> *[My mum] was worried [about shopping]. She daren't go to the supermarket [because of fears of Covid]. I found myself going to the supermarket for my mum…driving all the way to Pontefract because she daren't go out … When she picked up the courage [to go, there] were nothing in there so she couldn't get [anything]. She always says, 'Well, if you can just get me some beans, Eddie, I'll be happy'. So I just went to [the] pound shop because that [was] one [of] the only places where I could get beans at the time … I think she just ate beans for, like, a week.*

One story of a participant's child looking to help her family stood out clearly. Amy shared a story about her autistic daughter looking to contribute:

> *My daughter, the one who suffers with autism, she generally loves her stuff. Like, she obsesses over something and then literally [says] 'I'm not bothered with that anymore'. In lockdown [she'd sell stuff] that she'd had for her birthday…[sell her discarded] stuff and that's worth quite a bit of money, like, on eBay … She's just got out [of liking a toy], she's just like, 'Oh, can I sell it?' And she's really happy with herself. I think she's got, like, £100 off these, like, few items that she's had.*

> *It is quite nice because [you're] selling stuff that you don't need; gives you, like, a little bit of, like, extra cash to pay for things that you do actually need … You don't have to touch your bank account as much now … I think that's how we managed to get out of a situation that we were in over the [past] 12 months.*

## 7.9    Theme: Home and Location

Home and house-related bills (e.g. rent or mortgage) were universally seen as essentials and prioritised over other potential considerations and expenses, such as food. Housing costs increased and arrangements grew more precarious and difficult due to Covid-19. Worry of how to deal with these concerns was largely consistent across all interviews. Many participants were unable to make full home payments, with Jamie offering:

> I used to pay my rent up front but now it's a little bit more difficult because you only get a certain amount to pay … I've been paying just a little bit less, just [than rent costs], so that I've got enough money to cover everything. Which obviously is not the best scenario, but [it's] got to be done sometimes … They do ring straightaway to ask why you've paid that little bit less, but obviously I just explained my situation; there's not more that you can do.

Sally described how their move to UC during Covid-19 impacted their ability to make rent payments. She touched upon multiple issues and their intersection; Covid-19, UC, location preferences and their landlord. Sally found having a supportive landlord was a help, having established a good relationship with him over 14 years and previously working through a short period using housing 142enefits. She recounted:

> Up until Covid hit, we were fine, working, and then my husband was furloughed from his job initially. So that then meant that we ended up having to go on to Universal Credit. And because of the area where we live, there was a big shortfall in the rent allowance … Then that took some time to process so we had to apply for an advance in order to carry on… We had to miss a couple of months' rent and then catch that up later when Universal Credit came through, which, of course, caused its own issues.

Other participants highlighted the importance of location, demonstrating that affordability was not the only consideration in their home expenses and options. Carla, like Sally, discussed these preferences while referencing other issues, such as social housing, her job location and her children. For Carla, she had the additional element of leaving her ex "in a hurry" and therefore accepted the first private accommodation she could and could be viewed as an income shock becoming a single-income household. In part, this flexibility though allowed her to select a location away from her work, as she did not want to be recognised by parents and it was a rough area, according to her. She expanded on her future housing situation, and offered the following:

> I'm [aiming to apply for] it by the time my youngest starts high school so I've got two years for me to find a council house. But I could have been on the waiting list all this time. It takes a

*really, really long time to find, to get a council house … I'm probably, like, pushing it under the carpet when really I do need to do something about it … The council [house] is better for me because eventually the boys are going to leave home and there's no way I'll be able to afford £700 rent and only bring in £800.*

The stability and their house being their home, not just a dwelling, came through strongly. A dual sense of pride and priority in ensuring they could remain in their home and neighbourhood was evident. With so much changing with Covid-19, the fluctuations in the diets and food acquisition that they all described, their homes were a source of comfort, despite the complications.

Jane spoke from a different angle to Carla and Sally on home and location – as a homeowner – and of her ability to take advantage of the mortgage relief schemes during Covid-19noting that they were able to reapply after six months and, "… That really kept [them] above float.".

Amy mirrored Jane's positive engagement with payments, but as a council tenant. Amy tied the issues with making rent and weighing this up against the desire to do a 'proper' shop. She described her situation as follows:

*Because [my husband's] wage covers all the bills…set up on a direct debit, we would be left with, like, £50 … There was a couple of times, the rent [cheque might] bounce. Because we're a council tenant they said that if you miss your payment you can pay it back … And I can remember it got to a point where it was quite bad … Like, you get to a point you just want a big shop … Like, we need quite a lot of basic items. I just thought, you know what, we could really just do what we do in a good shop so it will ti[d]e us over to next month, then we have time to kind of figure things out.*

*… [My husband went] out into Aldi and done, like, a big shop knowing fine well that the rent would bounce. But in a way, we kind of thought if we just have to pay an extra £50 over the next year, then surely that's better, and then we've got food. I was thinking more like the viable kind of mode, it was getting to the point that the kids wouldn't maybe rage, like, why haven't we got any food and nothing in, and you just get fed up of hearing it.*

This trade off of risking negative repercussions against the need for a reasonable amount of food links to the idea that food needs and household needs are not set. While many families cited rent as the absolute priority, Amy's approach demonstrates that the notion of home and dwelling costs can be separated based on immediate priority and coping mechanisms.

Not all participants were in single-family home accommodations, with one participant living with housemates during part of the pandemic. Navigating these relationships during a pandemic, with

isolation requirements, is an area that remains underexplored within this theme and would require further attention – particularly around cooking and how that unfolded during lockdowns and isolation periods.

## 7.10  Theme: Health and Disability

Covid-19 health, non-Covid-19-specific health, and disability overlapped in some situations, such as for Sally whose husband became seriously ill in December 2019, unrelated to Covid-19. She described the illness as having increased costs, including the nurses coming to assist him and his inability to return to work. She described the associated costs saying that with the benefits backlog with Covid-19: 'It's like the perfect storm of different things'. She continued, later discussing her own health concerns and how they interacted with Covid-19, stating she had to isolate due to her asthma. Sally described how all the complexities of health and disability are interrelated with food, and influenced the situation for her, including through skipping meals to make funds stretch and running out of ways to acquire both food and non-food support.

Amy offered a similarly complex situation. She suffered from a heart condition, while her daughter had recently gone through the autism diagnosis process and was seeking support. Amy explained the initial acute fears around her health and Covid-19, including death, being somewhat thankful for the lockdowns, as they gave reprieve from Covid-19. Balancing against this fear, Amy discussed the genuine struggle for her daughter with her autism diagnosis and the need for support – tying it to our discussion around food. Amy's daughter struggled with food issues throughout the lockdown, and she shared this story to illustrate it:

> At the start of the lockdown, when my husband went and did some shopping, my daughter was only an Aldi's chicken nuggets [person] … She wouldn't have Birds Eye, she wouldn't have, like, any others; it has to be Aldi's chicken nuggets, which before was absolutely fine … I remember not being able to get any anyway. My husband was, like, 'There's none'. [I said] 'Are you sure you looked to the bottom of the freezer? Like, you have to [find it], we have to get some'. I had my mum having a look in the Aldi near my sister's house. I had my sister [look] when she was going shopping … But they were, like, no, we literally can't get any … [She] started to refuse to eat apart from, like, plain pasta, which is also becoming quite difficult to find. I remember, like, us spending, oh God, it was weeks, trying to find these chicken nuggets.
>
> She was just literally getting to the point where she was refusing to eat. She was having a bowl of peas, and now ironically she doesn't like peas – I think she might have overdone it …

> *It was just a nightmare … Eventually my husband came back; he was like, 'Look, what I've got!' Oh, my God. Amazing … The first thing she did, it was, like, 11 o'clock in the morning, she's like I want some, I want some. Poor kid must have been starving, you know, not really eating. We put them in and she was, like, 'Oh, these are disgusting'. They changed the recipe. You've got to be kidding me.*

Amy's frustration and concern were palpable as we discussed this, with her then turning her attention to how difficult the situation was while not receiving enough support from her daughter's school. In this way it mirrored Sally's experience, where a lack of support structures went hand-in-hand with the discussions around how they experienced issues with health and disability. Amy spoke to how desperately her daughter needed support from the school with routine and encountered a "shut door" as she did not have her diagnosis yet officially confirmed.

Children's health needs and requirements came up in other interviews, including with Priya. She described her family's situation as:

> *My daughter has an autoimmune disease, and my son is epileptic. … A lot of anxiety and stress…[Covid] did get to him. I noticed his seizures were rising and he's had to have an increase of medication to try and control that … Obviously to me, [it's] had an effect. [My daughter] was on the shielding list [for her autoimmune disease]. Her illness seems to manifest in different ways, so sometimes she's okay, sometimes not … She has a lot of the mobility issues, which is partly why she's turned to a vegan diet…so I've tried my best to support her in that.*

> *With my oldest two having their conditions, for me, like I say, with their food and their diet, I do try to be very on-point with that…especially with my old[er] son and with his seizures getting worse. It is probably paranoia but in my mind I'm probably thinking, 'Is it because he's not had his blueberries or not had…?'*

Whether it was around food acquisition, diet or support structures, health and disability as a theme was intrinsically intertwined with the other areas.

## 7.11   Theme: Emotions and Attitudes

Emotions around Covid-19, both the experience of the illness itself and its societal ramifications, were numerous. Emotions ranged from Amy discussing her intense fear of death from Covid-19, including her anger towards her husband when he brought Covid-19 home from work, to Eddie describing how he had lost interest in eating and shopping due to having Covid-19 and his sense of taste changing. Jane spoke to how her husband struggled emotionally with the changes Covid-19

145

brought to his career as a supply teacher stating he was "ostracised" when he did not support the masking policies at the school This serves as a reminder of the emotions and attitude complications that came from the Covid-19 crisis specially.

Amy discussed the intersection of how Covid-19 affected their family situation and the change in people's attitudes towards her family and others, describing a levelling effect by Covid-19. She said:

> *It's nice to be here [in a better place]. But just, like, in the back of your head, I think, as well, you've got to experience being pushed for cash, and not having food in your cupboard, not being able to afford the meals, because then it helps you appreciate other people's situations … A lot of people are quick to jump to other people and say, 'Oh, you know, you should get a job, or you shouldn't have kids if you can't afford to feed them'. And literally, you know, my husband's…like, he's got a really good job … I used to have a good job and what have you. But a health condition affected me – [this is] the first time we couldn't afford to have kids.*

> *… It kind of just puts them back on to a level, you know… When we had our children, we could afford them, and then a few years later you get surprised [with a health issue, then] you can't. It just doesn't…it's not quite as, you know, ABC as what a lot of people think.*

There was much emotion expressed around receiving help and support. Some expressed feeling lucky they did not have to access certain types of support, like food banks. Emotions were complicated though for Mina with support, with her recounting the emotional labour she had to endure to gain support with benefits and Tax Credits. Others, such as Andrew, felt that he was lucky to not need external support structures from charities or external organisations but rather relied on his network. It was clear the sentiment was avoiding charitable or external organisational support was negative and held potential shame, linking to ideas of stigma covered in Part 1.

Priya, when asked about support from friends and family, spoke lovingly about her friend who supported her family in the pandemic, coming to tears. She said:

> *She's done loads for me, like lending me money and stuff if I needed it to do a bit of shopping or buying my shopping. If she knows that I'm on my ass; she'll just turn up and show up and have a bag of shopping. Oh, I'm crying now … It's just nice because nobody really…it's nice to know you've got people [who] give a shit.*

Emotions around support from loved ones were complicated; Sally said there would be 'an element of guilt' associated with asking for support from family and friends, who were all in a similar situation themselves. Some expressed their deep concern for extended family members who were struggling to deal with Covid-19, such as Andrew. Harry spoke of guilt and masculinity in his

interview given his partner was a teacher and shielded their household from too much of an income shock saying:

*I suppose there's something there about how if we were going to choose something at the supermarkets, I would feel a little more guilty, say, looking at something more expensive, knowing that I wasn't putting so much money in … It sounds a little bit funny but probably feeds into that whole masculinity thing.*

Others expressed embarrassment for either needing support or for accessing support altogether. Carla expressed that while she was embarrassed picking up her son and collecting full bags of food which other parents might see, the support was helpful.

Carla and others expressed some judgement as well on some people using or misusing support. Andrew spoke of how some of his friends were lucky with furlough, saying, 'They came out smelling of roses', getting more support than they required. Linda, speaking on a similar topic of school vouchers, said:

*I know with the vouchers, people were going to say, like, Morrisons and buying beer and 'baccy and stuff like that, and I were disgusted … At end of the day, we're not actually entitled to that … I just thought they were well cheeky … You got a bit of a gift there, a bit of a bonus – will you put it to some good use? I'm a smoker but I wouldn't of dared to use something like that for 'baccy.*

With support, some expressed that they had to be 'grateful for what they were given', even if it was not sufficient or meeting basic requirements. Sally spoke of how the food parcel support she received from the Council and food charities was sometimes unsuitable, but she had to be grateful. There was a complicated web for many of the participants, weighing up the need for support and thankfulness against the feelings that there could be critiques of that support, and those feelings were okay to experience.

There was much talk around family, children's emotions, and the emotions of being a parent. Many parents spoke protectively of their children, iterating they would always ensure their children were cared for both emotionally and physically. Eddie opened his interview with the following:

*I think, sort of, mentally I've tried to stay as good as what I can do … It's quite hard when you see all the people suffering – both your family and in the world … [I've] got to try and maintain a strong persona because obviously I've got kids and if I'm feeling a bit, well, I'm*

*not going to pretend to be, like, the man of the house because there's my partner that clearly*

*wears the trousers but…you want to be seen to be, like, the strong man, the strong father*

*figure… That's been quite hard.*

Overall, emotions were both light-hearted and painful at times for all participants. For everyone there was an overlap, with many situations not clearly being in one camp or another.

## 7.12 Leeds Summary

Ultimately, Leeds offered a range of core themes that can inform the adapted FSI framework. Table 10 summarises the different themes and methodological points from the data.

*Table 10: Leeds Summary*

| Theme | Appearances | Micro-summary of findings | Methodological commentary |
|---|---|---|---|
| Food Acquisition | 11/11 | Covid-19 deeply affected the options available to participants to acquire food (e.g. empty shelves) leading to different coping mechanisms, such as shopping in different stores than prior to Covid-19 or trying apps, having to shop around for foods despite the health risks and guidance for Covid-19, having to buy brand-name items. | Theme was pervasive and interwoven with all other themes. Difficult to draw a line between diet, as consumption has to do with acquisition but also what is acquired reflects dietary choices. |
| Diet | 11/11 | Diets changed with Covid-19 due to lack of income most notably, leading to swaps in both meal types and cutting out of certain preferred food items. Skipping meals or reducing consumption was also a key strategy, particularly for parents. | Diet sometimes veered into lists of foods people preferred but this was useful, as it was an exercise for them to think about their diet in a way they could build on. These discussions could be repetitive but led to meaningful context built around them (e.g. eating superfoods due to children's health issues). |
| Support Structures | 11/11 | Support structures varied between several actors, but all reflected the mixed economy of welfare. Informal familial support was common via loans, governmental support was pursued by signing up or switching to different benefit types, and workplace support also took place. All participants built a network of support rather than solely pursued one type to fill to gaps to being food secure. | From the outset it was clear this section would contain details around government support (e.g. Universal Credit), which was mentioned by multiple participants, but other informal welfare benefits were more difficult to assign to a particular theme. The furlough scheme, for instance, was better suited for discussions in the work and wages theme rather than being reserved for the support structures theme. However, some areas of informal, non-governmental support were reserved for discussion in this section over others they would arguably be better placed in – family support being the prominent example. Given the complexity of the different UK and Leeds support schemes, further desk-based research was required to identify which scheme the participant was likely referring to. |
| Money and Budgets | 11/11 | Money was the root issue of many issues of food insecurity. Coping with the changing contexts of Covid-19 was easier when money was more readily available. Income was unstable for many of the participants and fluctuated throughout the period discussed.<br><br>Budgetary strategies varied, such as selling items for extra money, but an overarching theme was that there was no money available to top up budgets when they fell short, when there previously might have been. | The theme was split between money, work and support structures and sometimes led to large overlaps in coding. 'Money' was selected rather than income or wages more generically, in part so that participants would not to refer to their financial status. Money most closely aligned with the data, so it was used despite the overlap it may have with other themes. |
| Work and Wages | 11/11 | Consensus was that participants wanted to work, were actively seeking support around work but for reasons primarily due to Covid-19 struggled to either find or maintain their employment from the beginning of the pandemic. How this manifested varied from participants being furloughed, switching careers, or taking time out of work due to health-related issues compounded by Covid-19, all of which impact how one could afford and access food. | Employment was readily discussed by all participants, and they made clear, unprompted ties to the other themes, making it easy to see the connections. |
| Family and Children | 7/11 | Three key areas within the theme emerged as analysis sub-categories: engaging with children, children and school, and family composition. Families being home during lockdown periods and home-schooling greatly impacted food budgets, working conditions and childcare arrangements. | In all interviews where this theme was found, there were explanations of family composition with added detail besides just children's ages. There was distinct richness captured in the descriptions of their families, including details that were not 'on-paper' related to the study but which gave fuller contextualisation and relevant data. |
| Home and Location | 11/11 | Multiple forms of home provision were found – council rented, homeowner and private renter. While some moved during the pandemic, either permanently to another part of Leeds or temporarily away during Covid-19, all felt maintaining their home was of utmost priority in terms of bills and status. How one's home was used was linked to food preparations. | Sometimes participants assumed the interviewer knew their housing status going into the interview, as it was stated in the survey. This is a place where interview preparation and notes were key for following along. |
| Health and Disability | 8/11 | Health and disability overwhelmingly were linked with Covid-19 and fears around it. The connections between diet and health conditions as well as general health were noted throughout all themes. Some participants mentioned how they contracted Covid-19 and the associated issues. | Health and disability is the only headline code – now theme – that was not broken up by subcodes in the transcript process. Retroactively in the analysis process, when text coded to the theme was reviewed, 35 quotations were extracted – 19 were labelled as specifically only about health, 9 as specifically only about disability, and 7 quotes remained as the headline theme of health and disability. as they were inseparable. |
| Emotions and Attitudes | 11/11 | Mostly emotions of stress and worry were conveyed by participants, particularly around affording food and bills. There was also concern for family members. Attitudes towards surrounding issues were identified, such as supply chain issues relating to Brexit, misuse of benefits, and price-gouging during and pandemic by supermarkets. | As different sentiments were expressed throughout the different transcripts, what was a codable-emotion or codable-attitude evolved. Upon the first round of coding, the theme was direct and narrow, focused almost as content analysis, looking for direct obvious expressions of emotions. As the coding process went on and moving across transcripts, a looser coding was needed to capture wider emotions; an example of this was during the coding process the code emerged for 'struggling (collectively)', at which point all previous transcripts were reviewed to see if this new code was applicable. New codable themes were identified up to the final coding and analysis process: 'parent's emotions' and 'gratefulness'. This theme and what it sought to encapsulate changed through until the final analysis stages. |

# 8   Case Study: Fresno

## 8.1   United States/California/Fresno Covid-19 Context

Similarly to Leeds and England, Covid-19 affected the US severely. The *LA Times* Covid-19 tracker, utilising California Department of Public Health data, stated that as of 7 June 2023, Fresno County had 333,721 confirmed cases, with one out of every three people in the county having tested

positive, and that 3,032 deaths were attributable at least in part to Covid-19 (Los Angeles Times Staff, 2023). As of June 2023, 71.4 percent of residents in Fresno County had had at least one dose of the Covid-19 vaccine, with 64.4 percent being fully vaccinated (Los Angeles Times Staff, 2023).

Nationally, the US's first key legislation was the 2020 Families First Coronavirus Response Act, giving support such as emergency medical leave and tax credits to those who were ill (Council for Advancement and Support of Education, n.d.). Further action included the CARES Act 2020, which included: individual stimulus cheques (direct grant payments of US$1,200 per adult, US$500 per qualifying child), Pandemic Electronic Benefits Transfers (P-EBT), child tax credits, expanding unemployment benefits by US$293 billion, the Paycheck Protection Programme for businesses, and US$25 billion to food safety-net schemes for vulnerable people, amongst other support including funding to individual states (Kim-Mozeleski et al., 2023; IMF, 2021). Other support included the 2020 Health and Economic Recovery Omnibus Emergency Solutions Act and the Health, Economic Assistance, Liability Protection, and Schools Act, and an additional round of stimulus cheques for US$600 under the COVID-related Tax Relief Act of 2020 (Council for Advancement and Support of Education, n.d.; US Department of the Treasury).

The 2021 American Rescue Plan Act provided a secondary round of relief, extending unemployment benefits and direct stimulus cheques to individuals (US$1,400 for eligible individuals including dependents), as well as funding for reopening schools amongst other schemes (IMF, 2021; US Department of the Treasury). While not a comprehensive list, these policies demonstrate the continued federal legislative efforts, whereas state-by-state efforts varied in approach, timing and generosity.

Related to food, a key scheme was the USDA Farmers to Families programme, which was an opt-in, non-mandated federal programme for states – see Figure 27 for details on its structure (USDA, 2020c, p. 1).

*Figure 27: USDA Farmers to Families Infographic*



The programme began in May 2020 under the Coronavirus Food Assistance Program, ending a year later with 173 million food boxes of products delivered countrywide (USDA, n.d.). State-based statistics showing receipt are illustrated in Figure 28 (US Government Accountability Office, 2021, p. 1).

*Figure 28: Number of Food Boxes Contractors Delivered to Recipient Organisations for the Farmers to Families Food Box Program*
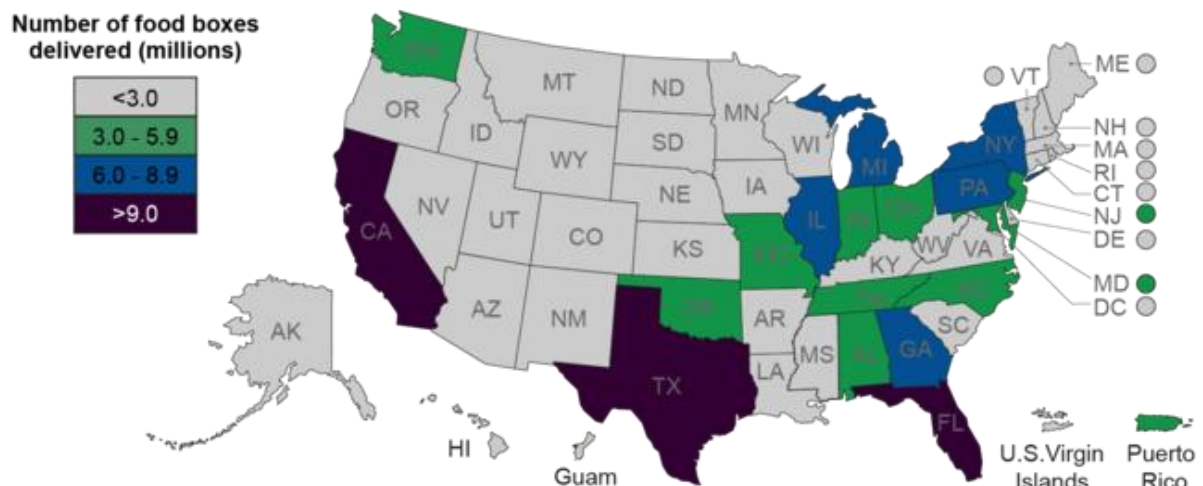
Federal-level school lunch programmes were run, including the NSLP, School Breakfast Program, and Summer Food Service Program – the latter being the largest scheme (US Government Accountability Office, 2021). The USDA's Food Nutrition Service granted national waivers to run these programmes to help ensure they continued during the pandemic; however; it was reported that uptake/delivery was reduced by 1.7 billion meals (US Government Accountability Office, 2021).

California issued Covid-19-related policies and legislation, including numerous stay-at-home orders, mask mandates and school closures (Procter, 2023). Relief programmes included the Golden State Stimulus programmes for low- to middle-income 2020 tax-filers, the California COVID-19 Supplemental Paid Sick Leave programme, which was extended, and the Small Business and Non-profit Covid-19 Relief Grant Programme (The Controller's Office, 2022; Kamal, 2022; Office of Governor Gavin Newsom, 2022). The Families First Act allowed California to emergency authorise CalFresh allowances (California's state programme name for SNAP or food stamps; see Chapter 4) to the maximum possible, with the final emergency allocation ending in February 2023 (Legal Services of Northern California, n.d.). Households already in receipt of the maximum allocation were given an additional minimum of US$95 per month, with the Consolidated Appropriations Act increasing CalFresh allotments by 15 percent, ending in September 2021 (Legal Services of Northern California, n.d.). The Families First Act created additional amounts of funding to support children who received reduced-price or free school meals in California, forming the P-EBT programme (Legal Services of Northern California, n.d.). Other food-specific support included a free meals programme to elderly residents, in collaboration with local restaurants for up to US$61 worth of meals per day to qualifying seniors (KABC, 2020).

Within the region itself, in 2022, the San Joaquin Valley, where Fresno is located, received nearly US$1 million in emergency grants from the Fresno Economic Opportunities Commission collaborating with the Central California Food Bank (Fresno EOC Food Services, 2022). The area received other grants from the private arena, such as that from CVS's Health Zones community investment programme (CVS Health, 2022). Similarly, Rite Aid offered US$2 million in grants to address food insecurity amongst youth (under 18 years old) in the city (Aguilar, 2022). Specific Fresno-run food programmes in the pandemic were difficult to track, with a lack of information from local-level government websites.

## 8.2 Participants' Covid-19 Experiences

All participants discussed the restrictions around lockdowns and masks that were in place at various points in the pandemic. Annalise summarised the sentiment as: 'There was just the suggestion of flat out, stay home, don't go anywhere. Don't be around other people, isolate – or if you have to go out,

wear a mask. It felt like you were wary of even your neighbours'. Annalise went so far as to put a laminated sign on her front door saying she would not open the door for anyone if they did not have a mask on.

Participants outlined the emotional stress of Covid-19 and how this varied per person. Elizabeth explained her feelings as:

> *In my 57 years, I've never had to deal with anything like this … It's been really, I won't say life-changing, but it's been quite stressful. I am not a hypochondriac, so…I was never overly alarmed. I just said, 'Well, you know, if we follow the guidelines and we do what they ask us and wear a mask, then I'm going to be OK'. But I know that some of my own family members have, in my opinion, gone over the edge.*

Elizabeth gave credit to how resilient children and young people have been in the crisis, stating that people underestimate them. Jayden said he and his wife were homebodies at the start of the pandemic so it was not too drastic of a lifestyle transition for them. Habits undoubtedly changed, such as with grocery shopping, but for the Fresno participants there was less of a sense of fear of Covid-19 but rather a pragmatism of needing to adjust and carry on.

The following 10 themes were identified in the Fresno data.

## 8.3   Theme: Food Acquisition

All interviewees discussed food acquisition. Covid-19 severely influenced people's ability to obtain food and influenced what sources and means were available. Grocery stores and other vendors had strict cleaning protocols and requirements to prevent Covid-19, although implementation varied. Annalise outlined how the process to obtain a drink at 7-Eleven changed, having to go to the counter to get the cup, straw and lid rather than them being stocked by the drinks machine. Everything was calculatedly placed in stores to avoid more people touching goods and products than necessary.

Fresno, like many areas of the world, including Leeds, struggled with panic buying and lack of food on shelves at the outbreak of the pandemic. Participants cited hard-to-find items such as toilet paper, frozen and fresh chicken, flour, ramen, fresh vegetables and meat in general. Miri described how it was difficult to cook the foods typical of her Hispanic household, as rice and beans were hard to source, and how she had to turn to culturally specific grocery stores to find appropriate foods to combat this. Miri and her colleagues discussed where they could find which items at a work meeting, trading information and support. Danny spoke to this, saying:

> *A fine example is my girlfriend likes diet ginger ale … Nobody has it … I had to call Smart &*
> *Final yesterday and they didn't have any on the shelf, but the driver was there dropping it off*
> *and only had a limited amount of it … How is it even possible that nobody in town has it?*
> *From SaveMart to the Walmart, to Vons, WinCo, Food Max, Foods Co – nobody.*

Between the long queues and the health risks of Covid-19, many participants turned to online food shopping. Elizabeth's son worked as an online shop fulfilment worker at Walmart, saying many DoorDash and Uber drivers came up to collect groceries. Precious found online shopping difficult, as the delivery fees made her shopping more expensive and there was not always available stock of the affordable versions of items she would normally select. This lack of affordable options made it so Precious would exceed her budget. Annalise found it helpful to use Walmart's delivery services – at first as a response to low mask-wearing compliance in Fresno, then as a tool to order heavy items she struggled to lift due to her disability, such as milk and canned goods. She said, 'It's worth paying the $10 tip…' to have groceries delivered to her porch. Annalise used multiple online retailers to meet her needs, sourcing Gatorade and protein drinks from Amazon, and what she could from Aldi.

Susie mentioned how Fresno had more limited options for online shopping compared to other areas, noting the difference between where she previously was in Palo Alto at a mental health facility at the outbreak of Covid-19. She said:

> *I was among a bunch of people who were all willing to share all their tricks to the trade of*
> *how to get food. Amazon was doing that Market Fresh [service], so I could get produce to my*
> *door. That went by the wayside when I got back to Fresno and that wasn't an option. I have*
> *been mixing and matching…between Target, Walmart and Amazon. It is a struggle to find*
> *[foods] sometimes but I am learning to accept when I can't find things…I go for things just*
> *nutritionally comparable … It may not make me the happiest, but I gotta get it done.*

Others instead altered the frequency and locations of their in-person shopping. Miri reduced her shopping, only going out for 'big shops', whereas Precious went to multiple Walmart and Food Maxx stores to find items for her family. While many participants had strategies for shopping with the pandemic in mind, they did not all align, showing variability in approach. Danny described going to various shops daily, including the Walmart Market around the corner. Danny cited the irony of being in an abundant farming region: 'You'd think of all the places where you should have vegetables, fresh vegetables, you would think you'd be in the Valley?' Francesca built upon this, articulating the struggle of finding foods that met her dietary needs and preferences at the stores in her neighbourhood after moving to a new area of Fresno.

*I used to go to Costco and now I go to FoodMaxx because it's the closest and I don't really have a lot of time during my week or weekends to make the trips to wholesale stores and out of FoodMaxx in my neighbourhood. The supply is very limited and…the selection that you have at those stores [in West Fresno] is so much more limited; it's more…unhealthy and junk food… A lot of the produce isn't the greatest looking, at least, or it doesn't smell the freshest. So I would always like to travel to Shaw [Avenue] and [Highway] 99 to go to Costco or to WinCo because those stores tend to have better options and variety because they're geared towards people that have more money.*

Danny mentioned the increased prices at Vons and SaveMart compared to the warehouse chains, which aligns with Annalise mentioning she would not shop at Whole Foods saying:

*[Whole Foods] is [a lot of money], and I shop for food 99% of the time with my CalFresh card … Doing that at Whole Foods would embarrass me…[too]uncomfortable. Even if I go to SaveMart off of Bullard [Avenue] and Palm [Avenue], as the area is wealthier than going to Walmart on Herndon [Avenue] and Ingram [Avenue] [where] they don't care…even the one in…a new one on Herndon [Avenue]… It's way out and it's very nice [and] clean, and their cabinets are not locked up. My friend and I, we're like, 'Oh my gosh, you know, if it's over on Blackstone [Avenue] and Ashland [Avenue] , everything's locked up there'. This is not, this is wide open; they trust people here.*

With this, nearly all participants cited either trying to buy in bulk or preferring to if possible. Vonn noted that while she prefers to buy in bulk from Walmart or Costco, as it is easier, she was finding herself cutting coupon vouchers from newspapers and travelling to more stores to get the deals and items at their cheapest. Intersecting with this was the lack of supplies on shelves, with Vonn describing how she was 'running all over Fresno trying to be able to get enough food to get me through the week … A lot of these stores aren't even stocked'. Participants described stocking up on food when they were finally able to locate it and sharing resources and items amongst their friends and families. This included Annalise who would freeze foods such as meat cuts and pineapple when she could find them.

A major consideration in food acquisition was around food pricing – something participants were keenly aware of and had detailed knowledge on. Francesca talked through how she weighed up prices, value and the quality of products between stores.

*I love going to Costco and getting a lot of their refrigerated soups, their refrigerated salads that are…made from the people at Costco. And at FoodMaxx I can't find that. Even [when]*

*shopping for Thanksgiving dinner, I could get 'brown and serve' rolls from FoodMaxx but…when I open[ed] them, they were cracking and felt stale … But the expiration date isn't for another couple of weeks? … The pre-packaged salads that I do get from FoodMaxx tend not to last as long as the ones that I would get from Costco.*

*And even just getting food that is less expensive, but I get more of it … If I were to get, like, a big box of dino nuggets, I would pay about $10 at Costco to get a hundred and something nuggets, whereas I go to FoodMaxx and I paid $9.99 for a box that is only, like, 50. And so for me, I'm like, I am wasting more money. But then I think about it, I'm like, 'but the drive over there and the time that I take and then driving all the way back, technically, I guess I'm saving money in gas', but I'm not getting as much food as I would like to.*

Specifically referring to quality, Francesca and others commented about the quality of food being inferior at the discount stores. Francesca cited that her family preferred bison meat – which was not available at the discount stores – and the meat she did purchase from FoodMaxx was of poorer quality and, as she said, 'oxygenated'. She contrasted this to the food from Costo saying, 'My chicken doesn't look a little green [from Costco like it does from FoodMaxx]'. Quality particularly came up with online shopping, not trusting the online shop fulfillers to pick the most quality produce available.

As for price, participants were incredibly aware of price increases and were able to quantify the changes off hand. Elizabeth spoke specifically of the increased price of Lunchables (a children's lunch pack) going from US$0.99 to US$1.50 and the larger size going from US$1.50 to US$3.00; jalapeños were US$0.59 to US$1.39; and paying US$21 for the multi-pack of meat that previously was US$9. Meat consistently was cited as having ballooned in price, with most participants swapping to cheaper cuts or types of meats. Danny declared that without the increase in CalFresh benefits, these food prices would have been unaffordable, saying it was almost as if the price increases were 'eaten up by that [increased] amount' of CalFresh.

Two participants discussed how fast-food places in Los Angeles were trialling accepting CalFresh, where it was generally not accepted, including at McDonald's and Jack in the Box. This goes against existing rules for CalFresh. Existing rules included being unable to buy hot foods in food shops and grocery stores, such as rotisserie chickens, according to Elizabeth. Danny attributed the potential rule change as a policy solution to support those experiencing homelessness. This aligned with Chris's own experience of homelessness, as he explained that the heat-in-store pizza option at 7-Eleven was available on CalFresh, so it allowed him to have a hot meal within the rules. Given he did

not have cooking facilities, this workaround for hot food was valuable. CalFresh as a benefit is discussed in section 8.5, but here it clearly links to the food acquisition discourse.

Of final note, only one participant turned inward to save money, looking at their own resources. Elizabth cited using lemons from their lemon tree to make lemonade as a snack rather than buying from the store, but this was an exception. Overall, growing one's own food was not a common strategy in Fresno.

## 8.4   Theme: Diet

For Fresno participants, food pricing was inextricably linked to diet. Participants spoke of categories of food and having to shop for the lower/est cost option within that category for items they typically would purchase. The most repeated category was protein, which in this context was synonymous with meat. Vonn said her household consumed pork chops, as they were the cheapest cut, as did Danny. Vonn also had to switch from beef mince to turkey mince, which she did not prefer but it was 50 cents cheaper. Annalise similarly had to switch to turkey mince and turkey sausage due to price. While she liked to buy eggs and chicken as well as forms of protein, it had been difficult to source frozen chicken and other meats. Other participants similarly commented on the inability to find the foods they typically preferred, and when they could the price inflations were too high to make them affordable.

The need for a healthy diet due to health conditions and disability concerns was a prominent topic. For many participants, the trade-offs described above had negative effects on nutrition. Annalise said she was having bariatric surgery in the new year, so her diet would shift because she would be eating so little. While she linked this to the positive element of eliminating junk foods, Annalise spoke of it in a way that would offset her struggles to afford food. Francesca had concerns about breast cancer from pork, so she and her extended family tried to avoid it. Susie was buying pork and carne asada (a cut of beef) while also trying to supplement eggs in her diet all to combat her health concerns and still get enough protein. Susie's complex health needs meant she struggled to eat carbs, as they affected her insulin levels. While she was unemployed and stated she had the time to do detailed meal planning, she assumed it would become more difficult when she entered the workforce. This included detailed planning of what she ate but also timings. Susie related this to her health, saying:

> *Where there are the people who get smoke breaks, [I'll] go eat a cucumber. You know, that's*
> *the way it's going to have to be for me because I really can't eat – I also just went through a*

*surgery that wrapped up two months ago and so my eating has become a lot smaller, which in some ways is kind of good.*

Danny expressed his love of cooking, citing he enjoyed preparing meals such as prime rib and lasagne and enjoyed taking requests from his household. As Danny put it: 'It saves me money. I don't eat fast food. And plus, no one cooks it as well as I do anyway as far as I'm concerned!' To offset increased cooking costs, he started to grind his own pork, even though he did not enjoy it, and made cheaper meals he liked less. All these choices in turn affected his diet. Precious said with food prices becoming so expensive, when it came to cooking she would only purchase the foods that the kids wanted rather than the normal foods she used. This change in procurement thus led to changes in her and the children's diet patterns. Miri found the pandemic a helpful time to reset her cooking habits. She said:

*[Over the last year] we got healthier. Covid gave us that time to cook healthier, figure out [how to] avoid all the fast food and all the processed stuff. And it's kind of just reset us to going back to cooking a little bit healthier and more from scratch so that we can control the amount of sugar and salt and whatnot that goes into food… It was always something that's in the back of my mind.*

Vonn had settled for cooking more boxed meals like Hamburger Helper and fast dinners, as they had been more readily in stock and affordable during the pandemic. She explained: 'I cook a lot of Mexican food like enchiladas, or I always make sure that we have like a three [component] meal, so like, meat, vegetable and a side. So I'm used to cooking hearty, home-cooked meals'. Vonn made this change in diet due to food insecurity, and Rose similarly had gone back to basics due to cost, settling for things like sandwiches rather than comprehensive meals. It weighed on her, though, with meal planning, as she considered: 'If there's, like, holidays, do I plan for people visiting? Do I plan what I can do if people stop by?' While she considered this diet and food acceptable for her, she did not feel it would lend to her being able to offer appropriate food to others.

Not all participants shared a love of cooking. Francesca's schedule of working full time and going to university meant she often would not return home until 9:30 p.m., so she would eat quick-prep foods like ramen. With her fiancé in a depressive state and struggling to eat, diet had fallen by the wayside in their household. These constraints on time and ability to pursue fulfilling, meaningful meals did not promote food security in a holistic sense. Jayden expressed not preferring meat, being almost vegetarian, and instead eating many frozen ready meals. While sometimes having Hamburger Helper boxed meals, he preferred cheese-based meals such as burritos, or pasta-based meals; this contrasted to his wife's love of salads, so they ate separately. These patterns in food

consumption affected dietary health but also spoke to how those in food insecurity still had varied preferences even within a household. Bringing health into dietary preferences again, Susie found the frozen Atkins diet meals from Walmart helped her meet her health-related dietary issues and, being are covered by CalFresh, she cited them as a good option for her.

The consensus in the data is that price dictated diets in a way previously not experienced by some participants. Covid-19's impact on price and availability shaped the conversations away from actual preferences and listing of what people liked more towards what people had to settle for. To add further insights into the data, the graphic in Figure 29 offers a list of the foods mentioned in Fresno.

*Figure 29: Specific Foods Mentioned in Fresno*



A summary of the secondary layer codes in this theme is displayed visually in Figure 30.

*Figure 30: Summary of Issues Raised Related to Diet and the Pandemic*



## 8.5   Theme: Support Structures

Support structures were one of the most prevalent topics, featuring at length in all interviews. The intersection of support structures was essential to all participants and the creation of multiple sources of support was viewed as vital. However, a noted measure of support was the increase in CalFresh payment amounts, although not all participants were signed up to the programme. Most participants cited a large increase from their original CalFresh benefits, typically ranging from US$20–40 per month, jumping to US$150 per month. Jayden spoke about how he used the benefits, summarising:

> *Because I was getting unemployment, I was getting the extra [CalFresh] money; we really haven't had to cut back too much … Prior to that there were a lot of times we would only have one meal a day … We'd do it when we knew how much we had [to have] on hand and what the situation was … For a long time we use to go recycling, one of those people who are out there hustling for aluminium cans and bottles … I knew how much I had to recycle to get us by…we were just living day by day … It would be one meal and enough for gas just to*

*survive one more day… [Now CalFresh] just allows us to go shopping…we can feel free to get*

*what we want. I don't have to worry if we're spending too much.*

People, including Jayden, Miri and Chris, said the uplifted amount was sufficient and covered much if not all of their food budget; whereas, for others like Rose, who received an uplift of around only US$35, said the increased amount essentially just offset the increase in food prices. Amongst all participants mentioning CalFresh, there was uncertainty and concern over when the increase would end. Rules around CalFresh were also discussed, where their benefit amounts were tapered as their income increased. For some, like Danny and Annalise, benefit amounts were capped, so they did not receive as much as they expected. Susie commented that the revised Covid-19 rules allowing for online orders with CalFresh were extremely helpful in the pandemic, allowing her to do click and collect from Walmart, avoiding Covid-19 exposure.

(Mis)use of benefits was polarising. Elizabeth was vehemently against trading CalFresh benefits for cash, saying it 'makes her angry. This money is for your family…it's illegal…it's fraudulent'. This said, some of the Fresno participants used their benefits outside of their intended form. Francesca desperately wanted to avoid applying for CalFresh, having negative connotations of benefits use through her mother using the benefits system throughout her life. However, during these more difficult times, Francesca did access CalFresh indirectly, explaining:

> *My fiancé's mom would borrow money from us; she would just be like, 'Well, I can pay you*
> *by you using double the food stamps that I borrowed in money'. So if we gave her $25, she*
> *would [give us] $50 on [her CalFresh] card. And so then we would buy food that way because*
> *then it wouldn't necessarily be coming out of our pocket and we made a profit off of it …*
> *That was a huge thing for pretty much the past, like, three months…that has been more of an*
> *option for us because we just haven't been able to [afford food].*

New P-EBT cards for school-aged children came in during Covid-19. The federal programme, partnered with California and aligned with CalFresh, was highly praised by parents. Precious commented that some of the school-based support, such as food parcels as meal replacements, varied depending on which county a child's school was located in. Counter to this, P-EBT was universal and assigned to each child. Vonn's son's school offered meal support; he said:

> *But thank God the schools still allow us to go pick up their lunches every day when they're in*
> *school, even though they're doing it at home … They'll give the kids just regular school*
> *lunches like a burrito, sometimes a bag of carrots, some apple slices, just basically regular*

*school lunches that kids get at home … It's made a big difference. It's helped out a lot, it's helped tremendously.*

For Precious, her children did not both receive school-based in-kind support due to their ages and being enrolled in different schools, but both benefited from P-EBT. She said the extra funds allowed parents to 'stock up' and she carefully budgeted the extra funds and 'stretched that out for four months'. Miri's experience was that for her three children, part of the excitement of school was the school lunches, so having school breakfast and lunch schemes was an essential form of support in the pandemic. While originally the programme mandated parents bring in identification for the children to collect the meals, eventually those rules were eliminated. This elimination made good sense to Miri and removed restrictions that did not improve the programme, while still supporting families. Miri similarly found the meals a good source of inspiration, saying they were healthy, quality meals.

Unemployment benefits were viewed as a complicated but vital service for many participants. Jayden outlined this saying, 'It took me, like, almost four years of my job to make as much as I got in [unemployment] the last 10 months … I probably received $10,000 in benefits, and I say that I was only making maybe $3,000 a year. Covid-19 was kind of like a financial blessing to us'. For Vonn, the interaction of the unemployment benefits and CalFresh meant that they received the maximum benefits before a substantial amount could be added to her previous total. These sort of benefit caps also related to disability benefits, which was another commonly cited benefit that was needed but often difficult to access.

For some, like Francesca's fiancé, accessing unemployment was not straightforward. His former employer had not filled out the necessary paperwork confirming his job expiration for months, thus leaving him without benefits, seemingly indefinitely, with no recourse. That said, Jayden spoke to how his former colleagues working at the arena had committed unemployment fraud, giving false information knowing that due to Covid-19 the details submitted would not be verified; one co-worker received a US$30,000 cheque after filing for three separate accounts.

Outside these benefits programmes, participants mentioned specific schemes that offered support. Susie spoke about the support she got through the Fresno VA office being outstanding, and allowing her better access to existing benefits such as Section 8 housing assistance, and Vonn spoke of a Covid-19 rent assistance scheme, although she could not apply as she did not have a birth certificate, which was a requirement. Elizabeth outlined various California/Fresno schemes she benefited from including getting a new free air-conditioning unit installed, as heat was an issue with her disabilities, and solar panels being installed on her roof to lower bills as part of a government programme.

Similarly, Vonn detailed how, on top of receiving Section 8 housing rental support and other benefits, she obtained free car insurance through a California programme for low-income residents.

In Fresno, the charitable sector efforts were viewed and functioned hand-in-hand with the city and state government interventions. Annalise, as well as Ricardo, commented on how there was a plethora of support options during 2020 but how much of it had ended by the latter half of 2021. Annalise described this as:

> *You get the newsclips of the same turkey donations for the Poverello House, Marjaree Mason or Catholic Charities [there always has been]. [I only] saw one newsclip that one of the council people putting together something and they were giving out food boxes indoors somewhere. Usually, people set up outside…you just drive up, and they put them in your trunk. I mean, you don't even have to get out of your car; they put it in the backseat for you.*

Drive-thru support was common in Fresno, with Precious saying Fresno City College, the local two-year community university, put food parcels together and put them into students' vehicles. Rose similarly found support through drive-thru food parcel events, saying it was 'nice and convenient' to receive the food, but she had to borrow a car so she could take her grandma for this support. Due to her lack of private transportation, Rose illustrated the ideal scenario where there would be a walk-up option at these drive-thru events. While drive-thru events were cited as a Covid-19-secure way to deliver support, groups were inherently disqualified for support based on vehicle access.

Speaking further to university-level support, Francesca discussed the Ram Pantry at Fresno City College and the Bulldog Pantry at Fresno State University, both food pantries. Francesca found both food pantries helpful during Covid-19, especially as they provided non-food goods such as nappies and laundry detergent. On the quality of the food, Precious said, 'There'd be packets of noodles, macaroni and cheese, basically anything that a college student could have and survive on'. However, this form of support was not always consistent during the pandemic and was not well advertised – Precious struggled to find information, whereas Miri said the university was 'constantly sending reminders'. Francesca, a Fresno State student, received numerous Covid-19 relief grants. The amount depended on the number of classes one was enrolled in – course load varied per student in the US – and continued through to the autumn 2021 semester.

Other charitable areas of support included mentions of the use of the Salvation Army and Catholic Charities and church food giveaways by Precious. Precious said the support was best from her church, as it was a sizeable amount of fresh food, including cooked meat, such as whole chickens, vegan meat alternatives, and fresh vegetables. Other charities she said featured out-of-date foods,

and she expressed concern over the safety of the food. Jayden, when speaking generally of food charity, similarly commented around the out-of-date donations, saying he felt it was wrong it was given out stating: 'Just because we're poor and hungry doesn't mean we should be getting food that's…you know?' Vonn's recollection of the Catholic Charities parcels was of primarily canned goods, with limited other options, saying:

> Every other Wednesday they have fresh vegetables and fruit … It's first come, first served, so if you don't get there early enough, you don't get none of it … They give me a good amount of food because they give you the food for however many you have in your household … But I haven't been able to make a really full meal…it is kind of, like…put one thing together with the other, you know? You've got to make make-a-dish dinners … My son's like, 'Mom, I can only eat beans so much, in so many ways'.

For Susie, her veteran and disability status allowed her priority access to support such as the Fresno Distribution Centre food bank. She said:

> For some reason, I'm given preference. And so I go there and they wonderfully will give me boxes of cereal or cheese. One time they actually gave me steak like…that is a struggle for me, protein deficiency because the higher-end meats, they just cost so much … Some days [the food parcels are] good, some days not so much, but I'd say the majority, you know, I'm just really happy to get it … Luckily with the CalFresh, I can fill in the gaps.

These stories of food parcel support sat in tandem with praise for the city's seniors' food parcel scheme, where for months seniors could obtain free fresh produce and shopping as part of city-level Covid-19 support. Precious highlighted how 'neat' it was for them to run this high-quality scheme for such a long duration. Others cited how these sorts of food box schemes allowed them to engage with their neighbours and build informal support. Annalise said towards the end of distributions the organisers would give out multiple boxes, instructing people to give the excess to their neighbours. Annalise said she would give them to neighbours who were very appreciative and 'you have no idea that they don't have enough to eat, and you live right next door to them … One neighbour came over right next to me, and she has three kids herself and her husband … I said, "Do you know anybody who could use a box of food?" looked in it and she says, "I could"'.

This sort of neighbourly support fits with the trend of supporting friends and family through the pandemic. Nearly every participant was being offered support by friends or family, with many then offering what support they could to others. Chris gave support as a caregiver to a friend's brother in exchange for a place to stay, and Danny and Elizabeth took in friends and other family members who

could not afford their own place or needed support. These informal networks proved extremely valuable to many in Fresno and were often longer-term commitments of support rather than one-off or temporary measures.

## 8.6   Theme: Money and Budgets

Budgeting was a prominent topic in the interviews, intersecting with other themes. With the evolving situation of finances in the pandemic, strategies were adjusted. One element was the increase in CalFresh and unemployment benefits. Annalise commented that with the increase she stocked up on freezable items, almost as a 'rainy day' fund for when the benefits increase ended, as Precious did with P-EBT. Jayden, similarly, was able to afford previously out-of-reach items with unemployment benefits, such as a more modern vehicle, while still saving money for when the benefits uptick concluded.

Generally, those on benefits, as Miri put it, 'budgeted because we did not know what was going to happen – and we were afraid'. This sort of fear translated for some into calculations of how to make things stretch in the most cost-effective manner. Rose spoke of how she economised her different benefits to ensure maximum efficiency. She would spend all her CalFresh benefits first without touching the general CashAid benefit and try to hold on until the next round of CalFresh before purchasing any further food. Danny depicted himself as a bargain hunter with very low overhead costs, meaning he could quite comfortably run on a tight budget; similarly, Chris cited how he preferred to get his hygiene products from bargain shops like Dollar General.

That said, efficiently budgeting can only take a person so far, as is clear from the data. Elizabeth spoke of missing several bill payments, including her mobile phone bill and cable, and having her phone disconnected for two months making her contactable only via Facebook. Her son's father, whom she was no longer with, joined her household in the pandemic as a housemate, helping towards bills. She explained:

> We split the bills down the middle – water, the gas and electric. And, you know, it being in Fresno, it gets hot here … Starting in May, June, July, August, our PG&E electric, that was, like, almost $400 a month. And, you know, paying it by myself, my bill were escalating … I was, like, 'Oh my God', you know, 'I can't afford this bill'.

Due to her disability status, Elizabeth was able to access programmes that helped lower her PG&E (the electricity provider) bill and replace her air-conditioning unit when it broke, although she was waitlisted for this support for 18 months. Similarly, Precious had issues with her air cooling, saying her cooling unit and fan use were increasingly costing more to use, and she struggled to afford the

related PG&E bills. Precious cited the bill increases as being the highest they had been in her 10 years of living in Fresno, no longer having extra money to top up the fridge when there was not enough food for meals or snacks.

Francesca also spoke of PG&E, as most participants did, and explained how there were power outages in her area, potentially connected to the wildfires elsewhere in California. The 'nightmarish' scenario, as Francesca phrased it, while seemingly common, took much back and forth with the company and did not result in full compensation for services lost. She illustrated the knock-on effects saying they 'had to throw out over $100 worth of food…that really was what made us take a huge hit because even though we saved a lot on PG&E because we didn't have any, we lost all of the food that we had bought'.

Miri wanted to access support when she was made redundant the previous year but was deemed ineligible, as she had not been with that employer long enough. During this period, the support she was receiving – Cash Aid and CalFresh – was insufficient and bill payments were missed. Miri spoke of this as 'the [bills] that will take me to a collection agency' are the ones that they paid, like, 'the credit cards [and] car insurance definitely got paid'. Annalise prioritised her necessities such as rent, electricity and her pet's costs, while other things such as the alarm system, gardener and TV were of lesser importance. Overall, Vonn aptly expressed the stress and questioning nature of not being able to afford bills, including her phone bills, stating:

> It's been a struggle trying to, you know, trying to figure [out] what's more important – food or paying the PG&E? Am I able to miss the light bill one month or cable? And because my kids do home-schooling, I mean, my son was home-schooling and both my nephews, we have to have Wi-Fi, and in order to have Wi-Fi, you have to have cable … We've been stuck trying to balance every other month, which we all have to skip a PG&E or a water bill to pay in order to make sure that the kids are able to go to school, and to pay my Wi-Fi bill.

Outside of budgeting, how people tried to increase their cash flow varied. Annalise described how she entered the cycle of payday loans, which she explained was 'so hard to get out of' and she was not sure how she would be able to. Miri borrowed money from her parents to help supplement funds, while Francesca gained support from extended family members by accessing their CalFresh benefits. Multiple participants discussed how the government stimulus cheques helped increase cash flows – however, none brought it up themselves. The stimulus cheques were not viewed as a particularly high-ranking method of support but as a positive contribution towards their income, at least in the short term.

## 8.7 Theme: Work and Wages

Participants in Fresno were highly engaged in informal work and the gig economy to be able to afford food. Chris was informally working for his friend – the manager – at a 7-Eleven, working occasional shifts in hopes of obtaining a permanent post. Chris was in an uncertain, precarious situation – where he had not worked in over two weeks but was hoping the worker he would replace was fired soon – leaving him without an income but also not searching for other work in case this work resulted in employment. In part, Chris was accepting of this precarious situation, as his job options were limited due to his previous encounter with law enforcement. He said:

> I've been off and on [working full time] … I was going through temp agencies and just getting hired on to them. To be honest, it hasn't been the easiest for me to get work because I do have a past where…[in my] delinquent years to young adulthood I got in some trouble with the law. So my record…it turned kind of ugly, you know, because of past mistakes. So…jobs are very seldom.

Jayden similarly faced employment ramifications after being arrested. He previously had stable full-time employment and, as he said, 'I worked before [for] 32 years at the [government agency] but something happened where I made a mistake and lost my job and I lost my retirement and everything'. For Jayden, this led to him working at the arena in Fresno as a cleaner, which came to a halt during Covid-19. He was finding work on Craigslist (a classifieds website) and other websites, doing online surveys and interviews in exchange for gift cards, and working as a cleaner at one-off events like marathons or company parties to help afford food.

While Jayden knew a job at the arena would be waiting for him, due to his age and health the job had already been difficult to do. He tried going back, saying, 'I went back one day, but it half killed me doing it, so I didn't go back after that … They're getting really desperate. I will go back, but it's kind of hard now [on me]'. The hesitation about returning to this role was clear, but there was an admission of a probable return despite its difficulty.

Due to Covid-19 other self-employed participants also had to cease their work. Vonn had to close her daycare business and home-school her son. She was doing end-of-lease DIY work, primarily painting. The role offered no consistency, but Vonn expressed the pay was generous, stating the man employing her knew Vonn's financial situation and paid with that in mind. Prior to Covid-19, Danny worked 'off the books', which made a significant difference for him financially. He described his situation as:

*Well, the income hasn't on paper…changed because I am disabled. But from March of 2020, when everything shut down … I usually go out on tour with bands and I'm paid under the table doing sound or tour managing…that stopped. So that cash money, $20,000, is probably gone … So, and I mean on paper, I make $1,050 a month.*

In addition to this, Danny was a landlord on three properties, which provided a revenue stream although not formal work. Danny's music-related wage was about to resume in a few months' time but he did not appear stressed about the loss of wages, only disappointed that money went 'unclaimed'.

Francesca's household had a mixed experience with work and wages, herself working full time in a classroom while attending Fresno State. She recently received a promotion at her work but her husband lost his job. His situation was part due to his employer in the construction field being taken over by new management following Covid-19, and a clash of personalities, while personal circumstances did not lend well to being in a work environment. Francesca discussed her promotion positively and expressed love for her job, but the loss of her husband's wages made their financial and personal situations worse overall.

Annalise, Miri, Precious, Susie and Rose did not work, due to either physical or mental health disabilities. For some, there was a strong desire to return to work, such as Susie who was looking forward to trying to return to the workforce in a few months' time. Others, such as Annalise, recognised the difficulties of trying to find employment, saying:

*I'll try to find a part-time job, and it's the holidays, so logically you think that'll be really easy. But I can't bend, I can't lift. I had shoulder-replacement surgery at the end of July… I can't lift more than 10 pounds because of my back. You can't, there's no bending or twisting, though. All kinds of rules of things you can't do, so I can't stock shelves.*

*… But you look at me, and you don't think anything's wrong with me. You think I'm fine. I don't walk with a cane [but] I'm in constant pain, but you don't know that. So it's difficult.*

As so many of the participants' work-related difficulties originated from other themes, notably health and disability, much of the detail related to work is featured in other themes. In this way work and wages were not as strong as a theme compared to the Leeds case. This said, this supports wider consideration for what constitutes work, such as unpaid caregiving and housework, what are the selected metrics of work and productivity, and who is societally considered a worker or beneficiary of work (see Criado Perez, 2019).

## 8.8    Theme: Family and Children

Family and children was not a distinctive theme for participants in Fresno. Most participants did not have school-aged children or children at all, such as Chris, Susie and Jayden, skewing how the discussions unfolded. Who constituted 'family' was a layered conversation, as many had close ties and engaged with non-immediate family members in dynamic ways. Depending on the phrasing of the questions and topic, household and family were not always interchangeable. Miri, for example, when speaking of food acquisition, spoke of how she obtained food for herself and her children, then clarified she shared some food and cooking roles with her parents. She articulated the impact of this saying, 'My situation is we live together with my parents. So because of that, it has made things a lot easier for me. If I did not have my parents, it would be a very different situation…very difficult'. Like Miri, other participants lived in intergenerational households, such as Vonn and Elizabeth.

During the pandemic, many participants home-schooled their children or children in their lives. Vonn home-schooled her son, as her daycare business closed, and then her school offered the option of returning to in-person lessons or continuing remote learning. For Vonn's family, it was most logical for to continue home-schooling, as Vonn's parents had health issues and it felt risky to have her son have potentially high exposure to Covid-19 in school. Miri's children, instead, rushed at the chance to go back, with their school district offering short, three-hour days. Similarly, Precious's children returned to school when it reopened, or in her youngest's case went into school for the first time, as she had been in kindergarten when Covid-19 began.

Multiple participants brought up the impact on food consumption and acquisition by having the children at home more. Precious succinctly said, 'I had to become the teacher and then do the [rest]…but it was constantly … it was more the eating [that was difficult]'. Elizabeth, a grandparent with two adult children in their 20s and 30s, home-schooled her 11-year-old grandson during the pandemic, as her daughter was in work. This altered what meals looked like in her home. She described their situation, saying:

> *He was here with me, basically 24/7. [His] mom said, 'Well, why am I going to bring him every morning at five o'clock?' when she has to go in…and he'll just spend the night. So I was feeding them breakfast, lunch and dinner and snacks. And so that was an extra impact on me to provide those meals for him … When it was just me and he was in school, if I didn't want to eat lunch, I didn't cook anything; I'd eat a frozen burrito if I wanted or a Cup Noodles. But when he was here, it was the obligation by me…I didn't want to just feed him a bag of chips; I would make him something.*

Elizabeth told a story of how her grandson requested Lunchables kids' meals, which included multiple options such as cheese and crackers and pizza crackers, with her saying, 'I would say, "Oh, sorry, I had to get you ham and cheese because there was no pizza. They were all gone". And I said, "You know how many kids are at home doing online classes? All the kids are getting those Lunchables". So that was a frustration for him'. When Elizabeth's grandson did return to school, he complained, saying that the school food was 'gross' and that he missed his nana's cooking. Precious's children similarly did not enjoy school meals, which she highlighted in the following:

> I always wondered that while my kids were at school, they come home acting like they're starving. I'm like, 'Did you have lunch at school?' And they like, 'Mom, no, the food is not...' They throw stuff together that doesn't match for the kids and they don't want it...they gave her some broccoli. It was frozen but...I can't even say steamed broccoli, [it] was just plain broccoli. I guess she probably [could have] dipped [it] in ranch or something, but they gave her salsa with it ... The juice that they give them, it's not even regular juice no more, it is kind of like a blend. I want to say like the V8 Juice, but it's not V8 Juice ... and they don't want it.

For Francesca, who works at a school and has a three-year-old daughter, school meals were an essential source of food. During the weekdays, Francesca's daughter got three meals a day, so the family only worried about her food needs on the weekends. With her daughter not enjoying the types of food Francesca purchased, school means helped lower bills and reduce food waste. Food waste was a concern for Precious as well, saying she tended to make 'safe' meals for her kids that she knew they would not be picky about instead of pushing new foods too often; Precious said, 'I still make her try but once I make her try it, there's no guarantee she'll want to eat it the next day or eat it the next time. So that's why I try to keep...like I say, you can't go wrong about peanut butter and jelly'. Precious' son working at McDonald's and bringing home food did help their situation.

Danny, while not having children, discussed his relationship with his brother in a parental way and tried to provide support:

> My brother, who's mentally 12, because there was never any conservatorship over him, I can't make anything happen. In order to rule him incompetent, he has to agree to go to the appointment to get ruled incompetent ... My mother passed in 2001, and that's what I've had to deal with since.

> Even though he's older, I've had to take care of him, and he's chosen to take off and be homeless too, and then I bring it back. Right now, I have him in a fifth wheel that I own in a mobile home park so that he can afford it.,

For multiple participants there was a sense that they were able to make things work in their situation but that resources for those with children would not be sufficient. Precious said she was glad to only have two children and did not know how larger families were able to make it work. Elizabeth and Vonn mentioned the increased and changing cost priorities at home, with Elizabeth saying she had to prioritise her Wi-Fi bills over others to make sure her grandson could home-school at hers. Susie commented that if she had children, CalFresh would not be generous enough to stretch. While conversations around children were fewer than in Leeds, the complication around children being home and having changing requirements during the pandemic was certainly present.

## 8.9 Theme: Home and Location

Home and housing costs were frequently engaged with in the interviews. Multiple participants cited moving either right before or during the pandemic. Chris moved to Texas for a brief period, Susie moved from Palo Alto to Fresno, and Rose and Francesca moved within Fresno. Rose moved into a new apartment she received via county support due to her mental health. Previously living with her father, she said she was technically paying less in rent (US$74 rather than US$150) but as she could not put up her security deposit up front, she was paying that monthly. Inclusive of her PG&E bill allowance, her home expenses should have been US$160, leaving her left with US$88 a month for all other expenses including food.

Francesca, her fiancé and her daughter moved to the more expensive west side of Fresno, closer to her university, from the downtown Tower District – her rent increasing by US$450. She detailed how her Wi-Fi bill had increased as she had to purchase security cameras; no longer being in an upstairs apartment that was safer from break-ins, their new apartment was unmonitored and opened out to a car park. The facilities at her new, more modern apartment did work better, such as the wall heating, but there were increased costs – all having knock-on effects on food budgets.

Safety in neighbourhoods was a common theme, with Vonn stating how she feared going to the shops due to carjackings. Susie, living in a similar area to Francesca, cited similar fears influencing food excursions. She explained:

> *[The home I was assigned to through Fresno County] has a higher crime rate [in that] area of Fresno…it's not too far from Fresno State … And it's right at that cusp of being in a better [place]…but… hear shots each week…and I have helicopters frequently come over. I watched a guy surrender to the cops with the helicopter just last week. Just last week I had my gas tank siphoned…it's just the crime area [I hate].*

Further to housing costs and structures, Precious cited how her landlord was particularly strict on receiving rent, even during Covid-19 when she was struggling to make ends meet. She said, 'I had to make sure I pay my rent, or he wouldn't even wait through Covid and everything; he would have tried to serve me [eviction papers]'. Counter to Precious's experience, Vonn's family had a positive relationship with her landlord. She lived in the mother-in-law's suite in the back house[6] with her family, without electricity, while her mother was in the main house. While the landlord relationship was good, as other participants did, she expressed fears of homelessness due to her lack of making full rent payments, despite having a good reputation with her landlord,:

> … Whatever money we give, I give him right away… [It's been] very, very [stressful]…because I know I would be okay, I would be able to go to a shelter. I just couldn't have my mom or my kids in a shelter, and just because [of] the homeless[ness] out here, it's really bad, it's really, really bad [in Fresno]. You don't even know.

Some participants reflected on their experiences with homelessness. Chris shared insights, directly relating it back to the topic of food, stating:

> A lot of time before I lived with my buddy, I was honestly, I was bouncing around just in between friends and family's places and stuff like that … There's also a lot of times I was homeless and, you know, a great amount of my time I was homeless. And I was expected to provide for myself, you know, as far as food goes and stuff like that. Or sometimes, you know, I could stay weeks, you know, weeks on end at a time, like, you know, with close friends and family and I would offer…to provide my own food, but just to add extra groceries into the refrigerator. You know, as a household, you know, in a way of, kind of paying rent.

Jayden also discussed his experience of being homeless for two years following his arrest and the support he received. He talked about their current home situation of three years, saying, 'We're paying, like, 30 percent of the rent … It's a poor neighbourhood, kind of by the road, over there by the zoo, but we've been happy. I couldn't ask for anything more'. Susie similarly discussed how difficult her experience was with homelessness, after charging her rent on her credit card so she could free up her VA benefits for other expenses, resulting in her becoming homeless. She explained:

---

[6] A separate living area on the same property, typically a small studio in the back garden.

> *I cannot risk being homeless again. I was homeless for a bit…[about] 5 years ago. And it was*
> *basically because I thought I could get back to work sooner than I could, and it got away*
> *from me very quickly.*

Susie linked this behaviour to her bipolar disorder, noting that behaviour like this was a known red flag that she was experiencing a bipolar episode and needed support. When Susie moved to Fresno she received priority support, avoiding the lottery system of Section 8 housing support, through the Fresno Housing Authority and based on her status as a veteran. Despite being moved to the top of the list, due to Covid-19 there was a freeze on housing allocation, so she had to accept what came along rather than what met her list of requirements. Prior to the housing allocation, Susie was using Airbnb as her main source of accommodation, saying:

> *Aat the beginning of 2020, so about May, I went Airbnb's, like, all the way until February this*
> *year [2021]. That's how long I have had to do it. I had people who hosted who had Covid.*
> *One of my last days, [the host] told me, 'Oh, by the way, we tested positive for Covid'… Did*
> *not tell me ahead of time. And it was just…and another one who said, 'Oh, yeah I had Covid*
> *before you got in, but we're, we're pretty sure it was done'.*

Susie's situation was complicated by her strong preference to not be in an Airbnb that involved men, given her PTSD. While she expressed it was difficult to find suitable accommodation there were some bright spots, such as one female host cooking meals on Sundays for all the tenants she housed.

That said, not all participants were renters, with Annalise being a homeowner and Danny owning three properties in one neighbourhood, acting as landlord for one property and giving his son accommodation in the other. Danny had no mortgage, owning all his properties outright, but as with other participants linked it back to a fear of homelessness. Further, Danny was offering housing to his friend who faced homelessness at the start of the pandemic. Elizabeth took in her son's father, although they were separated, as a housemate, as he could not afford his housing during the pandemic. As detailed elsewhere, Chris was able to rent a property by acting as a carer for his disabled housemate. The participants were able to find arrangements for support and build personal support structures around housing, offering their homes as a resource. These forms of support had ramifications on food, creating spaces for those staying with them for food preparation but increased costs for the hosts (e.g. higher energy bills).

Outside housing, transportation was a core topic running through this theme. Rose described herself as 'pretty much bus bound at this point', further stating: 'They decided to put a pause on bus fare

because of the pandemic, which has been extremely helpful but we…I'll still sometimes sit at a bus stop…there's three buses that should have been there that haven't shown up'. Some participants showed a reluctance to use bus services, such as Susie who found it inconvenient. Francesca described her issues with transport, saying:

> *I feel embarrassed about taking public transportation because it's kind of humiliating to stand there while people look at you, driving by in their cars while you wait at the bus stop. And so for me, like, it's really embarrassing. But I mean, ultimately, I got to do what I got to do.*

Most participants described their situation with cars, often citing the high cost of car insurance. Jayden spoke of how he acquired a new vehicle during the pandemic stating: 'We were driving an old jeep [with] a broken windshield, windows don't go down, two doors don't open, no bumper. It ran great, but I was a big-time eyesore, kind of embarrassed [to have it] in the driveway. We got…we used the stimulus money to actually get the car that we have now, which is a very nice car'. This, however, was countered by the high cost of petrol in California relative to other parts of the US, forcing participants such as Jayden to ration their car use – transport costs, again, having an impact on what funds were left for food budgets.

## 8.10  Theme: Culture, Politics and Trust

This theme holds much overlap with others, with lines blurred around all three areas of culture, politics, and trust. This new theme, created for Fresno, reflected how there were some topics that did not quite fit and were too pronounced and numerous to keep within other themes. Rather than shoehorn them in elsewhere, this new theme was created to present those issues.

Two participants discussed having to turn to the legal system to obtain their benefits. Annalise described her experience with the legal system in her pursuit of disability benefits. The lack of benefits and difficulty accessing them meant those resources could not be used to secure food. After receiving a rejection letter, her social worker advised she get an attorney. She obtained an attorney from Los Angeles who worked in Fresno several days a week with local clients, mentioning the long delays in both his services and in getting a court date. In part, Covid-19 determined the experience of engaging in the legal system and the difficulties in accessing benefits within its system, with the judicial proceedings occurring over video call -  a clear connection to the related theme of crisis. She outlined her judicial result, saying:

*Because I don't have a college degree, she – I don't know what she was looking at – but she said the only thing that I would be qualified to do at my age is clean hotel rooms and be a housekeeper … No, to both of those.*

*And then [the judge said] you're physically not able to do that so you're going to go on disability … I don't know how she came to that conclusion…other than I don't have a college degree … I didn't realise I had to attach a resume to my [disability] paperwork.*

Rose cited that she had been denied multiple times – still not having had benefits approved at the time of the interview. These legal engagements resulted in lost time and resources, even if the benefits were received, which all affected food budgets and planning. Others commented on the difficulties in their lives that had come following their engagement with the legal system, particularly the criminal system. Jayden and Chris, both previously arrested, had found it difficult to find work and have any safety net following their involvement with law enforcement. Knock-on effects from engaging in the justice system includes reduced ability to gain preferred or acceptable employment, familial and social consequences, and often large debts and bills for their engagement in the system.

Politics, politicians, and political motivations came up frequently at all levels: local, state and national. The discussions around politics ultimately tied in with dialogues around trust. Annalise expressed she had no idea when the Covid-19 support and supplemental programmes would end, saying:

*I think [supplement support will end] next year, the governor's position is up for re-election … So if he is not re-elected, a lot of that, the vast majority of everything we have, I feel, will go … You get a Republican in office, and there'll be major cuts for lots of things and that's scary. That's really scary, when you barely have enough to live on.*

Covid-19 as a crisis point has acted as looking-glass into existing sentiments of politics in the region. In a way, it created new breathing space to look at the existing state of politics and political engagement that can be more difficult to accomplish when examining deeply entrenched issues which may have hit stagnation.

When speaking at the local level, participants were relatively content with their support levels and the political situation. Miri cited Fresno County as being helpful with benefits, saying, 'I'm very impressed with their workers, and they're willing to help. I've lived in another county, and that was more of a "let's try to figure out how you're not eligible"', finding the opposite approach in Fresno. This showcases an appreciation for approach, translating into trust, and not just results-informed opinions.

Precious similarly praised the county for their parcel delivery in the seniors' food scheme during the pandemic, highlighting the quality of the food and structure of the scheme. She noted it made a 'big difference' but explained that it was only when they had the budget for it, which had come to an end. Susie's experience of the Fresno VA services and their sufficiency had kept her in Fresno rather than relocate. The comments by participants insulation there is an open-door when what are perceived as positive community contributions are attempted as well. Combined with the notion that intention and approach matters demonstrates trust can be built.

Many participants cited Fresno County's severe problem with homelessness and insufficient support, in part driven by the neighbouring affluent attached town of Clovis sending their homeless population to Fresno for resources. Jayden, who had experience of homelessness, cited Fresno's mayor as being proactive around the issue. Jayden attributed, in part, Mayor Dyer's background as a police officer and being religious as drivers for this, praising his successes in the area. Others cited the issue as still being overwhelming, with Danny saying the lack of support for this vulnerable population was like 'throwing them to the wolves'. Multiple participants asked me to study this issue in Fresno further, expressing it in a way where it was clear they felt the issue was not being handled and it required outside support , pointing towards a lack of trust that it was being internally resolved.

Many did not have trust in other areas. Some expressed concern at the City's Covid-19 scepticism, with Danny saying, '[Covid has] become a political game in the Valley. Here is very right wing, and so whatever Trump said, you know, facts and science don't mean anything'. Danny continued, saying, 'I have friends that were in ICU for a month and a half…that still don't believe that [Covid is] what they had'. Talks around trust naturally filtered to information sources, which influenced who took what health precautions when acquiring food. Elizabeth noted her dislike of watching the news, finding it 'depressing' and that it had influenced her knowledge and interest in knowing about Covid-19. Instead, Elizabeth asked her 20-year-old son for information and occasionally turned on CNN, saying, 'But…I try not to overwhelm myself with news notifications about how many people are dying and how many cases. And not that it doesn't affect me, but realistically, there's not anything I can do about it. So why am I going to stress myself out over it?'

Taking it a step further, Chris viewed some information, but not all, from the news regarding Covid-19:

> *Whatever part that I choose what to believe in. So I mean, I would see…bodies stacking up, you know, this and that, and I just wasn't that…me and my friends, we just weren't really too*

*concerned about it or sure about it because…we didn't know anybody that got sick from it or any of that.*

In part, Chris linked this back to President Trump's attitude towards Covid-19 but also noted that Fresno responded like the 'rest of the world', with a mixed bag of beliefs and fear. Francesca noted reading that California was expected to approve a fourth stimulus cheque, saying, 'I've seen, like, that same article for, like, over a month now, and it's just, like, "Oh, yeah, well, here are the steps if it's going to get this approved". So a lot of people are probably banking on that, but I'm not sure how reliable certain news outlets are…you definitely have to do your research'. Ricardo took these trust issues to the furthest extreme: he believed that the government created the pandemic as a form of population control, noting that he 'better not say too much'. Related to food, this mistrust meant that there was a lack of trust in how support mechanisms would be funded or continued and why.

Conversations turned to the theme of culture, both of Fresno and wider cultural events. Wider events included how Thanksgiving and Christmas were not as celebratory during Covid-19, and how the price of food for the holidays had increased exponentially. For Fresno specifically, Danny suggested that Fresno State was just being a profit-driven enterprise rather than a community resource for education. Viewing Fresno State as a community asset with the purpose of serving the community points to how Fresno views education and the university system; a local university for local people.

Susie offered her critique of the lack of cultural events and cultural capital in Fresno.

> *There just isn't culture in Fresno. And one of the main driving problems of Fresno is it is led by the farming community that continues to destroy basically the entirety of Fresno. I mean, air, water, land, in just the worst levels. I mean, to be on the Forbes top five most polluted and to be number one most polluted so many years in a row … I have asthma so it's just difficult … It's the pollution that would drive me out the most, the lack of culture and the pollution … It's also a small, small, uneducated mindset.*

However, some participants highlighted the positives of Fresno, with Annalise talking of how downtown and Tower District had been rejuvenated with new food vendors. Speaking of what the researcher can next expect when she comes next to Fresno, she said, 'Tower is like you're in another city on the weekend nights. You have music from various clubs or bands you can hear on the sidewalk, and there are always lots of people', further describing a festival called FresYes bringing culture to the area and building on existing assets such as Grizzly Stadium and the food truck scene.

## 8.11 Theme: Health and Disability

Five interviewees classified themselves as disabled and in receipt of disability benefits. All interviewees mentioned a person was disabled in their household if it was not them. In particular, mental health conditions were prevalent in households. Ricardo expressed his ongoing issues with anxiety and depression, Elizabeth discussed her school-aged cousin's development of Tourette's during the pandemic, and Francesca's fiancé was in a deep depression following the murder of his brother. Susie had a harrowing journey with mental health, facing complex post-traumatic stress disorder (PTSD) and other comorbidities. She tells her story as:

> So I'm a veteran; I was in from '95 to '99 and some things happened that gave me complex PTSD … Complex because it was a childhood thing that sort of repeated itself … So something happened in the military that wasn't great and when I went for help… Basically the Vanessa Guillén[7] story [do you know it]? I got blocked at every pass to get help, out of just being complicit with the person who [the sexual assault] happened with, who happened to be an officer. Well, part of the devastation of that was that in order to keep my silence [about the sexual assault] and basically call me crazy I was ordered either [to] go to jail or [take] Zoloft … And taking that Zoloft triggered a genetic condition of being bipolar.

> And so, yeah, I managed the two, the PTSD and the [bipolar], but, you know, it's getting better, and I've gotten help. And so I'm really grateful on that level.

Susie discussed how difficult it was to cope and deal with food issues and food insecurity in the context of these conditions. Generally, most participants linked their health to food (in)security rather than food insecurity to their received healthcare services.

In Susie's case there were very clear overlaps between the state of her health and what healthcare she was able to access through the VA. Specifically on healthcare, Susie expressed through multiple examples how the service at the Fresno VA versus other locations, such as those in Texas she had had other experiences with, was far superior. This included the positive use of the Healthy Vet portal system with general and psychiatric care, and referrals out outside the VA for things such as surgery. While not as closely related to food insecurity, Susie's portrayal of the VA system in multiple locations gave insight into the operations of the closest health system the US has to the NHS.

---

[7] Vanessa Guillén was a US solider who was murdered then dismembered after reporting sexual harassment and assault during her time at a Texas military base. Her death ignited an online Me Too movement within the military community.

*So, I was in Texas from 2002 to 2013. I was not treated well as a female [at the VA]. It was explained to me that everything was done by stats. So if something was 80 percent effective because males did it, that is the way females were supposed to do it too. There was no regard for females whatsoever. And there was a surgery I was supposed to get, and they would not give it to me. As a matter of fact, they put me through menopause, and I went on a very dangerous path.*

*I called the VA over here [in Fresno] because my parents lived near, and we decided, hey, my parents could take care of me after the surgery, let's do it. Night and day … This VA just happened to get a urologist three months before I needed it. He did not just cure what was current, he explained to me my history, because I had all the paperwork, and he ran down and explained to me where, along the continuum, things took a change.*

These insights into the VA support system links back to Chapter 3, combining the spheres of Defence and Military Spending to Social Security.

Not all situations were as complex as Susie's but several participants had comorbidities and compounding health issues that made things difficult. Elizabeth, for example, struggled with claustrophobia, which was made difficult by mask wearing and Covid-19, alongside her diabetes and heart condition, affecting her ability to grocery shop. Rose struggled with both physical and mental health issues as well. Others faced compounding health issues, such as with addiction, including being in in-care rehabilitation facilities when Covid-19 broke out. The Covid-19-specific health concerns were most closely tied back to food insecurity, noting the risk of Covid-19 that came from trying to go food shopping and how they were at high risk of Covid-19 complications.

In some households, there was a reciprocity of support between those with health conditions. Danny and his girlfriend, with stage four breast cancer, discussed taking in their friend at the onset of the pandemic who had bipolar disorder and his struggles with healthcare. Chris had a somewhat unique situation. Chris had had a mental breakdown upon the death of his mother the previous year, eventually moving in with his friend's younger brother who had a physical disability that included fits of temporary paralysis. In part exchange for renting out the room to Chris, he in turn acted as a carer to his housemate. Chris described caring for him as:

*His body gets really weak, and he goes into a temporary [paralysis] – it could last anywhere from a couple of hours to a couple of weeks at a time where he can't move from the neck down … He needs help sometimes moving around, like turning in his bed or… me bringing him some potassium or milk … You just have to kind of wait it out [unless] you're strong and*

*sometimes you get movement in his hands to where he can grab his medicine or his milk and…my buddy or his siblings would pop in here and there and do their best to take care of him [before I moved in]. He had an in-home care provider…but that wasn't really something he was comfortable with…*

Others discussed how they accessed healthcare, mostly unpacking how they experienced healthcare using California government insurance, MediCal. Danny, who had disabilities and a compromised immune system, told of having surgery on his arm through the Kaiser Permanente medical group. Danny struggled using MediCal, having poor experience with providers. He explained this further, saying:

*The only good thing with my healthcare is that I had switched to Kaiser only because it was all in one building, but they're not doing what they should be doing either. Because the other way, it's like waiting for a referral to go, get certain things, to see a different doctor. Whereas with Kaiser, I can make the phone call and do my own referral…but that doesn't mean that it's getting done correctly. So I've changed doctors twice since Covid because of things not being done … And I'm being told by other doctors at Kaiser that I need to switch again because I'm not getting the care I should get … It's a good thing, right, that I don't have anything life-threatening or I probably [would] have died by now.*

Details of how the healthcare system in America operates with for-profit services within providers who accept MediCal, like Kaiser, did not present itself in the Fresno findings. The engagement with health care was told occasionally in detailed stories but was not omnipresent in all discussions of health and disability.

Danny further commented saying his friend who moved in who had bipolar struggled to access medication, making his condition worse. Chris discussed his experience on MediCal, saying it paid for his medical bills, which helped with affording food, but he had not always had that support. He said:

*A few months ago, I had torn ligaments in my knee … I had to go to the hospital and get an MRI. So [MediCal] came in handy for that…because in the past I had medical bills, you know, from not having a MediCal or any Medicaid assistance that just put me in debt, kind of, through the roof. So…and as far as, like, you know, needing to see a doctor, I have high blood pressure, and it helps out as far as being able to get my prescriptions.*

Chris elaborated on how beneficial he found the programme and how he would look to access their dental programme soon. In speaking about healthcare, participants explicitly tied the support to other sources. This is perhaps to be expected due to the vulnerability of the participants, their

disability statuses and disability benefits. If private healthcare or healthcare through employers had been discussed, potentially this theme may have had direct financial ties to food insecurity given the often high out-of-pocket medical costs in the US.

## 8.12 Theme: Emotions and Attitudes

Fresno participants wore multiple emotional hats and attitudes during their interviews. Many, such as Susie and Francesca, countered their accounts of food insecurity, highlighting the areas where they considered themselves 'lucky'. For Francesca, it was about a vehicle purchase, while for Susie it was the VA support. This overlapped in a similar vein to participants expressing how 'blessed' they were, with Jayden, Precious, Susie and Ricardo all positioning their struggles against a positive in their life. For Jayden, there was a pang of guilt associated with having positives come out of Covid-19, feeling blessed they benefited from unemployment benefits during a period of great strife for many.

There was a distinct attitude of wanting to 'turn things around' or 'looking forward' in the interviews. Chris spoke about how he had lost much in his life due to his criminal record, including his old job he enjoyed working the state government's phone lines offering support to people. He spoke confidently about having good people skills in the workplace and how he was excited to try and use them in his hoped-for next role at 7-Eleven, which he was aiming for. Those who were out of work were mostly forward-looking, saying they would be applying 'soon' for jobs and be back in the workforce. Those not looking to work spoke of 'getting back on their feet' in other ways, such as by getting into a better mental health space. Overall there was an overt attitude of situations being temporary and how things on the horizon would (and must) be better.

Attitudes about welfare and benefits arose in various capacities, particularly shame and judgement. Susie articulated that she was 'too proud' to apply for CalFresh when she originally needed it; however, when the applications moved online due to the pandemic, Susie said it allowed her to avoid the embarrassment of an in-person assessment. These accounts link to the shame and stigma discourses that some recipients internalise (see section 2.3.4). Rose gave an account of using CalFresh, previously called food stamps, saying:

> *The stigma that is attached to having food stamps has been a bit harder since the pandemic … I want to say that how I look also causes issues, too; because I'm overweight, they're like, 'Oh, like, look at that lady. She's got food stamps. She must be lazy, must not work, must not, you know, whatever. And I bet all she does is buy junk food'. So I've had plenty of people [be] like, 'Shame on you leeching off the government…how dare you?'*

These feelings align with Annalise's account of how she prefers to use CalFresh at some stores over others to avoid feelings of embarrassment. Others expressed shame about benefit use, such as Francesca who avoided applying for benefits due to her mother's long-term reliance on them. She was hesitant to access pandemic and non-pandemic support due to this. She explained: 'It's kind of just, like, humiliating in a way … I hate going somewhere to get free things … [I go when] I know nobody's there because it's just weird to be painted in, like, the poverty light'. This shame came across as active and palpable rather than theoretical assumptions they thought some may make of them. The internalisation of shame and stigma was ever present in the discussions.

A severe example of this theme came from Francesca, who spoke of her fiancé's trauma, bringing it up in the context of him being out of work. Below is a compilation of her story, kept largely intact due to the subject matter:

> And so [my fiancé is] trying to find work, unlike his brother, who recently was murdered and found in a canal in Fresno … It has been rough. So because of all of that, he's had a lot of his attention devoted elsewhere, and so he hasn't really found the motivation to start looking into putting himself back into a workplace because the last workplace that he was in, he was working with his brother…so it's really, really hard for him to go back into an industry where he used to work with him and know that he's no longer there. So I haven't really been trying to push the issue, but eventually, I'm like, money is tight, and I don't know how much longer we can do with just my income.

> So for the most part, his day consists of dropping me off, picking me up, and then dropping my daughter off and picking her up, and then pretty much being as open as he can be for any of the detectives regarding his brother's case … He is the sole person that is, like, taking our daughter to her school and then getting her from school…and so for him, it's really hard for him to, like, tell a job like, 'Well, unfortunately, this is my availability, and it's kind of limited, except for on the weekends'.

> And even then, the one thing that is consistent in his life right now is football. And so, like, he appreciates his Sundays because he [has] got something he can look forward to every day. But with everything that's been going on, that's like the only thing that he's just, like, 'Well, I know that I have this on Sunday, so I can take my mind off of it by watching a bunch of grown men play a game of football'.

This trauma showcases how a significant life event such as this not only comes as an income shock but the emotions and surrounding issues, such as needing to be available to talk to detectives, creates reoccurring pain and impact to the families.

Due to the timing of the interviews with Covid-19, death naturally filtered into some conversations, bringing topics such as this to the surface. Chris and Danny both mentioned the deaths of friends and family members. For Rose, the period was emotional, as she was 'dealing with, like, estate stuff from my mother that had passed away last year' saying, 'It's just been a nightmare all around'. However, as pointed out earlier, these conversations around death still typically sat within a wider positive attitude, noting these difficulties and then shifting towards how 'blessed' or 'lucky' they still felt beyond this situation. This highlights the Fresno participants' pattern of exposing a negative or dark thought and needing to counter it with a point of hope or positivity.

## 8.13  Fresno Summary

Fresno offered a similar range of core themes, which can build upon the Leeds results for the adapted FSI framework. This includes the new theme of culture, politics and trust. Table 11 summarises the different themes and methodological points from the Fresno data.

*Table 11: Fresno Summary*

| Theme | Appearances | Micro-summary of findings | Methodological comment |
|---|---|---|---|
| Food Acquisition | 12/12 | Covid-19 deeply impacted the options available to participants to acquire food (e.g. stock issues) leading to different coping mechanisms such as altering the frequency of grocery shopping and travelling further for lower-priced foods. | Theme was interwoven with many other themes, most notably diet. Difficult to draw a line between the two themes especially as food pricing was a core connecting point. |
| Diet | 12/12 | Diets changed with Covid-19 due to pricing of food particularly and issues with food acquisition. Lifestyle issues as well made it difficult to achieve the diet participants wanted or needed, with many having health/disability-related dietary needs. A core concern was around protein intake, settling for cuts and types of meat they did not prefer due to pricing. | Unlike with Leeds, diet was more around general ideas of health and protein rather than listing preferred items, making it a difficult theme to give like-meaning to. Heavily interwoven with the health and disability theme. |
| Support Structures | 12/12 | Support structures varied between several actors but all reflected the mixed economy of welfare. Third-sector support was common, governmental support was pursued by signing up or switching to different benefit types, and as well as religiously affiliated support towards food. As with Leeds, all participants built a network of support rather than solely pursuing one type. | From the outset it was clear this section would contain the details around government (e.g. CalFresh), which was mentioned by multiple participants, but the other informal welfare benefits were more difficult to assign to a particular theme. The topic of stimulus cheques, for instance, was better suited in the discussions in the money and budgets theme rather than being reserved for the support structures section. Given the complexity of the various levels – local/state/federal support – further desk-based research to familiarise the author with which programmes were distinctive and who ran them (e.g. the seniors' parcel scheme) was necessary. |
| Money and Budgets | 12/12 | Money was the root issue for many of the issues of food insecurity. Income changes were common for participants but there was typically a baseline of financial support as so many participants were in receipt of multiple benefits. Budgetary strategies varied, such as calculating which benefit funds to use first and towards what, but an overarching theme was that there was no money available to top up food budgets when they fell short, when there previously might have been. Missing bills and the stress of trade-offs of which bills to pay was acute. | The methodological choice of separating money from income and wages that was made in the previous case study applied successfully to this case study. Separating sources of income versus how money was handled gave further room for discussions on budgets. |
| Work and Wages | 12/12 | Consensus was most participants wanted to work or were engaged with work in some capacity, relating this to the ability to have enough food. Due to the pandemic or personal circumstances such as disability and mental health, many struggled to either find or maintain employment. | As with Leeds, participants readily discussed work, connecting it to other themes without prompting. |
| Family and Children | 10/12 | Unlike Leeds, the definition of family was wider than the traditional one of immediate family. This manifested as grandparents taking on direct caregiving roles and was particularly noticeable in intergenerational households. Food dynamics evolved as family structures and pandemic needs evolved. Delineating between what was a household versus what was family added a layer of complexity not seen in Leeds. | Deciphering what constituted a general support structure of familial support versus what was considered just within their family unit was more difficult than in Leeds. Judgement calls were required, which may not be how the participants themselves would classify them, a methodological challenge with thematic analysis in this work. |
| Home and Location | 11/12 | Multiple forms of home provision were found – council assisted and owned outright without a mortgage. Many participants had moved during the recent period, giving a dynamic understanding of location. Food issues were tied to locations and home circumstances. | The survey data showed their technical housing status. Thanks to preparation for the interviews, the researcher was able to 'fill in the blanks' when participants' qualitative answers did not fully connect. |
| Culture, Politics and Trust | 12/12 | The political nature of the Central Valley and that engaged with areas like Covid-19 was overt. Participants commonly linked things like benefit increases and food programmes with political motivations. This in turn affected trust and revealed information around information sources. This shaped what food assistance participants engaged in and supported. | This category was not coded for in Leeds. Presumably one could argue if the researcher attempted to find this in the Leeds data there would be codable points. This theme emerged in the data due in part because it expanded beyond the realm of what could be considered emotions and attitudes. |
| Health and Disability | 11/12 | Health and disability were overwhelmingly linked with other themes. As most participants expressed health and disability issues, intersecting as comorbidities, discussed were pervasive. Food and disability were notably discussed. Available support structures such as disability benefits as well as the need to take care of one's health or accommodate for it were frequently described. | Many participants had complex interplays between what they considered health issues and their disability, which made it difficult to describe what their disability was versus a health concern. Due to this. wording had to be carefully selected in the write-up. |
| Emotions and Attitudes | 12/12 | Participants portrayed a balancing act of feeling lucky and blessed against the negatives happening in their lives. When discussing food needs or complaints about food support, the balancing act was most visible. This was particularly noticeable amongst participants who accessed religiously affiliated support. | Coding for emotions and attitudes was easier now that a system was established in Leeds. Attitudes had overlap with the culture, politics and trust theme, which needed distinctions in coding. This was considered when creating the new subcodes for culture. Emotional trauma was a feature of this, which was not present in Leeds and which perhaps created a new working understanding of this theme and how it interplayed with |

# 9   Chapter 8: Discussion

## 9.1   Introduction

This chapter revisits the purpose of the study and research questions developed earlier in the thesis (see section 5.3). The chapter returns to each research question individually, considering how the empirical data helps to address it. In response to the final question – Can the adapted FSI theoretical framework be workable in multiple global north locations, and if so in what form? – the chapter revisits and revises the original State FSI model by Bartfeld and Dunifon (2006). It then outlines the theoretical contribution of this thesis and the adapted FSI framework. Following this discussion and the presentation of the framework, this thesis's contributions to knowledge are discussed alongside an acknowledgement of the limitations of the work and areas for future research.

## 9.2   Revisiting the Thesis Aims and Research Questions

This thesis's aim was to explore and identify the contexts affecting food insecurity, with a specific focus on Covid-19. An identified issue in the literature, discussed in Chapters 2 and 3, is that it is incredibly difficult for researchers to discuss food insecurity holistically given the lack of holistic frameworks. Exploring questions around what makes it easier or harder to be food secure proves difficult given its wide reach, which then in part fuels a lack of adaptable, theoretical frameworks for researchers to utilise. To address this research gap, this thesis took the existing State FSI concept, developed by Bartfeld and Dunifon (2006), and adapted it to extend beyond its original US state-to-state model for researchers to use. Importantly, the thesis also addresses a gap identified by the authors in their original work by considering emergency food assistance.

The contribution of this work and the selected approach lends itself to addressing how difficult it can be to discuss food (in)security contexts holistically and give manageable structure to these conversations – the structure being created through the adapted FSI (the basis for Research Question RQ5). Part of creating this manageable structure is done by identifying the contextual conditions in the two cases to help inform the adapted FSI framework (the basis for RQ1, RQ2 and RQ4). Given the timing of this research project, this developed into also including a focus on Covid-19's relationship to food insecurity (the basis for RQ3). To accomplish these aims, the following research questions were devised:

> RQ1: What are the main contextual conditions affecting a person's ability to become or remain food secure in a particular location?

RQ2: Are the primary contextual conditions affecting a person's ability to become or remain food secure the same in different locations?

RQ3: How did the context of Covid-19 affect a person's ability to become or remain food secure in a particular location?

RQ4: From a household perspective, do some contextual conditions matter more than others?

RQ5: Can the adapted FSI theoretical framework be workable in multiple global north locations, and if so in what form?

Overall, 10 key themes were identified in Chapters 7 and 8, which will now be incorporated into answering RQ1–RQ4, and feature as part of the adapted theoretical framework devised in answer to RQ5. Each research question is answered individually for clarity. To ensure that the contribution to the theoretical framework is clearly connected, at the conclusion of each research question or theme within said question (if applicable) a defined section is offered to discuss its implications for the framework.

### 9.2.1 RQ1: What are the main contextual conditions affecting a person's ability to become or remain food secure in a particular location?

The shared main contextual themes for each location are explored individually below. This section will signpost to the literature already reviewed in Chapters 2 and 3 and identified contexts, then introduce Covid-19-specific literature, placing the findings in line with or in contrast to related Covid-19-era study findings. At the end of each theme's section, the inclusion of the theme into the adapted FSI theoretical framework will be evaluated and commented on. The themes will then feed into answering RQ5, where the adapted FSI framework is presented.

As an important introductory note, the discussion of themes in food insecurity as part of the answer to RQ1 taps into the discussions of the segmentation of food poverty from poverty and the effects this brings (see Chapter 2). By viewing the contexts holistically and acknowledging their interactions and interdependence, section 9.2.1 below creates a common ground between the two perspectives, where treating food insecurity as a distinct issue highlights the specific food aspects of food insecurity while positioning it into related but non-food contexts ensure it is not siloed away as a 'food' issue. This point should be borne in mind when reviewing the themes below and their applications to the adapted FSI Framework in RQ5.

Food acquisition was central to the interview discussions, in part because it is the most obvious link for participants to food insecurity. In both Leeds and Fresno, food acquisition issues related to Covid-19, such as empty shelves, were an easy entry point into more difficult subject matter for both me as interviewer and for interviewees. Participants in all locations covered the inability to obtain the amount and types of food they wanted and from where they wanted it. Addressing these symptoms of poverty rather than the systemic drivers of why they could not acquire food was a key first port of call for participants.

The act of acquiring food exposed the infrastructure and social issues that impeded or enabled the process of obtaining food, both of which are worth examining. Infrastructure here refers to the physical and online destinations and methods for obtaining food; social issues include the increased cost of obtaining food in smaller amounts and the poverty premium (see sections 2.3.1–2.3.2) (Mcbride and Purcell, 2014). For example, issues related to what stores were accessible both socially and practically, including around frequency, proximity and social inclusion, aligned with the food accessibility literature in section 2.3.2. How and where participants accessed food gave distinct insight into other themes of food insecurity (e.g. Home and Location and if their local store had locks on certain items to avoid theft). In some cases, the problem of acquisition was the root cause of issues in other themes, such as not being able to access food staples at the shops then affecting what foods they consumed. A social inclusion example is one Fresno participant stating they would be too embarrassed to use CalFresh benefits at Whole Foods. A Leeds-based example includes shopping at two different Aldi shops, as they had 'nicer' offerings at the Aldi farther away in a more affluent neighbourhood.

This study's findings related to altered acquisition strategies – for example, no longer being able to buy in bulk or strategically travelling between shops, price hunting – match Kinsey et al.'s US work during Covid-19 (2020). A key acquisition strategy that did change due to Covid-19, as seen in the Fresno data, was the new SNAP rules from April 2020 allowing online purchases with CalFresh (Kinsey, Kinsey and Rundle, 2020). This allowed an evolved strategy of obtaining food while balancing the exposure risks of Covid-19; however, minimum spend and delivery fees complicated its benefits in Fresno.

Generally, these findings align with research during this Covid-19 period, including issues with the 'just-in-time' food systems (Power et al., 2020), as participants in both case locations noted there were difficulties with supply chains, panic buying and empty shelves. Data from both the UK (Sanderson Bellamy et al., 2021) and US (Fitzpatrick et al., 2021) shows how both food systems

lacked resilience and perpetuated inequalities. In part, these exposed issues with emergency food provision and its supply chain (e.g. donations decreased) (Fitzpatrick et al., 2021; Power et al., 2020).

Participants in both locations attempted to stock up on items when they were available, in case they were not available again. One Leeds participant rotated between multiple stores to bypass supermarket restrictions on limits of key products, such as toilet paper and flour. Many participants discussed morality issues entangled with this, and that it was selfish to stockpile; yet, despite this, they bought beyond their immediate requirements. What amounted to panic buying versus making rational choices in a turbulent time are subjective framings in some respects and may undermine the sensationalism around panic buying as a phenomenon during Covid-19. Benker (2021) highlights that panic buying and large-scale stock buying were not actually found in their UK lockdown study. Rather, they note that people engaged in modest extra procurement as a resilience measure to see them through lockdown(s) and to safeguard against vulnerabilities in the UK food system, as discussed above (Benker, 2021). Related this these findings, this aligns with the actions of 'stocking up' by this thesis's participants as reasonable, modest, forward planning procurement rather than the stereotype of buying mass amounts of unneeded product.

**Relevance to the adapted FSI:** While this theme was heavily influenced by Covid-19 (as outlined in the examples discussed above), it is likely to stand up in similar way outside of a pandemic setting. Food acquisition is a universal requirement regardless of the global outside context; furthermore, there is no obvious weakness to this theme's inclusion – it would be impossible to discuss food insecurity without discussing food acquisition. Relating back to State FSI, because that work was published in 2006 there was not the same pandemic context, understandably not evaluating or mentioning it. In evaluation of this thesis's findings, however, this theme should be brought forward in the adapted FSI theoretical framework, as it is universally supported and is a vital component for consideration. Furthermore, the inclusion of Covid-19 in both this thesis and the framework is itself a contribution to knowledge, as in-time data collected during Covid-19 is inherently limited and of value.

### 9.2.1.2    Diet

Similar to food acquisition, diet was both a sensory experience and an entry point into other conversations. Differences in diet between the locations show that the conversations mirror each other in sentiment but not necessarily in content. In part, this might be due to diet-related cultural perceptions varying in what is 'healthy', what is 'worth' spending money on, as well as differences in what is typically considered appropriate food. A straightforward example is Leeds participants mentioning beans on toast regularly as a stopgap or inexpensive 'filler' meal, which would be

unusual in a Fresno where a cultural equivalent may be a peanut butter and jelly sandwich, which was mentioned by Fresno participants.

Diet-related health concerns in this period were not unfounded, as research such as that by Pryor and Dietz notes the increase in both obesity and food insecurity in the pandemic (2022). Concerns are further complicated in that obesity is associated with increased risks with Covid-19 (Pryor and Dietz, 2022). UK data additionally showed food-insecure adults also describing decreases in the quality of their diet (Jackson et al., 2022). This emerging body of literature largely aligns with the results in both Leeds and Fresno, although with some exceptions as participants showed their concern with quality of diet and its knock-on effects on other issues. Participants readily made the link between health and disability and diet as well as relating their diet to money and food acquisition – relating it less to weight and obesity.

Diet was an area where the links to food insecurity were obvious and overt, with participants clearly stating they wished they could have specific foods – salmon was commonly cited in Leeds – but could not afford it. Pre-Covid-19 research supports this: in France, findings indicate that introducing cost constraints alone led to unhealthier food choices, as it was difficult to afford energy from fruits, vegetables, meat and dairy (Darmon, Ferguson and Briend, 2002). For many of this thesis's participants, Covid-19 presented an opportunity to start eating healthier, almost a dietary 'reset' to start anew with their diet, but practically this was impossible for many – the impossibility of diet change being fully reflective of budgetary issues.

The specific discussions about food preferences gave insights into what trade-offs households were making and prioritising. Trade-offs included reducing adult consumption, prioritising feeding children the food they preferred, and switching to what they considered lesser products, such as Fresno participants settling for pork instead of beef or chicken. These trade-offs, or food-related coping strategies, are found elsewhere in the literature during Covid-19, such as in rural South Carolina by Luo et al. (2022) as well as prior to Covid-19 (see sections 2.3.1–2.3.3). Furthermore, Italian nutrition research found that in the first six months of the pandemic 25.7 percent of the parents in their study cited an increase in junk food consumption by their children, with the authors finding a correlation with reduced time spent outdoors due to lockdowns (Dondi et al., 2021). In this thesis, participants stated they purchased foods their children preferred over what they normally bought, as a trade-off for not being able to afford both. This could mean that the rate of children's consumption rates of junk food fluctuated compared to pre-Covid-19. As this thesis did not give conclusive evidence towards this, there is a role for further research around changes in children's dietary patterns based

on their household's food insecurity coping strategies – for example, a percentage increase in diet classed as junk food during the pandemic.

**Relevance to the adapted FSI:** Diet is inextricably linked to the experience of food insecurity; therefore, it is a required theme for the adapted framework and is prevalent in pre-Covid-19 literature (see Chapter 2). This said, a difference that emerged in the empirical data was that Leeds participants were more vocal about their diet and meal preferences, listing food items they liked and disliked compared to Fresno participants. Fresno participants framed their diet more around what came in food bank parcels or trade-offs instead of discussing foods they enjoyed. As diet was not expressly studied as part of State FSI, this theme expands the original framework and contributes towards the snapshot of food trade-offs during the pandemic. In all, diet is an essential theme to move forward into the framework and should be included.

### 9.2.1.3   Support Structures

Support Structures were undoubtedly – and unsurprisingly, based on sections 3.1.6 and 4.2 – a core topic related to food insecurity that emerged from the data. Participants readily outlined their experiences with welfare systems, often citing issues that made being food secure difficult. There were four primary categories of support that emerged: formal (e.g. welfare benefits), informal (e.g. family and friends), third-sector and charitable support, and school support. These four areas aligned with the support identified in Chapter 3. Non-Covid-19-centric literature in this area considers the relationship between formal welfare benefits and food insecurity (Nord and Golla, 2009; Reeves and Loopstra, 2020; Power, Little and Collins, 2015); the role of family and friends and social networks in reducing (or worsening where they are lacking) food insecurity (Miller et al., 2014; Bruening et al., 2012; Loopstra, Lambie-Mumford and Patrick, 2018; Knight, O'Connell and Brannen, 2018); the substantial role of third-sector support in addressing food security (Tarasuk and Beaton, 1999; Ronson and Caraher, 2016; Lohnes and Wilson, 2018; Iafrati, 2018); and school-based or affiliated support programmes in its alleviation (Murphy et al., 2011; Gooseman, Defeyter and Graham, 2020; Petralias et al., 2016; O'Connell et al., 2022). These topics were similarly discussed in this thesis's data in both locations and are discussed below.

In Leeds, welfare was complicated by legacy benefits and moving participants to UC, with the £20 uplift in standard UC allowances that persons on the legacy benefits, such as Tax Credits, did not receive (Meers, 2022). Participants particularly mentioned the delays in support, which included having to take a UC advance, as there was a mandatory waiting period, disability assessments being delayed up to six months, and issues with housing assistance amounts lagging. Implications of not having enough income to pay for the living costs and necessities led to potentially risky coping

mechanisms (e.g. payday loan cycles), or missing bill payments and risking financial penalties/loss of services.

In Fresno, the three main benefits were CalFresh (California's version of the SNAP), P-EBT, Unemployment Insurance (UI) and disability benefits.[8] There were discussions of MediCal (California's version of Medicare) and benefits from the VA, but these were less universal, with the VA linking to section 3.1.3's discussion on defence as a policy sphere and section 3.1.6 as a social security area. By far the boost in UI (up to US$600/week) was considered the most helpful, with one participant citing specifically that the employment support was what made him food secure rather than CalFresh. Academic work on this found that UI reduced food insecurity and halved those limiting food consumption due on finances (Raifman, Bor and Venkataramani, 2021). Raifman et al. stated that the generosity of the US$600/week was a core push behind this, as well as potentially the reduced restrictions of this cash benefit compared to programmes like SNAP (2021); both studies align with this thesis's findings. National-level research found that food insufficiency dropped in the months following the Consolidation Appropriations Act of 2021 and then again after the American Rescue Plan Act of 2021 – both of which provided the direct payment stimulus cheques (Cooney and Shaefer, 2021).

Some participants did not feel the uplift in CalFresh, as they were already near or at the maximum allocated amount. This meant the uplift did not substantially benefit them. Approximately 40 percent of SNAP users already received the maximum going into the pandemic (Fang et al., 2021). This suggests that the expansion may not have successfully targeted food-insecure households (Fang et al., 2021). Experiences and perceptions varied significantly with SNAP support, 'taking the edge off' the price increases for some during that period and allowing them to continue purchasing food.

Research specifically on CalFresh amounts, and P-EBT cards that gave households US$365 per eligible child, is still emerging (Molitor and Doerr, 2021). Molitor and Doerr found that P-EBT cards and increased CalFresh benefits successfully decreased food insecurity in very low food-insecure households with children (2021). Research by Loofbourrow et al. showed that CalFresh was beneficial to university students in decreasing food insecurity and shielding GPAs (the US grading system) from steep decline (compared to those not enrolled in CalFresh) early in the pandemic when other resources were not widely available (2023). As other resources became available, by the end of winter 2021, CalFresh was less impactful on GPA and food insecurity (Loofbourrow et al., 2023).

---

[8] It was often unclear which disability benefit(s) participants were discussing. Based on context it was likely the Social Security Disability Insurance or Supplemental Security Income, which are managed by the state but are federal programmes.

Both studies align with this thesis's findings that CalFresh was helpful but not the definitive alleviator of food insecurity in Fresno.

The hoops, loopholes and navigation patterns of government benefits structures deeply impacted multiple participants. In both locations, participants experienced a catch-22 with welfare benefits, trying to balance the requirements against practical applications for funds and support. The difficulties in accessing funding, such as having to go through the legal system in Fresno and a Leeds participant lying about his circumstances to qualify for more funds (falsifying the number of people in his household), points to the issues these systems cause. In Leeds, one participant praised switching to UC in the pandemic; however, she stated she had been told by a benefits official she would receive more in benefits than she had. This contrasts to a Fresno participant stating they barely noticed the increase in SNAP. In all, being food insecure and trying to negotiate the sometimes-murky structures during a pandemic was burdensome for many.

Relating the findings to the recent Covid-19 literature, a San Joaquin Valley California (where Fresno is located) study of school districts highlighted the complexities of offering pandemic school support – challenges included needing dual-language promotion and communications, and logistical issues (e.g. avoiding the hottest time of day for food distribution) – (Jowell et al., 2023). Parents particularly favoured the grab-and-go meal structures[9] (Jowell et al., 2023). While the Valley had some specific regional requirements, as mentioned in the study above, in this thesis both Fresno and Leeds parents generally were happy with the school-organised food support, even if they were not taking advantage of it. In both locations, participants preferred direct financial support but were positive about in-kind school-affiliated options once fully operational. Parents told of several logistical and bureaucratic problems with school in-kind and financial support: the online voucher system delays in Leeds and Fresno parents needing to provide ID for students to collect food parcels. Despite the frustrations, generally, parents spoke positively of school efforts and appreciated the financial and material support, but finding the financial support more substantive towards food insecurity relief.

Support from friends and family was important for many participants in both locations. Forms of support included lending money, trading CalFresh and P-EBT cards, buying food for each other, sharing subscriptions to food schemes, and support with children's meals. In both locations, these relationships were viewed as crucial for most who mentioned them, often had an element of reciprocity, but were sometimes coupled with feelings of shame or guilt. Literature aligns with this thesis's findings of the varied levels and formats of support received being socially and practically important. A Los Angeles, California, study showed social networks and support mattered in the

---

[9] Meaning the parents picked up a meal parcel or bag then took it away.

pandemic, buffering food insecurity (de la Haye et al., 2020). A UK report highlighting the lived experience of Covid-19, similarly showed that for many the financial and food support from friends and family was vital (Connors et al., 2020). Pre-Covid-19 research offers interesting insights into these social structure dynamics that are not always neat or wholly generous – an example from Knight et al.'s work finds UK teens do share food/funds with friends but in particular, limited ways (2018). Their work serves as a critical reminder that support in this area, such as with formal or third-sector support, may not be fully felt or experienced as sufficient.

Third-sector and emergency food assistance were more common in Fresno than in Leeds. Leeds participants more commonly said they avoided charitable support and would not want to access a food bank. For Fresno participants, food banks and church support were more readily leaned upon. Discussions mirrored the literature from before the pandemic, such as studies by Mares (2013) and Middleton et al. (2018), as well as other literature covered in section 4.2. An additional observation from participants was that emergency food assistance was struggling to meet demand. Covid-19-era studies showed that donations reduced in the pandemic, but food charity systems adapted to new actors and logistics within their systems – such as FareShare requesting government funding to purchase food (Dekkinga, van der Horst and Andriessen, 2022; Capodistrias et al., 2022). Comments about the appropriateness of the support and whether the donated items were helpful, safe to eat and healthy were readily raised, reflecting deep-seated concerns raised prior to the pandemic – for example, see Garthwaite (2016a).

Research found that European food banks were resilient during Covid-19, including in the UK which doubled its food redistribution in 2020 (Capodistrias et al., 2022). Despite food banks and other forms of emergency food assistance being stretched to (and beyond) capacity, the systems showed innovation and adaptability to meet the crisis – strategies included partnering with media groups, and UK groups requesting food and financial donations, not solely the surplus food they normally operated with (Capodistrias et al., 2022). The entrenchment of food banks in the UK landscape grew out of austerity (Loopstra et al., 2015); this was formalised in the pandemic, given the new layer of reliance, and the financial contribution by the government folded them into the welfare state through funding streams like the COVID Winter Grant Scheme for local councils to offer support to vulnerable households (Beck and Gwilym, 2022; Gordon, Lambie-Mumford and Loopstra, 2020). Given this formal, government reliance on food banks as part of a social safety net, it is perhaps surprising that Leeds did not feature many food bank users. In part, this may be that although the government has utilised food banks, the stigma and other issues around use identified elsewhere in the literature have not been addressed (Purdam, Garratt and Esmail, 2016; Garthwaite, 2016b).

**Relevance to the adapted FSI:** Overall, support structures identified were multifaceted, reflecting the mixed economy of welfare with multiple actors, and the engagement and interactions between community and family, the market and the state/government (Powell, 2007). In the face of this complexity, the number of actors and how they engaged was difficult to capture without merging into other themes; if separation was not made, this theme would have ballooned into an untenable, surface-level discussion. Generally, there was a need to draw arbitrary lines to support the development of this theme and ensure that topics could be explored with richness. Who draws these lines, in what manner and with what data may vary significantly, which is a potential problem within this theme.

To address this weakness, it is suggested that there be a mechanism in the adapted FSI theoretical framework to display the interconnectivity of the theme(s). It also would prove valuable to sense-check the delineation of issues, like familial support, with participants in the interviews. It may prove that in some global north locations with a greater family integration culture this may appear different than a more individualist society; thus, sense-checking with participants may be key for appropriate categorisation.

Relating it back to the original framework, Bartfeld and Dunifon did include benefits and support schemes as part of their study (e.g. food stamps and the Summer School Lunch). As many of the programmes were school based, given their sample population of families, this thesis builds on this with qualitative research while expanding it to Covid-19-specific support making it of specific value to the Covid-19 era, but also reflecting the wider context of food insecurity during a period of crisis. Overall, this is an important theme and central to the discussion and therefore must be included in the adapted framework.

### 9.2.1.4   Money and Budgets

Money and budgets findings for Fresno and Leeds mirrored each other. Money was selected as the heading theme rather than income, which acts as a narrow definition of how money is acquired. Income is often synonymous with wages and based on so many participants receiving benefits, distinguishing money from income allowed for a general discussion of finances and budgetary strategies. Money was essentially the core issue underpinning all other themes and is what made the difference in being food (in)secure, according to participants. This gives assurances this research is in line with relevant food insecurity literature discussed in Chapters 2 and 3, such as by Brown and Tarasuk (2019). Furthermore, it aligns with recent developments in Scottish policy, in particular the report and policy strategy Cash-First: Towards Ending the Need for Food Banks in Scotland (The Scottish Government, 2023).

Fresno and Leeds participants discussed their financial arrangements (e.g. how they structured their bank accounts), directly relating this to their bills and budgets. One participant used payday loans to make ends meet, highlighting financial strategies for gaining more money rather than just budgetary approaches to managing money. Use of payday loans has been confirmed by US research to alleviate marginal food insecurity (Fitzpatrick and Coleman-Jensen, 2014). However, the research is caveated to say it in part may be because of the study's timing, during the 2008 financial crisis, and was not over a long enough period to look at the cycle of debt; thus, it did not capture the full timing dynamics of debt (Fitzpatrick and Coleman-Jensen, 2014). Their timing also lends credibility towards this thesis's data as a helpful reminder that the mitigating financial strategies employed now may lead to negative knock-on effects later; something that participants in Leeds and Fresno were acutely aware of.

Budgets and bills-related data were heavily present in both case-study locations. Participants specifically discussed bill prioritisation, typically saying rent was the most important. In both Leeds and Fresno there was a sense of decision-making based on creditors and who was most likely to 'come after them' for payment. Bill hardship, particularly with utilities, is known feature associated with food insecurity, as seen in other work (e.g. Yousefi-Rizi et al., 2021). A unique aspect of this is related to Covid-19, as participants were home more with those home-schooling children or working requiring internet access. This raises questions about changes in potential restructuring of bill prioritisation, which was not answered in this study. Future research may look to explore whether the re-prioritisation of bills affected the elasticity of food budgets – for example, previously people may have let the internet bill go unpaid but now they must pay for that out of their food budgets for home-schooling.

**Relevance to the adapted FSI:** The decision to link money to budgets, particularly bills, rather than money to wages or income was successful in forming the theme. This decision came from how participants phrased their financial situation, linking money to budgets more than their employment, which helped produce the conceptualisation, founding itself within the data. This theme is appropriately structured and aligns with the findings from the State FSI model whose authors found that tax burdens affected food insecurity (Bartfeld and Dunifon, 2006). As previously mentioned, the two authors' surprising finding was that context particularly mattered for families that were not yet in poverty but were economically vulnerable, which this thesis does not counter but adds further information to for those already in poverty (Bartfeld and Dunifon, 2006, p. 938). This thesis's qualitative data very much enhances the survey findings from State FSI.

### 9.2.1.5   Work and Wages

Building on the previous theme, work and wages narrows in on the specific income source of wages and explores the concept and practice of work and employment – aligning with section 3.1.2. Structures of employment were important across cases, with areas touched on including the gig economy, precarious/speculative work (with one participant essentially being on-call for a job opening at a 7-Eleven) and self-employment. Covid-19 acutely affected work in both locations, with many now working remotely or in other locations having to either resign or have lost their job due to the pandemic. In one case, Covid-19 created a new job role, with a Leeds participant working at a Covid-19 testing site that paid better than his previous employment. Lockdown showed some participants how much of a break they needed from their jobs, such as for one Fresno participant who said he would begrudgingly take back his former job if he had to, but it was so physically demanding he was avoiding returning. For some, taking on piecemeal work was an option but for others the pandemic eliminated their informal piecework channels, such as one Fresno participant who worked with touring musicians. Relevant to this research is Auguste et al.'s finding that US gig workers, which Fresno's sample included, were more likely to be food insecure (2022).

Some participants in both locations were keyworkers and faced food insecurity, which given the demands on these frontline roles in the pandemic, including many minimum or low-wage workers, is perhaps unsurprising. The irony of this time is in both the US and UK there was a respect for those in pandemic-related key roles (e.g. clapping in appreciation for NHS workers) but who were receiving insufficient support and facing food insecurity. Food-insecure participants in Leeds included staff from schools and a social worker, both groups that were celebrated in the pandemic but whose working conditions and pay were insufficient. Indeed, recent data highlighted that 27 percent of English NHS trusts have a staff food bank and an additional 19 percent planned to create one (HL Deb, 2023). Furthermore, research from The Food Foundation revealed food insecurity among keyworkers was common, such as those working in the food industry (Goudie and McIntyre, 2021).

Lack of stable wages and employment made it difficult for participants to become or remain food secure. In some cases, the move to remote working and children being home led to parents reducing their meals during their workday to make up for the increased meals the children had at home. The balancing act of ensuring their children's wellbeing while engaging in employment was a mental stress for many families. Work did act as a food acquisition source, however, for some – some taking food from their place of employment and others where a co-worker would bring them surplus food or groceries.

Covid-19-specific food insecurity research on this varies. Canadian research points out how the significant job losses primarily of low-paid workers seen at the outbreak of Covid-19 is connected to food insecurity (Men and Tarasuk, 2021). In Men and Tarasuk's study, fewer than 5 percent of workers who shifted to remote work faced food insecurity, with workers who worked outside the home during the pandemic and those absent from work due to Covid-19 being the most vulnerable (2021). While this thesis's Fresno and Leeds data manifested differently to Men and Tarasuk's study, where those who worked from home still faced food insecurity, a shared feature is that most food-insecure households in both studies were also experiencing financial hardship outside of pandemic-related employment disruptions.

**Relevance to the adapted FSI:** Participants went into further depth in describing their work lives and structures than expected. This resulted in insights into school systems from the employee's perspective. This created a unique insight from the parent's view, as many participants worked in schools and ebbed and flowed between their school–work life as an employee and their child's school life. While the richness was invaluable, it did take thoughtful manoeuvring to ensure that each school-related point sat within the appropriate theme, keeping employee-related insights separate from those of a parent. Data for employees included insights about how children reacted to Covid-19 in school settings, mask wearing and lack of attendance, whereas parent-centred data included similar topics but less generalisable or from a secondhand understanding. One employee at a Leeds school received support that they would not have qualified for as a parent, showing further complexity.

Further to this, there were thematic questions of where to categorise university-level schooling. In the end, it was primarily categorised as work, as it is a commitment with a payoff, albeit not financial. That said, if a student is in receipt of a full scholarship, then it may hold direct financial benefit. A potential drawback in how this theme was organised is other researchers may draw different conclusions, thus sorting data into other themes. This said, State FSI by Bartfeld and Dunifon included education attainment, giving a basis to create space for university-level commitments and endeavours.

For this study the inclusion of these areas within this theme was deemed appropriate and was not a significant problem, as participants discussed them in a work commitment-like or workplace capacity. University-level engagement was taken as a commitment similar to work, and employment in schools was clearly related to the concept of a workplace. This gives confidence that potential 'fine line' issues are not insurmountable when creating a framework but should be handled thoughtfully and with care.

### 9.2.1.6 Family and Children

Family and children primarily related to who is traditionally considered immediate family members, but this distinction was sometimes blurred, particularly in intergenerational households. Almost all conversations in both locations around family came with emotional discussions and sentiments rather than just describing household composition. Many expressed their closeness to extended family and how the pandemic changed this, such as not going on holiday with family or spending the night at their grandparent's home at the weekends with the children.

Most conversations in this topic revolved around children and the experience of Covid-19 from a parent's perspective. Worries over children's wellbeing during Covid-19 and home-schooling were notable, including what their children missed from school and how it affected their eating habits. In some cases, households grew as older children moved back home during the pandemic, which incurred costs. Unsurprisingly, the conversations in both locations around home-schooling were the most frequent and how children looked to the fridge to cure their boredom at being home so much, to paraphrase one Leeds participant. Other research mirrors the results of these findings, tying food insecurity to pandemic home-schooling and school closures, such as that by Hoskins and Wainwright (2023).

Parents talked about wanting to shield their children from food insecurity or the realities of their situation, but this was not always possible. In both Fresno and Leeds, parents acknowledged that while they tried to hide some coping strategies, such as switching from branded goods to store labels to save money without telling the children, not all tactics were successful. Children's involvement in the family's food security status included providing some income or food in some scenarios, such as bringing home free food from work or them earning their own money for snacks and treats. Others embraced having children involved in age-appropriate ways, such as them knowing how much was left in the budget for the week or having their own bank accounts.

Many families commented on the positive aspects of the children being home more, allowing the family to spend more time together. The broad-ranging experiences of families during Covid-19 are reflected in the literature, such as from the UK's Covid Realities project that logged lived experience during the pandemic (Patrick et al., 2022). As for this thesis, a sampling difference between the Leeds and Fresno data is that because Leeds participants tended to have younger children, their experiences of active parenting and teaching during the pandemic were different to the Fresno participants who mostly had older or adult children, if any.

**Relevance to the adapted FSI:** This theme is essential to include in the adapted framework, even if all participants involved in a study do not have children. Who is family to participants, how one

engages with family, are there external factors affecting familial relations, all matter in building a network of support. If familial support is not an option, having space to uncover this is essential.

More directly, State FSI focuses on families; thus, including this theme with qualitative data helps connect this thesis to the original study. State FSI was not able to capture the experiences of families with food insecurity in this direct way or the novel timing of the pandemic, both of which support the unique contribution of the thesis's data.

### 9.2.1.7    Home and Location

This theme demonstrated how even with varied situations and strategies, participants spent time and energy thinking about how best to navigate their rent or mortgage obligations. This theme in particular links strongly into the themes of work and wages, working from home, children and home-schooling, which are discussed in sections 7.7, 7.8, 8.8 and 8.9. Tying specifically back to food, the use of the home more frequently meant that families needed to come up with meals they previously would not have made at home, all with increased bills and costs associated with being home.

Both case locations featured participants in a range of tenure types: those who privately rent, rent through the public sector, and homeowners (similar to pre-Covid-19 literature in section 3.1.4). Housing costs were particularly difficult for some to meet during the pandemic, with some providing partial payments or applying for support schemes (e.g. mortgage holiday scheme). While accommodation was viewed almost exclusively as the top priority for bills, the scale of the expense was often difficult to meet. Beliefs around the importance of housing, besides being an immediate need, pick up on the greater importance of housing from asset-based welfare discussed in section 3.1.4.1. Increased use of the home and new ways of using the home during this period were intrinsically related to the pandemic, with the home often equated with health-related safety.

Neighbourhood came up more frequently in Fresno. In part, this was due to the allocation of government-supported housing meaning participants settled for neighbourhoods they would not have selected on their own (e.g. due to high rates of crime). While the structure of council housing in Leeds means this could be a potential problem in the region, it did not occur in the data as it did in Fresno. Similarly, it may just not have appeared in Leeds due to the sample. Relocation within case locations occurred in both area and was something that unexpectedly emerged from the data. Costs related to relocation, and comparisons between neighbourhoods and homes added context to the two locations. Issues related to relocating outside of Fresno or Leeds and returning to the case location in some instances, like in Fresno, was important to consider. Work such as Duque (2021) and Blumenberg et al. (2021) has integrated home and location during Covid-19. Duque linked poor neighbourhoods, unsafe housing, healthcare challenges and food deserts with historic housing

discrimination against African Americans (2021). Blumenberg et al. identified food sufficiency regional differences within California, verifying that responses to food insecurity must consider local issues and circumstances (2021). This thesis similarly found that Covid-19 had direct relationships with home and location, including how the home was used (e.g. working from home, sheltering in place) and what was accessible around it (e.g. distance from stores within Covid-19 protocols).

**Relevance to the adapted FSI:** This study's parameters did not require a certain residency time duration in a city, which worked positively as some participants would have potentially not been included if rigid recruitment requirements were enacted. It was not viewed as necessary as part of the sampling criteria during the planning phase of the research, and once in the field it was clear that it would have been extremely difficult to impose further restrictions considering the recruitment difficulties created by Covid-19. In all, creating space within the study for fluctuation in location (e.g. recently moved to Fresno or relocated within the area), helped create dynamic data within this theme. Methodologically, it is an asset to keep the thesis general enough, so the results can potentially review some moving-related elements to the adapted FSI framework.

In part, the theme could prove essential to consider the regional differences and log them within the adapted framework depending on the research findings. Methodologically, differences such as socioeconomic demographics and location history (e.g. Leeds being a northern city with an industrial past) could be teased out in this area of the framework. While in this thesis location was not the major theme explored within the data, one can imagine location being crucial in other scenarios to understanding food insecurity, such as North Korea or in a prison complex. To record and discuss location-specific details and account for an area's past/present, it is necessary to take this theme forward into the framework.

### 9.2.1.8 Health and Disability

Disability was more common amongst Fresno participants but did appear in the Leeds location as well. Food insecurity was made more difficult due to disability. Reasons included increased costs of electricity for disability use (e.g. for charging medical devices and higher heat consumption needs, difficulties/inefficiencies in disability benefits), and increased cost of foods consumed to help manage a disability (e.g. superfoods). Fresno data showed the complexities and variations in disability in particular, ranging from severe mental health conditions, physical disabilities, and acting as a carer for a disabled housemate.

Covid-19 particularly had a significant impact on participants, raising new issues such as the need to shield, the increased risk (and fear) of complications of catching Covid-19 and fears of death. UK, US, and Australian research supports the findings, showing disabled persons particularly struggled with

food insecurity at higher levels than the general population during Covid-19, for reasons included in of this thesis's findings (Loopstra, 2020; Friedman, 2021; Kent et al., 2020). Covid-19 was also mentioned relative to healthcare access, making it more difficult to get the support needed in both systems; however, this point was not as related directly to food insecurity.

Health issues, particularly mental health issues, were common in both locations, whereas weight-related health issues were seen more in Fresno. Depression and anxiety were both noted, depression being tied to reduced consumption and motivation to obtain food, and anxiety being associated with being food insecure. Fang et al.'s research aligns with this study's findings linking mental health closely to food insecurity during Covid-19 (2021). Fresno participants linked health-related concerns with weight to their diet and what they could afford versus what they would prefer.

One area that did not appear in the data as much as expected was about the healthcare systems. Given the context of the pandemic, there was less discussion about NHS access and issues than expected. In Fresno, as the participants had very low incomes, almost all were on MediCal and not accessing private healthcare, which often has high out-of-pocket costs, affecting food budgets. US food insecurity has a bidirectional relationship with healthcare costs, with being food insecure associated with substantially greater healthcare expenditure (Johnson et al., 2021). While there were discussions about the lack of healthcare access in both the US and UK, it was not directly related back to food insecurity.

**Relevance to the adapted FSI:** The data firmly supports including this theme in the adapted FSI theoretical framework, with the internal distinctions between health and disability within the theme required. The form of what this theme entails will likely vary depending on the types of medical support and insurance models. In this scenario, no US participants were on private healthcare, but should the sample change in a subsequent study, this may shape the nature of the theme. While State FSI did account for household characteristics, including whether a disabled person was in the home finding it a predictor of food insecurity, no measures of health were accounted for, thus adapting the framework.

### 9.2.1.9    Emotions and Attitudes

This theme serves two primary purposes. It acts as a channel to contextualise the experiences expressed elsewhere in the data and gives breathing room for emotions and attitudes about situations that are not well-encapsulated in other themes. A core example is emotional trauma, which appeared in the Fresno data but would not have fit in within another theme.

A common sentiment, particularly in Fresno, was participants ensuring they acknowledged they were 'lucky' or 'blessed' while discussing difficult food-insecurity-related topics. In Leeds the sentiment was expressed more as being 'grateful'. In both locations, especially when it came to receiving support, there was a compulsive verbalised appreciation expressed before delving into the negatives or shortcomings of support (e.g. out-of-date food donations). UK qualitative research through the Food Standards Agency mirrors this, with participants expressing gratitude for food parcel support while simultaneously discussing the associated stigma (Connors et al., 2020).

The data from both Leeds and Fresno, but more overtly in Fresno, links to some well-established, related social policy debates outlined in section 2.4 (e.g. deserving versus undeserving poor) (Caraher and Cavicchi, 2014; Garthwaite, Collins and Bambra, 2015). These notions of deservingness and appropriate usage (e.g. only using CalFresh as intended) appeared culturally influenced and applied morality and stigmatisation of benefits usage – even among benefits users themselves.

While many personal emotions were expressed, such as frustration, personal and collective stress was pervasive in the data. Attempting to navigate the new territory of Covid-19 while experiencing food insecurity was personally stressful, while there was acknowledgement of how it was stressful for everyone. Some participants brought up how even those with higher incomes had been affected by Covid-19 and there was a united feeling, as all were experiencing the same pandemic.

**Relevance to the adapted FSI:** Making space within the adapted framework to note the attitudes and sentiments creates a personalisation to the framework that cannot be captured solely with quantitative work. Without designating space within the adapted framework for this, nuance likely would be lost and the voices of the participants included into the framework results may be diluted. Incorporating these voices into the framework's development expands State FSI in a way a quantitative survey data could not.

Furthermore, there were moments of levity that gave relief to how emotional many of the interviews became – not only for the participants but for me as well. The interview with Sally ended early because I was emotional about the struggles Sally had shared. Although I took research diary notes following the interviews to process those feelings, some of these emotions and emotional interactions were not truly captured in the transcription and note-taking process. Should further research take place, plans should be made for how to best capture emotion and attitudes in an analysable way. How these emotions and attitudes are captured may influence how the adapted FSI theoretical infrastructure is populated.

### 9.2.1.10 Culture, Politics and Trust

This theme is addressed in depth in RQ2 (section 9.2.2). As this theme clearly emerged in one case but not the other, it is important to include it but raises questions of how to develop the framework in a way that accounts for differences. The answer, as discussed in RQ5, is to structure the framework in a manner that allows versatility and is flexible enough to accommodate said differences.

It is notable as well that a potential limitation to this theme is my better understanding of US culture, and Fresno, compared to that of the UK. This means subtleties in language choice may mean covert displays of political rhetoric go undetected. An example in this study may be UK participants mimicking language from right-leaning tabloid media sources such as the *Daily Mail*. The rhetoric used may imply certain views/points that a primary researcher like me is unfamiliar with, and thus misses dog-whistle politics signals.

### 9.2.1.11 Covid-19

The Covid-19 theme is reviewed specifically in response to RQ3 (section 9.2.3).

### 9.2.2 RQ2: Are the primary contextual conditions affecting a person's ability to become or remain food secure the same in different locations?

Within the two case locations, the main contextual conditions identified were almost identical. The exception was the inclusion of the culture, politics, and trust theme in Fresno. Given this difference, this theme is explored in depth below and tied to the literature to explain why it was not necessarily the same in both cases, bringing in discussions about Leeds. The end of this section then identifies its relevance to the framework.

An explanation as to why this theme emerged in Fresno and not in Leeds is due to the overt politicisation of Covid-19 and politics in the US. Pennycook et al. found that during Covid-19, US political conservatism was associated with lower perceptions of risks of Covid-19, more hesitancy around vaccines and fewer mitigation strategies than in the UK and Canada (2022). The authors found that in all locations political conservatives were associated with stronger misperceptions around Covid-19, less so in the UK than the US (Pennycook et al., 2022). Indeed, Pennycook et al. found that UK political conservatives took Covid-19 as seriously as political liberals, and overall the UK was less politically polarised than the US (2022). How people reacted to Covid-19 (e.g. taking it seriously, following protocols, lockdowns etc.) influenced what food acquisition mechanisms one could utilise; one example was those with little regard for Covid-19 restrictions or concerns could continue food shopping in their pre-Covid-19 patterns, whereas someone taking Covid-19 more

seriously may have reduced their shopping trips, going without when their food stock became depleted or buying mainly long-life foods, all influencing the quality of their diet.

As for politics and trust, Cairney and Wellstead mapped how trust appeared in policymaking between the two countries (2021). The authors found that in the UK citizens initially had high faith in policymakers during Covid-19, potentially linked to the UK's initial alignment with scientific experts, but this was undermined by perceptions of government incompetence (Cairney and Wellstead, 2021). Such perceptions of incompetence drew from issues such as the prime minister supporting Dominic Cummings' breaking of lockdown rules and lack of safety in care homes (Cairney and Wellstead, 2021). Cairney and Wellstead cite that the US had greater and more intensive distrust of governmental actions (e.g. mask policies), which was further complicated by state versus federal government policy discrepancies (2021). Distrust in government actions and competence may mean that people adopt more individualistic food-coping strategies rather than rely on the state –for example, turning to charity or family rather than to benefits or government-run programmes.

Tying specifically to food (in)security, the literature holds reference of the (de)politicalisation of food insecurity; both outside the case locations (Görmüş, 2019; Riches and Tarasuk, 2014) and within (Cloke, May and Williams, 2017; Poppendieck, 1998; Coulson and Sonnino, 2019; Corcoran, 2021). Corcoran, looking at New Haven, Connecticut, argues food needs to be re-politicalised (here meaning an issue created/addressable by politics and policy) as a point of addressing class and systematic oppressions, particularly with race (2021). These points support the Fresno data, where benefits, their generosity and policy end dates were all linked to politically motivated choices. The data in Leeds did not have such overt references to the (de)politicalisation of food insecurity.

While there is minimal political trust information specific to this study's case locations, Michelson's qualitative work highlights Fresno Latino/a immigrants' distrust (2007). The Public Policy Institute of California's 2021 data found 25 percent of Californians had at least some trust that the federal government would do the right thing, with trust in state government at 59 percent at least most of the time (Baldassare et al., 2021). No similar studies can be found of Leeds, but the UK 2022 trust in government data found 35 percent trust national government (41 percent being the Organisation for Economic Co-operation and Development country average), while 42 percent trust local government (Lelii, 2022). Trust in public services was far higher, with 80 percent trusting the NHS (Lelii, 2022). Once again, trust in government can affect food (in)security strategies and coping mechanisms but, counter to this, trust can be gained when food programmes work successfully.

Bearing in mind the political distrust in both locations, it perhaps is unsurprising that when Covid-19 programmes worked well, it was noted by participants. Participants in Leeds expressed some

positive sentiments about the school vouchers and the Council's flexibility on payments. In Fresno, participants spoke highly of the City-affiliated seniors' food parcel scheme. With Fresno, the framing was often giving 'credit where credit is due', which meant participants spoke specifically to their impressions of government. Comparing this to Leeds, Leeds participants tended to point towards generalities or refer only to the programmes rather than the government or city themselves. Fresno's overtness with these comments fed into it becoming its own theme rather than being filed under another.

For Fresno, another area of trust that emerged was trust in information and media. Several studies have examined the issues around media (dis)trust in the US during Covid-19 (Latkin et al., 2020; Romer and Jamieson, 2021; Ternullo, 2022). Latkin et al. found that media was amongst the least-trusted information sources, with the White House being the least trusted, and trust in all sources reduced over the pandemic (2020). A separate US study detailed how conservative media during Covid-19 was associated with increased conspiratorial thinking (Romer and Jamieson, 2021), which was seen in the Fresno data. Participants were unsure of what information sources to trust, with one interviewee leaning on her son and Facebook for Covid-19 information while others avoided the news altogether.

Linking media trust specifically to food (in)security during the pandemic is scarcely studied compared to other areas of this theme. US authors found Latinos were more likely to look to the mass media for health information than white people, potentially linked to trust in 'ethnic media' (Payán et al., 2021). Payán et al. linked this media trust, Covid-19 misinformation and marketing of low-quality foods to food insecurity (2021, p. 839). Media portrayal of food insecurity is more commonly addressed in the literature (Knight et al., 2018), such as UK media portrayals of mothers being 'deserving victims' of food insecurity with upticks in support during the Marcus Rashford Child Food Poverty Campaign (Wigman et al., 2022). Furthermore, one disaster management study found that young people and people with low incomes most susceptible to misinformation and oversaturation of social media, creating higher perceptions of food insecurity, panic and hoarding behaviour (Charilaou and Vijaykumar, 2023). Potentially, this area of the theme may not be relevant outside of a pandemic or global health emergency setting but it warrants further investigation.

Culture was the least addressed area within this theme but did emerge as a finding for consideration. Culture has a variety of definitions, some competing, as analysed by Jahoda (2012). To evaluate these definitions is beyond the scope of this study, but related to this work there are some key aspects from definitions of culture that are applicable. Deriving aspects of Jahoda's (2012) review of definitions of culture, which are too numerous and complex to re-create here, culture for

this work's general purposes can include shared beliefs, habits, ideas or rituals within a group. This can also include transmitting information, shared learning and mirroring social behaviours.

Specifically in relation to the theme of culture, politics and trust, in Fresno, culture broke down into three main areas: political-cultural environment, cultural events and culturally appropriate foods. Part of the culture of Fresno that was shown in the data was the acknowledgement of Fresno as a conservative city and its cultural impact on the area. The political elements of culture link well with the previously discussed points of trust in government and how government is viewed. Fresno's culture as a city was deeply coloured by its conversative leanings and for one participant it was a driving force of why they would want to relocate from Fresno. Fresno's voting and on-paper political situation may not reflect the full cultural experiences of Fresno's politics exposed in this thesis's data, with 37.47 percent of voters registered as Democrats in February 2019 versus 32.64 percent Republicans (Anon, 2019). However, an academic study of US cities with populations over 250,000, mirrors the sentiments expressed by this study's participants, showing Fresno was the 13th most conservative city in terms of the public's policy preferences (Tausanovitch and Warshaw, 2014). Participants' interpretation of Fresno's conservative culture is confirmable by the lived experience of the researcher from their time in Fresno. Nothing similar appeared in the Leeds data.

Looking at cultural events, Fresno participants specifically mentioned holidays and affording food (e.g. the increased cost of Thanksgiving meals). From the literature, not being able to fully partake in holidays in relation to food insecurity can increase one's sense of social exclusion (Salonen, 2014). While school holidays and difficulties feeding children during the time off school came up in the data, it was clearly linked to school support systems rather than cultural events or times of the year.

Lack of culturally appropriate food is roundly found in the literature, particularly around emergency food aid such as food banks. Research has shown issues with culturally appropriate food support with US Latino/a immigrant populations (Mares, 2013); Australian asylum seekers (McKay et al., 2018); and Latin American immigrants in Canada (Vahabi and Damba, 2013). A study of London food bank users identified the complexities of food banks catering to cultural issues (e.g. trying to only give halal items as otherwise it results in food waste) (Thompson, Smith and Cummins, 2018). The food bank users not only had religiously affiliated cultural food needs, but also preferences based on what was familiar (Thompson, Smith and Cummins, 2018). Vahabi and Damba, looking at Latin American immigrants in Toronto, identified that culturally appropriate food was both difficult to afford without adequate financial resources and difficult to access via food banks (Vahabi and Damba, 2013).

In the Fresno data, this point was alluded to but it was not without complexity. Annalise commented saying it is 'almost racist' how food banks would give foods that she would consider the last resort: rice and beans. She noted that it was difficult to presume this could be enough for people, saying she guessed the food charities presumed people could make tortillas from flour to accompany them. One participant specifically cited they were sick of the donated beans. This countered the points of lack of culturally available food in the supermarkets, with one participant saying it was difficult to access these foods staple to their diet.

Further research in Fresno could be warranted to assess whether food donations stemmed from the perception of who food bank users are (i.e. Latino/a), or if it is a mark of the food donors donating food they themselves would find appropriate. This is similar to a study that found those who were food secure in Canada felt Kraft dinners were a comfort food and commonly donated the product versus food insecure Canadians who disagreed (Rock, McIntyre and Rondeau, 2009).

An area that was not well explored in the Fresno and Leeds data was around religion and religious organisations. Fresno residents spoke to receiving food from churches and other religiously affiliated groups but there was a lack of clarity as to whether participants were affiliated with these entities outside of food support. Put simply, was receiving food support from a church the only engagement the participant had with the group or were they also members of the church? If the former, this may link closer to what is seen in the UK, where food banks often operate out of religious groups or facilities but are not designated for the congregation solely. The Fresno findings did not show a clear relationship between participants and the religious organisations, so that bears further investigation.

Covid-19-era research shows the multifaceted role religious groups had during the pandemic, including as community resources for food and public health actors (Oxholm et al., 2021; Schanbacher and Gray, 2021). Schanbacher and Gray found that US state and federal governments embraced faith-based organisations both as public health messengers and actors to mitigate food insecurity (2021). The US is a more religious country than the UK, with 50 percent of British residents having no religious affiliation versus only 29 percent in the US (Curtice et al., 2019; Kramer, Hackett and Beveridge, 2022). This said, there is evidence to suggest that the Church of England provided leadership in the pandemic and acted as a community reference point including via food (McKenna, 2023), showing the complexity around religion in culture in these two locations.

**Relevance to the adapted FSI:** While this theme did not appear so significantly in Leeds as to warrant its own theme, the prominence of these topics in Fresno demonstrates there is value in offering space and flexibility to explore them within the framework. Depending on the location, certain aspects of the theme may be highlighted, whereas others may not be as relevant (e.g. culture

may come through in the theme strongly but not politics). Politics, for example, may be the core element – work already done in this space supports exploring food insecurity in relation to politics, with Soffiantini's research exploring the causal relationship between food insecurity and the Arab Spring (2020). Furthermore, this area was not addressed in the original State FSI framework but theoretically one could see links with a state-to-state model, such as how FSI looks and functions in Democrat-controlled states versus historically Republican-controlled ones. Care should be taken when using this theme in the adapted FSI to pinpoint what areas of the theme are being discussed and linking them back to food insecurity.

### 9.2.3   RQ3: How did the context of Covid-19 affect a person's ability to become or remain food secure in a particular location?

Undoubtedly, Covid-19 had a significant, permeating effect on the participants' lives and specifically on their food insecurity. The context of Covid-19 was ever present in every theme, every aspect of the interviews, and indeed the (re)formulation of the thesis. It was incredibly difficult during this time to ascertain the 'correct' way to include Covid-19 in the research space and what the appropriate adaptation should be – due to this, several iterations of how to examine Covid-19 were applied. It would not have been possible to analyse this data without recognising the overwhelming impact that Covid-19 had on all aspects of life during this period. Indeed, to do so would risk misinterpreted findings. Thus, in the early stages of this research it was decided to have a clear, purposeful evaluation of Covid-19's role, which this thesis's data has shown was an appropriate and important decision. This is a common approach to research taken during the pandemic; indeed, a rapid synthesis of how research pivoted due to Covid-19 from the National Centre for Research Methods highlights how many social research projects made similar changes (Nind, Coverdale and Meckin, 2021).

Fresno and Leeds had a shared experience of Covid-19 in many ways, with the two locations taking similar approaches, which included mask mandates, vaccine drives, lockdowns, supply chain problems, a focus on keyworkers and evolving medical guidance. The pandemic's effects on food (in)security are highlighted throughout the other themes but Table 12 summarises the key statements of the direct contribution to knowledge on the topic.

*Table 12: Summary of Covid-19's Influence on Food (In)Security*

| Theme | Summary statement of Covid-19's influence on food (in)security |
|---|---|
| Food Acquisition | Covid-19 had logistical impacts due to lockdowns, supply chain issues and supermarket restrictions affecting shopping and acquisition strategies. Covid-19's health ramifications influenced who could go food shopping, in what way (e.g. online versus in person), and affected frequency of shopping. |
| Diet | Covid-19 meant people were staying in more, affecting when and where they consumed their food (e.g. children eating at home rather than in school). Issues from food acquisition related to Covid-19 translated into dietary changes, as not all foods were available and/or affordable. |
| Support Structures | Covid-19's impact on employment, wages and budgets meant people were accessing formal and informal support systems potentially for the first time to help towards food security. Government benefits altered their delivery model and generosity but faced delays. Informal, school support and third-sector support was leaned on for food and financial help, but these systems struggled to meet demand. |
| Money and Budgets | With increased food prices, supply chain issues and an overall increase in bills, food budgets did not stretch as far. Budgetary strategies had to shift, with some options no longer being available (e.g. buying in bulk) not allowed or affordable. Lack of money linked to Covid-19 job loss and increased costs of being home more; food was a flexible area of the budget to pull from, which affected food security. |
| Work and Wages | Covid-19 resulted in employment loss, shifts to working from home (WFH), and career changes. This resulted in both wage losses and the potential for working overtime increasing income. WFH and job loss led to changes in dietary changes to save money, including reduced consumption. Workplaces became informal places of food support such as through leftover food. |
| Family and Children | Children were home-schooling or off isolating, influencing where they consumed food and who supplied it. Household composition often changed due to Covid-19, such as children moving home from university, with effects on food budgets and acquisition. Extended family supported and engaged each other but mechanisms for how families supported food security evolved from in-person to distanced support. |
| Home and Location | People spent more time at home due to Covid-19, travelling less for leisure and work. Increased costs of being home more affected food budgets, while where one lived affected their proximity to stores and how they could access food safely during the pandemic. Some relocated due to Covid-19-related issues and needing support that was more easily accessible in one location over another. |
| Health and Disability | Covid-19 led to and exacerbated mental and physical health issues both due to the virus itself and comorbidities. Disabilities were also worsened or threatened, government-instructed shielding ordered, with knock-on effects on benefits or support. Issues with food consumption and diet due to Covid-19 interacted with health and disability affecting food security. |
| Emotions and Attitudes | Covid-19 created individual and collective stress and fear, with emotions varying throughout the pandemic including about food (in)security. Attitudes about Covid-19-specific food activities, such as rule-breaking, food benefits and stockpiling were present. People juggled positive and negative emotions and attitudes, holding conflicting emotions and attitudes reflecting the complexity of Covid-19. |
| Culture, Politics and Trust | Covid-19 played into and exacerbated previous issues with politics and trust, influencing how people engaged with Covid-19-related information and science as well as support. Cultural impacts varied from holiday disruptions to unaffordability and/or unavailability of culturally appropriate foods and the type of support offered (e.g. drive-thru food support reflected a car culture). Lack of trust influenced whether people trusted government support avenues for food support during this period. |

**Relevance to the adapted FSI:** As Covid-19 is a specific, time-related issue, it would be inappropriate to permanently include it in the adapted framework. That said, creating a generic space to include such wide-scale crises should be an option. For the adapted FSI framework, Covid-19 crucially shows some contexts will be both personal and wider in a way other issues are not – in other words, Covid-19 is simultaneously global and deeply personal; thus, a mechanism within the framework to show this unique dynamic is necessary.

Extending this further through theoretical transferability, the FSI framework could be adapted to reflect many crisis situations. Potential crises include climate events such as floods or droughts, national security or political instability, such as the Ukraine war or the Arab Spring. Other potential situations that could be included in this space in the adapted FSI framework include human-caused disasters such as Chernobyl and Fukushima (Belyakov, 2015).

### 9.2.4 RQ4: From a household perspective, do some contextual conditions matter more than others?

Different participants cited different contextual conditions that affected their food security status. For some, job loss or change and its knock-on effects on income underpinned their insecurity, while (in)sufficient benefits affected others more. These knock-on effects align with the policy spheres of Chapter 3. The interconnectivity and engagement between conditions (e.g. taking care of an ailing family member) might mean that a person must resign from their job, which affects the food security of the whole household. That said, overall income, in whatever form, very much underpinned how people were able to react and adapt to changes created by Covid-19. Having a sufficient, stable income was the greatest way to be food secure, with the other issues being adaptable if there was enough money. Put plainly, some non-financially based contextual issues can be minimised or eliminated if enough money can be dedicated or spent to resolve them.

Figure 31 represents the themes as they were discussed by participants. At the beginning of the conversations, experiential nature of food acquisition and diet were most readily discussed, aligning with the literature review in sections 2.3.1–2.3.2, which summarises and identifies food insecurity as an issue of affordability and accessibility. As the interviews continued, discussions moved towards support structures, work and wages, and money and budgets and how they connected to food insecurity; developing the next layer in Figure 31. Although these factors underpin the root causes of food insecurity, they were projected secondarily to the experiences of food insecurity. Finally, the non-monetary themes were the most peripheral topics discussed in relation to food insecurity. These included home and location, family and children, emotions and attitudes, health and disability, and culture, politics and trust – one example being that the school district a student was in dictated what school-based food support they received in the pandemic. Households overall followed this pattern of discussion: food experiences were most readily discussed with food insecurity; then financial and monetary situations underpinning their food security status; and finally non-monetary themes were related to the previous links to food insecurity.

*Figure 31: Food Insecurity Themes from Findings Structured by Connectivity to Topic*
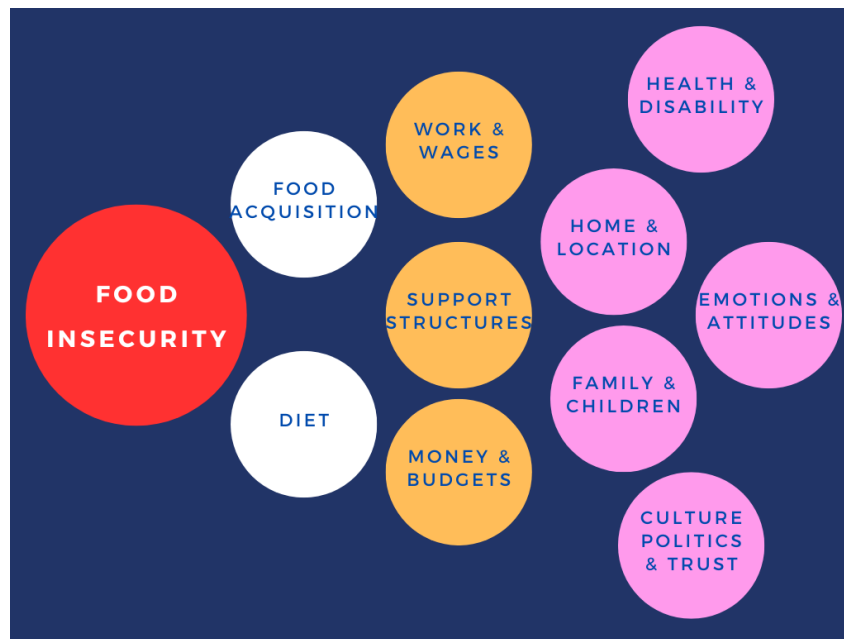


**Relevance to the adapted FSI:** The findings indicate that if interviews, surveys and frameworks are not holistically centred, conversations and data around food insecurity may sit superficially on the topic of food. In the interviews, participants were probed about these connecting issues, which they were able to identify and link to their food security status. This supports the notion that without holistic enquiry and frameworks, food insecurity research or surveys could miss the connecting contexts and rest on the idea of food insecurity being a 'food' issue. If time and space is allotted, many issues that are not directly about food must be accounted for, for an accurate view of the issue. This adapted FSI framework helps ensure that researchers can get to these more rooted issues without compromising the gathering of data about experiences with food; in short, food and non-food issues both need to be present in the framework for an accurate, holistic view.

9.2.5     RQ5: Can the adapted FSI theoretical framework be workable in multiple global north locations, and if so in what form?

*9.2.5.1    Creating the FSI Framework*

In reference to Chapter 5, State FSI is a concept that Bartfeld and Dunifon use to describe how societal interactions influence a person's food security status at various levels. The authors define State FSI as (Bartfeld and Dunifon, 2006, p. 923):

> *Our underlying model posits that food insecurity is linked to inadequate household resources, but is also influenced by the strength of what we term the state food security infrastructure: a set of programs, policies, and economic and social attributes that affect*

*the availability, accessibility, and affordability of food and the extent to which resources*

*are available to households to meet their food-related needs.*

The State FSI structure offers room for adaptation and development to explore contextual factors of food insecurity beyond the state-to-state model it originally serves. Explicitly, the authors identified an area that their study was unable to address – emergency food assistance – while a new gap has emerged since its publication: the Covid-19 crisis.

The culmination of this thesis is an adapted FSI theoretical framework. This framework has been devised as a mechanism that is: usable outside the case locations; flexible and adaptable per location; and provides a vehicle to discuss the complexities and interconnectivity of food insecurity holistically. This leads to an adapted definition of FSI (henceforth the FSI Framework) as:

*The FSI Framework provides an adaptable and operationalisable framework of the*

*contextual conditions and attributes that influence one's food (in)security status, with focus*

*on the availability, accessibility, and affordability of food within one's life.*

Table 13 summarises the themes' relevance and rationale for inclusion in the framework, and highlights the framework's development.

*Table 13: Summary of the FSI Framework*

| Theme | Summary statement of themes' relevance to FSI Framework | Significance and contribution |
|---|---|---|
| Food Acquisition | Food acquisition interplays with what food can/is available and is consumed. While the data from this thesis was heavily influenced by Covid-19, this theme is universal and likely to give distinct regional insights, such as what stores are available, affordable and used by those in a case location. This theme was highly discussed by participants and related to their experience of food insecurity, demonstrating the idea that what feels 'closest' to the issue of food insecurity may not actually be the root cause but more so the experience with food directly. | Food acquisition was not accounted for in the original framework in detail and thus is a new contribution to this framework. |
| Diet | Diet is intimately linked with experiences of food insecurity. The thesis data showed how participants from different locations may discuss diet in relation to food insecurity, one location listing their meal preferences versus the other framing their diet more based on trade-offs and availability. The qualitative aspect of this thesis expanded the experience of food insecurity in the framework, again showing the 'closest' issues to food insecurity may not be the root cause but more so the experience directly with food. | Diet was not readily explored in the original framework and is a new aspect to this framework. |
| Support Structures | Support structures were readily related to food insecurity and as a context which interplayed with food insecurity. Support structures generally were governmental, school-based, from the third sector and family/friends. Support structures were framed as both a causal element of the food insecurity and a relief from it. | This thesis's data expanded the original framework from enrolment rates in formal programmes to their qualitative experiences and explanations. |
| Money and Budgets | While lack of money was a root cause of food insecurity, as it was not an experience with food, it was not the closest context to participants' descriptions of food insecurity. This said, the theme was critical, and the engagement with money through budgets was important contextually to how the themes all engaged with each other, making it one of the most interconnected themes in the FSI Framework. This theme is likely to evolve heavily based on the incomes of the sample in the FSI Framework. | This thesis's data expands from the original framework of income to poverty ratios, poverty rate and tax burden, adding in new perspectives on budgets and use of money. |
| Work and Wages | Being in or out of work, workplace and wage amounts all contributed and were related to food insecurity. Education level was also included, as it was a work-like commitment. The framework extended the original State FSI framework, as it gave additional information about contexts of food insecurity experiences within workplaces, particularly within schools from employees' perspectives. | This theme builds upon the quantitative data originally included by Bartfeld and Dunifon of average wages per job and unemployment rates, expanding it to experiences in work and its impact on food insecurity. The original framework included data on what levels of education were achieved but this thesis captured the experience of work intersecting with food insecurity qualitatively. |
| Family and Children | Family and children featured in many interviews and even those without children did have references and interactions with the theme (e.g. showing concern for how families could afford food on low benefit amounts). How food insecurity was experienced within a family unit (e.g. parent going without so the children have enough) was featured and a new qualitative contribution to the FSI Framework giving nuance to the sample population Bartfeld and Dunifon originally targeted. | This theme expands from the State FSI's consideration of household composition characteristics (including number of children) to now include parents' perspectives on protecting children from food insecurity, creating a more dynamic account. |
| Home and Location | This theme creates space to articulate regional and location specifics including histories and dynamics. It also creates space where sample criteria are not stringent and can account for participants moving into and around the case location and how that engages with food insecurity. Depending on the location, this may be critical to discuss or may not be a major facet of the food security infrastructure. | This theme expands the State FSI framework beyond accounting for the variables of central city based, other metropolitan, or non-metropolitan. This thesis's interpretation of FSI narrowed from the authors' framework to only include central city and other metropolitan, so more nuances could be gathered and represented. Testing for whether the FSI Framework could be applied to non-metropolitan locations is an opportunity for future research. |
| Health and Disability | Health and disability both engage with food insecurity experiences and interplay with what support structures, acquisitions and diets may be needed. Depending on the sample and location, healthcare structure and access may be a feature. | In the original framework, Bartfeld and Dunifon did use data on whether a person in the household was disabled but did not measure for health, so it is a new component of this framework. The thesis gathered data as to the intersection of disability and health with food insecurity. |
| Emotions and Attitudes | Accounting for emotions and attitudes creates personalisation and a detailed account of how aspects of food insecurity are experienced together. The emotions and attitudes theme can act as a connecting thread of themes (e.g. feelings about Covid-19 led to avoiding leaving to obtain food). | Emotions and attitudes were not captured in the original State FSI and is a new aspect to this framework. |
| Culture, Politics and Trust | This theme was not fully universal but was significant in the thesis in one location, hence its inclusion. In the FSI Framework, likely not all aspects of the theme may be equally weighted (e.g. politics may matter more in one location instead of culture in relation to food insecurity). From this thesis, the Fresno data showed through this theme how contexts may engage bidirectionally, so engagement happened across personal and outer/global contexts rather than sitting more separately as the other themes had; this led to the creation of the bidirectional tool. | This area was not collected in the original State FSI framework thus expands it to be more holistic. |
| Crisis (Covid-19) | Covid-19 proved there is a need to create space for a crisis that case locations potentially share. In this thesis, Covid-19 showed there was an overarching and ever-present issue that shaped how food insecurity was experienced in this time. This showed the need to include a tool for showing that overarching nature. | Crisis dimension is entirely new. |

To bring to life this holistic framework, a visual map has been created that can be populated with a location's contextual information to a granular or generic level. Visualisations are a powerful tool for understanding complex and intersecting concepts with much success – a notable example being Raworth's Doughnut Economics Framework (2017), which reached far beyond academia. For this thesis, a flexible framework that can (a) simplistically represent the headline findings of a study by using the pre-set themes, then (b) be populated with specific findings, offers a useful application. Being able to organise the complex themes of food insecurity into a single, expandable framework offers great value for consolidating said complexity into a manageable discussion. The FSI Framework map is shown in Figure 32.

*Figure 32: FSI Framework Map*
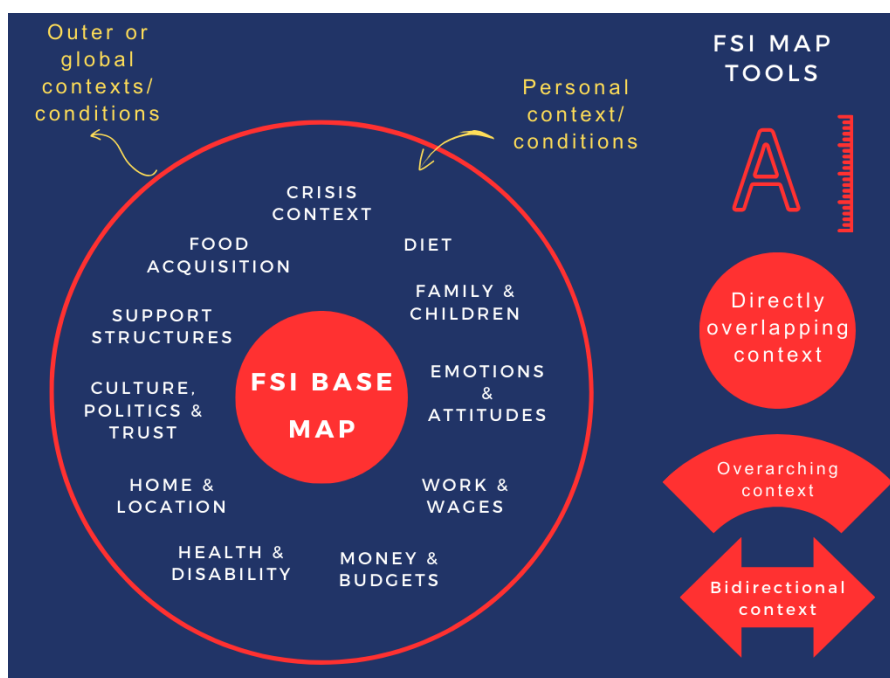


### 9.2.5.2    Application: Practical Ways of Using the FSI Framework

A full description of the tools and how the framework might be applied in future research, including a user guide, is included in Appendix 5. Figure 33 shows Fresno's FSI, utilising the base map from Figure 32 and the user instructions in Appendix 5. The Leeds FSI map, similarly created, is shown in Figure 34.

Figure 33: Fresno FSI Map
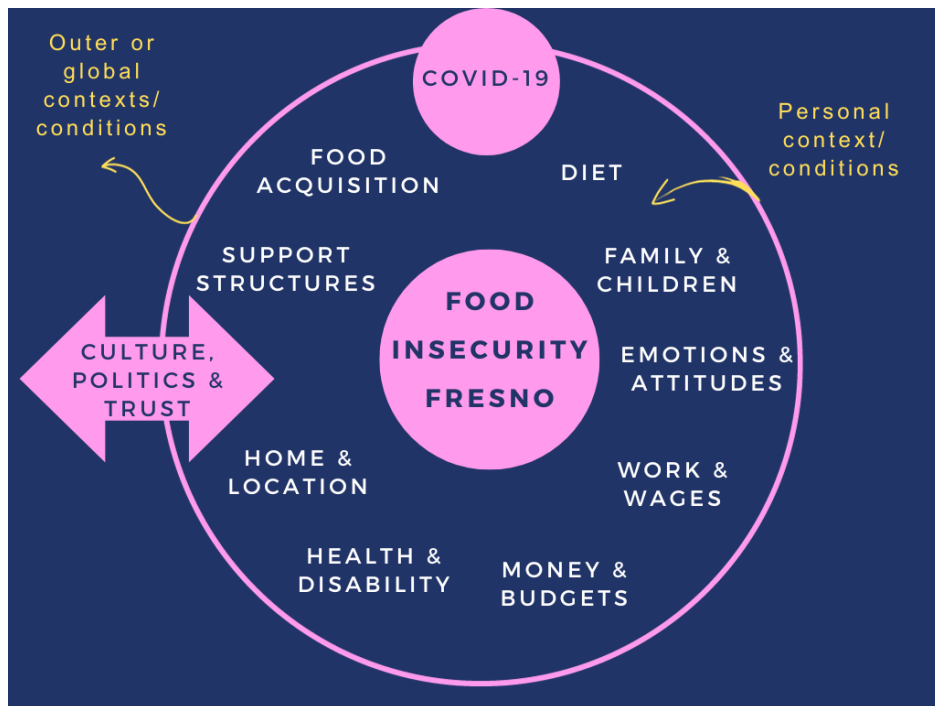


Figure 34: Leeds FSI Map
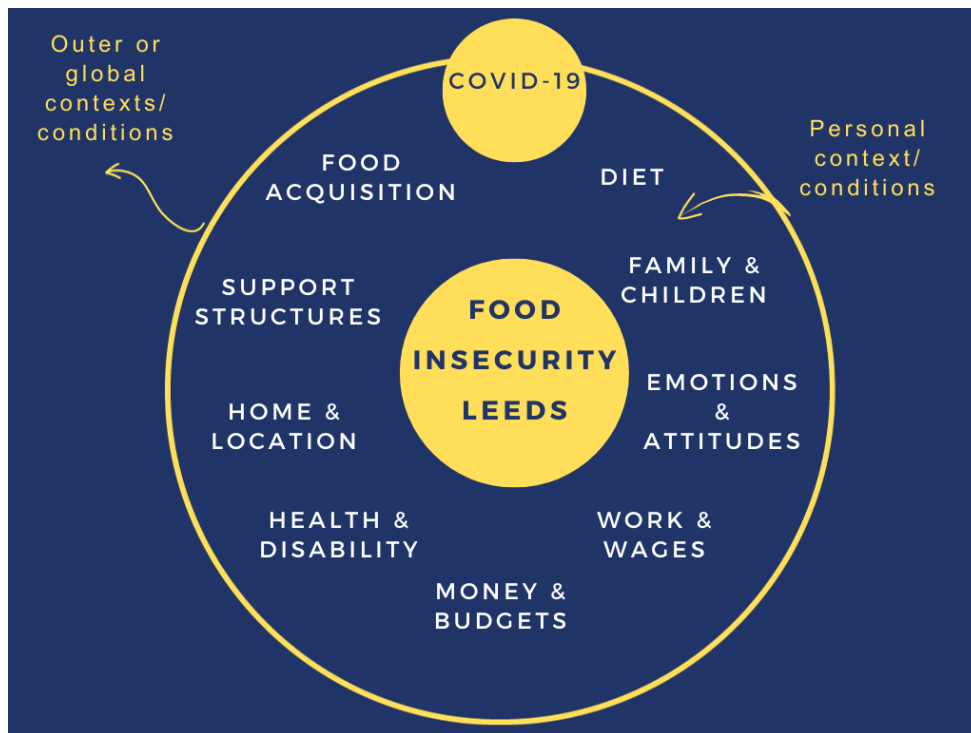
Examples of how the base map can be populated with different forms of data from the thesis can be found in Appendix 5 as part of the user instructions.

Notably, the Fresno and Leeds maps are not identical. Fresno's data overtly showed a bidirectional relationship in the culture, politics, and trust theme that Leeds did not. In the analysis of the Leeds

data, the elements of culture and trust in institutions like the government bodies that were mentioned did not appear so blatantly and uniquely that they required their own theme. Additionally, there was no defined, pronounced relationship with politics and media such as that in Fresno. While undoubtedly these topics were touched upon in the Leeds data (e.g. one mention of Brexit), they did not emerge in a way that would constitute their own theme, let alone one that had a bidirectional impact.

Part of the practical contribution from the base map in Figure 32 and the FSI Framework in general is the versatility in what data sources can be incorporated. The useful nature of the FSI Framework, in part, is how one can tie together these differing areas in one space and demonstrate their connections and interactions with food insecurity. Using this map in conjunction with the written definition of FSI can act as a 'jump start' to understanding food insecurity holistically and populating it in future research.

It is envisaged that these maps could be created to conceptualise food insecurity holistically in new contexts and be a useful tool for researchers endeavouring to apply the framework in other global north locations; this supports the transferability of the framework. These maps can demonstrate the results of the theoretical framework being transferred to other locations. Researchers using the FSI Framework, therefore, can present their findings to demonstrate the interaction of the contexts in their given case location.

### 9.2.5.3    *Application: The Value of a Holistic Approach to How We Understand Food Insecurity*

There is also a broader application of this approach. To understand the value and application of the FSI Framework it is important to return to Bartfeld and Dunifon's original 2006 theorisation. Their underlying premise was that all persons within a society can attribute their food status, at least in part, to the broader societal system, a so-called food security infrastructure. State FSI underpins the idea of how societal interactions on various levels can influence a person's ability to achieve and maintain food security. While the authors recognise the overarching impact of household resources (i.e. money), their approach draws attention to factors that either exacerbate or mitigate this, at both the structural and individual levels (Bartfeld and Dunifon, 2006, p. 923).

This notion implies that State FSI impacts each person in a society. As outlined in Chapter 3, the multiple societal forces, policies and culture at play can shield persons from food insecurity, help them achieve food security and stability, or potentially act as a barrier to this. The State FSI approach applies a narrative to explain why and how society influences food (in)security at various levels, creating a framework. State FSI acknowledges how a societal infrastructure is not always constructed for food security: some of the most significant policies, programmes and inputs that

impact food security are not directly food initiatives, such as general income support mechanisms (Schmidt, Shore-Sheppard and Watson, 2016; Bartfeld et al., 2006).

The holistic approach becomes extremely important should sufficient financial security not be an option for households. As Bartfeld and Dunifon found, economically vulnerable households were also very affected by different aspects of the food security infrastructure; hence, not only would households in poverty need increased financial stability, but so would those who are economically vulnerable. Holistic thinking and appreciation for contexts and their intersections aids moving conversations from simplifying the issue as just being about money, linking in part to the concept of context-driven intersectionality (McKinzie and Richards, 2019).

As McKinzie and Richards articulate, conducting research that roots in the contexts of political, historical, economic and social structures allows for intersectional analysis not simply in the intersections of identities but in the intersections of the structural conditions and injustices that inform lived experience (2019). This thesis's holistic approach to the FSI Framework lends to this understanding, as focusing on the contexts of what has made it easier or harder to be food secure in a global north location and showing *how* the social structures operate and persist aligns with McKinzie and Richards' view (2019). Moreover, the FSI Framework accounts for the directions and engagement between areas and a household, giving space to record how power structures and agency fit within it.

While income and finances are core, root causes of food insecurity, they are not the only elements; thus, there are many potentially viable inroads to supporting those at risk or experiencing food insecurity. Vulnerable households could theoretically be successfully supported financially so that they could 'buy' their way out of food insecurity, but that would require immense resources and political will. In acknowledgement of these constrains, once households do not have enough funds the issues become multiple, and increasingly intersecting, so viewing them holistically is necessary to offer practical support. Furthermore, in relation to context-driven intersectionality, the review of the power structures and social injustices offers focus outside simply cash and offers nuance and dimension to what contexts exhibit problematic or reinforcing difficulties towards food security (e.g. politicians' decisions to prioritise actions preferred by their voting block rather than by the needs of their constituents, such as through building applications, impacting food accessibility). Put simply, the application allows root causes to be more holistically viewed beyond finances towards a nuanced understanding of causes and potential solutions.

### 9.2.5.4 Application: Rethinking and Realigning Policy Responses

. Having an evidence-informed framework of the intersecting contexts creates an approach for academics to 'pull at the threads' of contexts, to show how meaningful action in some areas, such as housing costs, would be more beneficial than going with approaches that 'feel' most helpful or immediate to the problem – for example, food redistribution and emergency food assistance/charity. In short, the holistic FSI Framework can help demonstrate that food insecurity is not simply a food issue but that it reflects affordability and accessibility issues (see section 2.3) as well as the wider policy sphere (see section 3.1).

If a holistic understanding of food insecurity is adopted, this means that the other areas of support that are supplementary to income increases can be used to improve the situation without falling into today's embedded traps of charitable giving and food banks. The wide-scale policy and charitable approach of food banks is largely considered to not be a dignified form of food insecurity support (see section 4.2). Put simply, the holistic overview gives lived, experience-informed insights to governments and practitioners to address food insecurity through the avenues that are most needed in their location – for example, addressing the significant affordable and/or social housing shortage in their area so families have more disposable income for food (see section 3.1.4). Addressing food insecurity from a holistic approach can be compatible with movements such as cash-first and the right to food – a step away from the emergency food assistance system.

### 9.2.5.5 Transferability and Limitations

Transferability is discussed in section 6.3.3.2, drawing on the work of Nowell et al. and Lincoln and Guba, as the thesis has the specific aim of making the FSI Framework potentially transferable to multiple global north locations (Nowell et al., 2017; Lincoln and Guba, 1985). This thesis's literature reviewed in Chapters 2, 3 and 8 largely overlaps with the themes found in the FSI Framework. The findings in Chapters 7 and 8 complement the existing literature as well as extend knowledge and enable creation of the FSI Framework.

Moreover, the thesis's use of cases in the global north in two separate areas bolstered the finding that the FSI Framework was built to reflect both cases and contexts, and the shared crisis of Covid-19 acted as a unifying factor between the two cases. Put simply, the findings in Leeds and Fresno were so thematically similar, and similar to the literature, that they support the notion of transferability. Therefore, since these two global north locations with some shared and some dissimilar traits had overlapping themes, this supports that other global north locations may have similar occurrences and themes making the framework potentially applicable – albeit this should be determined by the FSI Framework's user in the transfer process.

A value of this thesis's work is expanding State FSI beyond the US state-to-state model while making it more general and informing it with qualitative thematic analysis. As reviewed within the adapted methodology, this thesis adopts Nowell et al. (2017) and Lincoln and Guba (1985)'s understanding of transferability. This understanding of how qualitative work fits within ideas of transferability lends itself well to thematic analysis between the two cases in this thesis. The thesis's thematic analysis demonstrated large overlaps between the cases but introduced the necessary appreciation that contexts will not always directly overlap. This works in supporting thematic transferability to other global north locations, given its thick description and format for application to other cases, again with the using researcher determining the appropriateness of this transfer.

Confidence in these themes underpinning the FSI Framework and its wider application is further bolstered by the strong mirroring of Payán et al.'s (2022) research, with near identical findings in the Central Valley of rural Latino immigrants facing food insecurity, and fieldwork happening at a similar time to this thesis. This thesis addresses a different population in the region (in the urban City of Fresno area and with no immigration status requirements) yet identifies extremely similar themes, while giving a structure and framework with which to view these themes holistically. Furthermore, the themes align well with the food insecurity literature prior to Covid-19 (Lambie-Mumford, 2017; Riches, 2018; Loopstra and Tarasuk, 2012 – see also Chapters 2 and 3). This gives further confidence that these themes could be flexible enough to include most findings from work in other locations outside of this specific pandemic.

This said, caution is required if solely utilising the FSI Framework with quantitative data. So much of the context and depth achieved in discovering these themes came specifically from the use of qualitative data, that eliminating this from its population process risks losing the advantages which the FSI Framework holds. Further research is needed to access how much of a risk or indeed benefit using quantitative data in this process is and how it relates to qualitative findings.

Based on this thesis, the FSI Framework supports US and UK cities in a shared crisis (Covid-19) as seen in Fresno and Leeds. Due to the generality of the themes and how well they align with other academic literature (see Chapters 2, 3, and earlier in this chapter), arguably, the FSI Framework could potentially apply to other global north cities. As the themes found in the literature align so closely with the findings of this thesis and there was repetition in themes between the cases, this FSI Framework and its definition support the notion of transferability.

Further research is encouraged to confirm how the FSI Framework operates in global north rural locations or towns; places where the researcher(s) does not have prior experience or connections; in

other devolved areas in the UK and US, such as Scotland and Texas; and in other countries where there is a strong history of food insecurity research to relate it to, such as Canada.

# 10 Chapter 9: Concluding Discussion

Based on the findings and the FSI Framework, there is an empirical, theoretical and methodological contribution to knowledge. Each of these is outlined in this chapter.

## 10.1 Empirical Contribution

The empirical contribution is the Covid-19 time-specific, qualitative data collected from Fresno and Leeds. This thesis provides a critical snapshot into food insecurity during the Covid-19 pandemic and helps cement into the record people's experiences, summarised in Table 12. It cannot be understated how all-encompassing Covid-19 has been since its outbreak, and it is pivotal to capture how people endured food insecurity during the pandemic. This empirical contribution both underpins this study and may act as a data source for future/other research into this period in these two locations. The wide-ranging nature of the interviews means that the insights and contribution provided by this analysis go beyond food (in)security –for example, shopping habits during Covid-19 are covered at length. While Fresno and Leeds are only two locations that felt the ramifications of the pandemic, this snapshot into this time is undeniably unique and valuable as a data source and for the public record as to the experiences of Covid-19.

## 10.2 Theoretical Contribution

The next contribution is theoretical through the FSI Framework, with both the definition provided in section 9.2.5 as well as the base map/mapping tool in Figure 32 and related graphics. This contribution a) expands and adapts an existing framework from the literature furthering existing knowledge; b) gives a theoretical FSI definition to work from, suiting authors and researchers in need of an umbrella term to encompass examining food insecurity holistically – a theoretical infrastructure' to build upon; and c) gives a visual framework in Figure 32 for authors and researchers to explore food insecurity contexts with in a particular location – a 'physical infrastructure' to work from. This multi-pronged approach offers a contribution that is varied and flexible, giving FSI Framework users the opportunity to act as the architects of FSI as they see fit with their data.

The FSI Framework and base map more generally can act as a launching point for a preliminary understanding of food insecurity as well as a research tool, both in populating one's own data within the visual map or using these themes/structure (identified in Table 13) as an evidence-base to direct

the operationalisation of future research questions. Academics and other practitioners can trust the framework, as it is informed by qualitative data, is built originally from a study using survey data with clear explanations for where it expands upon, and is related back to the literature. This all aligns with what has been reviewed in Chapters 5–8.

## 10.3 Methodological Contribution

The methodological contribution from this thesis is the unique situation of a cyberattack. As described in the Chapter 6, the survey data was not used because of the creation of a survey auto-responding bot. This situation was unique in some regards but, as discussed, there is literature particularly around how to prevent it – for example, Storozuk et al. (2020). In part, this thesis exposes how, in the social sciences methodological literature, there is a lack of formal recommendation or expectation for building in procedures to prevent, identify and resolve online survey issues. This thesis identifies that this may need to become a more standard practice in the field.

By detailing how this methodological issue affected the thesis's direction quite drastically, this thesis provides evidence for how one may adapt. Multiple angles can be viewed as valuable – simply telling the story of how this came about, review of how preventive measures could have been included, and the resolution was selected. The bot issue was presented at multiple conferences and workshops, with great interest from both early career and established researchers in political science and social policy. Such interest in hearing more of the situation and story of this methodological encounter led to the Best Methodological Contribution award at an early career Political Studies Association conference. Consistent feedback from academics about this issue was that it should be added as a contribution to the social sciences academic literature.

Given a thesis is a unique document in length and ambition, there is capacity for an honest account of how drastically this affected the direction of the research. The methodological contribution, therefore, is creating a record of one approach to handling a quite unexpected problem in the research process, which may prove useful and of interest for future researchers.

## 10.4 Value and Application of Contributions

These contributions to knowledge are significant, as they showcase the lived realities of food insecurity of this study's participants and have the potential to raise and present others' future experiences with the FSI Framework. At a basic level, one participant stated they felt it was so important for people like them to be asked about food insecurity, yet they are never heard. Despite the wealth of literature on the topic of food insecurity, some groups and populations have yet to be

consulted or at least do not feel represented in this space. If used thoughtfully, the FSI Framework can be an avenue for voices to be heard and elevated that have not been previously. The FSI Framework's embeddedness in participants' experiences helps avoid the pitfalls of deserving versus deservingness (and of losing agency under the external lens of vulnerability).

Moreover, the FSI Framework can be a visual tool to demonstrate to communities that their voices are being recorded and translated into policy advocacy – something that is often a goal in academic research but that is not always easy to facilitate. The mappable aspect of the framework particularly could prove a useful tool for communicating to others, such as policymakers, the experiences of people in food insecurity in their community in a holistic way. The holistic lens is important in this space in that as financial stability is a root cause of food insecurity, there are intersecting experiences and inroads that policymakers can use to alleviate or prevent for those vulnerable to food insecurity, such as improving the housing market to free up disposable income for food by approving/enforcing more affordable housing applications/requirements. This gives policymakers and practitioners a secondary level to address food insecurity (not based on food charity) while pursuing cash-first options. Without a holistic approach, these inroads would not be identified or evidence-based as linked to food insecurity.

Future iterations of the FSI Framework could be co-authored, co-produced and co-presented through the visual FSI map, then presented to policymakers or other figures. The FSI Framework map is user-friendly enough to be used by a range of actors, including the third sector or local action groups, and simple enough to interpretable by most audiences.

## 10.5 Limitations

The limitations of this study are primarily methodological. Due to the unused survey data, there is a missing element of triangulation that would have been valuable to supplement development of the FSI Framework development. Having this data included would have offered the chance to see how quantitative data can populate the framework. The decision to exclude the data entirely due to the bot issue was drastic – although one I stand by, as it was the most cautious approach. This means other researchers potentially would have used some of the data (i.e. when they felt certain it preceded the bot encounter), which could have changed the study's design and dataset. While this decision does present a limitation (e.g. many participants and their entries were no longer included in the study), avoiding false data was the prevailing concern.

Second, the small-scale qualitative work was originally planned to be a larger sample size. Due to Covid-19 restrictions, which limited recruitment approaches, and the limited funding and resources,

the number of participants was smaller and there was no recourse to return to recruitment. However, the interviews were comprehensive enough and provided an appropriate level of thematic repetition and trustworthiness (the alternative, non-positivist term for rigour) (see section 6.3.4).

Furthermore the double-edged sword of the project coinciding with the unique timing of the Covid-19 pandemic adds a layer of contribution to knowledge but was inherently limiting for me as a researcher. Limitations included practical problems, such as in-person recruitment no longer being an option, while physical limitations were also present, as I caught Covid-19 three times over the course of the study and experienced deteriorated mental health.

## 10.6  Further Research Agendas

This study creates exciting prospects for future research. Most pressingly, testing the FSI Framework in more locations will be valuable in assessing both its accuracy and practical application. It is suggested that the framework be a) tested in towns and rural locations to check for applicability; b) re-tested in the same or similar locations in the US and UK to confirm the themes identified are accurate outside of Covid-19; and c) explored in countries other than the US and England, such as Canada and Ireland where there is likely to be overlap but perhaps new elements introduced, to gather further contexts.

## 10.7  Conclusion

This thesis aimed to explore the contexts of what makes it easier or harder to be or remain food insecure, with particular attention to the Covid-19 pandemic. As the issues and topics that relate to food insecurity are so vast and interconnected, it can be difficult to discuss these contexts holistically, even when identified. To address this difficulty, this thesis reconceptualised Bartfeld and Dunifon's (2006) State FSI model into an adapted, visual framework of food insecurity, applicable in global north contexts. This multi-case study, originally designed as a mixed-methods global north city study, in practice utilised qualitative data from two case locations: Leeds, England, and Fresno, California.

The empirical data findings were analysed, resulting in 10 themes, using thematic analysis: food acquisition, diet, support structures, money and budgets, work and wages, family and children, home and location, culture, politics and trust, and emotions and attitudes. These themes, with near-identical overlap in the two locations, highlighted the interconnectivity of the issues and their vast reach, and fit into the understanding of Figures 8 and 9 (policy, and political environment and cultural framing, respectively) in the literature review stage. These themes then informed the adapted FSI framework.

The FSI Framework's theoretical contribution was both conceptualised as a written definition, the themes identified in Table 13, and a mappable, visual tool for mapping data and for future research use. Its written definition is:

*The Food Security Infrastructure (FSI) Framework provides an adaptable and operationalisable framework of the contextual conditions and attributes that influence one's food (in)security status, with focus on the availability, accessibility, and affordability of food within one's life.*

The visual FSI Framework base map in Figure 32 provided a series of mapping tools that allow for a flexible application for future use, with the overall goal of providing a manageable space and form to discuss food insecurity contexts holistically. A feature of the FSI Framework design is its flexibility and the chance to continue its development as it is applied in more cases and, thus, a continued, renewing contribution to knowledge.

Additionally, as an important contribution to knowledge and the literature, the data from the cases shines critical insight into food insecurity during the Covid-19 pandemic; a needed contribution that will have a lasting effect. Covid-19 may have lingering effects well beyond the time of this thesis's submission, but the data collection period of 2021 was a unique and peculiar time in history. Understanding the experiences of food insecurity from those actively living it can provide lessons for future crises and pandemics. Furthermore, this thesis details the research process during the Covid-19 pandemic, presenting its limitations and acknowledging them throughout. The data offers a time capsule of sorts for Covid-19 and the research process recorded here also serves a log of Covid-19's impact on academia.

This thesis started with the aim of exploring the contexts of food insecurity holistically, but its nature and importance grew, as it was largely conducted during the pandemic and, as a result, was adapted significantly. Moreover, large methodological changes had to be made due to the cyberattack. Despite these challenges, the thesis provides powerful insights into how we might understand food security in a holistic way in the future and, in the context of this thesis, food security within a pandemic.

# 11 References

Afulani, P. et al. (2015). Food insecurity and health outcomes among older adults: The role of cost-related medication underuse. *Journal of Nutrition in Gerontology and Geriatrics*, 34(3), 319–342. [Online]. Available at: doi:10.1080/21551197.2015.1054575 [Accessed 01 February 2020].

Aguilar, A. (2022). $2 million grant aims to improve food access among Fresno youth. Fresno: *ABC30*. [Online]. 04 April 2022. Available at: https://abc30.com/food-insecurity-fresno/11617641/ [Accessed 03 August 2023].

All Party Parliamentary Group (APPG) on Hunger and Food Poverty. (2014). Feeding Britain: A strategy for zero hunger in England, Wales, Scotland and Northern Ireland. *All-Party Parliamentary Inquiry into Hunger in the United Kingdom*. [Online]. Available at: https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-feeding-britain-final.pdf [Accessed 06 December 2023].

Alvares, L. and Amaral, T. F. (2014). Food insecurity and associated factors in the Portuguese population. *Food and Nutrition Bulletin*, 35(4), 395–402. [Online]. Available at: doi:10.1177/156482651403500401 [Accessed 06 December 2023].

Andersson, J. (2020). Free school meals: Rishi Sunak warned plans to scrap voucher scheme are 'uncaring and lacking in compassion'. *iNews*. [Online]. Last updated: 08 June 2020. https://www.urban.org/sites/default/files/publication/25626/412613-SNAP-s-Role-in-the-Great-Recession-and-Beyond.PDFAvailable at: https://inews.co.uk/news/education/free-school-meals-voucher-scheme-plans-scrap-rishi-sunak-childrens-commissioner-440960 [Accessed 08 June 2020].

Anon. (2019). *Report of registration as of February 10, 2019*. [Online]. Available at: https://elections.cdn.sos.ca.gov/ror/ror-odd-year-2019/county.pdf [Accessed 07 August 2023].

Apparicio, P., Cloutier, M. S. and Shearmur, R. (2007). The case of Montréal's missing food deserts: Evaluation of accessibility to food supermarkets. *International Journal of Health Geographics*, 6, 1–13. [Online]. Available at: doi:10.1186/1476-072X-6-4 [Accessed 12 November 2019].

Auguste, D., Roll, S. and Despard, M. (2022). Democratizing the economy or introducing economic risk? Gig work during the COVID-19 pandemic. *Social Policy Institute Research*, 63. [Online]. Available at: https://doi.org/10.7936/qkp4-np98 [Accessed 11 August 2023].

Baldassare, M. et al. (2021). *PPIC statewide survey: Californians and their government*. San Francisco, CA: Public Policy Institute of California.

Barker, M. et al. (2018). Food security, nutrition and health of food bank attendees in an English city: A cross-sectional study. *Journal of Hunger and Environmental Nutrition,* 14(1), 155–167. Available at: https://doi.org/10.1080/19320248.2018.1491365 [Accessed 06 May 2023].

Barlow, P. et al. (2020). Liberal trade policy and food insecurity across the income distribution: An observational analysis in 132 countries, 2014–17. *The Lancet Global Health*, 8(8), e1090–e1097. [Online]. Available at: doi:10.1016/S2214-109X(20)30263-1 [Accessed 14 August 2020].

Bartfeld, J. and Dunifon, R. (2006). State-level predictors of food insecurity among households with children. *Journal of Policy Analysis and Management*, 25(4), 921–942. [Online]. Available at: doi:10.1002/pam [Accessed 27 February 2020].

Bartfeld, J. et al. (2006). *What factors account for state-to-state differences in food security?* Washington DC: USDA.

Baskin, K. (2020). *Food insecurity in the age of COVID-19*. [Online]. TuftsNow. Last updated: 30 April 2020. Available at: https://now.tufts.edu/articles/food-insecurity-age-covid-19 [Accessed 18 August 2020].

Beaulac, J., Kristjansson, E. and Cummins, S. (2009). A systematic review of food deserts, 1966–2007. *Preventing Chronic Disease*, 6(3), A105. PMID: 19527577.

Belot, M. and James, J. (2011). Healthy school meals and educational outcomes. *Journal of Health Economics*, 30(3), 489–504. Available at: doi: 10.1016/j.jhealeco.2011.02.003.

Belyakov, A. (2015). From Chernobyl to Fukushima: An interdisciplinary framework for managing and communicating food security risks after nuclear plant accidents. *Journal of Environmental Studies and Sciences*, 5(3), 404–417. [Online]. Available at: doi:10.1007/s13412-015-0284-2 [Accessed 10 March 2023].

Bengle, R. A. (2009). *Food insecurity and cost-related medication non-adherence in a population of community-dwelling, low-income older adults in Georgia*. Master's thesis, University of Georgia, Athens, GA.

Benker, B. (2021). Stockpiling as resilience: Defending and contextualising extra food procurement during lockdown. *Appetite*, 156. [Online]. Available at: doi:10.1016/j.appet.2020.104981 [Accessed 08 August 2023].

Berkowitz, S. A., Seligman, H. K. and Choudhry, N. K. (2014). Treat or eat: Food insecurity, cost-related medication underuse, and unmet needs. *American Journal of Medicine*, 127(4), 303–310.e3. [Online]. Available at: doi:10.1016/j.amjmed.2014.01.002 [Accessed 02 January 2020].

Bickel, G. et al. (2000). *Guide to measuring household food security*. Available at: https://ageconsearch.umn.edu/record/337157 [Accessed 21 December 2023].

Bircher, J. and Kuruvilla, S. (2014). Defining health by addressing individual, social, and environmental determinants: New opportunities for health care and public health. *Journal of Public Health Policy*, 35(3), 363–386. Available at: doi: 10.1057/jphp.2014.19.

Blake, M. K. (2019). More than just food: Food insecurity and resilient place making through community self-organising. *Sustainability (Switzerland)*, 11(10). [Online]. Available at: doi:10.3390/su11102942 [Accessed 19 May 2020].

Blake, M. K. (2021). Building post-COVID community resilience by moving beyond emergency food support. In Bryson, J. R. et al. (Eds). *Living with pandemics: Places, people and policy*. Cheltenham: Edward Elgar Publishing. Pp. 59–68.

Blanchflower, D. and Machin, S. (2014). Falling real wages. *Centre Piece*, Paper number: CEPCP422.

Blanton, R. G. and Peksen, D. (2016). Economic liberalisation, market institutions and labour rights. *European Journal of Political Research*, 55(3), 474–491. [Online]. Available at: doi:10.1111/1475-6765.12137 [Accessed 18 August 2020].

Blinkhorn, A. and Zadeh-Kabir, R. (2003). Dental care of a child in pain – a comparison of treatment planning options offered by GDPs in California and the north-west of England. *International Journal of Paediatric Dentistry*, 13(3), 165–171. [Online]. Available at: doi:10.1046/j.1365-263X.2003.00454.x [Accessed 04 January 2021].

Blössner, M. (2007). School health, nutrition and education for all: Levelling the playing field. *Bulletin of the World Health Organization*, 87(1), 75. [Online]. Available at: doi:10.2471/blt.08.059519 [Accessed 08 June 2020].

Blumenberg, E. et al. (2021). Regional differences in the impact of the COVID-19 pandemic on food sufficiency in California, April–July 2020: Implications for food programmes and policies. *Public Health Nutrition*, 24(11), 3442–3450. [Online]. Available at: doi:10.1017/S1368980021001889 [Accessed 14 August 2023].

Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research*, 19(4), 426–432. [Online]. Available at: doi:10.1108/QMR-06-2016-0053 [Accessed 16 November 2020].

Booth, R. (2020). Food banks run out of milk and other staples as shoppers panic-buy. *The Guardian*. [Online]. Last updated: 10 March 2020. Available at:

https://www.theguardian.com/world/2020/mar/10/food-banks-run-out-of-milk-and-other-staples-as-shoppers-panic-buy-coronavirus [Accessed 25 May 2020].

Booth, S. and Whelan, J. (2014). Hungry for change: The food banking industry in Australia. *British Food Journal*, 116(9), 1392–1404. [Online]. Available at: doi:10.1108/BFJ-01-2014-0037 [Accessed 07 January 2020].

Boswell, J., Corbett, J. and Rhodes, R. A. W. (2019). *The art and craft of comparison*. Cambridge: Cambridge University Press. [Online]. Available at: doi:10.1017/9781108561563.

Boyd Orr, J. (1936). *Food health and income*. London:MacMillan.

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. [Online]. Available at: doi:10.1191/1478088706qp063oa [Accessed 01 August 2020].

Bread for the World Institute. (2016). *2016 hunger report the nourishing effect: Ending hunger, improving heath, reducing inequality*. Washington DC: Bread for the World Institute.

Broca, S. (2002). *Food insecurity, poverty and agriculture: A concept paper*. No. 02–15. Agricultural and Development Economics Division (ESA), Food and Agriculture Organization, Rome.

Broca, S. and Stamoulis, K. (2003). *Micro- and macroevidence on the impact of undernourishment*. Agricultural and Development Economics Division (ESA), Food and Agriculture Organization, Rome.

Brooks, S. and Loevinsohn, M. (2011). Shaping agricultural innovation systems responsive to food insecurity and climate change. *Natural Resources Forum*, 35(3), 185–200. [Online]. Available at: doi:10.1111/j.1477-8947.2011.01396.x [Accessed 07 January 2020].

Broughton, M. A. et al. (2006). Predictors and outcomes of household food insecurity among inner city families with preschool children in Vancouver. *Canadian Journal of Public Health*, 97(3), 214–216. [Online]. Available at: https://www.jstor.org/stable/41994727 [Accessed 10 February 2020].

Brown, E. M. and Tarasuk, V. (2019). Money speaks: Reductions in severe food insecurity follow the Canada Child Benefit. *Preventive Medicine*, 129, 105876. [Online]. Available at: doi:10.1016/j.ypmed.2019.105876 [Accessed 24 March 2020].

Brown, J. L., Beardslee, W. H. and Prothrow-Stith, D. (2008). *Impact of school breakfast on children's health and learning*. Gaithersburg, MD: Sodexo Foundation.

Bruening, M. et al. (2012). Feeding a family in a recession: Food insecurity among Minnesota parents. *American Journal of Public Health*, 102(3), 520–526. [Online]. Available at: doi:10.2105/AJPH.2011.300390 [Accessed 06 January 2020].

Brug, J. et al. (2010). Evidence-based development of school-based and family-involved prevention of overweight across Europe: The ENERGY-project's design and conceptual framework. *BMC Public Health*, 10(1), 276. [Online]. Available at: doi:10.1186/1471-2458-10-276 [Accessed 08 June 2020].

Bryman, A. (2016). *Social research methods*. 5th ed. Oxford: Oxford University Press.

Brzozowski, H. (2017). *Private rented market in Leeds*. (06205180), Leeds City Council. [Online]. Available at:
https://democracy.leeds.gov.uk/documents/s171089/BACKGROUND%20DOCUMENT%2001b%20Private%20Rented%20Market%20in%20Leeds.pdf [Accessed 21 December 2023].

Buchanan, E. M. and Scofield, J. E. (2018). Methods to detect low quality data and its implication for psychological research. *Behavior Research Methods*, 50, 2586–2596. Available at: https://doi.org/10.3758/s13428-018-1035-6 [Accessed: 12 June 2023].

Bulman, M. and Somerville, E. (2019). Universal credit: DWP 'bans jobcentres from referring people to food banks'. *The Independent*. [Online]. 08 February 2019. Available at: https://www.independent.co.uk/news/uk/home-news/food-banks-universal-credit-dwp-jobcentres-uk-a8769921.html [Accessed 09 September 2020].

Burns, C. (2004). A review of the literature describing the link between poverty, food insecurity and obesity with specific reference to Australia. *VicHealth Lit Review*. Available at: https://www.vichealth.vic.gov.au/sites/default/files/Literature-Review-Poverty_Obesity_Food-Insecurity.pdf [Accessed 20 January 2020].

Bushwell, G. T. (1958). A comparison of achievement in arithmetic in England, California, and St. Paul. *The Arithmetic Teacher*, 5(1), 1–9. [Online]. Available at: doi:10.5951/at.6.2.0087 [Accessed 27 November 2020].

Butler, P. (2020). UK food banks face record demand in coronavirus crisis. *The Guardian*. [Online]. 01 May 2020. Available at: https://www.theguardian.com/society/2020/may/01/uk-food-banks-face-record-demand-in-coronavirus-crisis [Accessed 19 May 2020].

Cafiero, C. (2014). Advances in hunger measurement. Traditional FAO methods and recent innovations. *FAO Statistics Division. Working paper series*, (ESS/14-04), Rome: FAO. Available at:

https://www.fao.org/fileadmin/templates/ess/ess_test_folder/Food_security/Cafiero_Global_Food_Security.pdf [Accessed 14 April 2014].

Cairney, P. and Wellstead, A. (2021). COVID-19: Effective policymaking depends on trust in experts, politicians, and the public. *Policy Design and Practice*, 4(1), 1–14. [Online]. Available at: doi:10.1080/25741292.2020.1837466 [Accessed 07 August 2020].

Capodistrias, P. et al. (2022). European food banks and COVID-19: Resilience and innovation in times of crisis. *Socio-Economic Planning Sciences*, 82, 101187. [Online]. Available at: doi:10.1016/j.seps.2021.101187.

Caraher, M. and Cavicchi, A. (2014). Old crises on new plates or old plates for a new crises? Food banks and food insecurity. *British Food Journal*, 116(9). [Online]. Available at: doi:10.1108/BFJ-08-2014-0285 [Accessed 13 May 2020].

Caraher, M. and Coveney, J. (2015). Food Poverty and insecurity: The poor in a world of global austerity. In Caraher, M., Coveney, J. (Eds). *Food poverty and insecurity: International food inequalities*. Cham, Switzerland: Springer. [Online]. Available at: doi:10.1007/978-3-319-23859-3_1.

Caraher, M. and Coveney, J. (2016). *Food poverty and insecurity: International food inequalities*. Cham, Switzerland: Springer.

Caraher, M. and Furey, S. (2017). Is it appropriate to use surplus food to feed people in hunger? Short-term Band-Aid to more deep-rooted problems of poverty. *Food Research Collaboration*, 258(2), 726–742. [Online]. Available at: http://dx.doi.org/10.1016/j.ejor.2016.08.065 [Accessed 18 May 2020].

Carimentrand, A. et al. (2015). Creating new links between agriculture and food aid: New perspectives from France. In Caraher, M., Coveney, J. (Eds). *Food poverty and insecurity: International food inequalities*. Cham, Switzerland: Springer, pp. 67–77. [Online]. Available at: doi:10.1007/978-3-319-23859-3_7.

Carminati, L. (2018). Generalizability in qualitative research: A tale of two traditions. *Qualitative Health Research*, 28(13), 2094–2101. [Online]. Available at: doi:10.1177/1049732318788379 [Accessed 11 October 2023].

Carney, C. and Maître, B. (2012). *Constructing a food poverty indicator for Ireland using the survey on income and living conditions*. Dublin, Department of Social Protection Arás MhicDhiarmada.

Carney, M. (2012). Compounding crises of economic recession and food insecurity: A comparative study of three low-income communities in Santa Barbara County. *Agriculture and Human Values*,

29(2), 185–201. [Online]. Available at: doi:10.1007/s10460-011-9333-y [Accessed 11 December 2019].

Carney, M. (2015a). Introduction. In *The unending hunger: Tracing women and food insecurity across borders*. Oakland: University of California Press. Pp. 15–48. [Online]. Available at: doi:10.1017/CBO9781107415324.004.

Carney, M. (2015b). *The unending hunger: Tracing women and food insecurity across borders*. Oakland: University of California Press.

Carney, M. A. (2020). Immigration/migration and healthy publics: The threat of food insecurity. *Palgrave Communications*, 9(93), 1–12. [Online]. Available at: doi:10.1057/s41599-020-0461-0.

Carolan, M. (2011). *The real cost of cheap food*. 2nd ed. New York: Routledge. [Online]. Available at: doi:10.4324/9781315113234 [Accessed 28 November 2019].

Carolsfeld, A. L. and Erikson, S. L. (2013). Beyond desperation: Motivations for Dumpster™ diving for food in Vancouver. *Food and Foodways*, 21(4), 245–266. [Online]. Available at: doi:10.1080/07409710.2013.849997 [Accessed 06 December 2019].

Carter, K. N. et al. (2011). The association of food security with psychological distress in New Zealand and any gender differences. *Social Science and Medicine*, 72(9), 1463–1471. [Online]. Available at: doi:10.1016/j.socscimed.2011.03.009 [Accessed 11 December 2019].

Cavaye, A. L. M. (1996). Case study research: A multi-faceted research approach for IS. *Info Systems Journal*, 6 (3), 227–242. Available at: https://doi.org/10.1111/j.1365-2575.1996.tb00015.x [Accessed 6 December 2020]

Census.gov. (2019). *U.S. Census Bureau QuickFacts: Fresno City, California*. [Online]. U.S. Department of Commerce. Last updated: 14 September 2023. Available at: https://www.census.gov/quickfacts/fresnocitycalifornia [Accessed 04 January 2021].

Center on Budget and Policy Priorities. (2019). *Policy basics: The Supplemental Nutrition Assistance Program (SNAP)*. [Online]. Center on Budget and Policy Priorities. Last updated: 09 June 2022. Available at: https://www.cbpp.org/research/food-assistance/policy-basics-the-supplemental-nutrition-assistance-program-snap [Accessed 10 June 2020].

Charilaou, L. and Vijaykumar, S. (2023). Influences of news and social media on food insecurity and hoarding behavior during the COVID-19 pandemic. *Disaster Medicine and Public Health Preparedness*, 17, E58. [Online]. Available at: doi:10.1017/dmp.2021.315 [Accessed 08 August 2023].

Charmaz, K. (2008). Constructionism and grounded theory. In Holstein, J. A. and Gubrium, J. F. (Eds). *Handbook of constructionist research*. New York: The Guilford Press. Pp. 397–412.

Chen, J. and Che, J. (2001). Food insecurity in Canadian households [1998/99 data]. *Health Reports*, 12(4), 11.

Chung, C. and Myers Jr, S. L. (1999). Do the poor pay more for food? An analysis of grocery store availability and food price disparities. *Journal of Consumer Affairs*, 33(2), 276–296. Available at: https://doi.org/10.1111/j.1745-6606.1999.tb00071.x [Accessed 28 November 2019].

Church Action on Poverty. (2018). *Step up to the plate towards a UK food and poverty strategy*. Salford: Church Action on Poverty.

Clair, A. et al. (2019). The housing situations of food bank users in Great Britain. *Social Policy and Society*, 19, 55–73. [Online]. Available at: doi:10.1017/S1474746419000150 [Accessed 24 February 2020].

Clarke, G., Eyre, H. and Guy, C. (2002). Deriving indicators of access to food retail provision in British cities: Studies of Cardiff, Leeds and Bradford. *Urban Studies*, 39(11), 2041–2060. [Online]. Available at: doi:10.1080/0042098022000011353 [Accessed 07 July 2023].

Cloke, P., May, J. and Williams, A. (2017). The geographies of food banks in the meantime. *Progress in Human Geography*, 41(6), 703–726. [Online]. Available at: doi:10.1177/0309132516655881 [Accessed 26 May 2020].

Coates, J. et al. (2006). Commonalities in the experience of household food insecurity across cultures: What are measures missing? *The Journal of Nutrition*, 136(5), 1438S-1448S. [Online]. Available at: doi:10.1093/jn/136.5.1438S [Accessed 13 November 2019].

Cohen, N., Poppendieck, J. and Freudenberg, N. (2017). Food justice in the Trump age: Priorities for urban food advocates. *Journal for Food Law and Policy*, 13(1), 43–56. Available at: https://scholarworks.uark.edu/jflp/vol13/iss1/10 [Accessed 9 October 2019].

Coleman-Jensen, A., Rabbitt, M. P. and Gregory, C. A. (2016). Household food security in the United States in 2015. *U.S. Department of Agriculture, Economic Research Service*, ERR-215 (September), pp .1–44.

Coleman-Jensen, A. et al. (2019a). Household food security in the United States in 2013. *U.S. Household Food Security: Statistics and Analysis for 2014*, ERR-270 (ERR-173). [Online]. Available at: doi:10.2139/ssrn.2504067.

Coleman-Jensen, A. et al. (2019b). Household food security in the United States in 2018. *U.S. Household Food Security: Statistics and Analysis for 2014*, ERR-270. [Online]. Available at: doi:10.2139/ssrn.2504067.

Collins, L. (2004). The impact of food insecurity on women's mental health: How it negatively affects children's health and development. *Journal of the Association for Research on Mothering*, 11(1), 251–262. Available at: https://jarm.journals.yorku.ca/index.php/jarm/article/view/22523 [Accessed: 7 December 2023].

Committee on Economic Social and Cultural Rights. (1999). *CESCR General Comment No. 12: The Right to Adequate Food (Art. 11)*.

Connolly, A. (2018). *A view from the front line, rising food bank use in an independent food bank*. [Online]. End Hunger. Last updated: 27 April 2018. Available at: https://www.endhungeruk.org/2018/04/27/328-2/ [Accessed 26 May 2020].

Connors, C. et al. (2020). *The lived experience of food insecurity under Covid-19*. [Online]. Available at: https://www.food.gov.uk/sites/default/files/media/document/fsa-food-insecurity-2020_-report-v5.pdf [Accessed 14 August 2023].

Cook, C. (2016). Regulating the risks of domestic greywater reuse: A comparison of England and California. *Built Environment*, 42(2), 230–242. [Online]. Available at: doi:10.2148/benv.42.2.230 [Accessed 08 March 2021].

Cooney, P. and Shaefer, L. (2021). *Material hardship and mental health following the Covid-19 Relief Bill and American Rescue Plan Act*. Ann Arbor, MI: Poverty Solutions, University of Michigan. Available at: https://sites.fordschool.umich.edu/poverty2021/files/2021/05/PovertySolutions-Hardship-After-COVID-19-Relief-Bill-PolicyBrief-r1.pdf [Accessed 02 July 2023].

Cooper, N. and Dumpleton, S. (2013). *Walking the breadline: The scandal of food poverty in 21st century Britain*. (May). Oxford: Oxfam.

Cooper, N., Purcell, S. and Jackson, R. (2013). *Below the breadline: The relentless rise of food poverty in Britain*.

Corbetta, P. (2011). Paradigms of social research. *Social Research: Theory, Methods and Techniques*. London: SAGE Publications, pp. 8–29. [Online]. Available at: doi:10.4135/9781849209922.n1 [Accessed 13 January 2021].

Corcoran, M. P. (2021). Beyond 'food apartheid': Civil society and the politicization of hunger in New Haven, Connecticut. *Urban Agriculture & Regional Food Systems*, 6(1), e20013. Available at: https://doi.org/10.1002/uar2.20013 [Accessed 07 August 2023].

Coulson, H. and Sonnino, R. (2019). Re-scaling the politics of food: Place-based urban food governance in the UK. *Geoforum*, 98, 170–179. [Online]. Available at: doi:10.1016/j.geoforum.2018.11.010 [Accessed 02 March 2021].

Council for Advancement and Support of Education (n.d.). *COVID-19 response legislation*. [Online]. CASE.org. Last updated: Day Month Year. Available at: https://www.case.org/resources/covid-19-response-legislation [Accessed 02 July 2023].

Cox, R. and Wallace, S. (2016). Identifying the link between food security and incarceration. *Southern Economic Journal*, 82(4), 1062–1077. [Online]. Available at: doi:10.1002/soej.12080 [Accessed 30 July 2020].

Crawford, B. et al. (2014). Sustaining dignity? Food insecurity in homeless young people in urban Australia. *Health Promotion Journal of Australia*, 25(2), 71–78. [Online]. Available at: doi:10.1071/HE13090 [Accessed 10 August 2020].

Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches*. 3rd ed. Thousand Oaks, CA: Sage Publications.

Creswell, J. W. and Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. 4th ed. London: Sage Publications.

Criado Perez, C. (2019). *Invisible Women: Data Bias in a World Designed for Men*. New York, NY: Abrams Press. Available at: https://doi.org/10.5860/crl.82.3.456

Crossley, S., Garthwaite, K. and Patrick, R. (2019). *The fragmentation of poverty in the UK: What's the problem?*. [Online]. Available at: https://cpag.org.uk/sites/default/files/files/policypost/CPAG-Poverty165-UK-poverty-whats-the-problem-Feb-2020.pdf [Accessed 07 December 2023].

Cummins, S. and Macintyre, S. (1999). The location of food stores in urban areas: A case study in Glasgow. *British Food Journal*, 101(7), 545–553. [Online]. Available at: doi:10.1108/00070709910279027 [Accessed 11 December 2019].

Curtice, J. et al. (Eds). (2019). *British social attitudes*. The 36th Report. London: The National Centre for Social Research. [Online]. Available at: https://bsa.natcen.ac.uk/media/39363/bsa_36.pdf [Accessed 15 September 2023].

CVS Health. (2022). *Alleviating food insecurity in Fresno, California*. [Online]. Available at: https://www.cvshealth.com/news/community/alleviating-food-insecurity-in-fresno-california.html [Accessed 03 August 2023].

Cytron, N. (2009). *The enduring challenge of concentrated poverty in America*. *Case studies from communities across the US*. The Brookings Institute. [Online]. Available at: https://www.brookings.edu/wp-content/uploads/2016/06/1024_concentrated_poverty.pdf [Accessed 7 December 2023].

Dachner, N. and Tarasuk, V. (2002). Homeless 'squeegee kids': Food insecurity and daily survival. *Social Science and Medicine*, 54(7), 1039–1049. [Online]. Available at: doi:10.1016/S0277-9536(01)00079-X [Accessed 10 August 2020].

Darmon, N. and Drewnowski, A. (2015). Contribution of food prices and diet cost to socioeconomic disparities in diet quality and health: A systematic review and analysis. *Nutrition Reviews*, 73(10), 643–660. [Online]. Available at: doi:10.1093/nutrit/nuv027 [Accessed 19 December 2020].

Darmon, N., Ferguson, E. L. and Briend, A. (2002). A cost constraint alone has adverse effects on food selection and nutrient density: An analysis of human diets by linear programming. *The Journal of Nutrition*, 132(12), 3764–3771. [Online]. Available at: doi:10.1093/jn/132.12.3764 [Accessed 18 December 2020].

Data Journalism Team. (2023). *Covid inquiry: The UK pandemic in numbers*. [Online]. BBC News. Last updated: 05 July 2023. Available at: https://www.bbc.co.uk/news/uk-51768274 [Accessed 19 June 2023].

Davis, B. and Tarasuk, V. (1994). Hunger in Canada. *Agriculture and Human Values*, 11(4), 50–57. [Online]. Available at: doi:10.1007/BF01530416 [Accessed 12 November 2019].

Davis, O. and Geiger, B. B. (2017). Did food insecurity rise across Europe after the 2008 crisis? An analysis across welfare regimes. *Social Policy and Society*, 16(3), 343–360. [Online]. Available at: doi:10.1017/S1474746416000166 [Accessed 15 December 2019].

Dekkinga, P., van der Horst, H. and Andriessen, T. (2022). 'Too big to fail': The resilience and entrenchment of food aid through food banks in the Netherlands during the COVID-19 pandemic. *Food Security*, 14(3), 781–789. [Online]. Available at: doi:10.1007/s12571-022-01260-5 [Accessed 05 June 2023].

Department for Digital Culture Media & Sport. (2020). *£16 million for food charities to provide meals for those in need*. [Online]. GOV.UK. Last updated: 08 May 2020. Available at:

https://www.gov.uk/government/news/16-million-for-food-charities-to-provide-meals-for-those-in-need [Accessed 19 May 2020].

DeVault, M. (1991). *Feeding the family: The social organization of caring as gendered work*. Chicago: University of Chicago Press.

Dilonardo, M. J. (2020). *Why food banks are so overwhelmed right now*. [Online]. Mother Nature Network. Available at: https://www.mnn.com/health/fitness-well-being/stories/food-banks-struggling-coronavirus-pandemic [Accessed 02 June 2020].

Doak, C. M. et al. (2006). The prevention of overweight and obesity in children and adolescents: A review of interventions and programmes. *Obesity Reviews*, 7(1), 111–136. [Online]. Available at: doi:10.1111/j.1467-789X.2006.00234.x [Accessed 08 June 2020].

Dondi, A. et al. (2021). Parents' perception of food insecurity and of its effects on their children in Italy six months after the COVID-19 pandemic outbreak. *Nutrients*, 13(1), 1–20. [Online]. Available at: doi:10.3390/nu13010121 [Accessed 14 August 2023].

Dong, K. R. et al. (2018a). Food acquisition methods and correlates of food insecurity in adults on probation in Rhode Island. *PloS ONE*, 13(6), 1–18. [Online]. Available at: doi:10.1371/journal.pone.0198598 [Accessed 12 March 2020].

Dong, K. R. et al. (2018b). Food Insecurity, morbidities, and substance use in adults on probation in Rhode Island. *Journal of Urban Health*, 95(4), 564–575. [Online]. Available at: doi:10.1007/s11524-018-0290-2 [Accessed 14 August 2020].

Dooley, L. M. (2002). Case Study research and theory building. *Advances in Developing Human Resources*, 4(3), 335–354. Available at: https://doi.org/10.1177/1523422302043007 [accessed 06 June 2023].

DoSomething.org. (n.d.) *11 facts about food banks*. [Online]. DoSomething.org. Last updated: Day Month Year. Available at: https://www.dosomething.org/us/facts/11-facts-about-food-banks [Accessed 19 May 2020].

Dowler, E. (2014). Food banks and food justice in 'Austerity Britain'. In Riches, G. and Silvasti, T. (Eds). *First world hunger revisited: Food charity or the right to food?* London: Palgrave Macmillan. Pp. 160–175. [Online]. Available at: doi:10.1057/9781137298737_12 [Accessed 28 November 2019].

Dowler, E. A. and O'Connor, D. (2012). Rights-based approaches to addressing food poverty and food insecurity in Ireland and UK. *Social Science & Medicine*, 74(1), 44–51. Available at: https://doi.org/10.1016/j.socscimed.2011.08.036 [Accessed 14 November 2019].

Dowler, E. and Lambie-Mumford, H. (2015a). How can households eat in austerity? Challenges for social policy in the UK. *Social Policy and Society*, 14(3), 417–428. [Online]. Available at: doi:10.1017/S1474746415000032 [Accessed 28 November 2019].

Dowler, E. and Lambie-Mumford, H. (2015b). Introduction: Hunger, food and social policy in austerity. *Social Policy and Society*, 14(3), 411–415. [Online]. Available at: doi:10.1017/S1474746415000159 [Accessed 19 November 2019].

Dowler, E., Turner, S. A. and Dobson, B. (2001). *Poverty bites: Food, health and poor families*. London: Child Action Poverty Group.

Drewnowski, A. and Specter, S. E. (2004). Poverty and obesity: The role of energy density and energy costs. *American Journal of Clinical Nutrition*, 79(1), 6–16. [Online]. Available at: doi:10.1093/ajcn/79.1.6 [Accessed 18 December 2019].

Duffy, P. A. and Zizza, C. A. (2016). Food insecurity and programs to alleviate it: What we know and what we have yet to learn. 2016/03/29. *Journal of Agricultural and Applied Economics*, 48(1), 1–28. [Online]. Available at: doi:10.1017/aae.2016.4 [Accessed 11 October 2019].

Dupuis, M., Meier, E. and Cuneo, F. (2019). Detecting computer-generated random responding in questionnaire-based data: A comparison of seven indices. *Behavior Research Methods*, 51(5), 2228–2237. [Online]. Available at: doi:10.3758/s13428-018-1103-y [Accessed 12 June 2023].

Duque, R. B. (2021). Black health matters too… especially in the era of Covid-19: How poverty and race converge to reduce access to quality housing, safe neighborhoods, and health and wellness services and increase the risk of co-morbidities associated with global pandemics. *Journal of Racial and Ethnic Health Disparities*, 8(4), 1012–1025. [Online]. Available at: doi:10.1007/s40615-020-00857-w/Published [Accessed 14 August 2023].

Earle, R. and Phillips, C. (2012). Digesting men? Ethnicity, gender and food: Perspectives from a 'prison ethnography'. *Theoretical Criminology*, 16(2), 141–156. [Online]. Available at: doi:10.1177/1362480612441121 [Accessed 7 September 2020].

Eberechukwu, J. I., Cynthia, N. O. and Amaka, P. N. (2018). Drivers and socioeconomic factors influencing individual and household adaptation to climate change: A case study of residents of Leeds, UK. *Journal of Development and Agricultural Economics*, 10(9), 279–291. [Online]. Available at: doi:10.5897/jdae2018.0956 [Accessed 7 July 2020].

Eckart, W. (1999). Nach bestem Vermögen tatkräftige Hilfe leisten: die Deutsche Hungerhilfe – Vorhaben und Wirkungen. Ruperto Carola, 3, p. 16.

Edwards, K. L. et al. (2010). The neighbourhood matters: Studying exposures relevant to childhood obesity and the policy implications in Leeds, UK. *Journal of Epidemiology and Community Health*, 64(3), 194–201. [Online]. Available at: doi:10.1136/jech.2009.088906 [Accessed 7 July 2023].

Eikenberry, N. and Smith, C. (2005). Attitudes, beliefs, and prevalence of dumpster diving as a means to obtain food by Midwestern, low-income, urban dwellers. *Agriculture and Human Values*, 22(2), 187–202. [Online]. Available at: doi:10.1007/s10460-004-8278-9 [Accessed 06 December 2020].

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550. Available at: https://doi.org/10.2307/258557 [Accessed 07 July 2023].

Eisenhardt, K. M. and Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *The Academy of Management Journal*, 50(1), 25–32. [Online]. Available at: https://www.jstor.org/stable/20159839 [Accessed 07 July 2023].

Emery, J. C. H., Fleisch, V. C. and McIntyre, L. (2013). Legislated changes to federal pension income in Canada will adversely affect low income seniors' health. *Preventive Medicine*, 57(6), 963–966. Available at: https://doi.org/10.1016/j.ypmed.2013.09.004 [Accessed 20 November 2019].

End Hunger UK. (2018). *Fix Universal Credit: Ensuring no one needs to go to bed hungry in the UK*. End Hunger UK. [Online]. Available at: https://www.readkong.com/page/fix-universal-credit-3247058 [Accessed 07 December 2023].

Environmental Audit Committee. (2019). *Sustainable Development Goals in the UK follow up: Hunger, malnutrition and food insecurity in the UK. Thirteenth report of session 2017–19*. (HC 1491), London. [Online]. Available at: https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1491/149105.htm [Accessed 22 October 2019].

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Cambridge: Polity Press.

European Food Banks Federation. (2020). *Mission, vision & values*. [Online]. European Food Banks Federation. Available at: https://www.eurofoodbank.org/en/mission-vision-values [Accessed 13 May 2020].

Evans, A. et al. (2015). Increasing access to healthful foods: A qualitative study with residents of low-income communities. *International Journal of Behavioral Nutrition and Physical Activity*, 12(1), 1–12. [Online]. Available at: doi:10.1186/1479-5868-12-S1-S5 [Accessed 13 June 2022].

Fang, D., Thomsen, M. R. and Nayga, R. M. (2021). The association between food insecurity and mental health during the COVID-19 pandemic. *BMC Public Health*, 21(1). [Online]. Available at: doi:10.1186/s12889-021-10631-0 [Accessed 08 August 2023].

Fang, D. et al. (2021). Food insecurity during the COVID-19 pandemic: Evidence from a survey of low-income Americans. *Food Security*, 14, 165–183. [Online]. Available at: doi:10.1007/s12571-021-01189-1/Published [Accessed 09 August 2023]..

Food and Agriculture Organization. (1996). Rome Declaration on world food security and world food summit plan of action. In *World Food Summit*. Rome: FAO. Available at: https://www.fao.org/3/w3613e/w3613e00.htm [Accessed 21 December 2023].

Food and Agriculture Organization. (2003). Food security: Concepts and measurement. In *Trade reforms and food security: Conceptualizing the linkages*. Pp. 25–34. [Online]. Rome: Food and Agriculture Organization of the United Nations. Available at: https://www.fao.org/3/y4671e/y4671e00.htm#Contents [Accessed 13 November 2019].

Food and Agriculture Organization. (2009a). *Budget work to advance the right to food 'Many a slip...'*. [Online]. Rome: Food and Agriculture Organization of the United Nations. Available at: https://www.fao.org/3/i0717e/i0717e.pdf [Accessed 21 December 2023].

Food and Agriculture Organization. (2009b). What happened to world food prices and why? *The state of agricultural commodity markets*. Rome: Food and Agriculture Organization of the United Nations. [Online]. Available at: https://www.fao.org/3/i0753e/i0753e00.pdf [Accessed 23 December 2023].

Food and Agriculture Organization. (2019a). *2.1.1 Prevalence of undernourishment. Sustainable Development Goals.* [Online]. Rome: Food and Agriculture Organization of the United Nations. Available at: http://www.fao.org/sustainable-development-goals/indicators/211/en/ [Accessed 12 November 2019].

Food and Agriculture Organization. (2019b). *Hunger and food insecurity*. [Online]. Rome: Food and Agriculture Organization of the United Nations. Available at: http://www.fao.org/hunger/en/ [Accessed 14 November 2019].

Food and Agriculture Organization et al. (2018). *Food security and nutrition in the world. The state of building climate resilience for food security and nutrition*. Rome: Food and Agriculture Organization of the United Nations.

Food and Agriculture Organization et al. (2019). *The state of food security and nutrition in the world 2019. Safeguarding against economic slowdowns and downturns.* Rome: Food and Agriculture Organization of the United Nations.

Feeding America. (2014). *Spotlight on senior health: Adverse health outcomes of food insecure older Americans*. [Online]. Chicago, IL: Feeding America. Available at: https://www.feedingamerica.org/sites/default/files/research/senior-hunger-research/or-spotlight-on-senior-health-executive-summary.pdf [Accessed 21 December 2023].

Feeding America. (2020). *Our work*. [Online]. Feeding America. Available at: https://www.feedingamerica.org/our-work [Accessed 13 May 2020].

Fielding, N. and Thomas, H. (2015). Qualitative interviewing. In Gilbert, N. and Stoneman, P. (Eds). *Researching social life*. 4th ed. London: Sage Publications. Pp. 282–298.

Finkelstein, A. and Notowidigdo, M. J. (2019). Take-up and targeting: Experimental evidence from SNAP. *The Quarterly Journal of Economics*, 134(3), 1505–1556. Available at: https://doi.org/10.1093/qje/qjz013 [Accessed 21 December 2023].

Fisher, A. (2017). *Big hunger: The unholy alliance between corporate America and anti-hunger groups*. Ho, M. S. (Ed). MIT Press.

Fisher, A. (2020). *Voices from the field: COVID crisis reinforces the hunger industrial complex*. [Online]. Nonprofit Quarterly. Last updated: 01 May 2020. Available at: https://nonprofitquarterly.org/voices-from-the-field-covid-crisis-reinforces-the-hunger-industrial-complex/ [Accessed 19 May 2020].

Fitzpatrick, K. and Coleman-Jensen, A. (2014). Food on the fringe: Food insecurity and the use of payday loans. *Social Service Review*, 88(4), 553–593. Available at: https://doi.org/10.1086/679388 [Accessed 21 December 2023].

Fitzpatrick, K. M. et al. (2021). Assessing food insecurity among US adults during the COVID-19 pandemic. *Journal of Hunger and Environmental Nutrition*, 16(1), 1–18. [Online]. Available at: doi:10.1080/19320248.2020.1830221 [Accessed 08 August 2023].

Flagg, L. A. et al. (2013). The influence of gender, age , education and household size on meal preparation and food shopping responsibilities. *Public Health Nutrition*, 17(9), 2061–2070. [Online]. Available at: doi:10.1017/S1368980013002267 [Accessed 12 February 2020].

Fletcher, J. M., Andreyeva, T. and Busch, S. H. (2009). Assessing the effect of changes in housing costs on food insecurity. *Journal of Children and Poverty*, 15(2), 79–93. [Online]. Available at: doi:10.1080/10796120903310541 [Accessed 08 September 2020].

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219–245. [Online]. Available at: doi:10.1177/1077800405284363 [Accessed 06 June 2023].

Food Banks Canada. (2020a). *Food Banks Canada – Home*. [Online]. Food Banks Canada. Available at: https://www.foodbankscanada.ca/Home.aspx [Accessed 19 May 2020].

Food Banks Canada. (2020b). *Impact report 2019*. [Online]. Food Banks Canada. [Online]. Available at: https://fbcblobstorage.blob.core.windows.net/wordpress/2022/03/Provincial_Report_Digital_Canada-2019.pdf [Accessed 13 May 2020].

Food Resource and Action Center. (2014). *School breakfast scorecard: 2012–2013 school year*. [Online]. Available at: https://frac.org/wp-content/uploads/School_Breakfast_Scorecard_SY_2012_2013.pdf [Accessed 21 December 2023].

Foodbank Australia. (n.d.). *Our story*. [Online]. Foodbank Australia. Available at: https://www.foodbank.org.au/our-story/?state=au [Accessed 13 May 2020].

Forsey, A. (2017). *Hungry holidays: A report on hunger amongst children during school holidays*. Birmingham: British Association of Social Workers.

Fox, M. K., Hamilton, W. and Lin, B.-H. (2004). *Effects of food assistance and nutrition programs on nutrition and health*. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Food Assistance and Nutrition Research Report no. 19-3.

Fresno EOC Food Services. (2022). *Fighting food insecurity*. [Online]. Fresno Economic Opportunities Commission. Last updated: 02 September 2022. Available at: https://fresnoeoc.org/fighting-food-insecurity/ [Accessed 03 August 2023].

Freudenberg, N. et al. (2013). Promoting the health of young adults in urban public universities: A case study from City University of New York. *Journal of American College Health*, 61(7), 422–430. [Online]. Available at: doi:10.1080/07448481.2013.823972 [Accessed 28 December 2020].

Friedersdorf, C. (2020). Food banks can't go on like this. *The Atlantic*. [Online]. 06 May 2020. Available at: https://www.theatlantic.com/ideas/archive/2020/05/food-banks-cant-go-like/611206/ [Accessed 25 May 2020].

Friedman, B. H. (2017). *A plan to cut military spending | Downsizing the federal government*. [Online]. Downsizing the federal government. Last updated: 01 August 2020. Available at: https://www.downsizinggovernment.org/defense/plan-cut-military-spending [Accessed 14 August 2020].

Friedman, C. (2021). Food insecurity of people with disabilities who were Medicare beneficiaries during the COVID-19 pandemic. *Disability and Health Journal*, 14(4), 101166. [Online]. Available at: doi:10.1016/j.dhjo.2021.101166 [Accessed 12 August 2023].

Friel, S. and Conlon, C. (2004). *Study on food poverty and policy*. Report. Combat Poverty Agency.

Furness, B. W. et al. (2004). Prevalence and predictors of food insecurity among low-income households in Los Angeles County. 2007/01/02. *Public Health Nutrition*, 7(6), 791–794. [Online]. Available at: doi:10.1079/PHN2004608 [Accessed 03 December 2019].

Gaines, A. et al. (2014). Examining the role of financial factors, resources and skills in predicting food security status among college students. *International Journal of Consumer Studies*, 38(4), 374–384. [Online]. Available at: doi:10.1111/ijcs.12110 [Accessed 10 February 2020].

Garthwaite, K. (2016a). *Hunger pains: Life inside foodbank Britain*. [Online]. Bristol: Bristol University Press, Policy Press. Available at: https://doi.org/10.2307/j.ctt1t89f84 [Accessed 21 December 2023].

Garthwaite, K. (2016b). Stigma, shame and 'people like us': An ethnographic study of foodbank use in the UK. *Journal of Poverty and Social Justice*, 24(3), 277–289. [Online]. Available at: doi:10.1332/175982716X14721954314922 [Accessed 06 December 2019].

Garthwaite, K. (2019). It's not the hungry who gain most from food banks – it's big business. *The Guardian*. [Online]. 25 March 2019. Available at: https://www.theguardian.com/commentisfree/2019/mar/25/big-business-food-banks-subsidise-reputation [Accessed 13 May 2020].

Garthwaite, K. A., Collins, P. J. and Bambra, C. (2015). Food for thought: An ethnographic study of negotiating ill health and food insecurity in a UK foodbank. *Social Science and Medicine*, 132, 38–44. [Online]. Available at: doi:10.1016/j.socscimed.2015.03.019 [Accessed 04 December 2019].

Gehman, J. et al. (2018). Finding theory–method fit: A comparison of three qualitative approaches to theory building. *Journal of Management Inquiry*, 27(3), 284–300. [Online]. Available at: doi:10.1177/1056492617706029 [Accessed 07 July 2023].

Gentilini, U. (2013). Banking on food: The state of food banks in high-income countries. *IDS Working Papers*, 2013 (415). [Online]. Available at: doi:10.1111/j.2040-0209.2013.00415.x [Accessed 06 December 2019].

Geraghty, L. and Harris, H. (2020). Food poverty fighters prepare for holiday hunger if coronavirus shuts schools. *The Big Issue*. [Online]. 10 March 2020. Available at: https://www.bigissue.com/latest/food-poverty-fighters-prepare-for-holiday-hunger-if-coronavirus-shuts-schools/ [Accessed 11 September 2020].

German, B. (2019). *Fresno County leads California as top agricultural county*. [Online]. Agnetwest. Last updated: 09 October 2019. Available at: https://agnetwest.com/fresno-county-leads-california-as-top-agricultural-county/ [Accessed 07 January 2021].

Ghosh-Dastidar, B. et al. (2014). Distance to store, food prices, and obesity in urban food deserts. *American Journal of Preventive Medicine*, 47(5), 587–595. Available at: DOI:10.1016/j.amepre.2014.07.005 [Accessed 28 November 2019].

Gilbert, N. and Stoneman, P. (2015). *Researching social life*. 4th ed. London: Sage.

Glaze, S. and Richardson, B. (2017). Poor choice? Smith, Hayek and the moral economy of food consumption. *Economy and Society*, 46(1), 128–151. [Online]. Available at: doi:10.1080/03085147.2017.1308058 [Accessed 17 December 2019].

Gleason, P. M. and Dodd, A. H. (2009). School breakfast program but not school lunch program participation is associated with lower body mass index. *Journal of the American Dietetic Association*, 109(2), S118–S128. [Online]. Available at: doi:10.1016/j.jada.2008.10.058 [Accessed 09 June 2020].

Godinho, A., Schell, C. and Cunningham, J. A. (2020). Out damn bot, out: Recruiting real people into substance use studies on the internet. *Substance Abuse*, 41(1), 3–5. [Online]. Available at: doi:10.1080/08897077.2019.1691131 [Accessed 12 June 2023].

Goodwin, S. (2020). *Between the devil and the deep blue sea*. [Online]. Independent Food Aid Network. Last updated: 08 May 2020. Available at: https://www.foodaidnetwork.org.uk/blog/between-the-devil-and-the-deep-blue-sea [Accessed 14 May 2020].

Gooseman, A., Defeyter, M. A. and Graham, P. L. (2020). Hunger in the primary school setting: Evidence, impacts and solutions according to school staff in the north east of England, UK. *Education 3-13*, 48(2), 191–203. [Online]. Available at: doi:10.1080/03004279.2019.1602155 [Accessed 08 June 2020].

Gordon, K., Lambie-Mumford, H. and Loopstra, R. (2020). Mapping responses to risk of rising food insecurity during the COVID-19 crisis across the UK. *Food vulnerability during COVID-19*. [Online]. Available at: https://www.sheffield.ac.uk/media/36205/download?attachment [Accessed 21 December 2023].

Görmüş, E. (2019). Food banks and food insecurity: Cases of Brazil and Turkey. *Forum for Development Studies*, 46(1), 67–81. [Online]. Available at: doi:10.1080/08039410.2018.1450288 [Accessed 26 April 2022].

Goudie, S. and McIntyre, Z. (2021). *A crisis within a crisis: The impact of Covid-19 on household food security*. Food Foundation. [Online]. Available at: https://www.staffordshire.gov.uk/Advice-support-and-care-for-adults/Resources/Documents/Better-Health-Staffordshire/FF-Impact-of-Covid-FINAL.pdf [Accessed 09 March 2021].

Gregory, C. A. and Coleman-Jensen, A. (2017). *Economic research report no. (ERR-235)* [Online]. USDA. Available at: https://www.ers.usda.gov/publications/pub-details/?pubid=84466 [Accessed 21 December 2023].

Gregory, C., Rabbitt, M. P. and Ribar, D. (2015). The Supplemental Nutrition Assistance Program and food insecurity. In *SNAP matters: How food stamps affect health and well-being*. Palo Alto: Stanford University Press. Pp. 74–106. [Online]. Available at: doi:10.17848/9780880996648.ch3 [Accessed 24 October 2019].

Gregory, P. J., Ingram, J. S. I. and Brklacich, M. (2005). Climate change and food security. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 360(1463), 2139–2148. [Online]. Available at: doi:10.1098/rstb.2005.1745 [Accessed 28 January 2020].

Griffith, R., O'Connell, M. and Smith, K. (2013). *Food expenditure and nutritional quality over the Great Recession*. [Online]. Institute of Fiscal Studies Briefing Note BN143. Available at: https://ifs.org.uk/sites/default/files/output_url_files/bn143.pdf [Accessed 21 December 2023].

Grobler, W. C. J. (2016). Perceptions of poverty: A study of food secure and food insecure households in an urban area in South Africa. *Procedia Economics and Finance*, 35, 224–231. [Online]. Available at: doi:10.1016/s2212-5671(16)00028-9 [Accessed 02 December 2019].

Gross, R. S. et al. (2019). Food insecurity during pregnancy and breastfeeding by low-income Hispanic mothers. *Pediatrics*, 143(6), e20184113. Available at: doi:10.1542/peds.2018-4113 [Accessed 19 August 2020].

Guetterman, T. C. and Fetters, M. D. (2018). Two methodological approaches to the integration of mixed methods and case study designs: A systematic review. *American Behavioral Scientist*, 62(7), 900–918. [Online]. Available at: doi:10.1177/0002764218772641 [Accessed 19 June 2023].

Gundersen, C. (2021). Viewpoint: A proposal to reconstruct the Supplemental Nutrition Assistance Program (SNAP) into a universal basic income program for food. *Food Policy*, 101. Available at: doi:10.1016/j.foodpol.2021.102096 [Accessed 12 October 2023].

Gundersen, C. and Gruber, J. (2001). The dynamic determinants of food insufficiency. In Andrews, M. and Prell, M. (Eds). *Second Food Security Measurement and Research Conference, Volume II: Papers*. II. 2001. USDA, ERS Food Assistance and Nutrition Research Report No. 11-2. Pp. 91–110.

Gundersen, C. and Ziliak, J. P. (2014). Childhood Food Insecurity in the US: Trends, causes, and policy options. *The Future of Children*, pp. 1–19. [Online]. Princeton, NJ: Princeton University. Available at: https://futureofchildren.princeton.edu/sites/g/files/toruqf2411/files/media/childhood_food_insecurity_researchreport-fall2014.pdf [Accessed 21 December 2023].

Gundersen, C. and Ziliak, J. P. (2018). Food insecurity research in the United States: Where we have been and where we need to go. *Applied Economic Perspectives and Policy*, 40(1), 119–135. [Online]. Available at: doi:10.1093/aepp/ppx058 [Accessed 24 October 2019].

Gundersen, C., Kreider, B. and Pepper, J. (2011). The economics of food insecurity in the United States. *Applied Economic Perspectives and Policy*, 33(3), 281–303. [Online]. Available at: doi:10.1093/aepp/ppr022 [Accessed 15 January 2020].

Gundersen, C., Kreider, B. and Pepper, J. (2012). The impact of the national school lunch program on child health: A nonparametric bounds analysis. *Journal of Econometrics*, 166(1), 79–91. [Online]. Available at: doi:10.1016/j.jeconom.2011.06.007 [Accessed 09 June 2020].

Gundersen, C. et al. (2003). Homelessness and food insecurity. *Journal of Housing Economics*, 12(3), 250–272. [Online]. Available at: doi:10.1016/S1051-1377(03)00032-9 [Accessed 10 August 2020].

Gundersen, C. et al. (2023). *Map the meal gap 2023: An analysis of county and congressional district food insecurity and county food cost in the United States in 2021*. [Online]. Feeding America. Available at: https://www.feedingamerica.org/sites/default/files/2023-05/Map%20the%20Meal%20Gap%202023.pdf [Accessed 08 December 2023].

Guy, C., Clarke, G. and Eyre, H. (2004). Food retail change and the growth of food deserts: A case study of Cardiff. Graham, C. (Ed). *International Journal of Retail & Distribution Management*, 32(2), 72–88. [Online]. Available at: doi:10.1108/09590550410521752.

Haddad, M. (2012). *The perfect storm: Economic stagnation, the rising cost of living, public spending cuts, and the impact on UK poverty*. [Online]. Briefing paper. Oxford: Oxfam. Available at: https://policy-practice.oxfam.org/resources/the-perfect-storm-economic-stagnation-the-rising-cost-of-living-public-spending-228591/ [Accessed 19 December 2019].

Haddad, M., Perry, J. and Hadfield-Spoor, M. (2017). *Emergency use only: Update 2017*. London. Trussell Trust.

Haldeman, L. A. and Ribar, D. C. (2011). *School breakfast programs in Guilford County, NC: Student outcomes*. [Online]. Contractor and Cooperator Report No. 73-2. Available at: https://ageconsearch.umn.edu/record/312396/ [Accessed 09 June 2020].

Hamelin, A.-M., Beaudry, M. and Habicht, J. P. (2002). Characterization of household food insecurity in Québec: Food and feelings. *Social Science and Medicine*, 54(1), 119–132. [Online]. Available at: doi:10.1016/S0277-9536(01)00013-2 [Accessed 07 January 2020].

Hamelin, A.-M., Habicht, J.-P. and Beaudry, M. (1999). Food insecurity: Consequences for the household and broader social implications. *The Journal of Nutrition*, 129(2), 525S-528S. [Online]. Available at: doi:10.1093/jn/129.2.525s [Accessed 06 December 2019].

Hampson, S. E. et al. (2009). A social marketing approach to improving the nutrition of low-income women and children: An initial focus group study. *Public Health Nutrition*, 12(9), 1563–1568. [Online]. Available at: doi:10.1017/S1368980009004868 [Accessed 19 December 2019].

Hanson, K. and Oliveira, V. (2012). *How Economic Conditions Affect Participation in USDA Nutrition Assistance Programs*. [Online]. Economic Information Bulletin Number 100. USDA, Economic Research Service. Available at: https://www.ers.usda.gov/webdocs/publications/43667/32191_eib100.pdf [Accessed 13 September 2023].

Hantrais, L. (1999). Contextualization in cross-national comparative research. *International Journal of Social Research Methodology*, 2(2), 93–108. [Online]. Available at: doi:10.1080/136455799295078 [Accessed 09 March 2021].

Hantrais, L. (2009). Defining and analysing concepts and contexts. In *International comparative research: Theory, methods and practice*. Basingstoke: Palgrave Macmillan. Pp. 72–94. [Online]. Available at: doi:10.1007/978-1-137-06884-2_4 [Accessed 06 December 2020].

Hartung, W. (2020). *Five reasons to cut Pentagon spending in the era of COVID-19*. [Online]. Forbes. Last updated: 16 April 2020. Available at:

https://www.forbes.com/sites/williamhartung/2020/04/16/five-reasons-to-cut-pentagon-spending-in-the-era-of-covid-19/#7e6d1abe1fec [Accessed 14 August 2020].

Hawkins, R. (2020). *Coronavirus: Court action threatened over school meal vouchers*. [Online]. BBC News. Last updated: 05 June 2020. Available at: https://www.bbc.co.uk/news/education-52931665 [Accessed 09 June 2020].

de la Haye, K. et al. (2020). *The impact of COVID-19 on food insecurity in Los Angeles County*. Los Angeles, CA: USC Dornsife Public Exchange. [Online]. Available at: https://publicexchange.usc.edu/wp-content/uploads/2020/07/USCLAC-Food-Insecurity-Report-April-%E2%80%93-May-2020.pdf [Accessed 11 August 2023].

Headey, D. D. and Alderman, H. H. (2019). The relative caloric prices of healthy and unhealthy foods differ systematically across income levels and continents. *Journal of Nutrition*, 149(11), 2020–2033. [Online]. Available at: doi:10.1093/jn/nxz158 [Accessed 18 December 2019].

Headey, D. and Ecker, O. (2013). Rethinking the measurement of food security: From first principles to best practice. *Food Security*, 5(3), 327–343. [Online]. Available at: doi:10.1007/s12571-013-0253-0 [Accessed 19 November 2019].

Healy, A. E. (2019). Measuring food poverty in Ireland: The importance of including exclusion. *Irish Journal of Sociology*, 27(2), 105–127. [Online]. Available at: doi:10.1177/0791603519828313 [Accessed 20 November 2019].

Van den Heede, K. et al. (2020). Safe nurse staffing policies for hospitals in England, Ireland, California, Victoria and Queensland: A discussion paper. *Health Policy*, 124(10), 1064–1073. [Online]. Available at: doi:10.1016/j.healthpol.2020.08.003 [Accessed 04 March 2021].

Helbich, M. et al. (2017). Food deserts? Healthy food access in Amsterdam. *Applied Geography*, 83, 1–12. [Online]. Available at: doi:10.1016/j.apgeog.2017.02.015 [Accessed 06 December 2019].

Hellström, T. (2008). Transferability and naturalistic generalization: New generalizability concepts for social science or old wine in new bottles? *Quality and Quantity*, 42(3), 321–337. [Online]. Available at: doi:10.1007/s11135-006-9048-0 [Accessed 11 October 2023].

Hennink, M., Hutter, I. and Bailey, A. (2020). *Qualitative research methods*. 2nd ed. London: Sage Publications.

Hennink, M. and Kaiser, B. N. (2022). Social science & medicine sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. [Online]. Available at: doi:10.1016/j.socscimed.2021.114523 [Accessed 12 June 2023].

Herman, D. et al. (2015). Food insecurity and cost-related medication underuse among nonelderly adults in a nationally representative sample. *American Journal of Public Health*, 105(10), e48–e59. [Online]. Available at: doi:10.2105/AJPH.2015.302712

Hertel, T. (2016) Food security under climate change. *Nature Clim Change* 6, 10–13. Available At: https://doi.org/10.1038/nclimate2834 [Accessed 21 December 2023]

Hick, R. and Murphy, M. P. (2021). Common shock, different paths? Comparing social policy responses to COVID-19 in the UK and Ireland. *Social Policy and Administration*, 55(2), 312–325. Last updated: 01 March 2021. Blackwell Publishing Ltd. Pp. 312–325. [Online]. Available at: doi:10.1111/spol.12677 [Accessed 09 August 2023].

Hickman, M. (2007). 'Food deserts' depriving towns of fresh fruit and vegetables. *The Independent*. [Online] 13 December 2017. Available at: https://www.independent.co.uk/news/uk/home-news/food-deserts-depriving-towns-of-fresh-fruit-and-vegetables-764804.html [Accessed 08 December 2023].

Hidrobo, M. et al. (2012). *Cash, food, or vouchers? Evidence from a randomized experiment in northern Ecuador*. IFPRI Discussion Paper No. 01234. Available at: https://ssrn.com/abstract=2197461 or http://dx.doi.org/10.2139/ssrn.2197461 [Accessed 24 October 2019].

Hirsch, D., Padley, M. and Valadez, L. (2016). *A poverty indicator based on a minimum income standard*. [Online] CRSP Working Paper 656. Leicestershire: Loughborough University. Available at: https://www.lboro.ac.uk/media/media/research/crsp/downloads/poverty-indicator-based-on-a-minimum-income-standard.pdf [Accessed 08 December 2023].

Hitchman, C. et al. (2002). *Inconvenience food: The struggle to eat well on a low income*. London: Demos.

Holland, K. (2020). Demand for free food doubles amid coronavirus pandemic. *The Irish Times*. [Online]. 19 May 2020. Available at: https://www.irishtimes.com/news/social-affairs/demand-for-free-food-doubles-amid-coronavirus-pandemic-1.4253562 [Accessed 19 May 2020].

Holweg, C., Lienbacher, E. and Schnedlitz, P. (2010). *Social supermarkets: Typology within the spectrum of social enterprises*. [Online]. Vienna: WU Vienna University of Economics and Business, Institute for Retailing and Marketing. Available at: https://www.anzmac2010.org/proceedings/pdf/ANZMAC10Final00244.pdf [Accessed 19 May 2020].

Hoskins, K. and Wainwright, E. (2023). 'I am not a teacher!' The challenges of enacting home schooling during the COVID-19 pandemic among low-income families of primary-aged children. *Education*, *3–13*. [Online]. Available at: doi:10.1080/03004279.2023.2210590 [Accessed 14 August 2023].

HL Deb (07 February 2023). *NHS staff: Food banks.* Vol 827. [Online]. Available at: https://hansard.parliament.uk/Lords/2023-02-07/debates/5AEE0018-9AEC-4AAA-B115-AF1988F8F54A/NHSStaffFoodBanks [Accessed 15 September 2023].

Houston Food Bank. (n.d.). *About us*. [Online]. Houston Food Bank. Available at: https://www.houstonfoodbank.org/about-us/ [Accessed 02 June 2020].

Huang, J., Guo, B. and Kim, Y. (2010). Food insecurity and disability: Do economic resources matter? *Social Science Research*, 39(1), 111–124. [Online]. Available at: doi:10.1016/j.ssresearch.2009.07.002 [Accessed 17 February 2020].

Hussein, K. (2002). Food security: Rights, livelihoods and the world food summit – five years later. *Social Policy & Administration*, 36(6), 626–647. Available at: https://doi.org/10.1111/1467-9515.00308 [Accessed 20 March 2020].

Iafrati, S. (2018). 'We're not a bottomless pit': Food banks' capacity to sustainably meet increasing demand. *Voluntary Sector Review*, 9(1), 39–53. [Online]. Available at: doi:10.1332/204080518X15149744201978 [Accessed 18 September 2020].

IMF. (2021). *Policy responses to Covid-19*. [Online]. IMF. Last updated: 02 July 2021. Available at: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19 [Accessed 02 July 2023].

Independent Food Aid Network. (2018). *IFAN's statement on the £20 million partnership between ASDA, FareShare and The Trussell Trust*. [Online]. Independent Food Aid Network. Last updated: February 2018. Available at: https://www.foodaidnetwork.org.uk/_files/ugd/6bacb0_e9b61f62f75642aa8daa380da7aca4db.pdf [Accessed 14 May 2020].

Independent Food Aid Network UK. (2020). *Research*. [Online]. Independent Food Aid Network UK. Last updated: November 2023. Available at: https://www.foodaidnetwork.org.uk/data [Accessed 08 December2023].

Institute for Government Analysis. (2021). *Timeline of UK government coronavirus lockdowns and measure, March 2020*. [Online]. Institute of Government. Available at:

https://www.instituteforgovernment.org.uk/sites/default/files/2022-12/timeline-coronavirus-lockdown-december-2021.pdf [Accessed 13 October 2023].

Institute of Medicine (US) Committee on Nutrition Standards for National School Lunch and Breakfast Programs. (2010). Implementation, evaluation, and research. In Stallings, V. A. et al. (Eds). *School meals: Building blocks for healthy children*. The National Academies Press. Pp. 179–208.

International Committee of the Red Cross (ICRC). (1949). *Geneva Convention I*. Available at: https://shop.icrc.org/the-geneva-conventions-of-12-august-1949.html?ore=en [Accessed 29 November 2023].

International Federation of Red Cross and Red Crescent Societies. (2013). *Think differently: Humanitarian impacts of the economic crisis in Europe*. [Online]. Geneva: International Federation of Red Cross and Red Crescent Societies. Available at: https://oldmedia.ifrc.org/ifrc/wp-content/uploads/2017/02/October-2013-IFRC-Economic-Crisis-Report-Think-Differently-EUROPE-EN-LR-ver2-final.pdf [Accessed 08 December 2023].

Ivers, L. C. and Cullen, K. A. (2011). Food insecurity: Special considerations for women. *American Journal of Clinical Nutrition*, 94(6), 1740–1744. [Online]. Available at: doi:10.3945/ajcn.111.012617 [Accessed 02 January 2020].

Jachertz, R. and Nützenadel, A. (2011). Coping with hunger? Visions of a global food system, 1930–1960. *Journal of Global History*, 6(1), 99–119. [Online]. Available at: doi:10.1017/S1740022811000064 [Accessed 07 January 2020].

Jackson, A. M. et al. (2022). A lifespan perspective of structural and perceived social relationships, food insecurity, and dietary behaviors during the COVID-19 pandemic. *Appetite*, 168, 105717. [Online]. Available at: doi:10.1016/j.appet.2021.105717 [Accessed 08 August 2023].

Jahoda, G. (2012). Critical reflections on some recent definitions of 'culture'. *Culture and Psychology*, 18(3), 289–303. [Online]. Available at: doi:10.1177/1354067X12446229 [Accessed 07 August 2023].

Jansen, W. et al. (2008). A school-based intervention to reduce overweight and inactivity in children aged 6–12 years: Study design of a randomized controlled trial. *BMC Public Health*, 8, 257. [Online]. Available at: doi:10.1186/1471-2458-8-257 [Accessed 08 June 2020].

Jiao, J. et al. (2012). How to identify food deserts: Measuring physical and economic access to supermarkets in King County, Washington. *American Journal of Public Health*, 102(10), 1–8. [Online]. Available at: doi:10.2105/AJPH.2012.300675 [Accessed 11 December 2019].

Jitendra, A., Thorogood, E. and Hadfield-Spoor, M. (2018). *Early warnings: Universal Credit and foodbanks*. [Online]. Salisbury: The Trussell Trust. Available at: https://www.trusselltrust.org/wp-content/uploads/sites/2/2017/04/Early-Warnings-Universal-Credit-and-Foodbanks.pdf [Accessed 29 November 2023].

Johnson, K. T. et al. (2021). Examining the bidirectional relationship between food insecurity and healthcare spending. *Health Services Research*, 56(5), 864–873. [Online]. Available at: doi:10.1111/1475-6773.13641 [Accessed 15 September 2023].

Jones, A. D. (2017). Food insecurity and mental health status: A global analysis of 149 countries. *American Journal of Preventive Medicine*, 53(2), 264–273. [Online]. Available at: doi:10.1016/j.amepre.2017.04.008 [Accessed 02 January 2020].

Jones, N. R. V. et al. (2014). The growing price gap between more and less healthy foods: Analysis of a novel longitudinal UK dataset. *PloS ONE*, 9(10), e109343. [Online]. Available at: doi:10.1371/journal.pone.0109343 [Accessed 19 December 2019].

Jowell, A. H. et al. (2023). Mitigating childhood food insecurity during COVID-19: A qualitative study of how school districts in California's San Joaquin Valley responded to growing needs. *Public Health Nutrition*, 26(5), 1063–1073. [Online]. Available at: doi:10.1017/S1368980021003141 [Accessed 09 August 2023].

Juhasz, I. and Skivenes, M. (2017). The population's confidence in the child protection system – a survey study of England, Finland, Norway and the United States (California). *Social Policy and Administration*, 51(7), 1330–1347. [Online]. Available at: doi:10.1111/spol.12226 [Accessed 27 November 2020].

Jyoti, D. F., Frongillo, E. A. and Jones, S. J. (2005). Food insecurity affects school children's academic performance, weight gain, and social skills. *The Journal of Nutrition*, 135(12), 2831–2839. [Online]. Available at: doi:10.1093/jn/135.12.2831 [Accessed 08 June 2020].

KABC. (2020). Coronavirus: Newsom announces program for local eateries to prepare, deliver meals to seniors amid COVID-19 pandemic. Sacramento: *ABC7.com*. [Online]. 24 April 2020. Available at: https://abc7.com/california-senior-meal-home-delivery-program-fema-partnership-governor-gavin-newsom/6127425/ [Accessed 02 July 2023].

Kaitila, V. (2014). Transnational income convergence and national income disparity: Europe, 1960–2012. *Journal of Economic Integration*, 29(2), 343–371. [Online]. Available at: doi:10.11130/jei.2014.29.2.343 [Accessed 08 January 2020].

Kamal, S. (2022). What's in the California paid sick leave deal for workers and businesses? *CalMatters.org*. [Online]. 09 February 2022. Available at: https://calmatters.org/politics/2022/01/california-paid-sick-leave-deal/ [Accessed 02 July 2023].

Kang, J. Y. (2020). The effect of paid maternity leave on low-income families' welfare use in the US. *Social Policy and Administration*, (May 2019), 1–19. [Online]. Available at: doi:10.1111/spol.12618 [Accessed 19 August 2020].

Kang, S.-Y. et al. (2019a). Comparative approaches to drug pricing. *Annual Review of Public Health*, 41, 499–512. [Online]. Available at: doi:10.1146/annurev-publhealth-040119-094305 [Accessed 08 January 2020].

Kang, S.-Y. et al. (2019b). Using external reference pricing in Medicare part D to reduce drug price differentials with other countries. *Health Affairs*, 38(5), 804–811. [Online]. Available at: doi:10.1377/hlthaff.2018.05207 [Accessed 08 September 2020].

Kasper, J. et al. (2000). Hunger in legal immigrants in California, Texas, and Illinois. *American Journal of Public Health*, 90(10), 1629–1633. Available at: https://doi.org/10.2105/ajph.90.10.1629 [Accessed 08 December 2023].

Kasperkevic, J. (2014). Walmart workers increasingly rely on food banks, report. *The Guardian*. [Online]. 21 November 2014. Available at: https://www.theguardian.com/money/us-money-blog/2014/nov/21/walmart-workers-rely-on-food-banks-report [Accessed 14 May 2020].

Katsos, G. E. (2017). The USG's approach to food security: Focus on campaign activities. Joint Doctrine/The U.S. Government and Food Security. *Joint Forces Quarterly*, 87(4th Quarter). Available at: https://www.jcs.mil/Portals/36/Documents/Doctrine/Interorganizational_Documents/jfq87_usg_food_security.pdf?ver=2019-03-25-162414-373 [Accessed 14 August 2020].

Kaushik, V. and Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9), 255. Available at: https://doi.org/10.3390/socsci8090255 [Accessed 10 September 2021].

Keith-Jennings, B. (2016). *New data show food insecurity continues falling*. [Online]. Centre on Budget and Policy Priorities. Last updated: 08 September 2016. Available at: https://www.cbpp.org/blog/new-data-show-food-insecurity-continues-falling [Accessed 07 January 2020].

Kellogg's UK. (n.d.). *A lost education: The reality of hunger in the classroom*. [Online]. Kellogg's UK. Available at:

https://www.kelloggs.co.uk/content/dam/europe/kelloggs_gb/pdf/R2_Kellogg_A_Lost_Education.pdf [Accessed 08 June 2020].

Kent, K. et al. (2020). Prevalence and socio-demographic predictors of food insecurity in Australia during the COVID-19 pandemic. *Nutrients*, 12(9), 2682. Available at: DOI:10.3390/nu12092682 [Accessed 12 August 2023].

Kettings, C., Sinclair, A. J. and Voevodin, M. (2009). A healthy diet consistent with Australian health recommendations is too expensive for welfare-dependent families. *Australian and New Zealand Journal of Public Health*, 33(6), 566–572. [Online]. Available at: doi:10.1111/j.1753-6405.2009.00454.x [Accessed 18 December 2019].

Kiel, P. (2019). *It's getting worse: The IRS now audits poor Americans at about the same rate as the top 1%*. [Online]. ProPublica. Last updated: 07 September 2020. Available at: https://www.propublica.org/article/irs-now-audits-poor-americans-at-about-the-same-rate-as-the-top-1-percent [Accessed 07 September 2020].

Kim-Mozeleski, J. E. et al. (2023). Food insecurity trajectories in the US during the first year of the COVID-19 pandemic. *Preventing Chronic Disease*, 20, E03. [Online]. Available at: doi:10.5888/pcd20.220212 [Accessed 02 July 2023].

Kinsey, E. W., Kinsey, D. and Rundle, A. G. (2020). COVID-19 and food insecurity: An uneven patchwork of responses. *Journal of Urban Health*, 97(3), 332–335. [Online]. Available at: doi:10.1007/s11524-020-00455-5 [Accessed 08 August 2023].

Kirkendall, N., House, C. and Citro, C. (2013). *Research opportunities concerning the causes and consequences of child food insecurity and hunger: A workshop summary*. Washington DC: The National Academies Press. [Online]. Available at: doi:10.1093/oseo/instance.00197398 [Accessed 24 February 2020].

Kirkpatrick, S. I. and Tarasuk, V. (2011). Housing circumstances are associated with household food access among low-income urban families. *Journal of Urban Health*, 88(2), 284–296. [Online]. Available at: doi:10.1007/s11524-010-9535-4 [Accessed 24 February 2020].

Kleinman, R. E. et al. (1998). Hunger in children in the United States: Potential behavioral and emotional correlates. *Pediatrics*, 101(1), E3. Available at: doi:10.1542/peds.101.1.e3.

Knezevic, I. et al. (2014). Food insecurity and participation: A critical discourse analysis. *Critical Discourse Studies*, 11(2), 230–245. [Online]. Available at: doi:10.1080/17405904.2013.866590 [Accessed 07 January 2020].

Knight, A., O'Connell, R. and Brannen, J. (2018). Eating with friends, family or not at all: Young people's experiences of food poverty in the UK. *Children and Society*, 32(3), 185–194. [Online]. Available at: doi:10.1111/chso.12264 [Accessed 11 November 2020].

Knight, A. et al. (2018). How do children and their families experience food poverty according to UK newspaper media 2006–15? *Journal of Poverty and Social Justice*, 26(2), 207–223. [Online]. Available at: doi:10.1332/175982718X15200701225223 [Accessed 08 August 2023].

Knight, C. K. et al. (2016). Household food insecurity and medication 'scrimping' among US adults with diabetes. *Preventive Medicine*, 83, 41–45. [Online]. Available at: doi:10.1016/j.ypmed.2015.11.031 [Accessed 08 September 2020].

Koshgarian, L. (2018). *Here's what we could have if we slashed the military budget*. [Online]. Jacobin. Last updated: September 2018. Available at: https://www.jacobinmag.com/2018/09/pentagon-budget-spending-war-military [Accessed 14 August 2020].

Kramer, S., Hackett, C. and Beveridge, K. (2022). *Modeling the future of religion in America*. Washington DC: Pew Research Center. [Online]. Available at: https://static1.squarespace.com/static/55f61af0e4b04e3c48476b1a/t/63325edf4d4e8d5f4abcd92d/1664245474554/US-Religious-Projections_FOR-PRODUCTION-9.13.22.pdf [Accessed 15 September 2023].

Kristjansson, B. et al. (2007). School feeding for improving the physical and psychosocial health of disadvantaged students. *The Cochrane Database of Systematic Reviews*, 1, CD004676. [Online]. Available at: doi:10.1002/14651858.CD004676.pub2.www.cochranelibrary.com [Accessed 08 June 2020].

Križ, K. and Skivenes, M. (2013). Systemic differences in views on risk: A comparative case vignette study of risk assessment in England, Norway and the United States (California). *Children and Youth Services Review*, 35(11), 1862–1870. [Online]. Available at: doi:10.1016/j.childyouth.2013.09.001 [Accessed 27 November 2020].

Kuhn, M. A. (2018). Who feels the calorie crunch and when? The impact of school meals on cyclical food insecurity. *Journal of Public Economics*, 157, 1–226. [Online]. Available at: doi:10.1016/j.jpubeco.2018.08.001 [Accessed 08 June 2020].

Kushel, M. B. et al. (2006). Housing instability and food insecurity as barriers to health care among low-income Americans. *Journal of General Internal Medicine*, 21(1), 71–77. [Online]. Available at: doi:10.1111/j.1525-1497.2005.00278.x [Accessed 02 August 2022].

Lakhani, N. (2020). 'A perfect storm': US facing hunger crisis as demand for food banks soars. *The Guardian*. [Online]. 02 April 2020. Available at: https://www.theguardian.com/environment/2020/apr/02/us-food-banks-coronavirus-demand-unemployment [Accessed 02 June 2020].

Lallukka, T. et al. (2007). Multiple socio-economic circumstances and healthy food habits. *European Journal of Clinical Nutrition*, 61(6), 701–710. [Online]. Available at: doi:10.1038/sj.ejcn.1602583 [Accessed 18 December 2019].

Lambie-Mumford, H. (2014). *The right to food and the rise of charitable emergency food provision in the United Kingdom*. [Online]. PhD Thesis, Department of Geography, University of Sheffield. Available at: https://etheses.whiterose.ac.uk/7227/1/Lambie-Mumford%20%282014%29%20The%20right%20to%20food%20and%20the%20rise%20of%20charitable%20emergency%20food%20provision%20in%20the%20United%20Kingdom.pdf [Accessed 08 December 2023].

Lambie-Mumford, H. (2017). *Hungry Britain: The rise of food charity*. Available at: doi:10.1332/policypress/9781447328285.001.0001.

Lambie-Mumford, H. and Green, M. A. (2017). Austerity, welfare reform and the rising use of food banks by children in England and Wales. *Area*, 49(3), 273–279. [Online]. Available at: doi:10.1111/area.12233 [Accessed 09 October 2019].

Lambie-Mumford, H. and Silvasti, T. (2020). *The rise of food charity in Europe: The role of advocacy planning*. Bristol: Policy Press.

Lambie-Mumford, H. and Sims, L. (2018). 'Feeding hungry children': The growth of charitable breakfast clubs and holiday hunger projects in the UK. *Children and Society*, 32(3), 244–254. [Online]. Available at: doi:10.1111/chso.12272 [Accessed 10 June 2020].

Lambie-Mumford, H. and Snell, C. (2015). Heat or eat: Food and austerity in rural England. Final report. *Working Papers of the Communities & Culture Network+*, 6, University of Leeds.

Lambie-Mumford, H. et al. (2022). *Food vulnerability during COVID-19. End of project summary of key findings*. [Online]. Available at: https://www.sheffield.ac.uk/speri/research/current-projects/food-vulnerability-during-covid-19 [Accessed 08 December 2023].

Lang, T. and Caraher, M. (1998). Access to healthy foods: Part II. Food poverty and shopping deserts: What are the implications for health promotion policy and practice? *Health Education Journal*, 57(3), 202–211. [Online]. Available at: doi:10.1177/001789699805700303 [Accessed 06 December 2019].

Latham, J. and Moffat, T. (2007). Determinants of variation in food cost and availability in two socioeconomically contrasting neighbourhoods of Hamilton, Ontario, Canada. *Health and Place*, 13(1), 273–287. [Online]. Available at: doi:10.1016/j.healthplace.2006.01.006 [Accessed 11 December 2019].

Latkin, C. A. et al. (2020). An assessment of the rapid decline of trust in US sources of public information about COVID-19. *Journal of Health Communication*, 25(10), 764–773. [Online]. Available at: doi:10.1080/10810730.2020.1865487 [Accessed 08 August 2023].

Lee, A. et al. (2013). Monitoring the price and affordability of foods and diets globally. *Obesity Reviews*, 14(S1), 82–95. [Online]. Available at: doi:10.1111/obr.12078 [Accessed 19 December 2019].

Lee, A. J. et al. (2002). Food availability, cost disparity and improvement in relation to accessibility and remoteness in Queensland. *Australian and New Zealand Journal of Public Health*, 26(3), 266–272. [Online]. Available at: doi:10.1111/j.1467-842X.2002.tb00685.x [Accessed 11 December 2019].

Leeds Food Aid Network. (2022). *Leeds pandemic food insecurity response*.[Online]. Leeds Food Aid Network. Available at: https://leedsfoodaidnetwork.co.uk/wp-content/uploads/2022/10/PDF-Leeds-Pandemic-Food-Insecurity-Response.pdf [Accessed 05 September 2022].

Leeds Observatory. (2023) *Leeds poverty fact book – section 6: Food poverty*. [Online]. Available at: https://observatory.leeds.gov.uk/leeds-poverty-fact-book/section-6-food-poverty/ [Accessed 12 June 2023].

Leeds Observatory. (2020a). *Housing*. [Online]. Leeds Observatory. Available at: https://observatory.leeds.gov.uk/housing/ [Accessed 07 January 2021].

Leeds Observatory. (2020b). *Leeds poverty fact book – section 1: Relative and absolute poverty*. [Online]. Leeds Observatory. Available at: https://observatory.leeds.gov.uk/leeds-poverty-fact-book/relative-and-absolute-poverty/ [Accessed 07 January 2021].

Leeds Observatory. (2020c). *Leeds poverty fact book – section 3: Wages, household income and employment*. [Online]. Leeds Observatory. Available at: https://observatory.leeds.gov.uk/leeds-poverty-fact-book/section-3-wages-household-income-and-employment/ [Accessed 07 January 2021].

Leeds Observatory (n.d.). *Population estimations*. [Online]. Leeds Observatory. Available at: https://observatory.leeds.gov.uk/population/ [Accessed 07 January 2021].

Leeds.gov.uk (n.d.). *Economic performance and key sectors in Leeds*. [Online]. Leeds.gov.uk. Available at: https://www.leeds.gov.uk/business/economic-performance-and-key-sectors [Accessed 07 January 2021].

Leete, L. and Bania, N. (2010). The effect of income shocks on food insufficiency. *Review of Economics of the Household*, 8(4), 505–526. [Online]. Available at: doi:10.1007/s11150-009-9075-4 [Accessed 20 January 2020].

Legal Services of Northern California. (n.d.). *Benefit increases because of COVID-19*. [Online]. Available at: https://calfresh.guide/benefit-increase-because-of-covid-19/ [Accessed 02 July 2023].

Lelii, M. (2022). *Trust in government, UK: 2022*. [Online]. Office for National Statistics. Last updated: 11 July 2022. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/trustingovernmentuk/2022 [Accessed 07 August 2023].

Li, N., Dachner, N. and Tarasuk, V. (2016). The impact of changes in social policies on household food insecurity in British Columbia, 2005–2012. *Preventive Medicine*, 93, 151–158. [Online]. Available at: doi:10.1016/j.ypmed.2016.10.002 [Accessed 05 March 2020].

Lincoln, Y. S. and Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Lindberg, R., Lawrence, M. and Caraher, M. (2017). Kitchens and pantries – helping or hindering? The perspectives of emergency food users in Victoria, Australia. *Journal of Hunger and Environmental Nutrition*, 12(1), 26–45. [Online]. Available at: doi:10.1080/19320248.2016.1175397 [Accessed 17 December 2019].

Livingstone, N. (2015). The hunger games: Food poverty and politics in the UK. *Capital & Class*, 39(2), 188–195. [Online]. Available at: doi:10.1177/0309816815576737 [Accessed 04 December 2019].

Lohnes, J. and Wilson, B. (2018). Bailing out the food banks? Hunger relief, food waste, and crisis in Central Appalachia. *Environment and Planning A*, 50(2), 350–369. [Online]. Available at: doi:10.1177/0308518X17742154 [Accessed 11 November 2020].

Loofbourrow, B. M. et al. (2023). Understanding the role of CalFresh participation and food insecurity on academic outcomes among college students during the COVID-19 pandemic. *Nutrients*, 15(4). [Online]. Available at: doi:10.3390/nu15040898 [Accessed 05 October 2023].

Loopstra, R. (2018). Interventions to address household food insecurity in high-income countries. *Proceedings of the Nutrition Society*, 77(3), 270–281. [Online]. Available at: doi:10.1017/S002966511800006X [Accessed 09 October 2019].

Loopstra, R. (2020). *Vulnerability to food insecurity since the COVID-19 lockdown*. Preliminary report. [Online] Food Foundation. Available at: https://foodfoundation.org.uk/publication/vulnerability-food-insecurity-covid-19-lockdown [Accessed 08 December 2023].

Loopstra, R. and Lalor, D. (2017). *Financial insecurity, food insecurity, and disability: The profile of people receiving emergency food assistance from The Trussell Trust Network in Britain*. (June), Salisbury.

Loopstra, R. and Tarasuk, V. (2012). The relationship between food banks and household food insecurity among low-income Toronto families. *Canadian Public Policy*, 38(4), 497–514. [Online]. Available at: doi:10.3138/CPP.38.4.497 [Accessed 02 August 2020].

Loopstra, R., Dachner, N. and Tarasuk, V. (2015b). An exploration of the unprecedented decline in the prevalence of household food insecurity in Newfoundland and Labrador, 2007-2012. *Canadian Public Policy*, 41(3), 191–206. [Online]. Available at: doi:10.3138/cpp.2014-080.

Loopstra, R., Lambie-Mumford, H. and Fledderjohann, J. (2019). Food bank operational characteristics and rates of food bank use across Britain. *BMC Public Health*, 19, 561. [Online]. Available at: doi:10.1186/s12889-019-6951-6 [Accessed 30 October 2019].

Loopstra, R., Lambie-Mumford, H. and Patrick, R. (2018). *Family hunger in times of austerity: Families using food banks across Britain*. British Political Economy Brief No.32. [Online]. Sheffield Political Economy Research Institute Interdisciplinary Centre of the Social Sciences. Available at: https://www.sheffield.ac.uk/media/36500/download?attachment [Accessed 23 October 2019].

Loopstra, R., Reeves, A. and Stuckler, D. (2015). Rising food insecurity in Europe. *The Lancet*, 385(9982), 2041. Available at: DOI:https://doi.org/10.1016/S0140-6736(15)60983-7 [Accessed 20 November 2019].

Loopstra, R., Reeves, A. and Tarasuk, V. (2019). The rise of hunger among low-income households: An analysis of the risks of food insecurity between 2004 and 2016 in a population-based study of UK adults. *Journal of Epidemiology and Community Health*, 73(7), 668673. [Online]. Available at: doi:10.1136/jech-2018-211194 [Accessed 13 January 2022].

Loopstra, R. et al. (2015). Austerity, sanctions, and the rise of food banks in the UK. *British Medical Journal (Clinical Research Ed)*, 350, h1775. [Online]. Available at: doi:10.1136/bmj.h1775 [Accessed 30 March 2020].

Loopstra, R. et al. (2016). Food insecurity and social protection in Europe: Quasi-natural experiment of Europe's great recessions 2004–2012. *Preventive Medicine*, 89, 44–50.

Loopstra, R. et al. (2018). Impact of welfare benefit sanctioning on food insecurity: A dynamic cross-area study of food bank usage in the UK. *Journal of Social Policy*, 47(3), 437–457. [Online]. Available at: doi:10.1017/S0047279417000915 [Accessed 30 March 2020].

Loopstra, R. et al. (2019). *A survey of food banks operating independently of The Trussell Trust food bank network*. Colchester, Essex: UK Data Service.

Los Angeles Times Staff. (2023). Tracking the coronavirus in Fresno County. *LA Times*. [Online]. Last updated: 07 June 20203. Available at: https://www.latimes.com/projects/california-coronavirus-cases-tracking-outbreak/archive/fresno-county/ [Accessed 02 July 2023].

Low, J. (2019). A pragmatic definition of the concept of theoretical saturation. *Sociological Focus*, 52(2), 131–139. [Online]. Available at: doi:10.1080/00380237.2018.1544514 [Accessed 12 June 2023].

Lowe, S. G., Searle, B. A. and Smith, S. J. (2012). From housing wealth to mortgage debt: The emergence of Britain's asset-shaped welfare state. *Social Policy and Society*, 11(1), 105–116. [Online]. Available at: doi:10.1017/s1474746411000455 [Accessed 02 August 2020].

Lucas, P. J., Jessiman, T. and Cameron, A. (2014). Healthy start: The use of welfare food vouchers by low-income parents in England. *Social Policy and Society*, 14(3), 457–469. [Online]. Available at: doi:10.1017/S1474746415000020 [Accessed 11 October 2019].

Luhby, T. (2018). *The real story of food stamps*. [Online]. CNN Money. Last updated: 13 February 2018. Available at: https://money.cnn.com/2018/02/13/news/economy/food-stamps-what-to-know/index.html [Accessed 09 October 2019].

Luo, Y. et al. (2022). The association between food insecurity and making hunger-coping trade-offs during the COVID-19 pandemic: The role of sources of food and easiness in food access. *Nutrients*, 14(21), 4616. [Online]. Available at: doi:10.3390/nu14214616 [Accessed 11 August 2023].

Macdonald, B. and Walker, R. (1975). Case-study and the social philosophy of educational research. *Cambridge Journal of Education*, 5(1), 2–11. Available at: DOI:10.1080/0305764750050101.

Macdonald, F. (2019). *Evaluation of the school breakfast clubs program. Final report*. (00124). [Online]. Victoria University. Available at: https://www.vu.edu.au/sites/default/files/evaluation-school-breakfast-clubs.pdf [Accessed 08 December 2023].

Macias, A. (2020). What the Pentagon is asking for in its $705 billion budget. [Online]. *CNBS*. Last updated: 11 February 2020. Available at: https://www.cnbc.com/2020/02/11/what-the-pentagon-is-asking-for-in-its-705-billion-budget.html [Accessed 14 August 2020].

Macinnes, T. et al. (2015). *Monitoring poverty and social exclusion*. York: Joseph Rowntree Foundation.

MacLeod, M. A., Curl, A. and Kearns, A. (2019). Understanding the prevalence and drivers of food bank use: Evidence from deprived communities in Glasgow. *Social Policy and Society*, 18(1), 67–86. [Online]. Available at: doi:10.1017/S1474746418000064 [Accessed 02 August 2020].

Maillot, M. et al. (2007). Nutrient-dense food groups have high energy costs: An econometric approach to nutrient profiling. *The Journal of Nutrition*, 137(7), 1815–1820. [Online]. Available at: doi:10.1093/jn/137.7.1815 [Accessed 19 December 2019].

Mares, T. M. (2013). 'Here we have the food bank': Latino/a immigration and the contradictions of emergency food. *Food and Foodways*, 21(1), 1–21. [Online]. Available at: doi:10.1080/07409710.2013.764783 [Accessed 07 August 2023].

Martin, M. A. and Lippert, A. M. (2012). Feeding her children, but risking her health: The intersection of gender, household food insecurity and obesity. *Social Science and Medicine*, 74(11), 1754–1764. [Online]. Available at: doi:10.1016/j.socscimed.2011.11.013 [Accessed 02 January 2020].

Martin, W. (2010). *Food security and poverty – a precarious balance*. [Online]. World Bank. Last updated: 05 November 2010. Available at: https://blogs.worldbank.org/developmenttalk/food-security-and-poverty-a-precarious-balance [Accessed 15 November 2019].

Matheson, J. and McIntyre, L. (2014). Women respondents report higher household food insecurity than do men in similar Canadian households. *Public Health Nutrition*, 17(1), 40–48. [Online]. Available at: doi:10.1017/S136898001300116X [Accessed 10 February 2020].

Maxwell, D. G. (1996). Measuring food insecurity: The frequency and severity of 'coping strategies'. *Food Policy*, 21(3), 291–303. [Online]. Available at: doi:10.1016/0306-9192(96)00005-X [Accessed 19 November 2019].

Maxwell, S. et al. (1992). *Household food security: Concepts, indicators, measurements: A technical review*. Rome; New York: UNICEF and International Fund for Agricultural Development.

Maynard, M. et al. (2019). The experience of food insecurity among immigrants: A scoping review. *Journal of International Migration and Integration*, 20, 375–417. Available at: https://doi.org/10.1007/s12134-018-0613-x {Accessed 09 July 2020].

Mcbride, K. and Purcell, S. (2014). *Food, fuel finance: Tackling the poverty premium*. [Online]. Manchester: Church Action on Poverty. Available at: https://www.church-poverty.org.uk/food-fuel-finance/ [Accessed 08 December 2023].

McCabe-Sellers, B. J. et al. (2007). Assessment of the diet quality of US adults in the Lower Mississippi Delta. *American Journal of Clinical Nutrition*, 86(3), 697–706. [Online]. Available at: doi:10.1093/ajcn/86.3.697 [Accessed 18 December 2019].

McCartney, G. et al. (2019). Defining health and health inequalities. *Public Health*, 172, 22–30. [Online]. Available at: doi:10.1016/j.puhe.2019.03.023 [Accessed 21 March 2021].

McChesney, K. and Aldridge, J. (2019). Weaving an interpretivist stance throughout mixed methods research. *International Journal of Research and Method in Education*, 42(3), 225–238. [Online]. Available at: doi:10.1080/1743727X.2019.1590811 [Accessed 15 December 2020].

McDonald, R. and Roland, M. (2009). Pay for performance in primary care in England and California: Comparison of unintended consequences. *Annals of Family Medicine*, 7(2), 121–127. [Online]. Available at: doi:10.1370/afm.946 [Accessed 27 November 2020].

McIntyre, L. et al. (2016). Household food insecurity in Canada: Problem definition and potential solutions in the public policy domain. *Canadian Public Policy / Analyse de Politiques*, 42(1), 83–93. Available at: https://doi.org/10.3138/cpp.2015-066 [Accessed 03 December 2019].

McIntyre, L. (2003). Food security: More than a determinant of health. *Policy Options*, 23(3), 46–51. Available at: https://irpp.org/wp-content/uploads/sites/2/assets/po/bank-mergers/mcintyre.pdf [Accessed 08 December 2023].

McIntyre, L., Bartoo, A. C. and Emery, J. C. H. (2014). When working is not enough: Food insecurity in the Canadian labour force. 2012/09/10. *Public Health Nutrition*, 17(1), 49–57. [Online]. Available at: doi:10.1017/S1368980012004053 [Accessed 03 December 2019].

McIntyre, L., Pow, J. and Emery, J. C. H. (2015). A path analysis of recurrently food-insecure Canadians discerns employment, income, and negative health effects. *Journal of Poverty*, 19(1), 71–87. [Online]. Available at: doi:10.1080/10875549.2014.979462 [Accessed 19 August 2020].

McIntyre, L. et al. (2016a). Homeowner versus non-homeowner differences in household food insecurity in Canada. *Journal of Housing and the Built Environment*, 31(2), 349–366. [Online]. Available at: doi:10.1007/s10901-015-9461-6 [Accessed 27 February 2020].

McIntyre, L. et al. (2016b). 'In'-sights about food banks from a critical interpretive synthesis of the academic literature. *Agriculture and Human Values*, 33(4), 843–859. [Online]. Available at: doi:10.1007/s10460-015-9674-z [Accessed 13 May 2020].

McKay, F. H. et al. (2018). Experiences of food access for asylum seekers who have ceased using a food bank in Melbourne, Australia. *British Food Journal*, 120(8), 1708–1721. [Online]. Available at: doi:10.1108/BFJ-04-2018-0271 [Accessed 07 August 2023].

McKenna, U. (2023). Assessing the Church of England's leadership response to the Covid-19 pandemic: Listening to the voice of rural lay people. *Journal of Anglican Studies*, 21(1), 34–52. [Online]. Available at: doi:10.1017/S1740355321000401 [Accessed 15 September 2023].

McKenzie, H. J. (2017). Food as a discretionary item: The impact of welfare payment changes on low-income single mother's food choices and strategies. *Journal of Poverty and Social Justice*, 25(1), 35–48. [Online]. Available at: doi:10.1332/175982716X14822521840954 [Accessed 19 August 2020].

McKinzie, A. E. and Richards, P. L. (2019). An argument for context-driven intersectionality. *Sociology Compass*, 13(4), e12671. [Online]. Available at: doi:10.1111/soc4.12671 [Accessed 24 October 2023].

McLaughlin, C., Tarasuk, V. and Kreiger, N. (2003). An examination of at-home food preparation activity among low-income, food-insecure women. *Journal of the American Dietetic Association*, 103(11), 1506–1512. [Online]. Available at: doi:10.1016/j.jada.2003.08.022 [Accessed 10 February 2020].

Mechlem, K. (2004). Food security and the right to food in the discourse of the United Nations. *European Law Journal*, 10(5), 631–648. [Online]. Available at: doi:10.1111/j.1468-0386.2004.00235.x [Accessed 24 December 2019].

Meers, J. (2022). 'Legacy benefits' and the Universal Credit uplift: Justified discrimination in the COVID-19 social security response. *Journal of Social Welfare and Family Law*, 44(2), 245–247. [Online]. Available at: doi:10.1080/09649069.2022.2067653 [Accessed 09 August 2023].

Melchior, M. et al. (2009). Mental health context of food insecurity: A representative cohort of families with young children. *Pediatrics*, 124(4), e564 LP–e572. [Online]. Available at: doi:10.1542/peds.2009-0583 [Accessed 2 December 2019].

Meldrum, L. A. and Willows, N. D. (2006). Food insecurity in university students receiving financial aid. *Canadian Journal of Dietetic Practice and Research*, 67(1), 43–46. [Online]. Available at: doi:10.3148/67.1.2006.43 [Accessed 02 October 2020].

Men, F. and Tarasuk, V. (2021). Food insecurity amid the COVID-19 pandemic: Food charity, government assistance and employment. *Canadian Public Policy. Analyse de politiques*, 47(2), 202–230. Available at: doi:10.3138/CPP.2021-001 [Accessed 08 August 2023].

Men, F. et al. (2019). Prescription medication nonadherence associated with food insecurity: A population-based cross-sectional study. *CMAJ Open*, 7(3), E590–E597. [Online]. Available at: doi:10.9778/cmajo.20190075 [Accessed 02 January 2020].

Michelson, M. (2007). All roads lead to rust: How acculturation erodes Latino immigrant trust in government. *Aztlán: A Journal of Chicano Studies*, 32(2), 21–46. UCLA Chicano Studies Research Center.

Middleton, G. et al. (2018). The experiences and perceptions of food banks amongst users in high-income countries: An international scoping review. *Appetite*, 120, 698–708. [Online]. Available at: doi:10.1016/j.appet.2017.10.029 [Accessed 12 March 2020].

Miller, D. P. et al. (2014). Family structure and child food insecurity. *American Journal of Public Health*, 104(7), 70–76. [Online]. Available at: doi:10.2105/AJPH.2014.302000 [Accessed 24 February 2020].

Ministry of Education. (2020). *Healthy school lunches*. [Online]. New Zealand Government. Last updated: 18 September 2023. Available at: https://www.education.govt.nz/our-work/overall-strategies-and-policies/wellbeing-in-education/free-and-healthy-school-lunches [Accessed 10 June 2020].

Ministry of Health. (2019). *Household food insecurity among children: New Zealand Health Survey*. Wellington: Ministry of Health.

Mitton, L. (2011). The history and development of social policy. In Baldock, J., Mitton, L., Manning, N. and Vickerstaff, S (Eds). *Social policy*. 4th ed. Oxford: Oxford University Press. Pp. 27–51.

Molitor, F. and Doerr, C. (2021). Very low food security among low-income households with children in California before and shortly after the economic downturn from COVID-19. *Preventing Chronic Disease*, 18, E01. [Online]. Available at: doi:10.5888/pcd18.200517 [Accessed 02 July 2023].

Monsivais, P. and Drewnowski, A. (2007). The rising cost of low-energy-density foods. *Journal of the American Dietetic Association*, 107(12), 2071–2076. [Online]. Available at: doi:10.1016/j.jada.2007.09.009 [Accessed 18 December 2019].

Morland, K. et al. (2002). Neighborhood characteristics associated with the location of food stores and food service places. *American Journal of Preventive Medicine*, 22(1), 23–29. Available at: DOI: 10.1016/s0749-3797(01)00403-2 [Accessed 11 December 2019].

Mortimer, G. (2020). *How supermarkets are winning hearts and minds*. [Online]. Inside FMCG. Last updated: 28 April 2020. Available at: https://insideretail.com.au/news/how-supermarkets-are-winning-hearts-and-minds-202004 [Accessed 02 June 2020].

Mucio Marques, K. C., Camacho, R. R. and De Alcantara, C. C. V. (2015). Assessment of the methodological rigor of case studies in the field of management accounting published in journals in Brazil. *Revista Contabilidade e Financas*, 26(67), 27–42. [Online]. Available at: doi:10.1590/1808-057x201500280 [Accessed 06 December 2020].

Murphy, J. M. et al. (1998). Relationship between hunger and psychosocial functioning in low-income American children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(2), 163–170. [Online]. Available at: doi:10.1097/00004583-199802000-00008 [Accessed 08 June 2020].

Murphy, S. et al. (2011). Free healthy breakfasts in primary schools: A cluster randomised controlled trial of a policy intervention in Wales, UK. *Public Health Nutrition*, 14(2), 219–226. [Online]. Available at: doi:10.1017/S1368980010001886 [Accessed 09 June 2020].

Nhoung, H. K. et al. (2020). Food insecurity and insulin use in hyperglycemic patients presenting to the emergency department. *Western Journal of Emergency Medicine*, 21(4), 959–963. [Online]. Available at: doi:10.5811/westjem.2020.4.45918 [Accessed 08 September 2020].

NHS. (n.d.). *Healthy Start*. [Online]. NHS. Available at: https://www.healthystart.nhs.uk/ [Accessed 10 June 2020].

NHS Health Scotland. (2018). *Food poverty*. [Online]. Inequality briefing. Available at: https://www.healthscotland.scot/media/2222/food-poverty.pdf [Accessed 12 November 2018].

Nielsen, A., Lund, T. B. and Holm, L. (2014). The taste of 'the end of the month', and how to avoid it: Coping with restrained food budgets in a Scandinavian welfare state context. *Social Policy and Society*, 14(3), 429–442. [Online]. Available at: doi:10.1017/S1474746415000056 [Accessed 15 December 2019].

Nind, M., Coverdale, A. and Meckin, R. (2021). *Changing social research practices in the context of Covid-19: Rapid evidence review*. [Online]. Project Report. NCRM. Available at: https://eprints.ncrm.ac.uk/id/eprint/4458/ [Accessed 08 December2023].

Nord, M. (2014). What have we learned from two decades of research on household food security? 2013/12/03. *Public Health Nutrition*, 17(1), 2–4. [Online]. Available at: doi:10.1017/S1368980013003091 [Accessed 28 November 2019].

Nord, M. and Golla, A. M. (2009). *Does SNAP decrease food insecurity? Untangling the self-selection effect*. [Online]. No 55955, Economic Research Report from United States Department of Agriculture, Economic Research Service. Available at: https://econpapers.repec.org/paper/agsuersrr/55955.htm [Accessed 08 December 2023].

Nowell, L. S. et al. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13. [Online]. Available at: doi:10.1177/1609406917733847 [Accessed 01 October 2021].

O'Connell, R. and Brannen, J. (2019). Food poverty and the families the state has turned its back on: The case of the UK. In Gaisbauer, H., Schweiger, G. and Sedmak, C. (Eds). *Absolute poverty in Europe: interdisciplinary perspectives on a hidden phenomenon*. Pp. 159–182. [Online]. Available at: doi:10.1332/policypress/9781447341284.003.0008 [Accessed 08 December 2023].

O'Connell, R. et al. (2022). School meals as a resource for low-income families in three European countries: A comparative case approach. *European Societies*, 24(3), 251–282. [Online]. Available at: doi:10.1080/14616696.2022.2078498 [Accessed 19 September 2023].

O'Connor, A. (2011). At schools, making pizza a vegetable. *The New York Times*. [Online]. 15 November 2011. Available at: https://well.blogs.nytimes.com/2011/11/15/at-schools-making-pizza-a-vegetable/ [Accessed 09 June 2020].

O'Connor, D., Cantillon, S. and Walsh, J. (2008). Rights-based approaches to food poverty in Ireland. *Combat Poverty Agency: Working Paper Series*, 11/01.

OECD. (2014). *OECD employment outlook 2014*. [Online]. OECD. Last updated: 03 September 2014. Available at: doi:10.1787/empl_outlook-2014-en [Accessed 11 December 2019].

Offer, A., Pechey, R. and Ulijaszek, S. (2010). Obesity under affluence varies by welfare regimes: The effect of fast food, insecurity, and inequality. *Economics and Human Biology*, 8(3), 297–308. [Online]. Available at: doi:10.1016/j.ehb.2010.07.002 [Accessed 10 February 2020].

Office of Governor Gavin Newsom. (2022). *Governor Newsom signs budget putting money back in Californians' pockets and investing in state's future*. [Online]. CA.gov. Last updated: 06 30 2022. Available at: https://www.gov.ca.gov/2022/06/30/governor-newsom-signs-budget-putting-money-back-in-californians-pockets-and-investing-in-states-future/ [Accessed 02 July 2023].

O'Hara, M. (2014). *Austerity bites: A journey to the sharp end of cuts in the UK*. 1st ed. Bristol: Policy Press. [Online]. Available at: doi:10.2307/j.ctt13x0q6t [Accessed 19 August 2020].

Okuneye, B. (2002). Rising cost of food prices and food insecurity in Nigeria and its implication for poverty reduction. [Online]. *CBN Economic and Financial Review*, 39(4). Available at: https://www.cbn.gov.ng/OUT/PUBLICATIONS/EFR/RD/2002/EFRVOL39-4-6.PDF [Accessed 07 January 2020].

Oostindjer, M. et al. (2017). Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children´s diet and food consumption? A cross-national comparative perspective. *Critical Reviews in Food Science and Nutrition*, 57(18), 3942–3958. [Online]. Available at: doi:10.1080/10408398.2016.1197180 [Accessed 08 June 2020].

Overseas Development Institute. (1997). *Global hunger and food security after the World Food Summit*. London: ODI.

Oxfam Scotland. (2015). *Public in Scotland: Need for food banks 'fundamentally wrong'*. [Online]. Oxfam Scotland. Last updated: 10 December 2015. Available at: https://oxfamapps.org/scotland/2015/12/10/2015-12-public-in-scotland-need-for-food-banks-fundamentally-wrong/ [Accessed 19 May 2020].

Oxholm, T. et al. (2021). New Zealand religious community responses to COVID-19 while under level 4 lockdown. *Journal of Religion and Health*, 60(1), 16–33. [Online]. Available at: doi:10.1007/s10943-020-01110-8 [Accessed 15 September 2023].

Saxena, L. P. and Tornaghi, C. (2018). The emergence of social supermarkets in Britain: Food poverty, food waste and austerity retail. [Online]. Research Report, pp. 1–64. Centre for Agroecology, Water and Resilience. Coventry: Coventry University. Available at: doi:10.1177/0145482x6806200604 [Accessed 19 May 2020].

Patrick, R. et al. (2022). *Covid realities: Documenting life on a low income during the pandemic*. [Online]. Report. Available at: https://cdn.sanity.io/files/brhp578m/production/87675ee74d31a305f15c0d8de203e3dd21c50c38.pdf [Accessed 24 January 2022].

Payán, D. D. et al. (2021). Structural barriers influencing food insecurity, malnutrition, and health among Latinas during and after COVID-19: Considerations and recommendations. *Journal of the Academy of Nutrition and Dietetics*, 121(5), 837–843. [Online]. Available at: doi:10.1016/j.jand.2021.01.005 [Accessed 08 August 2023].

Payán, D. D. et al. (2022). Rural household food insecurity among Latino immigrants during the COVID-19 pandemic. *Nutrients*, 14(13), 2772. [Online]. Available at: doi:10.3390/nu14132772 [Accessed 02 July 2023].

Pendleton, D. (2020). *Panic buying strains the world's food banks*. [Online]. Bloomberg. Last updated: 01 April 2020. Available at: https://www.bloomberg.com/news/articles/2020-04-01/panic-buying-strains-the-world-s-food-banks [Accessed 25 May 2020].

Pennycook, G. et al. (2022). Beliefs about COVID-19 in Canada, the United Kingdom, and the United States: A novel test of political polarization and motivated reasoning. *Personality and Social Psychology Bulletin*, 48(5), 750–765. [Online]. Available at: doi:10.1177/01461672211023652 [Accessed 07 August 2023].

Pérez-Escamilla, R. and Segall-Corrêa, A. M. (2008). Food insecurity measurement and indicators. *Revista de Nutrição*, 21, 15s–26s. Available at: https://www.scielo.br/j/rn/a/mfgJyKLc9HP7nXLRX5fH3Fh/ [Accessed 19 November 2019].

Petralias, A. et al. (2016). The impact of a school food aid program on household food insecurity. *European Journal of Public Health*, 26(2), 290–296. [Online]. Available at: doi:10.1093/eurpub/ckv223 [Accessed 08 June 2020].

Pilkington, E. (2019). Digital dystopia: How algorithms punish the poor. *The Guardian*. [Online]. 14 October 2019. Available at: https://www.theguardian.com/technology/2019/oct/14/automating-poverty-algorithms-punish-poor [Accessed 15 October 2019].

Ver Ploeg, M. et al. (2009). *Access to affordable and nutritious food: Measuring and understanding food deserts and their consequences*. [Online]. United States Department of Agriculture, (June). Available at: https://www.ers.usda.gov/publications/pub-details/?pubid=42729 [Accessed 28 November 2019].

Pollard, C. M. and Booth, S. (2019). Food insecurity and hunger in rich countries – it is time for action against inequality. *International Journal of Environmental Research and Public Health*, 16(10), 1804. [Online]. Available at: doi:10.3390/ijerph16101804 [Accessed 08 January 2020].

Pool, U. and Dooris, M. (2022). Prevalence of food security in the UK measured by the food insecurity experience scale. *Journal of Public Health (United Kingdom)*, 44(3), 634–641. [Online]. Available at: doi:10.1093/pubmed/fdab120 [Accessed 19 June 2023].

Poppendieck, J. (1998). *Sweet charity?: Emergency food and the end of entitlement*. New York: Penguin.

Poppendieck, J. (2014). Food assistance, hunger and the end of welfare in the USA. In Riches, G. and Silvasti, T. (Eds). *First world hunger revisited:* London: Palgrave Macmillan. Available at: https://doi.org/10.1057/9781137298737_13 [Accessed 08 December 2023].

Powell, M. (2007). The mixed economy of welfare and the social division of welfare. In Power, M. (Ed). *Understanding the Mixed Economy of Welfare*, 1–22. [Online]. Available at: doi:10.2307/j.ctt1t89b4m.6 [Accessed 24 October 2019].

Power, E., Black, J. and Brady, J. (2020). *More than food banks are needed to feed the hungry during the coronavirus pandemic*. [Online]. The Conversation. Last updated: 05 May 2020. Available at: https://theconversation.com/more-than-food-banks-are-needed-to-feed-the-hungry-during-the-coronavirus-pandemic-136164 [Accessed 25 May 2020].

Power, E. M. (2005a). Determinants of healthy eating among low-income Canadians. *Canadian Journal of Public Health*, 96 (Suppl. 3), S42–S48. [Online]. Available at: doi:10.1007/BF03405200 [Accessed 04 December 2019].

Power, E. M. (2005b). The unfreedom of being other: Canadian lone mothers' experiences of poverty and 'life on the cheque'. *Sociology*, 39(4), 643–660. [Online]. Available at: doi:10.1177/0038038505056023 [Accessed 07 January 2020].

Power, E. M., Little, M. H. and Collins, P. A. (2015). Should Canadian health promoters support a food stamp-style program to address food insecurity? *Health Promotion International*, 30(1), 184–193. [Online]. Available at: doi:10.1093/heapro/dau080 [Accessed 24 October 2019].

Power, M. et al. (2018). The Incompatibility of system and lifeworld understandings of food insecurity and the provision of food aid in an English city. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 31, 907–922. [Online]. Available at: doi:10.1007/s11266-018-0018-7 [Accessed 04 December 2019].

Power, M. et al. (2020). How COVID-19 has exposed inequalities in the UK food system: The case of UK food and poverty. *Emerald Open Research*, 2, 11. [Online]. Available at: doi:10.35241/emeraldopenres.13539.2 [Accessed 27 November 2020].

Power, M. S. et al. (2016). Food insecurity and mental health: An analysis of routine primary care data of pregnant women in the Born in Bradford cohort. *Journal of Epidemiology and Community Health.*, 71(4). Available at: https://doi.org/10.1136/jech-2016-207799 [Accessed 02 December 2019].

Prasad, R. (2019). *The human cost of insulin in America*. [Online]. BBC News. Last updated: 14 March 2019. Available at: https://www.bbc.co.uk/news/world-us-canada-47491964 [Accessed 08 September 2020].

Procter, R. (2023). *Remember when? Timeline marks key events in California's year-long pandemic grind*. [Online]. CalMatters. Last updated: 31 July 2023. Available at: https://calmatters.org/health/coronavirus/2021/03/timeline-california-pandemic-year-key-points/ [Accessed 14 September 2023].

Pryor, S. and Dietz, W. (2022). The COVID-19, obesity, and food insecurity syndemic. *Current Obesity Reports*, 11(3), NLM (Medline), 70–79. [Online]. Available at: doi:10.1007/s13679-021-00462-w [Accessed 08 August 2023].

Purdam, K., Esmail, A. and Garratt, E. (2019). Food insecurity amongst older people in the UK. *British Food Journal*, 121(3), 658–674.

Purdam, K., Garratt, E. A. and Esmail, A. (2016). Hungry? Food insecurity, social stigma and embarrassment in the UK. *Sociology*, 50(6), 1072–1088. [Online]. Available at: doi:10.1177/0038038515594092 [Accessed 03 December 2019].

Rada, A. G. (2013). Child poverty and malnutrition rise in Spain as austerity measures bite. *British Medical Journal(Clinical Research Ed.)*, 347, f5261. Available at: doi:10.1136/bmj.f5261 [Accessed 20 November 2019].

Raifman, J., Bor, J. and Venkataramani, A. (2021). Association between receipt of unemployment insurance and food insecurity among people who lost employment during the Covid-19 pandemic in the United States. *JAMA Network Open*, 4(1), e2035884. [Online]. Available at: doi:10.1001/jamanetworkopen.2020.35884 [Accessed 10 August 2023].

Ramsey, R. et al. (2011). Food insecurity among Australian children: Potential determinants, health and developmental consequences. *Journal of Child Health Care*, 15(4), 401–416. [Online]. Available at: doi:10.1177/1367493511423854 [Accessed 08 June 2020].

Ramsey, R. et al. (2012). Food insecurity among adults residing in disadvantaged urban areas: Potential health and dietary consequences. *Public Health Nutrition*, 15(2), 227–237. [Online]. Available at: doi:10.1017/S1368980011001996 [Accessed 02 January 2020].

Raworth, K. (2017). *Doughnut economics: Seven ways to think like a 21st-century economist*. Vermont: Chelsea Green Publishing.

Reeves, A., Loopstra, R. and Stuckler, D. (2017). The growing disconnect between food prices and wages in Europe: Cross-national analysis of food deprivation and welfare regimes in twenty-one EU countries, 2004–2012. *Public Health Nutrition*, 20(8), 1414–1422. [Online]. Available at: doi:10.1017/S1368980017000167 [Accessed 11 December 2019].

Reinharz, S. and Davidman, L. (1992). *Feminist methods in social research.* Oxford: Oxford University Press.

De Renobales, M., Escajedo San-Epifanio, L. and Molina, F. (2015). Social supermarkets: A dignifying tool against food insecurity for people at socio-economic risk. In Escajedo San-Epifanio, L. and Renobales Scheifler, M. de (Eds). *Envisioning a future without food waste and food poverty: Societal challenges*. The Netherlands: Wageningen Academic Publishers. Pp. 285–290.

Richards, C., Kjærnes, U. and Vik, J. (2016). Food security in welfare capitalism: Comparing social entitlements to food in Australia and Norway. *Journal of Rural Studies*, 43, 61–70. [Online]. Available at: doi:10.1016/j.jrurstud.2015.11.010 [Accessed 19 December 2019].

Riches, G. (2002). Food banks and food security: Welfare reform, human rights and social policy. Lessons from Canada? *Social Policy and Administration*, 36(6), 648–663. [Online]. Available at: doi:10.1111/1467-9515.00309 [Accessed 10 October 2019].

Riches, G. (2011). Thinking and acting outside the charitable food box: Hunger and the right to food in rich societies. *Development in Practice*, 21(4–5), 768–775. [Online]. Available at: doi:10.1080/09614524.2011.561295 [Accessed 13 May 2020].

Riches, G. (2014). Food banks don't solve food poverty. The UK must not institutionalise them. *The Guardian*. [Online]. 08 December 2014. Available at: https://www.theguardian.com/commentisfree/2014/dec/08/food-banks-poverty-uk-canada-right-to-food [Accessed 02 June 2020].

Riches, G. (2018). *Food bank nations: Poverty, corporate charity and the right to food*. London: Routledge.

Riches, G. and Silvasti, T. (2014a). *First world hunger revisited: Food charity or the right to food?* 2nd ed. London: Palgrave Macmillan.

Riches, G. and Silvasti, T. (2014b). Hunger in the rich world: Food aid and right to food perspectives. In Riches, G. and Silvasti, T. (Eds). *First world hunger revisited: Food charity or the right to food?* 2nd ed. London: Palgrave Macmillan UK. Pp. 1–14. [Online]. Available at: doi:10.1057/9781137298737_1 [Accessed 13 May 2020].

Riches, G. and Tarasuk, V. (2014). Canada: Thirty years of food charity and public policy neglect. In Riches, G. and Silvasti, T. (Eds). *First world hunger revisited: Food charity or the right to food?* London: Palgrave Macmillan UK. Pp. 42–56. [Online]. Available at: doi:10.1057/9781137298737_4 [Accessed 13 May 2020].

Rioux, S. (2013). *Banks are booming again, but so are food banks*. [Online]. The Conversation. Last updated: 18 December 2013. Available at: https://theconversation.com/banks-are-booming-again-but-so-are-food-banks-21624 [Accessed 02 June 2020].

Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers*. 2nd ed. Oxford: Blackwell.

Rocha, C. (2007). Food insecurity as market failure: A contribution from economics. *Journal of Hunger and Environmental Nutrition*, 1(4), 5–22. [Online]. Available at: doi:10.1300/J477v01n04_02 [Accessed 07 January 2020].

Rock, M., McIntyre, L. and Rondeau, K. (2009). Discomforting comfort foods: Stirring the pot on Kraft Dinner® and social inequality in Canada. *Agriculture and Human Values*, 26(3), 167–176. [Online]. Available at: doi:10.1007/s10460-008-9153-x [Accessed 03 May 2022].

Rodger, J. (2012). *Criminalising social policy: Anti-social behaviour and welfare in a de-civilised society*. London: Routledge.

Rodgers, Y. V. and Milewska, M. (2007). Food assistance through the school system. *Journal of Children and Poverty*, 13(1), 75–95. [Online]. Available at: doi:10.1080/10796120601171385 [Accessed 08 June 2020].

Romer, D. and Jamieson, K. H. (2021). Conspiratorial thinking, selective exposure to conservative media, and response to COVID-19 in the US. *Social Science and Medicine*, 291, 114480. [Online]. Available at: doi:10.1016/j.socscimed.2021.114480 [Accessed 08 August 2023].

Ronson, D. and Caraher, M. (2016). Food banks: Big society or shunting yards? Successful failures. In Caraher, M. and Coveney, J. (Eds). *Food poverty and insecurity: International food inequalities*.

Cham: Springer International Publishing. Pp. 79–88. [Online]. Available at: doi:10.1007/978-3-319-23859-3_8 [Accessed 30 November 2019].

Rose, D., Gundersen, C. and Oliveira, V. (1998). *Socio-economic determinants of food insecurity in the United States: Evidence from the SIPP and CSFII data sets*. [Online]. Technical Bulletin, (TB-1869). USDA Economic Research Service. Available at: https://www.ers.usda.gov/publications/pub-details/?pubid=47215 [Accessed 7 January 2020].

Rosenbaum, D. and Keith-Jennings, B. (2016). *SNAP costs and caseloads declining trends expected to continue*. [Online]. Washington DC: Center on Budget and Policy Priorities. Available at: https://www.cbpp.org/sites/default/files/atoms/files/11-20-13fa.pdf [Accessed 09 October 2019].

Rowley, J. (2000). Using case studies in research. *Management Research News*, 25(1), 16–27. Available at: https://doi.org/10.1108/01409170210782990 [Accessed 23 November 2020].

Ruckert, A. and Labonté, R. (2014). The global financial crisis and health equity: Early experiences from Canada. *Globalization and Health*, 10(1), 1–10. [Online]. Available at: doi:10.1186/1744-8603-10-2 [Accessed 18 December 2019].

Russomanno, J. and Jabson Tree, J. M. (2020). Food insecurity and food pantry use among transgender and gender non-conforming people in the southeast United States. *BMC Public Health*, 20(1), 1–11. [Online]. Available at: doi:10.1186/s12889-020-08684-8 [Accessed 20 August 2020].

Russomanno, J., Patterson, J. G. and Jabson, J. M. (2019). Food insecurity among transgender and gender nonconforming individuals in the southeast United States: A qualitative study. *Transgender Health*, 4(1), 89–99. [Online]. Available at: doi:10.1089/trgh.2018.0024 [Accessed 20 August 2020].

Ryan, F. (2019). What kind of country have we become? Try asking a disabled person. *The Guardian*. [Online]. 09 June 2019. Available at: https://www.theguardian.com/commentisfree/2019/jun/09/disabled-person-safety-net [Accessed 19 August 2020].

Salmon, L. (2015). Food security for infants and young children: An opportunity for breastfeeding policy? *International Breastfeeding Journal*, 10(1), 7. [Online]. Available at: doi:10.1186/s13006-015-0029-6 [Accessed 19 August 2020].

Salonen, A. S. (2014). The Christmas celebration of secondary consumers: Observations from food banks in Finland. *Journal of Consumer Culture*, 16(3), 870–886. [Online]. Available at: doi:10.1177/1469540514541881 [Accessed 07 August 2023].

Salonen, A. S. (2016). Locating religion in the context of charitable food assistance: An ethnographic study of food banks in a Finnish city. *Journal of Contemporary Religion*, 31(1), 35–50. [Online]. Available at: doi:10.1080/13537903.2016.1109869 [Accessed 07 September 2020].

Sammet, K. and Erhard, F. (2018). Religion in foodbanks in the United Kingdom. In Schnabel, A., Reddig, M. and Winkel, H. (Eds). *Religion im Kontext| Religion in context*. Baden-Baden: Nomos Verlagsgesellschaft mbH & Co. KG. pp. 131–144.

Sandel, M. E. et al. (2010). The California Kaiser Permanente health system: Evolving to meet the needs of people with disabilities. *Disability and Health Journal*, 3(4), 240–244. [Online]. Available at: doi:10.1016/j.dhjo.2010.07.003 [Accessed 27 November 2020].

Sanderson Bellamy, A. et al. (2021). Shaping more resilient and just food systems: Lessons from the COVID-19 pandemic. *Ambio*, 50(4), 782–793. [Online]. Available at: doi:10.1007/s13280-021-01532-y [Accessed 08 August 2023].

Sarlio-Lähteenkorva, S. and Lahelma, E. (2001). Food insecurity is associated with past and present economic disadvantage and body mass index. *The Journal of Nutrition*, 131(11), 2880–2884. [Online]. Available at: doi:10.1093/jn/131.11.2880 [Accessed 15 December 2019].

Sattler, E. L. P. and Lee, J. S. (2013). Persistent food insecurity is associated with higher levels of cost-related medication nonadherence in low-income older adults. *Journal of Nutrition in Gerontology and Geriatrics*, 32(1), 41–58. [Online]. Available at: doi:10.1080/21551197.2012.722888 [Accessed 08 September 2020].

Saunders, B. et al. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893–1907. [Online]. Available at: doi:10.1007/s11135-017-0574-8 [Accessed 12 June 2023].

Schanbacher, W. and Gray, H. L. (2021). Religion and food insecurity in the time of COVID-19: Food sovereignty for a healthier future. *Ecology of Food and Nutrition*, 60(5), 612–631. [Online]. Available at: doi:10.1080/03670244.2021.1946689 [Accessed 15 September 2023].

Schmidhuber, J. and Tubiello, F. N. (2007). Global food security under climate change. *PNAS*, 104(50). [Online]. Available at: doi:10.1038/nclimate2834 [Accessed 06 January 2020].

Schmidt, L., Shore-Sheppard, L. and Watson, T. (2016). The effect of safety-net programs on food insecurity. *Journal of Human Resources*, 51(3), 589–614. [Online]. Available at: doi:10.3368/jhr.51.3.1013-5987R1 [Accessed 10 February 2020].

Schneider, F. et al. (2015). *Advancing social supermarkets across Europe*. [Online]. WP4 – Testing Social Innovation Feasibility Study Final Report. BOKU University of Natural Resources and Life Sciences, Institute of Waste Management. Available at: https://dokumen.tips/documents/advancing-social-supermarkets-across-europe-2016-05-16-feasibility-study-implementing.html?page=4 [Accessed 08 December 2023].

De Schutter, O. (2010). *Food commodities speculation and food price crises: Regulation to reduce the risks of price volatility.* Available at: http://www.srfood.org/en/food-commodities-speculation-and-food-price-crises [Accessed 08 December 2023].

Schwartz, N., Buliung, R. and Wilson, K. (2019). Disability and food access and insecurity: A scoping review of the literature. *Health and Place*, 57(May 2018), 107–121. [Online]. Available at: doi:10.1016/j.healthplace.2019.03.011 [Accessed 17 February 2020].

Scoppio, G. (2002). Common trends of standardisation, accountability, devolution and choice in the educational policies of England, UK, California, USA, and Ontario, Canada. *Current Issues in Comparative Education*, 2(2), 130–141. Available at: https://journals.library.columbia.edu/index.php/cice/article/download/11331/5678 [Accessed 08 December 2023].

Scott, C., Sutherland, J. and Taylor, A. (2018). *Affordability of the UK's Eatwell Guide*. [Oline]. Food Foundation. Available at: https://foodfoundation.org.uk/sites/default/files/2021-10/Affordability-of-the-Eatwell-Guide_Final_Web-Version.pdf[Accessed 08 December 2023].

Scott, S. et al. (2020). Exploring food environments with people in prison and prison catering staff. In *UK Food and Poverty Conference*. 3–24 June 2020, King's College London.

Sell, K. and Zlotnik, S. (2010). *The recession and food security*. [Online]. Washington DC: First Focus. Available at: https://firstfocus.org/wp-content/uploads/2010/11/The-Recession-and-Food-Security.pdf [Accessed 08 December 2023].

Shannon, J. (2016). Beyond the supermarket solution: Linking food deserts, neighborhood context, and everyday mobility. *Annals of the American Association of Geographers*, 106(1), 186–202. Available at: DOI: 10.1080/00045608.2015.1095059 [Accessed 28 November 2019].

Shaw, D. J. (2007). *World food security: A history since 1945*. [Online]. London: Palgrave Macmillan. Available at: doi:10.1057/9780230589780 [Accessed 12 November 2019].

Shaw, H. (2012). Access to healthy food in Nantes, France. *British Food Journal*, 114(2), 224–238. [Online]. Available at: doi:10.1108/00070701211202403 [Accessed 11 December 2019].

Shaw, S. and Sharpe, L. (2016). *Beyond the food bank: London food poverty profile*. London: Sustain.

Shildrick, T. et al. (2012). *Poverty and insecurity: Life in low-pay, no-pay Britain*. Bristol: Policy Press.

Siefert, K. et al. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. *Journal of Health and Social Behavior*, 45(2), 171–186. [Online]. Available at: doi:10.1177/002214650404500204 [Accessed 02 December 2019].

Silvasti, T. and Karjalainen, J. (2014). Hunger in a Nordic welfare state: Finland. In Riches, G. and Silvasti, T. (Eds). *First world hunger revisited: Food charity or the right to food?* 2nd ed. London: Palgrave Macmillan UK. Pp. 72–86. [Online]. Available at: doi:10.1057/9781137298737_6 [Accessed 10 February 2020].

Silvasti, T. and Tikka, V. (2020). New frames for food charity in Finland. In Lambie-Mumford, H. and Silvasti, T. (Eds). *The rise of food charity in Europe*. Bristol: Policy Press. Pp. 19–48. [Online]. Available at: doi:10.2307/j.ctvzgb6dt.8 [Accessed 19 May 2020].

Simon, G.-A. (2012). *Food security: Definition, four dimensions, history*. Rome: FAO.

Simon, M. (2006). *Appetite for profit: How the food industry undermines our health and how to fight back*. New York, NY: Nation Books.

Simon, M. (2014). *Walmart's hunger games*. [Online]. Eat Drink Politics. Available at: https://www.eatdrinkpolitics.com/wp-content/uploads/Walmarts_Hunger_Games_Report.pdf [Accessed 08 December 2023].

Simons, H. (2014). Evolution and concept of case study research. *Case Study Research in Practice.* London: Sage Publications pp. 12–27. [Online]. Available at: doi:10.4135/9781446268322.n1 [Accessed 27 January 2021].

Skinner, K., Hanning, R. M. and Tsuji, L. J. S. (2013). Prevalence and severity of household food insecurity of First Nations people living in an on-reserve, sub-Arctic community within the Mushkegowuk Territory. *Public Health Nutrition*, 17(1), 31–39. [Online]. Available at: doi:10.1017/S1368980013001705 [Accessed 10 February 2020].

Smith, L. (2018). *Asda's 'fight hunger create change' partnership: What does it mean for efforts to tackle food poverty in the UK?* [Online]. Lacuna Magazine. Last updated: 26 March 2018. Available at: https://lacuna.org.uk/food-and-health/asdas-fight-hunger-create-change-partnership-what-does-it-mean-for-efforts-to-tackle-food-poverty-in-the-uk/ [Accessed 14 May 2020].

Smoyer, A. B. and Lopes, G. (2017). Hungry on the inside: Prison food as concrete and symbolic punishment in a women's prison. *Punishment and Society*, 19(2), 240–255. [Online]. Available at: doi:10.1177/1462474516665605 [Accessed 07 September 2020].

Snell, C., Lambie-Mumford, H. and Thomson, H. (2018). Is there evidence of households making a heat or eat trade off in the UK? *Journal of Poverty and Social Justice*, 26(2), 225–243. [Online]. Available at: doi:10.1332/175982718X15200701225205 [Accessed 08 September 2020].

Soffiantini, G. (2020). Food insecurity and political instability during the Arab Spring. *Global Food Security*, 26, 100400. [Online]. Available at: doi:10.1016/j.gfs.2020.100400 [Accessed 03 October 2023].

Söllner, S. (2007). The 'breakthrough' of the right to food: The meaning of general comment no. 12 and the voluntary guidelines for the interpretation of the human right to food. *Max Planck Yearbook of United Nations Law*, 11(1), 391–415. [Online]. Available at: doi:10.1163/18757413-90000015 [Accessed 24 December 2019].

Sosenko, F., Livingstone, N. and Fitzpatrick, S. (2013). *Overview of food aid provision in Scotland*. [Online]. Agricultural and Food Sciences, Economics. Available at: https://www.semanticscholar.org/paper/Overview-of-food-aid-provision-in-Scotland-Sosenko-Livingstone/dc9c786b4c8cbaa808ed7ea0afdc0f7fa5e18da4 [Accessed 08 December 2023].

Sosenko, F. et al. (2019). *State of hunger: A study of poverty and food insecurity in the UK*. Salisbury: The Trussell Trust.

Sriram, U. and Tarasuk, V. (2015). Changes in household food insecurity rates in Canadian metropolitan areas from 2007 to 2012. *Canadian journal of public health = Revue canadienne de sante publique*, 106(5), .e322–e327. Available at: doi:10.17269/cjph.106.4893 [Accessed 20 November 2019].

Sriram, U. and Tarasuk, V. (2016). Economic predictors of household food insecurity in Canadian metropolitan areas. *Journal of Hunger and Environmental Nutrition*, 11(1), 1–13. [Online]. Available at: doi:10.1080/19320248.2015.1045670 [Accessed 27 February 2020].

Stewart, A., Stanford, J. and Hardy, T. (Eds). (2018). *The wages crisis in Australia*. Adelaide: University of Adelaide Press. [Online]. Available at: doi:10.16309/j.cnki.issn.1007-1776.2003.03.004 [Accessed 18 August 2020].

Storozuk, A. et al. (2020). Got bots? Practical recommendations to protect online survey data from bot attacks. *The Quantitative Methods for Psychology*, 16(5), 472–481. [Online]. Available at: doi:10.20982/tqmp.16.5.p472 [Accessed 24 June 2022].

Strong, S. (2018). Food banks, actually existing austerity and the localisation of responsibility. *Geoforum*, 110 (September 2018), 211–219. [Online]. Available at: doi:10.1016/j.geoforum.2018.09.025 [Accessed 12 March 2020].

Stuart, G. (2020). *Stop panic-buying, foodbank urges*. [Online]. Third Force News. Last updated: 16 March 2020. Available at: https://thirdforcenews.org.uk/tfn-news/stop-panic-buying-foodbank-urges [Accessed 25 May 2020].

Stuckler, D. and Nestle, M. (2012). Big food, food systems, and global health. *PloS Medicine*, 9(6). [Online]. Available at: doi:10.1371/journal.pmed.1001242 [Accessed 12 June 2023].

Stuckler, D. et al. (2017). Austerity and health: The impact in the UK and Europe. *European Journal of Public Health*, 27(suppl_4), 18–21. [Online]. Available at: doi:10.1093/eurpub/ckx167 [Accessed 20 November 2019].

Tapogna, J. et al. (2004). Explaining variations in state hunger rates. *Family Economics and Nutrition Review*, 16(2), 12–22.

Tarasuk, V. (2017). *Implications of a basic income guarantee for household food insecurity*. (Research Paper No. 24), Ontario.

Tarasuk, V. and Beaton, G. (1999). Household food insecurity and hunger among families using food banks. *Canadian Journal of Public Health*, 90(2), 109–113. [Online]. Available at: http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=107140111&site=ehost-live [Accessed 6 December 2020].

Tarasuk, V. and Eakin, J. M. (2003). Charitable food assistance as symbolic gesture: An ethnographic study of food banks in Ontario. *Social Science and Medicine*, 56(7), 1505–1515. [Online]. Available at: doi:10.1016/S0277-9536(02)00152-1 [Accessed 10 February 2020].

Tarasuk, V. and Mitchell, A. (2020). *Household food insecurity in Canada 2017–2018*. [Online]. PROOF. Available at: https://proof.utoronto.ca/food-insecurity/#37 [Accessed 02 August 2020].

Tarasuk, V., Mitchell, A. and Dachner, N. (2014). Household food insecurity in Canada, 2012. Toronto. [Online]. Available at: doi:10.1097/00008486-200510000-00003 [Accessed 09 December 2023].

Tarasuk, V., Mitchell, A. and Dachner, N. (2016). Household food insecurity in Canada, 2014. *Topics in Clinical Nutrition*, Toronto. [Online]. Available at: doi:10.1097/00008486-200510000-00003 [Accessed 09 December 2023].

Tarasuk, V. et al. (2018). The relation between food insecurity and mental health care service utilization in Ontario. *The Canadian Journal of Psychiatry*, 63(8), 557–569. [Online]. Available at: doi:10.1177/0706743717752879 [Accessed 02 December 2019].

Tarraf, D., Sanou, D. and Giroux, I. (2013). Immigration and food insecurity: The Canadian experience – a literature review. *International Journal of Migration, Health and Social Care*, 9(1). [Online]. Available at: doi:10.5772/66824 [Accessed 06 July 2020].

Tausanovitch, C. and Warshaw, C. (2014). Representation in municipal government. *The American Political Science Review*, 108(3), 605–641. Available at: http://www.jstor.org/stable/43654395. [Accessed 09 December 2023].

Taylor-Jones, M. (2015). Food insecurity and the obesity epidemic: A political economy perspective. *Health Systems and Policy Research*, 2(2:8), 1–6. [Online]. Available at: doi:10.21767/2254-9137.100010 [Accessed 02 January 2020].

Temple, J. B. (2018). The association between stressful events and food insecurity: Cross-sectional evidence from Australia. *International Journal of Environmental Research and Public Health*, 15(11), 2333. [Online]. Available at: doi:10.3390/ijerph15112333 [Accessed 19 August 2020].

Temple, J. B., Booth, S. and Pollard, C. M. (2019). Social assistance payments and food insecurity in Australia: Evidence from the household expenditure survey. *International Journal of Environmental Research and Public Health*, 16(3), 455. [Online]. Available at: doi:10.3390/ijerph16030455 [Accessed 19 August 2020].

Ternullo, S. (2022). I'm not sure what to believe: Media distrust and opinion formation during the COVID-19 pandemic. *American Political Science Review*, 116(3), 1096–1109. [Online]. Available at: doi:10.1017/S000305542200003X [Accessed 08 August 2023].

The Canadian Press. (2012). *Food bank use in Canada remains well above 2008 recession levels: Report*. [Online]. Macleans. Last updated: 30 October 2012. Available at: https://www.macleans.ca/general/food-bank-use-in-canada-remains-well-above-2008-recession-levels-report/ [Accessed 02 June 2020].

The Controller's Office. (2022). *COVID-19 relief and assistance for small business*. [Online]. SCO.ca.gov. Last updated: 04 January 2022. Available at: https://sco.ca.gov/covid19ReliefAndAssistanceSM.html [Accessed 02 July 2023].

The Global FoodBanking Network. (n.d.). *What we do*. [Online]. The Global FoodBanking Network. Available at: https://www.foodbanking.org/what-we-do/ [Accessed 13 May 2020].

The Scottish Government. (2023). *Cash-first: Towards ending the need for food banks in Scotland*. Edinburgh: The Scottish Government. [Online]. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/06/cash-first-towards-ending-need-food-banks-scotland/documents/cash-first-towards-ending-need-food-banks-scotland/cash-first-towards-ending-need-food-banks-scotland/govscot%3Adocument/cash-first-towards-ending-need-food-banks-scotland.pdf [Accessed 08 August 2023].

The Trussell Trust. (2016). *Foodbank use remains at record high*. [Online]. The Trussell Trust. Last updated: 15 April 2016. Available at: https://www.trusselltrust.org/2016/04/15/foodbank-use-remains-record-high/ [Accessed 18 May 2020].

The Trussell Trust. (2017). *Volunteers across the UK giving 'at least £30 million' a year in unpaid work to support foodbanks*. [Online]. The Trussell Trust. Last updated: 17 October 2017. Available at: https://www.trusselltrust.org/2017/10/17/foodbank-volunteers-30-million-unpaid-work/ [Accessed 19 May 2020].

The Trussell Trust. (n.d.). *End of year stats*. [Online]. The Trussell Trust. Available at: https://www.trusselltrust.org/news-and-blog/latest-stats/end-year-stats/ [Accessed 13 May 2020].

Thompson, C., Smith, D. and Cummins, S. (2018). Understanding the health and wellbeing challenges of the food banking system: A qualitative study of food bank users, providers and referrers in London. *Social Science and Medicine*, 211, 95–101. [Online]. Available at: doi:10.1016/j.socscimed.2018.05.030 [Accessed 17 December 2019].

Thornton, P. K. et al. (2011). Agriculture and food systems in sub-Saharan Africa in a 4°C+ world. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 369(1934), 117–136. [Online]. Available at: doi:10.1098/rsta.2010.0246 [Accessed 07 January 2020].

Tingay, R. S. et al. (2003). Food insecurity and low income in an English inner city. *Journal of Public Health Medicine*, 25(2), 156–159. [Online]. Available at: doi:10.1093/pubmed/fdg032 [Accessed 20 January 2020].

Tully, T. (2020). *Food lines a mile long in America's second-wealthiest state*. [Online]. The New York Times. Last updated: 30 April 2020. Available at: https://www.nytimes.com/2020/04/30/nyregion/coronavirus-nj-hunger.html [Accessed 19 May 2020].

Turner, L. and Chaloupka, F. J. (2015). Continued promise of school breakfast programs for improving academic outcomes: Breakfast is still the most important meal of the day. *JAMA Pediatrics*, 169(1), 13–14. [Online]. Available at: doi:10.1001/jamapediatrics.2014.2409 [Accessed 09 June 2020].

UK Health Security Agency. (2023). *Cases in Leeds*. [Online]. Coronavirus.gov.uk. Last updated: 07 December 2023. Available at: https://coronavirus.data.gov.uk/details/cases?areaType=ltla&areaName=Leeds [Accessed 24 August 2023].

UN General Assembly. (1948). *Universal Declaration of Human Rights*. 217 ((III) A), Paris. [Online]. Available at: doi:10.1001/jama.280.5.469 [Accessed 30 March 2020].

UNICEF. (2017a). Building the future: Children and the sustainable development goals in rich countries. *Innocenti Report Card*, 14. [Online]. Available at: doi:10.1016/0022-0248(94)91042-1 [Accessed 07 January 2020].

UNICEF. (2017b). Prevalence and correlates of food insecurity among children across the globe. *Innocenti Working Paper*. [Online]. Pp. 1–37. Available at: https://www.unicef-irc.org/publications/pdf/IWP_2017_09.pdf [Accessed 07 January 2020].

United Nations. (2011). *The global social crisis: Report on the world social situation 2011*. [Online]. (June), New York. Available at: https://www.un.org/en/development/desa/publications/report-on-the-world-social-situation-2011-the-global-social-crisis.html [Accessed 28 November 2019].

United Nations for Human Rights. (2010). The right to adequate food. *Human Rights Fact Sheet No 34*, Geneva. Available at: https://www.ohchr.org/sites/default/files/Documents/Publications/FactSheet34en.pdf [Accessed 24 December 2019].

US Government Accountability Office. (2021). *USDA Food Box Program: Key information and opportunities to better assess performance*. [Online]. GAO.gov. Last updated: 08 September 2021. Available at: https://www.gao.gov/products/gao-21-353 [Accessed 02 July 2023].

USDA. (2004). *Executive summary: Evaluation of the School Breakfast Program pilot project*. (December). Available at: https://fns-prod.azureedge.us/sites/default/files/sbp/SBPPExecSum.pdf [Accessed 09 June 2020].

USDA. (n.d.a). *United States Department of Agriculture FY 2021 budget summary*. [Online]. Available at: https://fns-prod.azureedge.us/sites/default/files/sbp/SBPPExecSum.pdf [Accessed 14 August 2020].

USDA. (2020a). *USDA announces coronavirus food assistance program*. [Online]. US Department of Agriculture. Last updated: 17 April 2020. Available at: https://www.usda.gov/media/press-releases/2020/04/17/usda-announces-coronavirus-food-assistance-program [Accessed 02 June 2020].

USDA. (2020b). *USDA Farmers to Families Food Box Program reaches 20 million boxes distributed*. [Online]. USDA. Last updated: 23 June 2020. Available at: https://www.usda.gov/media/press-releases/2020/06/23/usda-farmers-families-food-box-program-reaches-20-million-boxes [Accessed 30 June 2020].

USDA (n.d.b). *USDA Farmers to Families Food Box*. [Online]. USDA.gov. Available at: https://www.ams.usda.gov/selling-food-to-usda/farmers-to-families-food-box [Accessed 02 July 2023].

USDA Food and Nutrition Service. (2013). *About WIC: WIC at a glance*. [Online]. USDA Food and Nutrition Service. Last updated: 07 April 2023. Available at: https://www.fns.usda.gov/wic/about-wic-wic-glance [Accessed 10 June 2020].

Vahabi, M. et al. (2011). Food insecurity among Latin American recent immigrants in Toronto. *Journal of Immigrant and Minority Health*, 13(5), 929–939. [Online]. Available at: doi:10.1007/s10903-010-9384-y [Accessed 09 July 2020].

Vahabi, M. and Damba, C. (2013). Perceived barriers in accessing food among recent Latin American immigrants in Toronto. *International Journal for Equity in Health*, 12(1). [Online]. Available at: doi:10.1186/1475-9276-12-1 [Accessed 08 July 2023].

De Vaus, D. (2008). Comparative and cross-national designs. In Alasuutari, P., Bickman, L. and Brannen, J. (Eds). *The SAGE handbook of social research methods*. London: Sage Publications. Pp. 249–264.

De Vaus, D. (2013). *Surveys in social research*. 6th ed. Abingdon: Routledge.

Venu, I. et al. (2017). The breastfeeding paradox: Relevance for household food insecurity. *Paediatrics and Child Health (Canada)*, 22(4), 180–183. [Online]. Available at: doi:10.1093/pch/pxx067 [Accessed 19 August 2020].

Waite, T. (2019). *What's the difference between a food bank and food pantry?* [Online]. Feeding America. Last updated: 20 February 2019. Available at: https://www.feedingamerica.org/hunger-blog/what-difference-between-food-bank-and-food-pantry [Accessed 19 May 2020].

Wang, E. A. et al. (2013). A pilot study examining food insecurity and HIV risk behaviors among individuals recently released from prison. *AIDS Education and Prevention*, 25(2), 112–123. [Online]. Available at: doi:10.1521/aeap.2013.25.2.112.A [Accessed 14 August 2020].

Waterlander, W. E. et al. (2010). Perceptions on the use of pricing strategies to stimulate healthy eating among residents of deprived neighbourhoods: A focus group study. *International Journal of Behavioral Nutrition and Physical Activity*, 7 (44). [Online]. Available at: doi:10.1186/1479-5868-7-44 [Accessed 19 December 2019].

Wax, S. G. and Stankorb, S. M. (2016). Prevalence of food insecurity among military households with children 5 years of age and younger. *Public Health Nutrition*, 19(13), 2458–2466. [Online]. Available at: doi:10.1017/S1368980016000422 [Accessed 14 August 2020].

Weigel, M. et al. (2007). The household food insecurity and health outcomes of U.S.–Mexico border migrant and seasonal farmworkers. *Journal of Immigrant and Minority Health*, 9, 157–169. [Online]. Available at: doi:10.1007/s10903-006-9026-6 [Accessed 09 July 2020].

Whitacre, P. T. and Burns, A. C. (2010). *Makers on obesity prevention: Workshop summary*.

Whitbeck, L. B., Chen, X. and Johnson, K. D. (2006). Food insecurity among homeless and runaway adolescents. *Public Health Nutrition*, 9(1), 47–52. [Online]. Available at: doi:10.1079/phn2005764 [Accessed 10 August 2020].

Widdison, C. (n.d.). *Let's talk about food poverty*. [Online]. Whatstheproblem.org.uk. Available at: https://www.whatstheproblem.org.uk/ [Accessed 14 November 2019].

Widome, R. et al. (2015). Food insecurity among veterans of the US wars in Iraq and Afghanistan. *Public Health Nutrition*, 18(5), 844–849. [Online]. Available at: doi:10.1017/S136898001400072X [Accessed 14 August 2020].

Wight, V. et al. (2014). Understanding the link between poverty and food insecurity among children: Does the definition of poverty matter? *Journal of Children and Poverty*, 20(1), 1–20. [Online]. Available at: doi:10.1080/10796126.2014.891973 [Accessed 17 November 2019].

Wigman, I. et al. (2022). UK news media portrayal of mothers living in food insecurity since the 2008 global financial crisis: A mixed-methods news media analysis. *Lancet (London, England)*, 400, S46. [Online]. Available at: doi:10.1016/S0140-6736(22)02256-5 [Accessed 08 August 2023].

Wiig Dammann, K. and Smith, C. (2009). Factors affecting low-income women's food choices and the perceived impact of dietary intake and socioeconomic status on their health and weight. *Journal of Nutrition Education and Behavior*, 41(4), 242–253. [Online]. Available at: doi:10.1016/j.jneb.2008.07.003 [Accessed 19 December 2019].

Wilde, P. (2011). Food security policy in developed countries. In Lusk, Jayson L., Roosen, J. and Shogren, J. F. (Eds). *The Oxford handbook of the economics of food consumption and policy*. Oxford: Oxford University Press. [Online]. Available at: doi:10.1093/oxfordhb/9780199569441.013.0013 [Accessed 13 November 2019].

Williams, P. L. et al. (2012). 'I would have never thought that I would be in such a predicament': Voices from women experiencing food insecurity in Nova Scotia, Canada. *Journal of Hunger & Environmental Nutrition*, 7(2–3), 253–270. [Online]. Available at: doi:10.1080/19320248.2012.704740 [Accessed 30 November 2019].

Willis, J. W. (2007). *Foundations of qualitative research: Interpretive and critical approaches*. Thousand Oaks, CA: Sage.

Winkler, E., Turrell, G. and Patterson, C. (2006). Does living in a disadvantaged area mean fewer opportunities to purchase fresh fruit and vegetables in the area? Findings from the Brisbane food study. *Health & Place*, 12(3), 306–319. [Online]. Available at: doi:10.1016/j.healthplace.2004.08.013 [Accessed 11 December 2019].

Wirth, C., Strochlic, R. and Getz, C. (2007). *Hunger in the fields: Food insecurity amongst farmworkers in Fresno County*. [Online]. California Institute for Rural Studies. Available at: https://cirsinc.org/wp-content/uploads/2021/06/Hunger-in-the-Fields-Food-Insecurity-Among-Farmworkers-in-Fresno-County.pdf [Accessed 09 July 2020].

Wong, P. D. et al. (2019). Total breastfeeding duration and household food insecurity in healthy urban children. *Academic Pediatrics*, 19(8), 884–890. [Online]. Available at: doi:10.1016/j.acap.2019.02.009 [Accessed 19 August 2020].

Wright, K. (2015). Lived realities of local community: Evidence from a qualitative case study in Leeds. *Social Policy and Society*, 14(4), 555–568. [Online]. Available at: doi:10.1017/S147474641400061X [Accessed 07 July 2023].

Wrigley, N., Warm, D. and Margetts, B. (2003). Deprivation, diet, and food-retail access: Findings from the Leeds 'food deserts' study. *Environment and Planning A*, 35(1), 151–188. [Online]. Available at: doi:10.1068/a35150 [Accessed 07 July 2023].

Wunderlich, G. S. and Norwood, J. L. (2006). *Food insecurity and hunger in the United States: An assessment of the measure*. Norwood, J. L. et al. (Eds). [Online]. Available at: doi:10.17226/11578 [Accessed 15 November 2019].

Yin, R. K. (2014). *Case study research: Design and methods*. 5th ed. Los Angeles, CA: SAGE.

Young, S. (2008). *Season of hunger: A crisis of food inflation & shrinking safety nets in the U.S.* [Online]. The Oakland Institute. Last updated: 30 November 2018. Available at: https://www.oaklandinstitute.org/season-hunger-crisis-food-inflation-shrinking-safety-nets-us [Accessed 11 December 2019].

Yousefi-Rizi, L. et al. (2021). Impact of housing instability and social risk factors on food insecurity among vulnerable residents in San Diego County. *Journal of Community Health*, 46(6), 1107–1114. [Online]. Available at: doi:10.1007/s10900-021-00999-w [Accessed 08 August 2023].

Zainal, Z. (2007). The case study as a research method. *Jurnal Kemanusiaan*, 9. [Online]. Available at: https://jurnalkemanusiaan.utm.my/index.php/kemanusiaan/article/view/165 [Accessed 09 December 2023].

Zedlewski, S., Waxman, E. and Gundersen, C. (2012). *SNAP's role in the Great Recession and beyond*. (July).Washington DC: Urban Institute. Available at: https://www.urban.org/sites/default/files/publication/25626/412613-SNAP-s-Role-in-the-Great-Recession-and-Beyond.PDF [Accessed 09 December 2023].

Zenk, S. N. et al. (2005). Neighborhood racial composition, neighborhood poverty, and the spatial accessibility of supermarkets in metropolitan Detroit. *American Journal of Public Health*, 95(4), 660–667. [Online]. Available at: doi:10.2105/AJPH.2004.042150 [Accessed 11 December 2019].

# 12 Appendix

## 12.1 Appendix 1: Survey

Survey Flow

| Block: Location (2 Questions) |
|---|

| **Branch: New Branch**<br>    If<br>        If Which city do you live in? Neither Is Not Selected |
|---|

| Standard: Information Sheet + Consent Form UK&US (6 Questions)<br>Standard: Food Security Status (7 Questions)<br>Standard: Experiences with food (9 Questions)<br>Standard: Support Utilised (UK&US) (5 Questions)<br>Standard: Income (UK&US) (8 Questions)<br>Standard: Demographic Question (2 Questions) |
|---|

| **Branch: New Branch**<br>    If<br>        If Which city do you live in? Neither Is Selected |
|---|

| **EndSurvey: Advanced** |
|---|

Page Break ————————————————————————

Many thanks for choosing to take our survey for our study, 'Food Security Infrastructure: A Comparative Policy Study of the UK and US.'

To ensure you take the correct version of the survey, please select which location you live in.

---

CITY Which city do you live in?

○ Fresno, California (1)

○ Leeds, England (2)

○ Neither (3)

*Display This Question:*
    *If CITY = 2*

Study title: Food Security Infrastructure

Have you struggled to afford or access enough food during the pandemic and are from Leeds? If so, I invite you to take part in my study into people's experiences of struggling to have enough food, sometimes called food insecurity. Below, I've explained the purpose of the study and how you can be involved. If anything is unclear, please contact me: Kelli Kennedy at kelli.kennedy@york.ac.uk.

What is the purpose of the study?
This research hopes to make a difference by highlighting people's experiences of not being able to

afford or access enough food during the past year from their perspective. The study will compare the responses between people in Leeds, England and Fresno, California, US. The research hopes to inform policymakers, charitable groups, community organisations, and academics about how people have experienced food insecurity during the pandemic.

This research is in support of Kelli's PhD thesis at the University of York.

Why have I been invited to take part?

You have been invited to participate in this phase of the study as you have indicated that you meet the requirements for the research, which are:

- Struggling to have enough food during the pandemic; and
- Are a resident of Leeds; and
- Are 18 or older.

Do I have to take part?

Your participation is fully voluntary, and you are under no obligation to take part. If you prefer not to participate, you will not be contacted by Kelli Kennedy or anybody associated with the University of York again. If you would like to withdraw from the survey, you may exit the survey at any point. You do not have to disclose why you would like to withdraw from the survey.

What does taking part involve?

In the survey, we'll ask about your food security status, meaning if your household has enough food. We'll also ask about you about your household income, your circumstances during the pandemic, if you've accessed any support during the pandemic, and your experiences with food overall. The survey should take 10 - 15 minutes.

You will also be asked to confirm if you would like to participate in a paid online follow-up interview. The interview will aim to be between 30 minutes and 1 hour at the very most. You will receive a £20 gift voucher if you participate in the interview.

Should you like to participate in the interview, please indicate so when asked in the survey or contact me at kelli.kennedy@york.ac.uk.

What are the benefits and risks of participating?

Risks involved with this survey and the follow-up interview are they may bring up some sensitive or difficult issues to discuss. If anything feels too difficult to discuss or causes you distress, you can skip any questions you don't want to answer or withdraw from the survey and subsequent interview.

Will my participation/answers be confidential?

Everything you communicate in the study will be anonymised and all quotes in any publications that come from this research will be anonymised. Your information will be stored at the University of York and any identifiable information you give, such as your email address, will be stored separately, so it remains anonymous. After the study concludes, your anonymised survey answers will be open-access for 10 years via the University of York's data repository.

Should you reveal any information which indicates you may be of harm to yourself or others, I will need to break confidentiality and enact safeguarding measures designed to protect you and others. I will alert you if this is done.

How do I find out more information?

If you have any questions or want to discuss the research project, please contact the researcher:

Kelli Kennedy

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Kelli.kennedy@york.ac.uk

If you have any concerns or complaints, please contact Kelli's PhD supervisor:

Dr Carolyn Snell

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Carolyn.snell@york.ac.uk

If you are in need of support or would like support, you can find local resources available at:

Leeds City Directory [here](#) and Leeds City Council emergency food page [here](#).

----------------------------------------------------------------------------------------------------

Study title: Food Security Infrastructure

*Please note, this survey is written using UK English rather than US English so some words may be spelled slightly differently*

Have you struggled to afford or access enough food during the pandemic and are from Fresno, California? If so, I invite you to take part in my study into people's experiences of struggling to have enough food, sometimes called food insecurity. Below, I've explained the purpose of the study and how you can be involved. If anything is unclear, please contact me: Kelli Kennedy at kelli.kennedy@york.ac.uk.

What is the purpose of the study?

This research hopes to make a difference by highlighting people's experiences of not being able to afford or access enough food during the past year from their perspective. The study will compare the responses between people in Leeds, England and Fresno, California. The research hopes to inform policymakers, charitable groups, community organisations, and academics about how people have experienced food insecurity during the pandemic.

This research is in support of Kelli's PhD thesis at the University of York in England. Kelli previously attended Fresno State from 2012 - 2016.

Why have I been invited to take part?

You have been invited to participate in this phase of the study as you have indicated that you meet the requirements for the research, which are:

- Struggling to have enough food during the pandemic; and

- Are a resident of Fresno, California; and

- Are 18 or older.

Do I have to take part?

Your participation is fully voluntary, and you are under no obligation to take part. If you prefer not to participate, you will not be contacted by Kelli Kennedy or anybody associated with the University of York again. If you would like to withdraw from the survey, you may exit the survey at any point. You do not have to disclose why you would like to withdraw from the survey.

What does taking part involve?

In the survey, we'll ask about your food security status, meaning if your household has enough food. We'll also ask about your household income, your circumstances during the last 18 months, if you've accessed any support during the pandemic, and your experiences with food overall. The survey should take 10 -15 minutes.

You will also be asked at the end of the survey if you would like to participate in the paid virtual follow-up interview. The interview will aim to be between 30 minutes and 1 hour. You will receive a $25 gift card if you participate in the interview.

Should you like to participate in the interview, please indicate so when asked in the survey or contact me at kelli.kennedy@york.ac.uk.

What are the benefits and risks of participating?

Should you opt-in, you will be entered in a raffle to win a $25 gift card of your choice from a selection of retailers.

Risks involved with this survey and the interview are that it may bring up some sensitive or difficult issues to discuss. If anything feels too difficult to discuss or causes you distress, you can skip any questions you don't want to answer or withdraw from the survey and interview.

Will my participation/answers be confidential?

Everything you communicate in the study will be anonymised and all quotes in any publications that come from this research will be anonymised. Your information will be stored at the University of York and any identifiable information you give, such as your email address, will be stored separately,

so it remains anonymous. After the study concludes, your anonymised survey answers will be open-access for 10 years via the University of York's data repository.

Should you reveal any information which indicates you may be of harm to yourself or others, I will need to break confidentiality and enact safeguarding measures designed to protect you and others. I will alert you if this is done.

How do I find out more information?

If you have any questions or want to discuss the research project, please contact the researcher:

Kelli Kennedy

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Kelli.kennedy@york.ac.uk

If you have any concerns or complaints, please contact Kelli's PhD supervisor:

Dr Carolyn Snell

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Carolyn.snell@york.ac.uk

If you are in need of support or would like support, you can find local resources available at:

Fresno County community resources here and Fresno Building Health Communities here.

---

 Do you confirm the following?

- I have read and understood the information sheet provided about this study;

- I can withdraw from the study at any time and my participation is voluntary;

- I understand that my data will be collected and kept confidential;

- I agree to allow my answers to be used anonymously in publications created based on this study, as needed;

- I agree to allow my answers to be stored anonymously at the Research Data York Repository and anyone can access the data;

- I agree to take part in this study

○ I agree to above and will participate in this study (1)

---

Page Break ──────

SUIN

Please indicate here if you would like to participate in our online interview, up to 1 hour in length. You will be compensated for your time with a $25 gift card to the retailer of your choice.

○ Yes, I would like to participate in the paid interview. (1)

○ No, I do not want to participate in the paid interview. (2)

Q63 Please indicate here if you would like to participate in our online interview, up to 1 hour in length. You will be compensated for your time with a £20 gift voucher to a retailer of your choice.

○ Yes, I would like to participate in the paid interview. (1)

○ No, I do not want to participate in the paid interview. (4)

Please provide your email address for us to contact you about the interview. We will look to arrange this at a time that is convenient for you. If you do not have an email address, please provide

information about how best to contact you.

_____

_____

_____

_____

_____

Page Break

For the following six statements, please tell me whether the statement was <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true for your household during the pandemic.

---

Q1

'The food that we bought just didn't last, and we didn't have money to get more.' Was that <u>often</u>, <u>sometimes</u>, or <u>never</u> true for your household?

○ Often true (1)

○ Sometimes true (2)

○ Never true (3)

○ I don't know or prefer not to answer (4)

---

Q2

'We couldn't afford to eat balanced meals.' Was that <u>often</u>, <u>sometimes</u>, or <u>never</u> true for your household?

○ Often true (1)

○ Sometimes true (2)

○ Never true (3)

○ I don't know or prefer not to answer (4)

----

Q3

In the last 12 months, since last April, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?

○ Often true (1)

○ Sometimes true (2)

○ Never true (3)

○ I don't know or prefer not to answer (4)

----

*Display This Question:*

  *If Q3 = 1*

  *Or Q3 = 2*

Q4

How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

○ Almost every month (1)

○ Some months but not every month (2)

○ Only 1 or 2 months (3)

○ I don't know or prefer not to answer (4)

----

Q5

In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

----

Q6 In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

---

Page Break

Q7

Which of the following, if any, happened to your household when getting food during the pandemic?

Check all that apply (if none, leave blank)

☐ Could not find AS MUCH food as I wanted to buy (food not in store) (1)

☐ Could not find THE TYPES of food my household prefers to eat (2)

☐ Had challenges knowing where to find help for getting food (3)

☐ Had to go to more places than usual to find the food my household wanted (4)

☐ Reduced grocery trips due to COVID-19 (5)

Q8 Has COVID-19 impacted you and your household's ability to have enough food? If so, how?

_____

Q9 Which of the following strategies, if any, have you or your household used during the pandemic?

☐ Accept food from friends or family (1)

☐ Borrow money from friends or family (2)

☐ Buy different, cheaper foods (3)

☐ Buy food on credit (4)

☐ Buy foods that don't go bad quickly (like pasta, beans, rice, canned foods) (5)

☐ Stretch the food that I have by eating less (6)

☐ Rely more on hunting/fishing/foraging/growing my own food (7)

☐ Other: (8) _____

---

Q10

Have you or anyone in your household prioritised other bills or expenses instead of ensuring you had enough food during the pandemic?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

---

Q10.a What bills or expenses have you or your household prioritised instead of ensuring you had enough food?

_____

Q11

Which of the following situations, if any, have made it more difficult to ensure you and your household had enough food during the pandemic? Check all that apply, if any.

☐ Housing situation/related costs (1)

☐ Medical or health situation/related costs (2)

☐ Disability situation/related costs (3)

☐ Employment situation (4)

☐ Income situation (5)

☐ Welfare/benefits situation (e.g. insufficient amounts of welfare, not able to receive welfare etc.) (6)

☐ Family situation/changes to household (e.g. a new member of the household, home schooling children etc.) (7)

☐ Immigration situation/related costs (8)

☐ Prison, probation, and related situations/related costs (9)

☐ COVID-19 related measures/related costs (e.g. energy bills higher due to working from home, furloughed due to COVID-19, etc.) (10)

---

X→

Q12

Please reorder from the list below the situations that impacted you and your household most during the pandemic in relation to food. Click on each option, then drag and drop them into the order of importance, with number 1 being the most important.

_____ Housing situation/related costs (1)

_____ Medical or health situation/related costs (2)

_____ Disability situation/related costs (3)

_____ Employment situation (4)

_____ Income situation (5)

_____ Welfare/benefits situation (e.g. insufficient amounts of welfare, not able to receive welfare etc.) (6)

_____ Family situation/changes to household (e.g. a new member of the household, home schooling children etc.) (7)

_____ Immigration situation/related costs (8)

_____ Prison, probation, and related situations/related costs (9)

_____ COVID-19 related measures/related costs (e.g. energy bills higher due to working from home, furloughed due to COVID-19, etc.) (10)

Q13 What would you say were the biggest obstacles/situations your household faced with ensuring you had enough food during the pandemic?

_____

Q14 Are there any other situations or obstacles your household faced that were not mentioned so far? If so, please describe them below.

_____

*Display This Question:*

   *If CITY = 2*

Q15

Which of the following did your household use or apply for, if any, during the pandemic? Check all that apply (if none, leave blank)

☐    Government or Council food parcel scheme(s) (1)

☐    Healthy Start (2)

☐    School Meal Programs or children-specific programmes (Breakfast, lunch, or summer meals) (3)

☐    Food Bank/Food Pantry (4)

☐    Support network (neighbourhood groups, friends, family) (5)

☐    Community support (faith-based groups, mutual aid groups, activist groups, social supermarkets, community fridges, food sharing apps) (6)

☐    Other (7) _____

Q15

Which of the following food assistance programs did your household use or apply for, if any, during the pandemic? Check all that apply (if none, leave blank)

☐ CalFresh, SNAP or Food Stamps (including pandemic-EBT or P-EBT) (1)

☐ WIC (Women, Infant, and Children's Program) (2)

☐ School Meal Program or children-specific programmes (Breakfast, lunch, or summer meals) (3)

☐ Food bank/food pantry (4)

☐ Support network (neighbourhood groups, friends, family) (5)

☐ Community support (faith-based groups, mutual aid groups, activist groups, social supermarkets, community fridges, food sharing apps) (6)

☐ Other (7) _____

Q16 Have you or anyone in your household used other government benefits that have helped you afford or access food, such as Universal Credit or Job Seekers Allowance? If so, please name them below.

_____

Q16 Have you or anyone in your household used other government benefits that have helped you afford or access food, such as unemployment benefits? If so, please name them below.

_____

Q17 What additional support and services, if any, would have helped you make sure your household had enough food during the pandemic?

_____

Page Break

Q18

Has the employment status changed for you or anyone in your household during the pandemic?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

----

*Display This Question:*

*If Q18 = 1*

Q18.a Please explain the change in employment status experienced by yourself or someone in your household.

_____

----

Q19

During the pandemic, have you or anyone in your household experienced a large drop in income which you did not expect?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

Q20 During the pandemic, have you or anyone in your household experienced a large expense (over £250) which you did not expect?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

Q20

During the pandemic, have you or anyone in your household experienced a large expense (over $300) which you did not expect?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

Q21

During the pandemic, have you or anyone in your household not been able to pay rent or mortgage payments?

○ Rent payment(s) were not always paid in full (1)

○ Mortgage payment(s) were not always paid in full (2)

○ Rent payment(s) were always paid in full (3)

○ Mortgage payment(s) were always paid in full (4)

○ I do not pay rent or mortgage payments (5)

○ My situation is not covered by these options (please explain): (6)

_____

○ I don't know or prefer not to answer (7)

---

Q22

During the pandemic, have you or anyone in your household missed a household bill payment?

○ Yes (1)

○ No (2)

○ I don't know or prefer not to answer (3)

---

Q23 During the pandemic, have you or anyone in your household done any of the following to help you meet your household bills and expenses? Check all that apply (if none, leave blank)

☐ Taken out a payday loan or used payday advance services (1)

☐ Made an early withdrawal from a retirement savings plan or pension (2)

☐ Borrowed money from friends or family (3)

---

Page Break

The following section is fully optional and is the only demographic question asked. Please feel free to skip this question if you prefer not to answer.

Q24

How many people do you consider as part of your household? Please specify how many adults and how many children, if applicable.

☐ Number of adults: (4) _____

☐ Number of children: (5)

_____

## 12.2  Appendix 2: Interview Consent Form

**<u>Interview Consent Form (US & UK)</u>**

|   |   | **Please initial box** |
|---|---|---|
| 1 | I have been told what this research is about and what it involves. I have been given an information sheet and have had opportunity to ask questions. | |
| 2 | I understand that I do not have to take part in the research. I am free to withdraw at any time without giving a reason. | |
| 3 | I will not be named in any research reports, and my personal information will remain confidential. | |
| 4 | I understand that if the researcher thinks that I or someone else might be at risk of harm, they may have to contact the relevant authorities. But they will try and talk to me first about the best thing to do. | |
| 5 | I agree to be audio or video-recorded. I understand that I can still take part without being recorded if I wish. | |
| 6 | I understand that my words, but not my name, may be used in research reports. | |
| 7 | I understand that I will not be able to amend or withdraw information I provide 2 weeks after the interview date. | |
| 8 | I agree for my anonymous data to be archived at University of York, will not be shared with other researchers. | |
| 9 | I agree to take part in the research. | |

If you would like to select your own pseudonym, meaning the false name I will refer to you as in the research, please write the name here:

Participant signature:                                  Date:

Researcher signature:                                  Date:

## 12.3  Appendix 3: Interview Information Sheet

**Participant Information Sheet – Interview (US)**

*\*Please note, this sheet is written using UK English rather than US English so some words may be spelled slightly differently\**

**Study Title:** Food Security Infrastructure

**Introduction**

Have you struggled to afford or access enough food during the last 12 months and are from Fresno? If so, I invite you to take part in my study into people's experiences of struggling to have enough food, sometimes called food insecurity. Below, I've explained the purpose of the study and how you can be involved. If anything is unclear, please contact me: Kelli Kennedy at kelli.kennedy@york.ac.uk.

**What is the purpose of the study?**

This research hopes to make a difference by highlighting people's experiences of not being able to afford or access enough food during the past year from their perspective. The study will compare the responses between people in Leeds, England and Fresno, California, US. The research hopes to inform policymakers, charitable groups, community organisations, and academics about how people have experienced food insecurity during the past 12 months.

This research is in support of Kelli's PhD thesis at the University of York.

**Why have I been invited to take part?**

You have been invited to participate in this phase of the study as you may meet the requirements for the research, which are:

- Struggling to have enough food over the past 12 months; and

- Are a resident of Fresno, California; and

- Are 18 or older;

- Have completed this survey: https://york.qualtrics.com/jfe/form/SV_d9XnnyBhMxb7ZxY

**Do I have to take part?**

Your participation is fully voluntary, and you are under no obligation to take part. If you prefer not to participate, you will not be contacted by Kelli Kennedy or anybody associated with the University of

York again. You may pause or withdraw the interview at any point. You do not have to disclose why you would like to withdraw or pause the interview.

**What does taking part involve?**

Participating in the interview means you will be asked about the same and related topics that were asked in the survey. In the interview, we'll discuss your food security status, meaning if your household has enough food. We'll also talk about your household income, your circumstances over the last 12 months, if you've accessed any support over the last 12 months, and your experiences with food overall. The interview will aim to be between 30 minutes and 1 hour at the very most. The interview can take place via a platform such as Zoom or Google Meets or over the telephone. Alternative arrangements can also be discussed if you're not comfortable with any of these options. We can discuss what you want and prefer, and sort a plan that makes sense for you.

**What are the benefits and risks of participating?**

You will be given a $25 gift card or voucher for your time. If you have access to email, this will be an e-voucher or e-gift card which will be sent following the interview. If you do not have access to email, I'll sort an alternative plan with you to make sure you receive your thank-you payment.

Risks involved with this interview are that they may bring up some sensitive or difficult issues to discuss. If anything feels too difficult to discuss or causes you distress, you can skip any questions you don't want to answer or withdraw from the interview.

**Will my participation/answers be confidential?**

Everything you communicate in the study will be confidential. Your information will be stored at the University of York and any identifiable information you give, such as your email address, will be stored separately, so it remains anonymous.

I will anonymise all quotes in any publications that come from this research and you can choose a pseudonym, a fake name, for us to use in the study.

We hope to record the interview, and a transcription of the interview will be created by me, Kelli Kennedy. Recording our conversation is done to make sure I can quote you accurately in the study and best represent your views. I will be the only person to review the recording and transcript, and it will be saved under your pseudonym, ensuring anonymity.

Should you reveal any information which indicates you may be of harm to yourself or others, I will need to break confidentiality and enact safeguarding measures designed to protect you and others. I will alert you if this has been done.

If you decide after the interview you would like to withdraw or amend your interview, you may do this for up to 2 weeks after the interview date.

If you were recruited for this research via Nichols Research, they will also be responsible for keeping your details secure. Please note they will not have access to your survey or interview answers as part of the research, only what they have collected in the recruitment process. You can find out more about Nichols Research's privacy policies here: https://nicholsresearch.com/participate-research-studies/privacy-policy/

**How do I find out more information?**

If you feel you need support following this study or would like to find out more, please email me at kelli.kennedy@york.ac.uk. If you are in need of support or would like support, you can find local resources available at: Fresno County community resources here and Fresno Building Health Communities here.

If you have any questions or want to discuss the research project, please contact the researcher:

Kelli Kennedy

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Kelli.kennedy@york.ac.uk

If you have any concerns or complaints, please contact Kelli's PhD supervisor:

Dr Carolyn Snell

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Carolyn.snell@york.ac.uk

**Participant Information Sheet – Interview (UK)**

**Study Title:** Food Security Infrastructure

**Introduction**

Have you struggled to afford or access enough food during the last 12 months and are from Leeds? If so, I invite you to take part in my study into people's experiences of struggling to have enough food,

sometimes called food insecurity. Below, I've explained the purpose of the study and how you can be involved. If anything is unclear, please contact me: Kelli Kennedy at [kelli.kennedy@york.ac.uk](mailto:kelli.kennedy@york.ac.uk).

**What is the purpose of the study?**

This research hopes to make a difference by highlighting people's experiences of not being able to afford or access enough food during the past year from their perspective. The study will compare the responses between people in Leeds, England and Fresno, California, US. The research hopes to inform policymakers, charitable groups, community organisations, and academics about how people have experienced food insecurity during the past 12 months.

This research is in support of Kelli's PhD thesis at the University of York.

**Why have I been invited to take part?**

You have been invited to participate in this phase of the study as you may meet the requirements for the research, which are:

- Struggling to have enough food over the past 12 months; and

- Are a resident of Leeds, England; and

- Are 18 or older;

- Have completed this survey: [https://york.qualtrics.com/jfe/form/SV_d9XnnyBhMxb7ZxY](https://york.qualtrics.com/jfe/form/SV_d9XnnyBhMxb7ZxY)

**Do I have to take part?**

Your participation is fully voluntary, and you are under no obligation to take part. If you prefer not to participate, you will not be contacted by Kelli Kennedy or anybody associated with the University of York again. You may pause or withdraw the interview at any point. You do not have to disclose why you would like to withdraw or pause the interview.

**What does taking part involve?**

Participating in the interview means you will be asked about the same and related topics that were asked in the survey. In the interview, we'll discuss your food security status, meaning if your household has enough food. We'll also talk about your household income, your circumstances over the last 12 months, if you've accessed any support over the last 12 months, and your experiences with food overall. The interview will aim to be between 30 minutes and 1 hour at the very most.

The interview can take place via a platform such as Zoom or Google Meets or over the telephone.

Alternative arrangements can also be discussed if you're not comfortable with any of these options. We can discuss what you want and prefer, and sort a plan that makes sense for you.

**What are the benefits and risks of participating?**

You will be given a £20 gift card or voucher for your time. If you have access to email, this will be an e-voucher or e-gift card which will be sent following the interview. If you do not have access to email, I'll sort an alternative plan with you to make sure you receive your thank-you payment.

Risks involved with this interview are that they may bring up some sensitive or difficult issues to discuss. If anything feels too difficult to discuss or causes you distress, you can skip any questions you don't want to answer or withdraw from the interview.

**Will my participation/answers be confidential?**

Everything you communicate in the study will be confidential. Your information will be stored at the University of York and any identifiable information you give, such as your email address, will be stored separately, so it remains anonymous.

I will anonymise all quotes in any publications that come from this research and you can choose a pseudonym, a fake name, for us to use in the study.

We hope to record the interview, and a transcription of the interview will be created by me, Kelli Kennedy. Recording our conversation is done to make sure I can quote you accurately in the study and best represent your views. I will be the only person to review the recording and transcript, and it will be saved under your pseudonym, ensuring anonymity.

Should you reveal any information which indicates you may be of harm to yourself or others, I will need to break confidentiality and enact safeguarding measures designed to protect you and others. I will alert you if this has been done.

If you decide after the interview you would like to withdraw or amend your interview, you may do this for up to 2 weeks after the interview date.

If you were recruited for this study via Qa Research, they will also be responsible for keeping your data secure. You can find out more about Qa Research's privacy policies here: https://www.qaresearch.co.uk/privacy/

**How do I find out more information?**

If you feel you need support following this study or would like to find out more, please email me at kelli.kennedy@york.ac.uk.

If you have any questions or want to discuss the research project, please contact the researcher:

Kelli Kennedy

Department of Social Policy and Social Work

University of York

Heslington

York YO10 5DD

Kelli.kennedy@york.ac.uk

If you have any concerns or complaints, please contact Kelli's PhD supervisor:

Dr Carolyn Snell

Department of Social Policy and Social Work

University of York

Heslington
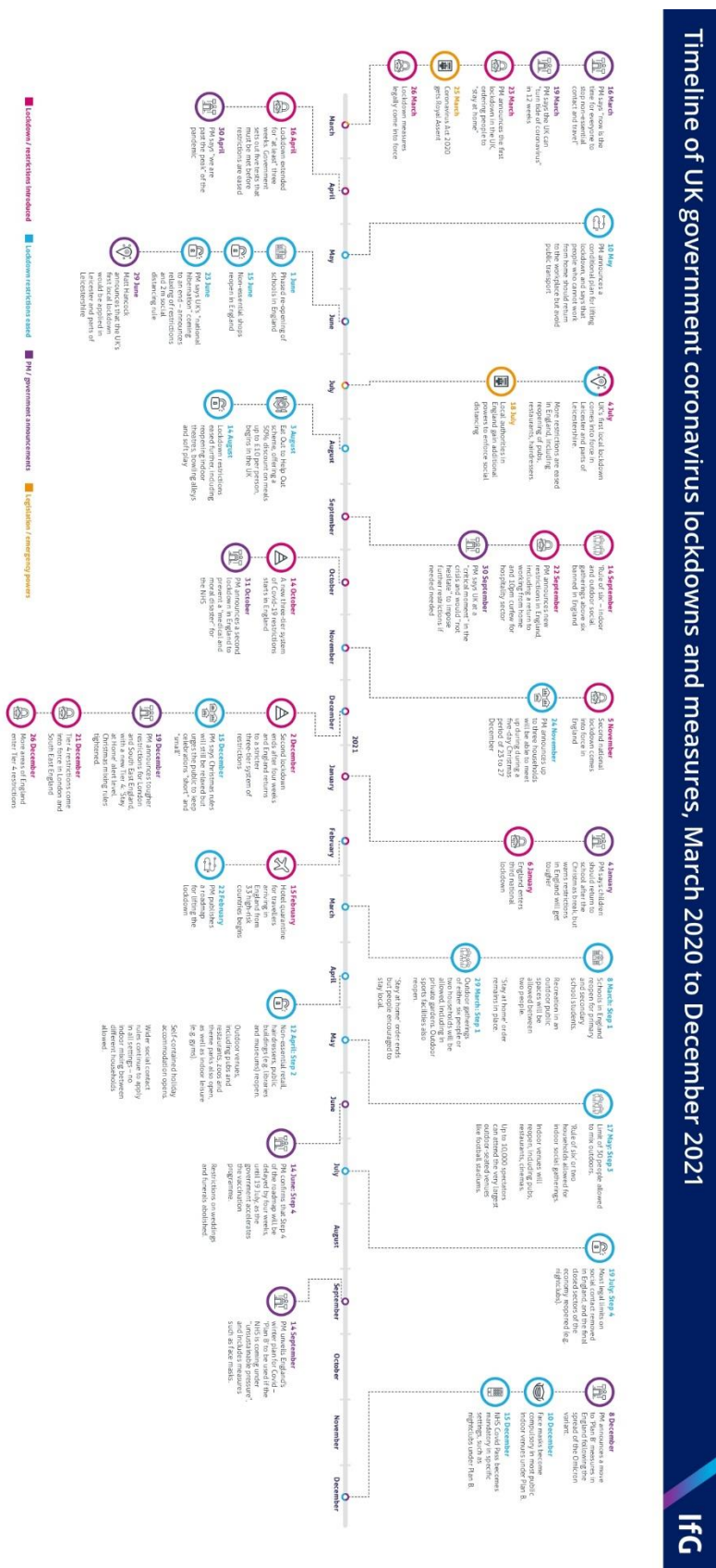
York YO10 5DD

Carolyn.snell@york.ac.uk

If you are in need of support or would like support, you can find local resources available at: Leeds City Directory here and Leeds City Council emergency food page here.

## 12.4 Appendix 4: UK Covid-19 Policies Timeline

(Institute for Government Analysis, 2021)



Source: Institute for Government analysis.

## 12.5  Appendix 5: FSI Base Map User Instructions

The base map first has an inner circle which represents personal contexts and conditions, whereas the outside area offers space for outer or global contexts and conditions. The themes identified in this research are listed in the base map in the inner circle but are to be moved around or outside the circle as appropriate. The goal of the base map is a to create a launching point for future researchers to organise the themes that align with the research in their chosen location. The base map is reprinted below:

*Figure 35: Food Security Infrastructure Base Map (reprinted)*
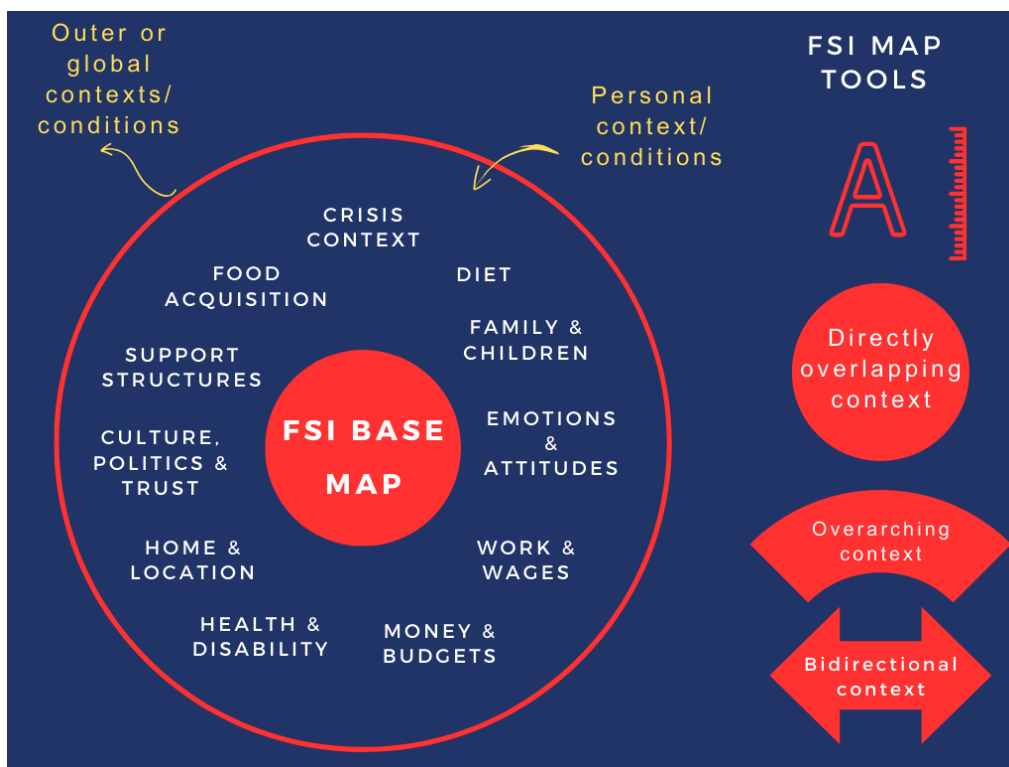


To the right, the map includes four tools that can be used to give nuance to the themes within the map. It is not a requirement to use these tools to populate or organise the FSI map, but they help conceptualise the relationships amongst the themes. Tools include:

- Directly overlapping context: A context that sits in both the personal contexts/conditions and the outer and global contexts/conditions sections. Covid-19 is an example of a context that was deeply personal and experienced at a household level with food insecurity but also was a global phenomenon.

- Overarching context: A context or condition that fully affects all other themes within its area sitting either fully within personal contexts/conditions or in outer or global contexts/conditions. Homelessness is an example, as it is a theme that would overarchingly

impact every other food-insecurity-related theme in a person's life but has minimal engagement with outer or global impact. Using the 'arch' would be appropriate if the research dictated a summative theme of homelessness, such as if it were a case study of this population in a location.

- Bidirectional context: A context that is highly influenced by outer or global factors and distinctively colours how personal conditions were received and experienced, while also flowing outward in relation to how a person engages with the outer context. An example of this is political trust between immigrants and politicians. This could mean immigrants do not feel comfortable accessing things like food assistance programmes and benefits due to fears over their immigration status being used against them, even though it was stated that these programmes do not take it into account. This shows a household's trust towards this outside political arena and politicians directly affects their use of support structures, but as politicians are elected and lobbied there is an influence by households on the outer context of who is in office.

- Font size: Use font size to emphasise or de-emphasise certain themes, as well as delete themes if not applicable. While the themes identified in this research are fairly comprehensive, should a new outside theme be needed, this can be added within the text.

The visual aspect of the Base Map is a valuable tool both for presentation, as an activity, and as a research tool. Users may find the Base Map useful in a classroom setting, helping students identify how issues around food insecurity may interact or as an assignment to map the literature against these themes. Other applications could be in co-produced research, working with participants to evaluate what themes are fitting for their location, how, and populating it with their ideas, examples and quotes. The Base Map then could be presented further to policymakers. Alternatively, researchers may find it useful to use this Base Map first as a topic guide, then translating the results into the map, using the tools as appropriate. The map then can be 'branched out' further to organise one's data.

## 12.6 Appendix 6: Data Information Sheet

**Data Information Sheet (US & UK)**

**Study Title:** Food Security Infrastructure

The purpose of this information sheet is to explain how your data will be used and protected, in line with General Data Protection Regulation (GDPR), the privacy protections used in the UK. As this study is based in the UK, all participants from either location will be covered by GDPR rules, as explained below.

**On what basis will you process my data?**

Under the GDPR, the University must identify a legal basis for processing personal data and, where appropriate, an additional condition for processing special category data.

In line with our charter which states that we advance learning and knowledge by teaching and research, the University processes personal data for research purposes under Article 6 (1) (e) of the GDPR:

*Processing is necessary for the performance of a task carried out in the public interest*

Special category data is processed under Article 9 (2) (j):

*Processing is necessary for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes.*

Research will only be undertaken where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data.

In line with ethical expectations and to comply with common law duty of confidentiality, we will seek your consent to participate where appropriate. This consent will not, however, be our legal basis for processing your data under the GDPR.

**How will you use my data?**

Data will be processed for the purposes outlined in this notice and in the main information sheet. All interviews will be audio-recorded or video-recorded (with consent). The device or app used for audio-recording will be password protected; the audio or video file will be transferred to the secure University of York encrypted fileserver at the earliest opportunity and then deleted from the recording device or app. You will be required to provide informed consent for participation. The anonymised findings will be analysed and a research paper submitted to the University and to a journal with the aim of publication.

**How will you keep my data secure?**

The University will put in place appropriate technical and organisational measures to protect your personal data and/or special category data. For the purposes of this project we will ensure that all audio and video files and interview transcripts are password protected and saved onto the secure University of York fileserver.

Information will be treated confidentiality and shared on a need-to-know basis only. The University is committed to the principle of data protection by design and default and will collect the minimum amount of data necessary for the project.

If you were recruited for this survey via Qa Research, they will also be responsible for keeping data secure. You can find out more about Qa Research's privacy policies here: https://www.qaresearch.co.uk/privacy/

If you were recruited for this survey via Nichols Research, they will also be responsible for keeping data secure. You can find out more about Nichols Research's privacy policies here: https://nicholsresearch.com/participate-research-studies/privacy-policy/

**Will you share my data with 3rd parties?**

Anonymised interview transcripts will be stored at the University of York Research Data York repository. Interview transcripts will not be open-access and permission for access will only be allowed to Kelli Kennedy, the researcher. The anonymised transcripts will be kept for 10 years.

Anonymised survey results will be stored at the University of York Research Data York repository and be open-access. Anonymised data may be reused by the research team or other third parties for secondary research purposes.

If you were recruited for this survey via Qa Research, they will also be responsible for keeping your data secure. You can find out more about Qa Research's privacy policies specifically on 3rd parties here: https://www.qaresearch.co.uk/privacy/

If you were recruited for this survey via Nichols Research, they will also be responsible for keeping your data secure. You can find out more about Nichols Research's privacy policies specifically on 3rd parties here: https://nicholsresearch.com/participate-research-studies/privacy-policy/

**Will I be identified in any research outputs?**

You will not be identified in any research output. Names will not be used. Consent will be required for us to use direct quotes in publications, but these will be untraceable back to participants. Participants do not have to consent to quotes being used – please tell Kelli if you do not consent for your words to be quoted.

**How long will you keep my data?**

Data will be retained in line with legal requirements or where there is a business need. Retention timeframes will be determined in line with the University's Records Retention Schedule. Anonymised transcripts will be kept for 10 years from the end of the study; consent forms will be kept for three years from the end of the study; audio or video recordings will be deleted at the end of the study.

If you were recruited for this survey via Qa Research, they will also be responsible for keeping data secure and have their own protocols on how long they keep your contact details. You can find out more about Qa Research's privacy policies here: https://www.qaresearch.co.uk/privacy/

If you were recruited for this survey via Nichols Research, they will also be responsible for keeping data secure and have their own protocols on how long they keep your contact details. You can find out more about Nichols Research's privacy policies here: https://nicholsresearch.com/participate-research-studies/privacy-policy/

**What rights do I have in relation to my data?**

Under the GDPR, you have a general right of access to your data, a right to rectification, erasure, restriction, objection or portability. You also have a right to withdrawal. Please note, not all rights apply where data is processed purely for research purposes. For further information sets/.

For this particular study, you have the right to withdraw your data up to two weeks after your interview has taken place.

If you were recruited for this survey via Qa Research you also have rights in relation to your data through them. You can find out more about Qa Research's privacy policies here: https://www.qaresearch.co.uk/privacy/

If you were recruited for this survey via Nichols Research you also have rights in relation to your data through them. You can find out more about Nichols Research's privacy policies here: https://nicholsresearch.com/participate-research-studies/privacy-policy/. As a California resident, you have certain additional rights related to your personal information under the California

Consumer Privacy Act (CCPA). You can find more information about this here:

https://nicholsresearch.com/participate-research-studies/#doNotSell

**Questions**

If you have any questions about this participant information sheet or concerns about how your data is being processed, please contact Kelli Kennedy at kelli.kennedy@york.ac.uk or her supervisor Dr Carolyn Snell at carolyn.snell@york.ac.uk. If you are still dissatisfied, please contact the University's Acting Data Protection Officer at dataprotection@york.ac.uk.

If you are unhappy with the way in which the University has handled your personal data, you have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see www.ico.org.uk/concerns.

If you have questions or concerns regarding how Qa has handled your data, you can email DPO@qaresearch.co.uk. You can also call 01904 632039. You also have the right to make a complaint against Qa Research Ltd to the Information Commissioner's Office (ICO). You can contact the ICO at ico.org.uk or by calling 0303 123 1113.

If you have questions or concerns regarding how Nichols Research has handled your data, you can email privacy@nicholsresearch.com. You can also call 800.680.0915. As a California resident, you have certain additional rights related to your personal information under the California Consumer Privacy Act (CCPA). You can find more information about this here:

https://nicholsresearch.com/participate-research-studies/#doNotSell.

## 12.7 Appendix 7: Original Survey Design

Survey design and research planning literature was consulted during the survey formulation process (Gilbert and Stoneman, 2015; Creswell, 2008; Robson, 2002; Reinharz and Davidman, 1992). The following criteria, as listed by Robson, were adhered to, to properly classify this quantitative work as a survey (2002, p. 230):

> *The typical central features [of surveys] are:*
> *- the use of a fixed, quantitative design;*
> *- the collection of a small amount of data in standardised form from a relatively large number of individuals;*
> *- the selection of representative samples of individuals from known populations.*

This survey has a cross-sectional design, as it looks to analyse data from a single point in time with multiple variables with intent to review patterns of association (Bryman, 2016, p. 53). As the semi-structured, qualitative interviews are also classified as cross-sectional, it is helpful to have an overlap in approach for both areas of the study for analysis. Cross-sectional design is common, which helps ground this study's design in the literature (De Vaus, 2008).

A survey, in combination with qualitative interviews, is appropriate due to the nature of the case-study research, as described in Chapter 6, and offers unique opportunities for evidence that qualitative work alone could not accomplish. There was consideration of the participants' time and efforts, and it was hoped that more people would answer the call to complete the survey than potentially would for a long-form interview. Surveys tend to be easier to recruit participants for, have an efficient turnaround time for receipt of the data, and is a free or low-cost way to collect data. As this thesis is operating under tight financial and time limitations, short surveys are an efficient, economic way to gain information from the identified population without requesting copious amounts of effort or time from participants. Survey participants had the opportunity to enter an optional raffle (£20 gift voucher for the UK winner, US$25 gift card for the US winner), as a participation incentive.

Two strands of the survey (UK and US) were created to establish equivalent meaning and cultural relevance to both case groups. For example, with questions that included monetary values, the appropriate currency was listed and converted to be of similar value. Questions regarding benefits were also tailored to reflect the benefits systems in place in both locations. Essentially translating the survey to offer equivalent meaning in both environments was crucial to achieve similar meaning and purpose as well as equivalent reaction by all involved (Hantrais, 2009).

To test for measurement error, reliability and validity of the indicators, pilot testing of the survey was undertaken. Feedback from both UK and US pilot testers was solicited and incorporated into the final survey indicators, questions and format. Of particular note: some of the information and phrasing did not translate seamlessly from the UK to the US survey version (e.g. saying welfare versus benefits), so efforts were made to ensure terminology did not affect the reliability of the indicators. After feedback, greater attention was placed on conceptual equivalence (Hantrais, 2009), rather than striving for as much similar phrasing within the survey as possible.

The six-month survey period of April–September 2021 was originally selected, as it was estimated to be sufficient to capture the evolution of food security status, experiences and the continually changing contexts caused by the pandemic. Such evolutions included periods of panic buying, lockdowns and the closures of stores for some time periods but not others. In practice, this was extended to December 2021 due to a lack of participation. The survey was self-administered through Qualtrics due to the University of York's licence with the company. A PDF form of the survey was created in case technological issues were a barrier to participation, although it was not needed.

The survey included both open-ended and closed questions. This was done as a security measure to ensure that enough data was collected in case there was a lack of interview participants for the study. This was strategically done to ensure the thesis had enough data for analysis, although it is acknowledged that generally open-ended questions are not ideal for survey design (Robson, 2002). The survey was designed to be as short as possible to ensure participants would likely complete the whole survey, a common problem with survey data.

Creswell's checklist (2008, p. 147) for designing a survey method was revised and utilised to ensure clarity, transparency and academic rigour, as demonstrated in Table 14. As the follow-up interviews were so closely entangled with the survey, references to the interview are made throughout.

*Table 14: Survey Formulation Checklist, adapted from Creswell, 2008, p. 147*

| Survey Formulation Checklist, adapted from Creswell, 2008, p. 147 | |
|---|---|
| Is the purpose of a survey design stated? | Yes, see Chapter 6. |
| Are the reasons for choosing the design mentioned? | Yes, see Chapter 6. |
| Is the nature of the survey (cross-sectional vs. longitudinal) identified? | Cross-sectional. |
| Are the population sizes mentioned? | Yes, see appendix. |
| Will the population be stratified? If so, how? | No. |
| How many people will be in the sample? On what basis was this size chosen? | Literature was consulted on this, which was fairly divided on the appropriate sample size; however, 50 was mentioned as a 'rule of thumb' for minimum numbers (De Vaus, 2013). |
| What will be the procedure for sampling these individuals (e.g. random, non-random?) | Non-random sampling was conducted due to the financial and access constraints of this study.<br><br>Recruitment agencies were not asked for specifics regarding their sampling methods but were asked to strictly only recruit under the requirements set by the researcher. No demographic information or quotas, for example, were to be considered. |
| What instrument will be used in the survey? Who developed the instrument? | Qualtrics, licensed to the University of York. |
| What are the content areas addressed in the survey? The scales? | General content areas within the survey are income, food security status, related circumstances, experiences with food and support utilised. The full survey can be found in Appendix 11.1.<br><br>Categorical scales and continuous scales are both used in the survey, when deemed appropriate or in replicating the research questions from their original source (e.g. the USDA food security questionnaire). |
| What procedure will be used to pilot or field test the survey? | Informal pilot of survey was done prior to the ethics form submission.<br><br>Interview topics were reviewed by academic staff members prior to conducting the interviews. Mock interviews also were conducted with both US and UK participants. |
| What is the timeline for administering the survey? | The survey was originally designed to run April–September 2021. This was extended to December 2021 due to low response rates. |

| What specific steps will be taken in data analysis to: | |
|---|---|
| Analyse returns? | Only the survey responses of the confirmed interviewees were formally reviewed.<br><br>Other responses were only reviewed to check for their validity and to check if they were false responses. These responses were deleted when they were deemed demonstrably false. |
| Check for response bias? | N/A – survey results not analysed in this way. |
| Conduct a descriptive analysis? | N/A – survey results not analysed in this way. |
| Collapse items into scales? | N/A – survey results not analysed in this way. |
| Check for reliability of scales? | N/A – survey results not analysed in this way. |
| Run inferential statistics to answer the research questions? | N/A – survey results not analysed in this way. |
| How will the results be interpreted? | Survey results will only be interpreted as a supporting document for the interviews, and only as indicating whether all participants who self-identified as food insecure were as against the USDA measure. This can be interpreted as a finding of self-reporting versus calculated measures of food insecurity. |

## 12.8  Appendix 8: Eisenhardt's Roadmap to Theory Building in Mixed Methods

Eisenhardt's roadmap to theory building highlights the steps required to build theory via case-study research (1989). Once again, theory building here constitutes the creation of theoretical constructs, midrange theories and propositions based out of empirical case-study data (Eisenhardt and Graebner, 2007, p. 25). Their roadmap (reproduced below) is a much-cited text that offers direct steps and rationale for choices, which informed the practicalities of this research (Eisenhardt, 1989, p. 533). Eisenhardt's roadmap acts as a sense-check guide to case-study choices, such as sampling and analysis approaches. The roadmap serves as a reference for ensuring that theory building remains a central goal in the case-study design, as adapting the State FSI model (building the theory to be applicable in multiple locations in the global north) wascore to this thesis' original design.

That said, it is important within this methodology to highlight, as part of the theory-building process, goals around generalisability and transferability. Hellström highlights the differences between generalisability and transferability, noting that transferability is stated to be a 'rejection' of the scientific, positivist claims (2008). Rather, interpretivist generalisation, according to Hellström, can fit within constructivist social ontology as well as interpretivist conceptions about generalisation without adapting a new concept of 'transferability' (Hellström, 2008). Put simply, Hellström, and this thesis, states that the idea of transferability is an unneeded concept that overcomplicates the idea of generalisability in qualitative research; simply using an interpretivist form of generalisation is appropriate. Interpretivist generalisation here refers to the generalisation of a theory and theoretical understanding of a topic or framework rather than to a population (Carminati, 2018).

Similarly, Carminati argues that generalisability is possible within qualitative research in a theoretical or analytical form – so long as generalisation is a named aim of the research and terminology is approached carefully from a qualitative lens (Carminati, 2018). In the clearest of terms, the generalisability comes through the theoretical or analytical form rather than through stating a generalisation about a population or populations.

Relating this back to theory building, authors note that researchers often use multiple case studies, as this thesis has, as it helps generate (or elaborate on existing) theory that is more likely to be generalisable (Gehman et al., 2018). As part this thesis looks to adapt State FSI to potentially be applicable in multiple global north locations, the aim is to be generalisable in theoretical applications, rather than generalisable to the populations of the case locations. For clarity, the goal is to elaborate upon State FSI by using the empirical evidence from this thesis to shape it into a generalisable, theoretical framework potentially applicable in the global north. Eisenhart suggests that identifying cross-case patterns, then discussing them in the context of the literature (see

Chapter 9), the data (see Chapters 7 and 8), and the emergent theory (see Chapter 9) supports generalisation (Gehman et al., 2018). Following this approach, this thesis develops towards a theoretically generalisable understanding of the contextual conditions affecting people's food security – however, as will be discussed in section 6.2.3 in the adapted FSI research approach, there is a shift in seeking generalisability to transferability.

Given this, at this stage the thesis aimed to theory build towards an adapted FSI theoretical framework under Hellström's understanding of interpretivist generalisation in the global north. The cases selected, as detailed below, build towards potential generalisation, as the framework will likely contain applicable findings in other global north locations. The success of adapting State FSI and an assessment of its generalisability are reviewed in Part 3.

*Table 15: Eisenhardt's 1989 Roadmap to Theory Building via Case Study Research*

### Process of Building Theory from Case Study Research

| Step | Activity | Reason |
|---|---|---|
| Getting Started | Definition of research question | Focuses efforts |
| | Possibly a priori constructs | Provides better grounding of construct measures |
| | Neither theory nor hypotheses | Retains theoretical flexibility |
| Selecting Cases | Specified population | Constrains extraneous variation and sharpens external validity |
| | Theoretical, not random, sampling | Focuses efforts on theoretically useful cases—i.e., those that replicate or extend theory by filling conceptual categories |
| Crafting Instruments and Protocols | Multiple data collection methods | Strengthens grounding of theory by triangulation of evidence |
| | Qualitative and quantitative data combined | Synergistic view of evidence |
| | Multiple investigators | Fosters divergent perspectives and strengthens grounding |
| Entering the Field | Overlap data collection and analysis, including field notes | Speeds analyses and reveals helpful adjustments to data collection |
| | Flexible and opportunistic data collection methods | Allows investigators to take advantage of emergent themes and unique case features |
| Analyzing Data | Within-case analysis | Gains familiarity with data and preliminary theory generation |
| | Cross-case pattern search using divergent techniques | Forces investigators to look beyond initial impressions and see evidence thru multiple lenses |
| Shaping Hypotheses | Iterative tabulation of evidence for each construct | Sharpens construct definition, validity, and measurability |
| | Replication, not sampling, logic across cases | Confirms, extends, and sharpens theory |
| | Search evidence for "why" behind relationships | Builds internal validity |
| Enfolding Literature | Comparison with conflicting literature | Builds internal validity, raises theoretical level, and sharpens construct definitions |
| | Comparison with similar literature | Sharpens generalizability, improves construct definition, and raises theoretical level |
| Reaching Closure | Theoretical saturation when possible | Ends process when marginal improvement becomes small |

## 12.9 Appendix 9: Examples of Literature Incorporating California and England

*Table 16: Examples of Literature Incorporating California and England*

| Research title | Author(s) | Comparative locations | Relative justification for comparison |
|---|---|---|---|
| Safe nurse staffing policies for hospitals in England, Ireland, California, Victoria and Queensland: A discussion paper | Van den Heede et al., 2020 | England, Ireland, California, Victoria, and Queensland | England and California had differing approaches to patient-to-nurse ratios and guidelines |
| The population's confidence in the child protective system – a survey study of England, Finland, Norway and the United States (California) | Juhasz and Skivenes, 2017 | England, Finland, Norway and California | England and California have similar market-based welfare states |
| Regulating the risks of domestic greywater reuse: A comparison of England and California | Cook, 2016 | England and California | Both locations have significant issues of water stress due to water endowments as well as high development pressures |
| Systematic differences in views on risk: A comparative case vignette study of risk assessment in England, Norway and the United States (California) | Križ and Skivenes, 2013 | Norway, England and California | England and California have liberal welfare regimes, as defined by Esping-Andersen, 1990, as well as child welfare systems that focus on child protection |
| Getting more for their dollar: A comparison of the NHS with California's Kaiser Permanente | Himmelstein, D. U., & Woolhandler, S. (2002). | England and California | California's Kaiser Permanente healthcare network offers a similar range of services to the NHS with 6.1 million members in the state |
| Pay for performance in primary care in England and California: Comparison of unintended consequences | McDonald and Roland, 2009 | England and California | Both have healthcare programmes that include paying physicians based on performance against targets |
| Dental care of a child in pain – a comparison of treatment planning options offered by GPs in California and the north-west of England | Blinkhorn and Zadeh-Kabir, 2003 | North-west of England and Los Angeles, California | California chosen due to US dentists having an advanced paediatric dentistry field. UK appears to have less-accepted, broad advice in the field |
| Common trends of standardisation, accountability, devolution and choice in educational policies in England, UK, California, USA, and Ontario, Canada | Scoppio, 2002 | England, California, and Ontario, Canada | All locations prescribe to economic rationalism and have increasingly global economies<br><br>Politicians in all three locations have been |

| Research title | Author(s) | Comparative locations | Relative justification for comparison |
|---|---|---|---|
| | | | advocating for more autonomy, amongst other things, in the education systems |
| A Comparison of achievement in arithmetic in England and Central California | Bushwell, 1958 | England and Central California | Rationale for comparison between locations unclear |

## 12.10  Appendix 10: Research Questions and Aims Terminology

*Table 17: Research Questions and Aims Terminology*

| Research question | Related research aim | Terminology utilised from McChesney and Aldridge, 2019 |
|---|---|---|
| What are the main contextual condition(s) affecting a person's ability to become or remain food secure in a particular location? | To investigate the main contextual conditions affecting a person's ability to become or remain food secure in a particular region. | 'investigate' used in the research aim to ensure that qualitative and quantitative data could be utilised. |
| Are the primary contextual condition(s) affecting a person's ability to become or remain food secure the same in different locations? | To compare the primary contextual condition(s) between the cases in the UK and US. | 'compare' used in the research aim to ensure that qualitative and quantitative data could be utilised. |
| How did the context of Covid-19 affect a person's ability to become or remain food secure in a particular location? | To investigate the context of Covid-19 within the contextual conditions covered in other RQs. | 'investigate' used to ensure that qualitative and quantitative data could be utilised. |
| From a household perspective, do some contextual conditions matter more than others? | To examine the household-level perspective of the importance of contextual conditions compared to one another. | 'examine' used in the research aim to ensure that qualitative and quantitative data could be utilised. |
| Can the adapted FSI theoretical framework be workable in multiple locations, and if so in what form? | To examine the potential efficacy of the theory based on the answers to the previous research questions. | 'examine' used in the research aim to ensure that qualitative and quantitative data could be utilised. |

12.11 Appendix 11: Criteria for the Analysis of Methodological

Rigour/Trustworthiness in Case Studies

*Table 18: Criteria for the analysis of methodological rigor in case studies, as interpreted by Mucio Marques et al 2015, P 34*

| CATEGORIES | | CRITERIA | ANALYSIS OF THESIS |
|---|---|---|---|
| **STUDY OBJECT** | 1 | **Does the study seek to understand a phenomenon in its real-life context?** (explanation of the need to use the case study to examine the proposed phenomenon, which is not possible through other strategies) | Yes, to explain the contextual factors of food (in)security See sections on food security infrastructure, the research questions posed, and the entirety of Chapter 6. |
| | 2 | **Was the reason for the choice of this strategy explained?** (to test theories, construct theories, or describe a phenomenon or to explore the phenomenon, among others) | Yes, to explore the phenomenon of food insecurity contextual conditions while relating it to the FSI theory. See section on adapted FSI theory. |
| | 3 | **Is there a connection between the phenomenon and the context at some research stage?** (need to understand the phenomenon in that context) | Yes, phenomenon is explored in the survey and interviews; Fieldwork deeply connected to the context. |
| | 4 | **What is the type of question raised in the study?** (how, why, what) | Research questions primarily are 'what' questions. |
| | 5 | **What is the case study type?** (exploratory, descriptive, explanatory, etc) | Descriptive (Klein and Myers, 1999) |
| | 6 | **Is the case analysed representative of the study object?** (discloses explanations for the choice of a single-case or multi-case study) | Yes, multi-case study. See Methodology Chapter |
| **DATA COLLECTION** | 7 | **Are there multiple sources of evidence?** (interviews, observation, examination of documents, among others, to enable the triangulation of data) | Yes, surveys and interviews See Chapter 6 |
| | 8 | **Is there triangulation of data between the sources of evidence?** (reliability characteristic) | Yes, qualitative and quantitative work is done in an effort of triangulation. See Chapter 6 |
| | 9 | **Were operational measures regarding the variables analysed disclosed, when necessary?** (construct validity) | Yes, see the defined concepts and related |

| | | | |
|---|---|---|---|
| | | | information in Chapter 6 |
| | 10 | **Is there an explanation for the data collection method, including the steps followed, when they occurred, where they occurred, with whom, and in what way** (reliability characteristic) | Yes, see Chapter 6 |
| | 11 | **Is there any report or disclosure regarding the research protocol?** (possibility of data collection replication) | Yes, survey questions and all participation and related forms are in the appendix. Topic guide is in the Chapter 6. |
| **DATA ANALYSIS** | 12 | **Is there an explanation for the method of analysis?** (internal validity: do the results express the data? Or are there results of the analysis based on logical models of development of arguments? | Survey data did not achieve validity, but interview data was rigorous. See Chapter 6. |
| | 13 | **Were theory (single-case study) or replication (multi-case study) used as a basis for the analysis when conducting a deductive study?** (external validity characteristic) | Theory-adaptation was the goal, with the original theory found in the literature. Two individual case studies were utilised to shape adapted FSI theory. See Chapter 6. |
| **RESULTS** | 14 | **Were contributions to knowledge generation reported in comparison to previous studies?** | Yes, see the Chapter 9. |
| | 15 | **Does the study warn about issues requiring further research?** | Yes, see the Chapter 9. |

## 12.12 Appendix 12: Analysis Audit Trail

**Analysis Protocol:**

1) Transcribe all transcripts.
2) Select one case location to review first – Leeds selected.
3) Read through all Leeds transcripts.
   a) This is done to ensure at least a baseline familiarisation with all the Leeds-related data
4) Read through all Leeds transcripts again, this time writing notes in the margins, keywords, observations and any other relevant information by hand on printouts. This forms the basis of the codes.
5) Review notes (i.e. initial codes) examining how they fit within the interview topic guide, taking notes as required.
6) Create original 'headline' codes taking into account both the initial codes and the interview topic guide with the understanding subcodes will be added in under each headline theme in the next phase of coding. These headline codes are subject to change in the next phase of coding.
   a) Children and schools
   b) Food schemes
   c) Government support (including benefits)
   d) Health and disability
   e) Food acquisition
   f) Diet
   g) Bills and rent
7) Code each Leeds transcript in Nvivo, adding in subcodes to each headline code as needed, changing the headline codes to better encompass the data as it relates to each other as well. When new codes emerge after already coding one transcript, return to the previous transcript and check whether that code needs to be re-added. Code to include all surrounding context that is needed to understand the pertinent information. The revised headline codes at the end of this process now can be considered the themes:
   a) Family and children
   b) Food acquisition
   c) Health and disability
   d) Support structures
   e) Diet
   f) Home and location
   g) Work and wages
   h) Covid-19
   i) Emotions and attitudes
8) Extract all codes (i.e. quotes) from each theme into a spreadsheet, bolding and highlighting the most relevant aspect of the quote. Non-highlighted parts are included to maintain context.
   a) Make note of any subcodes to these quotes in a separate cell (e.g. if Work and wages is the headline code, make note that the subcode of 'overtime' was applied in the coding process).
   b) In a separate cell make any further subcodes that at this stage are helpful (e.g. for Health and disability, adding subcodes of purely health-related or purely disability quotes, which was not done in the Nvivo coding process). This is done to catch nuances or subcodes that should have been included in previous steps upon reflection.
9) Create long-form written summaries of each theme for Leeds, forming the basis of analysis. Long-form indicates that full quotes are used to demonstrate the points of analysis formulated.
10) Create streamlined written summaries of each theme, summarising the analysis for Leeds of each theme.
11) Pivot attention to the second case location – Fresno.
12) Read through all the Fresno transcripts.

13) Read through all Fresno transcripts again, this time writing notes in the margins, keywords, observations and any other relevant information by hand on printouts. This forms the basis of the codes.

14) Review notes (i.e. initial codes) examining how they fit within the interview topic guide, taking notes as required.
   a) This is done to ensure that the headline codes – which will formulate the basis for themes later on – are tailored towards the research questions while incorporating and adapting to what the data reveals in the coding process for both Leeds and Fresno. In some cases, this could mean that one headline code identified in the topic guide is rarely coded to, which in and of itself is of interest in answering the research questions and challenging previous assumptions.
   b) Keeping the headline codes broad enough to be usable in both cases is important; subcodes can capture the specific differences between the two case locations. If it emerged that the themes from Leeds failed to encompass Fresno content adequately, new headline codes could be added here. In this case, the Leeds headline themes appropriately could house all the Fresno information with the addition of subcodes, so no additional headline codes – and later on the themes that emerged from the Leeds case – were needed.

15) Code each Fresno transcript in Nvivo, adding in subcodes to each headline code as needed. When new codes emerge after already coding one transcript, return to the previous transcript and check whether that code needs to be re-added. Code to include all surrounding context that is needed to understand the pertinent information. If it proves necessary, revise the headline codes but this was not required.

16) Extract all codes (i.e. quotes) from each theme into a spreadsheet, bolding and highlighting the most relevant aspect of the quote. Non-highlighted parts are included to maintain context.

17) Create long-form written summaries of each theme for Fresno, forming the basis of analysis. Long-form indicating that full quotes are used to demonstrate the points of analysis formulated.

18) Create streamlined written summaries of each theme, summarising the analysis for Fresno of each theme.