

Campus Foodscapes as Sites of Transformation

Mapping policy and projects
in US universities envisioning
just, sustainable, and healthy
food systems

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CAMPUS FOODSCAPES AS SITES OF TRANSFORMATION: MAPPING POLICY AND PROJECTS IN US UNIVERSITIES ENVISIONING JUST, SUSTAINABLE, AND HEALTHY FOOD SYSTEMS

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DECLARATION

This is to certify that to the best of my knowledge, the content of this thesis is my own work submitted for the Doctor of Philosophy in Law at the University of Melbourne. It has not been submitted, either in its entirety or substantially, for a higher degree or qualification at any other university or institute of higher learning.

I certify that the intellectual content of this thesis, including text, figures, tables and illustrations are the product of my own work and that all the assistance received in preparing this thesis and sources of all included material prepared by others has been acknowledged with citations. This thesis is below the maximum word limit, exclusive of tables, maps, references and appendices.

Sophie Lamond, June 2022

ABSTRACT

Many North American universities are actively working to transform their campuses, expanding beyond their traditional missions of teaching and research. Through programming, curriculum, research and community organising as well as procurement and infrastructure, university staff and students are working together to create policies and projects for just and sustainable food system transitions.

Drawing on fieldwork and interviews across eleven US institutions and their campus foodscapes this research presents insights into the emergence of policies, projects, and protest to envision and enact more just, sustainable and healthy food futures. It looks at drivers and barriers to change as well as power dynamics in this complex ecosystem. Results are presented as analysis and as maps of campus and higher education foodscapes which include activities, policies and stakeholders as well as vignettes of exemplar projects and considerations of the impact of corporate influence in educational settings.

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—

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LIST OF ACRONYMS

AASHE - Association for the Advancement of Sustainability in Higher Education

Cal - Colloquial abbreviation used for the University of California, Berkeley

FINE - Farm to Institution New England

HLPE - United Nations High Level Panel of Experts on Food Security and Nutrition

MCURC- Menus of Change University Research Collaborative

MoC - Menus of Change

NCAA - National Collegiate Athletic Association

RFC - Real Food Challenge

RFG - Real Food Generation

SSB – Sugar Sweetened Beverage

STARS – Sustainability Tracking, Assessment & Rating System

UC - University of California

WHO – World Health Organization

Preface

*When we try to pick out anything by itself, we find it hitched to everything else in
the universe*

John Muir

I.

This thesis begins at breakfast. On my way to my desk at the university I meet a colleague for a quick morning meeting and order a cheese and tomato toasted sandwich with a flat white coffee. It is a mundane meal. There are however many critical questions that exist beyond the tangible meal in front of me. This thesis addresses some of these questions.

Looking at my sandwich I can ask where the ingredients come from, who grew the tomatoes – are they local, seasonal, organic, or not? What about the wheat, and where was the dairy farm, or farms, that supplied the milk and the cheese? Perhaps more obscure questions, such as, who grew the peppercorns or harvested the salt? And the coffee, is it fair trade, direct trade, or not, and from which country did it originate? How could I calculate the environmental impact of this meal?

Can I tell whether the staff in the café are being paid fairly? How about the less visible campus workers who keep the environment habitable such as the cleaners, gardeners and maintenance workers? What about the food chain workers: the delivery people, manufacturers, and farmers? What kind of labour laws govern their work?

I am drinking my coffee out of a reusable cup, for which I received a discount. Are the other patrons? Are they being encouraged to do so and does this café try to minimise its use of disposable plastic? My sandwich turns out to be extraordinarily salty, so I peel off the slice of bread with the most seasoning and abandon it – am I able to compost this bread? And what happens to any food left over in the café at the end of the working day - is it thrown into landfill, composted, or donated to someone who could eat it?

While eating I think about the students and staff filing onto campus to start their day. Are some of them here to research, or teach, or learn about food? How many of the students are going hungry because they cannot afford to pick up a quick breakfast?

If I wanted to answer any of these questions, could I? Is there anyone who takes charge of the campus food system and is working with staff and students to make these decisions? Is there any policy that connects the decision makers within the university to each other, or of those from this university to others like it around the country? If I decided to complain or protest because I was dissatisfied with any of the answers to the questions above, would I be listened to, encouraged, ignored or punished? How would the answers to all these questions vary if asked in another place, at another institution or in another country?

While contemplating this moment at breakfast and thinking about the food in front of me, I'm reminded of the John Muir quote above. I've begun to tell a story about systems within systems – from the microbiota and nutrients in a single farm's soil, to the international regulatory systems that govern higher education institutions, to the social dynamics of the campus community.

The food system is a sprawling and complex entity. To understand more about it, it is useful to start in the places where we spend most of our time and to think about the policies that govern these spaces. By understanding the system/s we take part in with every meal we can start to understand how what we choose to eat is connected to the social, economic, environmental, and cultural systems in which we live. By trying to understand these systems we can begin to think about the decisions we make with our communities and how these decisions may be able to slowly shift the way we eat, and perhaps ambitiously, transform the world in which we live.

II.

The majority of this thesis was written in 2020 and early 2021. Just after new years' in 2020 I caught a train across the US from Colorado to California. I contemplated the landscape of majestic plains, hills, gullies, and mountains, interspersed with snapshot-like vignettes of domesticity and industry. Then I cried as I read the news, and that the town I had lived in as a small child in Australia had lost its whole main street to the devastating bushfires that engulfed vast landscapes across the east coast. Returning to California I visited a university campus where hundreds of students and staff had lost their homes in the 2018 Camp Fire. The community was still struggling with food and housing security in the wake of the disaster.

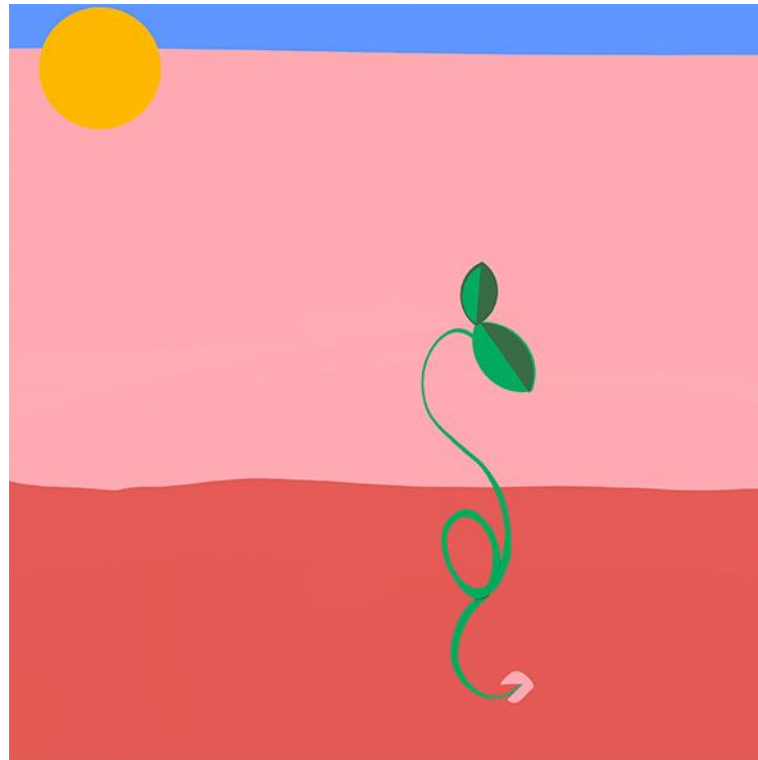
Within three weeks of returning to Australia staff and students were sent home from campus. Across the world university staff and students learned how to teach, study and research from home in the face of a global pandemic that forced separation on us. By the middle of the year I was sick of the word unprecedented. By September I was watching from afar as friends I had lived with in California were evacuated, again, from wildfires bearing down on major cities.

As I near the end of this research the town I live in floods. Along the east coast of Australia many towns and cities fare much worse, rivers reaching heights beyond any predicted maximums, confounding disaster management plans. Another flood comes. These unprecedented events devastate thousands, kill 22, destroy vast amounts of infrastructure and leave hundreds of families with nowhere to go. Months later they are still waiting for accommodation, many trying to make do in tents as winter descends.

A war starts. No-one seems able to see when, or how, it will end.

The cumulative impact of these events drives up the price of housing, of oil and inevitably, of food.

This research is inextricably embedded in this time. I did not begin this research with questions of disaster and resilience as a theme, apart from as a vague backdrop necessitating the need for more sustainable action. However, many times we say, and will continue to say, that these events are 'unprecedented' they have also been predicted and speculated about for a long time. There is an urgency to thinking about and taking action within our institutions to make sure we are focused on creating places and people that can live and thrive in our shared future and tackle what lays before us and what lays ahead. The work of transformation and to be able to use the capacity of our institutions to contribute to safe, healthy, and sustainable futures is at the core of this research. As is the intention that this research contributes to the capacity of institutions, and the practitioners within them to do this work.



1

INTRODUCTION

1 INTRODUCTION

1.1 Overview

This thesis sets out to investigate how universities are situated within the food system. The primary question of this research is *what is a campus foodscape?* This is supported by two further, overarching, broad and reciprocal questions: *how does the food system influence universities?* and *how can universities transform the food system?*

The first question considers the ‘what’, ‘who’ and ‘how’ of food in universities. Throughout this research the term campus foodscape will be used as a frame to locate the activities, processes and elements that make up the presence of, and relationships to food in higher education settings. The subsequent broader questions frame this analysis. The question ‘how does the food system influence universities?’ concerns universities as specific sites in specific places within the food system. This directs the enquiry towards understanding food in universities and the factors and supply chains that contribute to bringing food to campuses. Many forces influence the ways in which universities engage and interact with food. This research considers the contextual and structural factors shaping these engagements.

The last question ‘how can universities transform the food system?’ turns to investigate how universities are activating their agency to drive progress towards sustainable, healthy and equitable food systems. This includes

directing their purchasing power towards fair, equitable and sustainable food; utilising their research agendas for innovation; and cultivating skilled, active and critical citizens and eaters. It also addresses how universities are fostering relationships with external communities and stakeholders in ways which maximise institutional resources. This question leads to analysis of how campus foodscapes are formed and reformed by practitioners working towards transformative goals, as well as shaped by all the members and stakeholders within and around higher education institutions. This also considers the way in which universities are engaging in reflexive practices to address, and at times redress, the power they hold, and have held historically, asking who benefits from this power and who is disenfranchised by this power.

This research also looks the power structures that enable, and sometimes frustrate these efforts. Universities are subject to the broader regimes of neoliberal logic and are fighting to maintain their role as a public good. The tensions inherent in the engagements between institutions and corporate interests are a key theme running through this thesis. This is looked at in depth in Chapters 6, 7 and 8 which provide evidence and analysis regarding the incursion of corporations into higher education through sponsorship arrangements and the outsourcing of auxiliary services. These chapters also examine the impacts of corporate/institutional partnerships and some of the community responses emerging to counter these relationships.

Universities are responding to food in a variety of ways throughout the world, however, action in this area is most advanced in North America. This thesis presents the results of my research auditing campus foodscapes in American universities using a combination of desktop research, site visits and

in-depth interviews to learn more about the relationships between higher education institutions and the food system. In doing so it uncovers who is involved in action on campus foodscapes, what action they are taking and the impacts of these actions. It addresses the role of policy in campus foodscape transformation, to understand how it is developed, and the pressures, barriers to action and drivers of success. While this research is focused on American institutions it aims to understand best practice, and drivers and barriers to creating frameworks for action on foodscape transformation in institutions around the world and to understand what kind of structures and networks are required to best transfer this knowledge between actors.

1.2 The Food System

Campus foodscapes are inextricably nested in broader food system/s. 'The food system' is often used as a singular descriptor, encompassing the total activity of producing, distributing, consuming and disposing of food. However, conceptual understanding of the food system as multiple, interlocking entities is fundamental to this study. At a broad level the food system can be understood as,

a system that embraces all the elements (environment, people, inputs, processes, infrastructure, institutions, markets and trade) and activities that relate to the production, processing, distribution and marketing, preparation and consumption of food and the outputs of these activities, including socio-economic and environmental outcomes.

(HLTF, 2015: 1)

This definition focuses on the material flows of food and elides the cultural, social, historical, political, economic and environmental contexts which frame

the complex relationships between human societies and food. Expanding on the definition above, Lang and Heasman have created a simplified model demonstrating many factors often collectively referred to as ‘the food system’ as shown in Figure 1-1, below (2015: 23).

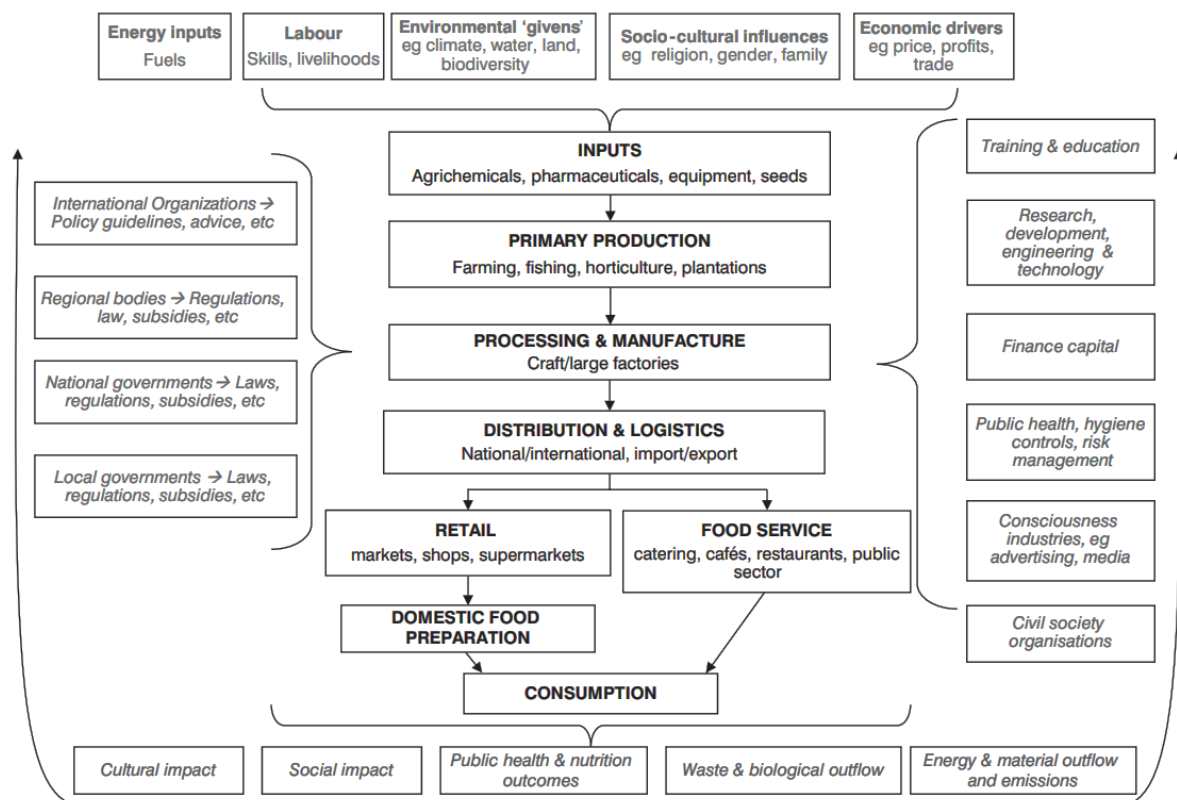


Figure 1-1 The Food System, its inputs, outputs, and influences

Food systems operate across places and across scales. They are governed by often-conflicting frameworks and ideologies – creating new systems as each of these elements interact. Such fractal-like complexity has prompted the conceptualisation of a ‘system of systems’ approach, defined as ‘large scale concurrent and distributed systems that are comprised of complex systems which exhibit emergent behaviour, evolutionary development, self-organization

and adaptation' (Hipel et al., 2010: 4).¹ Food systems, are not only materially complex, they comprise diverse, and often conflicting, social and cultural ethics and values. Blay-Palmer et al. (2016) suggest that the system of systems approach be adapted to 'systems of food systems,' allowing for recognition of the cross-sectoral policies and structures that encompass diverse views of economic, material, environmental, political and social elements of food systems. However, this approach may be reductive, suggests Bell, who cautions 'we miss much potential for transformative progressivism by focusing on connectedness without an equal focus on disconnectedness' (2008: 84). In this thesis I employ a system of systems lens to investigate campus foodscapes and take care to attend to both the presence and absence of interconnections. For ease of reading I use the term 'the food system' for the system of food systems.

1.2.1 Issues in the Food System

Academic attention to food systems has rapidly grown in recent times in line with increased awareness of critical issues intertwined with the production, distribution and consumption of food. The food system impacts the environment, as well as human health and wellbeing. It amasses wealth for some and disadvantages others. The food system is, at the same time, vulnerable to environmental and social dynamics. The Intergovernmental Panel on Climate Change (IPCC) estimates food production and food supply chains contribute between 21-37% of global greenhouse gas emissions (Shukla et al., 2019). However, recent analysis has suggested that the evaluation categories

¹ For more on 'systems of systems' see Gunderson & Holling, 2002; Holling, 2001; Stroink & Nelson, 2013

used by the IPCC significantly underestimate the true figure, and it likely sits at the higher end of their estimation, accounting for one-third of all anthropogenic emissions (Tubiello et al., 2021).

Climate instability has ramifications throughout the food system, including: overall reduced yields and lowered output from animal production systems; increased losses from pests, diseases and mycotoxins and from loss of pollinators. Overall system instability due to more frequent and more extreme weather events will disrupt production as well as supply chains, food storage, labour and distribution infrastructure. Impacts on food production will likely result in a narrowing of available crop varieties and lower quality produce. In turn this is likely to increase food insecurity, increase competition for land and resources, fuelling migration and conflict (Fanzo & Davis, 2021; Shukla et al., 2019).

Food production and its externalities also contribute to stress on air, water and soil. Approximately 80% of the world's population experiences water scarcity, which is projected to worsen (Elbehri et al., 2017). Currently soil erosion is estimated to be occurring at 10-100 times of natural rates of new soil formation (Shukla et al., 2019). Land use change, pollution and over-exploitation are decreasing ocean health, threatening biodiversity and damaging the air, soil and water, while also negatively impacting human health (Elbehri et al., 2017; Fanzo & Davis, 2021; IPES Food, 2017; Shukla et al., 2019; Swinburn et al., 2019). These factors combined will continue to contribute further stresses on food security.

Currently, around 820 million people are experiencing hunger, while 194 million children under five have experienced stunting or wasting as a result of a low-quality diet (FAO, 2019; Micha et al., 2021). Diets delivered by the current food system, and influenced by dominant cultural paradigms, are contributing to increasing rates of overweight, obesity and lifestyle-related non-communicable diseases (Micha et al., 2021; Swinburn et al., 2019; Willett et al., 2019). These impacts are endemic in the Global North and through various pathways of cultural hegemony, neo-colonialism and corporate influence, increasing in the Global South.

Governance and control of food systems is being consolidated into fewer hands, threatening transparency and increasing private influence over individual choices and population health. Consolidation and concentration is a major issue in many sectors of the food system, particularly in the production and development of seeds, agricultural technology, and food manufacturing and processing (see, for example Clapp, 2018, 2021; Clapp & Fuchs, 2009; Hendrickson et al., 2020; Howard, 2021; Kelloway & Miller, 2019; McMichael, 2005; Woodall & Shannon, 2018). These trends are hastened by governance paradigms centred in market-based logic, overseen by global, neoliberal institutions including the World Trade Organisation and The World Bank (Friedmann, 2005; Mann, 2021). Heffernan et al. (1999) were the first to describe a model of consolidation as an hourglass, demonstrating many farmers and producers at one end with goods to sell with millions of food consumers at the other, however only a few firms in the narrow middle controlling the processing and distribution of food through agri-food markets. The effect being that the power lies in the middle with the firms who can set prices for both

producers and consumers. Grain, meat and poultry processing and supply chains are particularly oligopolistic. McMichael (2013) describes this as a turn to 'value-chain' models favoured in the neoliberal era by which firms seek control commodities both horizontally through mergers, acquisitions and joint ventures, and vertically through controlling multiple stages of supply, production and distribution in as many segments of a commodity chain as possible. Doing so lowers prices and gleans vast profits for firms yet, are wielded as 'an instrument of control, debt-dependency and dispossession' against small actors at either end of the chain, resulting in eroded wages, lessened job security and worse conditions for workers (McMichael, 2013: 672).

The consolidation of power also undermines the rights and power of smallholders and jeopardises democratic control over access to needed food resources, agricultural inputs, and promising novel technologies (Clapp, 2018, 2021; Clapp & Fuchs, 2009; Mann, 2021; McMichael, 2005, 2013; Milsom et al., 2021). Those with the least power and economic resources, including small-scale farmers and producers, and those in insecure (if not unpaid) work across the many routes of food production, food supply and food service are under-represented in ownership of land, other food operations, and resources. Despite how crucial these roles are to food systems stability this precariat face barriers to political participation and representation in the food system, and are often subject to racism, sexism and widespread labour exploitation (Gray, 2014; Jayaraman, 2012, 2014; Mares, 2019; Minkoff-Zern, 2017, 2019; Rodman-Alvarez & Colasanti, 2019; Sbicca et al., 2020). This powerlessness may be consolidated by patchy reporting frameworks across industry, government and non-government organisations and through national and international

governance mechanisms which are less likely to account for the hardships faced by marginalised people in the food system (IPES Food, 2017). An entire thesis could be written just to summarise issues in the food system and indeed many books cover these subjects. While it is not possible to cover all these factors in detail within this work, a summary, drawn from the sources above, is presented below in Table 1-1.

Table 1-1 Issues in the Food System

POLITICAL FACTORS > Economic and political stability > Equitable access to representation in political negotiations > Impacts of globalisation and unequal burden of international treaties and trade policies > Policy levers for food system change > Power relations between countries > Regulatory & legislative issues across levels of governance	FOOD JUSTICE > Access to resources for climate adaptation for smallholder farmers, ranchers, fishers and food producers > Community sovereignty over food production and distribution > Freedom to access, enact and share cultural customs > Freedom to organise and protest > Indigenous peoples access to and sovereign right over traditional lands and foodways > Structural/planning barriers limiting equal participating in the food system and equal access to arable land > Unequal power relations & historical injustices - race, gender, colonialism, class > Community freedom and capacity to engage in food systems issues & change > Consumer advocacy and power
CORPORATE POWER > Control of intellectual property > Control over inputs (seeds, fertilisers, machinery) > Control/influence over novel technologies & technology regulation > Corporate consolidation & concentration > Locking producers into treadmill-like contractual purchasing relationships > Loss of small-scale producers & manufacturers > Political Lobbying & Legislative control > Price setting for both sellers and buyers > Threats to smallholders > Undermining diversity of food & innovation	RESILIENCE > Access to reliable and stable infrastructure & logistics > Ability to adapt to urbanisation and shifting demographics > Access to resources for climate adaptation and mitigation > Access to skilled labour and education > Equitable access to finance with fair terms > Preparedness for unforeseen shocks and adequate disaster response mechanisms
STABILITY > Access to appropriate inputs for sustainable food production > Access to appropriate, skilled labour > Access to education and training > Access to reliable, stable infrastructure & logistics > Equitable access to finance and ownership with fair terms > Impacts of human disease and infirmity on workforce capacity and stable economic conditions > Impacts of plant and animal disease and availability of prevention mechanisms and remedies > Political stability and freedom from conflict	INNOVATION > Democratic access to data and information > Development and availability of of circular economy systems > Equitable distribution of intellectual property/open source governance mechanisms > Impacts of changing technology & access to innovation > Impacts of novel technology & access to innovation

FOOD LITERACY

- > Community freedom and capacity to engage in food systems issues & change
- > Consumer advocacy and power
- > Food literacy and engagement with food systems issues
- > Access to evidence-based knowledge and research on sustainable, fair and just food systems
- > Freedom to teach and learn

HEALTH

- > Access to healthy, diverse and culturally appropriate food
- > Dietary choices & system impacts
- > Food safety and contamination issues
- > Health impacts from industrial agriculture
- > Non-communicable disease burden
- > Protection of traditional foodways

LABOUR RIGHTS

- > Access to and/or barriers to unionisation
- > Mistreatment and underpayment of foodservice workers
- > Mistreatment and underpayment of workers and slavery in agricultural & food supply chains
- > Racial inequity and exploitation in foodchain labour
- > Worker safety

HUNGER & NUTRITION

- > Food price shocks due to sudden, high-impact events
- > Individual food security
- > National food security
- > Shocks to the food supply
- > Skill and utilisation capacity to access good food
- > Spread of high-energy, low-nutrient (western) diet to LIMCs and LICs
- > Triple burden of malnutrition

ANIMAL WELFARE

- > Environmental impacts of animal production, processing and consumption
- > Harm to workers in animal processing supply chains
- > Increased risk of zoonotic diseases & antibiotic resistance
- > Intensification of animal production systems
- > Mistreatment of animals in food production systems
- > Rise in alternative/synthetic proteins

ENVIRONMENT

- > Access to fresh water
- > Contribution of food systems to climate change and ecosystem degradation
- > Deforestation
- > Diminishing health of pollinator populations
- > Food loss & waste
- > Impact of climate change and ecosystem degradation on food production
- > Land use change
- > Loss of biodiversity
- > Loss of NPK (fertilisers) + misuse
- > Plastic and other packaging pollution
- > Soil loss
- > Soil, air & water pollution
- > System impacts (social, economic, environmental, infrastructural) of increasing natural disasters and other sudden shocks

1.2.2 Food Systems Transformation

Food producers and workers across food chains, activists, citizens, students and scholars are advocating for, and building alternative models and new economies for regenerative, sustainable and inclusive food systems. The last decade has seen an exponential growth in critical discourses around the themes of food systems transition and transformation, Figure 1-2, below, shows the results of an aggregated search across academic databases on new publications on these themes, rising from several hundred annual articles at the turn of the century to upwards of 19,000 per year for 2020/2021.² Despite the broad trend indicating a collective turn to the need for transformation suggested pathways vary widely. The various conceptual pathways are informed by the ideological frames of the many commentators.

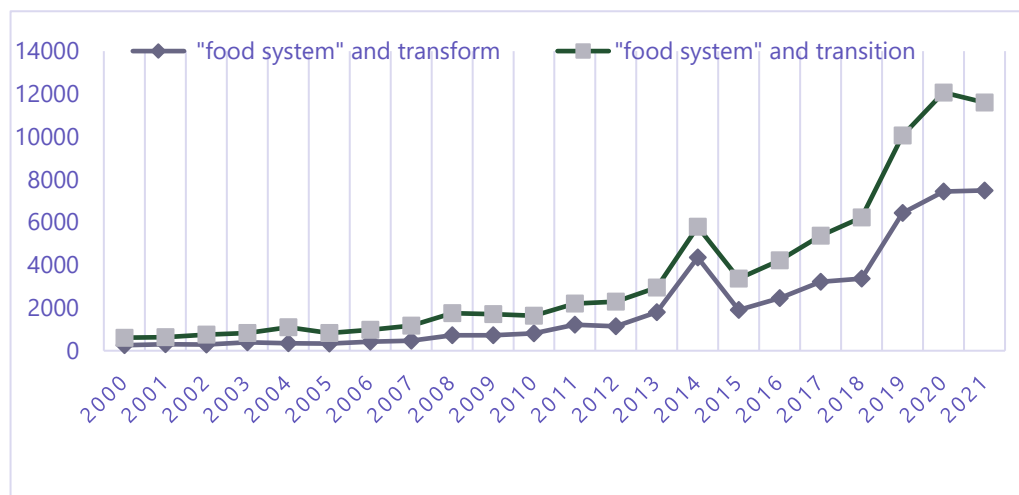


Figure 1-2 Published academic journal articles on food system(s) and transformation/transitions 2000-2021

There have been multiple categorisations of food systems governance into broad, descriptive clusters. Prominently the framing of food system regimes

² Data sourced from academic publication search aggregator dimensions.ai

draws on historical currents to delineate modes of governance starting with the colonial food regime that bridged the turn from the nineteenth to twentieth centuries (Friedmann, 1987, 2005; McMichael, 2005). This was followed by the mercantile-industrial regime, which was in place between the end of the world wars and the economic watershed of the early 1970s and associated world food crisis. During this period national governments developed and imposed complicated regulatory mechanisms, including subsidies, tariffs and levies to protect their own food producers and utilised global governance levers to create a culture of exceptionalism around global trade of agricultural commodities. This exceptionalism shifted power to economic centres in the Global North and destabilised agricultural stability in less-developed countries. Following this there is some debate about how to define food systems governance. Friedman suggests the corporate-environmental food regime, denoting a rise in corporate governance and capital-oriented outcomes for food systems, coupled with an emerging focus on social and environmental issues (Friedmann, 2005).

Beacham (2021) argues that this has matured into a regime tethered to the interlinked systems of human and planetary health. Lang and Heasman (2015) articulate categories through paradigms rather than regimes. Their three hegemonic paradigms include: the high-input, high-output, market-oriented productionist paradigm; the capital intensive, corporate dominated, high-technology oriented life sciences integrated paradigm; and the ecologically integrated paradigm tending towards more decentralised governance and concern for environmental and human health impacts of food systems. Grassroots movements have emerged campaigning for rights-based approaches to governance and food sovereignty, food justice and systemic equity for

producers and eaters alike (Alkon & Agyeman, 2011a; Glennie & Alkon, 2018; Mann, 2014, 2021).

The discursive turn to transformation has been adopted throughout these various paradigmatic clusters. Recent global events such as the UN Food Systems Summit (2021) attracted vociferous opposition with critics arguing the discourse co-opted the push for sustainable transformation/s as the domain of powerful, global corporations and global institutions with a vested interest in maintaining neoliberal structures of power (Canfield et al., 2021). Transformation has too been a central tenet of calls for dietary transition which have manifested in so-called disruptive innovations such as the proliferation of product offering alternatives to animal-based proteins (Sexton et al., 2019). The launch of the EAT Lancet review on Food, Planet, Health hammered home the theme in its push for a 'great food transformation' (Willett et al., 2019). This too has been critiqued as both simplistic to the point of being ineffective in non-western settings (a review noted its suggested diet was beyond the economic capacity of 1.58 billion people) and as technocratic, setting pathways to transformation as opportunities for further corporate control (Chandrasekaran et al., 2021; Davis et al., 2022; Gupta et al., 2021; Mann, 2021). The conceptual colonising of food systems transformation, and discursive power wielded by powerful, globally-oriented actors is described as corporate capture, as illustrated by Food Systems 4 People (Figure 1-3), reporting on major stakeholders involved in global multi-stakeholder initiatives. The tensions between grassroots, people-oriented visions for food system transformation and

corporate framing of this same concept is considered and analysed in this thesis.



Figure 1-3 Corporate Actors in Food Systems Multi-Stakeholder Governance Initiatives (Chandrasekaran et al., 2021: 5)

1.2.3 The US Food System

The US food system mirrors the issues seen in global food systems, however, given the geographic scope of this study some contextual specificity is useful in framing this research. Many American foodchain workers live below the poverty line, a reality particularly impacting agricultural workers and food service staff (Benner & Jayaraman, 2012; Jayaraman, 2014; Lo & Jacobson, 2011). This experience is disproportionately more likely for people of colour (Food Labor Research Center, 2015). Farm workers receive low wages and are subject to irregular, seasonal work opportunities and have little access to health

insurance despite much higher risks of sickness and injuries (Estabrook, 2012; Greenstein et al., 2015; Guthman, 2014; Holmes, 2013). Further, many farmworkers labour in conditions which satisfy contemporary definitions of slavery (Lo & Jacobson, 2011). The US food system is built on a history of exploitation, from historic racialized slavery through to the use of waves of black and brown immigrants as cheap, or at times, free labor in farms and food production and processing facilities to the present day (Gottlieb & Joshi, 2010). The food on American tables is still harvested by racialized labor, often surviving on precarious work, exploitative conditions and poor living standards including contemporary labor camps (Gray, 2014). Mares' description of immigrant farmworkers in Vermont reflects the national status quo: 'some bodies matter more than others ... [the] labor of some food workers is visible and celebrated, while the labour of others is hidden and exploited' (Mares, 2019: 4). Food racism extends to cities and towns where food is under-provisioned to black and immigrant neighbourhoods, driven by lack of policy and under-investment in infrastructure (Reese, 2019). Many of these disparities are reflected both within campus foodscapes and the larger food system/s which serve them.

1.2.4 Studying Food on Campuses

There have been several key themes identified in food studies literature which provides a basis for the significance of this study, as set out in detail in Chapter 2. There is an emerging consensus that campuses are useful sites for food system change and that higher education institutions should use their agency as actors in the food system to transform their own food environments and influence transformation in the broader food system. However, it has also been acknowledged that current action in campus foodscapes is scattered, lacks

professional expertise and is constrained by financial limitations, disciplinary boundaries and a lack of systemic awareness (Barlett, 2011, 2017; Fitch & Santo, 2016; Pothukuchi & Molnar, 2015). Barlett (2011) considers that success requires clear goals, transparency and accountability. While Pothukuchi and Molnar (2015) hypothesise that campus foodscape work needs clear outcomes, data and models to garner support from higher education executives.

Goal-setting and accountability mechanisms provide the basis of data used in this study, which draws on reporting from universities on sustainability through the Sustainability Tracking, Assessment & Rating System (STARS), which is discussed in detail in Chapters 2 and 3. However, the rise of monitoring, evaluation and accountability is also a hallmark of neoliberal regimes which has influenced education governance over the past four decades. Chapter 2 discusses the context for the turn to neoliberal agendas within institutional governance. Chapters 6, 7 and 8 present narrative analyses addressing the role and influence of corporations across the higher education foodscape. Chapters 6 and 7 consider the power exerted through multinational beverage corporations through sponsorships and partnership deals with universities. Chapter 8 looks at the ongoing trend of outsourcing services to save costs, and in particular the impact that outsourcing dining operations has the way people eat, experience and share food on campuses.

Through painting a comprehensive picture of campus foodscape action this study strengthens the evidence base for effective policy and targets that can be used by practitioners in higher education settings. It also brings a more systems focused outlook to this field which has until now been dominated by single-issue, and single-site studies.

Barlett and Chase argue that visionary action in higher education ‘becomes reality through relationships’ (2004b: 7). These relationships can be better understood by identifying the community of practice with a shared interest in this area of work (Snyder & Wenger, 2004). As yet, the literature provides no comprehensive mapping of who is involved in campus foodscape action and how they relate to each other. Stakeholders in campus foodscapes are connected through varying existing networks where food is often a peripheral concern. The mapping in this thesis (set out in detail in Chapters 3 and 4) provides a clearer sense of who is doing this work and allow for the development of mechanisms to share best-practice outcomes (Blay-Palmer et al., 2016; Stevenson et al., 2007).

The methods developed in this study are intended to be utilised by others working in campus foodscapes. In line with the translocal logic of ‘scaling out’ rather than ‘scaling up’ (discussed in more detail in section 2.3) the findings in this these are intended to allow users to use shared knowledge to develop solutions applicable to their own unique contexts (Stevenson et al., 2007). This can be utilised by those already engaged in action in campus foodscapes as well as those keen to undertake work to address their own campuses foodscapes. These methods can be disseminated through existing networks and through the networks created in the course of this study. Methods and findings are also relevant to understanding foodscapes and potential for transformative food system action in other institutional environments such as hospitals, schools, and local governments.

1.3 Outline of Thesis

This thesis presents the findings of research into campus foodscapes organised in the following way. Chapter 2 provides a literature review bringing together the discursive context for this study. Firstly, it examines the nature and methods provided by the discipline (or disciplines) of food studies and the utility of using foodscapes as a lens to set the scope for this study. It then moves on to give an overview of existing research on the topic of food in higher education across various areas of the food system. Ideas around the exchange of knowledge and practice in communities working towards common goals are introduced, including translocalism, communities of practice and the concepts of institutional and organisational thickness. This finishes with a consideration of the socio-political context of neoliberalism and the ongoing effects this has across governance in higher education.

The final section of the literature review covers the emergence of sustainability as a concern in higher education, fuelled by international policy agendas in education for sustainable development. The push to include sustainability in higher education teaching and operations contextualises the rise in reporting frameworks, used by universities to monitor and compare progress in sustainability. Here the Association for the Advancement of Sustainability in Higher Education (AASHE) and their Sustainability Tracking, Assessment & Rating System (STARS) first make an appearance. This sustainability reporting framework is the basis of the data used in this thesis, capturing a wealth of information about the activities and elements that contribute to campus foodscapes.

Chapter 3 discusses the methods used in the course of this research, including the overarching framework of institutional ethnography, methods used during fieldwork and the methods used to develop a dataset and to select sites and participants for long-form, semi-structured interviews. It also makes the case for the application of visual methods to food studies to provide rich insights into understanding the way institutions and food systems interact. Chapter 3 finishes with a summary of further methods used in this study to provide additional data on the complex systems in higher education and food systems.

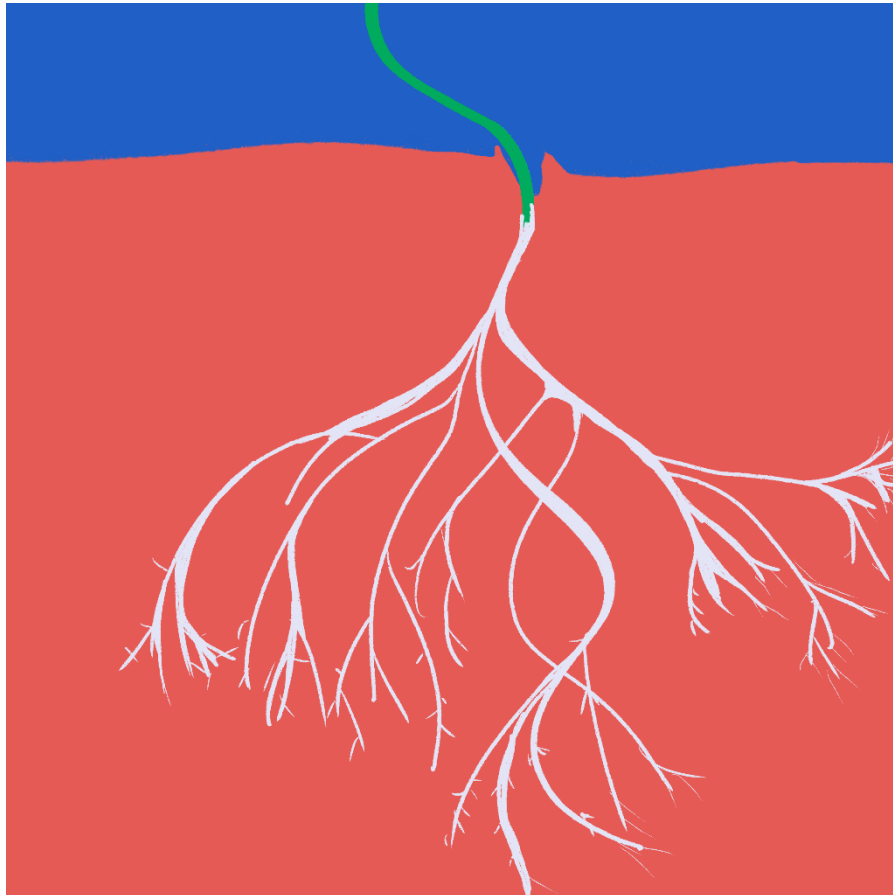
Chapter 4 Presents a visual account of campus foodscapes. It includes photographic evidence, project examples, charts and 22 maps. These maps illustrate the elements of campus foodscapes, stakeholders in the higher education foodscape and their associated networks. The method used to create these maps are included here as a finding of this research. Chapter 5 introduces the lived experience of interview participants, representing diverse points of view from staff and student practitioners in campus foodscapes.

Chapters 6, 7 and 8 draw on themes that emerged from the data analysis in Chapter 4 and the insights of practitioners in interviews. These chapters use narrative analysis to provide background research and evidence from data collection to consider the ways in which corporations influence campus foodscapes and more broadly higher education foodscapes. Chapter 6 examines pouring rights contracts, or the contractual relationships made between multinational corporations and universities in return for exclusive distribution of their products corporations provide vast sums of money to institutions. Chapter 7 examines this same issue from another perspective, charting the emergence

of community organising and protests from student and staff who are demanding their institutions divest from these contracts to protect the value of universities as a public good.

Chapter 8 considers the influence of corporations via the management of foodservice contracts. In the economic rationalism of education governance outsourcing of auxiliary services has become commonplace in an effort to save money on operating costs. The analysis in this chapter examines the outcomes of turning to private service providers. It also provides evidence to illuminate the often-obscured supply chains, networks and private deals that set standards across the institutional foodscape. This chapter concludes with community responses from campuses demanding the return to self-operation to regain autonomy and control of their foodscape.

Chapter 9 brings together these themes and analysis to present a summary of key insights and develop some high-level models that can be utilised in the pursuit of further research on campus foodscapes, and in further work within universities to transform campus foodscapes. Chapter 10 concludes this thesis with a brief overview of the contributions made to the broader areas of food studies, research in institutional foodscapes and practical action within universities.



2

CONTEXTUALISING RESEARCH IN CAMPUS FOODSCAPES

2 CONTEXTUALISING RESEARCH IN FOODSCAPES

This chapter introduces contextual ideas that informed the development and course of this research. It begins with an introduction to food studies, and the use of foodscapes as a lens frame the scope and setting of this enquiry. The emergence of research interest in food in higher education is discussed, and a case made for the importance of further developing this area as a research topic. The following section looks at how practitioners working for transformation share knowledge and ideas across sites, including through translocal models and communities of practice. The maturation of this area of practice and research is considered through the concept of institutional thickening. These ideas are framed with a brief summary of the political context and influence of neoliberal governance. The latter part of this review provides a brief history of the emergence of sustainability as a core operational concern in higher education. It then highlights the broader policy environment influencing sustainability in higher education and the uptake of sustainability reporting tools including the use of reporting frameworks as a core tool to track progress in sustainable operations and practice. As well as how these tools fuel competition between institutions.

2.1 Food Studies

This research takes place within the broad church of food studies scholarship. Food studies emerged as a distinct area of study throughout the 1990s and early 2000s.³ Although food has long been a research subject,

³ Arguably food studies is an evolution of disciplines such as rural sociology and agrarian studies

inquiries have often taken place under the umbrellas of diverse disciplinary frameworks. Facing contestations and challenges alongside its development, including rejection of its need for a distinct niche, food studies has matured into an independent, interdisciplinary and multidisciplinary area of inquiry (Caldwell, 2021). Addressing ambivalence about the field's growth, scholars have suggested that food was long overlooked due to its perceived banality, mired in the drudgery of women's work/care work (Belasco, 2008; Caldwell, 2021). Further, the ubiquity of food as a material fact of everyday life led it to being ignored for its sheer obviousness and shunned as an academic pursuit. These opinions, bolstered by growing distances between eaters and the origin of their food and relations obscured by vast and complex supply chains, resulted in an *out of sight, out of mind* mentality (Belasco, 2008).

Food studies begins with food, but also uses food as a lens to interrogate and understand social and cultural identities, environmental impacts, and power in economic and political systems. It is a discipline with messy boundaries, reflected in Arce, Sherwood and Parades' characterisation of a space to interrogate the 'multiple objectivities and subjectivities of food' (2017: 4). Levkoe, Brady and Anderson suggest that food studies is crucial, as food is implicitly interlinked with many collective and critical challenges. Food studies offers a framework that allows examination of the 'complex web of relations, process and structures' at all points in the complex supply chains and socio-ecological systems that bring food to people's tables (Levkoe, Anderson, et al., 2016:3-4)⁴. This turn to questions of power, consideration of structural forces

⁴ Also at times how it does not arrive at tables, due to a lack of availability, hurdles and barriers to access and/or a lack of structural stability – the factors that uphold food security – but by diversion to other sources such as animal feed and fuel.

and relations between actors has been described as *critical food studies*, reflecting the concerns of other critical theory disciplines. Caldwell describes this evolution as opening up key research areas, allowing examination of ‘how power, control, authority, risk, regulation and resistance shapes people’s experiences with food and how in turn this shapes the social order’ (2021).

The complexity of these issues is also a strength of the discipline, positioning the field as fertile ground for interdisciplinary collaboration. Van Esterik suggests that this is an asset, showing an ability to start with an issue and to be able to ‘fit the appropriate disciplinary frame’ to understand the issues at hand (2016: 121). As the field matures it stands more firmly on its own, yet there are still many interpretations and contradictions in defining its scope and policing of the disciplinary boundaries (Koç et al., 2016). This thesis employs a generous and wide-reaching application. Food studies is a key framework informing this research, which draws on the above-mentioned strengths including flexibility, interdisciplinarity and eye to complexity, as well as concerns with power and control in food systems and their socio-ecological relationships.

2.1.1 Foodscapes

The complexity and scale of food systems pose a challenge to framing research endeavours and as such a more specific lens is helpful. Andrée et al. (2016: 145) observe that ‘all food systems happen in a place.’ The concept of ‘foodscapes’ has been employed as a useful tool in studying food systems with a place-based outlook. At a basic, material level foodscapes have been understood as the settings where people encounter, purchase, eat and interact with food (Burgoine, 2010; MacKendrick, 2014; Roep & Wiskerke, 2012;

Winson, 2004). The term has also been employed to understand the politics and praxis of food provision (Goodman et al., 2010; Miewald & McCann, 2014) and thus helps to reveal ways to challenge the hegemony of entrenched structures (Mikkelsen, 2011). While the term may help to uncover the features of a system, it can also be a tool to expose what is missing or obscured within the material, ecological, economic, political and social realities of food systems (Cook & Crang, 1996; Johnston et al., 2009). The term has been used across scales: from the hyperlocal to track the presence of fruits and vegetables within a retail setting (Bevan et al., 2015); to the regional to uncover the influence of socio-economic status on food access (Burgoine, 2010). Foodscape framing has been applied to intangible ideas such as the 'ethical foodscape' (Goodman et al., 2010) and the 'placeless foodscape' from which industrial commodities emerge (Sonnino & Marsden, 2006). The foodscape concept has been used as a lens to understand the relationships between a community and food (Miewald & McCann, 2014; Mui et al., 2019) and as a pedagogical tool to help students understand their own place within the food system (see for example, Earl, 2018; Greenleaf & Robinson, 2020; Tørslev et al., 2017).

To nominate something or somewhere as a foodscape is an act of delineating boundaries between a site or idea and the broader food system. However, applications to the more abstract and relational aspects of food provisioning can result in ambiguity. Miewald and McCann (2014) have described it as a 'chaotic conception' while Vonthron et al. (2020) discuss the 'polysemy', or multitudinous meanings, of its usage. Prior to the first usage of the term foodscape in the mid-nineties (Yasmeen, 1995) the suffix '-scape' had been used across multiple fields to set theoretical parameters around sites and

ideas. Appadurai discusses the inherent flexibility of the ‘fluid, irregular shapes’ of these conceptual landscapes (1990: 297). Making the point that these imagined worlds are ‘perspectival constructs’ tethered to the locus of each subject’s orientation to their broader context and are thus laden with individual political and cultural histories.

Delineating a foodscape provides a focal point and helps the researcher understand how such bounded spaces interact with broader, and sometimes seemingly limitless, food systems. Doing so allows for insight into reciprocal effects, or what Miewald and McCann describe as, ‘the mutually constitutive relationships among various aspects of a food system’ above and beyond its discrete, tangible and mappable elements (2014: 540). Mikkelsen (2011) suggests that the foodscape lens is a particularly useful tool when studying institutional environments as it provides a framework to examine food in the places it is encountered in ordinary settings and helps the researcher to understand how agency is enacted in these spaces. Deep investigation into these complex foodscapes allows for understanding of how communities can intentionally shape and reform their own foodscapes. Miewald and McCann argue that doing so helps to reveal the political construction of food and provides a way for people to question power structures and understand themselves as agents in ‘complex, enacted, changing, and political food landscape[s]’ (2014: 540). Such agency illuminates ‘opportunities to challenge the existing ways of food production and consumption and create different future trajectories through political and policy-oriented actions’ (Mikkelsen, 2011: 211).

This study uses the foodscape concept expansively to look beyond the linear, material flows of food through institutions. Within this thesis it is an

important lens to use when thinking about food in institutions, aiding in the observation of both the material and socio-cultural aspects of food in universities. It also suggests the value of working within a systems-thinking outlook, and in this case particularly the systems within institutions such as universities and higher education more generally. This outlook reveals inter-relationships and patterns, allowing for understandings which are dynamic over time, and the identification of niches where transformative practices are emerging (Roep & Wiskerke, 2012; Senge, 1990). Doherty, Cawood and Dooris highlight the importance of this connected thinking, as it opens space to facilitate ‘open and joined-up action’ within university settings (2011: 219).

Throughout this research I use the term ‘campus foodscapes’ to directly describe the food environment, teaching and research, infrastructure, labour, material flows, and social and political cultures around food on university campuses. This term has been used in the UC Berkeley Foodscape Mapping Project, which proposes the definition of campus foodscapes as,

Entities that make up food-related learning and practice, encompassing (but is not limited to) teaching, research, student organizations, activism, administrative decisions and initiatives, support services, campus gardens, dining services, eateries, catering, and other procurement.

(Fanshel & Iles, 2022: 3)

It is important to distinguish between two related but distinct terms, ‘campus foodscape’ and ‘higher education foodscape’. In this research I use the term campus foodscape to refer to a single campus and its food environment and culture. Whereas the term higher education foodscape refers to the general system of food environments and culture in and between all university food

systems, generally taken within the scope of this study to mean higher education foodscapes in the United States. This thesis examines the data collected during the course of this research for deeper insight into how this term is understood and used by practitioners working within higher education foodscapes. Chapter 5 introduces an expanded definition based on these insights.

2.1.2 Campus Foodscapes in the US

To understand the context in which campus foodscapes function it is first helpful to take a snapshot of the higher education landscape in the United States. In 2018 there were 4,313 degree-granting higher education institutions in the US, of which the majority, 2,828, are four-year colleges. This comprises 750 public higher education institutions and 2,078 private institutions, 77% of which are non-profit. These institutions educate approximately 20 million students and employ 4 million staff (Snyder et al., 2019).

The estimated value of food service in the sector is \$48.9 billion a year (USD) (Okrent et al., 2018). This is split between in-house operations, responsible for 52% of higher education foodservices, and external companies who managed 41% of services. The remaining 7% are run as hybrid self-managed and operator-managed services (Okrent et al., 2018). The external food services contracting market is highly concentrated and dominated by just three corporations: Sodexo, Compass Group and Aramark (Fitch & Santo, 2016). The power wielded by these corporations is discussed in more detail in chapter 8, which addresses the turn to outsourcing of campus auxiliary services. Across higher education, and other institutions, emerging programs are seeking alternatives to conventional supply chains, and shifting dining services budgets

towards local and sustainable food systems through innovative procurement models (Boys & Fraser, 2019; Richman et al., 2017; Thottathil & Goger, 2019; Wallace, 2016).

Hunger is one of the most critical issues in the US higher education foodscape. A wide range of figures have been reported, however, a systematic review of eight studies, incorporating data from more than 50,000 students found that 43.5% of US college students had experienced food insecurity, far above the national average in the general population of 13% (Nazmi et al., 2019). As a result of high rates of student hunger the University of California, Berkeley Food Pantry has seen a tenfold increase in users since 2016 (Kell, 2018). Students experiencing hunger are more likely to suffer health disparities over their life course (Leung et al., 2019), experience worse mental health and have more stress placed on their social relationships than their food-secure counterparts (Meza et al., 2019). They are also likely to achieve lower academic results and lower overall grade point averages, and are less likely to meet a standard four-year graduation timeline (Martinez et al., 2018; Patton-López et al., 2014; Regents of the University of California Special Committee on Basic Needs, 2020).

Students most at risk of falling into this category include those in racialised minorities, low-income students receiving Pell grants⁵ first-generation

⁵ Pell Grants are a federal subsidy provided to low-income students who are undertaking their first bachelor's degree. Most students are not required to repay the grant. The amount awarded is variable but the maximum possible grant for 2021/22 is \$6,495. The relative buying power of the grant has significantly decreased over time: in 1975 the grants covered around three-quarters of college attendance including tuition, fees and living expenses, currently it covers less than 30% of these costs (US Department of Education 2022, Protosaltis & Parrott 2017).

college students and those living in off-campus accommodation (El Zein et al., 2019). Demographics are shifting within higher education. The student body is shifting away from being just-out-of-school and is older, with students working their way through college for longer hours and in less well paid jobs than previous generations (Broton, 2020). The main drivers of food insecurity include financial stress compounded by high housing costs, rising rates of tuition and federal aid for college students having less relative buying power than it has for any previous generation of students (Twill et al., 2016). Fanshel and Iles (2020) note that campus foodscapes reflect the broader issues and inequities seen in the food system, compounded by the structural and power issues endemic in higher education, and in society more broadly. These structures are likely to compound the disenfranchisement experienced by those already facing barriers to participation in education, further limiting their agency to participate in and shape the foodscapes they encounter.

2.1.3 The Impact of COVID-19

The inherent precarity in higher education has been heightened during the global events precipitated by the COVID-19 crisis. Clapp and Moseley (2020) describe the impacts of the pandemic on the food system in three broad strokes: the disruption of global supply chains; widespread economic disruption causing lost income and threatened livelihoods; and food price volatility. The authors argue that this cataclysmic moment presents a forking path of policy options, one that could further entrench the dominant corporate, globalist food regime or another that allows for renewed attention to resilience and the emergence of

diverse and dispersed networks of governance. Swan (2020) notes that the pandemic has intensified existing power imbalances implicit in food provisioning, and that the work of harvesting, processing, collecting, preparing, serving and cleaning food – performed disproportionately by racialised, feminised and lower-class labour – is made more dangerous with the spectre of widespread infection. Around the world, and in the US, those with less power are less likely to be able to access adequate healthcare if they do become sick (Swan, 2020).

The COVID-19 pandemic caused widespread closures and shelter-in-place orders, displacing students and university staff from campuses. In places where campuses remained open, universities became epicentres of infection (Cai et al., 2020). The exodus of students left college residential services and higher education dining services without students to house and serve. As the pandemic came to the fore in the middle of semester, students made widespread requests of their institutions for refunds on their housing and dining contracts – many of which were rejected. A dual supply crisis demanded the attention of staff – some ingredients were no longer available due to disrupted supply chain and in other cases service staff were rapidly making plans to freeze or dispose of tonnes of meat, dairy and produce that had been purchased for students no longer on campus. In addition, campus food services were tasked with implementing social distancing, adapting meal plans for quarantined community members and managing infection risk on site. While dining services shut down, universities were simultaneously confronted with an exponential rise in students facing basic needs insecurity and worked to reorganise food banks for

an off-campus community. One estimate counted triple the rate of food insecurity among students compared to pre-pandemic levels (Vespoli, 2020).

The majority of research in this thesis, including fieldwork and data collection, occurred just prior to the widespread impacts of the COVID-19 pandemic.⁶ Although COVID-19 was emerging as a cause for concern at the end of the fieldwork period it was not a critical enough issue to be mentioned in any research interviews and no campuses had yet closed. As such the data and analysis do not generally consider the impacts of the pandemic. In sections where data has been used that is intended to demonstrate usual operations – for example, company income data, or enrolment statistics – it has been drawn from 2019 or earlier to reflect the ‘business as usual’ mindset dominant during the period of data collection. Where these data and findings would have been significantly altered by the pandemic this has been noted. Despite this, it is important to note the critical problems that COVID-19 exacerbated across higher education and across food systems, making the themes of this research more important than ever.

2.2 Research on Universities and the Food System

There is a growing body of research specifically addressing schools and universities as sites of food system transformation (Andrée et al., 2016; Barlett, 2011, 2017; Barlett & Chase, 2004b; Doherty et al., 2011; Fanshel & Iles, 2020,

⁶ Discovery of COVID-19 was happening over the 2019/2020 Christmas and New Year period. Fieldwork for this research continued until February 2020. However, the declaration of the pandemic by the World Health Organization was not made until March 2020 and as such it did not come up as a topic during research interviews.

2022; Friedmann, 2007; Levkoe, Andrée, et al., 2016; Nordstrom, 2015; Pothukuchi, 2016; Pothukuchi & Molnar, 2015; Rojas et al., 2007; Sumner, 2016). Universities have been considered as sites to challenge conventional food geographies (Bryan, 2007b). Campuses have been noted as sites to model new paradigms in the food system, encourage ethical action and foster connection to place (Kloppenburger & Hassanein, 2006). There have been a number of research theses completed by students interested in understanding how university food environments function and how they operate as potential sites of change (Adase, 2015; Adelman, 2013; Bryan, 2007b; Fichtner, 2011; LaCharite, 2014; Liu, 2015; Minaker, 2006; Porter, 2015; Stahlbrand, 2017; Wallace, 2016; Winslow, 2012). See Appendix I for a list of theses written on the topic of campus foodscapes, categorised by topic area.

Foodscales offer opportunities to foster critical citizenship using the campus in many different ways, both through research and teaching (Aguilar, 2021; Nordstrom, 2015; Nordstrom et al., 2022; Parr et al., 2007) and through extra-curricular and living lab opportunities. For example, learning in campus dining settings (Green & Asinjo, 2015; Roberts-Stahlbrand, 2020) and through participation in other projects and activities within the scope of campus foodscales (Classens et al., 2021; Classens et al., 2020; Classens & Sytsma, 2020; Fanshel & Iles, 2022). Barlett suggests that ‘food can be a strong location for campus sustainability efforts because of its economic clout, corporate connections, and emotional resonance with family traditions, place, and identity’ (2017: 102). There is a burgeoning research interest in the way in which universities are enacting policies and processes to address the impact of their operations as they relate to food (Cleveland & Jay, 2020; Grech et al., 2020;

Hoolohan et al., 2021; Lee et al., 2021) and interventions in the dietary choices on offer in campus foodservice (Cleveland et al., 2020; Turnwald et al., 2019).

Within this field research is often delineated into distinct areas, for example: health (Adase, 2015; Brown, 2013; Meisterling et al., 2022; Sorden, 2017; Tsouros et al., 1998; Wilmoth, 2012); student food insecurity (Brotton, 2020; Brotton & Cady, 2020; Calvez et al., 2016; Dodo, 2018; Sherman et al., 2017; Twill et al., 2016; Watson et al., 2017); supply chains and procurement (Anderson, 2014; Bryan, 2007b; Burley et al., 2016; Conner et al., 2014; Kington, 2015; Stahlbrand, 2017; Thottathil & Goger, 2019); community engagement and community relations (Hammelman et al., 2020; Levkoe, Andrée, et al., 2016); or the development and impact of campus community gardens and farms (Duram & Klein, 2015; Eatmon et al., 2015; Green, 2021; Guthey, 2021; Hoover & MacDonald, 2010; Kearsley, 2017; LaCharite, 2016; Lau & Yang, 2009; Laycock Pedersen & Robinson, 2018; Pineault & Vining, 2016; Tello, 2013). Despite the accelerating interest in topics concerning food and higher education much of the existing research tends to focus on individual campus food system projects, individual campuses, or addresses research questions from a particular disciplinary perspective. This research adds to this body of knowledge by providing a high-level analysis of campus and higher education food systems as a specific topic, both addressing what happens in these foodscapes and putting forward methodologies for further research in this field.

2.2.1 Campus Foodscapes as a Flourishing Field of Activity in Higher Education

Campus foodscapes offer a rich possibility for institutional action. Fitch and Santo (2016) propose that individuals in institutions may be moved to action after becoming frustrated by structural barriers to accessing healthy, sustainable and inclusive food options within sites such as schools, hospitals and worksites. They suggest that

recognizing these barriers, as well as the fact that the scale and purchasing power of large institutions affords them significant influence over the way food is produced, priced, and distributed for consumption, many people have begun organizing efforts to reform institutional food procurement practices.

(Fitch & Santo, 2016: 1)

University communities are made up of diverse stakeholders including students, academic staff, professional staff, parents, alumni, local communities and civic and legislative bodies (Barlett & Chase, 2004a). Some activities related to foodscapes such as dining services, campus farms and food-related curriculum have a long history in higher education. However, the past decade has seen the proliferation of programs, projects and policies specifically developed to drive engagement with food systems as a critical issue. As programming is expanding, these projects have moved beyond auxiliary services, and curriculum and research and are engaging with a variety of issues in response to the demands of university communities and the wider social and environmental contexts of campuses.

The character of campus food programs can often reflect the teaching priorities of the institution or the special interests of key staff. For example,

Emory's strategic plan for sustainability was heavily shaped by physicians who wanted healthier food options on campus to help address a tide of non-communicable diseases in the local population (Barlett & Chase, 2004a). This reflects Emory's key position as a leading public health and medical training facility. It is also involved in a number of different 'multi-campus coalitions' (Barlett & Chase, 2004a: 14) and professional networks which link the efforts of various schools and create wide-ranging communities of practice as well as drive a sense of competition. This echoes findings by researchers in the field of education for sustainable development, a research area discussed in more detail in section 2.5 of this chapter.

There have been some attempts to categorise work in campus foodscapes in a more general way, or by grouping projects and activities together by their characteristic of seeking transformative action. Barlett has completed the most in-depth research in this area to date and has posited that the operational aspects of projects tend to reflect four categories:

1. Dining service innovations in procurement, menus, and kitchen operations
2. Academic and co-curricular programs, including courses, concentrations, and internships
3. Direct-marketing opportunities, including farmers' markets and community supported agriculture (CSAs)
4. Hands-on experiences in community gardens and campus farms

(Barlett, 2011: 102)

There are however a number of other activities which do not fit easily into any of the above categories including some of the areas discussed in other research above. Examples include research focusing on programs to address growing

rates of food insecurity in student populations such as soup kitchens,⁷ food banks and low-cost grocery stores and a growing focus on the health impacts of food environments. In later work Barlett has observed that particularly within campus dining strategies there are two broad designations: ‘relational approaches’, which focus on building ties with local community and cultivating personal relationships with farmers and/or cooperatives; and ‘metrics approaches’ which emphasise tracking purchases, meeting specific criteria and/or targets and adhering to third party certifications (Barlett, 2017).

Observers have noted a wariness towards metrics-based approaches, arguing they can push institutions to rely on certification bodies and drive campuses towards larger suppliers who are able to work at a scale to meet the demands of set criteria, in turn excluding smaller suppliers and enterprises (Barlett, 2017). However, this can result in recreating or reaffirming the *status quo* of the conventional food system rather than contributing to the development of alternative systems (Guthman, 2014; Holt-Gimenez, 2011; Jaffee & Howard, 2010). Further, in the already overworked campus sector, both for academics and service staff, certification requirements inculcate a culture of governmentality and ‘audit culture’ further serving neoliberal logic (further discussed, below, in section 2.3.2) (Barlett, 2017; Strathern, 2000). Moreover, seldom does one institution manage to address food environment challenges in a truly interdisciplinary way. Fitch and Santo (2016: 3) point out that existing resources ‘rarely included a systems analysis (socioeconomic, environmental, health, social justice, and animal welfare); most just focused on one or two

⁷ Commonly referred to as community kitchens in the US, however this term was avoided as the usage is different in Australia, for example, where community kitchen refer more broadly to shared cooking infrastructure rather than specifically to food relief projects.

aspects as reasons to support shifting procurement practices.’ These findings suggest that systems-oriented approaches are much needed methodological frameworks for further research into campus foodscapes.

The impact of engagement with food from within higher education has great potential beyond campus boundaries. Universities also have a critical role in contributing to the broader work required to transform viable, equitable and sustainable food systems for the future. Academic research has the ability to work across scales to better understand the interconnected issues and stress points in food systems and is a necessary contribution to the broader evidence base for food systems work. Sonnino (2018: 24) argues,

we need a multi-stakeholder and multi-disciplinary approach to research that emphasises co-design and co-delivery of innovation breakthroughs ... strengthening the capacities of multiple actors and building communities of practice that link and build trust between civil society scientists and policy makers

She contends that universities are positioned to be a critical conduit between the various actors and many disciplines required to propel action towards these goals.

2.2.2 Socio-political Context of Working for Change Within Higher Education

Despite the proliferation of food system projects there is acknowledgement that until recently these efforts have been scattered, and institutions rarely manage to implement comprehensive and systemic projects (Pothukuchi & Molnar, 2015). The siloed nature of disciplinary boundaries has been blamed for impeding more systems-focused responses, further hindered

by significant institution-wide financial pressures (Barlett, 2017; Barlett & Chase, 2004a). Other limiting factors include lack of expertise amongst those making executive decisions about food purchasing and programming, limited staff time to monitor and track the implementation of projects, geographical barriers, institutional scale and limited purchasing power (Barlett, 2017). The precarity of employment in the neoliberalised institution may result in hesitancy from staff to take on extra-curricular projects, or to agitate for change (Aronowitz, 2001).

The instilling of neoliberal norms has been a pernicious and pervasive influence throughout all realms of social, economic and political life. As a concept it has a slippery and often contradictory quality: conceived as a regime; a philosophy; an economic doctrine and/or political and policy framework(s) – as well as a plastic by-word for the collective *status quo* of capitalism and globalism.⁸ Despite this conceptual effervescence it is omnipresent, variously described as hegemonic, commonplace, inevitable, and naturalised (Beck, 1997; Davies & Bansel, 2007; Harvey, 2006; Peck, 2004; Peck & Tickell, 2002).

As it applies to this research neoliberalism is understood as the defining ideological regime of the late 20th and early 21st centuries, exerting influence across the globe⁹ and across all scales of social and economic policy. Transcending political partisanship, it is characterised by valorisation of

⁸ For further discussion of the multiple meanings and uses of the term see, for example, Ferguson, J. (2010). The uses of neoliberalism. *Antipode*, 41, 166-184. , Peck, J. (2004). Geography and public policy: constructions of neoliberalism. *Progress in Human Geography*, 28(3), 392-405. , Peck, J., & Theodore, N. (2019). Still neoliberalism? *South Atlantic Quarterly*, 118(2), 245-265. .

⁹ Often via the blunt force of OECD-participant economies and their associated free-market agents over less-developed counterparts with western-centric mechanisms such as the World Trade Organisation and World Bank; Structural Adjustment Programs and the introduction of philanthro-capitalist program (or more recently, *disruptive* enterprises and technology).

individualism, enmeshed with the reification of liberty and free choice; consumerism; private, profit-generating enterprise; and belief in the small and non-interventionist state. As a generative ideology for policy making and implementation it favours the free market as a regulatory device, aided by the promotion of free trade and transnational capital conducted by global firms; privatisation of previously-public services; anti-unionism; deregulation; and widespread financialisation (Davies & Bansel, 2007; Ferguson, 2010; Giroux, 2014a; Harvey, 2006, 2007; Peck, 2004). Neoliberal policies have hastened the erosion of social safety nets and seen that non-conforming individuals, groups, organisations, issues and structures are problematised, disenfranchised and dealt with through corrective measures including criminalisation, increased surveillance and shifting public policy and funds to police and novel forms of militarisation (Dache, 2019; Finley & Johnson, 2015; Giroux, 2007, 2018; Peck & Tickell, 2002; Reese & Sbicca, 2022).

Rather than a dialectic inevitability of political, social and economic currents, Harvey designates the hard sell of neoliberal ideology as a ‘discursive onslaught’ (2006:150) constructed by think-tanks and lobbyists through opinion papers and policy briefs coupled with rapidly-expanding private and corporate strategic political donations. A key element of this pitch was a fomented distrust of the liberal¹⁰ media and education institutions – both wellsprings of potential (and actual) dissent (Busch, 2017; Harvey, 2006; Robinson, 2016). Four decades of policy under the aegis of neoliberal stewards has repositioned higher education institutions as market actors and education as an economic benefit rather than a broadly personal, public and social good

¹⁰ ‘Small-l’ or left-leaning liberal sympathies.

(Mintz, 2021). The features of the neoliberal academy include decreased public funding, a push to demonstrate the use of research agendas in economic terms, competitiveness, ever more precarious work conditions ruled by contractual, term-limited arrangements and the shift of power from faculty to managerial and administrative structures (Busch, 2017; Giroux, 2002; Mintz, 2021; Olssen & Peters, 2005). Contractualised labour agreements drive the prevalence of metric-based, hypervigilant monitoring and evaluation, pushing university staff towards what Ball observes as the hollow performative spectacle of productivity, tying 'effort, values, purposes and self-understanding to measures and comparisons of output' (2012: 19).

Similarly, students are recast as customers, positioned to realise the self-interested, rational and economically-motivated ideal of neoliberal agency (Ball, 2012; Busch, 2017; Davies & Bansel, 2007; Robinson, 2016). Impelled to vie for student money and talent, institutions invest in 'value-adds,' such as accommodation, extra-curricular programs, recreation facilities and dining to outdo their competitors, in turn fuelling a vicious cycle of increased student demands, the need to protect and grow strategic investments, and to court further private and corporate investment (Busch, 2017; Classens et al., 2020; Hanson & Noterman, 2017). Giroux (2002) argues that this undermines capacity for critical citizenship and favours self-interest over community collectivism. Pothukuchi and Molnar argue that in this context university decision-makers are wary of tackling complex systemic problems (such as those that arise in food systems) without evidence in the form of business cases, complete with clearly stated and rationalised cost-benefit analyses (2015). In this operating paradigm, campus foodscape work needs clear outcomes, data

and accountability to garner the support for implementation (Barlett, 2011; Pothukuchi & Molnar, 2015). The influence of neoliberal logic on the higher education landscape, and its impact on campus foodscapes is employed as a contextual lens and as a subject of analysis throughout this research.

2.2.3 External Stakeholders in Campus Foodscapes

While many efforts to address campus foodscape projects come from within universities, there is an extensive ecosystem of external stakeholders contributing to food system action in universities, and to institutions more broadly. There is, as yet, little research on the relationships between such external stakeholders and higher education institutions. Existing research tends to focus on particular projects such as the Teaching Kitchen Collaborative which integrates cooking skills into health and nutrition curricula (Eisenberg & Imamura, 2020; Flannery & Pragman, 2010; Matias et al., 2021a) or Farm to Institution New England, a network that supports local food procurement for schools and universities (Farm to Institution New England, 2016, 2017; Richman et al., 2019; Richman et al., 2017; Ruhf, 2015). Some work has been done on student-led initiatives such as the Real Food Challenge (Green & Asinjo, 2015; Kington, 2015; Porter, 2015; Real Food Challenge, 2018) and food recovery and relief organisations such as the Food Recovery Network and Swipe Out Hunger (Novak & Johnson; Weymes & Davies, 2018). However, as yet there has been no systematic cataloguing of these stakeholders. These external organisations and their intertwining networks are illustrated in Chapter 4, and their roles and influence discussed in the following chapters.

2.3 Interdisciplinarity and Knowledge-Sharing Networks

The question of *who* is working to transform campus foodscapes is a core element of this research. The concept of ‘communities of practice’ is used as one tool with which to analyse the people, groups and networks active in transformative food work.

Communities of practice is a concept popularised by Etienne Wenger, developed as a way to describe how members of communities with shared interests learn from each other (Snyder & Wenger, 2004; Wenger, 1998, 2010a). The three pillars of this model are domain; community; and practice. Or more expansively: the mutual interest that connects people together; the group of people who actively participate in sharing and learning from each other through exchange and building relationships; and finally, what the community does and the new ways of *doing* that emerge from engaging with the community (Wenger, 2000). Alternatively, this has been described by Pyrko et al. as ways of ‘thinking together’ (2017: 391). The community of practice lens recognises that important knowledge comes from work, practice and practitioners, which is often not wholly recognised in formal accounts of work and community organisation. There is some debate about defining the limits of communities of practice. They are not, for example, departments, teams, communities of interest, or informal networks. They are however acknowledged as having ‘fuzzy’ boundaries, complicating their formality (Alakurt, 2016; Kerno Jr, 2008).

Communities of practice have shared understandings that allow members to shortcut to key themes, or specific problems and practices without

providing context as well as possessing shared lore, artefacts (documents, texts, working procedures, tools etc), and a working understanding of who aligns (or does not) with the community (Li et al., 2009). They are defined by active reciprocity through which members learn from each other, a practice variously described as: social learning systems; social production; and peer production (Engeström, 2013; Wenger, 2000, 2010b). Knowledge transfer is important in complex fields, and communities of practice enable this process, allowing seasoned practitioners to impart information, practices, ideas and mores to newcomers (Alakurt, 2016). Ideally, communities of practice are dynamic, allowing for multiple ways to participate and various levels of commitment to participation. They foster novel ideas through community exchange, and through the willingness of their participants to engage in reciprocal sharing and learning (Alakurt, 2016; Blackman, 2018; Bradbury & Middlemiss, 2015).

Among practitioners in campus foodscapes there are multiple communities of practice arranged in such a way as to align with concepts such as 'landscapes of practice' or 'constellations of practice,' which describe the interconnections of various, interconnected groups with osmotic exchanges (Wenger, 1998). The boundaries and interconnections are particularly fruitful as sites to generate new ideas and novel approaches to problems (Snyder & Wenger, 2004). This concept has been successfully applied to inter-disciplinary research, knowledge-exchange in higher education, and grassroots sustainability organisations, all helpful in guiding this study (Bradbury & Middlemiss, 2015; Cundill et al., 2015; Hodgkinson-Williams et al., 2008). One limitation of this concept as a tool is that its application usually ignores issues of power (Cundill et al., 2015; Kerno Jr, 2008). In this thesis ideas from this

discourse are aligned with other conceptual models to overcome this specific limitation.

2.3.1 Translocal Exchanges

Transforming campus foodscapes requires work from many different disciplinary backgrounds, multiple and diverse communities of practice, and engagement with many internal and external stakeholders. Transformation not only requires communication and shared learning within institutions but also between institutions and their respective communities, emphasising that sustainable shifts will require the shared wisdom of many points of view, Barlett and Chase suggest,

We find that the vision, an alternative sense of future, becomes reality through relationships – learning, questioning, trusting, competing, at times coercing, and at times building together. Through individual and collective action, these relationships bring about institutional change, though change does not come easily

(2004a: 7) Translocality is a concept that has been utilised to understand how knowledge is transmitted, circulated and incorporated in social movements and is applicable to studying how policy and practice are communicated within and between communities. McFarlane explains,

translocal assemblages are composites of place-based social movements which exchange ideas, knowledge, practices, materials and resources across sites... translocal social movements are more than just the connections between sites.

(McFarlane, 2009: 561)

Understanding these relationships between researchers and practitioners as assemblages (or as conceived above, landscapes and/or constellations) rather

than simply discrete networks or communities of practice offers a more expansive way of thinking about how information and practice flow through complex systems (Greiner & Sakdapolrak, 2013). This more fully allows for diverse and contradictory practices to be accounted for. Recently the concept of translocality has been used to describe action and activism in the food movement and food planning (Buchan et al., 2018; Moragues-Faus & Sonnino, 2018). Moragues-Faus and Sonnino highlight the ‘emancipatory potential’ of translocal models to ‘assemble local experiences, create common imaginaries and perform collective action’ (2018: 1). In the development of place-based, or in this case, campus-based food policy, the application of translocal models and practice encourages those working in campus foodscapes to use existing toolkits and action plans as a starting place. Existing models serve as generative templates which can be adapted to site-appropriate responses over and above the broad application of uniform templates (Blay-Palmer et al., 2016).

Kloppenburger and Hassanein (2006) suggest that to transform food systems, action must take place at multiple levels. Translocalism is intended to be cross-scalar and distributive allowing for the amplification of transformative action (Blay-Palmer et al., 2016; Kloppenburger et al., 2006; Moragues-Faus et al., 2018). This multifaceted approach is proposed to be an effective counterpoint to the ‘atomizing effects of the industrial food system’ (Blay-Palmer et al., 2016: 38). It allows best-practice examples to ‘scale out’ rather than ‘scale up’, sharing applicable knowledge between geographically dispersed areas (Stevenson et al., 2007). Higher education networks focused on education for sustainable development and associated active communities of practice are well placed to distribute campus foodscape innovations and resources, taking

advantage of translocal models for change. Concepts from the translocalism discourses are applied throughout this study when mapping campus foodscapes to understand how flows of knowledge move within and between different institutional foodscapes. The concept also precipitates ways in which useful concepts may be both exported and imported. Although this research is focused on campus foodscapes in the US it is hoped it will be applicable in other geographic settings – a goal which will require translocal exchange and adaptation between existing multiscalar networks and communities of practice.

2.3.2 Institutional and Organisational Thickness

This research describes a multitude of projects, policies and programs taking place on campuses aiming to strengthen and transform campus foodscapes. It also contributes evidence of structures within universities as well as complex networks of external actors. Some of these external stakeholders have a primary mission related to higher education and food and others interact with universities and their foodscapes alongside other organisational interests. To describe the magnitude of activities in and around higher education foodscapes the concept of institutional thickness is utilised. Institutional thickness characterises the development of a field to a point of profound level of activity, interaction and purpose. The requirements for ‘thickness’ include: strong presence of stakeholders/institutions;¹¹ interaction between localised stakeholders; structures and/or patterns of coalition; and a mutual awareness of involvement in common enterprise (Amin & Thrift, 1994; Coulson & Ferrario, 2007). The concept was originally developed to examine specific regional

¹¹ Institutions is used more broadly here than it is elsewhere throughout this research, used here to mean organisations as well as social structures, norms and rules that govern social life.

industries, however, recent critiques have suggested an expansion of its use to account for the multiscalar scope of many fields of practice (Zukauskaitė et al., 2017).

Organisational thickness is a related but distinct descriptor for a critical mass of firms, education providers, research bodies and support organisations, as opposed to the former's accounting for regulations, rules, norms and cultures of cooperation that govern interaction, learning and knowledge exchange (Tripp et al., 2016; Zukauskaitė et al., 2017). Zukauskaitė et al. (2017) distinguish between the two related concepts as 'the rules of the game' (institutional thickness) and the players within (organisational thickness), noting that the latter may have an agenda to disrupt, shape or shift the broader governing structure.

This section has so far argued that there are many types of activities and many actors with vested interests in campus and higher education foodscapes. This thesis provides evidence to support the argument that the collective thickening of these elements has resulted in the emergence of campus and higher education foodscapes as a distinct field of practice and inquiry over and above the individual issues (sustainability, food security, community gardens etc) that provided generative momentum to early-stage examples of engagement with food on campuses.

2.4 The Emergence of Education for Sustainable Development

Campus foodscape action is often framed by the push for higher education institutions to engage in the global discourse on education for sustainable development. The release of the Bruntland Report in the late 1980s set the agenda for broadscale environmental action by defining sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Bruntland 1987). International engagement with sustainable development was further spurred by the release of Agenda 21 at the Rio Earth Summit in 1992 which provided United Nations agencies, non-government organisations and governments with an action plan for sustainable development. The Agenda highlighted the necessary contribution of education institutions (across all levels) for research and education for sustainability (UNGA, 1992).

Against this backdrop, higher education institutions began considering their own role in sustainable development. At the Stockholm Conference in 1972 the United Nations General Assembly had recognised that education was a key factor in environmental conservation, however, it was not until 1990 that university leaders first came together to make a statement on their explicit role in contributing to sustainable development (Wright, 2004). The 1990 Talloires Declaration saw 20 presidents and chancellors make a public commitment to sustainable development. Presenting this the Presidents' Conference announced that 'universities educate most of the people who develop and manage society's institutions. For this reason universities bear profound responsibilities to increase the awareness, knowledge, technologies and tools to create an

environmentally sustainable future’ (University Leaders for a Sustainable Future, 1990). This declaration encompasses universities’ roles in awareness-raising, taking responsibility for their own campus operations, sustainability education and engaging their communities in responsibility for environmental stewardship.

2.4.1 Education for Sustainable Development Declarations

Since the 1990 event, a further 275 universities have signed on to the Talloires Declaration (Wright, 2004). In 2011, a survey found that 31 declarations for sustainability in higher education had been developed with over 1400 signatory institutions (Grindsted, 2011). As part of its effort to drive international action on sustainability UNESCO announced the years from 2005 to 2014 as the Decade of Education for Sustainable Development, with an aim to integrate sustainability across all levels and aspects of education (UNESCO 2014). The aforementioned survey noted that there was a sharp increase in related declarations within the decade (Grindsted, 2011). Table 2-1, below, provides an overview of significant declarations and charters adopted between 1990 and 2015. Common features of these declarations include statements of educational institutions’ obligations to sustainability, calls for public outreach, transformed campus operations, the development of sustainability curricula and research, partnerships with external stakeholders and inter-university cooperation (Wright, 2004). For further details of the content of various declarations see Wright (2004) and (Lozano et al., 2013).¹²

¹² The majority of these declarations were signed prior to the broader discursive turn to food systems transformation, and therefore have little explicit reference to food. However, given the established contribution between food systems and human and planetary health, action on food is a fundamental tenet of sustainable development.

Table 2-1: International Declarations and Charters Regarding Health and Sustainability in Higher Education

Year	Document	Purpose
1990	The Talloires Declaration	Sustainability in university teaching and operations
1991	The Halifax Declaration	Higher education for sustainable development
1993	The Kyoto Declarations	Higher education for sustainable development
1993	The Swansea Declaration	Higher education for sustainable development
1994	The CRE Copernicus Charter	Higher education for sustainable development
1997	Thessaloniki Declaration	Education for sustainable development
2001	Luneburg Declaration	Higher education for sustainable development
2002	Ubuntu Declaration	Education for sustainable development
2005	The Edmonton Charter	Health promotion in universities
2005	The Graz Declaration	Higher education for sustainable development
2009	The Bonn Declaration	Education for sustainable development
2009	The Turin Declaration	Higher education for sustainable development
2014	Aichi-Nagoya Declaration	Education for sustainable development
2015	The Okanagan Charter	Health promotion in universities

2.4.2 Declarations as Soft Law

Grindsted (2011) categorised the many declarations of sustainability for higher education institutions as soft law, developed as a means for university leaders, government and non-government institutions to set shared agendas articulating their roles and functions. Soft law is understood as policy usually adopted by non-state actors without the power to implement legally-binding instruments. Soft law usually implements social rather than legal norms to encourage, or declare a preference for, certain moral and social customs (Shelton, 2008). The value of these declarations has been debated by scholars in the field of education for sustainable development. There have been a number of positive outcomes of these declarations. At the broadest level they set the

standard for institutional sustainability, demonstrating the normative potential of such 'soft law' mechanisms. Clarke and Kouri (2009) reason that the declarations push institutions to develop individual sustainability plans and the international policies help form the basis of local plans. It has been noted that following the Decade of Education for Sustainable Development there has been a strong growth in the integration of environmental practice both in university curricula and in campus operations (Leal Filho 2009, Urbanski and Leal Filho 2015).

Despite the many positives, critics have discussed a number of limitations with these soft law instruments. Sylvestre et al. (2013) question the inherent normativity arguing that it may have the unintended outcome of marginalising diverse views on the core tenets of sustainability and flatten vastly different settings into a one-size-fits-all mould. They further note that universities have failed to recognise their own complicity in the growth of ecological crises and that many of the sustainability paradigms described in these charters cement commitment to neoliberal and technocratic models of modernisation and growth. Such models are at risk of reinforcing structures of managerialism, hypervigilant performance monitoring and an orientation towards output-driven research (Sylvestre et al., 2013). Many studies have also demonstrated that the signing of a declaration does not automatically result in change to a university's operations or curriculum (Bekessy et al., 2007; Clugston & Calder, 1999; Lidgren et al., 2006; Wright, 2002).

It has been argued that these instruments are too 'soft' and without accountability the non-binding nature of these declarations and charters is unlikely to drive substantial progress (Bekessy et al., 2007). Signatory

institutions who fail to implement change run the risk of being seen to 'greenwash' their university for public relations, attempting to gain a competitive edge in the market without driving substantive change (Wright, 2004). Lozano et al. (2013) contend that few institutions have committed to change in a way that would truly rise to the radical agenda of sustainable development sufficient to meet demands for intergenerational equity. Further, they argue that these developments tend to be adopted by only some members of institutional communities and that it will take time and much more effort before these innovations became fully integrated into institutional cultures (Lozano et al., 2013). They also note that although there has been a surge in signatory institutions to sustainability declarations this still only represents a small portion of the 14,000 higher education institutions throughout the world (Lozano et al., 2013). This thesis tests these assumptions against the progress of higher education institutions in developing foodscape-related policies and projects and their intentions to implement agendas related to education for sustainable development.

2.4.3 Sustainable Development Networks in Higher Education

Many domestic and international inter-university networks, communities of practice and monitoring schemes have been developed to assist universities in meeting sustainability targets, some examples of which are outlined in Table 2-2, below (Liebert, 2010; Urbanski & Leal Filho, 2015). These networks interact with and respond to international communities of practice and policy development, and international policy instruments for sustainable development (Benson Wahlen, 2014). Higher education declarations are formed within wide-ranging peer networks, as a result fuelling existing competition between

institutions, and encourage slow movers to strive to catch up to leaders in the field, encouraging innovation and progress across the sector (Clugston & Calder, 1999; Grindsted, 2011).

Table 2-2: International Networks for Sustainability in Higher Education

Acronym	Full Name and Geographical Scope
AASHE	Association for the Advancement of Sustainability in Higher Education (US)
ACTS	Australasian Campuses Towards Sustainability (AUS)
ARIUSA	Alliance of Iberoamerican University Network for Sustainability and the Environment (South America)
CAREC	Regional Environmental Centre for Central Asia (Asia)
EAUC	The Environmental Association for Universities and Colleges
GUNI	Global University Network for Innovation
GUPES	Global Universities Partnership on Environment and Sustainability (UK)
IAU	International Association of Universities
ISCN	International Sustainable Campus Network
KAGCI	Korean Association for Green Campus Initiative (Korea)
MESA	Mainstreaming Environment and Sustainability in African Universities (Africa)
RCE	Regional Centres of Expertise on Education for Sustainable Development
UNICA	Network of Universities from the Capitals of Europe (Europe)
AASHE	Association for the Advancement of Sustainability in Higher Education (US)

It has been argued that these networks have driven international consensus on the moral obligation of higher education institutions to play a role in sustainable development (Calder & Clugston, 2003; Clugston & Calder, 1999; Velazquez et al., 2006; Wright, 2004). There is also evidence that legislative agendas have been directly influenced in the UK, Germany and US following the

adoption of these declarations by higher education institutions (Grindsted, 2011). This thesis considers the policy networks and knowledge communities that drive capacity building for change across the higher education landscape and their relevance to campus foodscapes. These networks are illustrated in Chapter 4 which presents a series of maps charting networks across higher education, sustainability and food systems engagement.

2.4.4 The Sustainable Development Goals

The Sustainable Development Goals (SDGs) were launched in 2015 to set global development priorities up until 2030. The SDGs comprise 17 goals (Figure 2-1) supported by a further 169 targets and were agreed to by all countries participating in the United Nations at the time of their implementation. The SDGs replaced the prior Millennium Development Goals which were focused more narrowly on ending poverty (Boni et al., 2016). The SDGs expand on this mission with the further inclusion of environmental protections, action on climate change and the promotion of peace, security and good governance. As opposed to previous agenda-setting platforms, declarations



Figure 2-1: The Sustainable Development Goals

and policies, the SDGs have been developed to account more completely for the complexity and the interrelatedness of global challenges.

This framework leverages space for food systems activism and transformation as its focus moves beyond environmental sustainability and poverty. Rockström and Sukhdev (2016) argue that every one of the SDGs relates to food and conversely, food has a role to play in advancement towards each goal. Some goals have explicit targets for the food system including Goal 2: Zero Hunger, which addresses global nutrition, biodiversity of seeds and agricultural productivity and livelihoods; Goal 12: Responsible Consumption, which aims to halve global food waste and promote responsible public procurement; and Goals 13, 14 and 15 which address climate action and thriving land-based and marine ecosystems.

Education for sustainable development is a major focus of the agenda's strategy. The SDGs have been supported by the Global Action Programme (GAP) for education for sustainable development from UNESCO which seeks to assist institutions to 'generate and scale up action in all levels and areas of education and learning to accelerate progress towards sustainable development' (Benson Wahlen, 2014). The GAP continues the work started during the Decade of Education for Sustainable Development (Kapitulčinová et al., 2018). The formulation of the SDGs coincided with the launch of the Higher Education Sustainability Initiative (HESI) with 300 signatory universities allowing for an interface between the UN, universities and policy makers to drive action on the goals. The framework of the SDGs encourages higher education institutions to be more self-reflexive, urging universities to think more broadly and systemically about sustainability throughout their campuses and communities

(Trencher et al., 2013). The systems outlook of the SDGs also encourages universities to see sustainability as a core tenet of education and to integrate sustainability education cross-institutionally, beyond traditional disciplines such as environmental science or ecology (Beynaghi et al., 2016), which is made clear in Goal 4.7:

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

(Sustainable Development Goal 4 quoted in Annan-Diab & Molinari, 2017)

Boni et al. (2016) argue that this socially inclusive outlook is necessary for true sustainability, as environmental stewardship can be better enacted in diverse and inclusive societies with engaged and healthy citizens. They argue that university responses to sustainable development should move beyond established notions of sustainability and work to account for long-term outlooks, complexity, interdisciplinarity, diversity and equity and be applied across teaching and research as well as governance and policy (Boni et al., 2016).

Institutional charters and declarations will be addressed throughout the research undertaken for this thesis. This research will consider if and how these goals, declarations and charters have driven transformation in campus foodscapes. It will also seek to discover if these mechanisms are useful for food systems action, or if their scope is too narrow. Many declarations explicitly call

for interdisciplinary engagement, yet these declarations tend to be most often grounded in sustainability. While sustainability is a central concern of food system transformation, a true paradigm shift will also need deep and expert attention to issues that fall to the peripheries, or outside, of sustainability agendas. While the SDGs do address issues in public health, labour rights, social equity and democratic engagement they may be limited in their ability to drive sufficient institutional action in these areas. As demonstrated above, the sustainable development agenda of the previous three decades has given rise to sustainability networks, charters and declarations within and between institutions. Similar policy diffusion has not emerged to reflect the other aforementioned areas at the heart of food system inequities and failures. Recent years have seen the emergence of charters for health promotion in university settings, notably the 2015 Okanagan Charter calling for healthy living to be embedded in university culture, policy and infrastructure development (International Conference on Health Promoting Universities and Colleges, 2015). While there are other frameworks for food system transformation, such as rights-based approaches (see, for example De Schutter, 2011; Johnson, 2018), such alternatives have not been equally embraced by institutions as policy drivers.

2.4.5 Sustainability Reporting Frameworks in Higher Education

Throughout the early 2000s various reporting and ranking tools were developed to assess sustainability performance in higher education (see Table 2-3, below). The inception of these initiatives occurred alongside the United Nations Decade of Education for Sustainable Development which ran from 2004

to 2014 and focused attention on higher education's role in facilitating sustainable futures (Urbanski & Leal Filho, 2015; Wigmore & Ruiz, 2010).

Table 2-3: Sustainability Indicator Tools used by Higher Education Institutions

 AT = Assessment Tool,  RC = Report Card,  R = Ranking,  A/C = Accreditation or Certification  indicates no data available, NU/Y indicates no update to tool since the year indicated					
Rating System	Type	Origin	Scope	Issue area	Years Active
Adaptable Model for Assessing Sustainability in Higher Education (AMAS)	 AT	Chile	Global	Higher Education Sustainability	2015
Assessment Instrument for Sustainability in Higher Education (AISHE)	 AT	The Netherlands	Global	Higher Education Sustainability	2001
Assessment System for Sustainable Campus (ASSC)	 AT	Japan	Japan	Higher Education Sustainability	2013
Building Research Establishment Environmental Assessment Method (BREEAM)	 AT	UK	Global	Building & Construction Projects	1990
Business School Impact System (BSIS)	 AT	France	Global	Sustainability in Business Schools	2014
Campus Sustainability Assessment Framework (CSAF)	 AT	Canada	Canada	Higher Education Sustainability	2009
Campus Sustainability Selected Indicators Snapshot and Guide (CSSISG)	 AT	USA	USA	Higher Education Sustainability	2006
College Sustainability Report Card (CSRC)	 RC	USA	North America	Higher Education Sustainability	2007-2011
Deutsche UNESCO Kommission (DUK)	 AT	Germany	Global	-	2011

DPSEEA-Sustainability Index Model (D-SiM)	 AT	Canada	■	Higher Education Sustainability	■
Education for Sustainable Development and Global Citizenship (ESDGC)	 R	Wales	UK	Higher Education Sustainability	■
Environmental EMS Self-Assessment	 AT	USA	USA	Higher Education Sustainability	■
Evaluación de las Políticas Universitarias de Sostenibilidad Como Facilitadoras Para El Desarrollo de Los Campus de Excelencia Internacional (AUSP) ¹³	 AT	Spain	Spain	Higher Education Sustainability	2007
Environmental Workbook and Report	■	UK	UK	■	■
Global Reporting Initiative (GRI)	■	■	Global	Sustainability, Health & Safety, Corruption	1997
Good Company's Sustainable Pathways Toolkit (SPT)	 AT	USA	Global	Higher Education Sustainability	2002
Graphical Assessment of Sustainability in Universities (GASU)	 AT	UK	Global	Higher Education Sustainability	2006-2011
GRAZ Model of Integrative Development (GMID)	 AT	Austria	Global	Higher Education Sustainability	■
Green Plan (GP)	 AT	France	France	■	2012
Higher Education 21's Sustainability Indicators (HE21)	 AT	UK	UK	■	■
International Standardisation Organisation (ISO)	✓ A/C	Switzerland	Global	Various	1947

¹³ Evaluación de las Políticas Universitarias de Sostenibilidad Como Facilitadoras Para El Desarrollo de Los Campus de Excelencia Internacional (AUSP) Evaluation of University Sustainability Policies the Development of Campuses of International Excellence

Leadership in Energy and Environmental Design Certification (LEED)	✓ A/C	USA	Global	Sustainable Building Design	1993
Pacific Sustainability Index (PSI)	AT	USA	USA	■	2002
Penn State Indicator Report (PENN)	AT	USA	USA	Higher Education Sustainability	NU/2000
People and Planet's University League (P&P)	100 R	UK	UK	Higher Education Sustainability	2007
Princeton Review Guide to Green Colleges Green Rating	100 R	USA	USA	Sustainability	2012
Red de Ciencia - Innovación y Educación Ambiental ¹⁴ en Iberoamérica (CITE AMB)	AT	Colombia	Latin America	Higher Education Sustainability	NU/2014
Sierra Club Cool School List	100 R	USA	USA	Sustainability	2007
Sustain Tool (STAUNCH)	-	UK	Global	Sustainability Curriculum	2009
Sustainability Assessment Questionnaire (SAQ)	AT	USA	Global	Sustainability	2009
Sustainability Leadership Scorecard (SLS)	AT	UK	UK/Ireland	Higher Education Sustainability	-
Sustainability Tracking, Assessment & Rating System (STARS)	AT	USA	Global	Sustainability	2009
Sustainable University Model (SUM)	AT	Mexico	Global	Higher Education Sustainability	2006
The Guardian's Green League	100 R	UK	UK	Higher Education Sustainability	2012
The People & Planet Green League	100 R	UK	UK	Environmental & Ethical Practices	2007

¹⁴Network for Science, Innovation and Environmental Education in Ibero-America

The Times' Higher Education Impact University Rating (THE)	 R	UK	Global	Higher Education Sustainability	2019
Three Dimensional University Ranking (TUR)	 AT	Slovenia	Global	Higher Education Sustainability	2010
UI GreenMetric World University Ranking (UIGM)	 R	Indonesia	Global	Sustainability	2010
Unit Based Sustainability Assessment (USAT)	 AT	Africa	Africa	Higher Education Sustainability	2009
University Environmental Management System (UEMS)	 AT	Saudi Arabia	Global	Higher Education Sustainability	2008
University Sustainability Assessment Framework (UniSAF)	 AT	Germany	Global	Higher Education Sustainability	■

(Sourced from organisational websites and Alghamdi et al., 2017; Caeiro et al., 2020; Findler et al., 2018)

Further, these tools emerged in response to the growing trend of sustainability reporting in the corporate world (Bice & Coates, 2016; Ceulemans et al., 2015). Between 1999 and 2013 sustainability reporting in the top 250 firms globally grew from 35% to 93% (currently 96%) (KPMG, 2020). Following the private sector's growing interest in responsibility to the 'triple bottom line' of people, planet and profits, and increased expectations of transparency from stakeholders, specific reporting frameworks were developed to track progress in higher education (Ceulemans et al., 2015; Daub, 2007; Rammel et al., 2015). Caeiro et al. (2020) suggested that higher education institutions should lead by example, arguing that using sustainability assessment tools gives institutions the means to measure this leadership and communicate it beyond their own immediate contexts.

2.4.6 Benefits and Limitations of Sustainability Reporting Frameworks

There are many reported benefits to the use of sustainability assessment tools to measure progress in sustainability. The process of data collection can encourage institutions to develop processes in collecting and sharing sustainability practices internally and to develop ways to share data and best practice between institutions (Urbanski & Leal Filho, 2015; White & Koester, 2012). In doing so these processes can help articulate shared goals, identify hidden elements of a system, and foster connected and motivated communities of practice (Levkoe & Blay-Palmer, 2018; Swearingen White, 2014). Standardisation of reporting results can encourage meaningful comparisons between institutions, an outcome which is especially important in a global 'borderless policy environment' (Bice & Coates, 2016: 15). Further, the practice can drive organisational learning, innovation, strategy and policy creation (Albrecht et al., 2007; Berzosa et al., 2017; Moldan et al., 2012). The shared dataset from a reporting framework can help institutions and researchers to identify trends over time as well as aid institutions in identifying trends and set their own targets in response (Findler et al., 2018; Levkoe & Blay-Palmer, 2018; Moldan et al., 2012; Urbanski & Leal Filho, 2015).

Reviews of sustainability assessment tools have resulted in extensive commentary on best practice in the field. It has been noted that functional frameworks should measure progress and processes rather than static snapshots of achievements (Ceulemans et al., 2015; Rammel et al., 2015). They should have clear, transparent and comprehensible baselines (Ceulemans et al., 2015; Moldan et al., 2012) and should be participatory, interdisciplinary,

holistic, and facilitate institutional learning (Rammel et al., 2015). Caeiro et al. (2020) particularly stress that for sustainability assessment tools to bring about useful institutional growth, whole institutions must engage with them.

However, it is critical to note that the development of frameworks, reporting standards and baselines is not, and cannot be, a politically neutral activity as the act of standard-setting inherently privileges some knowledges over others, most likely preferencing western, scientific and institutionalised viewpoints over traditional wisdom and lived-experience (Caeiro et al., 2020; Levkoe & Blay-Palmer, 2018). The preferencing of one mode of knowledge over another can have perverse outcomes, including reinforcing narrow conceptions of sustainable development and supporting neoliberal logic with practice based in potentially reductive accounting and monitoring. In the case that a reporting framework is not well crafted, or that their criteria are open to interpretation, reporting systems can provide endorsement and therefore reward business as usual, or bare-minimum requirements in meeting sustainability outcomes (Moldan et al., 2012; Rammel et al., 2015).

A review of sustainability reporting in higher education found that these frameworks often incorporate further standards around human rights and labour issues, yet because these issues are beyond the specialist interest of the reporting institutions, the responses provided are often too generic to be truly impactful (Bice & Coates, 2016; Rivera & Savage, 2020). Further, it has been noted that the key terms of reference, notably, the concept of sustainability, can be interpreted widely and adapted to many purposes, and is often used fluidly and ambiguously by institutions (Findler et al., 2018; Levkoe & Blay-Palmer, 2018; Weisser, 2017). Concerns have also been raised about the amount of

labour required (and who is expected to perform this labour) to participate in reporting initiatives (White & Koester, 2012).

The Global Reporting Initiative (GRI) is one of the most widely used reporting frameworks across industries, including private businesses, non-government organisations, governments and higher education (White & Koester, 2012). Ceulemans et al. (2015) observe that the ability of this system to adapt to the higher education setting was instrumental in early adoption of reporting frameworks in the sector. However, seeing the need to develop a tool that would respond to sector-specific issues such as curriculum development, the Association for the Advancement of Sustainability in Higher Education (AASHE) developed the Sustainability Tracking, Assessment and Rating System (STARS) in 2009, with version 2.0 released in 2013 (Urbanski & Leal Filho, 2015). STARS is a voluntary self-reporting framework for higher education institutions to measure sustainability performance.

The system was developed with input from sustainability and higher education professionals and provides a common set of measurements allowing institutions to track progress over time and between institutions. After an initial period of use in the USA it was extended to a global audience in 2015 (Urbanski & Leal Filho, 2015). STARS is a highly regarded tool amongst the available sustainability assessment tools and it has been praised for its design which allows institutions to avoid the pitfalls of subjective judgments, provides solid baselines by way of requesting clear, specific quantitative data while at the same time addressing a wide range of education for sustainable development issues (Berzosa et al., 2017; Bullock & Wilder, 2016; Maragakis & Van den Dobbelsteen, 2013; Saadatian et al., 2011). STARS also benefits from its open

consultation model which allows for continuous updates and improvements (Gómez et al., 2015). Due to these factors, and its specificity as a tool for use in higher education it has become widely used (and is growing in popularity) and has the most international uptake amongst the available sustainability assessment tools (Caeiro et al., 2020).

In the context of studying campus foodscapes, AASHE has added a number of categories in recent updates of STARS related to food and dining. Further, organisations such as National Association for College and University Food Services, Real Food Challenge, Meal Exchange, Menus for Change University Research Collaborative and Leaders in Environmentally Accountable Foodservice are listed as AASHE partners, ensuring a thematic focus on food and dining in AASHE's content and programming. Therefore, STARS was selected as the sustainability assessment best suited to use in this research, the application of which is explained in chapter 3, concerning methodologies used in this study.

2.5 Conclusion

This chapter outlines the literature that informs this research which provides a comprehensive presentation of activities, policies, stakeholders and processes that occur as a result of engagement with campus foodscapes. This insight strengthens the evidence base for effective policy and targets that can be used by practitioners in higher education and other institutional settings. It also makes the case for a more systems-oriented outlook within this field which has, so far, been largely dominated by single-issue or single-site studies.



3

RESEARCHING CAMPUS FOODSCAPES: METHODS

3 RESEARCHING CAMPUS FOODSCAPES: METHODS

3.1 Introduction

The purpose of this research is to understand how universities are situated in the food system: to understand what work is happening in university foodscapes; who is doing this work; and how. It shows how this work contributes to transformations towards healthier, more sustainable and more just, equitable food systems. This topic has implications for both food systems practitioners and higher education staff, students and researchers. Therefore, a straightforward methodological approach has been selected that can be used, adapted and built upon by future researchers interested in these questions.

A collective case study model (Creswell & Poth, 2018), defined below in section 3.2.2, is used, informed by preliminary desktop research and fieldwork during which semi-structured interviews were conducted with practitioners working in and with campus foodscapes. Case studies were further informed by collection of physical and digital documents and ephemera¹⁵ related to each site. Research interviews were conducted by a period of fieldwork during four months of travel throughout the United States to meet academics, students and other university staff doing the work of changing their campus foodscapes. Data collected during desktop and fieldwork research were analysed using grounded theory methods, to identify key themes. Where necessary further desktop

¹⁵ Ephemera refers to articles such as leaflets, pamphlets and posters, as well as objects like stickers, pins, banners and promotional material; all produced with an intention of use over a short lifespan. Ephemera can be used as a primary source in many types of research and is often collected in various archives as a part of collections related to famous persons, important events or campaigns, and/or notable institutions.

research was conducted to correlate evidence or better understand themes raised in earlier stages of the project.

The results are presented in this thesis through a series of maps that illustrate a range of activities happening in US campus foodscapes and the networks and communities of practice which facilitate this work in Chapter 4 and through narrative analysis in Chapters 5, 6 and 7.

This chapter begins with an explanation of institutional ethnography as an overarching framework employed in this research. It then covers the choice to use a collective case study model and the use of mapping as a method. The AASHE database used as a source for mapping will then be briefly introduced. The next chapter will provide a more detailed account of the methods used for analysis and developing representative maps that illustrate activities in campus foodscapes as well as key stakeholders, key communities of practice and several niche networks that have formed in and adjacent to campus and higher education foodscapes from these data. The latter part of this chapter explains the methodological choices made in planning fieldwork and selecting and conducting interviews. The chapter concludes with an explanation of the additional research strategies used for the narrative analysis of corporate influence in campus foodscapes which was prompted by and builds on the fieldwork.

3.2 Frameworks and Methods: Institutional Ethnography

The sites for this research are university campuses, which in turn are part of complex institutional structures. Considering this, research concepts are drawn from the practice of institutional ethnography to guide its theoretical structure and methods. First articulated by Dorothy Smith throughout the 1980s, institutional ethnography uses ethnographic methods to better understand the everyday actions and social processes that people do within the scope of particular settings. As outlined by Smith:

The investigator attends to all of the work done in the setting, notes which activities are recognised and awarded institutionally and which are not.

(2009: 32)

Institutional ethnography illuminates the gap between the practices recognised, promoted and celebrated by institutional structures versus the diverse tasks, habits and practices actually performed by members of institutional communities (DeVault, 2006; Smith, 2009). Doing so helps reveal the ‘puzzles emerging from everyday life’ (Campbell & Gregor, 2004: 8) and how ordinary activities are embedded in complex social relationships (Billo & Mountz, 2016). This has been characterised by Smith as ‘work knowledges’, or, ‘descriptions and explications of what people know they do by virtue of what they do that usually remains unspoken’ (2005: 210)

Walby (2013) cautions that institutional ethnography is neither strictly a theory, nor a methodological technique but more of a framing tool to help

researchers set their agenda in their use of existing methodologies used in social research. Researchers that have used institutional ethnography in their work have conducted inquiries with tools such as text, document and policy analysis, discourse analysis, archival research, mapping, participant observation and interviews (DeVault, 2006; Edwards & Mercer, 2010; Smith, 2009). Discursively this practice is located against the backdrop of neoliberalism which informs the structure of relationships in many institutional settings (DeVault, 2006). Recent refinements of institutional ethnography methods have sought to address the role of the researcher as a chooser of information and producer of results, acknowledging that information is mediated through the research process and the self-reflexive perspectives of research practitioners (Murray, 2020). The framework draws on feminist theoretical concerns including place-based, situated research happening in real time to better understand the lived experience of labour practices and power relations (Campbell & Gregor, 2004). According to Walby (2013) though research methods in institutional ethnography are people-centred, people are not the subject of enquiry but rather an entry point into deeper understanding of organisational processes. Institutional ethnography will be used in combination with desktop research and content analysis of archival material, interviews and site visits, as well as mapping methods to garner deeper understanding of campus foodscapes.

3.2.1 Frameworks and Methods: Reflexive Research and the Practitioner as Researcher

Like many studies situated within education, and studies concerning food and its environments, this research is situated in the context of personal engagement by the researcher in campus food policy and action. My academic

interest in this topic generates from a professional history working with food and sustainability. Within the University of Melbourne, I have worked as a sustainability officer in the Sustainable Campus team, I am also a member of the Nutrition Working Group, the Fair-Trade Steering Committee, Sustainability Advocates Committee, Sustainability User Group and the Food & Retail User Group. As a researcher I have worked on projects about student hunger and the potential of social procurement within institutions. I am the director of a not-for-profit organisation called Fair Food Challenge which works with student volunteers to run projects on campus such as a community kitchen program, workshops and food access programs and a sustainable re-use service to minimise single-use waste. The Fair Food Challenge also conducts extensive community consultation which is then fed into university policy and infrastructure development. Additionally, I have established a network of likeminded peers working at other Australian institutions, including health and nutrition focused programs at the University of Sydney, Deakin University and Monash University, food policy at the University of New South Wales and food security programs at the University of Tasmania. I also have extensive experience working with community food projects and community organisations and widespread networks in the food movement.

My personal history reflects the experience of others conducting research within this space. Many practitioners occupy space in the blurred boundaries between academic work and the other roles they perform within their home universities. For example, Peggy Barlett is the Professor of Anthropology at Emory University and works as the faculty liaison with the Emory University Office of Sustainability Initiatives, responsible for the institution's Sustainable

Food Initiative (see, Barlett, 2011, 2017; Barlett & Chase, 2004a, 2004b). Kameshwari Pothukuchi is a professor of Community Planning and Urban Development and Chair of the Department of Urban Studies and Planning at Wayne State University, Detroit. She is also the director of SEED Wayne, a campus community collaboration to build sustainable food systems (see, for example: Pothukuchi, 2009, 2016; Pothukuchi & Molnar, 2015).

In Canada, Lori Stahlbrand undertook her PhD at Wilfred Laurier University after two decades working in sustainable food systems. She founded the organisation Local Food Plus which developed supply chains and certifications for local food procured by institutions, in particular, universities. She acknowledges 'embeddedness' as a major contribution to her research (Stahlbrand, 2017).

Stahlbrand frames her work as occupying the 'space in between' (Dwyer & Buckle, 2009), understanding that researchers can occupy roles as both insiders and outsiders at various points in the research process. Similarly Bryan (2007b) explicitly states her dual role while at Queen's University in Ontario as both a researcher and a community member sitting on the university's food committee. Both Stahlbrand and Bryan refer to the concept of praxis, outlined by Wakefield as 'the melding of theory/reflection and practice/action as part of a conscious struggle to transform the world' (2007: 331). Further, Wakefield argues that 'praxis is not only about informing action with theory, but also about how action can itself lead to the development of richer theory' and opens opportunities to drive progress in institutions (2007: 334). For Niewolny and D'adamo-Damery (2016: 116) praxis is the 'continual and generative interplay between thought and action' and work that is 'entangled' with theory (2016:

121). They argue that food systems work benefits from self-reflexive storytelling as a 'generative process for learning, knowing and action' (Niewolny & D'adamo-Damery, 2016: 115). Niewolny and D'adamo-Damery further posit that engaging in critical storytelling, located within personal experience, is a 'humanizing way in which narratives help us critically engage in the "wicked problems" of our food system while also creating spaces of possibilities and hope' (Niewolny & D'adamo-Damery, 2016: 115). Inevitably my own experiences in campus foodscapes, outlined above, informs this research project. Primarily the questions and ideas generated from my own practice contributed to the research design and fieldwork design. However, I remained a researcher, out of my own context during fieldwork. I bring my own experience, and my local Australian context together with experiences and research in the US, with American practitioners to the ongoing application of findings in this research.

3.2.2 Collective Case Studies

The choices defining and choosing the field in this study were informed by a collective case study methodological model, also known as a 'multi-site study' or 'multi-site case study'. In this study this comprised of units of multiple university campuses, within which multiple practitioners were interviewed. The collective case study framework is similar to traditional case study methods, with the distinction that the research involves multiple cases which may or may not be geographically co-located (Goddard, 2009). Crucially despite not being tied to a single site each case must be linked together by a cohesive set of issues or thematic similarities. This draws on general case study methods which work to examine phenomenon/a in real-world settings, working to uncover and understand, for example, decisions, processes, organisations and/or events

(Yin, 2013). Critics have countered that due to the specificity of case studies the possibility of generalised conclusions is weakened, yet this can be addressed with systematic methods, careful correlations between cases, and contextualising research with broad data and evidence (Yin, 2013).

3.2.3 Mapping as a Method

In order to identify the processes and practices that occur in institutional settings, researchers using institutional ethnography often engage in diverse mapping methods to illustrate organisational networks, relationships and processes. Differentiated from literal geographical cartographic methods, social and institutional mapping is seen as the production of analyses that help researchers and community members ‘find their way’ within institutions, and within institutional power structures (Dalmer, 2021; DeVault, 2006: 294). Mapping may help researchers locate institutional practices in messy multi-scalar relationships that define institutional relations (Mountz, 2012).

Mapping methods have been used in various food-system oriented research. These include the use of tools and methods to account for physical infrastructure, shared assets and material flows within food systems. Mapping has also been used to produce representations that account for less tangible aspects such as power, policy and regulatory overlays, governance and organising mechanisms, and the ways in which communities interact with and react to their food environment. For example, Edwards and Mercer (2010) and Earl (2018) have used methods in institutional mapping, and applied them to research food environments, and how these environments influence community behaviour. Many approaches to understanding food systems start with mapping tangible assets including the material flows of food within a community.

Foodshed analysis takes a broad approach to understanding the route that commodities take from farm to consumer (Peters et al., 2009). Alternatively, studies grounded in Spatial and Geographical Information System methods (usually referred to as GIS methods), may map a particular aspect of a local foodscape. Such as the charting the presence of farms, gardens, restaurants and grocery stores in Philadelphia by Kremer and DeLiberty (2011), or the mapping of racial disparities in food access in Erie County New York by Raja et al. (2008). Lake et al. (2012) mapped the availability of food outlets across various socio-economic settings in Britain. Similar methods have been used in narrower geospatial contexts: for example, to better understand the availability of fruits and vegetables from campus outlets at a British university (Bevan et al., 2015).

Several approaches to assessing food systems have originated with community groups and not-for-profit institutions who have offered frameworks to assess the resources and stakeholders within a local food system. For example, the community food assessment approach is designed to be a collaborative tool to map ‘assets and resources as well as problems ... by increasing knowledge about food-related needs and resources’ (Pothukuchi et al., 2002: 6). Similarly, *Mapping the Assets of Your Community*¹⁶ encourages communities to uncover ‘the skills and talents of [its people], as well as the capabilities available or possible through local organizations and institutions’, notably it includes the talents and capacities of ordinary citizens as well as informal organisations alongside more formalised bodies (Beaulieu, 2002: 2). Other methodologies have adopted more subject-centred outlooks and have

¹⁶Beaulieu, L. J. (2002). *Mapping the Assets of Your Community: A Key Component for Building Local Capacity*.

worked with stakeholders to draw models of the food system based on personal experience. This can be done through collaborative processes such as focus groups, and interviews from which systems diagrams are derived (Mui et al., 2019). Foodscape mapping has been used as a pedagogical tool to help students understand their own place within the food system (see for example, Earl, 2018; Fanshel & Iles, 2020, 2022; Greenleaf & Robinson, 2020; Tørslev et al., 2017).

Visualisation of the tangible and non-tangible elements of foodscapes are an aid to the researcher and a useful tool in the task of research translation. The format of visual representations can challenge the hierarchy and authority of traditional academic formats, and can, in turn, be democratising (Cadieux et al., 2016; Reitz, 2022). Such methods may allow diverse (i.e. non-academic) practitioners to collaborate and engage with research. Mapping and other visual methods may lack the precision of more formal academic modes; however, this fluidity may provide a wellspring for other benefits. For example, where textual analysis may be in danger of oversimplifying the real world for narrative efficiency, visual methods can capture complexity, contradiction and multiplicity in a simultaneous and less hierarchical format. This ‘non-rigidity’ has been suggested as a generative principle for novel insights, further allowing for ideas and information to be combined, recombined and reinvented (Liebman & Paulston, 1994). This provides a crucial tool for researching food systems and food system transformations.

Proponents of these methods have endorsed their suitability in food system/s research as tools which can help to grapple with the multi-scale and multi-dimensional nature of the field and issues that arise when studying food systems which are often wrought with complex entanglements and shifting

assemblages (Cadieux et al., 2016). Further the non-hierarchical and non-narrative nature possible in the application of mapping methods allows for the illumination of different vantage points, leaving space for multiple (and potentially conflicting) interpretations:

visualisations have the potential to open new spaces of resistance when they engage producers, viewers and systems in a dialectic of creativity and subversive inquiry

(Cadieux et al., 2016: 31)

Providing opportunities for *seeing* – in a literal sense – the relationality of processes, infrastructure, actors and power can help to reveal previously unseen sites and/or opportunities for change and collaboration.

Mapping processes and outputs may reveal opportunities and illuminate spaces for intervention in a system (Walby, 2013). Fanshel and Iles (2020) frame participatory mapping exercises as allowing participants to identify a pathway to addressing hierarchies, power and structural inequities within a foodscape. In later work they further reflect that the process of map-making can draw out the shape and character of a campus food system, framed as a ‘missing object,’ which is both everywhere and nowhere within a university (Fanshel & Iles, 2022)¹⁷. The iterative process of creating both maps and the rules that define them help give form to as-yet unseen elements such as rules, practices and representations. These elements when wrought then provide useful data, evidence and storytelling tools for advocacy and transformative work.

¹⁷ See Iles, A. (2005). Learning in sustainable agriculture: food miles and missing objects. *Environmental Values*, 14(2), 163-183. for a more in-depth discussion on the concept of ‘missing objects’

These methods draw from critical geography and a discursive rejection of the idea of space and place as static and absolute concepts. Instead, these methods comprehend that the ways in which we understand and experience space are mediated and therefore relative; produced by intersecting and ever-shifting factors including the lived experience and histories of a space's inhabitants along with complex social, economic, political and cultural structural influences (Bosco, 2014; Bosco & Joassart-Marcelli, 2018; Harvey, 1996; Massey, 2008). This framing sits well with non-hierarchical visual methods which can be read in multiple ways, allowing relationships, catalysts, elements and processes to be seen and analysed as relational – with different meanings, impacts and power produced and experienced from various vantage points (Bosco & Joassart-Marcelli, 2018). It is also critical to acknowledge that mapping is an intentional act to overlay structure on an intangible system, and as such is not free from bias. Inevitably the ideological decisions and experiences of the map-maker(s) informs cartographic decisions. The power of maps can be used as discussed above for community empowerment but can also legitimate knowledge at the exclusion of other knowledge(s), omit critical elements or erase entire communities (Au, 2021; Crampton, 2001; Harley, 1989; Kim, 2015).

Mapping is used in this study to illuminate a series of insights on campus and higher education foodscapes. The following chapter, 4, details a series of maps illustrating elements of campus foodscapes as well as stakeholders across the higher education foodscapes and their networks based on data sourced from The Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment & Rating System (STARS)

database (as explained in the next subsection). The provided maps broadly fall into three categories: mapping elements (activities, infrastructure, processes and governance mechanisms) within campus foodscapes; mapping stakeholders in higher education foodscapes; and finally, mapping networks and interactions of stakeholders in higher education foodscapes. Chapter 4 explains in more detail the specific processes used in drawing on core data for map creation. In addition to the focused use of mapping in Chapter 4, visual material throughout this thesis provides a cache of evidence, examples and maps. The inclusion of photographic examples and vignettes of campus-based projects provides a wealth of examples for practitioners to draw from and a means to compare and contrast different means of engaging in campus foodscapes.

3.3 Use of the AASHE Sustainability Tracking, Assessment & Rating System (STARS) as a Research Tool

To develop a deeper understanding of campus foodscapes we first must gain insight into what is happening in this sphere. To do so a systematic analysis of the food-related submissions within the STARS reporting database was conducted. The STARS reporting framework provides a vast amount of data on higher education institutions' sustainability activities. The STARS database has been used previously by researchers in various investigations into campus sustainability, including, for example, to assess the proliferation of living lab projects in higher education institutions (Rivera & Savage, 2020), to track innovations in campus sustainability (Washington-Ottombre & Bigalke, 2018),

and to better understand sustainability efforts among college athletics departments (Pelcher et al., 2020).

The data collected via STARS was used in this thesis to provide information about activities and networks within higher education foodscapes as well as to inform the identification of possible sites for in depth collective case study research. Using this database as a source of site study selection presents several advantages. The goal of the research in this thesis is to identify how universities are engaging with the food system and to chart the activities and stakeholders involved in these varied engagement activities. The built-in rating system in the STARS evaluation framework allows for the identification of institutions with an active engagement in food systems work, in line with the research questions driving this thesis. Further, due to the voluntary nature of the reporting framework each participating institution has self-selected into this cohort as a member of the professional association of AASHE. AASHE has an active platform of knowledge sharing, not only through the open-access STARS data but also via an online database of conference papers, journal articles, mailing lists and other knowledge-sharing mechanisms. The members are part of an active community of practice, describing a 'self-organising groups of practitioners who have the required knowledge, use it and need it' (Snyder & Wenger, 2004: 109). Snyder and Wenger argue that people actively invested in transformative projects are in the best position to steward the knowledge assets related to their work and can transmit best-practice innovations beyond formal boundaries across constituencies and levels (2004).

The STARS reporting framework is divided into six main categories: Institutional Characteristics (IC); Academics (AC); Engagement (EN); Operations

(OP), Planning & Administration (PA) and Innovation & Leadership (IN). These six categories further break down into 19 sub-categories covering various aspects, including institutional characteristics, curriculum and research activities, sustainable operations and innovative projects. The institutions included in this study and reporting to the STARS framework include a range of higher education institutions including public and private institutions, and campuses in urban areas through to remote rural institutions. The schools included in the dataset range from campus populations of 240 to those in excess of 140,000 staff and students. Each of the STARS subcategories has an available associated credit point which accumulate to determine the institution's total sustainability ranking. Depending on the credits achieved schools may receive a designation of platinum, gold, silver or bronze. Additionally, schools who do not wish to receive this ranking can submit as a 'reporter' school. Each credit is made up of numerous reporting fields¹⁸ in which higher education institutions supply information about their sustainability practices. The score is derived from the answers in each of these fields. Answers for each of the fields vary between numerical data, yes/no questions and some long format answers which contain detailed information about the relevant activity. As the dataset for this research was framed around specific activities related to food the mechanics of how scores are derived from the combination of these response types is beyond the scope of this study.

Drawing on the AASHE STARS reporting framework a dataset was created to contribute to a deeper understanding of activities, stakeholders and

¹⁸ The number of reporting field varies per credit, some credits have one or two, others have upwards of 50. In essence a reporting field is the most granular unit in the reporting undertaken by schools, or, each reporting field is a specific question as opposed to a credit, which delineates a general topic area on which to report.

networks relevant to the US Higher Education foodscape. The process of selecting and refining the final dataset is explained in detail in Chapter 4 along with a series of maps illustrating findings from this data. The selection process resulted in dataset representing a total of 306 US-based Higher Education Institutions and includes their responses across 131 reporting criteria in the STARS framework. A full list of the chosen reporting fields is available in Appendix II

3.4 Fieldwork Methods

The purpose of fieldwork is broader than simply interviewing participants, it is also to ‘observe and experience at first hand’ by ‘placing a value upon the interactions within that setting and the sense-making activities of the social actors inside it’ (Pole & Hillyard, 2016: 60-61). The following section outlines the methodological choices made in the research design for the fieldwork activities for this thesis. Firstly, it provides a brief overview of the use of qualitative methods in social sciences and explore why the format of semi-structured interviews has been selected. It then compares the methodological choices made in this study to other related research. The conclusion provides specific information about the final choices made concerning locations and participants in this study.

3.4.1 Defining ‘The Field’ in Researching Campus Foodscapes

To understand the purpose of fieldwork it is first necessary to articulate what is meant by ‘the field’. Atkinson suggests that it is ‘something we construct both through the practical transactions and activities of data collection’ (1992: 5). In the case of this research it is true to say that the field is university

campuses, however, this belies the key target of this study: campus foodscapes. In some sense this field is a construction of the researcher and not a site with fixed and easily determinable boundaries. The act of this research contributes to the formulation of a campus foodscape as a conceptual entity. Proposing a conceptual boundary may introduce the risk of a limited understanding. Potentially, the field is limited by what the researcher ‘may encompass in [her] gaze ... and what [she] omits or overlooks’ (Atkinson, 1992: 9). It is acknowledged that inevitably the researcher’s own context and history has influenced the observations that are captured (Mulhall, 2002; Wolfinger, 2002). More broadly however, the boundaries of conceptual findings are not limited solely to the researcher. Findings can, and are intended in this research, to be co-produced between actors via a ‘discursive process in which the research encounter is structured by the researcher and the researched’ (England, 2001: 210).

Stahlbrand unequivocally frames her research into campus food procurement by stating ‘I believe that the study of relationship-based food systems requires relationship-based interviews’ (Stahlbrand, 2017: 91). The previous chapter argued that campus foodscapes are complex systems nested within even more complex systems. It is easy to see systems as large, unknowable and intangible. However, systems, particularly the ones being examined in this research, are deeply human. They comprise a great number of people, and many – often conflicting – decision-making agents. Within institutions, tracing these many decisions from conception to implementation can quickly become an abstract and messy task. While the aim of this research is to provide broad and generally applicable typologies of campus foodscape

work and action, it is first concerned with meeting, talking to and understanding some of the people that make, and are impacted by, these decisions. Within this project I found it important to see, first-hand, the physical elements of campus foodscapes to better understand these key sites. Including, among others, dining halls, community gardens, food co-operatives, basic needs services and campus farms, and to witness how these places are being used (or not used) by the community.

3.4.2 Qualitative Methods used in Fieldwork Research

Sites for fieldwork and participants for longform interviews were selected purposefully within the framework of qualitative methods (Creswell & Creswell, 2017). During the period of fieldwork, I was hosted by Berkeley Food Institute and the Department of Environmental Science, Policy and Management in the University of California, Berkeley as a visiting student researcher, and able to use that campus as a base. Interviews were conducted in situ, while on university campuses – with the exception of one interview which was conducted via teleconferencing software online. The choice of location in qualitative interviews is weighted with meaning – it can express cultural meaning, highlight power dynamics between interviewer and subject and/or engender comfort or distress in the participants (Herzog, 2014). The choice to interview participants on campus is both a pointed one – to talk with people within the campus foodscape that they occupy – and a practical necessity as the research took place, with limited access to alternative facilities. These interview sites allowed research participants to be interviewed in their own environment, whether that be the university as a site of work, the university as a place of study, or a combination of the two. This follows Stahlbrand, who made the choice to

interview participants at their place of work, believing that the choice of location 'keeps their body in the same place as their mind needs to be, with their workplace assignments, obligations and surroundings immediately visible and visceral' (Stahlbrand, 2017: 92). Location has been understood as an issue of convenience for the subject (Seidman 1991) and more expansively, as a way to facilitate the subject to reveal more information while 'on their own ground' (Gillham 2000).

In the context of this research the campus-based location raises questions about who has the right to occupy various spaces. Increasingly only tenured and full-time staff have office spaces and it is important to understand the kinds of spaces that are used and can be used by community members. For students, some may feel more welcome in places where others feel excluded on the basis of their identity. Although such sub-textual dynamics may be difficult to determine, attempts were made to be mindful of such relations to space and place while undertaking fieldwork. Location based interviews also present the possibility of gaining insight into the importance of place to participants – for example, if they make the choice to hold the interview within a community garden, or food co-op, or other site particular to work and participation within foodscapes. Herzog (2014) notes that significance of location is not revealed by the location itself but rather by the 'symbolic dialogue' that occurs between the interviewer, subject and site. This dialogue can itself reveal meaning about the participants' relation to place. These kinds of observations were recorded and analysed as a part of the field work data collection.

The methods employed in this study fall broadly in line with those used by other researchers working in the field of foodscapes and institutions. For

example, Stahlbrand's (2017) study of creative public procurement at British and Canadian universities involved 67 interviews with food chain workers, primarily conducted by phone, and ranging from a half-hour to four hours. Some of her participants were workers at food processing facilities, in which case she requested tours of the facilities:

If possible, I requested a full tour in order to get a better sense of the capacity of the operation. I've learned that a tour can be worth a thousand words. I believe that many of the nuances that are important to an investigation of this sort are only revealed when time is spent, and trust is built. There is a certain transparency of being taken on a tour – things cannot be hidden. Being on a tour can be compared to being invited to someone's home for dinner. It establishes a bond. We're meeting in their habitat. I'm inviting them to unlock memories and details that wouldn't be unlocked over the telephone. There is a spontaneity and humanity.

(Stahlbrand, 2017: 92)

Bryan (2007a) used participant observation combined with in-depth interviews in a geography-framed study of food services at Queen's University, Ontario. Despite organising an interview schedule, Bryan highlighted the importance of leaving room for opportunities that may arise during fieldwork, leaving space for interviews 'on the fly' (2007a: 37). Opportunistic interviews that happen while participants are going about their usual activities may provide particularly useful responses that reveal a subject's deeply-held values and views (Whipp, 1998). Other studies have used similar semi-structured interview methods, including Marple's (2018) work in food co-operatives within the neoliberal university and the investigation by Alkon et al. (2019) into gentrification of the foodscape in Oakland. In the fieldwork for this thesis some interviews were conducted in places such as food banks, dining halls, or while walking around campuses to visit key sites – while at times this impacted the

quality of audio recordings used during interviews it also produced unplanned interactions and associations which provided key insights leading to rich data.

In addition to interviews I collected additional data via multiple sources (Creswell & Creswell, 2017). Including, for example, observational notes and the taking of photographs at field sites. At many sites additional material was collected in the form of annual reports, sustainability maps, promotional brochures for events and services as well as other kinds of print collateral (see figure 4 for an example). In addition, some print collateral related to key sites was collected during other activities removed from campuses, for example the Association for the Advancement of Sustainability in Higher Education conference. Photographs taken during these field explorations resulted in a total of approximately 480 photographs. Primarily these photographs captured dining environments, signage and displays focused on food systems communication, representation of the food retail environment and posters of upcoming events and student services as well as photographs of specific sites such as gardens, student-run shops and food banks. Photographs are frequently used in visual ethnographies (Kato, 2005; Loughlin, 2013; Pink, 2001). In this research photographs are used less as a central ethnographic method but rather as an addition to fieldnotes. These type of photographs can act as a point of comparison to written notes and interview recordings, trigger memories and serve as jumping off points for further research avenues (Coover, 2004).

The ubiquity of smartphones makes them an unobtrusive recording device as well as an easily accessible tool with added advantages including data-logging features such as the ability to geotag, and provide time and date of

photographs (Rost & Holmquist, 2010; Welsh & France, 2012; Welsh et al., 2012). After collection these photographs have been coded both with information about the site at which they were collected and according to the kinds of infrastructure and/or activities they represent. Before, during and after site visits I visited websites and social media channels related to projects and sites visited and where relevant saved pertinent data. Further, photos and screenshots of sites and media were collected, and coded, as forms of additional data to supplement those directly collected in the field.

Ethics approval for this research was granted by the University of Melbourne Law Human Ethics Advisory Group (Ethics ID 1955275.1). Approval was granted with the instruction to provide all participants with a consent form, interview schedule and plain language statement [Appendix III]. These materials were sent to each participant prior to the interview and consent collected by in-person signature or electronically via a digital form. At the beginning of each interview I sought verbal agreement that the provided information had been understood. Each interview was recorded, with the participants' consent, on an iPhone with a backup recording simultaneously made on an iPad. In addition, hand-written notes were taken throughout each conversation. Each interview lasted between one hour and 90 minutes with the understanding that the participant was free to terminate the interview at any time.

3.4.3 Site and Participant Selection

Given the fuzzy boundaries of what elements define, or, are a part of a campus foodscape it is not an immediately obvious determination who counts as a participant in this field. In some sense anyone who enters on to a campus participates in the foodscape when they eat, dispose of food, or enjoy an ambient

environment decorated with edible horticulture. However, this research is concerned with agents of transformation within campus foodscapes. It does however employ an expansive, rather than exclusive determination. In selecting participants, I sought out a wide range of views and experiences, including academic staff, professional staff, foodservice staff, student volunteers and student project organisers. This follows the choices other researchers have made in researching food and higher education, including foodservice staff (Barlett, 2017; Bryan, 2007a), professional staff and student leaders (Pothukuchi & Molnar, 2015), suppliers to campus foodservice operations (Stahlbrand, 2017) and student workers at campus food co-operatives (Marple, 2018).

To determine a starting place for site selection the STARS data was revisited. Although the total score achieved by any one school is not relevant to this research each category is given an individual numeric result. In the food and dining category institutions can receive up to 6 points towards their total score and in the sustainable dining category up to 2 points. The results for these two categories were combined for each school resulting in a combined score out of 8. Applying the broad logic that higher rated schools would conduct a greater amount of activity in their foodscapes the scores were sorted highest to lowest. The US higher education ecosystem contains many small, specialist colleges with some hosting as few as 133 students. As this model is more prevalent in the US than other settings around the world it was decided to filter out schools with less than 10,000 students while determining site selection.¹⁹ This choice was made in relation to international relevance and to gain insight from

¹⁹ 139 schools were excluded on this basis

sufficiently complex institutions responsible for managing the foodscape of large and diverse communities. One additional school was added to this list as they had consciously decided not to participate in STARS but were frequently referenced in discussions on campus foodscapes and best-practice examples. As well, representatives were contacted from key external organisations active in campus foodscapes. Final site selection was determined by selecting the top twenty schools and then contacting relevant representatives. Sites were selected based on the availability of participants during the scheduled window allocated to undertake fieldwork. The final selection included 27 participants from 10 schools and 2 external organisations. The institutions represented public and private institutions from a mix of urban and rural areas covering six US states.

I initially used the contact details supplied via institutions' STARS reports as my first point of contact for potential interviewees. I contacted listed staff such as sustainability managers and food service directors via email contacts directly available on university websites. This contact established whether they were available for interview while also asking if they were able to recommend further participants. This 'snowball' referral method is effective for uncovering participants who are active in the community but may not have public-facing roles or freely available contact information (Handcock & Gile, 2011). In some instances, I reached out to potential participants through platforms representing campus food projects, for example using social media messaging widgets (such as Facebook and Instagram direct messaging via a project's social media page) to ask who would be the best representative to speak with about the project. Given the busy lifestyles of students and the multiple people who

may be responsible for monitoring these platforms this method was less successful. In addition, I reached out to professional contacts in my network to ask if there were any particular informants that they were able to recommend.

3.4.4 Summary of Fieldwork Sites and Interview Participants

I travelled to university campuses to conduct interviews and collect data on campus foodscapes - in total visiting ten institutions and conducting 27 interviews. Two interviews were with members of an organisation active in campus food without being affiliated with any one institution. The subjects occupy a variety of roles from students to professors, dining managers to student foodbank and campus garden coordinators as well as representatives of external stakeholders closely related to campus food systems. The universities represented a range of public and private institutions from six US states. As a consequence of the choices indicated above all the institutions visited were mid-to-large universities with over 10,000 students, the largest having a student body in excess of 50,000 students. Table 3-1, below, outlines (where relevant) each interview subject, and their affiliation within the campus foodscape. Each interview subject has been allocated a code by which they are referred to throughout the thesis.

Table 3-1: Codes for Anonymised Interview Participants and Their Role in Their Campus Foodscape

Code	Role at time of interview	Role in foodscape
IR1	Public university student and foodscape project participant	Community organising and research
IR2	Public university staff- dining	Dining
IR3	Private university staff	Health
IR4	Public university staff	Sustainability
IR5	Public university student and foodscape project participant	Basic needs
IR6	Private university staff	Sustainability/dining
IR7	Public university staff	Sustainability
IR8	Public university staff	Local food/growing food
IR9	Public university recent graduate and foodscape project participant	Community organising and research
IR10	Private university staff	Dining
IR11	Private university staff	Sustainability
IR12	Public university staff	Dining
IR13	Private university student and foodscape project participant	Local food/growing food
IR14	Private university staff	Sustainability
IR15	Staff of external foodscape organisation	Community organising and research
IR16	Staff of external foodscape organisation	Cooperatives
IR17	Public university staff	Basic needs
IR18	Public university staff	Health
IR19	Private university staff	Food Systems Education and Research
IR20	Private university staff	Sustainability/Dining
IR21	Private university staff	Food Systems Education and Research
IR22	Public university student and foodscape project participant	Sustainability
IR23	Public university staff	Food Systems Education and Research
IR24	Public university staff	Sustainability/Dining
IR25	Public university student and foodscape project participant	Community organising and research
IR26	Private university staff	Sustainability
IR27	Public university staff	Sustainability
IR28	Public university staff	Local food/growing food

In addition to conducting interviews, visiting each of the six campuses presented the opportunity to visit various sites including student dining halls,

campus gardens, food banks, food co-op, food production facilities and field stations. Where possible I participated in events and activities taking place that related to campus foodscapes. For example, I volunteered to stack shelves at a campus food pantry and helped at a working bee maintaining a campus farm. While at a smaller, regional public university I spent a Saturday morning with students and the coordinator collecting and packing food items from the state-wide food banking distributor (Figure 3-1, below). I participated in a staff program at a private university where, as a team-building exercise, groups pack up leftover dining hall food to redistribute to charity. Where possible I also participated in curricular activities, for example, sitting in on a session of an interdisciplinary Case Design Class run to enable an interdisciplinary group of students to work on solving campus food policy problems, I also attended the first lecture of a food systems education course.



Figure 3-1: Immersive experiences during fieldwork: volunteering to collect food for a campus food pantry; attending a food-systems lecture and harvesting produce at a campus farm

These multiple means of data-collection and participation helped build up ‘thick’ descriptions – in-depth observations about people, the environment, situations and places, coupled with triangulation – corroborating information across sources to support rich insights (Lewis 2009, Maxwell 1996).

3.4.5 Coding and Analysing Interview and Fieldwork Data

Following fieldwork interviews were transcribed and coded using an iterative method of refinement. The process of grounded theory method encourages the researcher to move from the specific to the general with an aim to create broad theoretical explanations for real-world phenomena. Corbin and Strauss explain ‘the generalisability of grounded theory is partially achieved through the process of abstraction taking place over the entire course of the research.’ (Corbin & Strauss, 1990: 424). Grounded theory is a widely used method within qualitative social science enquiries and is defined by the application of key processes. One of the distinctive features of the grounded theory methodology is conducting analysis and coding alongside data collection rather than starting data analysis after all data has been obtained (Bryant & Charmaz, 2011). This reciprocal method focuses the process of data collection and precipitates theoretically centred analysis. Charmaz highlights the power of this method by writing, ‘the strategy is for researchers to remain open to the data, being prepared to be surprised by one’s own findings and change one’s orientation’ (2006: 48). Grounded Theory Method is underpinned by several key generative questions, including ‘What is happening here?’ ‘How do participants’ actions construct observed social processes?’ ‘Who exerts control over these processes?’ and ‘What meanings do different participants attribute to the process?’ (Charmaz, 2006; Glaser, 1978).

Coding is a key tool in moving from the specific to theoretical in the research process. Other social research methods may start with pre-defined codes which direct the arc of enquiry, as opposed to allowing the codes to emerge from the themes and issues uncovered during research (Bryant, 2013). Alshenqeeti (2014) notes that there is no singular convention for interview analysis. Within grounded theory traditions coding process is iterative, moving from broad ideas and gradually repeating the process with more granular, refined categories, refining codes and themes with theoretical testing of emerging against the broader dataset to arrive at firm theoretical categories (Charmaz, 2006; Corbin & Strauss, 1990; Glaser, 1978). As the research process is conducted, comprising both interviews and analysis, the goal is to reach 'theoretical density', or, enough data to support evidentiary findings. Eventually 'theoretical saturation' is understood as the point where further data collection and refinement fails to provide novel theoretical insights (Charmaz, 2006; Hutchinson et al., 2010).

Qualitative analysis software has been used to assist in the collation and analysis of data in social research. NVivo was used for coding and analysing data collected during this research. The software standardises some of the iterative processes inherent in the process and therefore supports the overall validity and reliability of the findings (Bringer et al., 2004). Welsh (2002) proposes that the comprehensive search function lessens human error when searching for instances of themes across numerous transcripts and allows for more comprehensive development of codes and categories. NVivo offers comprehensive data organisation capability and material such as pamphlets, photographs, reports and other documents were also entered as part of the

broader data set and coded to appropriate themes. Bringer et al. (2004) argue that software should be used as an aid and not as a replacement for critical, human analysis of data. Researchers are urged to be transparent in their use of digital methods with an expectation to engage in extensive critical analysis (Bringer et al., 2004). To support this criticality all interview transcripts were printed and used as a supplementary set of data where quick consecutive reading of interviews would better elicit particular insights not as suited to the more search-and-select methods easily conducted with NVivo.

Following the thematic coding of data interviewees' quotes were extracted for discursive, thematic analysis and anonymised. Veracity and readability are issues frequently considered in interview-based qualitative methods. Some research content, such as particular ethnographic research may require verbatim recording of particular speech patterns and vernacular, whereas other research is more focused on overall themes emerging from conversations. In latter cases it is common for researchers to make decisions regarding editing quotes for overall readability which can range from a light touch, such as inserting punctuation to heavy editing to standardise responses (Mero-Jaffe, 2011). Corden and Sainsbury describe the practice of 'light tidying-up' for readability and clarity, which includes removing repeated words and statements, editing out redundant speech such as 'like' 'ahs' and 'you know' and other brief alterations for overall clarity (2006: 18). This latter approach was applied in this research. Some of the included quotes have been edited to remove such repetitions and superfluous figures of speech. However, in all cases the final inclusions are as close as possible to participants' original statements and careful to relay original meaning. In any case where the transcripts were unclear

I returned to the original recordings to verify meaning and intent as closely as possible.

The content of interviews is discussed in depth in Chapter 5, which examines participants understanding of foodscapes as a concept, motivations for engaging in foodscape work and their experiences of drivers and barriers to transformation within foodscapes. Aside from this dedicated chapter interviewees ideas and experiences are used to inform research throughout this thesis. STARS data is the main source of information for the maps provided in Chapter 4, however, elements of campus foodscapes noted by interviewees have also been incorporated. Interview data is also used in the following chapters, 6, 7, and 8 analysing the impact of corporate presence in educational foodscapes. The final chapter positing broad insights regarding actions and transformation in campus and higher education foodscapes also draws on the experience of practitioners in the field.

3.5 Additional Research Strategies for Collecting Information on Campus Foodscapes

The phases of desktop data collection and interviews yielded a large volume of information and a number of key themes. Chapters 6 and 7 undertake a narrative analysis of corporate influence in campus foodscapes. This includes the influence of dining services corporations and multi-national food and beverage corporations. To better understand ideas and issues raised in the data collection information was verified and bolstered by research using a variety of sources Table 3-2 below, outlines sources used to provide further information for detailed analysis. It includes university websites and ephemera collected on

campus, as well as student media and information produced by non-institutional stakeholders. Given that themes of corporate influence emerged the list also includes a number of sources used to verify company information including corporate websites, company administrative filings, and business analytical and statistical databases.

Table 3-2: Other Sources of Information Useful for Researching Campus and Institutional Foodscapes

Type	Source	Further Information (where available)
University Documents	Sustainability reports/plans/reviews	
	University policy documents	
	Other university guides/policies/reports	
	Research output from student projects: reports, presentations, other projects hosted on university websites	
	University website (general)	
	Departmental/Institute websites	
University Media and Other Sources of Information	University news and/or blogs	
	Departmental/Institute news and/or blogs	
	Project/research websites hosted by university	
	Dining services and auxiliary services websites	
	Student-run media sanctioned by the institutional	
	Extra-institutional student-run media	
	Websites of specific campus projects	
	Websites for specific student-run groups and/or projects	
	University archives	
	Websites of student-run organisations specifically related to campus foodscapes	
	Social media (Facebook, Twitter, Instagram etc) and/or YouTube accounts of university/university groups and affiliated groups – (relevant sites subjects to change depending on user acceptance/uptake)	
	Conference, seminars, symposia and events: time-limited websites, programs, agendas, notes and recordings	
	Websites and social media channels of non-institutional stakeholders in campus foodscapes (i.e. Real Food Challenge)	

Photographs	Photographs of signs, promotional material, posters and flyers posted on campus and/or other university affiliated sites	
	Photographs of infrastructure, activities or other foodscape sites and events (with appropriate permission)	
Ephemera	Collected handouts/flyers from events on campus and/or other university affiliated sites	
	Print reports and other documents collected onsite	
	Advertising materials for projects etc – stickers/posters/booklets/flyers	
	Student-made media – zines, posters, stickers, graffiti (photographed) etc	
	Other promotional material -i.e. information and reports handed out at conferences	
Education-related databases	Educational Resources Information Center (ERIC)	https://eric.ed.gov/ US database of education information from a wide variety of sources
	National Center for Education Statistics (NCES)	https://nces.ed.gov/ Primary US federal entity for collecting and analysing data related to education across all levels
	AASHE Member Community Email Digest	
	Food Law Student Network Newsletter	
	AASHE Campus Sustainability Hub	https://hub.aashe.org/
	Food Systems Leadership Network Resource Database	https://foodsystemsleadershipnetwork.org/resource-library/resource-database/
Community of Practice Forums, Archives & Databases	Food Policy Networks Food Policy Resources	https://www.foodpolicynetworks.org/food-policy-resources/
	Farm to Institution New England database	https://www.farmtoinstitution.org/resources
Other Alerts	Google Scholar Alerts	
	Google Alerts (key words or phrases for news articles)	
Other Media	Food Management	food-management.com Media site dedicated to non-commercial foodservice
	Princeton Review College Ratings	https://www.princetonreview.com/college-rankings/best-colleges

		Publishes articles on features in higher education institutions including food and dining services
	Other local news sources	Relevant news to the immediate region of campuses
Media and research aggregators	UWire	https://www.uwire.com/ Aggregates college media press releases and news articles from media across US higher education institutions
	Proquest	proquest.com Aggregate search engine for academic publications, news articles, government publications, press releases and dissertations
	Dimensions	dimensions.ai Aggregates multiple research publication databases for meta search of publications, also offers insights into publication statistics and trends
Company Documents & Media	Annual Reports	
	Other company reports- sustainability, diversity and equity, CSR performance	
	Regulatory filings – i.e. Form 10-K annual SEC submissions	
	Lobbying and other political submissions made on behalf of the corporation	
	Shareholder prospectuses	
	Press releases and company news wires	
	Company and parent-company/corporate websites	
	Company and subsidiary product websites and other promotional websites	
	Company social media	
Business analysis and statistics repositories	Statista	https://www.statista.com/
	Orbis	https://www.orbisresearch.com/
	Euromonitor Passport	https://www.euromonitor.com/our-expertise/passport
	MarketLine Advantage	https://advantage.marketline.com/
	MuckRock	https://www.muckrock.com/

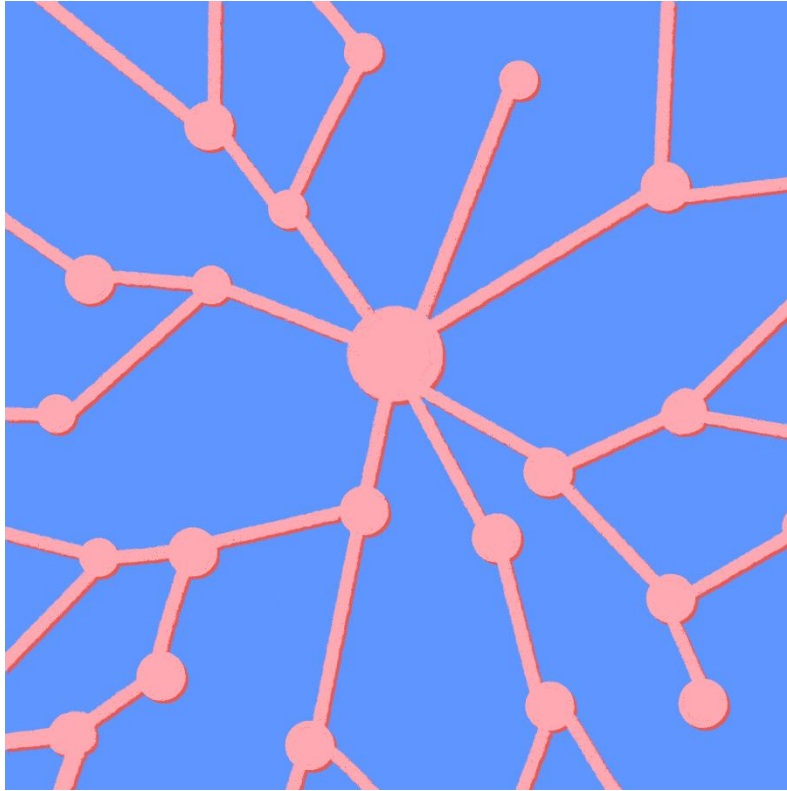
Opensource databases and public accountability projects		US based NFP working to assist citizens filing freedom of information requests, it is collaborative and holds obtained documents to encourage further journalistic enquiry into matters of public concern. Holds repository of various higher education institutions' pouring rights contracts.
	Good Jobs First Violation Tracker	https://www.goodjobsfirst.org/violation-tracker Tracks publicly recorded incidents of corporate misconduct
Other	Relevant legal judgments (all jurisdictions)	
	Company/NGO/Institutional submissions to public hearings etc	

In addition, other tools were used including aggregators of both media and other information, publications and information sourced from relevant communities of practice and sources from non-government organisations involved in advocacy and corporate accountability. While this list outlines the tools and sources used in this research it also provides a useful framework for future research in the area of campus foodscapes. Further, this may provide a useful starting point for research into other institutional food environments and research in higher education environments beyond the key concept of food.

3.6 Conclusion

This research does not attempt to quantify the number of campus foodscape projects but rather to better understand the nature of projects and policies taking place to transform food and food environments in higher education, and to better understand the experience of those working to

transform their campus foodscapes and the nature of corporate influence frustrating such change. As this chapter has demonstrated, collective case studies, mapping, in depth fieldwork and narrative analysis are the appropriate methodological tools to achieve this purpose. This chapter has also outlined the sources and processes of data collection that have informed this thesis. First it covered the selection of the AASHE STARS database as a source of information rich with data on campus food. Secondly it demonstrated the choice to conduct fieldwork to better understand campus foodscapes and the suitability of semi-structured interviews to gain insights from those working in this arena, and in-depth desktop research conducted to follow up on themes identified in the fieldwork. The following chapter, Chapter 4, presents the results of mapping activities and stakeholders across campus and higher education foodscapes, including more detail on the data and processes used to produce these maps. Chapters 5, 6, and 7 go on to present more detailed analysis of participants' conceptualisations of campus foodscapes and the drivers and barriers they face in their ongoing work to transform their institutions, with a particular focus on the corporate capture of campus foodscapes.



4

MAPPING ELEMENTS, ACTORS AND NETWORKS OF INFLUENCE IN THE US HIGHER EDUCATION FOODSCAPE

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4.1 Introduction

Chapter 2 pointed to the emergence of research on campus foodscapes and campus food projects. However, little research has been undertaken from a whole-of-system viewpoint as to what activities occur in campus foodscapes, who is involved in campus foodscapes, and the complex multi-sector, multi-scalar ecosystem of external stakeholders working within and adjacent to campus foodscapes. Responding to this gap this chapter presents a series of maps illustrating elements and stakeholders in campus and higher education foodscapes. Using the methods described in the previous chapter 22 maps have been created. Broadly, these fall into three categories: elements of campus foodscapes (maps 1-13); stakeholders in higher education foodscape (Maps 14 and 15) and finally, networks of influence in the higher education foodscape (Maps 16-22). This chapter presents both the methods used to develop these maps and the maps themselves as findings of this research.

This chapter begins with an outline of the specific methods used to organise, refine and categorise the available data to make sense of the elements within campus foodscapes. Then, the methods, tools and processes used to make the included maps is explained with suggestions for how these might be utilised for further research. Section 4.3 and 4.4 introduce the visual section found at the end of this chapter. These sections provide greater detail about the visual content, including charts summarising quantitative data drawn from the

STARS database concerning campus foodscapes. The first thirteen maps illustrate elements in campus foodscapes, the first a unified map of elements in campus foodscapes, followed by one map for each of the defined categories within campus foodscapes. These maps are supported by visual evidence in the format of captioned photographs collected during fieldwork as well as brief anonymised project examples drawn from the STARS dataset schools to further expand on nominated foodscape elements. Finally, 9 maps illustrate the many stakeholders and networks in and around higher education foodscapes. The following section, 4.2, introduces external stakeholders in higher education foodscapes and provides context for the complex networks and communities of practice which contribute to transformative action in this arena. The section concludes by highlighting several key organisations which have an ongoing and significant impact on campus foodscapes and outlines their role, key programs and their reach. The impact of these organisations is further discussed in each of the following chapters, with a broad typology of their influence included in Chapter 9.

4.2 Methods Used in Collecting and Refining Data from the STARS framework

From the entire STARS database, a refined dataset was created to contribute to the development of a categorisation of activities, stakeholders and networks relevant to the US Higher Education foodscape. Relevant data were determined using the process illustrated in Figure 4-1, below. This process resulted in 24,410 units of data from 131 separate reporting fields. This data amalgamated answers from 306 US higher education institutions. The selection

of these units is discussed in section 3.3, in the previous chapter. The chosen reporting fields are detailed in Appendix I

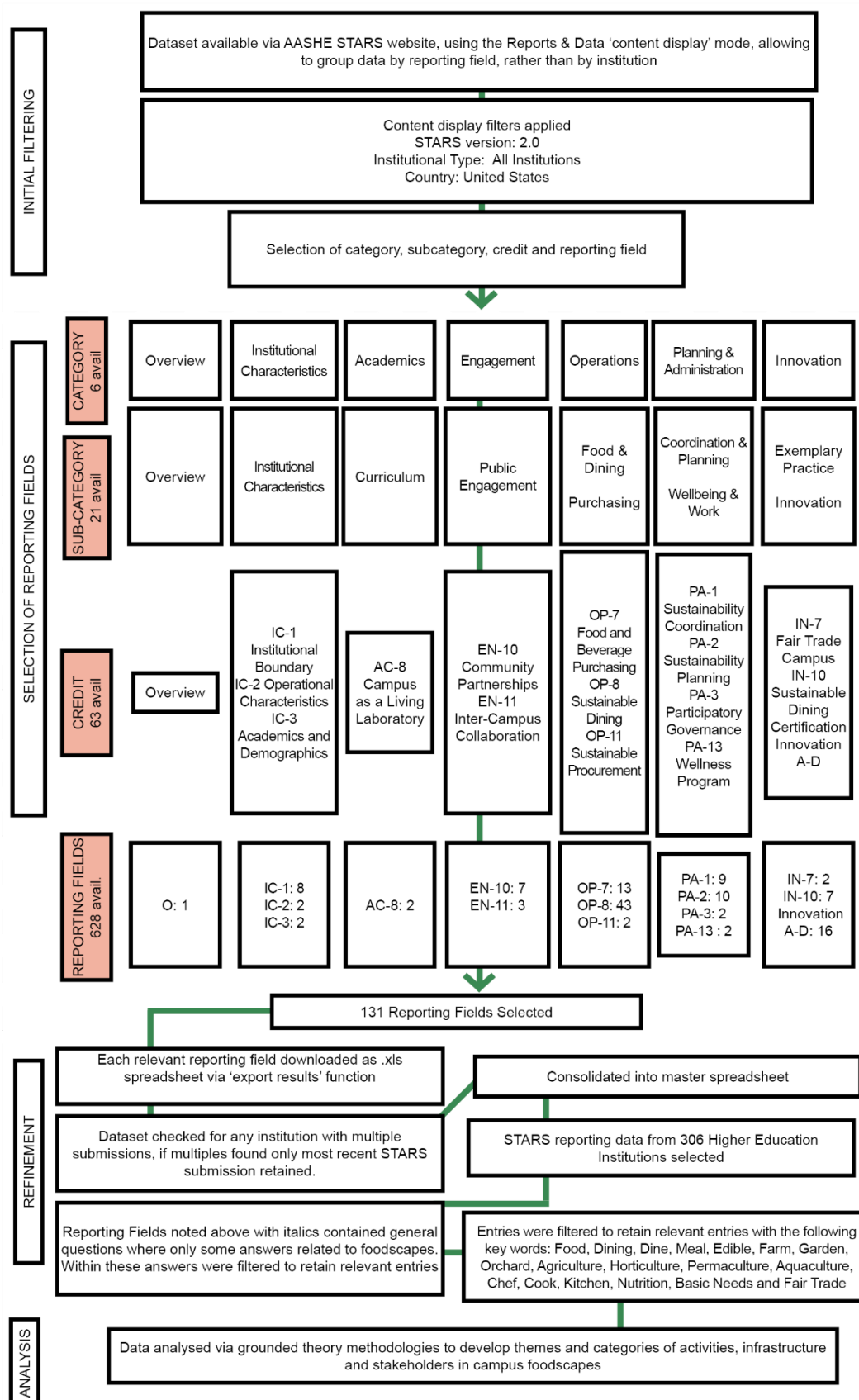


Figure 4-1 Methodology for Selecting and Refining STARS data

The collected data was combined into a single spreadsheet and a grounded theory methodology was applied to derive thematic categories through an iterative process. The data was entered into the coding software NVivo where inbuilt tools assisted with the grouping of some key themes. All data was also printed and analysed through close reading. Inevitably categorisation is reflective of the individual researcher's choice, and although the analysis was extensive it cannot be understood as final. The data may have been arranged through different parameters and some elements may have been overlooked through human error. Initially details were coded with high level categories such as 'project', 'infrastructure', 'network', 'organisation', 'policy' and then refined and re-sorted into more granular and specific categories. After these categories had been established information gleaned during interviews and other additional research were also tested against the groupings. Where needed additional categories were added or refined due to the additional information acquired through the ongoing research process.

The final data was designated into two broad sets: stakeholders and networks, and elements in campus foodscapes. The stakeholder data was sorted into two main categories: 'Multi-scalar Communities of Practice' and 'Stakeholders Across the US Higher Education Foodscape'. These were supplemented with more detailed maps of particular networks related to specific areas of foodscape activity, with additional data collected through organisational and programmatic websites and materials. The campus foodscape elements group were further refined into twelve categories:: Basic Needs, Certification, Curriculum and Research, Dining Services Programs and Activities, Distribution, Health, Institutional and Community Partnerships, Policy and

Governance, Producing Food on Campus, Student Leadership and Participation, Supporting Local Food, and Waste. Each of these categories is illustrated together on an unified map of elements in campus foodscapes (map 1) and then presented as twelve individual maps for ease of interpretation (maps 2-13).

The STARS reporting data contains a rich cache of information on activities and governance in universities, however it does present some limitations. While the data is available to a large number of university professionals it can only be considered broadly accessible and not publicly accessible, as a membership-based login is required to the database.²⁰ While this is available to all member schools it is most likely known only to particular individual professionals responsible for sustainability reporting and may present a hurdle for some wishing to access the database.²¹ The interface of the reporting framework allows for a number of different views, for example by institution or by content. However, extracting data in a usable format is an arduous process. As demonstrated in Figure 4-2 below, users can access the drop-down menus to select data from individual reporting fields, however often the full details of the reporting credit are cut off in the drop-down box making it difficult to ascertain which field to select. This can only be rectified by downloading a possible field and determining its content once the downloaded file is opened. Reporting credits are only individually available meaning that

²⁰ I was able to access the database via the login provided to my home university by the Australasian Campuses Towards Sustainability (ACTS) which has an active partnership with AASHE. ACTS facilitates access to STARS reporting for its member universities.

²¹ There is no reason that anyone who is aware of the login would not be able to share it with any member of the campus community but if not known to an individual researcher it would involve a process of finding out who knew the details and requesting access through the institutions' login. It may be automatically available in some schools if accessing the site through an on-campus or proxy network.

each field required for research must be downloaded as a single file, which frequently triggers the portal to reset the higher order categories, forcing to researcher to re-select each relevant field to make a new enquiry. In the case of this research data collection required the downloading of 131 individual spreadsheets which were then amalgamated into a single, large datasheet. Basic updates to the user interface could make this dataset more accessible for future research.

Step 2

Use the drop down menus, below, to find the reporting field of interest (note: begin your search by selecting a category, then a subcategory, and so on):

Category:

Engagement

Subcategory:

Public Engagement

Credit:

EN-10: Community Partnerships

Reporting Field:

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No results yet. Please filter on a characteristic above

AASHE believes transparency is a key component of institutional excellence. Publicly available STARS data may be used in research and publications, provided that the source is properly cited.

Figure 4-2 Example of STARS reporting framework content display interface

While using this dataset careful attention must be paid to data coherence. As individual institutions submit their data at various times, if individual spreadsheet data is downloaded over a prolonged period, it must be carefully checked to ensure that it contains, or that it is filtered to contain, the same set of institutions. A later sheet may have information from a recent

submission changing the overall number of cases in the dataset. One of the advantages of STARS is that it is a dynamic framework which incorporates new activities and trends in higher education. It undergoes various updates including: ongoing administrative edits and clarifications; substantive updates once a year and finally; major revisions no more frequently than every two years.²² The latter two categories of updates may introduce new or changed credits, sub-credits and reporting fields. Reports are kept in the database covering various updates. At the time of this research there is a discrepancy whereby newer versions can be read via the individual institution reports but only credits included up to v2.1 are available through the portal's content view. Care must be taken to make sure that the compiled dataset is drawing from a coherent set of reports. Future research must also take into account that between versions the numerical designation for credits and sub-credits may change. For example, in Innovation Credits, IN-2 is *NSSE Sustainability Education Consortium* in STARS 2.1, Anchor Institution Network in STARS 2.2 and did not exist at all in previous versions. It should be noted that, at the time of this research, previous versions of an institution's reports are available if accessed within the portal through the participant option (view by school) rather than content option (view by credit).

4.2.1 Tools for Making Maps of Activities and Networks in Campus Foodscapes

Following the analysis of STARS data and the development of key categories and themes it became apparent that it would be beneficial to

²² Major revisions are designated with version changes, i.e. 2.1, 2.2 etc. Updated resources and a new technical manual are also released with version changes.

represent the information visually. Initially this process involved sketching out ideas by hand to see the relationships between different groups of data and how they might best fit together.

In the process of developing visual representations several different methods were tested, as represented in miniature in Figure 4-3, below. This is an illustration of the process only and the final maps are included in the visual section accompanying this chapter. Initially trialled graphs and figures included a sunburst map, and mind map models were tested with software specific to the task. However, these tools presented two disadvantages. Using these tools, the model, once made, was static and therefore would have to be republished every time any new data was added, or any new categories refined. This also means that it would not be possible to develop the maps in a way that would allow other parties to easily contribute to the dataset over time.

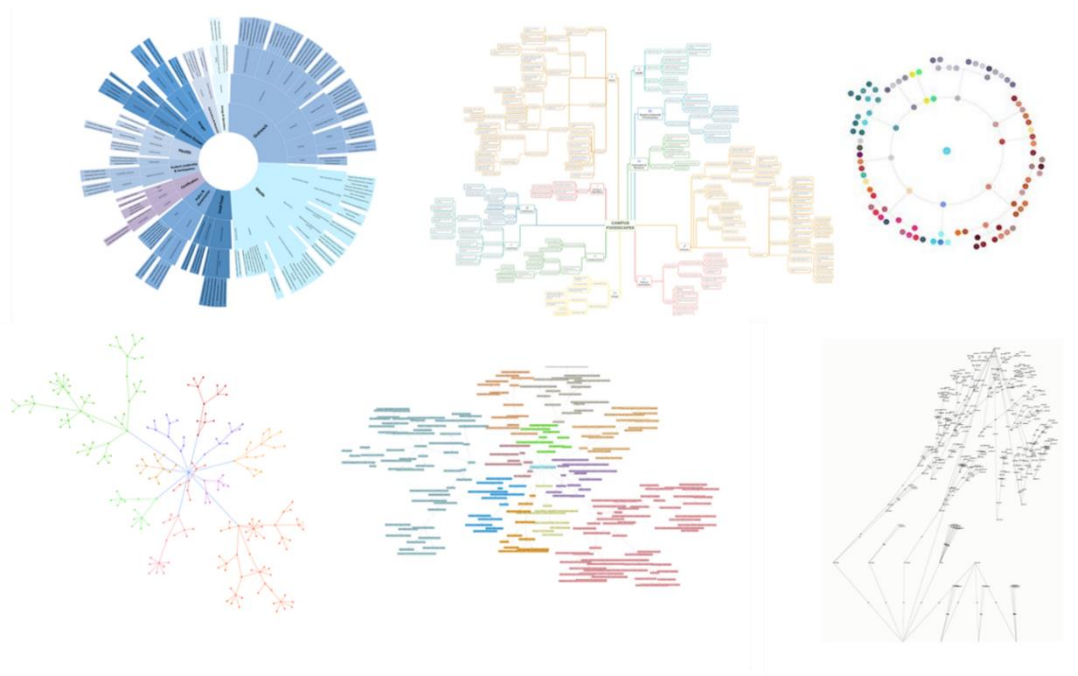


Figure 4-3: Trialled and discarded mapping methods: Top, L-R - Sunburst graph made with Microsoft Office; mind maps made with Mindly and MindNode. Bottom, L-R: Two network maps made with R; Initial unsuccessful attempt at map in Kumu

The next option tried was programming the data using *R*, a programming language widely used for statistical functions and creation of graphics. This produced some workable maps (see Figure 4-3, first two images, bottom row). However, the barrier to entry in learning the coding language was very high and time consuming. Although some graphics were produced, there were presentational issues that would have required further and prohibitively time-consuming education in the coding language. Further, this barrier to entry – and the need to download specialised programs – would have reduced the accessibility and replicability of these research methods for any further studies and for other researchers not comfortable with programming code.

Therefore, a third option, Kumu, was used. Kumu,²³ is an online platform dedicated to user-generated visualisations of complex datasets and can be used for mapping stakeholders, systems mapping to better understand complex problems, social network and community asset mapping, concept mapping and for some geographical map-based functions. Data and maps made in Kumu are hosted inside the platform's online ecosystem and are then accessible from any device with an internet connection. Further, all data projects can be made collaboratively. These features make it a good choice for this research, and similar projects undertaken in the future.

Kumu has been used in a number of research projects including mapping use of information technology by rural South African teachers (Mwapwele et al., 2019), the use of data interventions by governments to influence civic life (Arena & Li, 2018), support services available to young children and their families (Gopal & Clarke, 2015) and mapping of assets and market monitoring for food

²³ <https://kumu.io/>

security in Uganda (Blair et al., 2021; Gralla, 2021). Hamm (2021) champions the utility of Kumu, citing its flexibility and ability to scale up and down, providing multiple viewpoints into complex systems. They suggest this allows for insight into the relationships and interactions between ‘things, ideas, processes and relationships’ (2021: 114).

Through this process a wealth of data is utilised, interpreted and displayed. Gralla (2021) puts forward three suggestions to produce readable and meaningful visualisations in Kumu. Firstly, mapping requires abstraction. Rather than mapping every instance of a phenomena it may be more useful to nominate a more abstract and inclusive category. For example, in the case of a program by dining services to promote plant-based dining it would be possible to include ‘serves Beyond Meat in dining services,’ ‘serves Impossible Burger in dining services’ and ‘serves Quorn-based meatballs in dining services.’ However, it may be more expedient to group these into ‘dining services serves a range of alternative proteins to encourage plant-based meal choices.’ Secondly, Gralla suggests that no map can be exhaustive. It is not possible to map all activities and interactions in complex systems and therefore this should not be the goal. Researchers must make a conscious decision about what limits – for example, temporal, spatial, conceptual, and/or the length of the research timeframe – will inform the mapping process and rely on these parameters as boundaries to data collection and input. Finally, complex systems are dynamic and necessarily change over time, in some cases rapidly. Together these suggestions frame these kinds of visualisations as helpful models representative of systems subject to change, not as a definitive or static representation of concepts or phenomena.

Although there is a learning curve for using the Kumu platform to create visualisation there is a large repository of well-indexed help articles, example projects and videos to assist new users.²⁴ Kumu is based on architecture which utilises a CSS-based coding language²⁵ to customise the appearance of maps. Users first select which type of visualisation they would like to make and then data must be uploaded in a specifically formatted spreadsheet. Once the data is uploaded there are two options to customise visualisations: ‘basic editor’ and ‘advanced editor.’ The first requires no code and all changes can be made through the available controls, while the second allows greater range and flexibility through specifying requirements using coding language.

The data developed from desktop research was formatted within the requirements of the software and uploaded into Kumu using the inbuilt ‘Stakeholder Template.’ This template is suitable for illustrating networks and stakeholders, ecosystem mapping, power maps and mapping resources within a site or community.²⁶ Through an adaptive process of trial and error a

²⁴ In contrast, the education ecosystem surrounding R is mostly resourced by data scientists and statisticians and is often communicated with a high-level of assumed knowledge, advanced mathematical capabilities and uses a lot of jargon. It is a more established and widely used coding language, however, as it has much broader possible applications it is more difficult to find specific help for niche uses and is less friendly for beginners. Kumu reference documents are available via <https://docs.kumu.io/>

²⁵ CSS stands for Cascading Style Sheets, a coding language used ubiquitously throughout the internet. It is used to specify the appearance, including style and layout etc, of digital documents. It is used in conjunction with *mark up* languages such as HTML. It is a rule-based language with relatively simple syntax based on plain English inputs. While Kumu has a limited number of specific property references (lines of code that *will* work in the coding inputs), it is largely based on standard CSS syntax. There is a wide array of guides and instructions available for CSS properties, for example: www.w3schools.com/css/css_intro.asp

²⁶ The platform offers a variety of templates depending on users’ requirements: Systems template, Causal loop template, Stakeholder template, Big Data Template, Stock and Flow template, Geo template, Systems Leverage template and a Custom template.

schematic was developed to format the data to make it as easy as possible to read.²⁷

Before uploading data to Kumu, spreadsheets were parsed through the data-cleaning application OpenRefine.²⁸ The purpose of this tool is to eliminate inconsistencies and duplications in data. The tool achieves this by grouping likely matches and reconciling them into a single unit, for example grouping entries *Johnson & Johnson*, *Johnson and Johnson* and *Johnson + Johnson* into a single unit. The tool also tidies trailing spaces, inconsistent capitalisation, and other data anomalies. Uncleaned these would be recognised by mapping programs as different units of information and mapped accordingly, potentially resulting in connections and information being duplicated or misrepresented. This step is crucial, especially in research using publicly-sourced datasets which are likely to be subject to human error in data entry and other inconsistencies..

As the visualisations were developed certain interconnections, anomalies and contradictions became evident in which case categories were further refined, the data tables amended, and the maps redrawn. Minor changes and additions can also be made within the platform, in which case it is important to export the .xls data sheet back out of the ecosystem to maintain an up-to-date record of the total dataset.

²⁷ Data can be uploaded via excel formats .xlsx or .csv files, via public or private Google sheets, or for advanced function JSON files

²⁸ <https://openrefine.org/>

Table 4-1: Example of basic data input into Kumu

Label	From	To	Category
Health	Health	Health	Health
Health outreach	Health	Health outreach	Health
Health policy	Health	Health policy	Health
Waste	Waste	Waste	Waste
Circular economy waste management	Waste	Circular economy waste management	Waste
Waste behaviour change	Waste	Waste behaviour change	Waste

The platform requires three compulsory inputs: 'label', which is the text that displays on the map to represent a single unit of information and, because the maps connect together information, the fields 'from' and 'to,' as shown in Table 4-1, above. In line with this the data was further refined to establish groups within each category, for example within the 'health' category, two subcategories included 'health outreach' and 'health policy.' Similarly, 'waste' included 'circular economy waste management' and 'waste behaviour change'. As a result, the data is formatted like this, resulting in a simple map as illustrated in Figure 4-4 below.

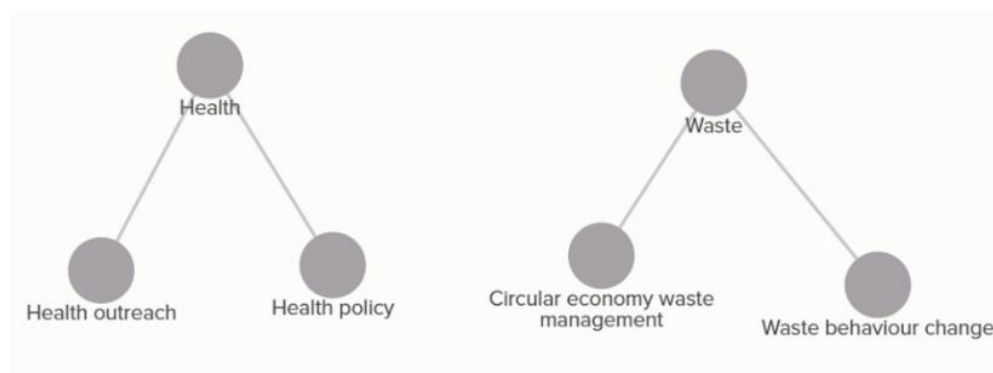


Figure 4-4 Example of a Simple Network Diagram in Kumu

This produces a very plain map with no distinguishable features between categories. For such differentiation to be possible each unit of information must be separately identified in some way. While the first three fields (label, from, to) are required by the software, additional fields can be added at the user's discretion, including those commonly used such as *Type*, *Description*, *Tags*, *ID*, *URL* – providing more detailed information for each unit. Users may also add fields as a defined value²⁹ specific to their data. In this research it was important to be able to differentiate how each unit related to campus foodscapes, and as such *Category* was changed to *Foodscape Area* as a field. Each unit was labelled with one of the eleven categories, as defined in the previous section.³⁰ This is important not only to decorate the visualisations but to create controls which may be used by future viewers to control the way in which the visualisation is presented to reveal various insights. The data also had sub-categories and units which represent an individual element of a campus foodscape. To denote this, two further fields were included, *Level* (to denote how many steps the unit was from the centre of the visualisation, descending from 6 at the centre) and *Hierarchy* – of which a unit could be a 'category node' and 'sub-category node' or an 'element node.' In total this categorisation resulted in 507 units under the activity node title. It is worth noting not all are strictly activities, some for

²⁹ In CSS (and other coding languages) a value is a part of coding syntax defined by the user – a value is 'a definite object'. So, for example if a column called 'Type' was added to your dataset and the first two 'label' entries were *cat* and *dog* and you entered *feline* and *canine* in the respective 'type' fields you can then use this text to select the designated category. I.e. to change all *canine* entries to the colour red you would use your defined value: `element["Type"= "canine"]{ color: red`

Note: all syntax is case sensitive, so each use of your value must exactly match the way it was defined in the original dataset. If the case of the text does not match it will break the code and not apply the desired settings. All coding in Kumu only works with US spelling.

³⁰ Basic Needs, Certification, Curriculum & Research, Dining Services Programs & Activities, Health, Institutional & Community Partnerships, Policy & Governance, Producing Food on Campus, Student Leadership & Participation, Supporting Local Food, and Waste.

example, relate to infrastructure or policies – however the group can be understood as identifying 507 individual elements within campus foodscapes.

Table 4-2: Categorized example of Kumu input data

Label	From	To	Foodscape Area	Level	Hierarchy
Health	Health	Health	Health	5	Category-Node
Health outreach	Health	Health outreach	Health	4	Sub-Category Node
Health policy	Health	Health policy	Health	4	Sub-Category Node
Waste	Waste	Waste	Waste	5	Category Node
Circular economy waste management	Waste	Circular economy waste management	Waste	4	Sub-Category Node
Composting	Circular economy waste management	Composting	Waste	4	Sub-Category Node
Pre-consumer composting	Composting	Pre-consumer composting	Waste	3	Element Node
Post-consumer composting	Composting	Post-consumer composting	Waste	3	Element Node
Waste behaviour change	Waste	Waste behaviour change	Waste	4	Sub-Category Node
Waste nudging strategies	Waste behaviour change	Waste nudging strategies	Waste	4	Sub-Category Node
Trayless dining	Waste nudging strategies	Trayless dining	Waste	3	Element Node

To demonstrate the process of differentiation Table 4-2, above, presents an example of selected of units from multiple levels across the hierarchy of the waste category, incorporating the new fields (level, hierarchy etc). With the

further options available there are now enough distinctions between each unit of information to apply code for specific formats in aid of visually differentiating various elements of the data. For example, grouping units in the same foodscape area by colour and position in the hierarchy by size, as shown in Figure 4-5, below.

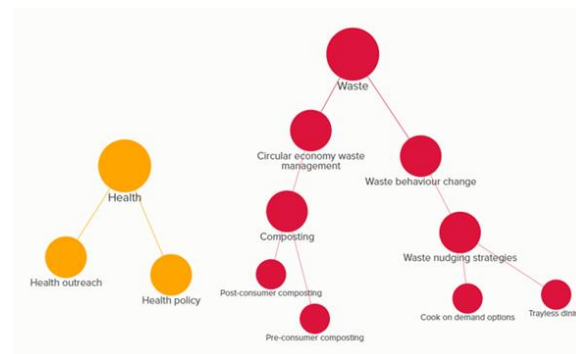


Figure 4-5: Example of basic decorations for a network map in Kumu

Once maps have been developed to the user's satisfaction, they can be published to be made publicly accessible via a stable URL. The maps can be published as is, with options to include a series of controls which allow viewers to select numerous filtering options. Maps may also be incorporated into a dynamic presentation format to allow the data to be shown with narrative overlays to draw attention to specific insights. Creators have the choice as to which viewers have permission to view or edit the maps.³¹ The publishing functionality of the platform allows for groups to work together and to incorporate crowd-sourced information and feedback into the dataset and visualisations. This last point contributed to the choice to use this platform.

³¹ Private, non-published maps are only available via the paid function; however, all other features are available via the free version.

Although mapping was not collaborative in this iteration of this research it does leave the possibility of collaborative contributions open for future research and further development of these methodologies to better understand campus, and other institutional foodscapes. The visualisations and maps resulting from the process discussed here are presented in this chapter's accompanying visual section.

4.3 Representing Higher Education Foodscapes: What is Happening in Campus Foodscapes - activities, groups, programs, and infrastructure

As previously discussed, analysis of the STARS data resulted in the sorting of elements (activities, groups, programs and infrastructure) in campus foodscapes into twelve categories: Basic Needs, Certification, Curriculum & Research, Dining Services Programs and Activities, Food Distribution, Health, Institutional and Community Partnerships, Policy and Governance, Producing Food on Campus, Student Leadership and Participation, Supporting Local Food, and Waste. Each of these categories was further sorted into a series of hierarchical sub-categories, terminating in 'element nodes,' or the most granular unit of data describing an individual element within a campus foodscape. This structure is outlined in Table 4-3, below.

Table 4-3 Elements for Each Category in Campus Foodscape Maps

Map No.	Category	Sub-categories	Elements
2	Basic Needs	5	15
3	Certification	18	73
4	Curriculum & Research	6	35
5	Dining Services Programs & Activities	13	99
6	Food Distribution	11	85
7	Health	4	20
8	Institutional & Community Partnerships	8	41
9	Policy & Governance	4	22
10	Producing Food on Campus	7	35
11	Student Leadership & Participation	5	17
12	Supporting Local Food	3	15
13	Waste	11	50
Total Elements Identified in Campus Foodscapes			507

Categories and sub-categories were derived through a grounded theory method which refined elements until these final groupings emerged. However, within campus foodscapes, as in nearly any complex system, there are many elements which challenge an easy taxonomy. For example, activities grouped under ‘redistribution of unsold food to the community’ within the waste category (Map 13) could have as easily been nested within Basic Needs (Map 2). Although it would have been possible to map elements to multiple categories, for the sake of clarity and readability the decision was made to choose a single grouping for each element. Similarly, some elements are described quite broadly, such as ‘paid roles in campus food projects’ (see Student Leadership and Participation, Map 11), whereas other elements are more specific, for example ‘provision of land and/or staff/expertise for K-12 food education programs’ (see Institutional and Community Partnerships, Map 8). These decisions were made with a view

to pragmatism, drawing on the advice of Gralla (2021) discussed in section 4.2.1, that no map can be exhaustive, and that the author must make decisions about the appropriate level of abstraction. In the case of ‘paid roles in campus food projects’ it was decided that it would have to be described broadly, or if taken to a more granular level, would need to include the multitude of different paid positions revealed in the data – adding many more elements to the map. The former was chosen as an appropriate level of detail for the scope of this research focused on a broad summation of activities across institutions.

It is important to recognise that the aims of these maps are not quantitative, although the above numbers may be indicative of areas of high activity, they are also influenced by the type of data represented. The STARS database is primarily aimed at sustainability reporting and both the desktop data, and selection of interviewees, was developed from this dataset. As such areas like health are likely underrepresented in the map. Future research may wish to apply similar methods with generative data from a different source to create a more holistic picture of campus foodscape elements, or to add elements to the existing maps to strengthen the the categorisations developed here.³²

The visual component of this chapter begins with quantitative insights drawn from the database developed from STARS reporting. This includes 10 charts covering 6 categories concerning campus foodscapes: Food Outlet Mix (chart 4.1.1); Local food (charts 4.2.1-2); Policy (charts 4.3.1-3); Sustainable Food Promotion (chart 4.4.1); Teaching and research (chart 4.5.1) and Waste Initiatives (4.6.1). This series of charts provides a snapshot overview of the

³² Similar methods could, for example, be applied to the American College Health Association’s Healthy Campus Framework – aligned with the Okanagan Charter- contingent on the availability of data

presence, and absence, of various elements across campuses. Each chart represents a percentage of the total sample group, numbering 306 US higher education institutions. This data contributes to the argument that there is substantial institutional thickening incampus and higher education foodscapes.

Following the charts, Maps 1-13 illustrate the elements — activities, groups, programs and infrastructure — identified in campus foodscapes. Map 1 presents a high-level overview of all categories combined and then each subsequent map (2-13) is dedicated to one particular category of campus foodscapes. Accompanying each map (with the exception of Maps 8 and 9)³³ is accompanied with further evidence to support the elements identified in the maps. This takes two forms: the left-hand side of the page contains examples derived from STARS reporting. These have been anonymised as many similar examples were identified at multiple campuses, however, each example is referenced to its source by noting the governance, study-body size and location (i.e., rural, small, metropolitan). The right-hand side of the page includes relevant examples in the format of photographs collected during fieldwork accompanied by brief explanatory captions. Combined this evidence demonstrates the wealth and diversity of activity, programming, policy and infrastructure in campus foodscapes.

³³ As these are less tangible elements of campus foodscapes they were not recorded via the collection of photographs during fieldwork.

4.4 Representing Higher Education Foodscapes: Who works in and around Campus Foodscapes - Key Stakeholders in Higher Education Foodscapes

Existing research in higher education and food has tended to focus on particular institutions, particular aspects of campus foodscapes, or, on specific stakeholders and/or programs. The UC Berkeley: Foodscape Mapping Project conducted a collaborative mapping of the Berkeley campus, documenting stakeholders from academic and operational departments as well as student government and student programs (Fanshel & Iles, 2020, 2022; Fanshel et al., 2018). Research concerning particular organisations includes, research on the Teaching Kitchen Collaborative which integrates cooking skills into health and nutrition curricula (Eisenberg & Imamura, 2020; Hauser, 2020; Matias et al., 2021a, 2021b). There has been region-specific research on procurement and the role of Farm to Institution New England (Cunningham, 2022; Farm to Institution New England, 2017; Ruhf, 2015). Other research has looked at student-led initiatives including the Real Food Challenge (Green & Asinjo, 2015; Hill, 2016; Hull, 2018; Kington, 2015; Porter, 2015) and food recovery and relief organisations such as the Food Recovery Network and Swipe Out Hunger (Frank et al., 2021; Novak & Johnson; Weymes & Davies, 2018). However, there has as yet been no systematic attempt at documenting the complex ecosystem of stakeholders who interact with, and exert influence on, campus foodscapes and the higher education foodscape as a whole system. This reflects the assessment of Luxton and Sbicca (2021) who found that existing research is targeted at

individual participation in social movements and their associated organisations yet there is little systematic mapping of inter-organisational collaboration.

There are many organisations that interact with the higher education foodscape including those with a specific focus on food, those with a specific focus on higher education and those with a specific focus on food in higher education. There are also a number of organisations who operate with a broader remit but intersect with students, academics, supply chains and campus infrastructure and therefore interlink with various campus foodscape networks. Maps 14 and 15 illustrate two different arrangements of stakeholders across the higher education foodscape. The first, Map 14, 'Stakeholders in US Higher Education Foodscapes' illustrates a range of stakeholders categorised by the types of organisations and mechanisms that define each group, including professional associations, issues-based networks, research institutes and mechanisms such as conferences and pledges and commitments.

The second of these maps, Map 15, 'Food and Sustainability in Higher Education: Communities of Practice Across Scales' shows organisations which operate as communities of practice, which connect together practitioners working in specific areas. This map is organised by scale, starting at networks formed between campuses within internal university systems.³⁴ It then shows regional and state-based communities of practice, moving up to national and international communities of practice. The area of concern of each of these networks is indicated with a colour code. This map provides evidence of the

³⁴ This relates to university systems whereby one institution comprises a number of individually administered, regional campuses and at times healthcare operations. This is particularly common in state university systems in the US. For example, the University of California comprises 10 campuses; the University of North Carolina comprises sixteen campuses; and the University of Texas comprising 8 universities and 5 health institutions.

many organisations working to join up practitioners in, and across, campus foodscapes and that these connections are happening at every scale from the local to international.

4.4.1 Key Organisations in the US Higher Education Foodscape

Four organisations are key amongst activities in higher education foodscapes, representing a variety of approaches to transformation: Real Food Generation, Farm to Institution New England, Cool Food Pledge and Menus of Change University Research Collaborative. These organisations work across a large number of campuses, have a high output of resources targeted at practitioners in campus foodscapes, and act as conduits between campuses and vast networks of external stakeholders. The following section provides a brief overview of each of these organisations. These organisations and their networks have been illustrated in a series of maps., Map 16 presents an overview of the basic structure of all 4 organisations, while Map 17-20 show each organisations' structure and their immediate networks. Map 21 illustrates the alignment of higher education institutions, and other public institutions through membership and partnership connections to the key organisations discussed above. Map 22 shows the ways in which these organisations' respective networks intersect.

One of the major ways in which key organisations contribute to the higher education foodscape is by producing, archiving, and sharing resources including research, issue-based reports and resources for action including toolkits, case studies and tools such as reporting systems or calculators. The resource output of the aforementioned key organisations is summarised in the

visual section, following map 16.. A comprehensive list of resources including case studies, reports and toolkits is assembled in Appendix IV.

The stakeholder maps (16-22) are discussed in greater detail in Chapter 9, section 9.2. This presents analysis concerning the relationships between external organisations and campus foodscapes, and a typology of these networks and their influence on the higher education foodscape. The following section outlines a brief overview of each of the key organisations mentioned above. This is then followed by the visual component containing the charts, maps and further evidence as discussed above.

4.4.2 Real Food Generation

Real Food Generation formed in 2019 as an umbrella organisation overseeing two organisations, Real Food Challenge and Uprooted & Rising, and is aimed at supporting and developing student-run campaigns directed at transforming various elements of the higher education foodscape, including the Real Meals Campaign. Real Food Challenge (RFC) was formed in 2008, to connect student activists and other food movement stakeholders who had an interest in campus food systems and sustainability issues. Stakeholders were brought together at the 2006 Food and Society Conference over a challenge set by the Kellogg Foundation to shift US spending on fair, healthy, sustainable and affordable food from 2% to 10%. Among the respondents to the challenge members of the California Student Sustainability Coalition and the Food Project recognised the opportunity to link student activism to the potential of shifting institutional purchasing patterns and the value of a national support network (Porter, 2015).

The not-for-profit was formally launched in 2008 via five regional food summits attended by 700 students representing 200 campuses. The primary aim of the organisation is to empower campus-based, student-led groups to petition their universities to commit to shifting 20% of their food purchasing towards 'real food' by 2020, aiming to reach a collective impact of \$1 billion in redistributed expenditure. Real Food is defined as food that is local and community based, ecologically sound, fair and/or humane (Real Food Challenge, 2018). The organisation co-developed a comprehensive calculator tool with students to provide metrics for their 'Real Food Standards' allowing higher education institutions to more easily designate and source appropriate food and ingredients for campus dining operations. By 2018 82 universities and colleges had signed the commitment representing \$82 million of 'real food' purchasing annually (Real Food Challenge, 2018). Many institutions became signatories after extensive campaigns by students, supported by RFC campus chapters and the creation of campus-based Food Systems Working Groups (see for examples, Chiang, Coffin Ness, Duncan, & Towne, 2020; Laird, Glarneau, & Brown, 2014)

Real Food Challenge supports diverse activities on campus to support food systems transformation and food literacy. The presence of Real Food Chapters has been shown to foreground the creation of other campus food projects. For example, Marple (2018) attributes the creation of many campus food co-ops to the presence of RFC chapters leading to students wanting to create more opportunities for local food purchasing within their campus community. Fitch and Santo (2016) note that Real Food Challenge has enabled the development of connections between small and mid-sized farms and local

tertiary campuses. As 2020 approached marking the end-date of the organisation's primary campaign the structure was reformed, with Real Food Generation as the over-arching governance framework, and Uprooted & Rising as an organisation focused on broader campus-focused campaigns for food and environmental justice. Both organisations are framed by a mission to address racism, and the ongoing impacts of colonisation in the food system. Alongside a collective of other food systems organisations, Real Food Generation is a founding member of the Community Coalition for Real Meals, billed as 'an intergenerational, multiracial group of farmers, fishers, ranchers, activists, students, and workers calling for a transformation of the way that cafeteria food is sourced' (Community Coalition for Real Meals, 2019). The main activity of the Coalition is the Real Meals Campaign³⁵ which is specifically targeted at foodservice corporations Aramark, Compass Group and Sodexo and their practice of non-transparent deals with other corporations throughout the institutional supply chain. This issue will be addressed further in Chapter 6 which examines the impact of corporations in outsourced university dining.

³⁵ <https://www.realmealscampaign.org/>

Box 4-1: Real Food Challenge Campaign Elements

Real Food Challenge has developed a series of key elements in their effort to transform campus food procurement: The Real Food Campus Commitment, The Real Food Standards and the Real Food Calculator.

Real Food Campus Commitment

The Real Food Campus Commitment is a pledge signed by institutions committing to a target of 20% of annual food purchases meeting the Real Food Standards

Real Food Standards & Real Food Guide

The Real Food Standards defines the criteria that determines 'Real Food', as well as providing context for each issue area and how it relates to the broader food system. The standards were developed by students and advisors in 2008, with a release of version 2.0 in 2018 overseen by the Real Food Standards Council. The Real Food Guide complements the Standards and lists the third-party certifications applicable in determining Real Food. The designations of Local & Community Based; Fair; Ecologically Sound and Humane are further underpinned by the following principles:

- ♦ Prioritizing small- and mid-size farms and food businesses
- ♦ Diversified ownership and control
- ♦ Reduced distance between producers and consumers
- ♦ Traceability

Real Food Calculator

The Real Food Calculator is a tool used to track institutional food purchases. College and university students can use the tool and use the data as a starting point, and ongoing mechanism to work with dining and campus administrators to shift to better food purchases.

Impact

The Real Food Calculator has been utilised by over 1,000 students to audit their university's food purchasing. This has resulted in \$468,000,000 directed towards procuring real food at 276 HEIs across the US.

4.4.3 Farm to Institution New England

Farm to Institution New England (FINE) is an organisation facilitating a network of public and private stakeholders from six states³⁶ working together to increase local food purchasing in institutional procurement, including Farm to

³⁶ Vermont, Maine, Rhode Island, Connecticut, Massachusetts and New Hampshire

School, Farm to Campus, Farm to Health Care and Farm to Corrections. The organisation was jointly founded in 2011 by a regional committee of the National Farm to School Network and a group of agricultural commissioners from the New England region. The organisation is supported by a small team of staff and advisory councils. FINE facilitates connections across their network of stakeholders related to various institutional supply chains and organises training, events, webinars and an annual Farm to Institute Summit. The organisation acts as a knowledge broker by hosting a database of research, case studies and publications as well as producing its own resources on best practices in institutional procurement.

Alongside network-strengthening activities FINE coordinates several key programs targeting particular aspects of institutional foodscapes. Complementing the farm-to-institution remit is the more targeted New England Farm & Sea to Campus Network supporting university foodservice supply chains. The Network has published recipe series, hosts a ‘dining operator listserv’, and the New England Farm & Sea to Campus Data Center which allows institutions to generate and share operational data. Other focus areas and programs overseen by FINE include:

- ♦ The FINE Metrics Dashboard
- ♦ The FINE Food Service Program
- ♦ New England Local Food Processors’ community of practice (COP)
- ♦ Food Hubs research project
- ♦ FINE Food Policy Working Group and Research Database

4.4.4 Menus for Change University Research Collaborative

Menus of Change University Research Collaborative (MCURC) is a membership-based network working to leverage higher education’s research

capacity to strengthen the knowledge base on healthy and sustainable food and implement evidence-based findings in campus foodservice. The network was founded in 2015 as an offshoot of Menus of Change. The primary organisation was founded in 2002 as a collaboration between the Culinary Institute of America and the Harvard T.H. Chan School of Public Health to address health and sustainability in restaurants and general out-of-home foodservice. The Collaborative brings together academics, foodservice professional, and higher education administrations. The group conduct and distribute research and utilise campuses as living labs for research on dietary interventions. The organisation developed 24 principles which cover plant-based dining, lowering food waste and lowering portion sizes (illustrated in Figure 4-6, below). The other pillar of their theory of change is growing food literacy in university communities. University members must be from institutions with self-operated dining facilities. The group is also supported by *ex-officio* partners and research collaborators representing private companies such as Google and LinkedIn.



Figure 4-6 Menus of Change University Research
Collaborative Principles for Healthy, Sustainable Menus

A theory of change centred in behaviour change and behavioural nudges is also shared by the Cool Food Pledge. This organisation also shares strong network links to MCURC. The Cool Food Pledge is an initiative of the World Resources Institute and a network of partners and collaborators as detailed in Map 20. The Pledge asks members to commit to a 25% reduction of greenhouse gas emissions related to food service between 2015 and 2030. This is modelled on a three-step framework of ‘pledge, plan and promote.’

4.5 Conclusion

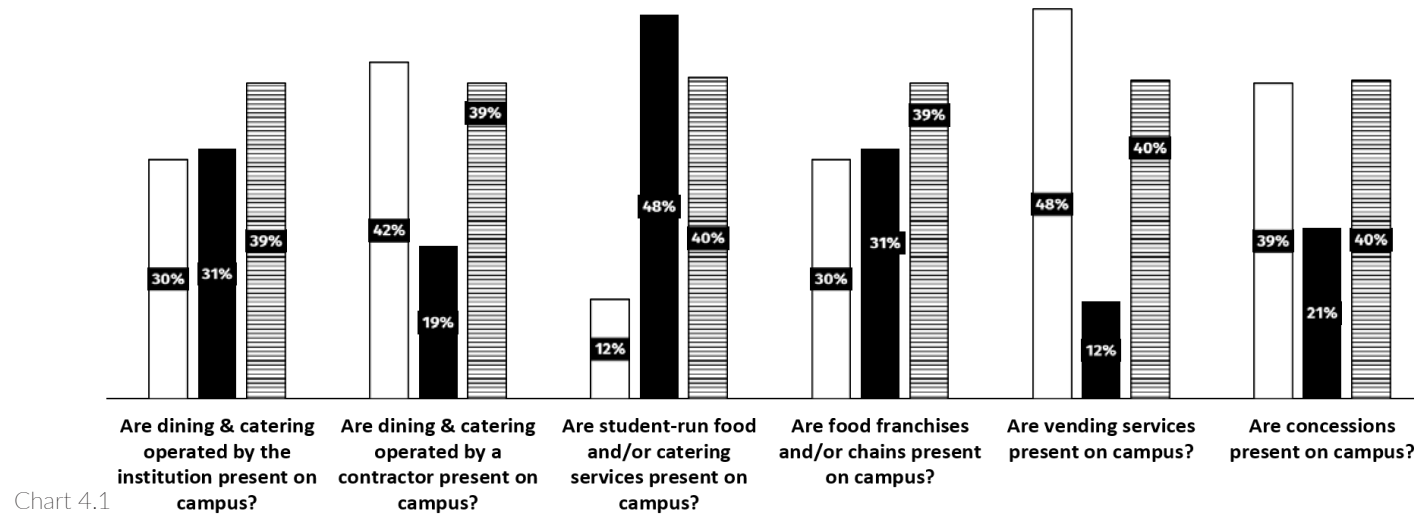
The following section includes the charts, visual material and maps outlined above. Analysis in later chapters will make use of and draw on this visual material. Keys are provided to illustrate the types of organisations that appear in the network maps. If the maps are difficult to decipher in a print format they are available via <https://kumu.io/mappingcampusfoodscapes> - the web based maps can be zoomed to gain a closer view of individual units and can be sorted by filters such as industry sector.

Mapping Campus Foodscapes: Charts, Maps and Figures

Key Insights from STARS data

n = 306

Category 1 Food Outlet Mix



Category 2 Local Food

Are ingredients served in dining services sourced from a campus garden or farm?

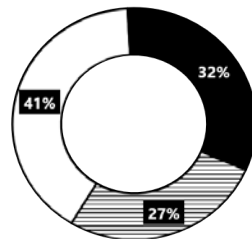


Chart 4.2

Is there a farmers market, community supported agriculture (CSA) or fishery program, and/or urban agriculture project, or support for such a program in the local community?

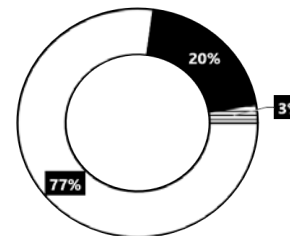


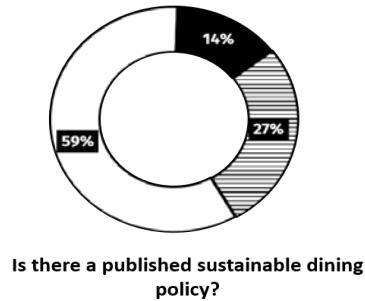
Chart 4.3

■ YES
 ■ NO
 ▨ NOT ANSWERED

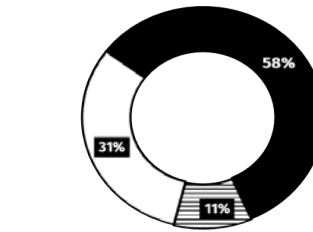
Category 3 Policy

Chart 4.4

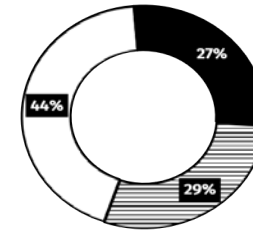
Policy



Does the institution have published sustainability criteria to be applied when evaluating non-dining services food outlets?

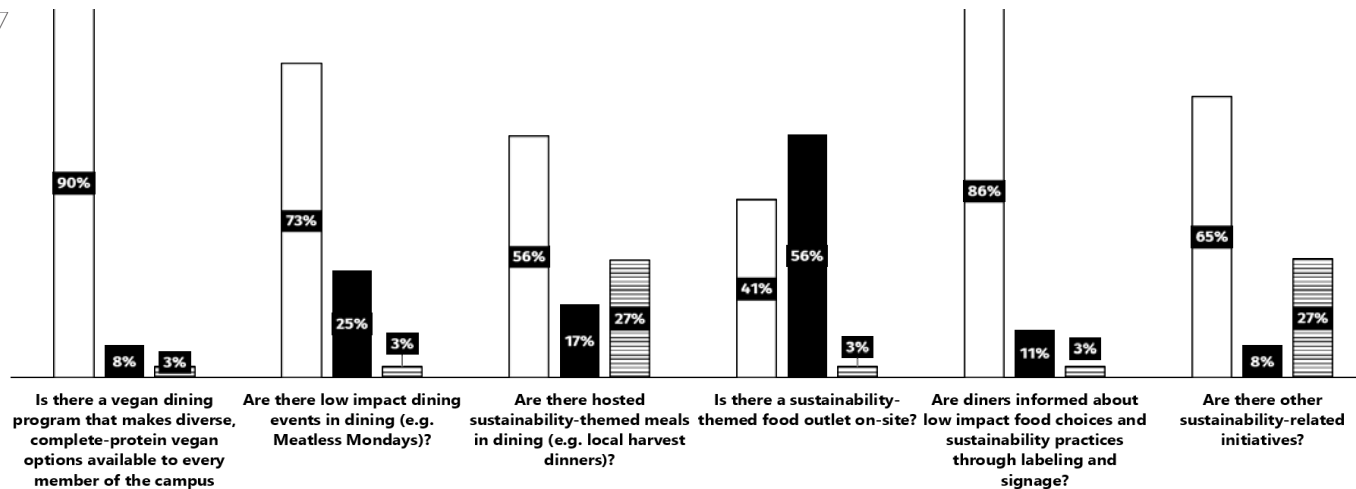


Do the sustainable food plan(s) include measurable sustainability objectives that address Food & Dining?



Category 4 Sustainable Food Promotion

Chart 4.7



Category 5 Teaching and Research

Does the institution or dining services engage in outreach efforts to support learning and research about sustainable food systems?

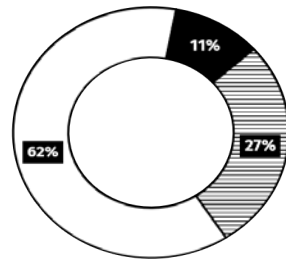


Chart 4.8

Is campus used as a living laboratory for multidisciplinary student learning and applied research in relation to Food & Dining?

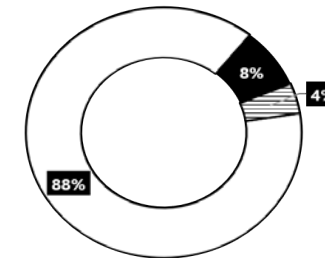
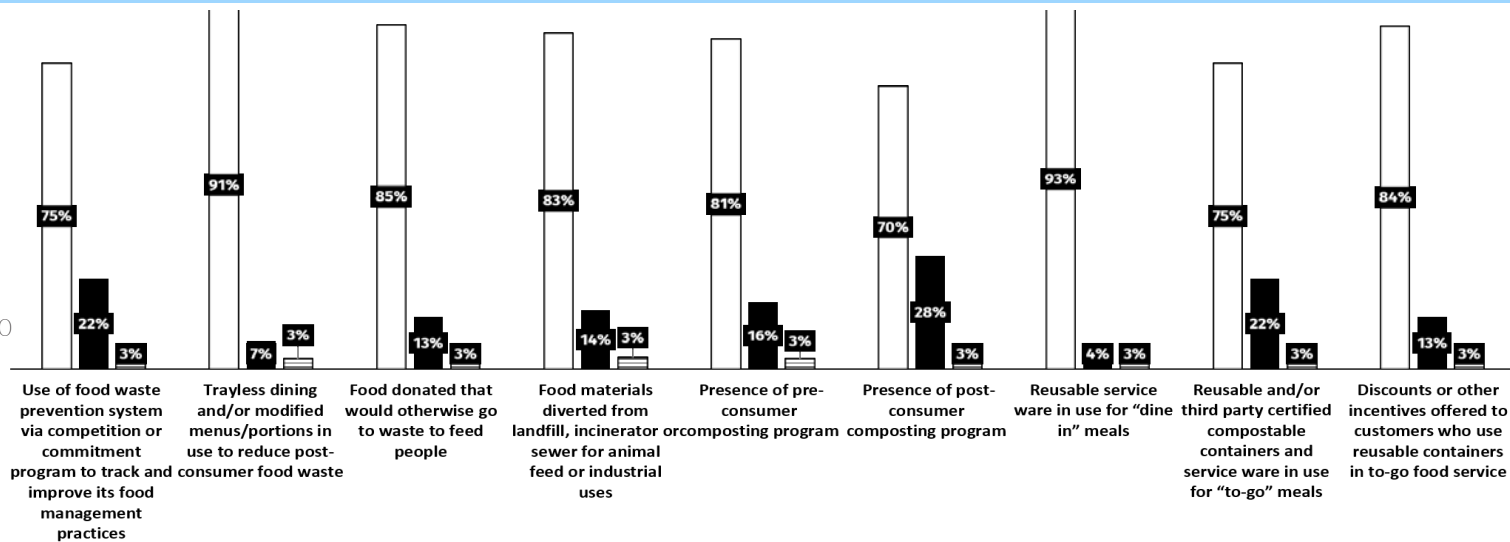


Chart 4.9

Category 6 Waste Initiatives

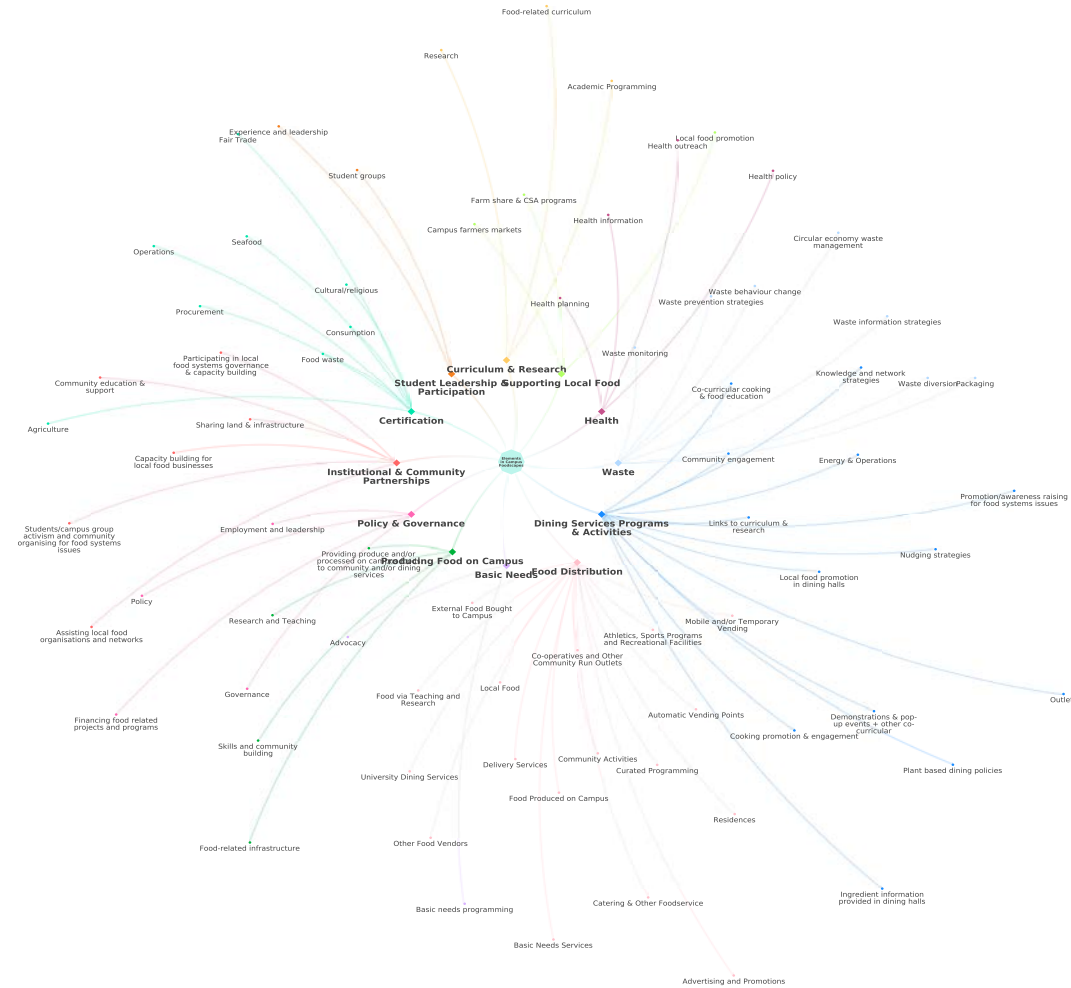
Chart 4.10



Elements of Campus Foodscapes



Map 1 Overview of Elements in Campus Foodscapes



Map 2 Basic Needs

Systems approach to food insecurity

Public • Mid-size city • 30,001-40,000

The institution has developed a systemic approach to dealing with issues around food security. Within dining halls students experiencing food insecurity may apply for 75 free meal swipes per semester, as well as make use of an on-campus food pantry. Food leftover from events is donated to local hunger relief agencies. However, a gap emerged when stakeholders realised that only unserved food could be donated. A working group formed, including students, student government, health and safety representatives, dining staff, housing representatives and sustainability program leaders. One of the ongoing issues was the university's liability in distributing already-served food. In response the working group trialled a policy and project solution in which a web-based system notifies users of available food and pick up location, in return participants and signed a waiver of liability. Food is collected by students with their own reusable containers. The trial was successful and has now been implemented permanently across campus – helping students facing food insecurity and reducing food waste from on-campus events.

Basic Needs | Policy & Governance | Student Leadership & Participation

Student basic needs hub

Public Mid-sized • City • 30,001-40,000

A basic needs hub supplies students in need with staple foods, fresh fruits and vegetables, chilled and frozen items as well as basic toiletries at no cost. The program aims to address student attrition caused by cost of living pressure. The project was initiated by students and is now supported by the institution in a dedicated space and with funding resources.

Basic Needs | Policy & Governance | Student Leadership & Participation



Figure 4.2-1



Figure 4.2-2



Figure 4.2-3



Figure 4.2-4



Figure 4.2-5

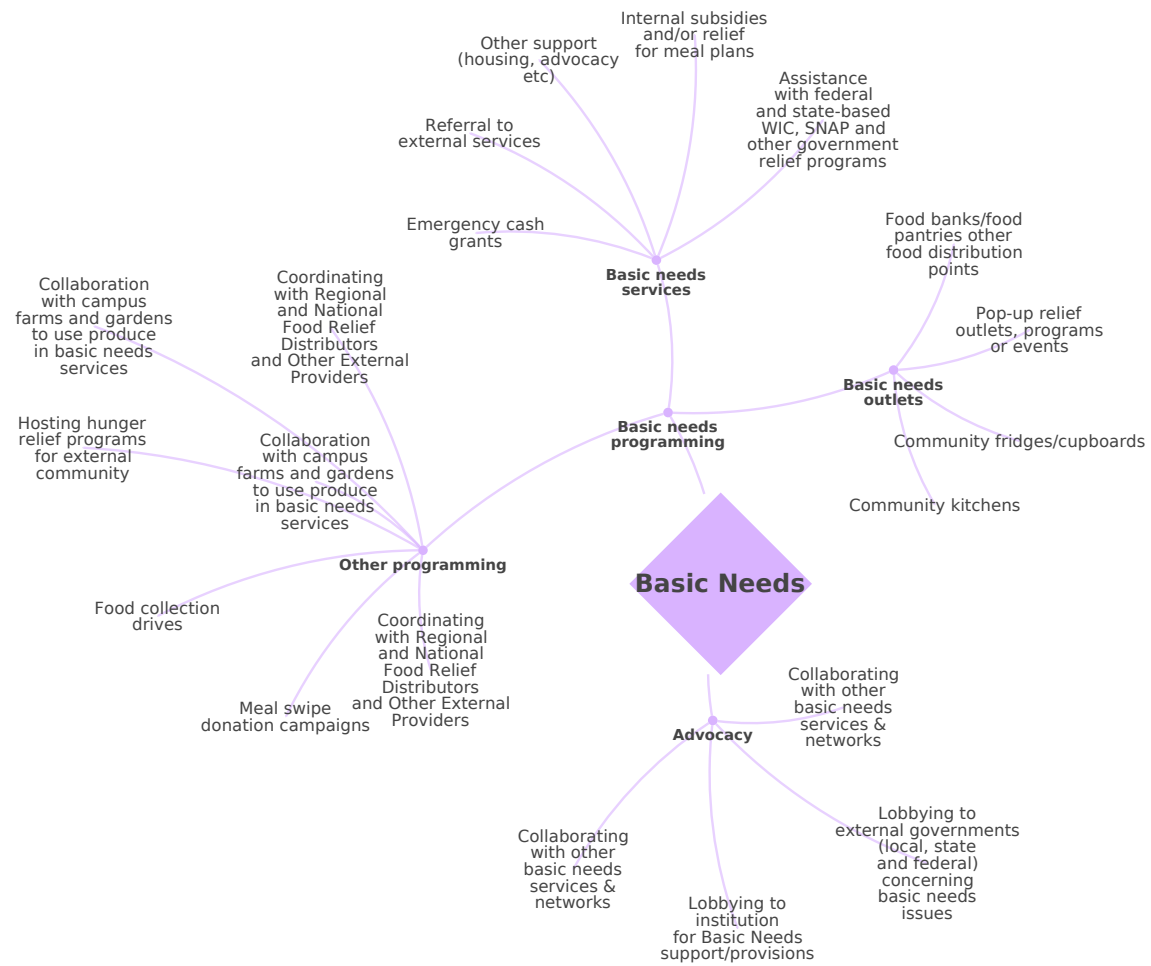


Figure 4.2-6



Figure 4.2-7

Figures L-R: Poster promoting financial counselling services displayed at university food bank • Poster promoting cooking skills classes displayed at university food pantry • Staff member pointing out photographs of activities undertaken by student volunteers displayed at university food bank • Sign outside university basic needs hub advertising help available for state-based EBT (government food support) in English and Spanish • A student volunteer stacking new items on grocery-store style shelves at a university food bank • A group of volunteer university staff volunteer to package up leftover lunch food from campus dining to redistribute to a local food relief service • Handwritten sign seeking community feedback on Halal meals taken at university food pantry



Map 3 Certification

Certification to Support Local Purchasing

Public Private Non-profit • Rural • 501-2,500

University worked with certification body to become a *Gulf of Maine Responsibly Harvested Champion*. 100% of the white fish they purchase is Gulf of Maine Responsibly Harvested, meaning that the seafood is traceable to fishing communities in the Gulf of Maine region and meets important criteria around responsible harvest.

Certification | Supporting Local Food

Certification to Support Local & Sustainable Purchasing

Public • Large Town • 30,001-40,000

The university signed the Real Food Campus Commitment in 2013 and has worked to increase local and sustainable purchasing as defined by the Real Food Calculator. Currently it is estimated that more than 30% of produce is sourced from local and regional small-scale farms, including 100% of all milk purchases. Dining services also procures free range poultry, organic free-range eggs and organic and fair-trade coffee. Purchasing is supported by a local supplier who works to aggregate produce from approximately 20 local farms. In the dining halls signage alerts students to various sustainability attributes as well as signage for nutrition information and plant-based meals. Seafood is third-party certified and dining services have made an effort to increase purchases of fish that are under-utilised and often discarded as a result. These efforts are supported by a number of education and outreach events throughout the year. Dining services work with stakeholders through initiatives for student and staff feedback, students employed to support monitoring and evaluation of real food challenge goals, and a food systems working group. Dining services shares their methods through multiple, freely available resources as well as conferences and events with other institutions to support the uptake of similar initiatives throughout other institutional foodservice operations.

Certification | Dining Services Programs & Activities | Supporting Local Food | Policy & Governance



Figure 4.3-1

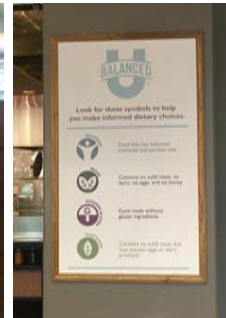


Figure 4.3-2



Figure 4.3-3



Figure 4.3-4



Figure 4.3-5



Figure 4.3-6

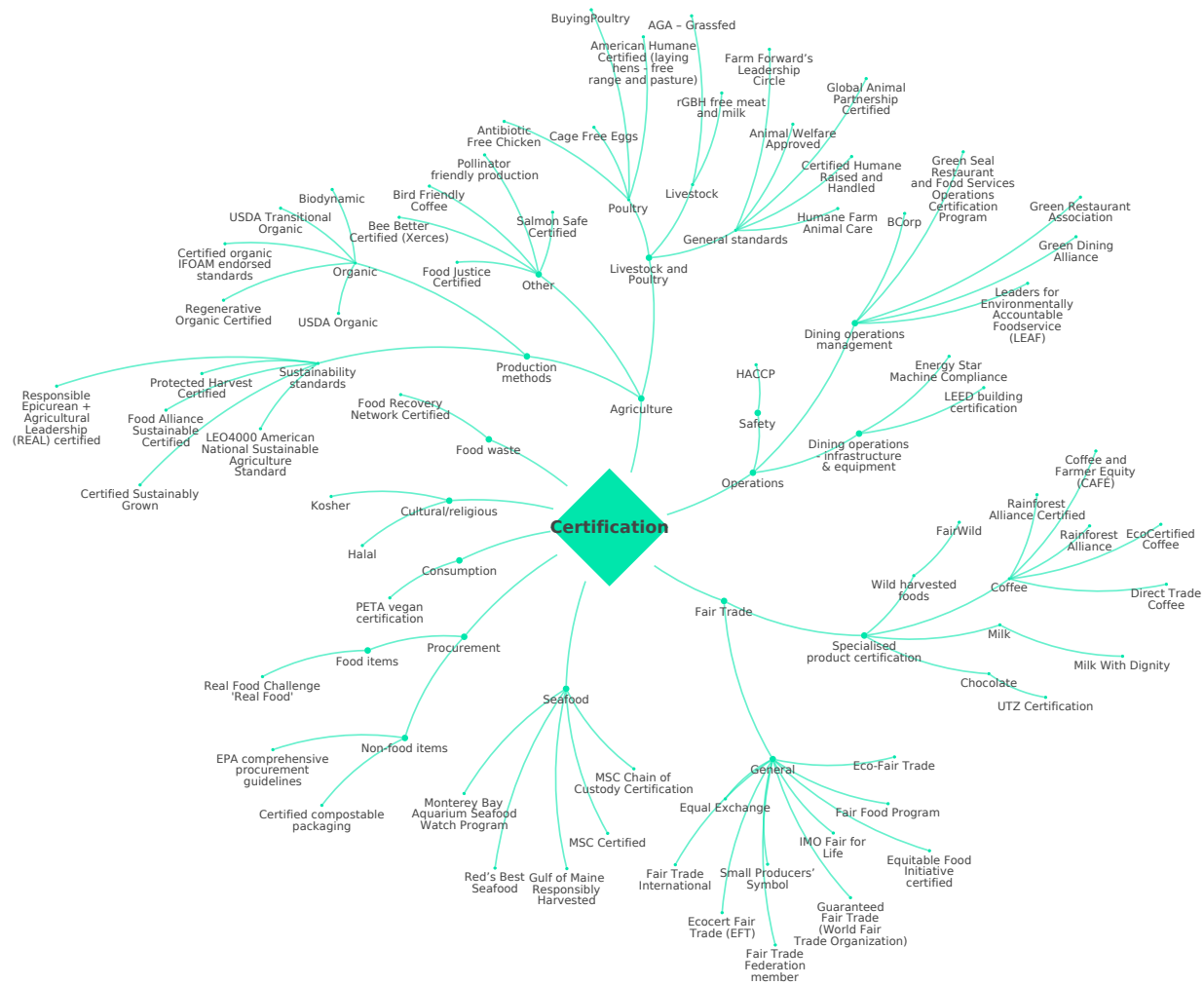


Figure 4.3-7



Figure 4.3-8

Figures L-R: Signage in a campus dining hall demonstrates the meaning of different symbols displayed with menu items - including local food, healthier choices and Seafood Watch certified. Signage developed by dining contractor in a campus dining hall demonstrates the meaning of different symbols displayed with menu items. Large graphic signage on dining hall walls displays a variety of values met by foodservice, this sign demonstrates use of Seafood Watch certified seafood. Large graphic signage on dining hall walls displays a variety of values met by foodservice, this sign outlines total purchases of reduced antibiotic poultry and rBGH dairy, cage-free eggs, sustainable seafood and fair-trade coffee. A certification symbol developed by the university's health and wellness department to certify on-campus vendors as meeting the requirements for the Healthy Campus Initiative standards. Signage in a campus dining hall promotes fair trade bananas and explains the meaning of the Fairtrade symbol. Signage in an on-campus retail outlet designed to promote local food denotes local, organic and sustainably grown produce. Food carts, such as this halal certified Mediterranean cuisine cart help to provide more diverse food options on an urban university campus.



Map 4 Curriculum and Research

Teaching & learning in the dining hall

Private Non-Profit • Small Town • <500

University courses have been developed in which students collaborate with dining services. In one anthropology course students work with dining staff to develop a meal of personal significance. Each meal is then scaled up to quantities to serve the entire campus community. In other students grapple with food systems issues and study their local food environment while working with kitchen and campus farm staff, local vendors, suppliers and university faculty to gain a deeper insight into processes that deliver food to student's plates. Students finalise the course by making recommendations about the campus food system to relevant staff.

Curriculum & Research | Dining Services Programs & Activities

Curriculum for Sustainable Food Systems Purchasing

Private For-Profit • Large City • 20,001-30,000

Environmental institute within the institution developed a sustainable food systems curriculum track, bringing together issues in environmental challenges, food production and food security with a systems outlook. The course is intended to enable students to become food system decision makers.

Curriculum & Research

Hands on experience supporting the community

Private Non-Profit • Mid-Size City • 501-2,500

Institution provides opportunities for students to gain experience and assist local legal service not-for-profit aimed at assisting farmworkers. The legal centre represents immigrant, migrant and seasonal farmworkers and their families with any legal issues they face.

Curriculum & Research | Community Partnerships



Figure 4.4-1



Figure 4.4-2

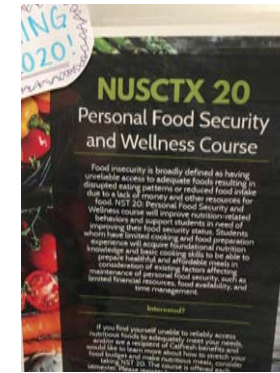


Figure 4.4-3



Figure 4.4-4

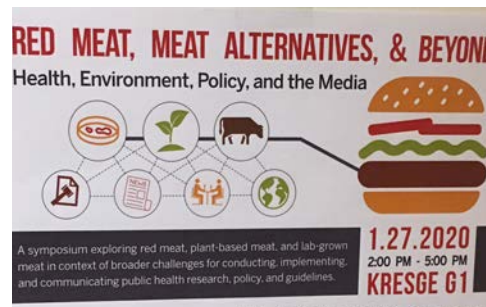


Figure 4.4-5

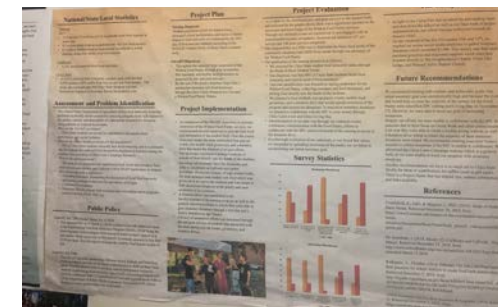
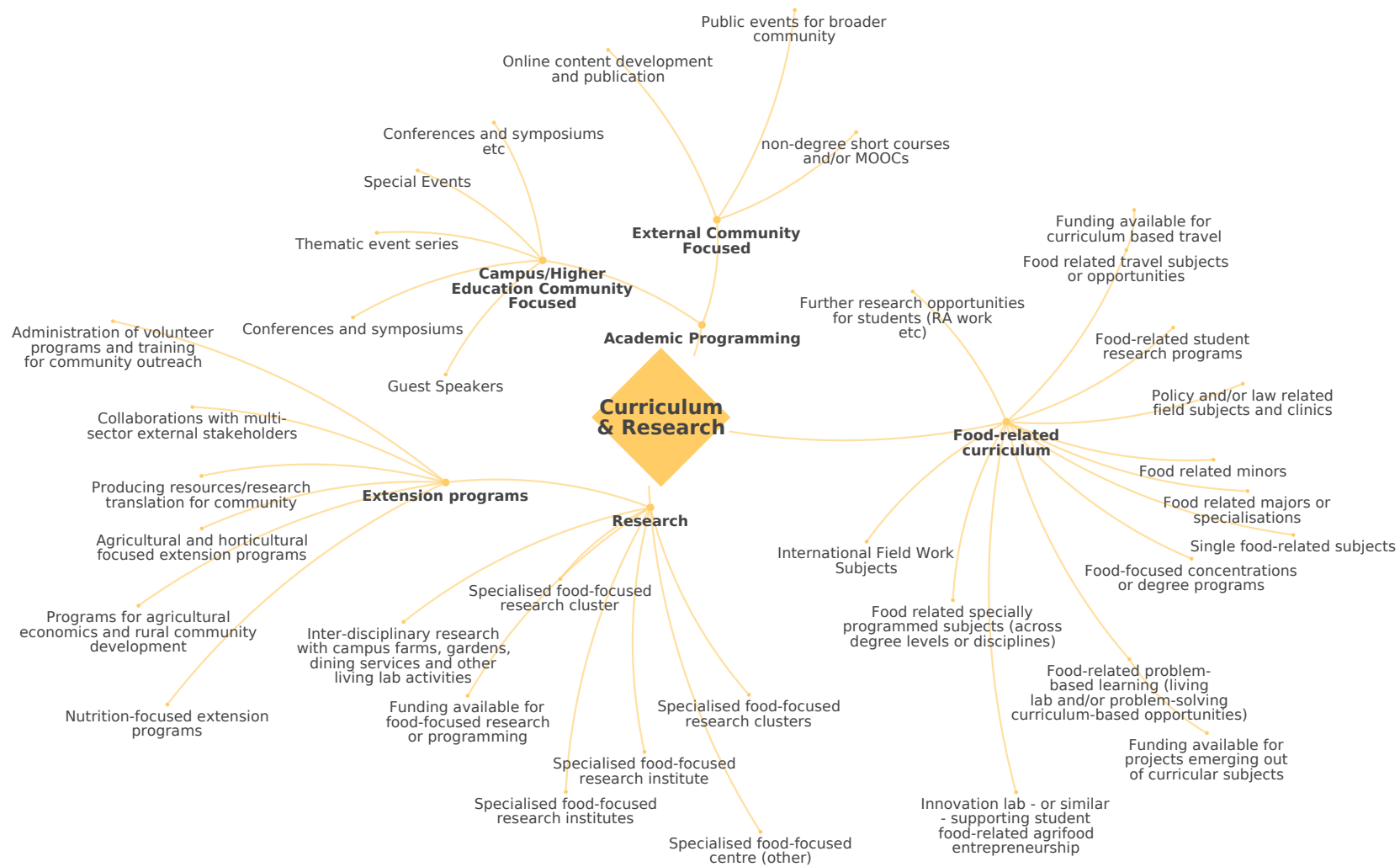


Figure 4.4-6

Figures Top, L-R: • A chef demonstrates the principles of healthy, sustainable food by doing a pop-up cooking lesson in a lecture. The class is available to enrolled students for credit, and is recorded to distribute to the broader public for free. • The vegetables in the back of the shot of the photograph were distributed to students to cook. This slide explains the homework for the course is to use the vegetables to 'Make a meal with new friends. Write about it' • A sign advertises a course to teach students about personal food security • An A-frame advertises single credit 'Adulting 101' courses available to students including Healthy Cooking 101 • Figures Bottom, L-R: A flyer advertises a symposium on red meat and alternative proteins • A research poster displayed in a campus food bank detailing a project undertaken by a group of the university's nursing students to measure awareness of the food bank's services among the university populations



Map 5 Dining Services and Other Programs and Activities

Whole Animal Purchasing Program

Public • Large city • 30,001-40,000

Dining services implemented a 'whole animal purchasing program' for beef and pork used in dining services. The program contributes to goals around local purchasing, ensures traceability to farms practicing higher-welfare and sustainable animal management with pasture raised animals, as certified by the Global Animal Partnerships animal welfare certification. It helps reduce food waste by using whole animals and has had the impact of assisting in the expansion of local infrastructure to support localised supply chains. The promise to purchase a fixed volume of whole animals also supports a stable and measurable income for local producers, reducing risk in their business model.

Dining Services Programs & Activities | Supporting Local Food | Certification

Learning in the Dining Hall

Private Non-Profit • Urban fringe of large city • 20,001-30,000

Dining services run a series of programs using dining sites as a living laboratories. Classes include a multi-disciplinary subject where students use design thinking to develop new plant-forward dishes for student meals. Teaching kitchens to integrate food knowledge into various curriculum areas. Dining services runs ten organic teaching gardens and greenhouses and hydroponic towers inside various dining sites. This work is supported by a dedicated farm-to-table coordinator and several paid student assistants. Dining services host outreach tables to test and trial novel ingredients and garner community feedback. This also offers students access to chefs, a nutritionist and sustainable food experts. Occasional events host farmers and producers, giving students a deeper understanding of where their food comes from and who produces it.

Dining Services Programs & Activities | Student Leadership & Participation | Curriculum & Research | Supporting Local Food



Figure 4.5-1



Figure 4.5-2



Figure 4.5-3



Figure 4.5-4



Figure 4.5-5

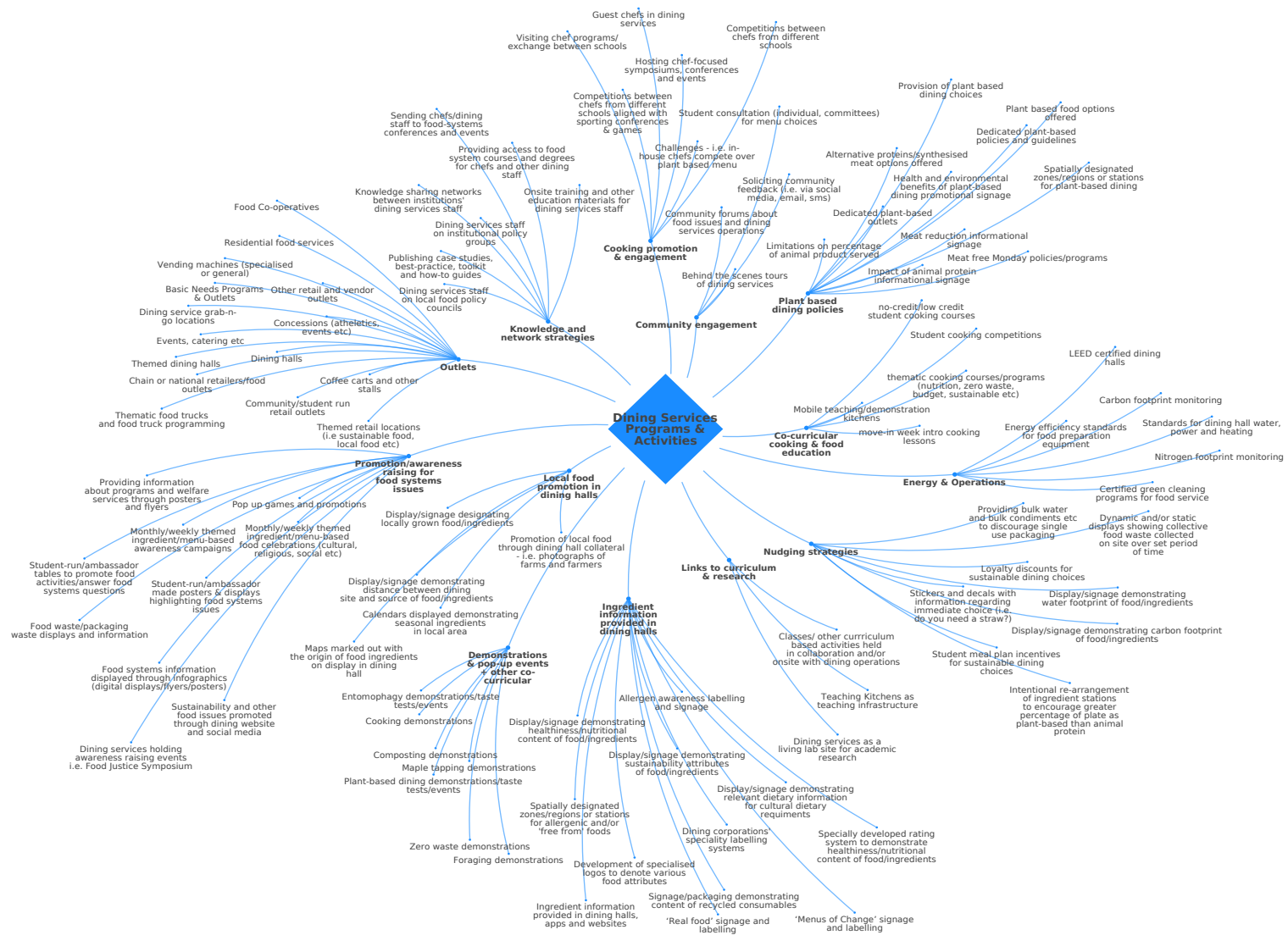


Figure 4.5-6



Figure 4.5-7

Figures L-R: An on-campus cooking program gives students skills for healthy, budget conscious food preparation • A poster made by students with a study-work position in dining services promotes issues around food waste and student hunger. It also advertises opportunities to get involved in the program • Programmed food trucks support dining services on campus • A station dedicated to trialling new cuisines and soliciting student feedback in the student dining hall • A dining services published cookbook with recipes collected from students and their families • Calendar of events displayed in campus dining hall including promotions, information about campus farmers markets and upcoming workshops and events • Educational display and signage to teach students about the campus food systems. This is one of several display windows showing permaculture sites visible from a campus dining hall. The site is pictured under midwinter heavy snowfall and the sign explains the choice of Hardy Fig tree which can withstand overwintering in extreme cold.



Map 6 Food Distribution

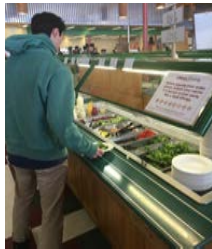


Figure 4.6-1



Figure 4.6-2

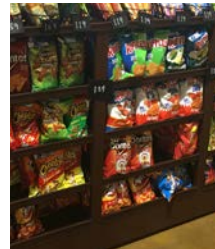


Figure 4.6-3

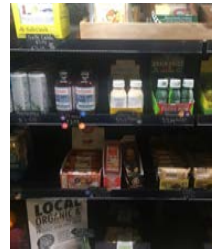


Figure 4.6-4

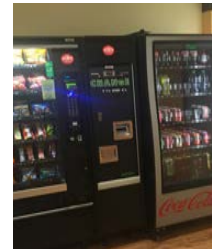


Figure 4.6-5

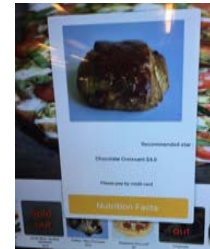


Figure 4.6-6



Figure 4.6-7



Figure 4.6-8



Figure 4.6-9



Figure 4.6-10



Figure 4.6-11

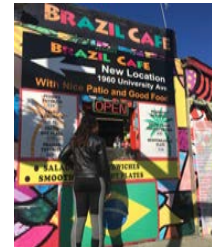


Figure 4.6-12



Figure 4.6-13



Figure 4.6-14

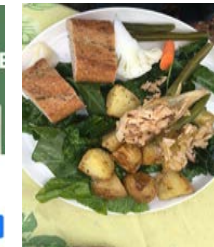
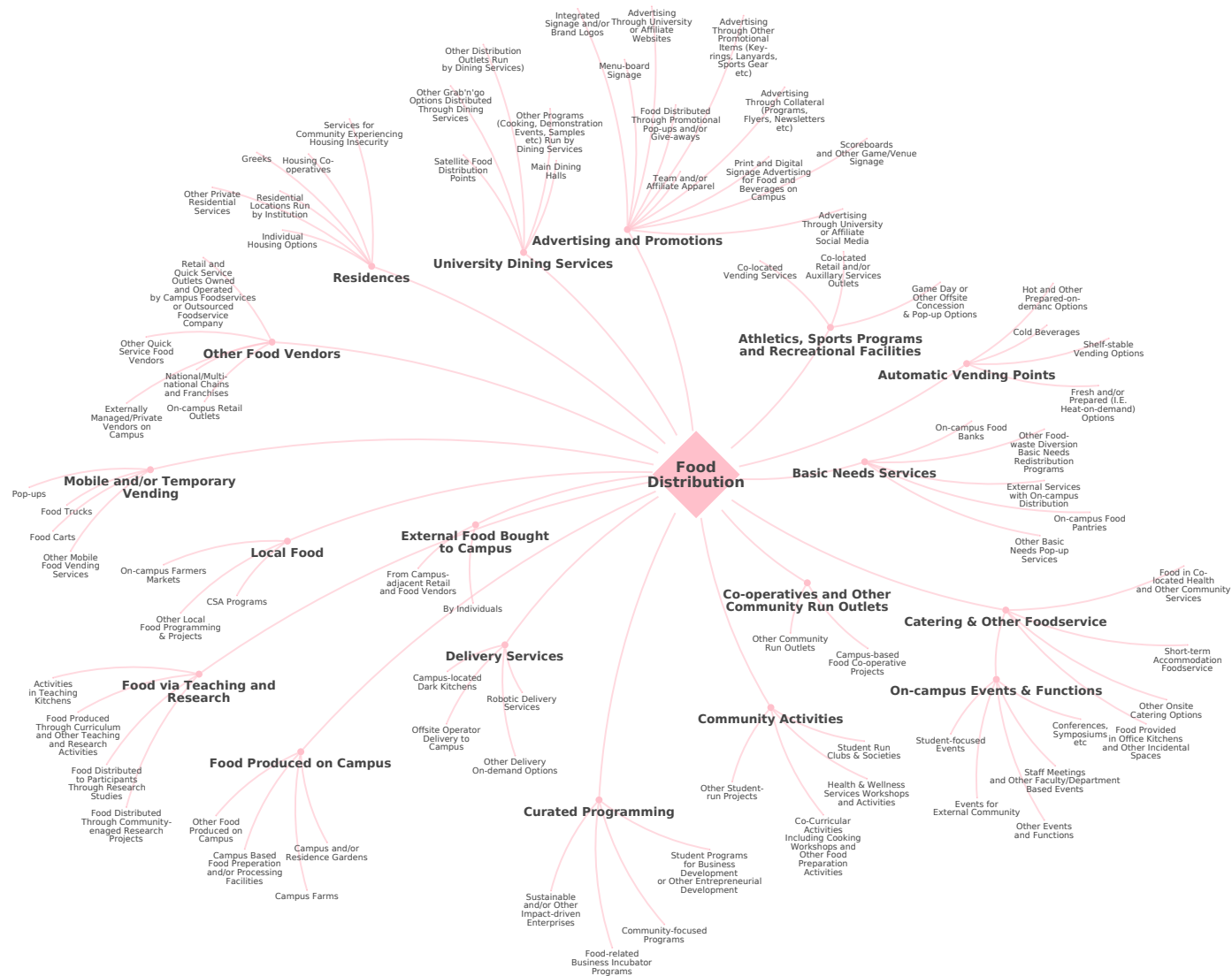


Figure 4.6-15



Figure 4.6-16

Figures, Top Row L-R: A student serves themselves lunch from a salad bar in a dining hall operated by the institution • An international quick-service-restaurant is shown here as one of the offerings in a food court at a public university • An on-campus retail store offers grab-and-go snacks for customers, at this outlet the food on offer is mostly energy-dense, nutrient poor packaged snacks • Shelves from a fridge in a campus-run store operated by the Associated Students (AS) organisation. AS manages all dining auxiliary services on campus. The Store was begun to contribute to the 20 % real food by 2020 commitment made by the university and features locally produced, healthy and sustainable grab-and-go snacks • Two vending machines side by side in a student union building, one machine offers snacks and the other Coca-Cola branded cold beverages • A display screen from an on-campus vending machine offering heat-on-demand meal options including bakery goods and pizzas • Students wait in line to order from a food truck offering co-ordinated by the self-operated auxiliary services on a public university campus • Signage explains La Cocina a program from a university's student union to incubate food businesses from low-income entrepreneurs. The participants are offered a space to run their business on campus and sell food to the campus population
Bottom row L-R: A bicycle coffee cart stationed on the edge of a university campus • University community members line up for arepas from a food cart on a university campus • A 'kiwibot' an autonomous robot offers 'last mile' delivery options for food orders from external and on-campus vendors at a university campus • A café on the street adjacent to campus is part of the food mix available to the university community • Students line up to check out with groceries from an on-campus food bank • A social media account advertises a student-run pop-up kitchen event on a university campus • A lunch plate prepared by community volunteers and served for free to participants in a community garden working bee • An evening meal prepared by students at a university housing co-operative, although separate to the university each co-op participates in a collective buying and food delivery operation and students prepare food for their own houses



Map 7 Health

Removing sugary drinks from dining halls

Private Non-profit • Mid-Sized City • 20,001-30,000
University worked with national research and advocacy group to implement policy to reduce service and consumption of sugar sweetened beverages within campus dining halls. Brand name sodas were replaced with sweetener-free sparkling water with natural flavours

Health | Dining Services Programs & Activities | Policy & Governance

Subsidising CSA shares for health promotion

Private Non-profit • Small town • 501-2,500
The institution has developed a CSA program for campus staff which covers a 50% reimbursement of the cost of their produce. To qualify for the discount participants must engage in at least two food education events. The program aims to support community food security and increase food knowledge and consumption of fresh produce across participating households. All produce is locally sourced and suppliers have reported being able to increase their capacity and grow new crop varieties as a result of the program.

Health | Basic Needs | Supporting Local Food

Healthy food through community clinics

Private Non-profit • Small town • 501-2,500
Cross campus stakeholders worked with university outreach clinics to increase community awareness of healthy foods. Two community clinics focused on diabetes and mental provide services to primarily non-English speaking community members. After using the services community members are invited to 'shop' from a market stall without paying for the produce. The produce is accompanied by recipes and the presence of fluent project assistants to chat with the community about food, health and wellness.

Health | Community Partnerships | Basic Needs | Supporting Local Food | Curriculum & Research



Figure 4.7-1



Figure 4.7-2



Figure 4.7-3



Figure 4.7-4



Figure 4.7-5



Figure 4.7-6



Figure 4.7-7

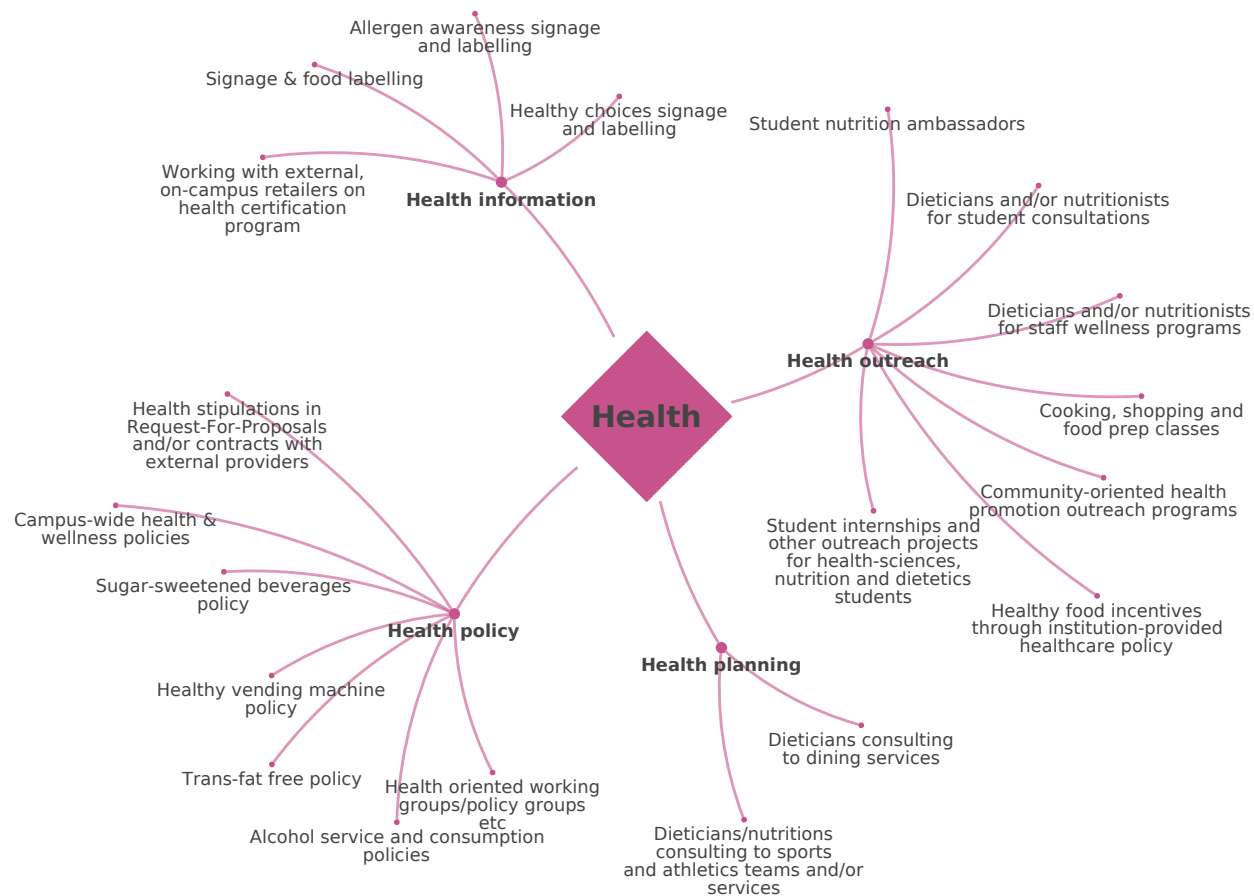


Figure 4.7-8

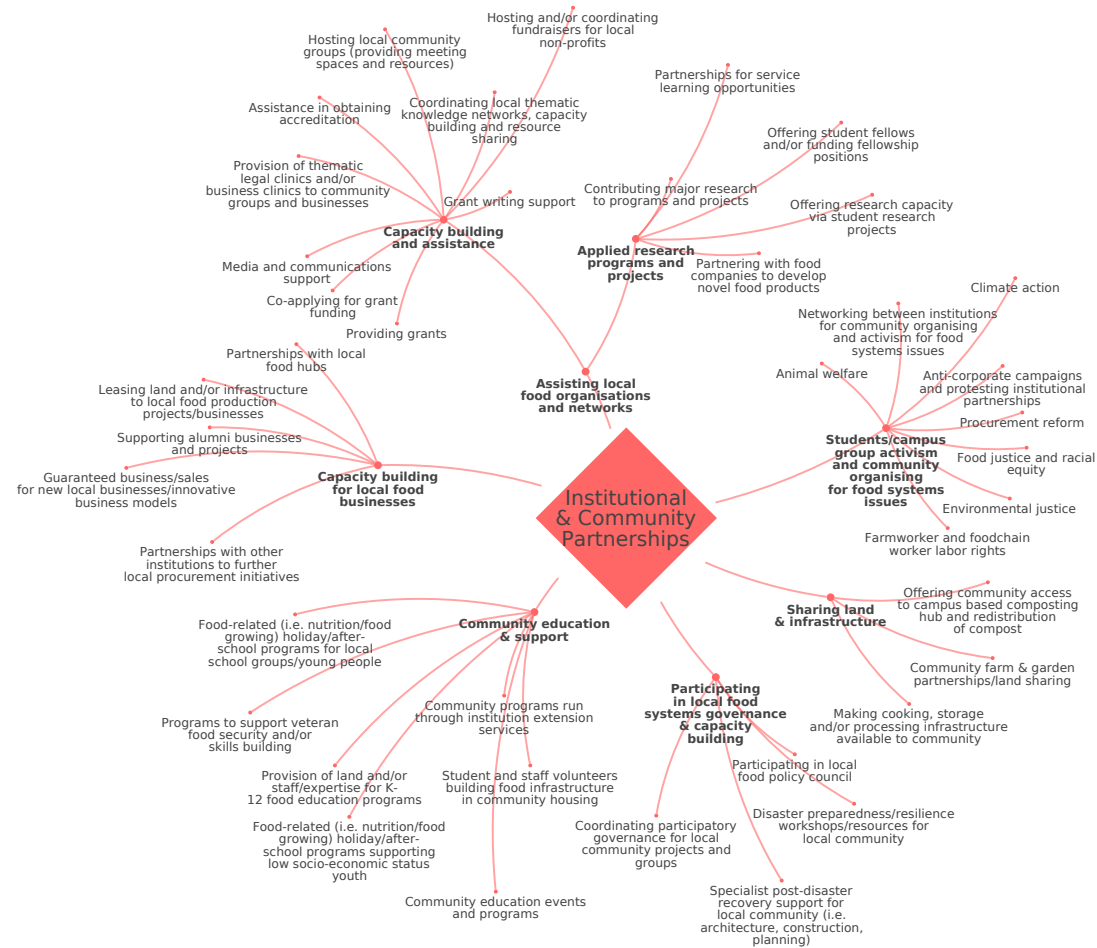


Figure 4.7-9

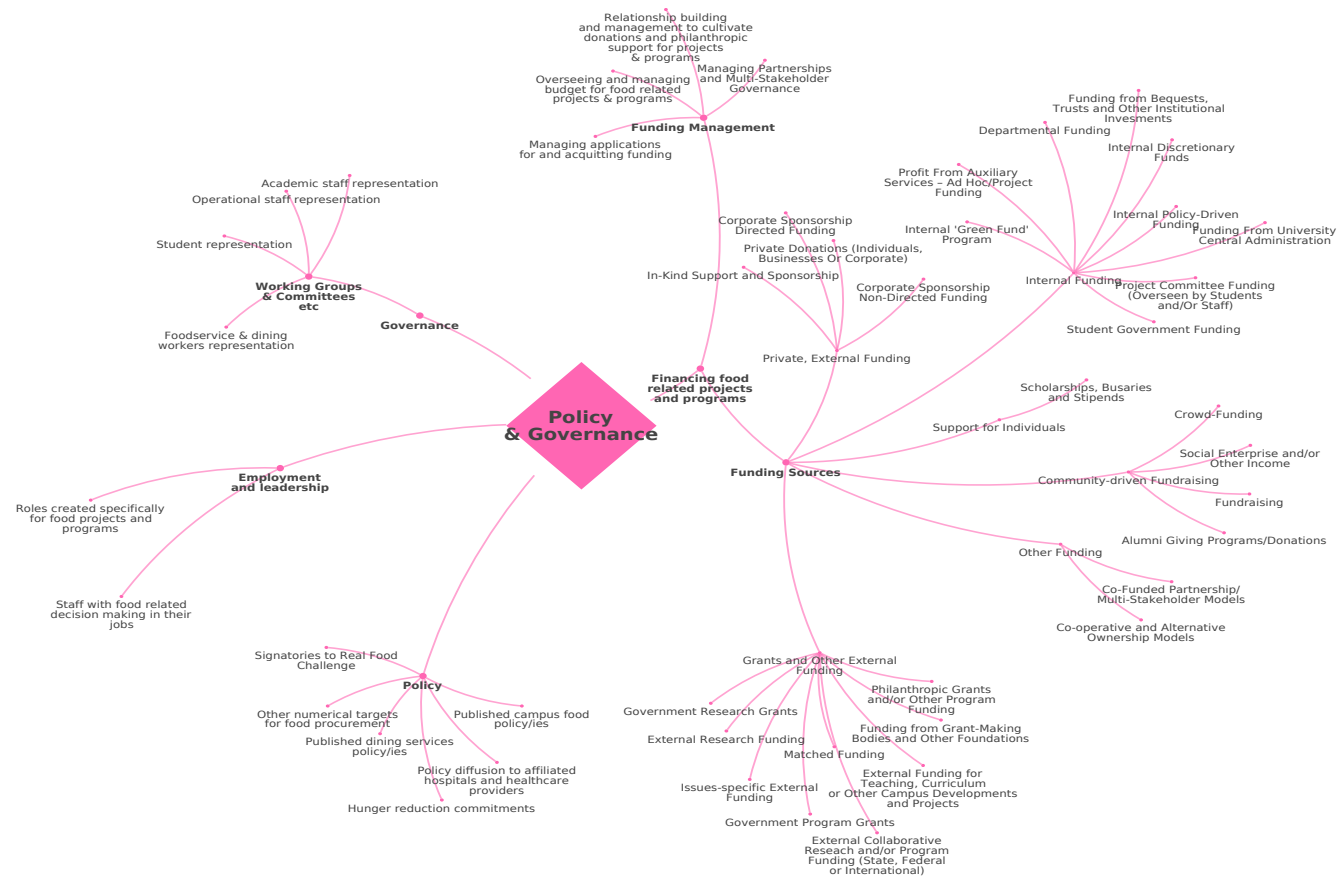
Top, figures L-R: Healthy plate tips from campus dining hall • Display at campus dining service station promoting 'eat more plants' • A campus retail shop with a range of healthy grab-and-go options • Signage displayed in campus dining hall promoting the benefits of a Mediterranean-style diet
Bottom, figures L-R: Signage in dining hall promoting healthy, plant-based food and water as lunch options • Lunch served from campus dining hall featuring majority vegetables and salad • Signage installed at campus dining meal station promoting leafy greens. Signage is part of a multi-step installation promoting various plant-forward, healthy ingredient choices • On campus retail store with a large range of energy-dense, nutrient poor snacks • On campus retail store with sponsored drinks fridge featuring school spirit signage and only large-sized sugar-sweetened beverages for sale



Map 8 Institutional and Community Partnerships



Map 9 Policy and Governance



Map 10 Producing Food on Campus

Livestock on campus

Private Non-Profit • Small town • <500

Institution acquired a small number of sheep to reside within the solar farm which provides energy to campus. The animals assisted in keeping the grass around the infrastructure in check and fertilised the soil. The sheep are managed by student farmworkers, providing skills in farm animal care. Eventually sheep are processed and their meat served in the college dining hall.

Producing Food on Campus

Campus aquaculture

Private Non-Profit • Large city • 501-2,500

The campus houses an aquaculture lab stocked with rainbow trout. The lab is used for a number of university courses and research projects as well as to host community education on aquaculture and humane harvesting of farmed fish. The trout are used on weekly based by students and then served in an on-campus café.

Producing Food on Campus | Curriculum & Research

Campus farm to dining hall

Public • Small town • 10 001-20,000

Dining services utilises a variety of campus and locally grown produce and grain. The service also purchases some of its meat from the on-campus meat laboratory. The project provides an opportunity for students to gain hands on experience with processing and profits from sales go to supporting the student-run business, their operating costs and facility maintenance.

Producing Food on Campus | Student Leadership & Participation | Certification

Campus-sourced seed library

Private Non-Profit • Large town • 2,501-5,000

An on-campus farm produces food for the campus dining halls. In attempt to interest the campus community in food production cross-campus stakeholders collaborated to develop a seed library. Seed packets were developed with attractive designs and planting directions. 14 plant varieties are available, developed from the campus farm. Seeds are available from the campus library to students and the broader community and it is hoped long term that seed saving will grow the seed bank and increase food production knowledge amongst participants.

Producing Food on Campus



Figure 4.10-1



Figure 4.10-2



Figure 4.10-3



Figure 4.10-4



Figure 4.10-5



Figure 4.10-6



Figure 4.10-7

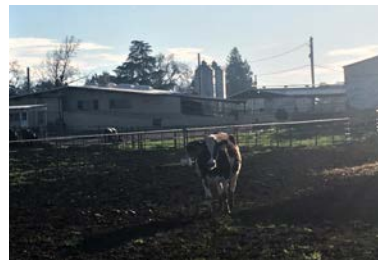
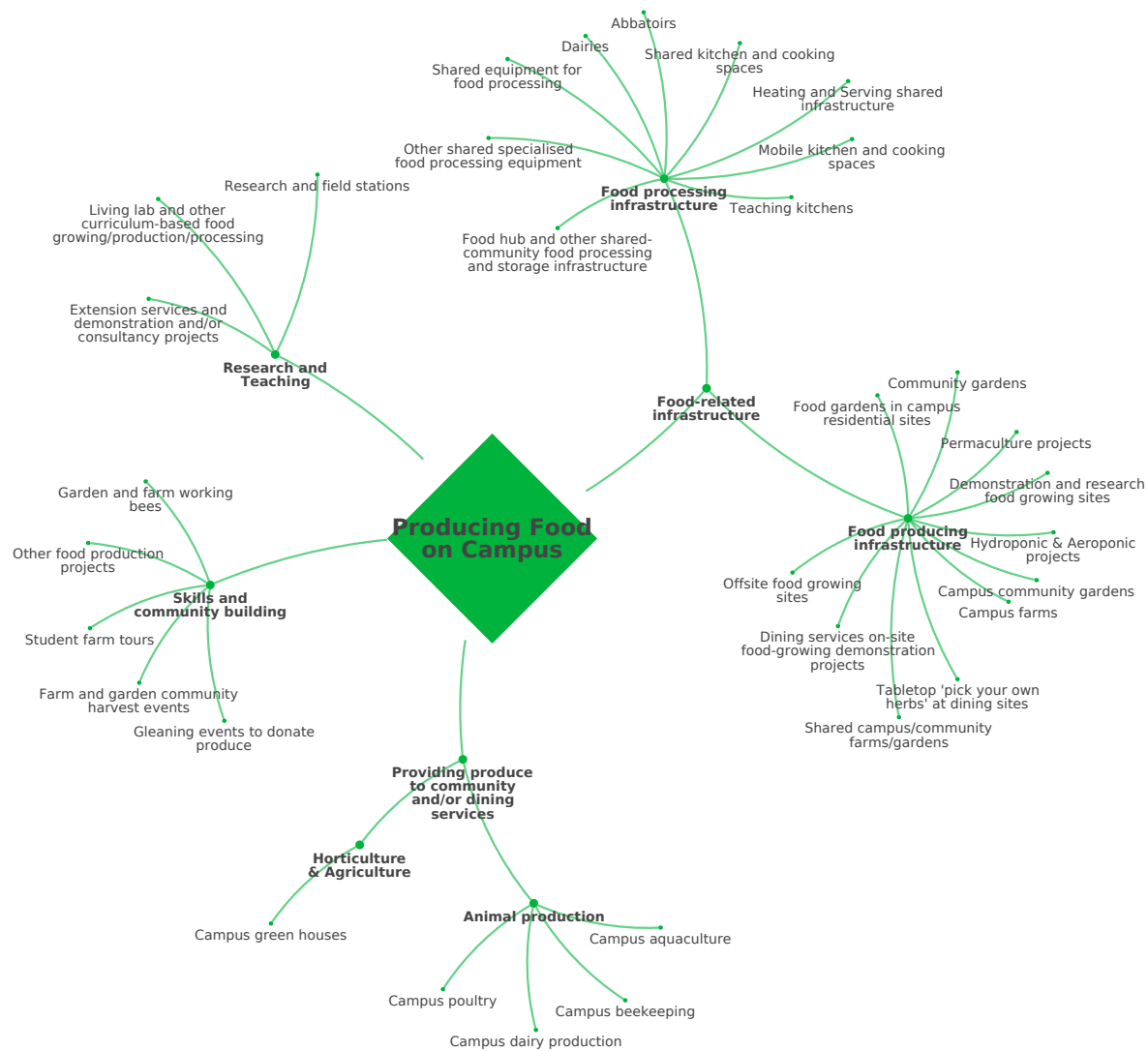


Figure 4.10-8



Figure 4.10-9

Top Row Figures L-R: Campus permaculture garden used to supply ingredients to dining hall over-wintering • Salad greens growing in a crate in a campus dining hall • Cured meat purchased from campus student-staffed 'meat lab' • Co-ordinator shows off seedlings from campus organic vegetable project • Middle Row Figures L-R: Crop rows - campus organic vegetable project • Vegetable garden growing in central court of an urban university residence • Vegetables growing in central courtyard of an urban university residence Bottom Row Figures L-R: Dairy cow and campus dairy in background • Vegetables and herbs harvested from a collaborative, volunteer-run university-community urban farm



Map 11 Student Leadership and Participation

Student jobs to support sustainable food

Public • Mid-size city • 40,000+

A student position has been created to work alongside a postdoctoral fellow to complete monitoring and evaluation of the institutions' food procurement and adherence to the Real Food Challenge purchasing commitment. Students are also involved in decision making through campus farm and food working groups. These students assist in delivering a range of sustainable food measures and planning events to increase awareness of sustainable food and procurement across the community.

Student Leadership & Participation | Certification | Dining Services Programs & Activities | Supporting Local Food

Collaborating with student groups for plant-forward dining

Public • Mid-size city • 20,001-30,000

Dining Services provider collaborated with students to start a collective focused on promoting plant-based dining. The program included inviting a plant-based student group to deliver vegan training to 20 in-house chefs and cooks. After trialling a pop-up dedicated plant-based dining station the station became permanent. Ongoing consultation with students has resulted in changes across the menu to promote plant-based dining.

Student Leadership & Participation | Dining Services Programs & Activities

Student project for a plate and cutlery lending service

Public • Rural • 2,501-5,000

Dining Services provider collaborated with students to start a collective focused on promoting plant-based dining. The program included inviting a plant-based student group to deliver vegan training to 20 in-house chefs and cooks. After trialling a pop-up dedicated plant-based dining station the station became permanent. Ongoing consultation with students has resulted in changes across the menu to promote plant-based dining.

Student Leadership & Participation | Waste



Figure 4.11-1



Figure 4.11-2

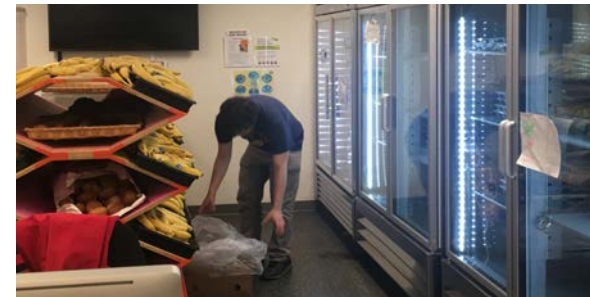
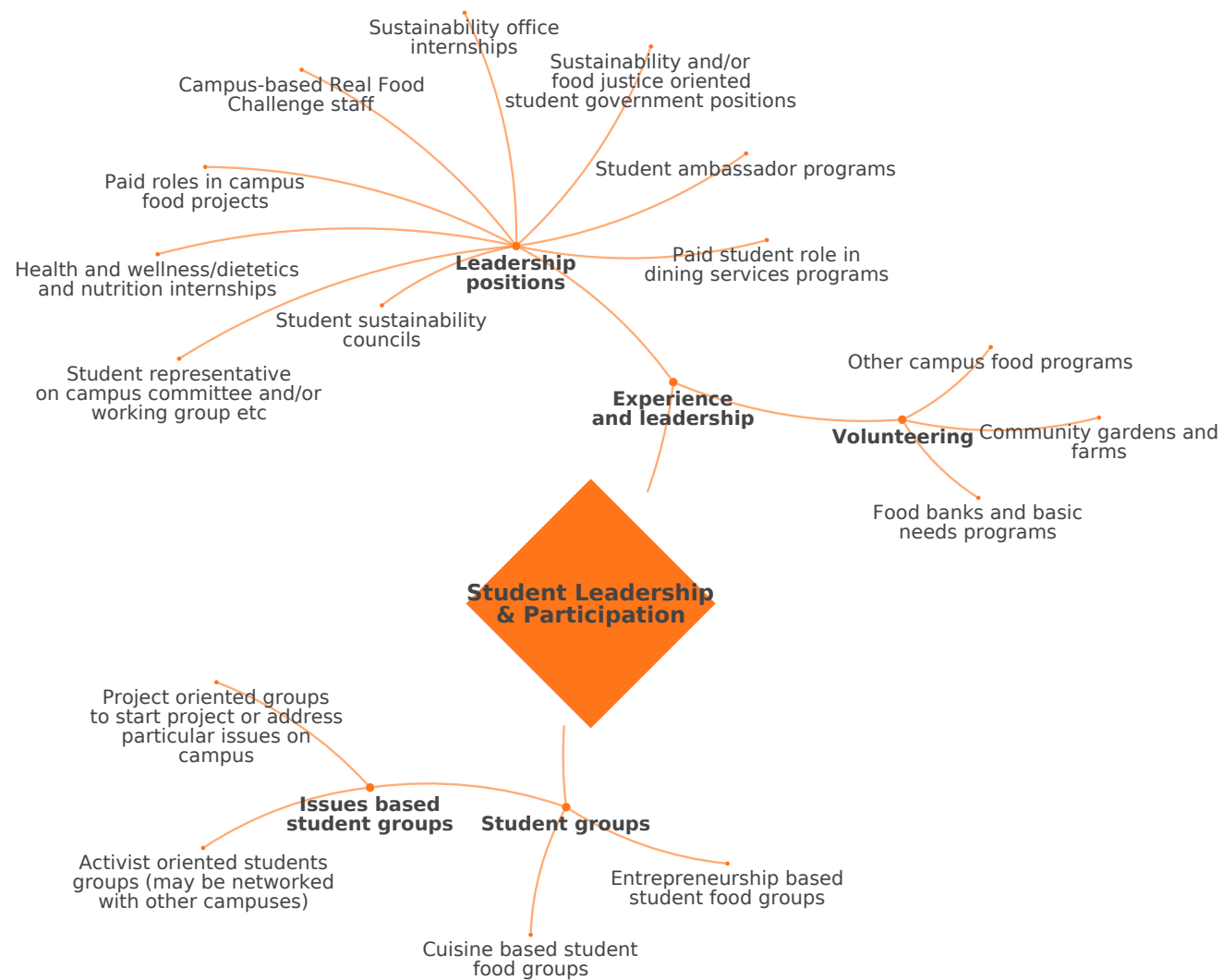


Figure 4.11-3

Figures L-R: A digital sign advertises a student position to work within dining services auditing local food purchases • A photo wall in a campus food pantry shows previous student volunteers • A student volunteer stocking shelves at a campus food bank



Map 12 Supporting Local Food

Education to rebuild local grainshed

Public • Large city • 10 001-20,000

School has developed a dedicated curriculum for grain education integrating knowledge of heritage grains, nutrition and human health, environmental sustainability and biodiversity – as well as the entire commodity chain from planting to retail. The course is available during semester to students and as an open access intensive to the broader community. The aim is to support the development of a resilient grain shed in the region and work with community to bring back industry for local milling.

Supporting Local Food | Curriculum & Research

CSA for campus

Private non-profit • Urban Fringe of Large City • 2,501-5,000

The institution's sustainability office organised an on-campus pick-up site for a local Community Supported Agriculture program. The produce is primarily sourced within state and provides sustainable food including options for fresh produce, dairy, bakery items, meat and seafood as well as pantry items. The comprehensive offering helps buyers to support local food without having to complete additional grocery shopping.

Supporting Local Food

Utilising faculty knowledge to support local food businesses

Public • Large town • 20,001-30,000

A campus-based centre related to the institution's agricultural research faculty supports the development of local businesses working with value-added food and agricultural products. It also provides a broad range of infrastructure and laboratory testing facilities to the community. The Centre makes expertise available to entrepreneurs from university staff across a variety of disciplines. Additionally, the program fosters connections between local business and the campus dining hall, which has grown its purchase of local goods around 30% each year.

Supporting Local Food | Curriculum & Research | Community Partnerships

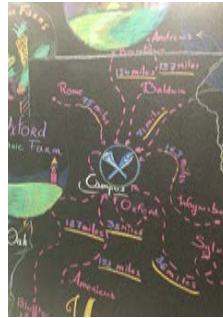


Figure 4.12-1



Figure 4.12-2



Figure 4.12-3



Figure 4.12-4



Figure 4.12-5



Figure 4.12-6



Figure 4.12-7



Figure 4.12-8



Figure 4.12-9

Top Row, Figures L-R: • Signage in campus dining hall displaying distance between farm and fork • Decorations on dining hall windows encouraging students to choose local foods • Signage on a campus take away outlet featuring healthy, locally-procured food • Signage in campus dining hall highlighting local apple varieties Middle Row Figures L-R: Signage at dining hall entrance explaining the benefits of local food • Signage on milk dispenser highlighting use of locally-procured milk • Large posterboard signage at entrance to dining hall listing local farms from which ingredients for meals have been purchased Bottom Row Figures L-R: Large scale signage on dining hall wall highlighting seasonal ingredients • Campus grab-and-go store highlights made in state, and other US made healthy, organic snacks



Map 13 Waste

Compostable serving ware for on-campus events

Private Non-Profit • Urban fringe of large city • 501-2,500

A student intern conducted thorough research with local suppliers to obtain compostable serving ware suitable for campus waste processing facilities. The student coordinated with administrators to trail the new materials across an Alumnae weekend events which was success. Subsequently all events on campus now are run with compostable serving items.

Waste | Student Leadership & Participation

Diverting organic waste from landfill

Public • Urban Fringe of Large City • 20,001-30,000

Institution runs multiple programs to divert organic waste from landfill. A student-run group packages and delivers leftover dining hall food to local food relief services. Student government has funded compost caddies for residential students, along with eco-reps who deliver compost education to dorms. Menus were redesigned to make sure that no materials that would contaminate food waste processing were present and as a result they have achieved a 100% organic waste diversion rate. These programs are supported by faculty research.

Waste | Basic Needs | Dining Services Programs & Activities
| Student Leadership & Participation

Testing and implementing reusable to-go containers

Public • Small Town • 30,001-40,000

Dining services acted as a pilot site for a large-scale reusable to-go containers and return system. After an initial in-house program saw limited uptake of re-usable to-go containers the dining provider worked with the container company to overcome students' barriers to participation. Dining services worked with stakeholders across campus including students, student government, residential services and sustainability staff to improve the program. It is now campus wide and used by all students. The program tested in this setting can be rolled out by the container company in campuses nationwide.

Waste | Dining Services Programs & Activities



Figure 4.13-1



Figure 4.13-2



Figure 4.13-3



Figure 4.13-5



Figure 4.13-4



Figure 4.13-6



Figure 4.13-7

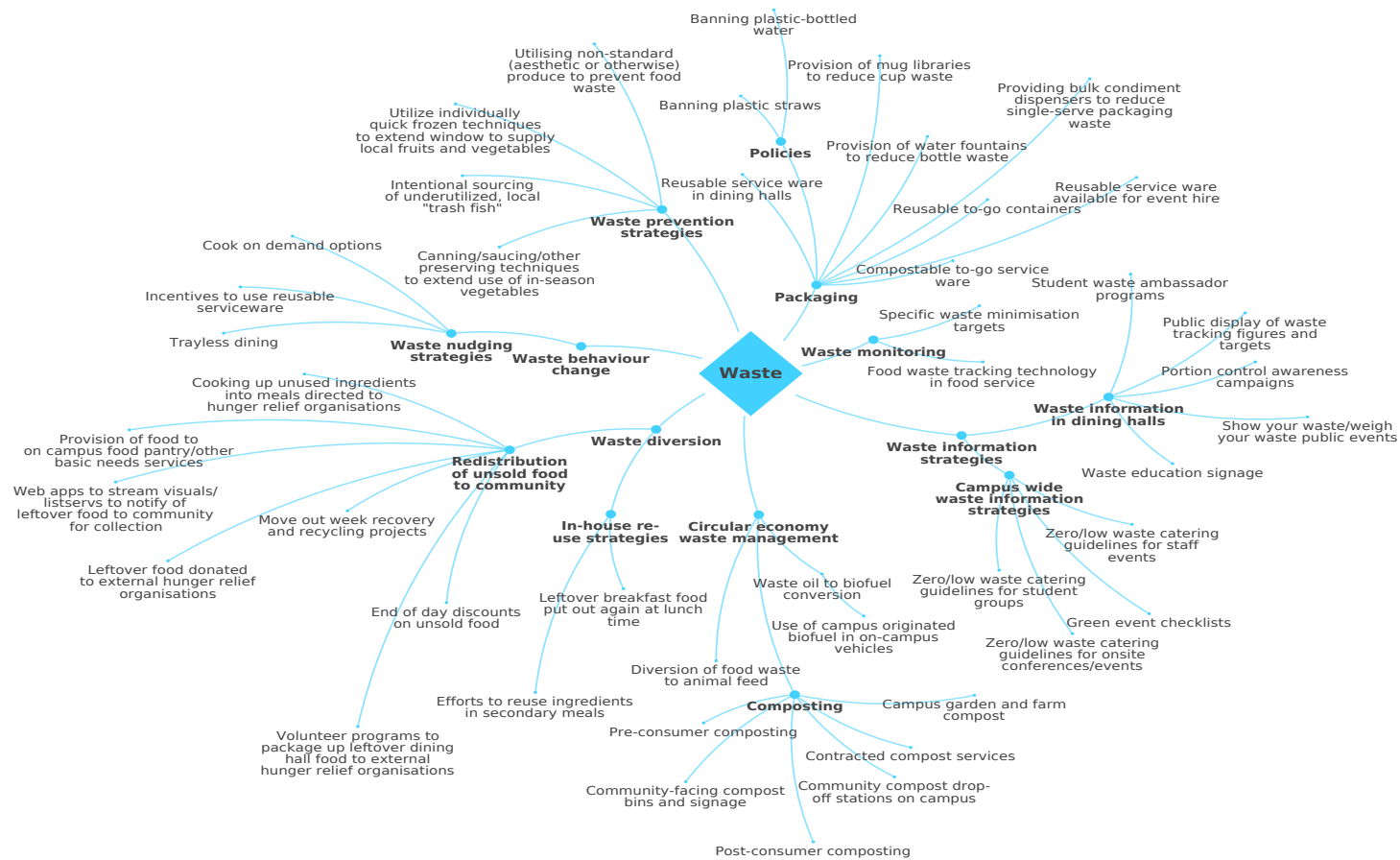


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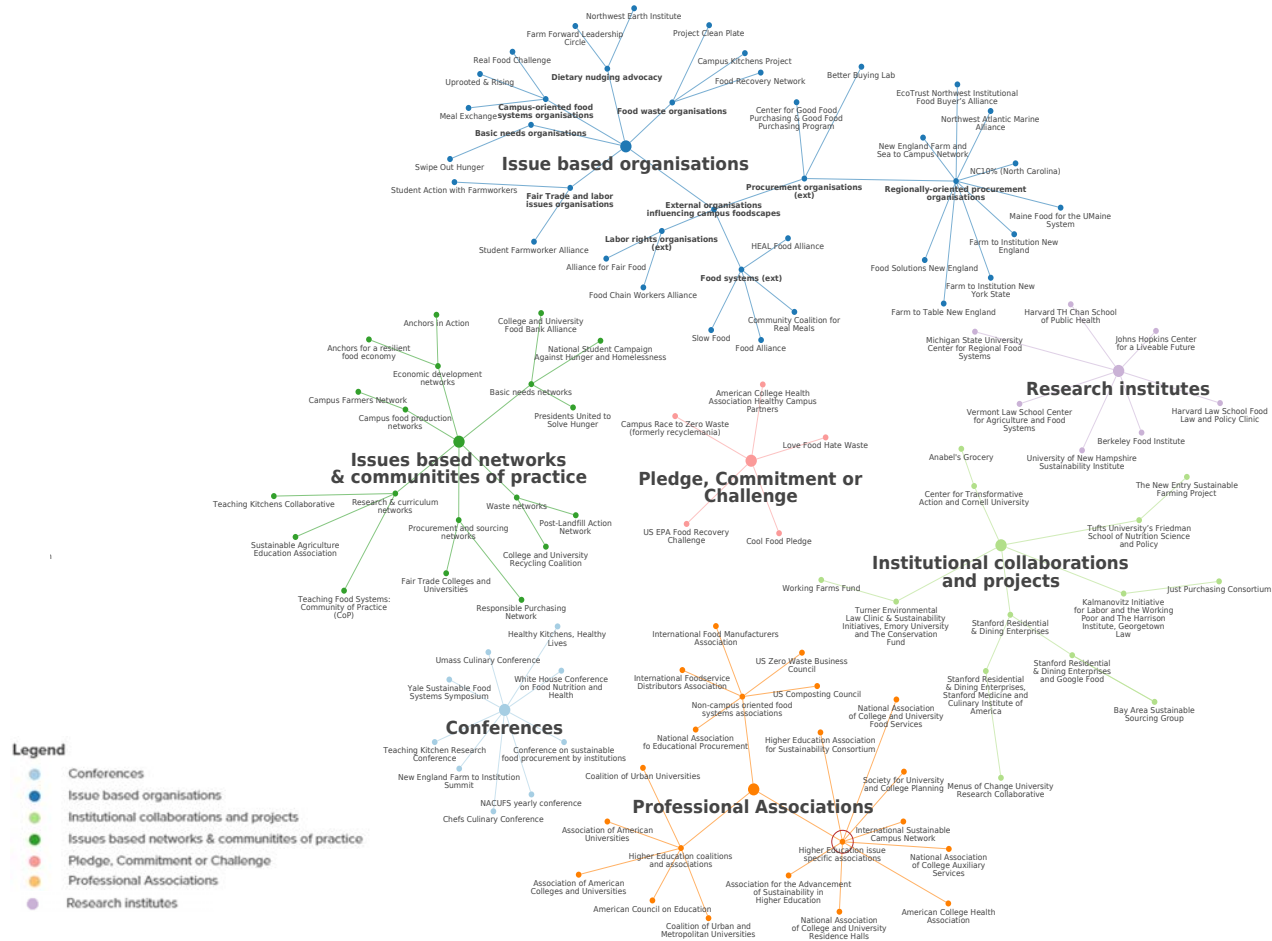


Figure 4.13-9

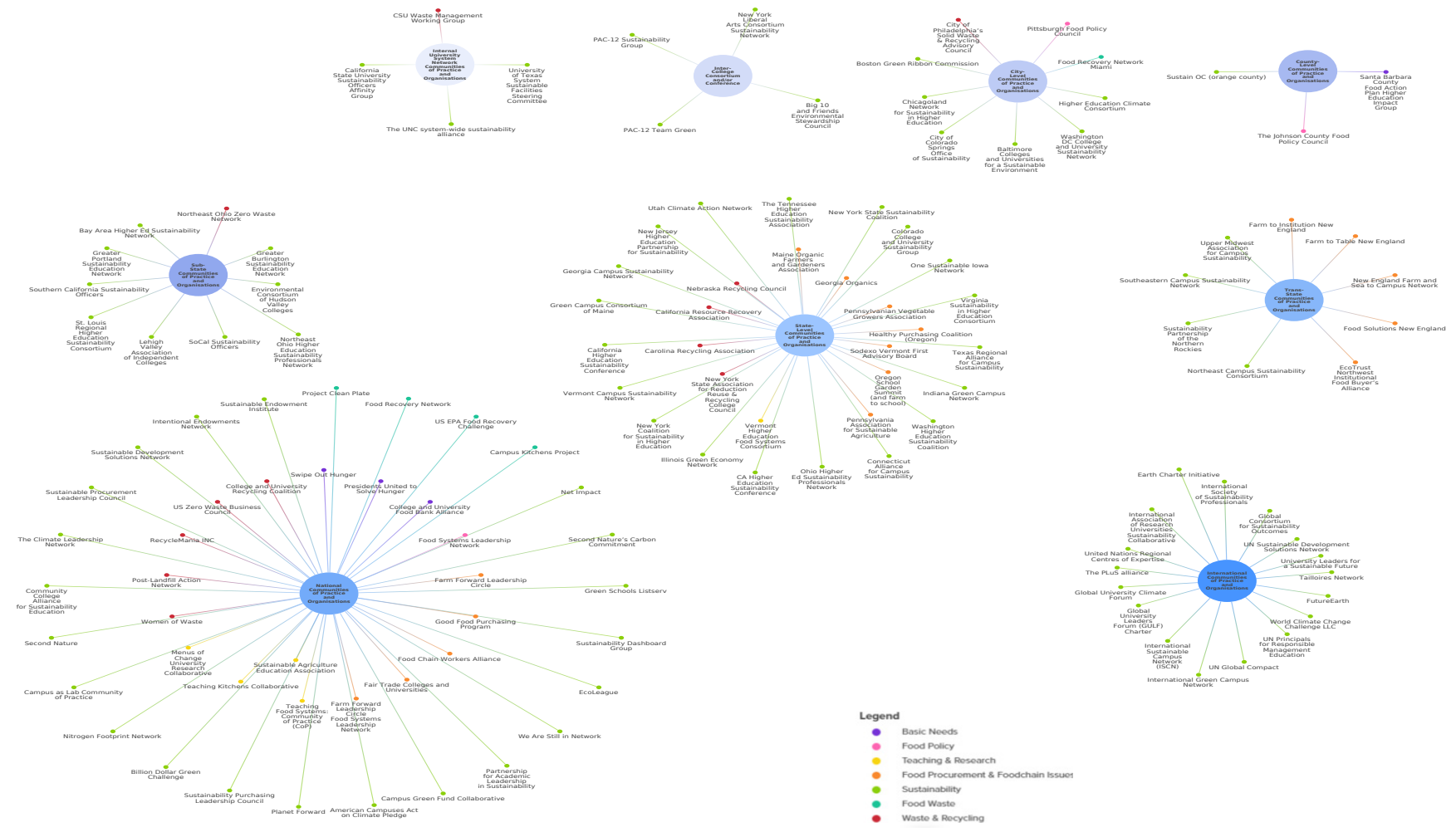
Top Row Figures L-R: Signage in dining hall promoting campus food waste composting • Water fountain with display demonstrating how many plastic water bottles have been avoided over the course of the fountain's use • Signage in dining hall explaining reusable to-go container scheme • Return point and example of a reusable to-go container Middle Row Figures L-R: An example of using bulk condiments as an alternative to single-serve sachets to reduce packaging waste in campus dining • Students place their plates in this automatic conveyor belt which takes the items to back of house to be cleaned. Reusable plates and trayless dining cut down on both packaging and food waste • Bins cut in half are used to display actual items which are suitable for each of the bins used in this campus dining hall Bottom Row Figures L-R: Informational signage shows users what items should be placed in each bin, while above larger posters display educational information about the impact of food waste in landfill in this waste station in campus dining • Informational signage shows users what items should be placed in each bin, differentiated colours help to make each bin distinct



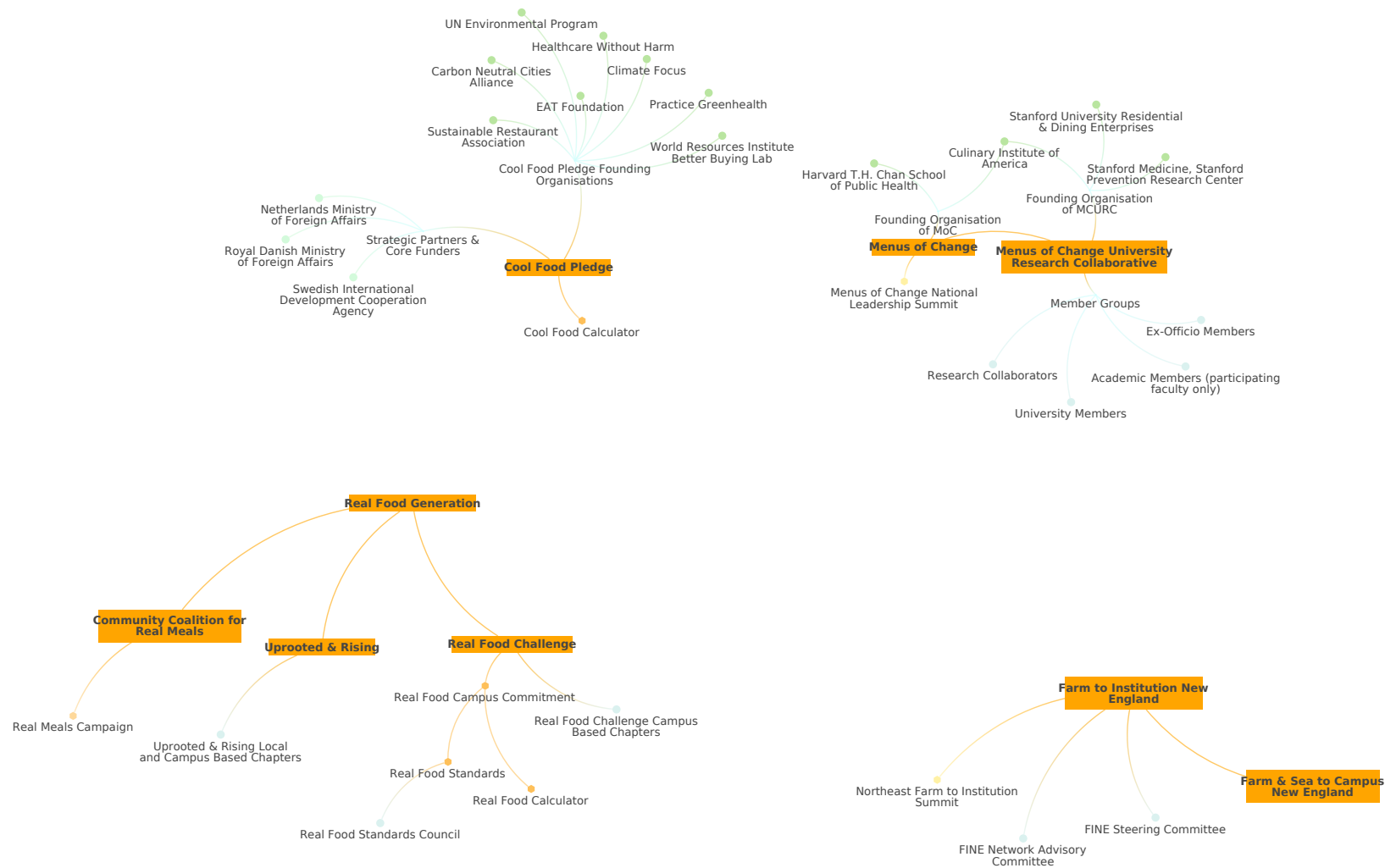
Map 14 Stakeholders in US Higher Education Foodscapes



Map 15 Food and Sustainability in Higher Education: Communities of Practice Across Scales



Map 16 Core Structure of Key Organisations in the US Higher Education Foodscape



Resources Produced by Key External Organisations

Cool Food Pledge

Reports

- Environmental Messages Promote Plant-based Food Choices (2022)
- Cool Food Collective Greenhouse Gas Emissions Baseline and 2030 Reduction Target (2020)
- Tracking Progress Toward the Cool Food Pledge (2019)
- World Resources Report - Creating a Sustainable Food Future (2019)
- Toolkits and Other Action Resources
- Cool Food - How to Sell More Climate-Friendly Food (2022)
- Identifying Cool Food Meals (2020)
- Playbook for Guiding Diners Toward Plant-Rich Diets in Food Service (2020)
- Cool Food Calculator

Articles

- 23 Behavior Change Strategies to Get Diners Eating More Plant-Rich Food
- 23 Behavior Change Strategies to Get Diners Eating More Plant-Rich Food (2020)
- It's All in a Name How to Boost the Sales of Plant-Based Menu Items (2019)
- Without Changing Diets, Agriculture Alone Could Produce Enough Emissions to Surpass 1.5°C of Global Warming (2018)

Menus of Change University Research Collaborative

Reports

- Plant-Forward Opportunity Report (2021)
- MCURC Collective Impact Initiative: 2020 Early Learnings Report (2020)
- Plant Proteins Move to Center-Plate at Colleges and Universities (2019)
- Food Waste Research in College and University Settings (n.d.)

Research, Journal Articles & Books Chapters

- Food Choice and Waste in University Dining Commons—A Menus of Change University Research Collaborative Study (2021)
- Olive Oil and the Plant-Forward Kitchen, A Sauce Discovery Project (2021)
- Faith in Fat: A Multisite Examination of University Students' Perceptions of Fat in the Diet. (2020)
- Impact of a scalable, multi-campus "Foodprint" seminar on college students' dietary intake and dietary carbon footprint (2020)
- Increasing vegetable intake by emphasizing tasty and enjoyable attributes: A randomized controlled multisite intervention for taste-focused labelling (2019)
- DISH Study Executive Summary (n.d.)

Toolkits and Other Action Resources

- Edgy Veggies Toolkit
- Globally Inspired, Plant-Forward Recipes and Inspirations for Campus Menus and Dining
- Menus of Change in Action: MCURC Culinary Operations Best Practices
- Protein Flip Strategies for College and University Foodservice
- The (Almost) Perfect Plant Forward University
- MCURC Implementation Schedule
- Self-Assessment Tool - Gap Analysis for Implementation of Menus of Change Principles

Farm to Institution New England

Reports

- We Need to Focus on the Damn Land: Land Grant Universities and Indigenous Nations in the Northeast (2021)
- A Brief History of Labor Actions Among Dining Workers in Higher Education: Lessons for Current Labor Challenges (2021)
- Dogfish in the Dining Hall? (2019)

- Producer Perspectives: The New England Farm-to-Institution Market. (2017)
- Campus Dining 101: Benchmark Study of Farm to College in New England (2017)
- Producer Perspectives: The New England Farm-to-Institution Market. (2017)
- Beyond the Cafeteria: New Outlets for Local Food on Campus (2017)
- Research, Journal Articles & Books Chapters
- Farm to Institution New England: Mobilizing the Power of a Region's Institutions to Transform a Region's Food System (2019)

Toolkits and Other Action Resources

- Tracking Local Food Purchasing: A Guidebook for Campus Dining. (2018)
- Setting the Table for Success: A Toolkit for Increasing Local Food Purchasing by Institutional Food Service Management. (2016)
- Leveraging Contracts Local Food Procurement, A Guide for Institutions That Work with Food Service Management Companies. (2015)

Case Studies

- Campus Local Food Subscription Case Studies - various
- College Campus Case Studies - various

Real Food Generation/Real Food Challenge

Reports

- Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our Communities - and What to do About It (2020)
- The Real Impact of Real Food: 8 Ways Institutional Procurement is Building a Real Food Economy (2018)

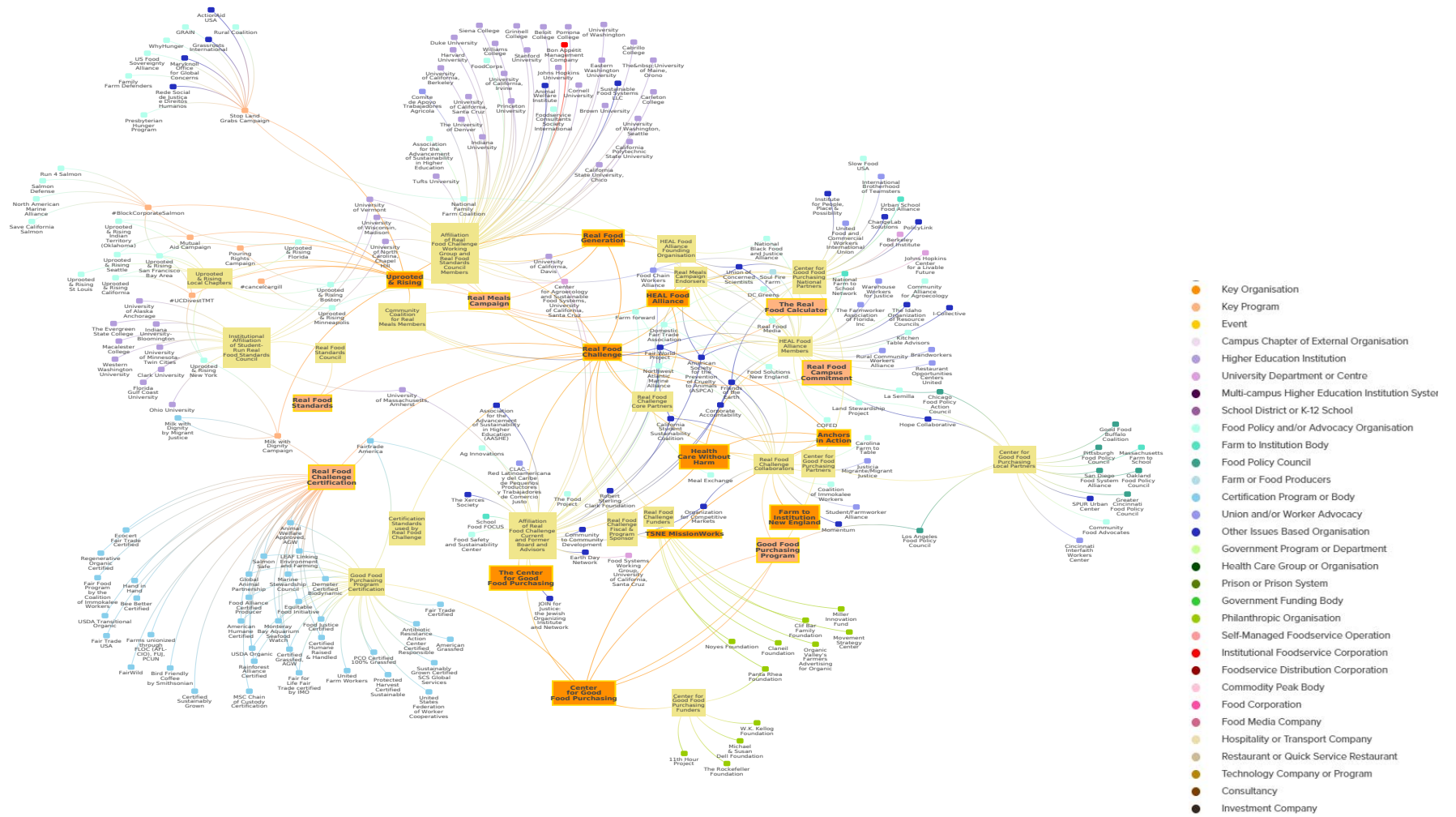
Toolkits and Other Action Resources

- Real Food Standards 2.1
- Real Food Guide 2.1
- Real Food Calculator Tour
- Real Food Campus Commitment
- Assessment Tips
- Guide to Uploading
- Real Food Progress Report Template
- Real Food Procurement Guide
- Best Practices for Campus Food Systems
- Multi-Year Action Plan Template
- A Guide to Developing a Sustainable Food Purchasing Policy
- Bringing Local Food to Local Institutions
- Building Local Food Programs on College Campuses
- A Guide to Serving Local Food on Your Menu
- Buy Local Food and Farm Toolkit: A Guide for Student Organizers

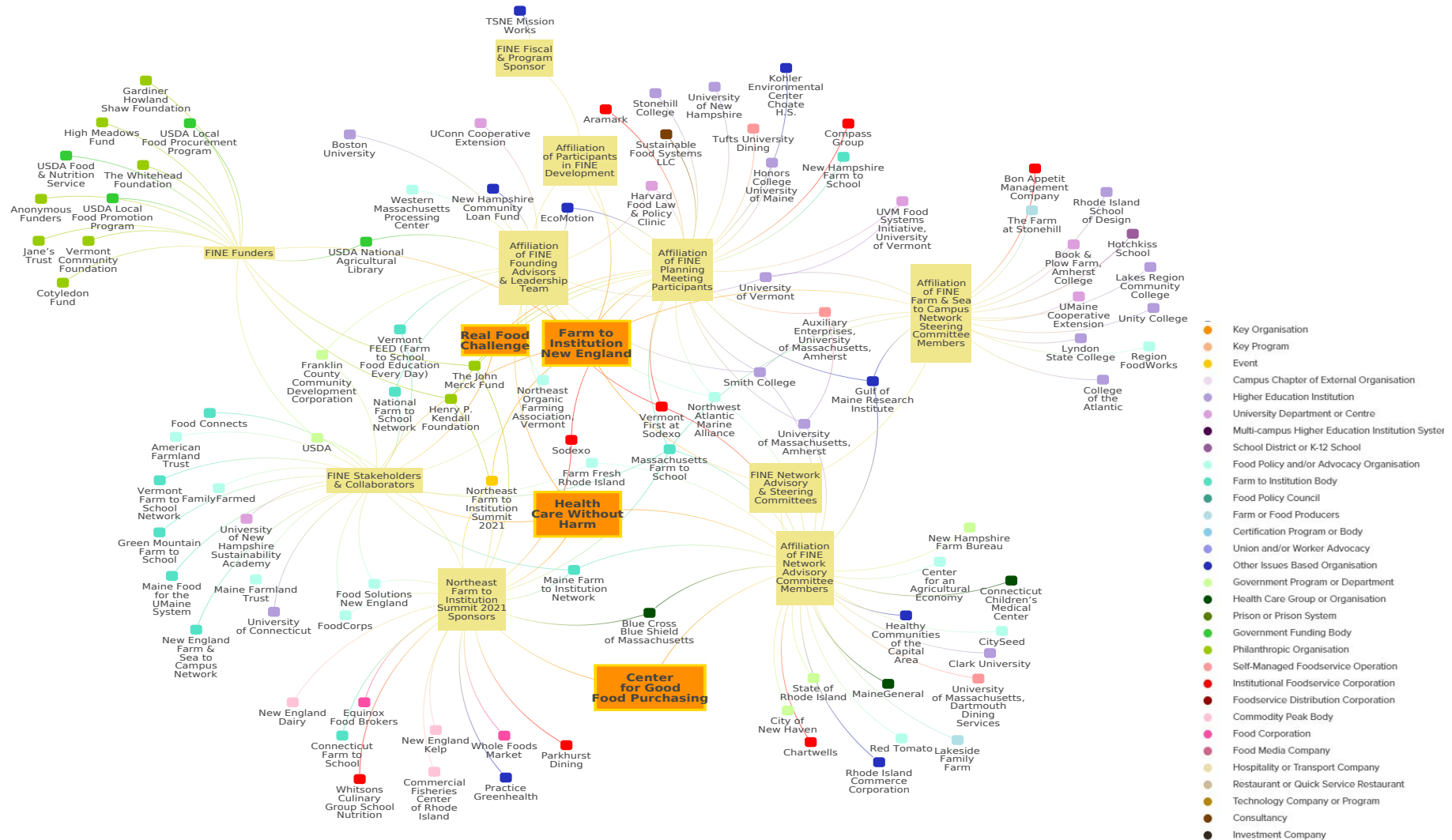
Campaign Resources

- Campaign Strategy Worksheet
- Coalition Building Guide
- Events for Organizing
- Grassroots Fundraising Guide
- Guide to Powermapping
- Leadership
- Media and Messaging Guide
- Meetings for Organizing
- Research Actions
- Spectrum of Allies
- Storytelling for Organizing
- Strategic Campaign Planning
- The Organizing Cycle

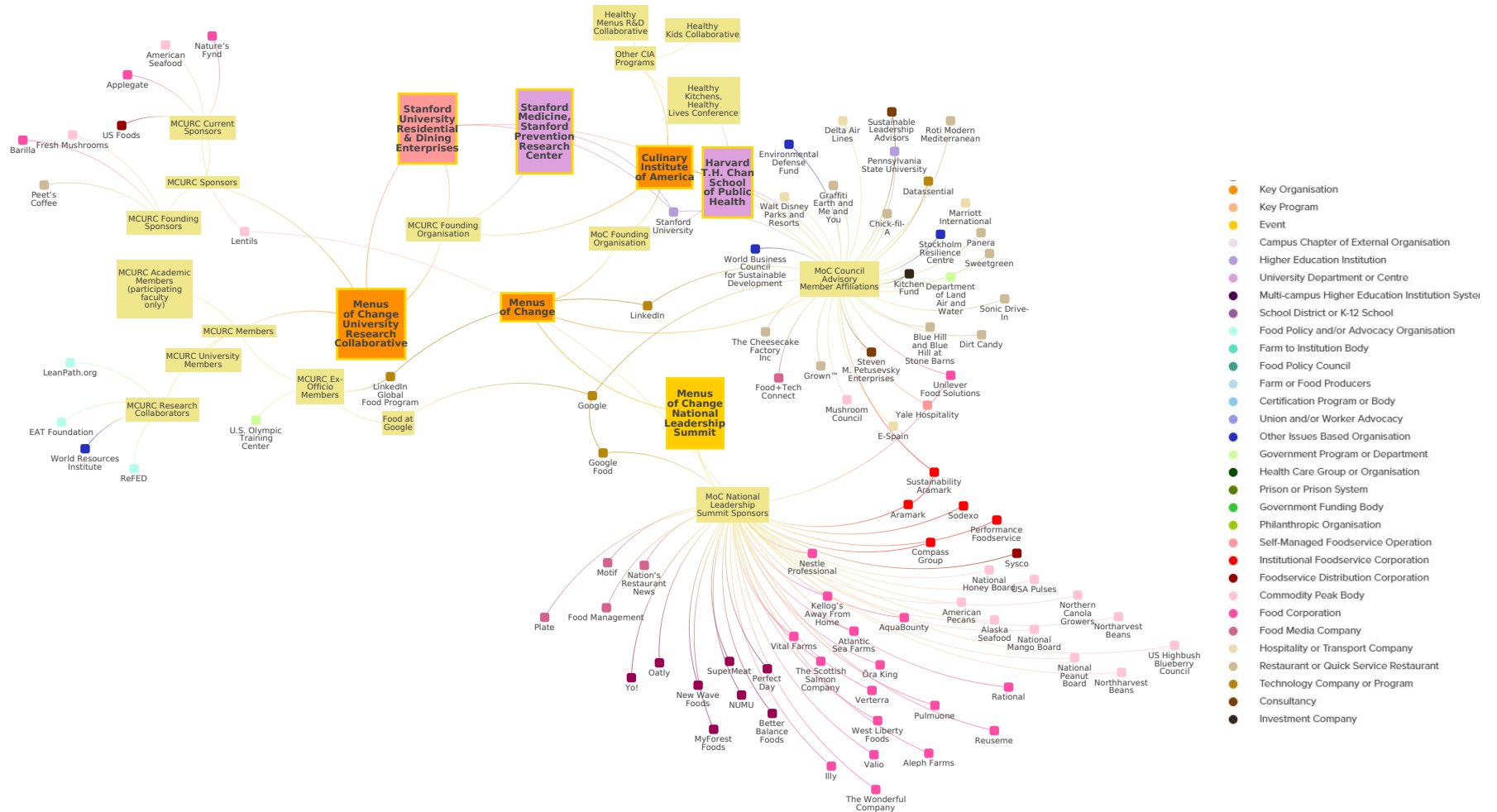
Map 17 Real Food Generation Networks



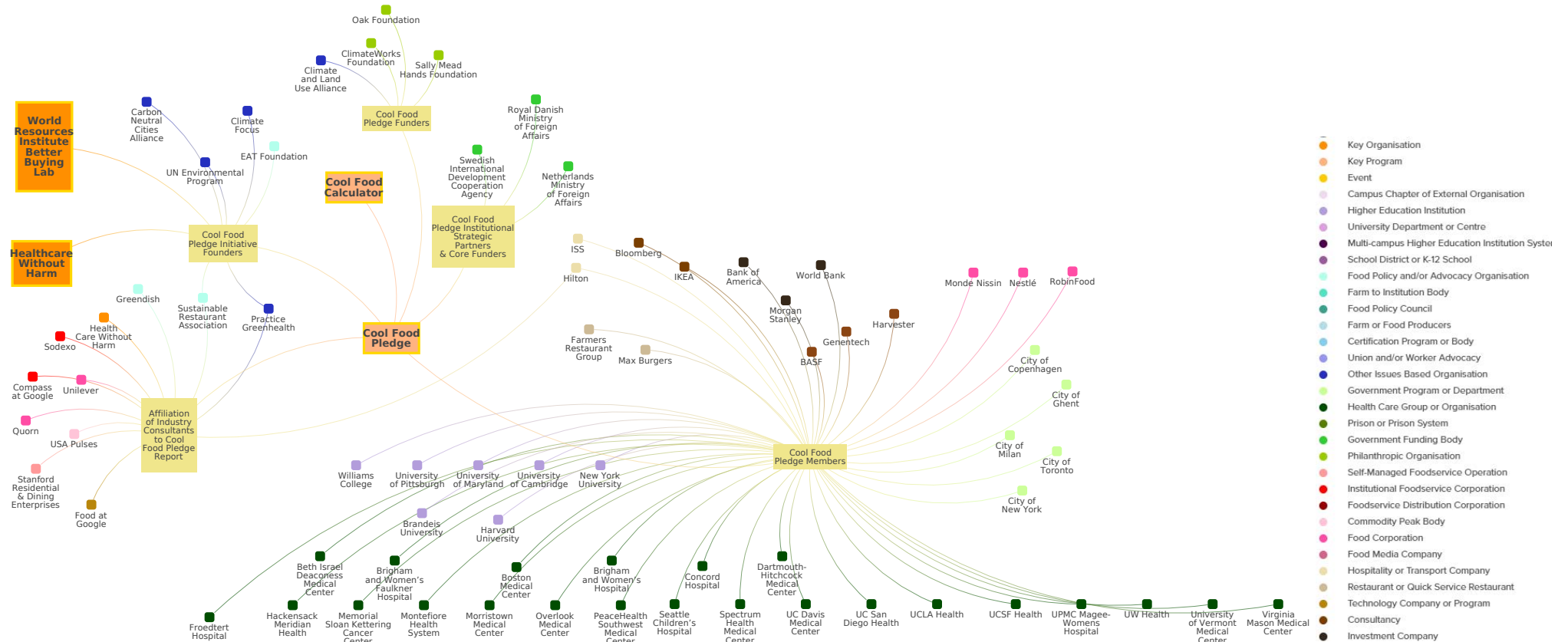
Map 18 Farm to Institution New England Networks



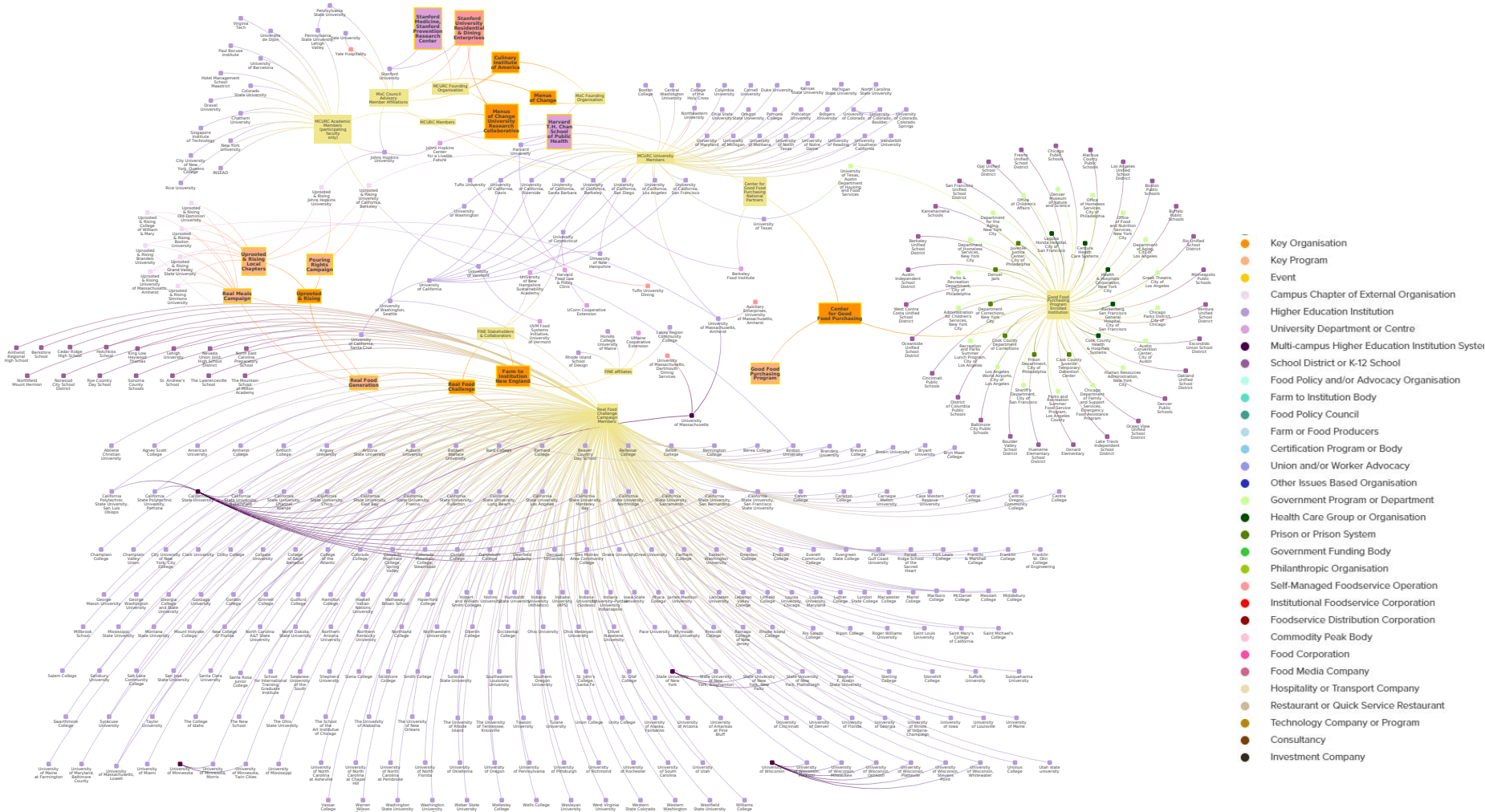
Map 19 Menus of Change University Research Collaborative Networks



Map 20 Cool Food Pledge Networks

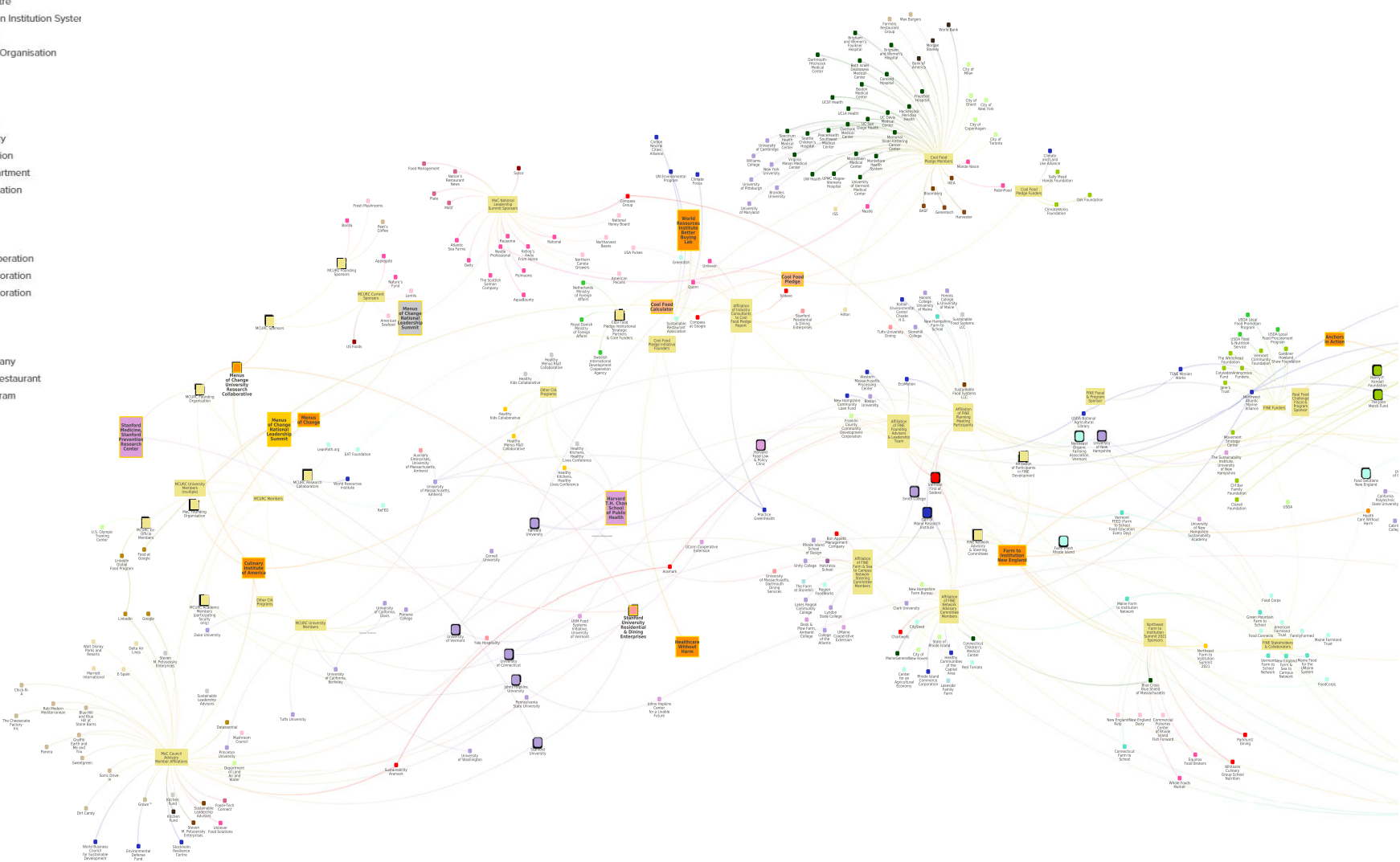


Map 21 Institutional Members of External Organisations Involved in Campus Foodscapes

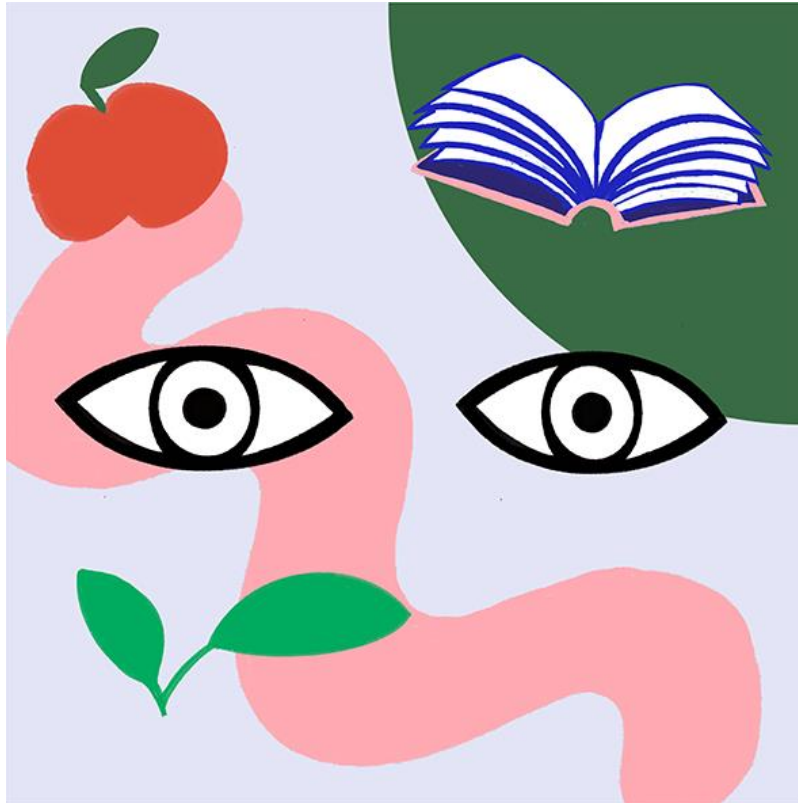


Map 22 Intersecting Networks of External Organisations in the US Higher Education Foodscape (following pages)

- Key Organisation
- Key Program
- Event
- Campus Chapter of External Organisation
- Higher Education Institution
- University Department or Centre
- Multi-campus Higher Education Institution System
- School District or K-12 School
- Food Policy and/or Advocacy Organisation
- Farm to Institution Body
- Food Policy Council
- Farm or Food Producers
- Certification Program or Body
- Union and/or Worker Advocacy
- Other Issues Based Organisation
- Government Program or Department
- Health Care Group or Organisation
- Prison or Prison System
- Government Funding Body
- Philanthropic Organisation
- Self-Managed Foodservice Operation
- Institutional Foodservice Corporation
- Foodservice Distribution Corporation
- Commodity Peak Body
- Food Corporation
- Food Media Company
- Hospitality or Transport Company
- Restaurant or Quick Service Restaurant
- Technology Company or Program
- Consultancy
- Investment Company







5

**PRACTITIONERS' EXPERIENCES
OF TRANSFORMATIVE WORK IN
HIGHER EDUCATION
INSTITUTIONS AND THEIR
UNDERSTANDINGS OF CAMPUS
FOODSCAPES**

5 PRACTITIONERS' EXPERIENCES OF TRANSFORMATIVE WORK IN HIGHER EDUCATION INSTITUTIONS AND THEIR UNDERSTANDINGS OF CAMPUS FOODSCAPES

The voice of practitioners working within campus foodscapes is key to a deeper understanding of what campus foodscapes are, what kinds of activities are happening in Them and who is involved in campus foodscapes. This chapter presents viewpoints collected from interviews conducted during fieldwork. The previous chapter illustrated many of the elements present in campus foodscapes. However, this presentation of data reveals elements as they are described in reporting frameworks. This chapter adds to those insights through deeper engagement with the practitioners who have lived experience within campus and higher education foodscapes. This chapter begins by discussing participants' understandings of the concept of campus foodscapes, and then presents an expanded definition of the term drawing on existing literature and the findings of this research. Following this, the analysis moves deeper into practitioners' experience working for transformation within institutions, discussing factors that facilitate novel activities and policy on campuses and the hurdles encountered within foodscape work. A key theme is the agency of students within universities to demand change and move universities to adopt progressive policies and engage in positive actions to strengthen the relationships between campuses and the broader food system. This chapter concludes with a summary of barriers and drivers in foodscape work as identified by practitioners.

5.1 Understanding Campus Foodscapes

Chapter 2 considered the multiple ways in which the term foodscape is used. During interviews participants were offered the opportunity to share their own conception and understanding of ‘campus foodscape/s’. Some informants answered with a material view of food and its flows throughout the university campus. For example, one stated, ‘I think a campus foodscape is the totality of all food that is procured prepared and served on a campus’,³⁷ another observed,

I guess a campus foodscape would include places to eat including cafeterias, but also the coffee shops, a little sandwich – grab-and-go-sites. And then it would include also the machines — and I would want to include catering.³⁸

Aligned with this material outlook other respondents had a more expansive sense of flows through their institution, including waste and allusions to decision making,

The interlocking systems that make up all steps of the food system on a campus, which can range literally from the soil health and the production of food on a campus, to the distribution, to the types of diners and eateries and stores and distribution methods that exist to spread that food around. And then also the people that are engaged at all steps of that process. And then finally the kind of the reclamation of food ... and the redirection and disposal of food.³⁹

Some identified the difficulty in defining where the campus begins and ends, one noting ‘I am limiting it to campus, when you start talking about procurement the boundaries of campus end very quickly.’⁴⁰ Another, in contrast

³⁷ IR10

³⁸ IR21

³⁹ IR16

⁴⁰ IR23

decided it included ‘our foodshed and what is our foodshed and where does our food come from? How is it getting to people?’⁴¹ Earlier sections have discussed the polysemy with which the idea of foodscapes is used descriptively by academics and those communicating and critiquing the concept. These responses demonstrate that as well as this multiplicity, practitioners bring numerous, and sometimes conflicting, understandings to their own foodscapes and the limits they draw when conceptualising them.

Others, however, took a broader approach to understanding both the physicality of food and less tangible elements such as decision making, accessibility and opportunities associated with food on campus. Succinctly one framing suggested, ‘the small-scale version of the food system on a university campus,’ including the distribution, adding, ‘as well as all of the activities surrounding food, both on a student organisational level as well as administrative level.’⁴² Some interviewees emphasised the ‘more than’ aspect, one suggesting ‘a diagram’ showing ‘what is connected and what can be connected ... I think about connecting all of the food systems or resources, or spaces or actions.’⁴³ The way in which people in the campus community interact with food was suggested by asking, ‘what do people think about food on this campus? What is their relationship to food and how do they access food?’ These questions were again framed by noting that it is more than just *where* food is in the space. Only one participant, while mentioning the community’s interaction with the foodscape, specifically highlighted the role of education and research,

It’s the research – the education, the actual experience of people interacting with physical food, the cultural language around food the activism, the student groups, the service units, the support activities related to food

⁴¹ IR4

⁴² IR13

⁴³ IR25

procurement, guidance... Another element over the campus foodscape would be which students feel welcome in the food systems minor, which students feel like that is the program of study that is relevant to them. That has faculty that are identifiable and makes sense to them.⁴⁴

The latter part of this statement also mentioned the idea of access and equity, a theme raised by multiple participants. In summary, the definitions included the material distribution of food, including waste, food procurement and connection to the foodshed; decision making; support and service activities; activism; and research and teaching.

Although it was discussed in other sections of interviews, participants' responses did not include the ways in which, and pathways through which, food connects universities to external communities. During fieldwork I witnessed many such connections across several sites, for example, while volunteering in the kitchens of Annenberg Dining Hall at Harvard. In a project coordinated by the Harvard Food Literacy Project, a group of staff would come in and spend a half hour or so packing up the remaining food into individual single-serve trays which were then vacuum-packed and later transported to a nearby food relief

⁴⁴ IR23

organisation for distribution to food insecure members of the local community (Top: Figure 5-2).



Top: Figure 5-2 Staff volunteer at Harvard's Annenberg Dining Hall to package food for local hunger relief services

Bottom: Figure 5-2 Volunteers at Gill Tract Farm, Albany, CA – billed as 'a collaborative project between UC Berkeley and the local community'

This was undertaken by a different staff group each day and promoted as a team-building service activity across the institution. In response to a call-out on social media I also spent an afternoon helping in a working bee at Gill Tract Farm. The Farm is a collaborative project between UC Berkeley and the local community in Albany, California – about a twenty-minute bus ride from the main campus. I spent the afternoon weeding vegetable patches and unearthing stubborn roots while chatting to people, interspersed with a

delicious, volunteer-made, garden-harvested lunch (Bottom: Figure 5-2). The other volunteers were a mix, some of them directly associated with the university, and others members of interested communities local to the farm. Some of the locals expressed ambivalence about the project's connection to the university, viewing their own stewardship as the lifeblood of this urban agriculture project.⁴⁵ Both of these projects are examples, among many, of the fuzzy boundaries of the campus foodscape as it exchanges food and resources with local community members and organisations.

5.2 Defining Campus Foodscapes

Based on the existing literature, contributions from participants and insights from data collection, I suggest an expanded definition of campus and higher education foodscapes, summarised in Box 5-1 below.

⁴⁵ There have been ongoing protests and an occupy the farm movement since the 2010s on both Gill Tract Farm and Oxford Tract Farm (adjacent to the main campus) in response to the university's threats to redevelop both pieces of land for student housing. Both have long histories of connection to the local community, associations with Indigenous rights groups and links to sustainability and agroecological research. Thus far community organising and student activism, along with outspoken critics, including voices such as agroecology academic Miguel Altieri, have prevented the advancement of development. However, the threat has not entirely dissipated and there remains a tense relationship between the farms' supporters and the university administration. For more background see: <https://foodfirst.org/betrayalofanagriculturallegacy/>

*Box 5-1: Definition of Campus and Higher Education
Foodscapes*

A **campus foodscape** includes the processes, labour and material flows; infrastructure; activities, knowledge production and learning; and relationships, power dynamics and governance related to food in a specific post-secondary campus as an institutional and geographical site embedded in a community and a place.

The **higher education foodscape** encompasses the collective activities; processes, labour and material flows; infrastructure; knowledge production and learning; relationships, power dynamics and governance related to food in post-secondary settings.

In greater detail, a campus foodscape includes the material flows and associated labour of food distribution on a campus, as well as the activities performed by the university community to govern, interact with, and teach and learn about food. It includes how the community grows, shares and distributes food and other food-related projects, infrastructure and resources. The governance of campus foodscapes includes the leadership, networks and governance structures in place as well as policies (formal and informal) and guidelines for food-related activities. Governance also includes relations, deals and contracts with external individuals, organisations, suppliers and corporations responsible for bringing food, and food-related services to campus and its subsidiary entities. Equally, a campus foodscape includes activities originating from the campus community: including social and purpose-driven groups, entrepreneurship, community organising, activism and protest. Power is, as in all foodscapes, a key factor and an important lens through which to determine who is included and excluded from participation in opportunities and governance related to food; who has and does not have access to food and food

resources; and who benefits and who profits from, as well as who is disenfranchised by the control of campus food, food infrastructure and food resources.

Campus foodscapes include the material flows of food procurement, and the distribution and disposal or redistribution of food. In a physical sense it includes the sites in which food is distributed, including dining halls and a variety of retail outlets, through to community activities and through to residential services managed by the institution, and other external entities. The physical campus foodscape may also include infrastructure such as community gardens and farms, teaching kitchens and other cooking spaces, community spaces for food distribution, other community activities, and/or sharing, as well as basic needs distribution points such as food pantries and other welfare services.

Research and teaching activities relating to food occur in campus foodscapes and may include specialised research centres, living lab activities related to horticultural and agricultural projects, animal agriculture and apiaries as well as food preparation and food science. Learning opportunities may include individual subjects, courses and degrees across a range of disciplines and interdisciplinary subjects which model problem -solving and offer opportunities to engage in pedagogical frameworks such as design thinking, participation in living labs, and community-oriented service learning. Food is often a conduit to university-community relations and many campus foodscape activities facilitate connections including basic needs and hunger relief projects, extension services, and shared multi-use food infrastructure and facilities. Many food-related projects facilitate the offering of the research

capacity of institutions to the broader community via faculty and through service-learning projects. Apart from the involvement of academic and administrative personnel and students, the campus foodscape is attended to by myriad workers including foodservice and custodial staff, grounds and facilities staff and specialised project staff, among others.

This definition of campus foodscapes is intended to describe a campus in its physical entirety occupying a particular geographical place – albeit overlaid with conceptual complexity. In any employment of this term there are always decisions to be made about where the physical limits of a campus and its foodscape begin and end. These decisions are inevitably made on a case-by-case basis. However, campuses, and in turn campus foodscapes, inevitably interact with each other. For example, in the case of various campuses in one university system, or a collective of campuses in a buying group or other regional network. I therefore suggest the term ‘higher education foodscapes’ as a distinct term for a collective framing, or system, of campus foodscapes, which may be regional, state-based or national. Similarly, ‘institutional foodscape/s’ are a broader category encompassing various settings: including healthcare and other civic services. These framings may be understood as nested within each other, spanning across scales as illustrated in Figure 5-3, below. This is not intended as a rigid model and can be variously rearranged depending on the particular locus of enquiry or outlook framing its use.



Figure 5-3 Campus foodscapes conceptually nested in broader framings of foodscapes

5.3 Motivations for Working Within Campus Foodscapes

Practitioners in campus foodscapes clearly demonstrated they were fuelled by a belief that the work they were engaged in had the capacity to drive positive and transformative change. Within this, the various goals they were working towards aligned with differing beliefs about *why* universities should engage in this kind of work, and if they did engage the kinds of change that could be achieved within institutional structures.

Several key themes emerged: a sense of duty to engage in broader social and environmental issues; the role of higher education to produce knowledge, research and to teach; the possibility of engaging students and shaping their future citizenship; that campuses were unique sites to foment innovative ideas; and the capacity of institutions to connect diverse networks and to their broader communities. ‘Urgency’ was pinpointed as an impetus to engage in campus

foodscape work, voiced by a long-term practitioner in campus foodscapes as ‘a sense of urgency of the environmental problem – sometimes it’s the urgency of the social justice problem.’⁴⁶ Throughout multiple interviews staff and students returned to the idea that they had a responsibility to action; locating themselves within this conception as a *self within the institution* – positioned to utilise the intersecting resources and capabilities available within the university. This was expressed by a staff member whose remit was to ensure that ‘food is a valued part of the campus.’⁴⁷ They attributed this as a significant motivation driving their work with food systems. Speaking to the creation of programs and job roles to address foodscape issues, the respondent continued: ‘We felt like we could not in good conscience be at a university ... and allow people to become more and more ignorant about and removed from food.’⁴⁸ A sustainability staffer from another institution was similarly galvanised by ‘the idea that we want to use our resources in ways that do less harm, if not create a restorative, even positive impact.’⁴⁹

Indicating a desire to educate the community about such connections between their food and its origins, a sustainability staff member at a rural campus explained being inspired by wanting eaters on their campus to better understand the region and community within which the campus is situated,

It matters – people understanding where their food comes from. How it's grown, how it got to them, who are the humans involved in that system.

And that's a huge issue for us [here]. You know, we have people out in the fields who are not treated well a lot of

⁴⁶ IR21

⁴⁷ IR6

⁴⁸ IR6

⁴⁹ IR26

times. And so, [getting the community to] recognise that humans are part of the system, but also how food grows and where it comes from.⁵⁰

Ideas around connections similarly emerged as a motivation for a student working on a university project to increase local food procurement, facilitating links between the micro-scale of the university, other nearby institutions and regional suppliers. They explained, ‘projects like the one that I’m working on are important because I don’t think that you can fix campus food systems without working within the larger food system.’⁵¹ A project coordinator, working to link basic needs issues to regional suppliers and businesses, affirmed this sentiment, stating: ‘[The work we do] it’s actually contributing beyond the actual campus borders and helping out in the community system as well.’⁵² Although each of these respondents work in vastly different settings and foodscape areas, collectively they demonstrate that practitioners see their work embedded in, and driven by, a wish to transform campuses as well as to engage in issues beyond their institutions in their local and regional communities.

Many interviewees articulated being motivated by a sense of duty in relation to specific issues, with access to basic needs including food and housing emerging as a key theme. Reflecting on a responsibility to take holistic care of their student community, a staff member explained, ‘if people are hungry, [they] can’t learn. Anybody who’s ever been hungry will tell you that you can’t focus. You can’t learn.’⁵³ They went on to say that the university has an obligation to provide healthy, nourishing food to fuel healthy minds and bodies capable of

⁵⁰ IR4

⁵¹ IR22

⁵² IR17

⁵³ IR4

utilising the opportunities within students' education. The importance of the university taking responsibility for basic needs was correlated across several interviews – a need put bluntly by one staff member as seeing so much 'student poverty in my office.'⁵⁴ On one campus in a city known for its high cost of living, a member of an external organisation working closely with the nearby university commented on factors impacting students' ability to make change and to be involved with foodscape projects while studying,

It certainly helps to have your basic needs met. And that feels particularly salient now more than ever in the current ... financial landscape of living [here]. None of this work is going to be possible unless students have a way to know that at the end of the day their basic needs are going to be taken care of.⁵⁵

The pressure of housing and food insecurity was a topic also broached by student respondents. One, working within a campus basic needs project, also discussed how financial stress limited students' capacity to get involved with driving change within the institution. Particularly, they pointed to the existence of 'so many barriers for students who don't come from generational wealth'.⁵⁶ Noting further that for these students the pressures of cost of living, the need to work, as well as their commitments to academic work, left little time or capacity for student involvement in extra-curricular activities to address systemic issues on campus and the foodscape. These comments demonstrate a key issue in campus foodscapes: often the students most impacted by disparity and inequality are least able to get involved in shaping and enacting visions for transformation. This lack of representation in turn risks the likelihood that

⁵⁴ IR17

⁵⁵ IR16

⁵⁶ IR5

transformative actions will actually perpetuate existing inequalities. While discussing these issues the respondents were critical of structural factors limiting student involvement in projects. A particular concern was that often foodscape projects required a high degree of volunteerism, assuming free time and an ability to contribute free labour – a luxury not always afforded to students needing to work, or to work multiple jobs to afford their education.

Ideas about university's role to educate future citizens extended beyond traditional ideas of curricular activities and academic research, to conceive of a more nuanced concept knowledge exchange within school communities,

We are educational institutions and if we don't use the opportunity to educate our students, our faculty, our staff, our communities, then we're missing out on an important opportunity for education. And I think we wouldn't be doing... We wouldn't be upholding our responsibility because education on the college campus goes beyond the classroom.⁵⁷

Further, an understanding emerged that institutional operations held an important role in modelling choices and behaviour to the community, not only for explicit educational purposes but to demonstrate authentic commitment to change. An interviewee described their campus 'like a small town, the beauty of it is every year people move out of here and take their habits we helped create.'⁵⁸ Another expanded on this theme of influence, emphasising the importance of marrying the educative potential with operational action on behalf of the institution,

I think that we're in a unique position to not just shift the way that we do food here. But also, to empower people to

⁵⁷ IR10

⁵⁸ IR2

think about food differently in their own lives after they leave this institution ...

It's about empowering the individual students to become good stewards at the same time. So, I see that as an equally important part of our mission. And I want to make sure that those always go hand in hand, because if they're out of step ... the students see that as hypocrisy, and they pick up on that very quickly.⁵⁹

One interviewee phrased this as the opportunity to take advantage of the 'particular intersection of student mobilisation and academic deployment'⁶⁰ – believing that this combination was unique to universities, and their student and staff communities. These motivations were felt to be a part of the *raison d'être* of these respondents' jobs: to provide the background knowledge to cultivate and inspire an informed student population.

While some informants framed the chance to shape the outlook of graduates in a general way, others expressed specific agendas. Detailing an interdisciplinary, food-literacy-centred curriculum, a staff member from a prestigious and exclusive institution illustrated their 'subversive mission' by offering a vignette of a recent graduate who has landed a job at a powerful global strategic consulting firm,

[the graduate] says, 'I have got to put together this package where Chinese investors, are – say – putting in 200 new poultry farms in Zambia. We need to figure out the debt financing package.'

I want to be able to, pre-emptively, before they are working for the firm, have that student go to Zambia and have them talk to farmers. I want them to get an inkling of experience firsthand as to how that kind of movement of capital and that kind of thinking about capital affects people's lives – how it affects your life chances, how it

⁵⁹ IR8

⁶⁰ IR16

affects what's important to you, how it affects your relations with family.⁶¹

In designing programs and other education opportunities the staff member was keenly aware of both the privilege experienced by many students within the institution, and that for many their education would result in career trajectories with great influence. This staff interviewee hoped that involvement in their programs would result in 'food literate leadership.'⁶²

Student interviewees expressed a variety of motivations for being involved with campus foodscapes, and with work in the broader food system. Mirroring the sense of duty to educate outlined by staff above, one stated the desire to act after learning about food systems issues,

I think for me and from what I've seen [it's about] recognising injustices and wanting to correct that. Working to not screw up our food system even more than it already is.'⁶³

Another credited their wish to keep working within food systems to their education – learning about environmental impacts of food systems within their university studies, particularly environmental issues,

I think what made me aware of this issue or the necessity of the desire to work in this field is the alarming contribution of agriculture to greenhouse gases. And that's not the only environmental issue within conventional agriculture. That has become really inspirational for me – figuring out how all these things can go together.'⁶⁴

⁶¹ IR19

⁶² IR19

⁶³ IR9

⁶⁴ IR13

Returning to previous comments from university staff and their motivation to ‘empower people to think about food differently in their own lives’⁶⁵ it is also clear that this is a powerful force, not only after students graduate but while they are still a part of the university community. Students learning about environmental, health and social issues related to the food systems empowers them to become leaders driving change within the institution. Their voices add an important peer-to-peer perspective towards transformation within, and beyond campus foodscapes.

This section has established practitioners’ understanding of campus foodscapes demonstrating multiple definitions and motivations. Respondents’ contributions to defining campus foodscapes included the material flows of food on campus and through foodservice outlets, physical campus infrastructure for food and food activities as well as teaching and research. The difficulty in pinpointing the boundaries of a campus foodscape was discussed. Some interviewees addressed how the community interacts with and comes together to share food and to push for changes in the foodscape. Issues of equity and access were also included. I have presented an expanded definition of campus foodscapes, while acknowledging the distinction between a campus foodscape and the broader higher education foodscape. The latter half of this section discussed practitioners’ motivations for foodscape work including responding to immediate needs on campus as well as responding to broader social and environmental issues. Some respondents felt a sense of duty, both individually and on behalf of their university, to prepare students to be critical food citizens.

⁶⁵ IR8

The next section expands on these ideas to address drivers and barriers practitioners face while undertaking work in campus foodscapes.

5.4 Drivers and Barriers to Change Within Campus Foodscapes

This thesis has established that there is both organisational and institutional thickness across the US higher education foodscape and within particular campus foodscapes. The projects, programs and policy environment in these foodscapes are developing rapidly and understanding the dynamics of how these initiatives succeed and/or struggle is important to be able to continue this work and expand its impact. This section examines interview respondents' experiences within foodscapes and various food-related initiatives, discussing the factors and institutional structures that affect the efficacy of this work.

5.4.1 Responding to and Working with Students to Drive Change

A strong theme in practitioners' responses when asked *why* universities should engage in transformative food work was that they had a responsibility to their students to do so. Extending from this staff respondents from numerous institutions also discussed the need for reciprocal engagement from students – both so the institution could understand their needs and because students hold significant power within institutional structures. Several staff interviewees expressed that they wished students would utilise this power more often. This desire was described by one participant as the potential of 'student activism as the driving force'⁶⁶ in facilitating change. Several respondents felt that student

⁶⁶ IR8

voices led to greater consensus across the institution, as one stated, ‘anyone who wants to make a larger than incremental change on campus – student pressure is the way to get it done.’⁶⁷

Another practitioner picked up a similar thread, reflecting,

It makes my life better when our students are engaged and want to help, but also when they're pushing us to do things that might be politically tougher ... when [they] organise and have a very clear ask, it's much easier for the administration to respond. And even better at a university, if you could get students, faculty and staff saying the same thing – that is this beautiful trio that can work magic.⁶⁸

Another staff member asserted that student voice counts, they explained, ‘I’m trying to work with students around some of the education and awareness building around the connection between food and climate ... well, because their demands, we [the university] take seriously.’⁶⁹ This was echoed from a staff member working between dining services and sustainability, stating,

As students are learning things in school, they're bringing it to our attention and filtering it up through the pipeline to the operators. ... The students keep us cutting edge and questioning whether this is the right direction.⁷⁰

These responses demonstrate the importance of collaborating and building relationships with students, and their role as allies in legitimating and driving change within the complex bureaucracies of educational institutions. As well as their role in holding universities to account. Despite the desire to work with students to effect change, practitioners noted the difficulty of connecting with

⁶⁷ IR7

⁶⁸ IR11

⁶⁹ IR26

⁷⁰ IR24

students. One interviewee told of how they were working within their role to seek out people on campus that held shared values in hope that student representation could help to 'leverage the administration.'⁷¹

Students have a limited lifespan within university communities – usually three to four years and may have the opportunity and capacity to get involved in extra-curricular activities only during a part of this short tenure. Although a limited number may stay involved in various capacities, this inevitable turnover presents a challenge to continuity for student-run projects, advocacy and programs reliant on volunteers. One of the key issues identified by interviewees was the loss of intergenerational knowledge that happens as students move on from the institution.

A student leader in charge of managing a foodscape project was keenly aware of this problem,

You need that institutional backing. If you have ... students creating something, but there isn't someone there to maintain it – after they're gone, it just, it can't continue. It's just so difficult and [students] need help to pass things to other students.⁷²

Although they felt that the program they were working on had sufficient support, they had seen many other community-initiated projects come and go, faltering after the core team had moved on. The interviewee emphasised that it was not a lack of capability on behalf of the students. They viewed their own position in the foodscape, as a student leader in a campus food pantry, as a viable model due to its 'connection to an actual part of the campus, there's real funding

⁷¹ IR7

⁷² IR5

coming from the campus, there's a real physical space.' Another student identified the importance of meeting student interest with institutional resources,

Student involvement is a big driver of a healthy and sustainable campus food system – and also upper-level administration - if they're interested in these issues. You need support. If people are feeling like they have an issue that they can't voice – that happens when there's a lack of opportunities or resources available for students. You don't feel like there's an outlet where you can voice what you want to make happen⁷³

Institutional backing underpins the stability, longevity and continuity of student-led projects. It also creates an environment in which students can imagine and enact changes in their foodscapes.

A staff member who had seen several generations of students come and go recounted a long-term, student-driven effort to push for policy change in food purchasing via organising a Real Food Challenge campus chapter. The group campaigned for the adoption of the Real Food Standards, committing the institution to purchasing 20% of its dining ingredients in line with Real Food Standards. The campaign failed, despite, as the respondent suggested, having been 'fairly close.'⁷⁴ They recounted that those relationships 'got severed' – the campaign's student leaders graduated and around the same time there was staff turnover within dining operations. This resulted in the loss of key players involved in the process. The interviewee suggested that having noticed this loss of momentum their office worked, where possible, to 'keep that institutional

⁷³ IR1

⁷⁴ IR7

knowledge and consistency,⁷⁵ aiming to steward knowledge and relationships between successive student cohorts.

5.4.2 Financial Resources

While discussing their work and roles within campus foodscapes, interviewees raised a range of factors that act as both drivers and barriers to enact and/or hinder transformative change. The availability and accessibility of resources was mentioned in some way by nearly all respondents. Money was key among the resources that participants raised while discussing their involvement with campus food projects and policy processes. Some responses bluntly highlighted the ongoing fight for sufficient funding as a central challenge: ‘the biggest barrier is always cost’⁷⁶ and ‘money is always number one.’⁷⁷ Another added, ‘cost is still one of the biggest ones – not just cost of the product, but cost in terms of time to research,’⁷⁸ bringing attention not only to the cost of goods and services but the issue of human resources. This included job roles dedicated to foodscapes as well as adding foodscape work and responsibilities to the scope of existing positions, and how to balance this additional labour with other commitments. Other interviewees expanded on the ways in which a lack of funding impacted their work. Acknowledging the general trend of funding cuts to higher education, especially public institutions, a practitioner working in student services described the situation,

Our campus is in lizard brain mode because when you're underfunded, you're just trying to survive ... so, the institution in itself is not at its highest capacity for

⁷⁵ IR7

⁷⁶ IR21

⁷⁷ IR4

⁷⁸ IR11

strategic planning and policy and all those great things that you would expect – because we're underfunded.⁷⁹

Similarly, speaking to their role in sustainability, an interviewee explored the tensions between the university's public commitment to being green versus how readily the senior administration provided adequate resources,

Sustainability is sort of the shared value – it's accepted here, but it's competing with other interests. Especially economic, monetary short-term interests. So, if you're trying to do something very large or very outside the bounds of what we're currently doing – a large institution is by nature sort of conservative when you're looking at those changes.⁸⁰

The interviewee believed that based on their experience, consensus from different departments and groups across the institution was a key factor in acquiring adequate support and resources from the university's administration for novel ideas and programs. For example, advocacy from a number of departments, or support from groups including representatives from students, academics and professional staff.

Long term, tightening budgets and ongoing financial pressure has the potential to negatively impact institutional culture. An interviewee working across various departments with both students and academic researchers emphasised their view that ongoing competition for funding was a potential block to collaborative and interdisciplinary projects,

It's unfortunate – but when you look at the people who have made it through that gauntlet of tenure a lot of them are kind of broken people, always looking over their shoulder to see who is going to stab them in the back ... it's very hard when you've got someone in that position

⁷⁹ IR17

⁸⁰ IR7

[for them] to think about big, generous, collaborative initiatives.⁸¹

This response was situated not as an issue specific to that institution, but as a reaction to the broader higher education landscape and the scarcity of research money, as well as the protectiveness over intellectual property linked to funding allocation. The interviewee reflected that the ‘politics of knowledge production’ were stratified to the point of preventing novel research formats and stifling ambitious, innovative plans. This response recalls the critique of the university sector in the neoliberal paradigm discussed in Chapter 2.

Often, even when money is available for novel ideas or extra-curricular support services there are conditions concerning how the money can be allocated. This is particularly true in relation to external grants which are frequently used to fund extra-curricular projects and services. Working within basic needs services, at a public university within a community with high needs, a respondent expressed their frustration at how this impacted their ability to help students. In particular it was near impossible to find funding that could be spent on new infrastructure and difficult to find money to pay employees. The frustration was further compounded by the immense amount of labour required to seek and administer funds. They offered,

Let's use the example of how we got allocated our funds. If it was just a straight base funding allocation, it would have been a 5-hour effort ... Instead of that, we have a 500-hour effort of official grant submission, grant review, allocation rules, allocation guidelines. They try to dictate to us how we spend it.⁸²

⁸¹ IR19

⁸² IR17

This was corroborated by another interviewee speaking to a previous foodscape job at a different higher education institution, in which programming relied on grants. They recollected, 'I was sometimes administering 15 grants a year and that's just too much.'⁸³ Their current role had shifted to focus on philanthropic donations from individual donors which relied on 'rapport' and 'relationships'⁸⁴ – which ultimately allowed more freedom in the way funds were allocated. Despite this freedom, building and managing relationship still requires a significant allocation of work hours. Many programs conducted with a view to transformative foodscape work are trapped in this paradox: that it requires many hours of work to cultivate, or seek and acquit funding, yet funding to be able to pay project staff is difficult to secure.

Conversely, several interviewees from both private and public universities spoke differently about financial resources in cases where their programs and projects were not reliant on public funding or grant applications. An interviewee working within a self-managed dining operation described that in their department,

We don't take a dime from taxpayers. All this goes back to our program and so we have a little bit more leeway in how we do things.⁸⁵

They contrasted this to faculty-driven programs and projects which were reliant on applying for and acquitting state-sponsored budgets. Self-managed dining programs do not have to portion their income between the university and an external corporation and therefore have significantly more autonomy on how

⁸³ IR19

⁸⁴ IR19

⁸⁵ IR2

that money is spent and returned as infrastructure, services and programs for the university community.

In answer to a question about barriers to change within universities, an external practitioner involved in foodscape work across many campuses responded,

Money. Funding is a particular issue in terms of having the money to do what campuses want to do ... Then campuses privatise parts of their programs to pay for things ... I think that money is a big barrier because people give up control over the autonomy of the campus.⁸⁶

Their reply not only indicates that funding scarcity made foodscape projects difficult, but that it potentially added further conditions and hurdles to creating healthy, sustainable and equitable foodscapes. This issue is discussed in more detail in Chapters 6 and 7, addressing the impact of outsourcing and sponsorship by corporations on campus foodscapes.

The above responses from campus foodscape practitioners demonstrate that restricted and/or limited funding is of constant concern to those looking to push for and sustain change within institutions. Responses show that the allocation of money not only threatens the initiation or continuation of transformative projects but over time shifts the expectations and outlook of the institution and its community members, limiting cooperation and dampening ambitions and bold ideas for ways to drive change – factors much needed to address complex, systemic challenges.

⁸⁶ IR15

5.4.3 Connecting Disparate Resources

One of the frustrations expressed by foodscape practitioners was that even when campuses had certain food-related resources available, it often took a sustained effort to access these resources and utilise them, requiring extensive coordination between various parts of the institution. An interviewee recounted the process to obtaining campus-grown ingredients for the school's dining operations,

We had to jump through barriers to get to the student farm but eventually we were able to make a whole campus grown pizza ... we had tomatoes, they grew a bunch up at the ranch that we processed into tomato sauce every year. We had meat from the meat lab that we could use, cheese from the meat lab and then student farm vegetables.⁸⁷

A number of practitioners working in campus foodscapes indicated that the work of connecting up different aspects of the institution was a key part of their role, including bringing together infrastructure, people and departments as well as policy and funding.

Information and data were identified as key resources to inform work aimed at transforming campus foodscapes. Information is required as a basis for research, as evidence in making a case for a new program, project or policy, and to inform any behaviour change intervention. Information and data are important in their own right, but as described by a sustainability-oriented interviewee, the resource of time was also crucial in being able to find information, research it and act on it,

I think that's a huge driver: better information and better ways of comparing across institutions, because we just

⁸⁷ IR24

don't have the in-house time to do that type of research. I mean, we have a little bit more [here], but then what about all the other schools and institutions? So that's huge, access to information is huge.⁸⁸

Another informant recalled the work required when beginning to engage with work around sustainability, food and reporting, stating 'it was a massive amount of work just to generate the data'.⁸⁹ Reporting also presents the challenge of requiring stakeholders across the institution to commit to extra work to provide necessary data.

Working with vendors also presents other barriers to information access. A staff member who worked closely with the campus foodservice provider pointed out tensions in acquiring and using information from private operators,

Our challenge is getting information – they have a lot of data but it's a private company. It's about what can be publicly shared – it doesn't mean we can't get it, but we can't just share it ... We're data-driven campus – so it's actually getting [the data] because we can't tell a story – and we know there's a good story to tell.⁹⁰

This was correlated by a staff member speaking to the implementation of campus-wide standards, noting that for food vendors 'their first year [under the standards] was a lot of data collection'.⁹¹

Institutional structure was seen as a potential hurdle to change. Large institutions are complex by nature, a feature which can easily become overwhelming. A respondent identified this stating, 'no-one understands how the system works. No one understands if they want to make changes where they

⁸⁸ IR11

⁸⁹ IR21

⁹⁰ IR20

⁹¹ IR11

go.’⁹² Another responded to a question on barriers to change by saying, ‘definitely the siloed nature of the different organizations.’⁹³ Navigating institutions was identified as a barrier that, over time, resulted in a sense of inertia and frustration for those trying to make change. Working within a large public university, an interviewee explained barriers to implementing innovative, and enduring projects,

Bureaucracy. Oftentimes there's no clear roadmap for making decisions, and no clear goals or vision that's articulated ... and at this point — I'm starting to wonder, okay, well, what do we do next? Because we haven't really articulated that— I don't quite know what we are trying to achieve at this point.⁹⁴

Another simply stated, ‘I feel like so much of my job is wrangling bureaucracy.’⁹⁵ Given the inherently interdisciplinary nature of food systems and the fact that working within them often requires practitioners to draw on human resources, operational and academic expertise and various physical elements of campus infrastructure, negotiating these challenges is a critical element in making transformative work within institutions possible.

5.4.4 Policy – Networks and Relationships

With their size, complexity, and large and diversified financial and human resources, higher education institutions are well placed to make connections and links between disparate stakeholders and various internal and external actors in their immediate foodscape and broader food system. Practitioners spoke of this capacity as a reason for why universities should

⁹² IR23

⁹³ IR9

⁹⁴ IR8

⁹⁵ IR23

engage in food systems projects and policies. Working in dining services, a participant celebrated the capacity to collaborate across academic research and operational aspects of the institution,

We have a big food science department here – and we work with them when we're trying to figure out how can we partner up. They have the facts, and the science behind it, we've got the stove and the oven – we can do something.⁹⁶

When navigating the complexity of institutional bureaucracy and disciplinary boundaries it is often helpful to have key players stewarding projects or policy processes. An academic reflecting on two decades of experience during which sustainability emerged as a concern in higher education, recollected on the ways it had shaped their outlook. Early in their career, they explained, they subscribed to a structuralist philosophical outlook concerning social processes and the processes of change. However, this view had evolved to understand the importance of key individuals as catalysts for change, who can ‘move the conversation forward.’⁹⁷ Within higher education settings, they continued, often ‘it all comes down to a champion, or not just one, sometimes and often effectively a committee or group’⁹⁸ to push for change and innovation.

Throughout the interviews many participants emphasised the centrality of structures which facilitated opportunities to come together and collaborate on foodscape work in the push for change. Many participants participate in various groups, committees and broader governance activities. Table 5-1 below demonstrates the variety of groups that have been set up across the US higher education foodscape to manage food and sustainability related

⁹⁶ IR2

⁹⁷ IR21

⁹⁸ IR21

governance and activities. The list of groups has been developed from the STARS dataset. Structures that were provided by universities in their reporting included *action teams*, *coalitions*, *committees*, *councils*, *steering groups*, *think tanks*, *taskforces* and *working groups*. Many of the groups listed were identified as existing structures at multiple institutions. Among the identified groups *councils* tended to have a more formal advisory mandate, formed at the behest of senior administration, and *coalitions* tended to denote disparate, multi-stakeholder groups coming together with the specific purpose of exchanging information. The remaining governance structures, their functions and their associated activities were broadly similar despite their varied nomenclature. Half of the groups identified were specifically related to campus foodscapes, further demonstrating the importance of food-related activities across campuses.

Table 5-1 Governance Groups Identified Related to Campus Foodscapes

Action Team	Council	Think Tank
- Food Security Action Team - Regional School Systems Farm-to-School Action Team - Sustainability Action Team - Environmental Action Team	- Food Forest Advisory Council - Auxiliary Enterprises Management Council - Food Council - Food Policy Council - Wellness Council - Wellness Advisory Council - University Sustainability Council - Student Sustainability Council - Student Sustainability Advisory Council - Sustainability Faculty Advisory Council - Campus Sustainability Council - Sustainability Council - Council on the Environment - EcoReps Advisory Council - Sustainable Operations Council - Environmental Advisory Council	Waste Think Tank
Coalition	Steering Group	Working Group
- Campus Food Coalition - Food Systems (Sustainability) Coalition - Sustainability Coalition - Environmental Stewardship Coalition	Sustainable Systems Steering Group	- Basic Needs Working Group - Food Insecurity Working Group - Food Security Working Group - Hunger Reduction Working Group - Campus Garden and Food Working Group - Fair Trade Working Group - Real Food Challenge Working Group - Green Dining Working Group - Food Entrepreneur Working Group - Food Systems Working Group - Food Systems (Sustainability) Services Working Group - Food and Sustainability Working Group - Regenerative Agriculture Working Group - Sustainability Revolving Fund Working Group - Waste Management Working Group - Zero Waste Working Group - Plastic Reduction Working Group
Committee	Taskforce	KEY
- Basic Needs Committee - Farm Committee - Urban Farm Lab Steering Committee - Green Certification Steering Committee - Standards Oversight Committee - Culinary Services Development Committee - Food Advisory Committee - Food Committee - Climate and Food Committee - Food Systems (Sustainability) Committee - Healthy Workplace Committee - Soft Drink Advisory Committee - Wellness Committee - Responsible Investment Committee - Climate Resilience Committee - Campus Sustainability Committee - Infrastructure Sustainability Committee - Student Senate Sustainability Committee - Sustainability Visioning Committee - Committee on the Environment - Green Practices Committee - Food, Purchasing and Waste Committee - Organics and Food Waste Committee - Zero Waste Committee	- Food Security Taskforce - Dining Services Taskforce - Food Taskforce - Campus Sustainability Food Taskforce - Food Systems (Sustainability) Policy Taskforce - Food Systems (Sustainability) Strategy Taskforce - Food Systems (Sustainability) System Taskforce - Socially Responsible Investment Taskforce - Climate Resilience Taskforce - Campus Sustainability Planning Taskforce - Carbon Mitigation Taskforce - Recycling and Waste Taskforce - Waste Not, Want Not Taskforce	- Basic Needs - Campus Food Infrastructure - Certification and/or Procurement - Dining Services - Food Systems (General) - Food Systems (Sustainability) - Health - Investment - Sustainability - Waste
Campus foodscape and campus sustainability governance and consultation group names derived from STARS data		

Alongside formal governance structures, less formal elements were discussed as also being critical to the success of transformative work within institutions. A staff member from foodservices emphatically reported the importance of relationships to facilitate a campus-wide engagement with food. They described the communication concerning work across disciplines and departments as ‘very informal,’

We're at an event, we see each other, a conversation starts, we're talking ... like, ‘has anybody thought about reducing this?’

‘Oh yeah!’

‘There's some serious discussion about this.’

‘Can you send me an invite, I'd love to participate.’

This is how things get done. It's very community driven.⁹⁹

A similar experience was noted from an interviewee at a different university who explained, ‘It's all, “I know this person who is working on that” or “this person working on food on our campus is interesting.”’ Informal interactions were identified as important to maintaining relationships but also as a means of keeping abreast of what work people were undertaking in various parts of the institution and discovering opportunities for collaboration and exchange.

Communication and networks are as important between universities as they are within them. Scaling up the impact of campus-centred work requires cross-sectoral connection and collaboration. An informant summarised the

⁹⁹ IR2

potential impact of engaging in communities of practice and being able to share and learn from peers,

I think when universities are plugged into the right networks and we are thinking of our campuses and taking advantage of the strategic advantage we have – the research going on and the people wanting to learn – there's this chance where we can be these little incubators of research and new strategies.¹⁰⁰

Another respondent reflected on the power of networks to amplify strategies for change. Discussing student-led change they stated: 'If students can connect to each other through different campuses – and there are networks that exist that allow that to happen – then [issues] can be elevated.'¹⁰¹ Compared with other institutional foodscapes, even from K-12 educational settings, the potential for transformative work and collaboration is distinct in campus contexts. Although healthcare settings may have access to expertise around nutrition, diet and disease, they are less likely to have access to knowledge and research on food production, food science or the social and community dynamics of food sourcing, preparation and distribution. Arguably university communities, particularly students, have more power than those participating in other institutional settings.

5.4.5 Student Agency in Eating in and Out of Higher Education Institutions

Murcott (2019) queries the binary between the idea of 'eating in' and 'eating out' noting that institutional spaces are not home, yet as a site where people spend long spans of time – particularly in the case of residential students

¹⁰⁰ IR11

¹⁰¹ IR24

– they are not quite eating ‘out’ in the sense that the concept is ordinarily utilised. The convenience, and sometimes necessity, of accessing food within campus foodscapes nullifies the sense of occasion usually associated with the term ‘eating out.’ Contemplating the sense of agency that determines the space between spaces in which we eat, Murcott asks the question: ‘Under what social circumstances and with what consequences do (and can) people move from where they are one minute to somewhere else the next’ (2019: 68). Within some of the campuses visited during research there were a variety of choices of food outlets on campus, and at some sites any number of outlets in the adjacent metropolitan streets (as seen in **Error! Reference source not found.**, below).

Figure 5-4 Some campuses, as shown by these photographs from four different campuses visited during fieldwork, have a mix of retail options to supplement campus dining outlets run by either internally run or contracted auxiliary services. Other offerings including grab-and-go stores, chain quick-service restaurants, and food trucks and/or carts. See Map 4.4 for further examples of food distribution on campuses.

Other campuses present much less choice. At one site the campus was removed from the main town in such a way that it would not be possible to utilise alternative options without some access to time and transport. In that case the campus community had limited choices for accessing food amidst their busy class and teaching schedules. In places with more options students still may not have the means to access alternative food on a whim, stretched already by the costs of meal plan subscriptions and the other costs of attending college. Some in the campus community may also be excluded from accessing certain options by the sub-textual currents of power between various community groups.

In considering agency within foodscapes, Murcott draws on Goffman's description of the total institution: sites removed from the usual activities of society, where subjects tend to be anonymised by their sameness through uniform clothing, depersonalised roll-call nomenclature and subservience within the hierarchy of the community (Goffman, 1963). Such *total institutional* environments are definitionally riddled with uneven power relations (Cohen et al., 2017). In settings such as prisons, hospitals and aged care, the inmates, patients and residents cannot walk away from a sub-standard or unwanted meal. In elementary and secondary schools, students are not as anonymous but they are rarely free to contest the choices made for them (although their parents and communities may be). In contrast, within the contemporary university students have agency to spend money elsewhere, time to organise, and extensive networks of social relationships. In a grim neoliberal framing, students are customers in a highly competitive sector. It is in the best interest of the institution to recruit and retain their students, not only for the income streams of government funding and tuition, and housing and dining plans, but of future students in alumni's children. In the case of elite and specialised institutions,

the aim is also to retain future researchers delivering academic prestige, funding and intellectual property. This dynamic affords college students leverage that may not be available in other institutions. Collectively, compared to other institutional populations, students, faculty and broader campus communities have significant agency to create change in their foodscape.

5.4.6 Insights from Practitioners' Experiences of Drivers and Barriers While Engaging in Campus Foodscapes

This section has discussed drivers and barriers experienced by practitioners in campus foodscapes. When prompted to discuss ideas around drivers and barriers many respondents mixed their answers, often discussing drivers as the absence of a barrier and vice versa. As such, where possible, the factors identified in interviews have been organised to demonstrate the connection between each end of the spectrum and arranged into themes as summarised below in Table 5-2.

Table 5-2 Drivers and Barriers to Campus Foodscape Transformation Identified by Interviewees

+ Positive Value	- Negative Value
COMMUNICATION	
Clear and accessible channels of communication between campus stakeholders	Lack of, or inaccessible channels of communication between campus stakeholders
Clear pathways and mechanisms for campus community stakeholders to interact and collaborate across disciplinary backgrounds	Hostility towards campus community stakeholders interacting and collaborating across disciplinary backgrounds
Clear pathways and mechanisms for operational and professional staff to interact and collaborate with students and academic staff members	Hostility towards operational and professional staff interacting and collaborating with students and academic staff members
Clear channels of communication between campus stakeholders and external suppliers	Hostility towards open communication between campus stakeholders and external suppliers
Mechanisms to communicate and collaborate between institutions	Lack of mechanisms to communicate and collaborate between institutions
Mechanisms to share data and best practice between institutions	Lack of mechanisms to share data and best practice between institutions
INFORMATION	
Access to information to support making decisions and implementing change	Lack of access to information to support making decisions and implementing change
Access to reliable data to support making decisions and implementing change	Lack of access to reliable data to support making decisions and implementing change
Access to reliable evidence to support making decisions and implementing change	Lack of access to reliable evidence to support making decisions and implementing change
RESOURCES	
A physical connection/location and/or infrastructure on campus	Lack of a physical connection/location and/or infrastructure on campus
Available funding to implement novel ideas, programs and policy	Lack of available funding to implement novel ideas, programs and policy
Resources to pay necessary staff to develop and run programs	Lack of resources to pay necessary staff to develop and run programs
Resources to pay necessary staff to develop and implement policy decisions	Lack of resources to pay necessary staff to develop and implement policy decisions

Faith in the availability of ongoing funding to support ideas, programs, and policy	Uncertainty about the availability of ongoing funding to support ideas, programs and policy
Sufficient and skilled labour allocation to resource work required to make change	Lack of sufficient and skilled labour allocation to resource work required to make change
Reasonable cost of alternative products or services to support transformative change	Unreasonable cost of alternative products or services to support transformative change
Availability of space, facilities and/or infrastructure to deliver intended programs and/or policy	Lack of available space, facilities and/or infrastructure to deliver intended programs and/or policy
Capacity to keep pace with changing demographics and needs of campus community, particularly students	Little capacity to keep pace with changing demographics and needs of campus community, particularly students
Capacity to keep pace with rising student numbers	Rising numbers of student enrolments unable to be met with investment in staff, space, and facilities
Accessible resources available to be utilised by stakeholders across the campus foodscape (i.e., access to campus farm and produce, or staff able to access basic needs services)	Barriers to access resources to be utilised by stakeholders across the campus foodscape (i.e., access to campus farm and produce, or staff able to access basic needs services)

INSTITUTIONAL STRUCTURE

Understanding and support from senior institutional leadership	Lack of understanding and support from senior institutional leadership
A clear administrative home within institutional structure	Lack of a clear administrative home within institutional structure
Dynamic institution willing to change	Institutional inertia and lack of capacity and/or interest in committing to change
Institutional reflexivity and willingness to engage in audits and/or research to establish baseline understanding of progress and commit to transformative targets	Institutional rigidity and unwillingness to engage in audits and/or research to establish baseline understanding of progress and commit to transformative targets
Institutional reflexivity and willingness to engage in reckoning of institutional character and reputation to address required change	Institutional rigidity and fear of threatening existing reputation
Institutional commitment to make multi-scalar changes involving broad institutional commitment and community behaviour change	Institutional belief that change is the sole responsibility of personal behaviour and choice
Appropriate mechanisms to ensure continuity and knowledge-transfer between generations of students	Lack of continuity and knowledge-transfer between generations of students

endangering the longevity of projects or campaigns

Inclusive structures that allow representation from diverse stakeholders	Hostile structures that exclude representation from diverse stakeholders
Transparency around nature and financial details concerning relationships with outside corporations and sponsorship agreements	Obfuscation of nature and financial details concerning relationships with outside corporations and sponsorship agreements

INSTITUTIONAL CHARACTER

Commitment to demonstrate stated values in operations, teaching and research	Disconnect between stated values and operations, teaching and research
Commitment to demonstrate ethical commitments in operations, teaching and research	Disconnect between ethical commitments and operations, teaching and research
Receptive audience of stakeholders willing to commit money to implement projects and/or policy decisions	Hostile audience of stakeholders unwilling to commit money to implement projects and/or policy decisions
Clear institutional responsibility taken for meeting the basic needs (food, housing, healthcare) of campus community	Lack of institutional responsibility taken for meeting the basic needs (food, housing, healthcare) of campus community
Allows staff and students to actively challenge existing structures and engage in political action without consequences	Campus community, especially staff, afraid to engage in challenges to existing structures for fear of ramifications in funding, promotion, or job security
Clear commitments and action to address historical injustices and racism by the institution	Denial of institutional responsibility for historical injustices and racism
Commitment to develop and deliver inclusive policies and programs that consider intersectional needs of diverse campus community members	Failure to include or accept diverse representation in development of programs and construction of policy. Failure to acknowledge impacts of systemic racism

POLICY PATHWAYS

Campus community clearly comprehends the elements of the campus foodscape and how the system works	Lack of understanding from campus community about elements of the campus foodscape and how the system works
Availability of accessible processes to make change or implement/follow commitments	Excessive bureaucracy to make changes or implement/follow commitments

Clear pathways to making change understood and accessible to campus community stakeholders	Pathways to change unclear. Process of change opaque and inaccessible to campus community stakeholders
Understanding of and access to the right decision maker to change an existing situation or policy	Poor understanding of who is responsible for decisions concerning projects and policy
Clear goals and vision effectively communicated to stakeholders	Unclear goals and vision poorly communicated to stakeholders
COMMUNITY COMMITMENT	
Campus community values food and understands the impact of food choices and concepts of food justice	Campus community disinterested in food and poor understanding about the impact of food choices and concepts of food justice
Individual community members and/or groups willing to commit to behaviour change	Individual community members and/or groups disinterested in committing to behaviour change
Individual community members and/or groups willing to negotiate the impacts of changes even though it may result in change of the status quo	Stakeholders actively working against change to protect their own interests and/or benefits and maintain the status quo.
Willing participants for campus community programs and volunteer opportunities who are able to sustain commitment over a period of time	Lack of participants willing to engage in projects and lack of, or high turnover of individuals who can commit effort to programs and opportunities

5.5 Conclusion

This chapter presents evidence from the field and from faculty, professional staff and students doing work to facilitate connections to campus foodscapes and critical food literacy within university communities. It began with considerations of interviewees' understandings of the term 'campus foodscape', which were incorporated into an expanded definition of the term, as well as the differentiated concept of higher education foodscapes. The difficulty in delineating boundaries of institutional foodscapes was discussed, acknowledging the multiplicity of sites and relationships that make up a

campus foodscape, as well as those which act as bridges between campuses and broader foodsheds and community relationships. Identified motivations for working with food in universities included a sense of duty implicit in being an agent within higher education institutions, and the responsibility of educating the next generation of critical citizens, food system leaders and eaters. A feeling of urgency also emerged as a motivation, with practitioners expressing their desire to contribute solutions to complex social and environmental problems.

Next, this chapter drew on the experience of interview respondents to develop an understanding of the various factors that encourage foodscape engagement, and the factors that can frustrate engagement and change. Among drivers of positive transformation several key themes were identified, including the need for adequate institutional support, covering both financing and other resources, including access to space, infrastructure and adequate staffing. Networks and relationships were also noted as a crucial factor in working within large institutions, as well as dedicated governance structures such as issue-oriented committees. Barriers included the impact of not having sufficient access to resources including the loss of continuity and momentum when losing staff, and also in failing to steward knowledge between generations of graduating students. The complexity of institutions was also recognised as a feature that must be tackled in order to best understand the location of leverage points to utilise in attempts to make change. The discussion concluded with a reflection on the specific agency held by those within universities as opposed to other types of institutional foodscapes.

This chapter concluded with a summary of the drivers and barriers reported by informants. Many of these were discussed in this chapter and others

are expanded in the following chapters. The following sections of this thesis consider campus foodscapes through the lens of specific issues. Chapter 6 considers outsourced dining operations as a trend in the higher education foodscape and the particular barriers this present. Chapter 7 expands on the theme of corporate involvement in campus foodscapes by analysing the contents of pouring rights contracts between multinational corporations and colleges. These chapters consider some of the drivers and barriers discussed above as well as some of the actions campus groups are taking to address the impacts of corporate presence within institutions.



6

**CORPORATE INCURSIONS INTO
CAMPUS FOODSCAPES VIA POURING
RIGHTS CONTRACTS AND
SPONSORSHIPS**

6 CORPORATE INCURSIONS INTO CAMPUS FOODSCAPES VIA POURING RIGHTS CONTRACTS AND SPONSORSHIPS

6.1 Introduction

The presence of corporations in campus foodscapes was raised by many interview respondents discussing their experience of food and foodscapes during their time at university. This chapter analyses one of the key strategies by which corporations build relationships with educational institutions, build brand loyalty with young people and expand the power of their brands. Pouring Rights Contracts are deals governing the exchange of sponsorship money for exclusive rights to sell a corporate beverage portfolio within a campus foodscape. The main actors controlling these contractual relationships are two multi-national corporations: Coca-Cola and PepsiCo. This chapter first introduces the nature of these contracts with a brief explanation of how they have become normalised in higher education. It then examines recent and current campus contracts to demonstrate the high value of these deals, as well as auxiliary benefits and other inclusions. Following this, key examples illustrate the extent to which company branding and the strategic influence of corporate messaging permeate campus foodscapes; particularly through athletics and recreation programs, and college sporting conferences. This chapter concludes with an overview of the two corporations in question and an examination of their reputation and conduct concerning research integrity, health promotion and sustainable practices. The analysis in this chapter foregrounds the discussion in the next which closely

examines the emergence of campus-based movements to reject corporate hegemony in public education.

6.2 Pouring Rights Contracts

Pouring rights contracts (PRCs) are the instrument governing deals made between corporations and institutions such as schools, colleges or city districts for the exclusive sale of a particular brand of soft drinks and other products from the company's portfolio over a period of years on sites controlled by the institution (Nestle, 2000). While these deals contain wide variety in their inclusions, the basic structure remains the same: corporations gain the right to exclusively distribute their product, in return offering a package of fees and bonuses as incentives. These packages include a sponsorship fee, usually as a large up-front payment followed by smaller yearly instalments as well as indexed commissions on sales of licensed beverages within the institution. These contracts typically range from five to ten years in length, although can extend to 15 year terms (Nestle, 2000). Increasingly, in the escalating war to secure such contracts numerous other benefits are bundled in including scholarship money, student project funds, sports and/or event equipment; support for infrastructure renovation or expansion, and the provision of in-kind opportunities such as speaker series, internships, student jobs and sustainability programs (see examples in Table 6-1 and Table 6-2 in the structure of contracts detailed in section 2.4 of this chapter).

Such deals have been widely criticised for allowing the colonisation of institutional, particularly publicly-governed, educational spaces by for-profit corporations. The corporate strategy behind targeting PRCs to educational

institutions revolves around the opportunity to market to a captive audience (students) at a formative time (Almeling, 2003; Nestle, 2000; Opalinski, 2006). Being able to create a marketing channel with no challengers allows companies to 'transcend the din' of other advertising and reach an audience forming their consumption and spending habits for the rest of their life (Almeling, 2003: 1113). Soft drinks are a low-value product which must be purchased frequently for the business model to be successful. It is therefore critical to build relationships to encourage customer loyalty and encourage repeat purchasing of a product. Relationships are cultivated between corporations and institutions via a strategy of 'intensive distribution', or sales and marketing in a highly saturated market, free of competitors and with minimum obstacles to purchase and consumption (Almeling, 2003).

These types of contracts emerged in the early 1990s. The Pennsylvania State System of Higher Education and The Pennsylvania State University¹⁰² were the first adopters signing PRCs for their associated state campuses between 1992 and 1994. The Pennsylvania State University contract guaranteed exclusivity for ten years in exchange for sponsorship payments of \$14 million including funding for student activities, scholarships and infrastructure expansion (Bowler, 1997; Juno, 2004). By 1997 over 100 campuses across the USA had signed similar deals, with the University of Minnesota receiving the then-highest sum of \$28 million (USD) from Coca-Cola (Bowler, 1997). By 2006 college sponsorship contracts were worth up to 3% of the total US business of

¹⁰² Pennsylvania is one of a number of US states which has two or more state university systems – the Pennsylvania State System of Higher Education oversees 14 universities spread geographically across the state, while the Pennsylvania State University has 19 campuses and 5 special mission (law, medicine etc) campuses across the state. Though jointly considered the forerunners of pouring rights contracts each university system made their respective deal independently.

Coca-Cola (Walters, 2006). In addition to campus-based contracts other organisations in the higher education ecosystem signed up to exclusivity deals including the National Collegiate Athletic Association (NCAA) in a deal worth \$500 million (Walters, 2006).

6.3 The Turn to Sponsorship in the Face of Education Funding Cuts

The value of campus contracts is tied to a number of factors including a school's prestige, athletics reputation, geographic location and student-body size. This chapter demonstrates the ways in which some schools benefit from multi-million-dollar deals. However smaller, state schools and community colleges may sign contracts with a benefit of \$60,000-\$80,000 annually. Not all contracts stipulate 100% exclusivity, yet all still impose extensive rules about service of all beverages distributed within the campus foodscape.¹⁰³ Examples of these contracts and their variations is addressed in more depth later in this chapter. PRCs may be made by a central administrative body for each of an institution's campuses or with individual branches of state university networks, such as the University of Massachusetts system - which has separate deals for each of its subsidiary campuses. In some cases, a state-level government may make a pouring rights deal which in turn covers regional, public higher education institutions. For example, the Illinois Department of Inland Revenue signed a PRC which covered all government services including the University of Illinois and Northeastern Illinois University (Des Garennes, 2007). There is no

¹⁰³ Or at times, outside of campus— again complicating the idea of where foodscapes begin and end these deals often stipulate beverage service as well as advertising (including clothing etc) and conduct of students and staff (what they can and cannot consume) at events and games away from their home school.

implicit need for a PRC, and indeed many schools go without them. In the absence of a contract an institution is free to procure its required beverage products as per other procurement procedures. However, foregoing the contractual relationship with a beverage company may result in less access to the lower prices preferentially offered to those contracted with corporations.

These arrangements flourished in the neoliberal funding scarcities across all levels of education in the 1990s and early 2000s (Almeling, 2003; Nestle, 2013; Opalinski, 2006), as mentioned above. The context is captured in this 1994 statement from the American Council on Education director of public affairs:

Colleges and universities are under tremendous pressure to hold down tuition [fees], despite heavy cuts in state funding and relatively flat growth in private giving. They're looking as never before for other sources of income.

(Merkowitz, quoted in Clark, 1994)

As well as income from sponsorship fees, schools may earn commissions from these contracts. Commission is contingent on a minimum number of units sold, turning schools and colleges into *de facto* marketing agents for sugar sweetened beverages (SSBs) (Opalinski, 2006).¹⁰⁴ However, over time the profits to soda corporations far outweigh the value of any benefit provided to those institutions who sign on to exclusivity deals (Nestle, 2000). Companies engage in these relationships to boost profits, not redistribute them. The exposure offered by engagement with college students and the subsequent boosting of each brand's worth has made education an ongoing and lucrative target for soda corporations

¹⁰⁴ The commission is usually connected to a number of a brand's flagship products such as its mainline soda, the details of this will be discussed in the latter half of this chapter.

(Kuzma et al., 2003). While these contracts were first instigated in higher education they quickly began appearing in primary and elementary schools as well as in deals with city governments, who are responsible for governing many subsidiary community services. By 2008 over 100 local school districts had signed exclusive soda contracts, by 2003 over one-third of school districts in the US had signed on - with benefits relying on a minimum consumption rate from school students and staff (Almeling, 2003; Nestle, 2000). Coca-Cola received negative press after one of their marketing agencies was found to be encouraging schools to allow unlimited access to Coke products and requesting teachers permit consumption during class time (Gottlieb & Joshi, 2010).

6.4 Attitudes to PRCs

There has been limited critical attention to PRCs and their impacts, nor attention to the structural factors which permit corporate influence in education to flourish and the policy environment which fails to effectively regulate these relationships (Opalinski, 2006; Thompson et al., 2020). In general exclusivity deals and their subsequent incentives are viewed by communities as unremarkable and rarely challenged (Opalinski, 2006). College presidents have raised objections to the conflict between these commercial relationships and the core mission of education in the university, and in the case of athletics, undermining the amateur nature of collegiate competitions (Zullo, 2013).

Thompson et al. (2020) conducted a study surveying 915 members of a college community and found that 62.5% were unaware of the PRC held by their university, and when informed of the deal only 38% agreed that it was a suitable relationship for a university. Although the existence of these contracts is public

information, the relationships are not always widely published or promoted, being sidelined as an operational matter. Among those who objected to the contracts, the reasons given included that it was: at odds with the stated wellness missions of the institution and research interests in health sciences; unethical to promote products known to be unhealthy, and a sense that the act of promotion of such products would inevitably drive higher consumption. Some also took issue with the lack of competition on its potential to limit access to healthier alternatives. Those who were happy to keep the contract cited reasons such as: the need to maintain the funding provided by the contracts and a belief that it was an individual's choice to make responsible consumption decisions. University students have a high level of awareness of the health impacts of SSBs (Howse et al., 2018; Thompson et al., 2020). However, this did not have an overall impact on the consumption rates of the products, for example one student in the study stated that their consumption was influenced because it felt wasteful not to consume items they had already paid for in their expensive meal plan (Thompson et al., 2020).

Interview participants in this research expressed a range of views on the presence of PRCs in higher education. A number of respondents expressed sentiments that viewed soda companies as an unchangeable element of the higher education foodscape. Ideas expressed by these respondents revolved around three key beliefs: the university was dependent on the economy of scale and related savings provided by big corporations; the brand was a part of the campus culture and tied to programs such as athletics, and thirdly, it was not the job of the institution to deny choice to individuals. Some respondents expressed their belief that it was an operational impossibility to change the

current model of beverage service on campus. In the quotations below one research participant raised the issue of PRCs in terms of economic efficiency and the other in discussing limiting factors to waste reduction campaigns:

it's also a reality of how business has to happen in order to happen effectively. Like if we didn't have a beverage contract and we were buying from 10 different suppliers, that would not be efficient either.¹⁰⁵

and

...but to get plastic water bottles completely off the campus would be doing away with all the Coke products and that's not going to happen.¹⁰⁶

Respondents from some campuses clearly expressed that they experienced soda companies as an integral part of the school's identity and therefore believed that the corporate presence could not be addressed in a way that would ever challenge existing contracts. One told of the way in which the brand was integrate into the excitement of commencement for new students every year,

We love Coca-Cola. We do a Coke toast¹⁰⁷ on the first weekend when first year students arrive here, and we do another Coke toast when they graduate. So yeah – enough said.¹⁰⁸

Another participant was more circumspect, observing,

¹⁰⁵ IR6

¹⁰⁶ IR21

¹⁰⁷ Every student and their family members are gifted a bottle and then all new students come together to complete the welcome toast with their Coca-Cola in hand

¹⁰⁸ IR10

They have a really solid relationship with athletics, so that is a contract we will never be able to touch — ever, in my estimation.¹⁰⁹

The relationships between corporations and campuses are solidified not only by the financial benefits provided to institutions but also by carefully cultivating the integration of their brands with the college experience; the identity of students; the identity and success of team sports and university culture with brands. These strategies are discussed in more detail throughout this chapter.

6.5 The Structure and Details of Pouring Rights Contracts

In 2019 the non-profit news site MuckRock, responsible for publishing editorials and seeking and hosting documents in pursuit of transparency, began the College Cola Contract Crowdsourcing project. Through 131 Freedom of Information (FOI) requests, the project was able to make 89 PRCs publicly available. The remainder are still awaiting final responses or were rejected by the respective institutions. The majority of the released contracts are from public universities, as private institutions are less likely to be subject to public transparency laws and conditions set by FOI laws.

To form a snapshot of the benefits and conditions set within these contracts I took a sample from the released contracts. Initially I completed a search for schools in the aforementioned major sporting conferences and then those contract documents were filtered for the schools with the most available information. Table 6-1 below, outlines the financial value of the contracts with

¹⁰⁹ IR18

the addition of special inclusions such as employment opportunities and/or sustainability programs.

Among the most lucrative, the Ohio State University contract worth \$84.7 million makes a portfolio of 800 products available to serve at OSU and its 61 000 students, with the company highlighting the inclusion of 250 'low or no-cal options', however this only comprises 30% of the sales offerings. In addition, commission paid to the university is contingent on a certain quota of units of the flagship high sugar products being sold per year, and clauses in the contracts stipulating that *only* large sized sodas are sold at sporting events. The contract does make an exception for the university's associated medical centre to serve beverages outside the contractual relationship.

Contracts stipulate exclusivity to varying degrees. To give more context to the contract data provided in Table 6-1, Table 6-2 below, shows a more detailed breakdown of the annual fees paid to two universities, Ohio State University and Kansas State University. It calculates the total benefit to the schools as \$72,415,000 and \$13,450,00, respectively, over the course of the contract periods. These amounts are exclusive of royalties and commissions paid for product sales. Following this, Table 6-3 provides a broad overview of the exclusivity conditions imposed by beverage corporations, the examples have been anonymised as they are broadly representative of the range of conditions imposed across the various available contracts.

Table 6-1 Comparison of 13 Schools' Pouring Rights Contract Inclusions

Conference	School	Vendor	Date Range	Contract Length	Sign on bonus	yearly payments				Sustainability inclusions	Other inclusions
						Sponsorship Fee	Scholarships	Marketing activation	Merchandising		
Atlantic Coast	U Louisville	PepsiCo	2016-2026	10	nil	\$732,500~	nil	nil	nil	nil	nil
	U North Carolina	PepsiCo	2014-2024	10	nil	\$375,000.00	\$200,000.00	\$25,000.00	nil	nil	nil
	U Virginia	PepsiCo	2012-2022	10	nil	\$1,046,250*	nil	\$60,000.00	nil	In kind support to the value of \$10,000 each year towards the University's recycling efforts.	\$10,000pa for university dining services interns; \$5,500 year towards Small, Woman and Minority (SWAM) fest
Big Ten	Ohio State	Coca-Cola	2018-2033	15	\$600,000.00	\$3,929,000.00	\$150,000.00	\$150,000.00	\$45,000.00	nil	6 Coca-Cola Company internships per year plus 2 campus ambassador roles per year; \$125,000 per year to support 'Student Discovery Projects' for 'mutually agreed student

Big 12									
University of Kansas	U Houston	Indiana U, Bloomington	Purdue						
PepsiCo	Coca-Cola	Coca-Cola	Coca-Cola						discovery and educational initiatives on Campus'; \$32,000 for Equipment to Student Life Department; Provision of a Campus Speaker Series
2017-2027	2010-2020	2014-2024	2013-2020						
10	10	10	7						
\$250,000.00	nil	nil	nil						
\$1,075,000*	\$465,000.00	\$2,400,000.00	\$900,000.00						
\$50,000.00	\$100,000^	nil	nil						
\$120,000.00	\$60,000.00	\$60,000.00	\$40,000.00						
nil	nil	\$30,000.00	\$10,000.00						
\$20,000 to be used on sustainability programs	65 all-weather recycling bins; Annual recycling competition including marketing and promotional materials and one \$250 prize; Visits from 'the Recycling Trailer'; Recycling-related merchandise for giveaways	nil	nil						
2 interns per year and agreement to hire 4 alumni over the course of the contract	1 internship at company bottler per year and 1 campus ambassador potion per year	nil	nil						

Pac-12									
U Arizona	UCLA	UC Berkeley	West Virginia University						
Coca-Cola	Coca-Cola	PepsiCo	Coca-Cola						
2008-2019	2013-2023	2011-2021	2016-2026						
11	10	10	10						
\$3,500,000.00	\$400,000.00	nil	\$500,000.00						
\$1,150,000.00	\$1,300,000.00	\$1,300,000.00	\$925,000.00						
nil	nil	#	\$247,500.00						
\$100,000.00	\$30,000.00	\$235,000.00	\$342,000.00						
\$31,500.00	\$50,000.00		nil						
nil	Seller shall provide commercially compostable standard logo cups, straws and lids with formal testing by UCLA and waste hauler to deem products acceptable. Seller will provide FSC certification or equivalent, reusable options where feasible, products with recycled content	Recycling bins, Dream Machines, or other items in support of a sustainability program with a value of up to \$15,000 dollars per year	\$10,000 to support a sustainability program at the university						
Access to employment programs	One-time payment of \$450,000 to University Housing and Dining for equipment. POWERADE Sideline equipment to the value of \$35 000 in year one and \$15,000 each year after	nil	speaker series: \$40,000; campus ambassadors: \$5,000, annual donation of \$25 000 to Mountaineer Athletic Club						

Southeastern	U Florida	PepsiCo	2015-2025	10	\$1,000,000.00	\$1,000,000.00	\$35,000.00	\$125,000.00	nil	\$1,500,000 (paid over five years) from Pepsi Tropicana+ subsidiary for sustainable citrus research and PepsiCo funding of \$32 000 for a low carbon organic fertiliser trial project. In addition, \$5,000 annually for campus sustainability initiatives	nil
	Louisiana State	Coca-Cola	2011-2021	10	\$187,500.00	\$150,000.00	\$100,000	\$30,000.00	\$100,000.00	'a reasonable number of branded recycling bins for use on Campus.'	nil
	Texas A&M	PepsiCo	2012-2020	10	\$2,120,000.00	\$1,100,000.00	\$35,000.00	\$125,000.00	nil	'sufficient recycling containers', \$15,000 for sustainability initiatives.	nil
	U Washington	Coca-Cola	2013-2023	10	nil	\$2,200,000	nil	\$40,000	nil	nil	nil
*Variable rate per year, whole amount calculated and divided by term of contract to provide average yearly payment ~University of Louisville: Split between campus: \$10,000; athletics \$222,500 and 'annual stadium support fund': \$500,000; West Virginia University: Split between campus \$355,000 and athletics: \$570,000 ^University of Houston, one-time payment at commencement of contract, not yearly as per other institutions # "may agree to provide funds for A.S.U.C. Diversity & Leadership Scholarships" +Pepsi has since sold the Tropicana brand, however these funds were dispersed prior to the corporation divesting the juice brand Source: MuckRock 2019											

Table 6-2 Details of PRC annual and overall benefits to Ohio State University and Kansas State University

Ohio State University, 15-year contract with Coca-Cola			
Inclusion in PRC	Once Off	Annual	Life of Contract
Sponsorship Fee	\$6,000,000	\$3,929,000	\$ 64,935,000
Scholarships	-	\$ 150,000	\$ 2,250,000
Student Discovery Fund for Educational Initiatives	-	\$ 125,000	\$ 1,825,000
Equipment Funds for Student Life Division	-	\$ 32,000	\$ 480,000
Student Life Marketing Fund for Student Activities and Programs	-	\$ 100,000	\$ 1,500,000
Athletics Marketing Fund for Activities and Sponsoring Events on Campus	-	\$ 50,000	\$ 750,000
Merchandising	-	\$ 45,000	\$ 675,000
Total Benefit		\$4,431,000	\$ 72,415,000
Kansas State University- 10-year contract with PepsiCo			
Inclusion in PRC	Once Off	Annual	Life of Contract
Sponsorship Fee	-	\$1,100,000	\$ 11,000,000
Scholarships	-	\$ 50,000	\$ 500,000
Sustainability Funds	-	\$ 20,000	\$ 200,000
Campus Initiative Funds	-	\$ 30,000	\$ 300,000
Product Funds	-	\$ 10,000	\$ 100,000
Marketing Support	\$50,000	\$ 120,000	\$ 1,250,000
Marketing activation	-	\$ 10,000	\$ 100,000
Total Benefit	-	\$1,345,000	\$ 13,450,000

Source: MuckRock 2019

Table 6-3 Variations on Exclusivity in Pouring Rights Contracts

Stricter exclusivity conditions 	No Competitive Products will be sold, distributed, dispensed, or sampled at the Campus by University or its Concessionaires in any way or at any time during the Term Company has exclusive right to make Beverages available for sale and distribution throughout the Facilities, athletic contests, booster club activities, and all other special events conducted at or any location on the Facilities. The Products shall be the only Beverages sold, at all food service concession or vending locations located within the Facilities
	Housing also has the right to stock up to 20% Competitive Product in University owned vending equipment and 15%

Less strict exclusivity conditions	Competitive Product in University owned self-service refrigerators located in Dining Services take out locations, provided that such Competitive Product is located on the bottom shelf of such refrigerators. For absence of doubt, the following Competitive Products shall not be sold in vending machines or Housing and Dining retail locations: [lists competitors' products]
	Housing shall have the right to stock Competitive Product included as part of the Healthy Campus Initiative in the top half of the vending machines.
	During the Term of this Agreement, University further grants a guarantee of at least 80% of shelf space (measured in the aggregate and not on a location-by-location basis) at convenience stores to company
	Product will receive 70% of available beverage shelf space at university convenience stores and retail locations, 70% of vending operations, and 100% of vending at athletics facilities excluding isotonic beverages

Apart from mandated cup sizes at events there is also the provision of marketing materials and collateral to drive beverage sales. For example at West Virginia University, Coca-Cola would supply promotional components to encourage sales of '20oz beverage a la carte sales' to 'promote student choice and create additional revenue.'¹¹⁰ Returning to Opalinski's (2006) assertion that these contracts turn schools into marketing agents, many of the contracts also include 'growth incentives' or 'growth' funds. At the University of Kansas, the school would receive a yearly bonus of between \$125,000 and \$200,000 after meeting the threshold of 53,999 cases of Pepsi sold, the bonus depending on the percentage of growth above the allocated baseline.¹¹¹ Table 6-5, below estimates that this may increase yearly income to \$338,349, with a further \$296,970 potentially available from vending machine commissions. The case rebate for University of Indiana, Bloomington would increase from \$1.25 per

¹¹⁰ Komatsoulis, C., & Lipton, B. (2018, 2020). *College Cola Contract Crowdsourced*. MuckRock. Retrieved 13/09/2021 from <https://www.muckrock.com/project/college-cola-contract-crowdsourced-320/#requests>

¹¹¹ Ibid.

case to \$4 or \$5 (relative to growth rate) once sales had exceeded 144,177 cases of product.¹¹² Schools also receive a percentage of funds from all cash and card sales collected from vending machines. While these rates are variable between schools in every contract analysed in this research the rebate was highest for both Coca-Cola and PepsiCo's flagship SSBs than the majority of other available 'better for you' options, with the exception of large-sized bottled water, Table 6-4, below, shows the rate of commission for various vending machine products.

Table 6-4 Rates of Commission Received from Vending Machine Sales through PRCs

Product Category	Coca-Cola				Pepsi	
	U Arizona	U Indiana, Bloomington	Louisiana State	Texas A&M*	UNC Chapel Hill*	U Kansas
Flagship Soda 20oz^	40%	45%	47%	45%	62%	56%
Flagship Soda 12oz^	40%	45%	47%	45%	62%	56%
Sports Drink 20oz	40%	45%	47%	37%	62%	56%
Water 20oz	40%	45%	47%	37%	40%	35%
Juice 15oz^	n/a	45%	30%	37%	40%	n/a
Ice Tea/ Cold Coffee	20%	45%	47%	37%	40%	35%
Flavoured Water 20oz	20%	20%	35%	37%	40%	35%
Energy Drinks 16oz^	18%	20%	25%	37%	40%	35%

^ 20oz = 591mL; 12oz=355mL; 15oz=443mL; 16oz=473.17mL *Minimum payment delivered if commission payments do not meet threshold at end of yearly term: Texas A&M \$400 000; UNC \$300 000

Source: MuckRock 2019

Table 6-5 Estimated Commission on Product Sales for Kansas State University

	If 64 000 cases of beverage sold (profit + bonus)	Estimated* commissions from vending machine sales per year	Total
Annual	\$338,349	\$296,970	\$635,320
Life of Contract	\$3,383,497	\$2,969,700	\$ 6,353,197

¹¹² Ibid.

*figures estimated by aggregating data from available PRCs and estimating number of vending machines on campus, average sales per machine, and commission contractually due to KSU. This estimate does not include diffusion product lines such as Dr Pepper and as such the commission is likely higher than estimated herein
Source: MuckRock 2019

A range of literature has studied the availability and impact of choices from vending machines in higher education settings. Results have found that the presence of vending machines results in higher intake of energy-dense and nutrient poor food and beverages (Grech et al., 2017). Further, high consumption of SSBs in young adulthood is likely to result in ongoing high consumption into adulthood (Kvaavik et al., 2005). Audits of machines have found that they have more unhealthy options than healthy options, and overall offer larger portion sizes and fewer smaller sized options (Byrd-Bredbenner et al., 2012; Grech et al., 2017; Whatnall et al., 2020). If healthier options are available they tend to be more expensive and have less marketing and promotion than unhealthy alternatives (Grech et al., 2017; Martinez-Perez & Arroyo-Izaga, 2021).

The renewal of the contract between the University of Louisville, Kentucky and PepsiCo stipulated ‘as of the commencement of this Agreement, the parties agree to update all Vending Machines to remove all 12oz¹¹³ can Packaged Products,’ resulting in only large 20oz¹¹⁴ sized bottles of soda left in the campus’ 100 vending machines (University of Louisville contract via Komatsoulis & Lipton, 2018: 5). Despite both major soda companies supporting a health promotion, PepsiCo stipulated a clause making it exceedingly difficult

¹¹³ 354mL

¹¹⁴ 591.4mL

to purchase a small portion size of soda on campus. Kentucky is one of 16 states in the US with the highest adult obesity rate of 35% (CDC, 2020).

Further, in 2020 PepsiCo announced its ‘Stronger Together’ program, which according to the initiative’s website, is a ‘community-focused program that leverages the expertise of Pepsi and its partners to facilitate conversations, bring people together and create smiles in communities in need.’ (Pepsico, 2020b). Under this ambiguous umbrella, community projects include learn-to-read programs, food banks, refurbishment of community facilities and programs for education, community and environment. In Louisville the company announced a \$160 000 partnership with the University of Louisville to ‘support the long term physical and mental wellbeing of Atkinson Elementary School Students’ (PepsiCo, 2021). In the accompanying press release Dr Stark of the university’s Nystrand Center of Excellence in Education delivered a sincere thank you for the opportunity for the students to ‘develop healthy habits both inside and outside of the classroom.’ (PepsiCo, 2021). Through their partnerships with the university, PepsiCo is proactively creating an unhealthy campus food environment while using the credibility of the institution to further its corporate social responsibility agenda and promote their pro-physical activity, anti-obesity strategy and build goodwill with the local community.

Companies strategically integrate themselves with school identity in several ways including targeted marketing and campaigns aligned with school events and milestones. In 2014 PepsiCo released a special edition memorial can for the school’s 250th anniversary and both PepsiCo and Coca-Cola have released promotional packaging for various college football teams (Figure 6-1, below). These promotions are exclusively on the company’s flagship soda

products and carefully integrate marketing of those beverages with the sentiments around school identity and collegiate sports. Brand sponsorship is closely linked with college sports, college athletics departments and the National Collegiate Athletics Association (NCAA). Shulman and Bowen (2011) describe the current moment as one of 'big time college sports' with messily entangled relationships between athletic departments and their broader institutions.

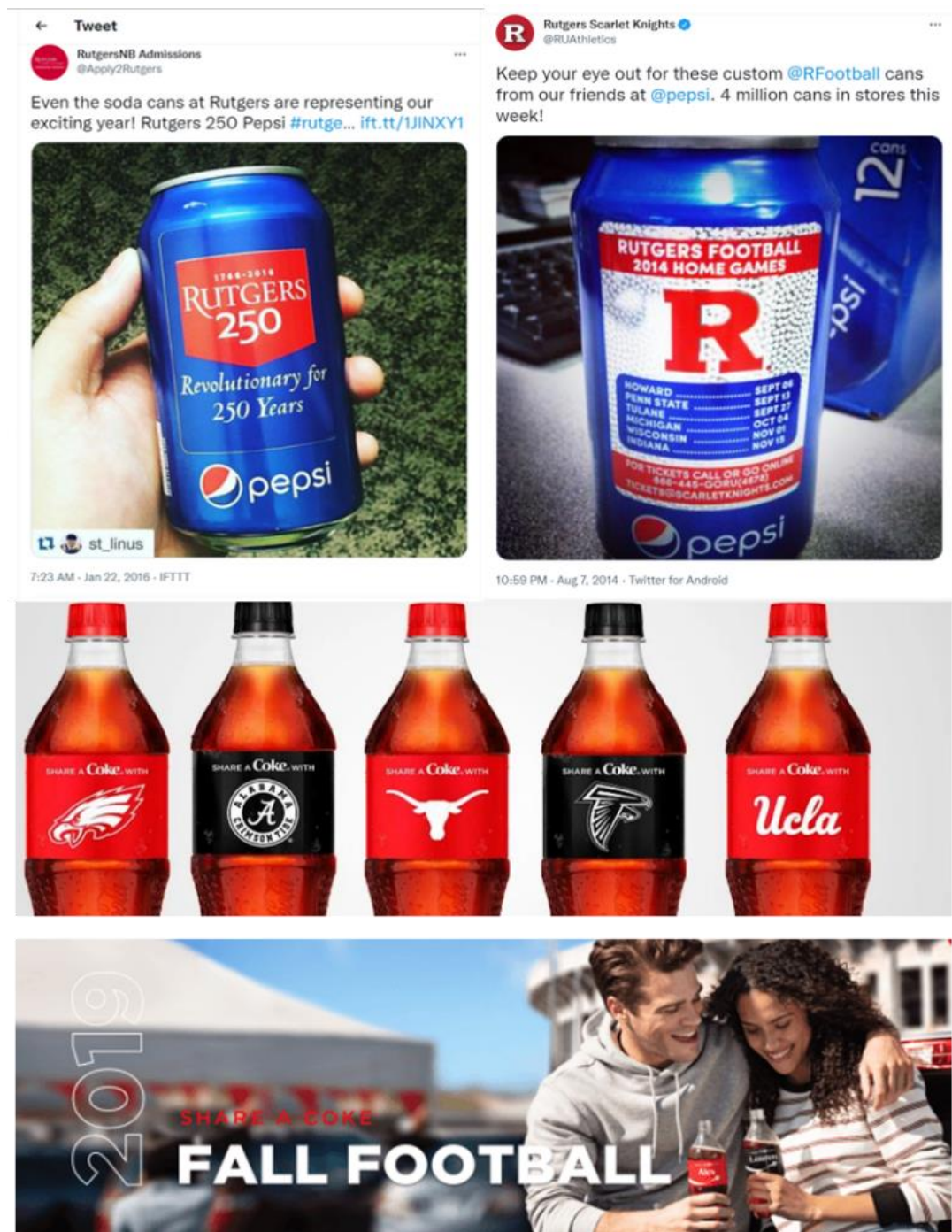


Figure 6-1 Rutgers 250 anniversary memorial Pespi can, 2016; Top right: Rutgers Football 2014 promotional Pepsi can; Middle and bottom: Promotional 'Share a Coke, Share a Moment' l Coca-Cola bottles with localised distribution, featuring local college football team

In their 2015 Education Report examining the nature of the power of college sports as the so-called 'front porch' of the institution, Bass, Schaeperkoetter and Bunds (2015) provide a history of the evolution of the

college sports and its current status as a multi-billion dollar highly corporatized sector. They attribute the ubiquity of corporate interests in college sport to three factors. The first factor is the separation of institutions into Division I, Division II and Division III schools, with the first providing nearly universal scholarships to student athletes.¹¹⁵ Division I schools are pushed towards a treadmill to continuously recruit and finance the best athletes and upgrade to the best facilities.

The second factor was the 1972 introduction of Title IX of the Education Amendments Act providing for gender equality across education¹¹⁶ Among other requirements, Title IX requires universities and colleges to provide equal opportunities to participate in sports, award scholarship funds proportional to each gender's participation and equal access to equipment, supplies, facilities and game time. Some stakeholders view this as necessarily drawing money away from traditionally popular sports such as men's basketball and football.

The final factor was the growth in value of television broadcasting rights (and related advertising rights) which has vastly financialised the sector. These deals came about in the 1970s with rising interest in and low production costs for televising basketball. Television rights have grown to be worth approximately \$1.4 billion a year, split between the NCAA, the organisations behind regional

¹¹⁵ There are approximately 250 Division I schools with 250, 000 athletes many of whom receive full tuition and housing scholarships. These schools funnel significant financial resources into their athletics departments, largely into the drawcard sports of football (gridiron) and basketball. These sports also bring in significant revenue in television broadcasting rights. There are approximately 350 Division II schools with around 110, 000 student athletes, some of whom receive scholarships, although these tend to be partial scholarships as less money is required to spread between more athletes. There are approximately 450 Division III schools with 450, 000 student athletes who are not permitted to receive any athletic scholarships.

¹¹⁶ The federal Title IX of the Education Amendments Act of 1972 states that "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

sporting conferences and Division I schools (Ozanian, 2020). Following on from the broadcast of these sports, billions is invested in sponsorship from brands across sectors¹¹⁷ vying to be associated with top teams, the majority of the benefit flowing to Division I schools and the top conferences (Zullo, 2013).¹¹⁸

Despite this influx of money, many individual athletics departments are in financial crisis as they funnel money into maintaining their status and face increasing government funding cuts. Rather than the financial benefits spilling over into the university coffers it is more likely that tuition and other student fees are being used to support the viability of college sports. These factors combined result in institutions hungry for corporate sponsorship money, resulting in an environment where ‘every wall, timeout, scoreboard and jersey comes complete with its own advertising opportunity’ (Bass et al., 2015: 52). Even with the high value of deals made with corporations, none of this money is received by student athletes. It is against the regulations of the NCAA and in turn other sporting conferences for players to receive any cash benefit from their

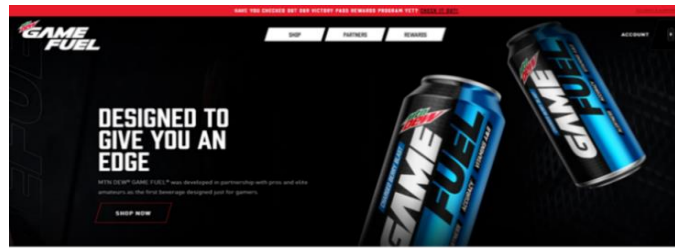
¹¹⁷ Top sectors among sponsors include automotive; banks and insurance; travel; retail; quick service restaurants; soft drink and sports drink; apparel and telecom. Coca-Cola is the third most active brand in college sports sponsorship and Pepsi the twelfth (although their subsidiary Gatorade ranks seventh) IEG. (2018). *What sponsors want and where dollars will go in 2018* (Sponsorship Report 2018, Issue 1).

¹¹⁸ There are many intercollegiate conferences – organised groups of schools that play against each other and are governed by a dedicated organising body, both across sports and for single sports (such as ice hockey, fencing wrestling etc). They are usually organised geographically or by college affiliation (i.e. Christian colleges or community colleges). The ‘Power 5’ conferences, receiving the most lucrative sponsorship deals are: Atlantic Coast Conference (ACC): Boston College; Clemson; Duke; Georgia Institute of Technology; Florida State; North Carolina State; Syracuse; U Louisville; U Miami; UNC; Notre Dame; U Pittsburgh; U Virginia; Virginia Polytechnic Institute and State U and Wake Forest. Big Ten Conference (comprising 14 schools) – Indiana Bloomington; Michigan State; Northwestern; Ohio State; Purdue; Rutgers; U Illinois; U Iowa; U Maryland; U Michigan; U Minnesota; U Nebraska; U Wisconsin. Big 12 Conference: Baylor; Iowa State; Kansas State; Oklahoma State; Texas Christian U; Texas Tech U; U Kansas and West Virginia U. Pac-12 Conference (Pacific 12): Arizona State; Oregon State; Stanford; U Arizona; UC Berkeley; UCLA; U Colorado, Boulder; U Oregon; U Southern California; U Utah; U Washington and Washington State. Southeastern Conference (SEC): U Florida; U Georgia; U Kentucky; U Missouri; U South Carolina; U Tennessee; Vanderbilt; U Alabama; U Arkansas; Auburn; Louisiana State; U Mississippi; Mississippi State and Texas A&M. In 2021 U Oklahoma and U Texas Austin departed the Big 12 to join the SEC and have been replaced with the introduction of Brigham Young; U Cincinnati; U Houston and U Central Florida.

participation, despite corporations frequently using the likeness of athletes in promotions and on products. Students are exploited for the financial benefit of schools, corporations and the NCAA, which in order to protect its income puts greater effort into protecting its commercial partners than its players (Bass et al., 2015).

Recently, relationships between corporations and higher education has extended to esports. Esports refers to competitive video and electronic games, which in 2019 generated \$1.2 billion in profit (Gawrysiak et al., 2020). Increasingly soda companies are edging into this sphere to increase the reach of sports sponsorships and marketing opportunities. A 2019 study found that energy drinks and highly-processed food made up 70% of the brands in esports sponsorship (Kelly & Gerrish). This was corroborated by Pollack et al. (2020) who specifically noted that energy drinks were the most marketed and explicitly linked to faster reaction time and improved gameplay performance. The largest demographic in esports is young adult males, incentivizing companies to incorporate the growing competitions into their sponsorship strategies (Gawrysiak et al., 2020). Given the nascent environment of the games, competitions and platforms sponsorship and advertising is highly unregulated (Kelly & Gerrish, 2019). By 2019 athletics scholarships were expanding into the field with US colleges and universities offering \$15 million in education scholarships for gamers. Increasingly sponsorships for college students from Coca-Cola and PepsiCo (through their Game Fuel subsidiary) are capitalising on this trend by including esports benefits, including Pepsi Game Rooms, facilities for esports clubs and competitions and team sponsorships, as well as money for books, tuition and meal plans (Bolus, 2019; Colby, 2019; Perry, 2021).

Energy drinks, such as the ones given to college esports teams, have been found to be worse for health than other SSBs, inappropriate for use by children and young people as well as linked to fatalities due to excess consumption, and adverse impacts on development (Bleich & Vercammen, 2018; Clauson et al., 2008; Seifert et al., 2011). Research has shown high intake of energy drinks by college students intending to assist in their study, however, overall higher consumption of the drinks is associated with a lower GPA (Champlin et al., 2016). PepsiCo's strategy includes distributing the product to esports teams to consume and promote, and offering exclusive incentives and prizes to gamers if they buy their energy drinks a case at a time (Perry, 2021).



William & Mary Esports

99 Tweets

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Thanks again to our amazing sponsor @mountaindew for their incredible new energy drink, Mountain Dew Rise! The energy is just what our players need to get through finals and continue practicing in the postseason! #pepsi #mtn Dew #mtn Dewrise



← Tweet

Thank you to @GameFuel for the continued support of UC Esports! Below we have some of our members showing off their MTN DEW® AMP® GAME FUEL®. With ingredients shown to improve accuracy and alertness, Game Fuel is the ideal drink for you! Discover more at GAMEFUEL.com



3:03 AM · Apr 21, 2020 · Twitter Web App

Figure 6-2: Top: Landing Page for Pepsi Mtn Dew GAME FUEL energy drink targeted at esports gamers, 2021; Middle: Tweet from William and Mary University Esports team @esportsatwm with team members holding cans of Mountain Dew Rise from their Mountain Dew sponsors

6.6 Other Forms of Partnerships and Relationships Between Soda Corporations and Higher Education Institutions

Aside from the entanglements with athletic departments several higher education institutions had other ties to these companies. Up until the mid-2000s Harvard University had upwards of \$15 million in Coca-Cola Co. stock with a further \$1.1 million in Coke subsidiaries (Zhou, 2006). Emory was granted a \$1 million gift from Coca-Cola in 1915 and gifted a further 3 million Coca-Cola shares in 1979 by the president and chairman of the corporation, contributing to a significant part of its institutional endowment and source of many student scholarships (Stirgus, 2020).

Apart from sponsorship money given through PRCs both PepsiCo and Coca-Cola distribute funds through numerous other avenues. The Coca-Cola Foundation and The Coca-Cola Scholars Foundation give millions of dollars every year to various community groups, educational programs, environmental campaigns and health causes. The PepsiCo Foundation engages in similar programs. In recent years these programs have been heavily targeting first-generation college students. Examples include PepsiCo Foundation's \$40 million commitment to support 4000 Black and Hispanic students through scholarships and mentorship programs targeting community college students, including the S.M.I.L.E 'Success Matters in Life & Education' program for students transferring from community colleges to four-year schools.

Other programs include PepsiCo's 'She Got Now' internship and entrepreneurship opportunities celebrating the legacy of female graduates from

Historically Black Colleges and Universities (HCBUs) as well as sponsoring a multi-institutional marching band showcase for HBCUs. MTN DEW, a subsidiary of PepsiCo's also promotes the Real Change Opportunity Fund at a different bloc of HBCUs, offering \$1 million for Idea Pitch Competitions to 'uplift the next generation of doers' (PepsiCo, 2020a). Coca-Cola provides program funding to universities for the Coca-Cola First Generation Scholarship program with mentorship through SEAL (Students Engaged in Academic Leadership). Acknowledging declining sales and consumption in traditional demographics, as well as population growth in Hispanic Americans, both Coca-Cola and Pepsi have been aggressively targeting Black and Hispanic consumers, designing advertising campaigns with culturally-specific messaging and location-specific distribution (Harris JL et al., 2015).

Outside of campuses Black and Hispanic youth are disproportionately targeted with higher rates of advertising for unhealthy food and beverages. Between 2013 and 2017 PepsiCo significantly increased their advertising targeting this demographic (Harris JL et al., 2019). Companies have also been found to engage in advertising blitzes promoting soda in low-income neighbourhoods scheduled around the timing of payment of government food assistance, encouraging shoppers to use the benefits to purchase sweetened drinks (Moran et al., 2018).

6.7 Health Implications of PRCs

Opalinski (2006) argues that the conditions imposed by these contracts contribute to an obesogenic environment within educational settings, placing the community at heightened risk of non-communicable diseases and their

multiple sequelae. The practice is legitimated by carefully constructed food industry agendas which reinforce emphasis on individual choice and individual responsibility for growing rates of lifestyle diseases while de-emphasising structural factors including food access and availability and aggressive corporate advertising (Opalinski, 2006). Further, the arrangements pay little attention to the burden of negative externalities, such as environmental waste and public health costs resulting from the consumption of SSBs (Nestle, 2000). Prior to the introduction of commercial products into grade schools the only permitted beverages were milk and water, which changed drastically as SSBs and vending machines, and eventually PRCs, entered the educational food environment (Brownell & Horgen, 2004; Nestle, 2013, 2015). Consumption of soda tripled in adolescents between the 1970s and 1990s (Schwartz et al., 2017). In 2014 the Healthy, Hunger Free Kids Act of 2010 limited the service of SSBs in grade schools following a decade of lobbying by parents and policy makers. By 2019 there was a notable reduction of soda consumption by teenagers (Koma et al., 2020).

SSBs are beverages containing free sugars added during preparation or naturally present in items such as fruit juices¹¹⁹. The category includes carbonated and non-carbonated soft drinks, fruit juices, concentrates, flavoured water, energy and sports drinks, prepared tea and coffee beverages and flavoured milks (WHO, 2015). SSBs are the largest contributor of added

¹¹⁹ There is some discrepancy in the use of the term. Prior definitions counted beverages with added sugars, however, the current definition used by the WHO covers all beverages with free sugars, including juice, tea, coffee and milk drinks. Plant-based milk alternatives are not included in this definition. See Sousa, A., Sych, J., Rohrmann, S., & Faeh, D. (2020). The Importance of Sweet Beverage Definitions When Targeting Health Policies—The Case of Switzerland. *Nutrients*, 12(7), 1976. for further discussion on the variances in these definitions and the impact of using one term over the other in public health monitoring.

sugar to the diet of American citizens (Luger et al., 2017). Consumption of SSBs increases risk of cardiovascular disease, type 2 diabetes, overweight and obesity and dental caries (Imamura et al., 2015; Luger et al., 2017; Malik et al., 2019; von Philipsborn et al., 2019). These risks extend to children and adolescents who may also be impacted by sugar and caffeine intake in sodas and energy drinks resulting in poor sleep, stress, and mental health impacts (Bleich & Vercammen, 2018). Globally the prevalence of obesity has tripled between 1975 and 2016 with an estimated 1.9 billion adults overweight and 38.2 million children under 5 overweight or obese (WHO, 2021; World Obesity Federation, 2021). In the US 42% of adults are obese and 31.2% overweight, and 31.2% of children are overweight or obese placing them at risk of complications from non-communicable diseases. The estimated cost of such diseases such as cardiovascular disease and diabetes between 2015 and 2050 is projected to cost America \$11.3 trillion and \$6.4 trillion respectively, including the high burden on healthcare systems and the reduction in economic participation (Chen et al., 2018; World Obesity Federation, 2021). The impact of poor dietary choices is estimated to cost the US \$50.4 billion every year (Jardim et al., 2019).

Diet related diseases including hypertension, overweight and obesity and diabetes disproportionately affect people of colour, and communities with low socio-economic status, with non-Latinx black women suffering the highest burden of disease (Chinn et al., 2021; Kanchi et al., 2018; Mitchell & Perry, 2020; Noonan et al., 2016). At the same time these demographic groups are more likely to have less access to health insurance, higher barriers to accessing healthcare and experience bias and racism during treatment for health conditions (Chinn et al., 2021; Havranek et al., 2015; Mitchell & Perry, 2020;

Noonan et al., 2016; Ortega et al., 2015). Despite this, communities comprising Latinx, Black populations and people experiencing poverty were less likely to have access to healthy, fresh food and more likely to be targeted with advertising for unhealthy food and beverages implicated in the incidence of non-communicable diseases (Backholer et al., 2021; Harris JL, 2020; Harris JL et al., 2019; Noonan et al., 2016).

6.8 Corporate Conduct of Soda Corporations

Pouring rights contracts and other types of relationships between schools and corporations have become normalised, so too community organising has emerged to contest the incursions of private firms into educational institutions. This section covers some of the major issues raised against these companies and the emergence of organised protests and campaigns to scale back the presence of corporations on campuses. The following chapter, 7, continues this discussion by addressing how these campaigns have matured within current campus foodscapes.

The Coca-Cola Company has received widespread criticism over its environmental record in India. In Kerala the drilling of a number of bores to provide water for beverages as well as their manufacturing process, resulted in the drying up of 260 village wells and the loss of water for local farms (Menon, 2013). The company also attracted ire over the same factories returning toxic outputs as ‘fertiliser’ to local communities where environmental tests later revealed leaching of toxic levels of lead and cadmium into groundwater and soil (Swamy, 2011). In 2003 the Kerala High Court ruled against the company to deny a renewal of their water licence in the state , finding that ‘the excessive

exploitation of ground water by the Coca-Cola Company in Plachimada is causing acute drinking water scarcity in Perumatty Panchayat' ("Perumatty Grama Panchayat vs State Of Kerala," 2003).¹²⁰ The company was also accused of violence against union leaders in Colombia, intimidating unionists families in Turkey as well as activities to bust union activities among workers in Pakistan, Guatemala, Nicaragua and Russia (Higginbottom, 2007; Smart, 2010).

There were several waves of antecedents to the current pouring rights campaigns active in campus foodscapes.¹²¹ Several campaigns took hold in the mid-2000s, advocating across sectors including union groups, school districts and higher education. These campaigns revolved around two key organisers, veteran labour organiser, Ray Rogers, mostly focused on anti-union activity and union violence and Amit Srivastava, focused on Coca-Cola's activities in India (Blanding, 2006; Dalton, 2006; Stecklow, 2005). Protests spread across college campuses under various banners such as Killer Coke, Coke Off Campus and the Coalition Against Coke Contracts. Both Rogers and Srivastava carried out extensive speaking tours on campuses. Student groups formed across schools such as Harvard's Student Labor Action Movement (SLAM), the University of Michigan's Students Organizing for Labor and Economic Equality, University of Connecticut's Bring Coke to Justice, and Smith College's Students for Social Justice and Institutional Change. Such groups organised votes, protests, and events such as a student die-in at Yale University on the occasion of a speech

¹²⁰ The Division bench of the High Court of Kerala later overturned this decision in 2005 which was then appealed again by the Panchayat (village council). In 2011 the *Plachimada Coca-Cola Victims Relief and Compensation Claims Special Tribunal Bill* was put forward and passed by the Kerala assembly but was ruled unconstitutional by the central government and refused Presidential assent. Despite the Kerala government promising to revise the bill the political will to push the issue stalled. In 2017 Coca-Cola made an official submission that it did not intend to reopen a factory in the area.

¹²¹ Earlier campaigns targeted issues such as apartheid boycotts and localised labor issues. Although important they are less directly connected to current campaigns.

delivered by then-CEO of Coca-Cola Douglas Daft to demonstrate their desire to cut ties with the beverage multinational.

Various sources report different numbers of campuses that have acted against Coca-Cola via contracts. Some sought to dissolve all relations with the company and others to push their universities to develop or strengthen supplier codes of conduct. Smith College undertook a very public campaign which included a visit from Coca-Cola executives to appeal to the College's administrators. Soon after that visit, the President, Carol Christ, issued a press release announcing that after a fifty-year relationship, Coca-Cola would be denied access to the upcoming pouring right bidding contract due to business practices in Colombia and India (Christ, 2007). Although protests spread across the US the campaigns were to see various levels of success.¹²² For example, while Michigan State banned Coke, it only lasted four months until the university renewed its \$1.2 million contract, while NYU removed all Coke vending machines but lifted the embargo in 2009 (Ambrosio, 2014; Hardie, 2013). Others switched to PepsiCo or moved away from Coca-Cola only to later reinvigorate their contractual relationships. Campaigning at Harvard by SLAM against the company's 'human rights abuses' resulted in an editorial submission to the student newspaper, *The Harvard Crimson*, by Coca-Cola company Director of Global Labor Relations, Edward Potter, claiming their labor practices are 'fair and honest' (Potter, 2006; Weintraub, 2006a, 2006b). At the same time Coca-Cola increased their advertising spend by 30% increasing both television advertising and advertisements in student newspapers (Stecklow,

¹²² Similar campaigns took place outside the US particularly in Canada and the UK.

2005). The rapid responses from the company demonstrate some concern from the corporation on the impact of student protests on their business.

6.8.1 Corporate SSB Influence in Education and Research

Among objections raised to relationships with beverage corporations is their track record exerting influence on academic research and partnering with universities and other research organisations to improve their public credibility. Coca-Cola received significant criticism for its relationship with academics after the non-profit organisation Global Energy Balance Network (GEBN) was found to be heavily bankrolled by the corporation and promoting research which posed the hypothesis that obesity was more likely caused by lack of exercise than over-consumption of unhealthy, highly-processed foods. GEBN was run by Professor James O Hill at the University of Colorado, Denver. The scandal broke after it was found that the professor had communicated with the company offering them help to 'avoid the image of being a problem' (Bartlett, 2016). Later analysis identified that Coca-Cola had intentionally sought to hide its relationship to GEBN, and use research output to promote pro-industry messages (Serodio et al., 2020).

Although this was one of the more notable incidences of cultivating favour through donations it is not an isolated case, a research study found that between 2011 and 2015 Coca-Cola and PepsiCo sponsored 96 national health organisations in the US (Aaron & Siegel, 2017). An earlier systematic review found health academics that had received industry support were five times more likely to disagree with a connection between SSB consumption and weight gain (Bes-Rastrollo et al., 2013).

Transparency is further hampered by the ongoing practice of multinational food and beverage companies routinely funding research and lobbying efforts through intermediary organisations, for example the International Food Education Council and the International Life Sciences Institute. The latter was founded by a former Coca-Cola executive and funded by corporations such as Coca-Cola, Nestle, McDonald's and Pepsi and agri-food corporations including Syngenta, BASF and Bayer. Analysis from Steele et al. (2020) demonstrated that both large grants and the systematic awarding of small gifts and perks had influence on academic researchers. The study assessed output from staff at Texas A&M university, University of Illinois, University of Colorado and North Carolina State University and identified that within these institutions industry strategies to influence research and policy were evident. Strategies included: funding research favourable to industry; omitting corporate involvement in disclosure statements and authorship statements; dissemination of industry-favourable research to decision makers and suppressing anti-industry viewpoints.

The study conducted by Aaron and Siegel (2017) also found that between 2011 and 2015 Coca-Cola and PepsiCo had actively lobbied against 29 public health bills aimed to either reduce SSBs or improve nutrition environments.¹²³ In opposition to a soda tax in San Francisco, Proposition E, the American Beverage Association funded the blandly named 'Coalition for an Affordable City' as a front group to disseminate anti-tax messages, paid for people to 'spontaneously demonstrate' and paid close to \$10 million in anti-tax

¹²³ The study noted that there was likely a low estimate as there is less transparency in PepsiCo's funding than Coca-Cola's and the authors believed that some sponsorship was largely unaccounted for.

advertising (Nestle, 2015). The proposition failed although soon after a 1 cent per ounce tax was passed in the City of Berkeley. Similar tactics have been recorded against tax proposals across the US (Szabo, 2018). Although there is no direct evidence of PRCs influencing research, the ongoing relationship between PepsiCo and Coca-Cola and their practices to influence academic institutions and public policy raise ethical questions regarding universities taking soda company money.

6.8.2 Using Universities to Bolster the Sustainability Credentials of Soda Corporations

Objections to the relationships between higher education institutions and corporations have also taken aim at greenwashing undertaken by companies as a strategy to further their brands' legitimacy. According to the beverage corporations' publicly available corporate social responsibility materials both Coca-Cola and PepsiCo are making substantial contributions to sustainable development. However, repeatedly, anti-contract campaigners have cited the environmental record of both corporations in their objections. Apart from the issues with environmental waste from global manufacturing facilities, both companies' flagship products depend heavily on single-use packaging. Currently both PepsiCo and Coca-Cola have made sweeping commitments to improving the sustainability of their packaging and the subsequent waste streams caused by consumption of their products. Despite this, both companies have been listed as among the top three global polluters since 2018 by yearly audits in which volunteers monitor plastic waste collected from beaches in more than 40 countries (Break Free From Plastic, 2020).¹²⁴ PepsiCo produces 2.3

¹²⁴ Nestle is the third company listed each year in the group of top global plastic waste polluters.

million metric tons of plastic packaging every year while Coca-Cola produces nearly 3 million metric tons (Ellen Macarthur Foundation, 2020).

Although both corporations have made public statements about investments in circular economy systems,¹²⁵ a recent report found that only 6.2% of all plastic packaging contained any post-consumer recycled content, concluding that ‘there was limited evidence of businesses innovating to reduce single use plastic at scale’ (Ellen Macarthur Foundation, 2020:14). Although companies have increased the recyclable content of the packaging they are manufacturing, they have made little progress in reincorporating waste materials into their supply chain or innovating reusable packaging at scale. The discrepancy between production of recyclable plastic and the lack of its re-use has resulted in only a 0.1% reduction in the overall volume of virgin plastic produced for packaging by major corporations globally (Ellen Macarthur Foundation, 2020: 12). At the 2020 World Economic Forum in Davos, Coca-Cola’s head of sustainability declared no intention to eliminate plastic bottles because ‘consumers like them’ (Thomas, 2020). Critics have noted that even though each corporation has a long history of sustainability announcements, they have continually reframed or ignored their stated goals, having failed to meet targets set throughout the last 30 years (Tangpouri et al., 2020).

In 2019 both major beverage corporations announced their departure from the US Plastics Industry Association. Coca-Cola announced the Association’s agenda was no longer ‘fully consistent with our commitments and goals,’ distancing themselves from the industry group’s persistent lobbying

¹²⁵ Details of Coca-Cola’s World Without Waste goal can be found via their website: <https://www.coca-colacompany.com/news/coke-announces-ambitious-sustainability-goal> & PepsiCo’s: <https://www.pepsico.com/sustainability-report/goals-and-progress>

against government regulations, taxes, plastic reduction bills and plastic bans (Wiener-Bronner, 2019). While the relationship with the peak body had outlived its public acceptability, Coca-Cola and PepsiCo both have long records of engaging in corporate political activity to shape public opinion and government regulation (Ciafone, 2019; Jaeger, 2018; Lauber et al., 2021; Mialon et al., 2015; Moscetti & Taylor, 2015; Nestle, 2000, 2015; Richards et al., 2015).

Since the mid-twentieth century, when concerns about waste and environmental management began to emerge in public discourse, food and beverage corporations have consistently utilised corporate social responsibility programs and political strategies to direct accountability away from firms and towards individual consumer and citizen action. As Jaeger (2018) attests the scale of environmental problems has increased inversely to political action on environmental political interventions, shying away from identifying the source of production as a site of reasonable regulatory intervention. Packaging producers (i.e. food and beverage companies) actively co-opted nascent civil society movements around recycling and created organisations such as Keep America Beautiful (1953) and the National Center for Resource Recovery (1970) to pre-empt and reroute inevitable civic legislative responses to waste - away from corporations - to focus instead on local and state government administration and financing and towards individual behaviour change. The aim being to prevent action or ‘policy substitution’ to push for action more favourable to corporate interests (Mialon et al., 2015).

In order to create strong, influential and well-networked advocacy platforms corporate actors formed subdivisions of Keep America Beautiful at state, county and municipal levels (as well as international divisions) ensuring

anti-regulation voices are present at every deliberation, vote and town hall argument that might seek to curb corporate operations or force producers to pay for their waste (Jaeger, 2018). Beyond recycling laws, this has also extended to lobbying on aluminium commodity markets to make raw packaging materials cheaper (Nestle, 2015). Such action was and still is, bolstered by public relations drives, clean up campaigns and education programs. In concert these strategies are aimed at persuading both citizens and lawmakers that consumers, not companies, cause waste.

One example is the fight to prevent or weaken regulatory interventions such as Container Deposit Schemes (CDS) - also known as Deposit Return Schemes (DRS) – and Extended Producer Responsibility (EPR) policies. Since the introduction of recycling programs in the 1950s corporate lobbying has been deployed internationally to prevent any regulation impacting company operations (Boothroyd, 2013; Corkery, 2019; Corporate Europe Observatory, 2018; Quinn, 2021). In 2016 leaked emails were released via DCLeaks revealing Coca-Cola's monitoring of global policy, and their practice of categorising emerging regulations into 'prepare', 'monitor' and 'fight back.' Recycling collection schemes and hard reduction targets, EPR schemes and deposit systems were all grouped into the 'fight back' category (Pfister, 2016). In addition to lobbying against these policies, companies also use diversionary tactics such as destabilising public confidence in information: disseminating confusion and dissent; arguing against the 'nanny state' and the discrediting of evidence that may threaten business activity (Brownell & Warner, 2009; Mialon et al., 2015). While undermining public support for interventions, these companies

simultaneously put forward their own policy substitutions, education campaigns and technological innovations.

Despite widespread lobbying against container return schemes, PepsiCo partnered with Keep America Beautiful to launch their 'Dream Machines' in 2010. Described as 'reverse vending machines', users could return bottles and cans to earn reward points redeemable for prizes Figure 6-3, below Apart from college campuses the machines were also placed in public areas such as gas stations, supermarkets, stadiums and parks. To further their corporate social responsibility credentials the company widely promoted that the more items that were recycled using the machines, the more they would donate to the Entrepreneurship Bootcamp for Veterans with Disabilities (EBV) to help disabled post-911 veterans find meaningful employment. By 2012 the company announced that it had recycled 93,909,482 beverage containers through the machines. However critics noted that this was less than the overall yearly growth rate in packaged beverages and one-fortieth of one percent of the total yearly beverage packaging waste in the US (Resource Recycling, 2012).



*Figure 6-3: Pepsi Dream Machine, Student using a PepsiCo Dream Machine at Pitt State.
Images: Pennsylvania State University, 2016; Pittsburg State University, 2015*

These machines were installed at campuses across America along with recycling education campaigns. The Ellen Macarthur Foundation noted this strategy of focusing ‘on small-scale testing and piloting across a few product lines’ (Ellen Macarthur Foundation, 2020:14). Although this technology has been available since the early 2010s it was only rolled out at limited sites and discontinued in 2010, while lobbying continued apace, suggesting that the tactics of trials and innovations are being used as a public relations fall-back rather than a serious commitment to change. Many PRCs include stipulations that allow the use of campuses as trial sites for innovations. Corporations are capitalising on the framing of campuses as living laboratories and gaining

access to young, engaged consumers. Such projects allow companies to continually promise ‘just around the corner’ innovations. This constant promise of novel technology and packaging processes to solve sustainability challenges, backed up by widely-disseminated reporting on trial programs, works on three levels: enrolling students in neoliberal individualised behavioural responses to waste management, benefitting from the halo of universities’ institutional legitimacy and delaying regulatory action with the promise of corporate action through innovation.

The contracts released by MuckRock and detailed in Table 6-1 and Table 6-2 at the beginning of this section, demonstrate some of the sustainability inclusions provided by corporations as incentives in PRCs. Many contain in-kind support in the form of ‘a reasonable number of branded recycling bins’ or cash towards waste infrastructure, while some supply cash contributions for the same reasons. **Error! Reference source not found.**, below, shows an example of the Max-R Waste and Recycling Units paid for by PepsiCo’s inclusion of \$15,000 a year for sustainability projects in the university’s PRC. Each unit



Figure 6-4 UC Berkeley’s ‘Max-R waste and recycling units’ sponsored by PepsiCo (note logo on upper right-hand side) (Cockrell, 2013)

has the corporation's logo associating their brand with the positive practice of recycling.

Contracts such as between PepsiCo and the University of Kansas allocate more general funds (\$20 000 pa) to be used for sustainability programs at the university's discretion (Komatsoulis & Lipton, 2018). UCLA negotiated clauses which aligned the contractor with sustainability goals of the institution including compostable cups, straws and lids on the condition they were deemed suitable by the campuses waste hauler (Komatsoulis & Lipton, 2018). The University of Florida received \$1.5 million over a five-year period, paid via PepsiCo fruit-juice subsidiary Tropicana¹²⁶ for research into sustainable citrus production, although only \$5,000 for campus sustainability programs. With the exception of this large investment in citrus research, the highest contribution to campus sustainability programs identified in the MuckRock data was \$20,000 to the University of Kansas, a small fraction of the total multi-million-dollar deals. Numerous contracts had no mention of sustainability nor inclusions in terms of infrastructure or financial contribution to sustainability programming on campus. This suggests that the corporations will meet the sustainability demands of schools to gain contracts but will not go as far as standardising progressive practices across their operations.

Some interview respondents believed that although pouring rights contracts were an inevitability, institutions were in a position to push corporations to improve their practices. One participant reflected on their own experience of working with companies to provide more sustainable packaging.

¹²⁶ In 2021 PepsiCo announced it was selling Tropicana and a number of other juice brands for \$3.3 billion dollars. The money would have been allocated in the period prior to this announcement.

They recounted how their institution engaged with the Coca-Cola Company and Starbucks requesting compostable cups for on-campus sales and distribution. The university was the first site where Coca-Cola introduced a to-go cup without any plastic lining, overcoming a barrier to recyclability and acting as a pilot site for the company.¹²⁷ Starbucks followed suit and only uses compostable coffee cups and lids in its on-campus operations. However, the interviewee explained that this continues to present difficulties to the university's sustainability strategy: despite agreeing to the campus mandate, similar packaging has not been implemented more broadly into either company's operations:

We keep asking if they can do it throughout the city. ... because if you buy a Starbucks cup on campus it's compostable— but there are a number of Starbucks locations a block, or two off the campus — and those cups are recyclable but not compostable. So, where you buy your Starbucks is primarily dependent on where the cup goes in the waste stream, which is a very difficult message to tell people.¹²⁸

The difference between packaging available on campus and that available elsewhere challenged campus efforts towards sustainable behaviour change and clear and cohesive sustainability messaging.

These on-campus interventions are site-limited solutions by soda companies reflecting earlier examples such as the Pepsi Dream Machines. Such opportunities allow companies to publish press releases and promotional material, and include documentation such as photographs in annual reports,

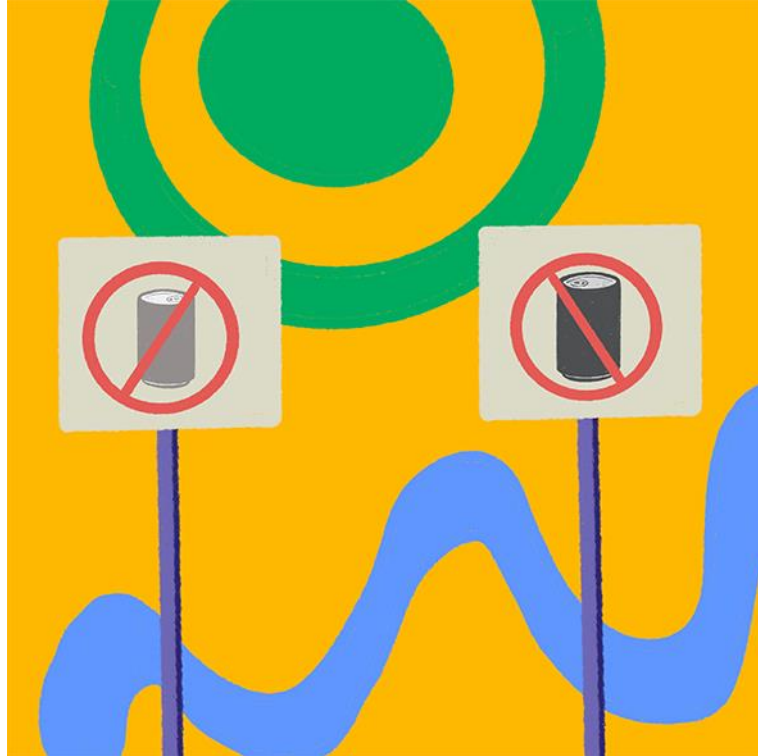
¹²⁷ The compostable Coca-Cola cups were introduced for on-campus service of fountain drinks in 2009 after the administration made a request to the company in 2007. The cups were certified by the Biodegradable Products Institute conforming to the American Society for Testing and Materials (ASTM) standards for municipal composting. This was in line with the campus efforts to fall in-line with city-wide mandates from its local government that all packaging should be compostable by the following year.

¹²⁸ IR7

while continuing to delay or divert more strict regulation. Coca-Cola has widely promoted its World Without Waste strategy, yet in 2021, 12 years after the above mentioned campus trial, only 0.4% of the Coca-Cola Company's consumer-facing products used biobased packaging and the compostable option remains the exception rather than the norm on college campuses (ReSource: Plastic, 2021). Despite the availability of technology companies have repeatedly elected not to scale up sustainable innovations without ongoing external pressure or regulatory enforcement.

6.9 Conclusion

This chapter has analysed the contractual relationships between international food and beverage corporations and higher education institutions. It provided details of these contracts including the monetary compensation, in-kind support and commission earned through sales of sugar sweetened beverages. This chapter established that the presence of corporate sponsorship has been normalised on US university campuses and have been incorporated into campus culture, particularly in the realm of college sports. The final part of this chapter addressed some of the operating practices of the corporations in question and the impacts of their products. These impacts included health outcomes, sustainability outcomes and the ways in which corporations seek to influence research outcomes and gain legitimacy from associations with public institutions. The next chapter will consider this topic from a different perspective, presenting analysis of community organising to demand divestment from the financial engagements of pouring rights contracts.



7

**IT'S HARD TO MAKE CHANGE WHEN YOU
HAVE THINGS THAT ARE ENTANGLED —
COMMUNITY-LED RESPONSES TO
EXCLUSIVITY CONTRACTS BETWEEN
BEVERAGE CORPORATIONS AND HIGHER
EDUCATION INSTITUTIONS**

7 *IT'S HARD TO MAKE CHANGE WHEN YOU HAVE THINGS THAT ARE ENTANGLED* — COMMUNITY-LED RESPONSES TO EXCLUSIVITY CONTRACTS BETWEEN BEVERAGE CORPORATIONS AND HIGHER EDUCATION INSTITUTIONS

7.1 An Early Single-Issue Campaign: University of Vermont

One of the earliest campuses to push back against soda companies was the University of Vermont (UVM) which decided not to renew its contract with Coca-Cola, which ended in 2012. The decision followed years-long student campaigning to eliminate single-use plastic water bottles on campus. The non-renewal of the PRC resulted in eliminating the sale of bottled water on campus, yet campus outlets continued to sell beverages such as juice and soda. In 2018 the campus community was surveyed which indicated a prevailing attitude that the bottled water ban was perceived as a failure because permitting the sale of the other beverages still resulted in plastic waste, and had the effect of making water access more difficult (Conner et al., 2018). A study of UVM campus consumption patterns after the ban revealed that overall consumption of water decreased and consumption of SSBs increased. These findings indicate the need for a comprehensive systems-focused approach to policies intended to target both plastic waste and health problems associated with consumption of bottled beverages (Berman & Johnson, 2015).

7.1.1 Taking on Pouring Rights: San Francisco State University as the First Campus in a New Wave of Campaigns

San Francisco State University (SFSU) students organised a PRC campaign in 2015 that can be considered the vanguard in the current era of PRC student action. Although the UVM campaign was earlier, it was motivated by a single-issue concern (plastic water bottle waste). The current wave of organising and action takes aim at the multiple externalities of PRCs and engages more fully with issues of corporate power. Other campaigns have demanded their schools terminate, or not renew existing contracts whereas the SFSU campaign demanded that the institution cease a bidding process to engage a new contract (**Error! Reference source not found.**, below). The school had not engaged in any such sponsorship agreements previously.



Figure 7-1 Top & Bottom Left: SFSU students conduct a direct-action protest on a campus town hall meeting with Coca-Cola executives to object to a proposed Pouring Rights Contract, October 14, 2015, photos: Brian Churchwell, Golden Gate Xpress 14/10/2015

Table 7-1 below, outlines the sequence of events during 2015 between the school announcing the request for proposals for a soda company contract in March and the decision to terminate the search in November.

Table 7-1 Timeline of Student Movement Against Signing a Pouring Rights Contract at San Francisco State University (2015)

Date	Event
March 27	SF State Pouring Rights Review Committee seeks proposals for a new contract seeking to benefit from the sale of beverages already sold on campus and gain more control of the ratios of healthy to unhealthy beverages sold on campus.
October 13	The Real Food Challenge campus chapter holds direct action training with SFSU students
October 14	Associated Students Inc (SFSU student government) hear a proposal for a resolution against a pouring rights contract, asking the university to end negotiations and conduct any further negotiations with greater transparency and guaranteeing student involvement
October 15	The university administrators invite Coca-Cola for a Town Hall meeting to present their proposal, students hold a direct-action protest and crash the meeting objecting to forming a contractual relationship with the company University invites PepsiCo for a Town Hall meeting to present their proposal
October 20	Further student protests during 'Speak Out' rally in campus plaza
October 21	Associated Students Inc meet to discuss objections to PRC Students involved in the SF State Real Food Challenge group hold an information table in university quad to talk to students and collect signatures for petition against the contract
October 28	Associated Students Inc Board of Directors meeting pass resolution against the contract and its process
November 10	Real Food Challenge hold a counter town hall meeting – seeking to remedy the fact that students were not invited to the meetings organised by the university. The meeting's purpose is to discuss concerns about the contract with the campus community
November 19	President Leslie Wong announces that SF State will not sign the PRC

7.1.2 Campaigns Following SFSU's Success in Ending the University's RFP Process

Following SFSU students' success in halting the university's request for proposals for a PRC process, students at Humboldt State University, California (2017) and Johns Hopkins University, Maryland (2019) made direct reference to SFSU as a driving factor in undertaking their own campaigns against their respective PRCs with PepsiCo.

The Johns Hopkins contract had seen \$2 million in donations from PepsiCo to the university over seven years from 2012-2019. Prior to the PRCs the company had also donated \$1 million to the Ralph S O'Connor recreation centre in 1996.¹²⁹ The students' Pour Out Pepsi campaign began in March 2019 with a goal of ending the exclusive PRC. Campaigners made their position clear with a student-led petition which referenced several key issues with the PepsiCo, Johns Hopkins relationship,

We, the concerned Johns Hopkins University (JHU) community, consisting of undergraduates, graduates, faculty members, staff, alumni, administrators, student family members, and the greater Baltimore area, demand that JHU refuse to renew a Pouring Rights contract with PepsiCo. We call on the University to uphold its commitment to promoting environmental sustainability and human ethics by ending this contract with PepsiCo and refraining from seeking another that is similar in nature. In doing so, JHU will demonstrate a rejection of the socially and ecologically unsustainable practices of profit-hungry corporations. By taking this action, the University can promote a food system that supports local and sustainable sourcing, fair labor practices, and shared governance with our campus.

Pour Out Pepsi JHU (2019)

¹²⁹ The \$1 million gift was donated by the PepsiCo foundation in recognition of Allan Huston, CEO of the PepsiCo Restaurant Services Group, alumnus of Johns Hopkins University and member of the National Advisory Council for Hopkins' Whiting School of Engineering and on that school's campaign committee.

The petition specifically cited the company's targeting of minorities with aggressive advertising, environmental issues such as packaging and palm oil plantations, and labor issues including child labor in the corporation's supply chain and racially discriminatory hiring practices. The concerns extended to on-campus issues including the lack of consultation in the contract process, exclusion of local producers, the undermining of stated sustainability goals and the antithetical nature of the contract to the university's reputation as a leading public health research institution (Malcolm, 2019; Santoro, 2019). The Pour Out Pepsi campaign was led by Real Food Hopkins, a branch of Real Food Generation who collaborated with other student groups including Take Back the Tap, focused on eliminating plastic bottle waste, and the Compassion Awareness and Responsible Eating (CARE) group promoting plant-based eating.

Campaigners utilised a number of strategies to advance their cause including use of social and student media, public events and actions, and strategic communications and coalition building. The campaign's petition allowed those who signed to leave a comment recording their objection to the PRC. These statements were used widely throughout the campaign and delivered to decision makers to demonstrate community sentiment. Key responses used in the campaign included,

- ▶ As the top public health institution in the country, it should follow that the school promotes policies in accordance with the public health data.
- ▶ Universities must be held accountable for their business practices – we cannot tout a more sustainable, just world without acting in accordance to what is necessary.

- ▶ Dismantling oppressive regimes like the oligopolistic beverage industry that destroys health and safeties of communities worldwide is a responsibility
- ▶ It is not right for a leading public health institution to have the money interests of Big Soda in influencing the health of students
- ▶ Hopkins should teach and guides its students not just through classes, but through the action of those in power at the school
- ▶ Hopkins should reflect the values of integrity, freedom and honesty that it teaches. Maintaining contracts with corporations such as Pepsi completely delegitimizes the university by going against the values that JHU was founded on. Hopkins has the power to make the world a better place and the freedom and funding to make morally and ethically correct decisions

Anonymous Survey Respondents via Pour Out Pepsi JHU (2019)

These statements were utilised in social media posts, along with informational content and memes to engage a broad audience in the issues see Figure 7-3 for examples). Students published several editorials and articles in the campus student media, The Johns Hopkins News-Letter,¹³⁰ to clearly explain and disseminate the issues raised by the contract, and raise the voices of the campaigners such as the leaders of the aforementioned student groups,

I believe universities should not be making exclusive contracts with big soda companies, I strongly feel that it is not moral or ethical to knowingly harm the health of any community in order to take money from powerful corporations or industries.

Co-president of Compassion, Awareness and Responsible Eating Lana Weidgenant quoted in Malcolm (2019)

As a leading public health, research and medicine institution, it doesn't make sense that we have these exclusivity rights with a soda company ... In fact, a lot of the research done at the Bloomberg School of Public Health is trying to oppose that whole industry.

¹³⁰ See, for example, Aghamohammadi, R. (2019, 21/11/2019). Real Food demands end to contract with PepsiCo. *The Johns Hopkins Newsletter*. , Malcolm, R. (ibid.11/04/2019). Students call for end to Hopkins-PepsiCo contract. , Santoro, L. (ibid.24/10/2019). The Argument for Pour Out Pepsi's Campaign. .

Real Food Hopkins Co-President Grace Windheim quoted
in Malcolm (2019)

These points of view were incorporated into letters to key decision makers, such as a letter delivered to the dining office in November 2019 and templates for a call and email-in campaign to the university's Vice Provost of Student Affairs, Dr. Alanna Shanahan and Provost Dr Sunil Kumar. In addition, campaigners held public information sessions by hosting open tables in campus cafes, a PourOut Pepsi Rally and by distributing posters and stickers across campus. A photograph of the group and some of the campaign materials the group produced are included below in Figure 7-3 and Figure 7-3



Figure 7-2 Students demand that Hopkins Dining end its contracts with PepsiCo, 21/11/2019, Johns Hopkins Newsletter, Photo: Aghamohammadi 2019



Figure 7-3 Social Media Posts from the Pour Out Pepsi JHU Campaign

Posts from Pour Out Pepsi (Johns Hopkins) Facebook page, facebook.com/pouroutpepsijhu/ Top Left: Quotes from members of JHU community, posted 20/11/2019; Top Right: Graphic for event page JHU Pour Out Pepsi Rally posted 17/11/2019 Middle Left: Call-in and email-in campaign graphic, posted 20/12/2019; Middle Right: Meme with person pressing two options from a soda fountain with text stating JHU Taking millions of dollars from Pepsi through a pouring rights contract and Trying to be top public health school over the logos on the buttons - posted 29/04/2019.

At the start of 2020 Johns Hopkins decided to renew the contract with PepsiCo. Provost Kumar addressed a letter to the campaigners stating, ‘Thank you for speaking with me regarding your concerns about entering another exclusive contract with Pepsi. I appreciate your thoughtful engagement on this issue’ (Kumar, 2020). The provost explained that the administration had investigated alternatives but did not feel another operator or mix of operators could meet the volume demand and product diversity in enough time to end the current contractual arrangement. However, the new contract term is three years, as opposed to the previous seven-year term and contains a commitment to introduce more sustainable packaging options and tap water drinking stations.¹³¹ The letter stated,

Even if we felt our beverage demand needs could be met through local vendors, it would take the University roughly one year to negotiate a new distribution contract to deliver the products to campus. A three-year agreement provides time for local markets to expand and builds in time to re-evaluate the agreement in two years.

Provost and Senior Vice President of Johns Hopkins University Sunil Kumar
(2020)

Despite the lukewarm response from the institution, campaigners have announced through their social media channels the intention to keep campaigning to remove the contract looking towards the next review period.

Table 7-2, below, outlines the key details and issues raised in each of the successful pouring rights campaigns discussed in this section, including details from Humboldt State University in California. This table shows how

campaigning shifted from a single issue with SFSU, to challenging the way corporate power expressed in PRCs helps create and entrench multiple food system injustice in the campus foodscape in the John Hopkins Campaign and the similar Humboldt campaign. Humboldt State University is a much smaller public university, and as the table below demonstrates, it had a much lower value of their contract. The gap reflects the status of Division I schools, as opposed to lower division schools like Humboldt – an issue discussed in the previous chapter. Despite the lower value, opinion pieces published during the campaign lamented the loss of the money which contributed to athletics scholarships. Although the value of the contract is significantly less than other schools it contributed a much higher percentage to their ability to offer athletics scholarships overall.

Table 7-2: Campus Campaigns to Protest Pouring Rights Contracts

	University of Vermont	San Francisco State University	Humboldt State University	Johns Hopkins University
Year Contract ended	2012	2015	2017	2019
Details of previous contract	<u>Coca Cola</u> \$500,000 over ten years	Seeking new contract bids	<u>PepsiCo</u> \$58,000 p.a. over 5 years (two 5year contracts prior to the last one)	<u>PepsiCo</u> \$2 million, contract from 2012-2019+ additional ad hoc donations
Key issues cited in community organising	▶ Eliminating plastic bottle waste on campus	▶ Corporate advertising in a public university inappropriate & undermining the integrity of public education ▶ Soda companies have poor social and environmental justice record ▶ Public university should not be promoting products that cause poor health outcomes	▶ Minimising plastic waste on campus ▶ Objections that so far efforts to reduce plastic waste had been actively impeded by PepsiCo ▶ Missed opportunity to sell and promote local products and support local economy ▶ Objections to PepsiCo lobbying against soda taxes in other jurisdictions ▶ Lack of transparency and shared governance ▶ Conflict with graduation pledge taken by all students	▶ Soda companies have poor social and environmental justice record, poor record of labour rights across supply chain ▶ At odds with the health research and teaching of university ▶ Lack of transparency and shared governance ▶ Missed opportunity to sell and promote local products and support local economy
Stakeholders involved in organising	▶ Take Back the Tap student group ▶ Vermont Students Towards Environmental Protection (VSTEP) student group	▶ Real Food Challenge student group ▶ Associated Student Inc (Student government) ▶ Environmentally Concerned Organisation of Students (ECO students) student group ▶ Support from 18 other on-campus student groups	▶ Representatives from other CSU campuses ▶ Associated Students Council ▶ University Senate ▶ Take Back the Tap student group ▶ WRRAP – Waste Reduction Resources and Awareness Program student group	▶ Real Food Hopkins student group ▶ Compassion Awareness and Responsible Eating (CARE) student group ▶ Take Back the Tap student group ▶ Uprooted + Rising
Strategies used in community organising	▶ Ongoing student-led campaign to remove bottled water	▶ Worked to build coalition of student groups	▶ Worked to build coalition of student groups ▶ Associated Students Council and University	▶ Organised campaign group ‘Pour Out Pepsi’

	▶ Passing of student government resolution ▶ Petition with 1200 signatures	▶ Real Food Challenge organised direct action training ▶ Student-led rally ▶ Petition organised and given to university administration ▶ Associated student passed resolution in favour of no PRC ▶ Student-organised town hall meeting to bring together stakeholders ▶ Coverage in student and local media ▶ Campaign appealed to stated values of institution	- senate passed resolution in favour of no PRC ▶ Town hall meeting to bring together stakeholders (after student protests objected to lack of consultation) ▶ Editorials in student newspaper ▶ Networked with other campuses to use lessons learned from SFSU ▶ Organised meeting/s with key stakeholders (i.e. athletics department) ▶ Campaign appealed to stated values of institution (Graduation pledge)	▶ Worked with coalition of other student groups ▶ Editorials in student media ▶ Public table and information stand to talk to community and collect signatures for petition ▶ Social Media campaign and ▶ Campaign appealed to stated values of institution (health-focused campus) ▶ Organised meeting/s with key stakeholders (i.e. dining staff)
Outcome of campaign	School chose not to renew PRC with Coca-Cola and terminated relationship by not renewing PRC in 2012	School Terminated RFP process	School chose not to renew PRC with PepsiCo in 2017	Institution Failed to Terminate PRC, Campaign ongoing

Information sourced from: (Aghamohammadi, 2019; Armanino, 2017a, 2017b; Butler, 2017; Greenson, 2017; Karlsson, 2015a, 2015b, 2015c, 2015d, 2015e; "Kicking the Bottled Water Habit: University of Vermont," 2012; Maher, 2017a, 2017b; Malcolm, 2019; Santoro, 2019; Wakefield, 2012)

The three most recent campaigns are contributing to the collective knowledge around the issues of pouring rights contracts. Students involved in these campaigns are connected, sharing information and strategies to push back against corporate incursions into campus culture. This is an example of translocal exchange, facilitated by organisations such as Real Food Generation and Uprooted & Rising, organisations illustrated through maps presented in Chapter 4.

7.2 UC Berkeley and PepsiCo

Students at the University of California, Berkeley have been campaigning to 'Pour Out Pepsi', demanding the university break ties with PepsiCo. The campaign began in 2019 and is, at the time of writing, ongoing. Insights from interviewees involved in the Berkeley campaign add to the analysis above to provide further context for how and why campus communities are engaging in this type of organising. UC Berkeley entered into a ten-year PRC with PepsiCo on the 4th of August 2011. The benefit to Berkeley included \$1.3 million a year to be divided between the Associated Students of the University of California (ASUC), Recreational Sports, Athletics, and Dining and Residential Services. The PRC also included an additional \$235,000 yearly for marketing their products and \$15,000 to sustainability to boost recycling programs, install new bins or install Dream Machines. The university was further entitled to 45% commission on any cash collected through vending machines spent on sodas and bottled water and 30% for other beverages. These benefits were contingent on the sale of 55,000 units of product a year (a unit being either 1 gallon or 1 case of product) with failure to do so resulting in a proportional reduction of the benefits.

In return for the sponsorship PepsiCo gained logo and advertising rights to signage, menu-boards, branded cups and collateral, digital and web-based promotions and promotional event rights across CalDining and residences, ASUC sites and events, Recreational Sports locations. The contract included detailed promotional opportunities through Cal Athletics programs and events including extensive specifications for logo rights on stadium signage, scoreboards, concession stands, programs and media material. The contract

permitted PepsiCo to sample and survey students and run special events at key calendar events such as Cal Day and Calapalooza (yearly large-scale orientation events). In addition to the promotional specifications the contract also specified that PepsiCo would allow a limit of 50 vending machines with university signage and healthy food messaging. Outside of the contract the relationship with the company put Berkeley initiatives in line for other grants and prizes such as \$10,000 from the competitive PepsiCo Zero Impact Fund in 2017 (PepsiCo Recycling, 2021). In Berkeley's submission to AASHE STARS the relationship with PepsiCo is cited as a community partnership to advance sustainability,

As part of PepsiCo's 10-year contract with UC Berkeley, the company donates \$15,000 a year to the UC Berkeley Beverage Alliance, which funds sustainability-related projects. Many of those programs support the campus's zero-waste initiative goals. In the past, that has included standardizing recycling collection bin signage and increasing campus outreach about the university's bid to produce zero net landfill waste by 2020. In-kind contributions from staff and students also help to deploy sustainability-related funded programs.

(AASHE, 2018)

However, the submission does not note the prevalence of PepsiCo corporate branding included on items such as the bin signage.

Campaigners in the Pour Out Pepsi campaign had experienced the environment created as a consequence of these deals, observing how it normalised the presence of branding on campus. This was raised as an issue concern and utilised by campaigners,

Because of the ubiquitousness of Pepsi around campus – one of our key themes was to educate the campus community on how Pepsi has created this food environment with all the advertising and subliminal messaging. Even when you — when you move into the dorms, your first day, you get like a bunch of free Cal gear

— lanyards, water bottles galore, stickers and a lot of those things have Pepsi logos on them.¹³²

This was echoed by another interviewee's response,

Their contract extends to marketing as well. So, they have a lot of sponsorships and they also have the right to market to us as students and there's Calapalooza and Caltopia¹³³, there's a lot — like the Pepsi Game Room ... they have a lot of products; the Gatorade bottles and all those kinds of things. So, it's around the stadiums, and they [the players] hold the Gatorade bottles — it's complicated because Pepsi is not just Pepsi— it's so many products.¹³⁴

As a student observed marketing and sales extends to the company's many diffusion lines including snack foods,

the dining hall and campus food vending machines, they're all owned by Pepsi. All the products are Pepsi in there — even things like kombucha or things that you wouldn't necessarily associate as junk food ... even water — owned by Pepsi.¹³⁵

The contracted rights to distribute such products on campus influences the broader food environment. In reference to the lack of fresh, non-branded food available in on-campus retail outlets another student observed, 'I find it very problematic that we're serving 90% processed foods.'¹³⁶

This experience of a branded campus was confirmed by a 2019 study conducted by a Berkeley student researcher, which assessed the presence of

¹³² IR9

¹³³Calapalooza is a fair for students to get to know and join student, clubs, student government as well as fraternities and sororities. Caltopia is billed as an interactive 'college lifestyle festival' the event is held by Berkeley Recreational Sports to 'introduce Cal students to brands of all sizes aligned with the Cal lifestyle' (recsports.berkeley.edu) — see Figure 7-5, below for examples of brand presence at this event.

¹³⁴ IR25

¹³⁵ IR9

¹³⁶ IR1

soda products and branding on the main campus. The study covered sites including student union facilities, residential buildings, and recreational sports and athletics facilities (Lee et al., 2020). The study found 706 visible logos and a mix of 2662 beverage products available on campus, the majority of which were sugar sweetened beverages. Of the visible signage, 67% were for SSBs, and from these sugary sodas were the most marketed product in the broader category, with Pepsi being the most common. The study identified that of those logged by researchers, the Pepsi logos were consistently the largest, deemed to be large or extra-large (measured as four pieces of normal paper or larger). The researchers also noted the presence of SSB advertising in gyms and athletics facilities, hypothesising the marketing was possibly aiming to gain a health halo effect for the company's brand by which advertising benefits from the perceived traits of the sporting activities undertaken in these locations. Overall, the researchers determined that the marketing in the campus foodscape did not align with the campus' stated food and beverage choices policy. Figure 7-5 and Figure 7-5 below, illustrate marketing campaigns held on the Berkeley campus. The first shows branding aligned with sports and recreation, including print advertising, apparel and game day signage. The second illustrates a number of promotional activations where products and other items are distributed to students. The top three photographs, from 2019 show that brand strategy has moved away from distribution of the main Pepsi brand towards health-oriented brands of beverages such as kombucha, flavoured sparkling waters and fruit juice. The pictures below show the same event, Caltopia, from earlier years with a much larger emphasis on the core Pepsi brand. Both sets of photographs demonstrate apparel, branded cups, bikes and other items which student may wear and or use. If they do so students become travelling advertisements for the

corporation, and knowingly or not implicitly endorse the company's presence on campus.

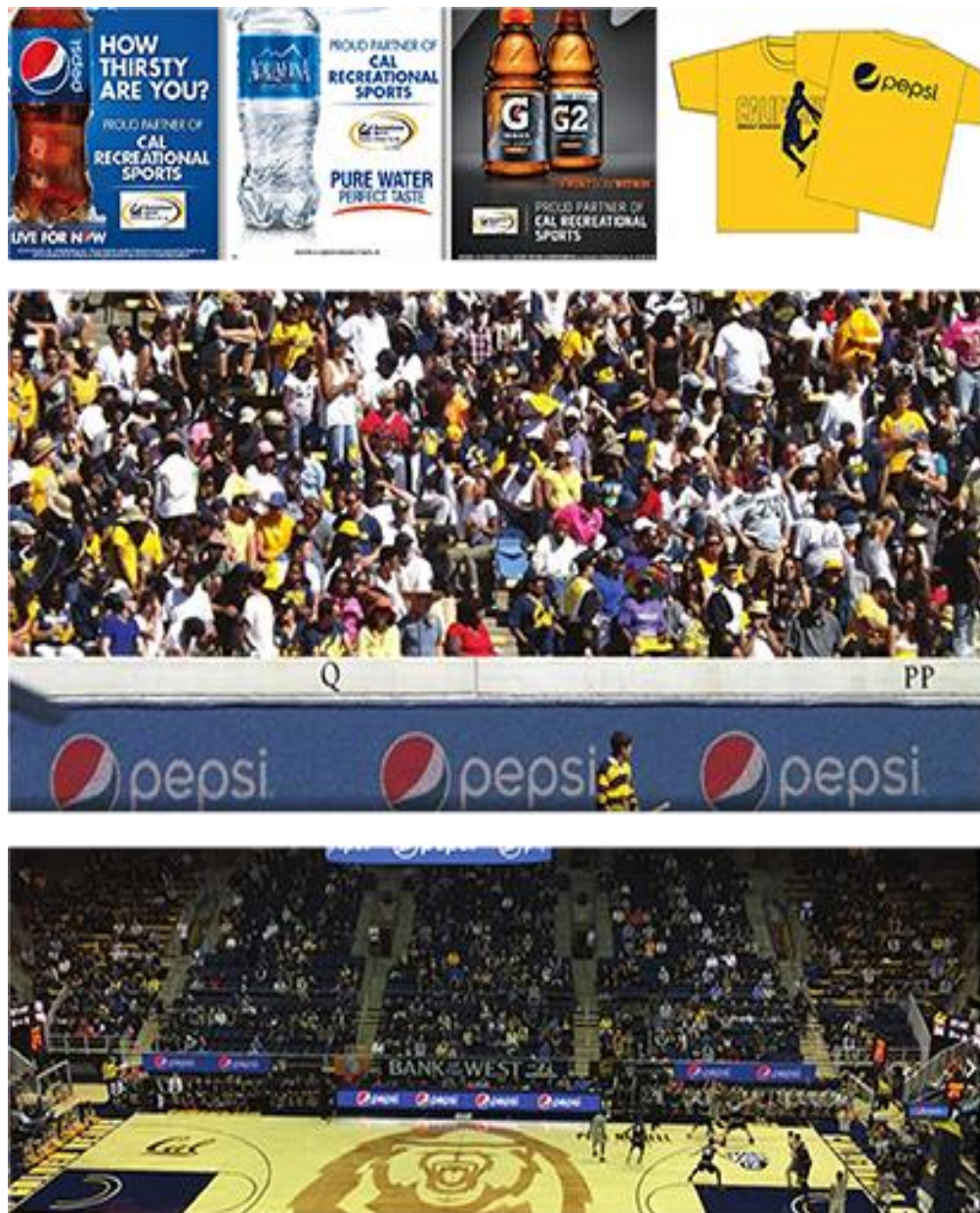


Figure 7-4 Pepsi Branding Through Cal Rec Sports. Top, print advertisements for PepsiCo, a 'proud partner of Cal Recreational Sports', T-shirt designs for co-branded special event T-Shirts; Middle: Pepsi LED signage at Cal athletics events; bottom: Multiple Pepsi brand signs at a Cal basketball game. Source UC Berkeley Beverage Alliance, 2013, 2014, 2015.



Figure 7-5: Top: These pictures from Cal Rec Sports Facebook page show that in recent years promotional giveaways have shifted emphasis to diffusion brands such as kombucha, flavoured sparkling waters and juice. Top-middle: Free products distributed at campus events such as Caltopia and Calapalooza. Bottom-middle and bottom: PepsiCo activation at Caltopia, 100, 000 product samples distributed and give away of branded bikes. Bottom: Caltopia PepsiCo promotion. Source: UC Berkeley Beverage Alliance, 2013, 2014, 2015, Cal Rec Sports Facebook Page 2019

7.2.1 Linking Teaching and Learning to Foodscape Transformation

Anticipating the expiry of the Berkeley PRC, the campus group The Coalition for Healthy Campus Food and Beverages held a design hackathon in 2019 in the Berkeley Haas Innovation Lab. The event invited students to spend a weekend prototyping an alternate future for the campus's beverage services, as well as having the opportunity to hear from and work with academic specialists and industry representatives. The Coalition was a group formed under the auspices of the Berkeley Food Institute, an interdisciplinary research and teaching initiative in the University. With the intention to bring campus stakeholders together to inform decision making impacting the campus foodscape and food and beverage options available on campus.¹³⁷ After a successful event and demonstrated interest from students, the university offered 'Coalition for Healthy Campus Food and Beverages Fall 2019 Case Design'¹³⁸ as a mixed interdisciplinary undergraduate and graduate 3-unit course offering, allowing students a semester to work on designing alternative proposals to the current PRC. Students were divided into two teams one each working on:

- A proposal that includes a PRC, with any vendor
- A proposal that does not rely on a PRC

Students benefitted from a range of external guest speakers, site visits and consultation with expert faculty from across the university.

¹³⁷ The group comprises Berkeley Food Institute, UC Berkeley School of Public Health, UCANR Nutrition Policy Institute, University Health Services – Be Well at Work, Health Promotion – University Health Services, BFI Undergraduate Council, Food@Haas, Basic Needs Security Committee, Berkeley Student Food Collective and student groups FoodInno, FEED (Food, Equity, Entrepreneurship, and Development), Net Impact Berkeley.

¹³⁸ The course outline is available at https://food.berkeley.edu/wp-content/uploads/2019/03/SYLLABUS_-Coalition-for-Healthy-Campus-Food-and-Beverages-Fall-2019-Case-Design_v101319.pdf

An interviewee involved in developing the class reflected on how important it was that the development of these projects was largely driven by student participation and consultation. They reflected that they would not have chosen the focus, even though it was always on the broader research and teaching agenda. They recalled that it,

Came from a lot of different twists and turns of students deciding that that was the important thing ... and having public discussions...

I feel like I've been a successful mentor if the project has functioned that way, rather than it always being like, "This is what needs to be done this year. Okay, students do it."¹³⁹

For students the process offered a new way of thinking about research, one stating, 'I never thought of research as what I'm doing now, I thought of it more like lab techie stuff. It's a really cool opportunity to get research experience.'¹⁴⁰ They explained their involvement in the iterative stage of collectively identifying the project focus,

The goal of it was to analyze food systems on campus ... we went through to see which topics we wanted to tackle, or which ones are were feasible — Pepsi was one of them, as a question mark, like, "Can we do this?", "Let's look into this and see what happens" So, that's when that started—and we just started researching what the contract means.¹⁴¹

Another recollected their experience of discovering the opportunity to participate in the class,

when I saw that class posted I was super excited because it was a project that was tackling a problem that was

¹³⁹ IR23

¹⁴⁰ IR25

¹⁴¹ IR25

going to change the community and our university. I thought that was very cool that the institution made that happen.¹⁴²

After the semester long course working through the alternative contracts, students were provided the opportunity to present their proposals for the campus PRC. Stakeholders from across the university were invited to see their proposals. This was felt to be an important aspect of widening the impact of the class-based investigation,

*the fact that at the final presentation, there were only 50 people in the room – and two-thirds of those 50 people were anyone who has any teeth in the game – It was the director of the student union. It was the entire health services. We had all the people from Cal Dining there. We had all the people from business development office. They showed up because they felt like first we were doing something interesting, and second that they were responsible to our community.*¹⁴³

At the conclusion of the class students were keen to carry forward with the information they had researched and work on the proposals developed with their teams. This developed into a student-led organisation called 'Pour Out Pepsi' to campaign the university to not renew the PepsiCo contract. The campaign was designed to demonstrate the complexity of the issues around the issues with the corporate involvement with the campus.

Alongside the student-led campaign the issue was supported within the realm of student politics. In 2019 Sylvia Targ was elected to the Associated Students of the University of California in the position of ECO-Senator (ECO being the Eco Council, a consortium of environmental groups from across campus). In setting up her office she created several portfolios including the

¹⁴² IR1

¹⁴³ IR23

Department of Unsustainable Partnerships dedicated to addressing the university's sponsorship with companies believed to be counter-productive to institution's core values. The student given the responsibility of the portfolio decided to focus its scope on dismantling the PRC between PepsiCo and Berkeley. In addition to student representation in public events, such as the 'HypocritiCAL: UCB investment in problematic industries' panel, and coalition building with other student groups and council stakeholders the senator also put forward Senate Resolution No. 2019/2020-040 in Support of Terminating PepsiCo Pouring Rights which was passed by the senate. The office was taken over the following year by Sarah Bancroft (formerly Senator Targ's chief of staff) who continued the campaign introducing a similar resolution - No. 2020-2021-030 – which was also endorsed by the Senate.

7.2.2 The Expansion of the Berkeley Pour Out Pepsi Campaign

After embarking on the anti-pouring rights campaign, interviewees expressed that they became more aware of the complexity of issues around the relationships between corporations and universities, the influence corporations wielded throughout the university and the barrier that this presented to making change. A campaigner fighting to change the PRC at Berkeley detailed the difficulty in making change while some parts of the university benefitted from the contracts,

it's really hard to make change on the institutional level, especially when you have things that are entangled. So many departments rely on the sponsorship and how do you go about making that change when people want to maintain the norm because it's convenient? It's very hard to make change when people are so comfortable with

what is already happening – they don't see the need to make something better when it's good enough.¹⁴⁴

When engaging in the development of a campaign against PRCs, another interviewee expressed gaining a deep understanding of the complexity created by the influx of sponsorship money,

It's complex – it's not just 'let's remove the contract', there's a lot of variables and stuff that's implied in the contract. The university is right now using that sponsorship partly to pay staff– so, that was a very big issue that we had to tackle because it couldn't just like say like, 'we're not going to use the sponsorship.' People's jobs depended on that money. I think I learned to have a more systems-thinking — or systems-level thinking – and view the problem as a whole and to see what area is open for change.¹⁴⁵

Despite the perception expressed by some stakeholders that the sponsorship money was too much to lose, other respondents saw the influx of money as a small percentage of the overall sponsorship money courted by the institution,

Pepsi only provides like a very small amount of physical sponsorship now I don't think it would be too much of a drastic change for them to get a different sponsor– to get a local business¹⁴⁶

A critical element of the campaign was learning from successful actions in other campuses across the country, and other campaigners who were able to share lessons about community action. This included advocacy organisations¹⁴⁷ geared towards food justice,

We have the Bay Area branch [of Uprooted & Rising] so we've been able to have meetings with them to strategize

¹⁴⁴ IR25

¹⁴⁵ IR1

¹⁴⁶ IR9

¹⁴⁷ See Chapter 4, section 4.2.2 for a more detailed description of the groups mentioned here.

... and learn from them... they have been involved in campaigns themselves

So, one of the people on our team has been able to meet with [Johns Hopkins] bi-weekly and keep them updated on our campaign and learn from their campaign¹⁴⁸

Despite enthusiasm for the campaign by students already involved in environmental and food justice issues, the campaign also needed to gain community support.

Outreach was therefore an important part of the community organising against the contract renewal to educate the campus population about the existence of the contracts,

... I feel like we had like different perspectives on why this issue is important. Some people were interested in it from the sustainability perspective – PepsiCo creates lots of single use plastics. Some people were more interested in the environmental aspects of it, like PepsiCo creates monocultures for palm oil and steals water from people. Then some people were interested in it from a public health perspective. Some people were interested in it from all different angles.

I think that's kind of where we had a good advantage ... we created a way for people to understand this issue from different angles. You know? It's not just a public health issue, it's an environmental justice issue, it's a sustainability issue. And so, people have been kind of latching onto different themes¹⁴⁹

This was corroborated by another respondent who recalled that the first hurdle was to engage people and spread awareness about what a PRC was and the impact it had across campus.

¹⁴⁸ IR25

¹⁴⁹ IR9

Campaigners noted that attempts to engage their peers in the issue of PRC was met with a wide variety of responses from the community,

Some people are very “Oh yeah, let me go right away and sign this” — like they already have an idea of what that kind of presence means on our campus. Some people were like, “Oh, so if we don't have Pepsi, we're going to have Coca Cola?” And a lot of people were like, “Well, where are we going to get the money from?” or “Why not just keep Pepsi?” – they were just looking to learn, but they don't have any context about it.¹⁵⁰

The implicit assumption of branded products as part of the foodscape indicates the normalisation of branded, corporate presence on university campuses, as well as the institutionalisation of private sponsorship revenue as a source of financial security. Countering this a student interviewee expressed these relationships as a threat to the core value of a public institution,

I think that pouring rights contracts really give corporations a lot of power. They make public institutions like Berkeley reliant on the private money. I don't think it's a good system to work with¹⁵¹

The tensions discussed here illustrate the ways in which the neoliberal influences discussed in Chapter 2 manifest in the daily experience of being on a campus of a university driven to engage in market-oriented mechanisms for financial sustainability.

The Pour Out Pepsi campaign emphasised the importance of social equity issues in the operations of multi-national corporations. A campaigner recounted the discovery of equity issues as a concern while conducting campaign research,

¹⁵⁰ IR25

¹⁵¹ IR1

we found that they [soda corporations] have actually engaged in practices of targeting more marginalized communities with advertising to increase sales– and are now targeting the Global South because of declining sales in America.¹⁵²

The directing of marketing towards minorities by corporations became an emergent issue in the discussion of the ethics of these contracts. At a panel on climate justice a member of the ‘Department of Unsustainable Partnerships’ commented on the inequity created on campus food access, explaining to the audience that PepsiCo is able to distribute cheap and subsidised beverages and snacks which undercuts the prices (and sales) of healthier options. The speaker drew the connection that given a high number of low-income students experience food insecurity, such practices target the most vulnerable members of the campus community (Young, 2019).

In addition to the concerns discussed above, Berkeley student campaigners also focused on PepsiCo’s environmental record as a problematic element to the university’s partnership. The company and its operations are responsible for high climate emissions, being one of the top plastic polluters globally and engaging in unsustainable agricultural practices including palm oil plantations. Campaigners also pointed to the health impacts of PepsiCo’s products, questionable labour practices including child labour in their supply chain as well as the company’s corporate political activity to fight against sugar taxes, health and recycling regulations (Lee et al., 2020; Silverberg & Melgoza, 2020; Solis & Melgoza, 2019; Young, 2019). Targeting the contradiction of the partnership with the institution’s stated policy goals, campaigners claimed that

¹⁵² IR25

an ongoing relationship with PepsiCo would make the widely-promoted zero waste goal an impossibility (Young, 2019).¹⁵³

7.2.3 Policy and Protest Strategies

Similar strategies were used by the Pour Out Pepsi campaigners at Berkeley to other, previously discussed schools engaged in anti-contract organising. Table 7-3 summarises strategies used in the year-long effort to engage the university in dialogue about their corporate partnerships.

Table 7-3: Campaign Strategies Used to Protest PRCs and Shift University Policy

INSTITUTIONAL SUPPORT
2-day innovation design hackathon to reimagine soda contracts
Case study class
Student research project opportunities
COALITION BUILDING
Building networks with faculty
Coalition building with other student groups: e.g. SERC
Connecting together with like-minded campaign groups – e.g. Sunrise movement concerned with climate justice
Working with student government and graduate assembly
Communicating with stakeholders across departments – i.e. dining, athletics, office of president, partnerships
NETWORKING WITH BROADER COMMUNITY/IES OF PRACTICE
Engage with external stakeholders such as Real Food Challenge & Uprooted and Rising
Contact and work with other university groups who have successfully shifted contract: Johns Hopkins, SFSU
STRATEGY
Frame campaign around timing for new contracts and get involved in the process
Advocate for more transparency and community involvement in decision making process
Letters, emails and calls to key decision makers
Research, model and communicate alternative strategies
Diverse and representative campaign participants
FRAMING
Clear framing of goal: change the contract
Intersectional messaging
COMMUNICATIONS

¹⁵³ Under the UC Policy on Sustainable Practices Berkeley implemented a zero waste by 2020 target (set in 2004). The specific goal was to divert 90% of landfill contributions away from municipal solid waste. As of 2020 the campus was diverting approximately 54% of its waste from the municipal solid waste stream. A new plan was released in 2019 for 'zero waste 2020 and beyond.' For more on the policy and targets, see <https://sustainability.berkeley.edu/zero-waste>

Dedicated campaign website Dedicated social media: Facebook, Twitter, Instagram Comms around key campaign actions Announcements for key dates and actions Memes Editorials in Student Media Having key quotes, press releases, available campaign members available to reporters – using consistent and clear messages Using channels to provide community education on key issues Well researched report available to anyone to better understand the background issues to the campaign
Community Engagement
Public table events to talk to and listen to community responses on issues concerning contract and pouring rights Send campaign members to various events – i.e. panels on climate change, rallies, other student run events Petition with clearly expressed aims and process Organise Community town hall meetings Attend all open institutional meetings and ask key questions Invite community and key stakeholders to any campaign and/or research presentations
Policy Levers
Creation of <i>Department of Unsustainable Partnerships</i> in the Associated Student government Table resolutions in available governance structure to support/endorse ending of contracts – i.e. student senate, graduate assembly Utilise existing policies to demonstrate how contract is violation of institutional commitments Link to broader policies in other institutions and local government to demonstrate lack of policy alignment

Alongside the above campaign strategies, the suggestions being put forward by the students were nested in a broader policy context including existing institutional policies, and the broader higher education, state and national policies relevant to student and university health and wellbeing. The relevant policies are detailed in Table 7-4, below.

Table 7-4: Policy Environment for Pouring Rights Contract at the University of California Berkeley

University of California Berkeley Policies and Stakeholder Groups	University of California-wide Policies and Stakeholder Groups	Government Policies (level)	External Organisation Policies and Stakeholder Groups

▶ Berkeley Food Institute: sustainable and just catering guidelines ▶ Healthy Meeting and Event Guide – University Health Service Be Well at Work Program ▶ Food and Beverage Choices Policy ▶ Bear Minimum Nutrition Standards for Foodservice¹⁵⁴ ▶ University of California Berkeley Campus Policy Governing the Promotion of Alcoholic Beverages and Tobacco Products on the Campus ▶ Associated Students of the University of California (ASUC) Senate Resolution No. 2020-2021-030 ▶ In support of Terminating PepsiCo Pouring Rights ▶ Associated Students of the University of California (ASUC) Senate Resolution No. 2019/2020-040 ▶ In support of Terminating PepsiCo Pouring Rights ▶ Graduate Assembly Resolution in support of Terminating PepsiCo Pouring Rights	▶ Policy on Sustainable Practices ▶ Principles of Community ▶ Sustainable Procurement Policy & Guidelines ▶ Healthy Beverage Initiative ▶ Zero Waste Policy ▶ Sustainable Foodservice Policy ▶ Healthy Campus Network	▶ City of Berkeley Sugary Beverage Tax (local) ▶ Let's Get Healthy California (State) ▶ U.S. Department of Agriculture and U.S. Department of Health and Human Services, Dietary Guidelines for Americans (federal) ▶ Various legislation on trans-fat bans and menu labelling (multiple)	▶ Center for Disease Control, Improving the Food Environment Through Nutrition Standards ▶ National Alliance for Nutrition and Activity (NANA) Model Beverage and Food Vending Machine Standards ▶ Partnership for a Healthier America Healthier Campus Initiative ▶ Menus of Change

See appendix V. for further information on the above policies and stakeholders

Interventions have variously rejected the doctrine of choice above all else, or, embraced it and offered interventions which promote healthy alternatives without limiting energy dense, nutrient poor options.

¹⁵⁴ The UC Berkeley campus mascot is a bear and this is reflected in various aspects of university operations and policy including here, in the 'bear minimum nutrition standards'.

In 2016 the University of British Columbia introduced the Healthy Beverage Initiative in response to data demonstrating that SSBs were the largest contributor of sugar to the diet of its community (Di Sebastiano et al., 2021). Overseen by the UBC Food and Nutrition Committee who worked with the community through focus groups and surveys, the group presented key recommendations to stakeholders and the initiative was approved in 2018. Along with a raft of interventions, one of the actions was to challenge the existing Cold Beverage Agreement (the Canadian equivalent of a PRC). Although a new agreement was made with Coca-Cola Refreshments Canada the university added several stipulations: UBC is not required to market unhealthy beverages; UBC can make the decision to exclude beverages from certain locations as it sees fit and UBC can align all campus vending machines to the provincial Ministry of Health healthy vending policy. Apart from the health implications it also leaves the university free to pursue alternatives such as reusable bottles to meet sustainability goals. A 2020 review found that there had been no significant loss of revenue and no compensatory purchasing of SSBs at locations where those drinks were still available (Di Sebastiano et al., 2021). The authors noted that the changes would not have succeeded solely with an educational campaign, and credit the structural environmental changes with making a substantive change to the campus foodscape. It is noted that the initiative developed within the context of other policies, including the university being an early adopter of the Okanagan Charter, the charter promoting health in universities as discussed in Chapter 2, the development of a 'UBC Action Framework for a Nutritionally Sound Campus' and the 'Wellbeing Strategic Framework'.

In comparison, a review by Rickrode-Fernandez et al. (2021) charts the development and implementation of the Healthy Food and Beverage Policy for the University of California Berkeley (mentioned in *table 7*). The aim of the policy was to increase access to, the affordability of, and appeal of healthier options in the campus foodscape, and to curb consumption of unhealthy food and reduce its associated marketing. The approach taken was to drive an increase in the consumption of healthy options but had no intention of limiting or removing any other foods or beverages. Like the Canadian process the policy was shepherded by a Nutrition Policy Working Group. Policy implementation involved the collection of baseline data, consultation with stakeholders including dining staff, faculty, students and food and beverage vendors, as well as collaboration with the Sustainability Department and Coalition for Healthy Campus Food and Beverages. The review noted that university foodservice was meeting the standards for food but not beverages and attributed this in part to the existence of the PRC held with PepsiCo (Rickrode-Fernandez et al., 2021).¹⁵⁵ There was slow but eventual movement from the company who eventually worked to replace some of the beverage mixes in campus vending machines. The review authors note that the contract predated the policy and only when up for renewal would the university be able to renegotiate the contract to include the nutrition policy.

The example above of the University of British Columbia bears some similarity to the framework adopted by UCLA. UCLA was the flagship campus for the University of California's 'Healthy Campus Network'. When renewing

¹⁵⁵ The authors further noted the disruption of the COVID-19 pandemic which halted some of the process associated with rolling out and monitoring the policy's success. It is also worth noting that PepsiCo has a special relationship with UFlorida as it is the origin of their most successful sports drink, Gatorade, developed for the university's *Gators* football team.

their pouring rights contracts with Coca-Cola, UCLA was able to the following negotiate clauses,

Housing shall have the right to stock Competitive Product included as part of the Healthy Campus initiative (described in Section 5 below) in the top half of the vending machines. Provided, however, Housing shall have the right to stock Competitive Product included as part of the Healthy Campus Initiative (described in Section 11 5 below} in the top half of the vending machines.

Menu will be themed "healthy and sustainable." With input from Healthy Campus Initiative leaders, as well as UCLA dieticians, it is currently contemplated that no traditional soda will be offered in this facility. UCLA is developing product criteria to meet its needs and will confer in good faith with Seller as to Beverages that will be offered in Sproul Hall. Seller will be given the opportunity to present its products, but there are no first rights of offer or refusal as this opportunity will be open to other providers who may have more suitable products

UCLA Sponsorship and Purchase Agreement" Coca-Cola and the University of California, Los Angeles, 2012-2022, Page 19 via Komatsoulis and Lipton (2018)

These two examples demonstrate that corporations are willing to make concessions to existing university policy, providing the university and those negotiating the contract are willing to fight for their inclusion. Corporations will not shift further than is demanded of them. In instances where this has been successful consultation has involved multiple stakeholders and incorporated points of view beyond just those held by the negotiators representing the business interests of the institution. However, as seen in previous examples, and the limited impact of the UC Berkeley policy discussed above, corporations will not scale such initiatives of their own volition.

7.2.4 Contract Renewal

The PRC renewal at Berkeley involves a long decision-making process primarily managed by the University Business Partnerships and Services division (UPP). Throughout which, consultation is undertaken through the UPP Beverage Working Group comprising a single voting representative each from various campus sectors. The group's recommendation then goes to the UPP Advisory Committee who evaluates the recommendation and puts forward suggestions to the chancellor. After campaigning for more community participation one of the student organisers was included in the working group yet felt their participation had limited impact and their perspective was met with little engagement from the overall group,

It's so complicated. I feel like I am working — the way the space is oriented – it's like I haven't been able to critique the current partnership. It's only set up in a way of, "What do we want in a new contract? And what do we want to see?"¹⁵⁶

As the original date for the contract expiry neared the UPP announced a two-year extension, disappointing the campaigners advocating to remove the contract. The announced timeframe is however shorter than the extension period of five years outlined in the original contract. The UPP released a FAQs section on their website about the decision, stating:

PepsiCo has agreed to support new campus initiatives and requests outside of the previous contract. Some of the highlighted adjustments include:

- ▶ Compliance with the Food and Beverage Choices Policy;
- ▶ Collaboration with University Health Services, Cal Dining and other campus partners to align with, promote and advance campus nutrition initiatives, including a

¹⁵⁶ IR25

commitment to emphasize Pepsi's healthier, better-for-you products;

- ▶ Support of UC Berkeley's Sustainable Practices Policy, including a focus on non-single-use plastic packaged products;
- ▶ New annual support of the Office of Sustainability to improve sustainability-related outcomes on campus;
- ▶ New annual donation to fund the Pepsi ASCEND Fund that will provide scholarships to students committed to promoting diversity at Berkeley.

(University Business Partnerships & Services, 2021)

The emphasis on elements such as 'better-for-you' products aligns with discursive strategies, promoted by corporate interests, concerning freedom of choice. The message of individual choice, personal freedom and responsibility is employed in lobbying by soda companies, as well as many of the conditional clauses in their contracts continually emphasize the doctrine of individual choice as a key factor in the development of overweight, obesity and subsequent non-communicable conditions (Nestle, 2013). This further discourages any critique of the power imbalances in these relationships (Opalinski, 2006; Thompson et al., 2020). Administrators often cite the idea of personal choice stating that anyone in the community has the freedom to not consume any of the beverages in question (Nestle, 2000). A staff member at a public university expressed their indifference to limiting choice as a health promoting strategy,

What we've always said is we want to make the healthy choices easier for people to find. One of the things that I have always said is we're not going to take away the Snickers bars — what we want to do is make those healthy choices as available, or more available, as the Snickers bars —but I'm not gonna take them away, that wouldn't work on this campus. ¹⁵⁷

¹⁵⁷ IR18

In contrast, a student demonstrated their understanding of this discourse around choice yet expressed their scepticism, particularly in the argument of choice raised as a pro-PRC argument,

I think a big concern that comes up is choice— I always point out that right now we have no choice but Pepsi — other markets around the campus will still be having those products. So, they're not going to be unattainable

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The discourse of choice also disregards the power structures that shape foodscapes.¹⁵⁹ Choices do not happen in a neutral environment, as Madsen (2019) reasons, arguing against the proliferation of nanny state arguments: ‘this assertion ignores the billions of dollars the beverage industry spends on marketing every year to influence our behaviour.’

In the previous chapter a respondent provided the example of major corporations responding to institutional requests to provide compostable packaging. Similar examples were discussed by interviewees in relation to health. After adopting external MCURC guidelines (as discussed in Chapter 4) a private university adopted a policy to shift away from serving SSBs in foodservice fountain machines. The company which provided the beverage did not offer a sugar-free fountain alternative, so dining services sourced a flavoured water from another provider. Campus administrators in charge of procurement received a warning that the alternative beverage breached the contract held with their soda corporation,

¹⁵⁸ IR25

¹⁵⁹ Ref the neoliberal governmentality discourse here

They said, “You can't do that. We're your fountain beverage provider.”

It was non-sugary — and we said, “You don't provide that beverage.” And they said, “Well, we will.” And they made us get rid of all those machines and replace them with their Dasani.¹⁶⁰ It was a product that was coming out. Yeah, they were sort of nudged along that path.¹⁶¹

Like the aforementioned recycling example, this demonstrates a belief that large higher education institutions are in a position to influence the practice of multinational corporations, and to lead them to improve performance across issues like health and sustainability.

7.3 Conclusion

Drawing from the above examples, internally-organised, student-led and intersectional campaigns appealing to specific institutions' values have so far achieved more substantial changes than extrinsic campaigns such as the 2005/2006 'Killer Coke' protests, or single-issue campaigns such as UVM's ban-the-bottle campaign focus. A values-aligned policy environment is beneficial, but this alone is not enough. The policies must be pro-actively utilised and explicitly leveraged for inclusion in contracts to make a meaningful difference. Universities must also be vigilant corporate tactics which have long been used

¹⁶⁰ Dasani is one of the major bottled-water brands offered by Coca-Cola who maintains a profile of approximately 75 bottled water brands. The brand was launched in 1999, and the company had introduced various sugar-free flavoured varieties since 2005. As their flagship water brand it has been associated with a number of the company's controversial practices including drawing on local water sources. Responding to ongoing criticism about plastic-bottle waste the company has launched a number of sustainability programs linked to the water brand including the introduction of aluminium cans, refillable bottles and composite bioplastic and recycled plastic packaging. In 2011 Grand Canyon National Park officials attempted to ban sales of bottled water after an audit found 30% of the waste stream was plastic bottles (mainly Dasani, the exclusive brand sold in the park). However, the move was blocked by superiors in the National Park Service, which had received \$13 million in donations from the Coca-Cola Company Barringer, F. (2011, 10/11/2011). Parks Leader Blocked Grand Canyon Bottle Ban. *The New York Times*. .

¹⁶¹ IR6

in social and political sphere and are increasingly being applied in institutional setting, for example:

- Delaying regulation by the provision of a short-term solution (i.e. providing recycling bins to prevent plastic bans)
- Discursive strategies around 'freedom of choice'
- Providing cash and in-kind incentives
- PR campaigns including responsive editorials to any objections raised by students/university communities
- Aligning with universities to legitimate business practices
- Targeting young people, marginalised groups, and low-income communities

(Brownell & Warner, 2009; Lacy-Nichols & Marten, 2021)

A student involved in the Berkeley PRC committee expressed their ambivalence concerning the corporation's flexibility and use of these sorts of strategies to meet the needs of concerned parties such as university's facing student protests,

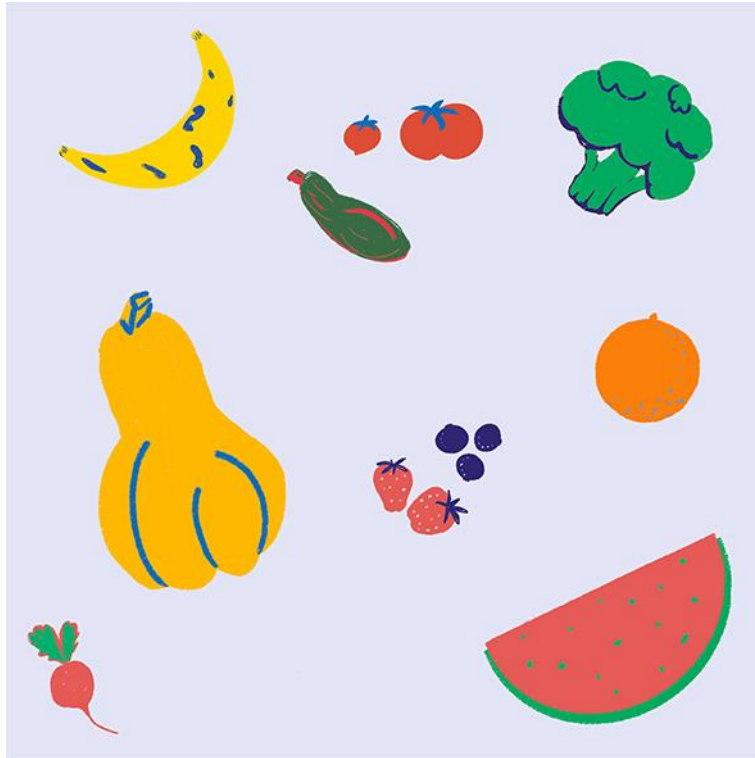
Pepsi is sending their VP of sustainability to us and letting them know about the changes that they're making, and how they look forward to letting us know about these changes and how they want to help us reach these goals — it's very hard because we're setting these criteria of what we want, and Pepsi is saying, "We are willing to do that."

I think that the space to critique is not there — you still can't ignore all the malpractices of a company this large, a monopoly this large... we don't need to wait for Pepsi to better itself and use our campus as that platform. I think there is already better that we can go for. I wouldn't mind if Pepsi got better, that's good— but we already have the evidence to support why we don't need them.¹⁶²

¹⁶² IR25

Following the campaign Berkeley arrived at a similar outcome to Johns Hopkins, the university had opted only to shift the parameters of the existing contract rather than to break ties with the corporation all together. However, the comprise of engaging in a PRC with a much shorter time frame offered some hope to the students who have decided to continue their campaign.

The few examples provided here are only nascent campaigns against a complex system of partnerships and financial relationships between universities and powerful corporations, and so far, the schools that have been successful in fending off, or breaking contracts have not had high-value multi-million-dollar deals. Schools engaged in sponsorships entangled with athletics programming will likely face greater challenges in any attempt to protest existing pouring rights deals. However, even in the schools who have not yet managed to break their contracts, the emergence of shortened terms and increased conditions demonstrate a change in attitude, the lessening of corporate social license and a shift away from the hegemony imposed by Coca-Cola and PepsiCo.



8

**WHO SERVES THE FOOD ON CAMPUS AND
WHERE DOES IT COME FROM?
CONSIDERING INSTITUTIONAL
FOODSERVICE SUPPLY CHAINS**

8 WHO SERVES THE FOOD ON CAMPUS AND WHERE DOES IT COME FROM? CONSIDERING INSTITUTIONAL FOODSERVICE SUPPLY CHAINS

8.1 Introduction

Sourcing food is fraught with many ethically complex decisions including issues of animal welfare, cost and accessibility, convenience, cultural and social acceptability, and environmental sustainability (Streiffer et al., 2018). The tension between these competing factors often results in trade-offs. Higher education food procurement is dominated by market-oriented decision makers that frequently deny agency to the consumers of food (in the case of campus foodscapes, mainly students) and obscure transparency in purchasing processes and decision making. The paradigm shift towards cost-cutting and commercialisation of institutional food has often resulted financial savings being preferred over food quality (Maharaj, 2020; Streiffer et al., 2018). This chapter addresses dining operations and associated procurement decisions to better understand food and food supply chains in the higher education foodscape.

The chapter begins with an overview of the types of operations that serve food to students, within the context of the shift towards outsourcing auxiliary services to third-party foodservice¹⁶³ contractors. It goes on to look at the actors in the food supply chains that exert power over procurement decisions and how

¹⁶³ There is some debate over the use of food service vs foodservice – it has been suggested that foodservice is the particular term used by US industry discussed herein as a collective description of themselves and their activities. For further discussion on this terminology see Edwards, J. S., & Causa, H. (2009). What is food service? In (Vol. 20, pp. 1-3): Wiley Online Library..

these decisions influence the availability of food on campus and curtail the agency of those wishing to make change in their campus foodscapes. It then introduces the emergent movement of students pushing for their institutions to adopt alternatives in order to have more control over ethical purchasing decisions and transparency in operational processes. This theme is revisited in the following chapter, Chapter 9 which presents a summary of strategies for transformation in higher education settings.

8.2 Foodservice management companies in higher education institutions

A conservative estimate is that about 7.5 million meals are served to US college students every day of term time (Apoliona-Brown et al., 2020). The value of higher education foodservices is approximated to be around \$48.9 billion (USD) a year (Okrent et al., 2018). These services are divided between internal and external service providers. In-house operations are run by universities as a wholly-owned arm of their institution, known as 'self-op' or, self-operated dining services, this model accounts for 52% of university foodservice. While private companies – or foodservice management companies (FSMCs) - manage 41% of services. The remaining 7% are managed as internal/external hybrid models (Okrent et al., 2018). Campuses may outsource services between multiple foodservice providers or may be self-run with some minor services (i.e. event catering) run by FSMCs. Corporate firms may seek to further increase revenue by licencing and operating retail outlets (such as chain coffee or snack food shops) and convenience stores obscuring the monopoly of ownership via multiple brand marks (Martin & Andrée, 2012).

The total US foodservice market is estimated to generate \$72 billion annually with approximately 60% of business outsourced to FSMCs (Fitch & Santo, 2016). US higher education food service is dominated by just three corporations, together the largest food service companies globally: Sodexo¹⁶⁴ (France), Aramark (USA) and Compass Group (Britain). Details of their global revenue are listed below in Table 8-1. The oligopolistic nature of this sector means that the decisions

Table 8-1 The 3 largest global foodservice companies, 2019 revenue and distribution of services

	Global revenue billion \$USD	Education as % of overall operations	US revenue from on- site services billion \$USD	Revenue from North America as % of operations*	Revenue from US Higher Education Foodservice¹⁶⁵ billion \$USD
Compass Group	34.03	18	21.46	63	2.01
Sodexo	25.05	18	11.13	45	1.62
Aramark	16.23	32.6	9.9	60	1.48

* Aramark reports its income as US and international whereas Compass Group and Sodexo report their regional income for North America Sourced from: Buzalka (2020); Buzalka (2021); Statista (2022)

made by these firms, or any change they might undertake, has enormous power to create or inhibit transformative change in the higher education foodscape, and more broadly the foodscapes of institutions across the country. Aside from services in higher education, each of these multi-national operators manage numerous subsidiaries working across service industries including site management, grounds,

¹⁶⁴ Formerly Sodexho – dropping the x was a managerial decision as the combination of ‘xh’ was thought to be difficult to pronounce in some languages.

¹⁶⁵ All data in this section has been taken from 2019 reports as 2020 and 2021 profits were significantly impacted by widespread closures of institutions and subsequently food services, as such their reporting does not reflect standard operating procedure

facilities and custodial services, human resources and uniform services. These services are delivered across K-12 education, health care and aged care, in-home services such as childcare and nursing, stadiums, event spaces and cultural attractions, conference centres, remote and specialised sites including mining, energy extraction operations and offshore workplaces, local and remote military services as well as private prisons and immigration detention facilities.

8.2.1 Distribution Firms

Although their role may not always be obvious to the end consumer, FSMCs sit at the customer-facing end of the supply chain. A complex network of firms operates along these supply chains to support the major foodservice corporations. So far, relatively little research has paid direct attention to the role of these other actors in institutional foodscapes, in part because of the lack of brand recognition of these firms and in part because of a stifling lack of transparency in supply chain operations and relationships (Martin & Andrée, 2012; Stahlbrand, 2017). While travelling to conduct fieldwork for this research, I noticed the same blue and green logo everywhere: on the back of salt, sauce packets and teabags on Amtrak trains; on enormous semi-trailers speeding along freeways and at gas stations; and in loading bays at the back of university dining halls. The logo belonged to Sysco – the biggest food distributor in the US. I had the persistent feeling that it was somehow part of the puzzle of campus foodscapes but could not quite pin down how. This dual character of ubiquity and facelessness held by brands like Sysco is, in some sense, protective; the lack of recognition and the difficulty in obtaining any information or data on their operations results in a lack of scrutiny.

The major FSMCs consolidate power through complex contracts and relationships with suppliers and distributors across the foodchain. As primarily business-to-business (B2B) firms the distribution firms have little consumer recognition despite their size and vast influence. Foodservice distributors function as intermediaries between foodservice operators and food producers and manufacturers, working to deliver food and other products used in professional kitchens. They maintain vast fleets of vehicles and manage warehouses to serve regional markets aggregating supplies from manufacturers, food producers and other upstream distributors. In total the foodservice distribution sector turns over \$280 billion in annual revenue and operates approximately 153 000 vehicles and 15 000 distribution centres (IFDA, 2018). The sector is divided into several operator types, however, group purchasing organisations (GPOs) and broadline distributors are the most active in institutional supply chains.¹⁶⁶ GPOs utilise economies of scale to negotiate product prices and procurement on behalf of foodservice operators with broadline distributors and directly with manufacturers and producers. This model tends to favour operators that service multiple sites benefiting from large orders per item. Broadline distributors, also called ‘full-line distributors’ carry large volumes of diversified product ranges with 1000s to 100,000s of stock items. They incentivise contracts with bulk discounts and the convenience of a ‘one-stop-shop’ model. Larger broadline distributors have national coverage, although smaller operators distribute in limited geographic or sector-specific

¹⁶⁶ Other models in distribution include: System distributors, tending to focus on specific markets and/or customers – i.e., grocery chains or restaurant chains; speciality distributors, operating in specialised niches, such as meat, produce or dietary parameters such as kosher or halal food supply; cash-and-carry distributors, operating point-of-sale wholesale stores and; redistributors, who operate small scale deliveries between manufacturers and smaller foodservice operators.

markets, serve national quick service restaurant chains,¹⁶⁷ national grocery and retail chains, airports and other transport sectors as well as institutions and health networks.

US. Broadline distributors occupy 64% of the market share of all food distribution in the US, with the top three firms sharing 32.2% of the market,¹⁶⁸ consisting of Sysco (17.2%); US Foods (8.6%) and Performance Food Group (6.5%) (Hale Group, 2020; Howard, 2021). Since, as mentioned above, broadline distributors serve restaurants, catering enterprises, healthcare, corporations, retailers as well as education, different estimates may include or exclude any of these customer segments resulting in difficulty in determining true market share. Some estimates put Sysco's share as high as 35% with a CR4 of 74% (McCollom, 2015). Although education only makes up a small percentage of broadline operations, just 8% of Sysco's operations and 7.4% of US Foods' (Sysco, 2019; US Foods, 2017). Further consolidation is expected, and likely hastened by the economic fallout of the COVID-19 pandemic (Hale Group, 2020). Similar concentration and consolidation is seen in GPOs – assisted by exemptions from, and weak enforcement of anti-trust regulation allowing for sole source contracts with broadline operators, almost exclusively Sysco and US Foods (Klein, 2015; Woodall & Shannon, 2018).

¹⁶⁷ Also known as Fast Food restaurants or chains.

¹⁶⁸ This is known as the Concentration Ratio (CR), a measure of the size of firms relative to the whole sector, for example CR3 is the market share of the top 3 firms, CR4 the top 4 etc. Although CR3 of 32% does not necessarily indicate oligopoly conditions growing consolidation and the fact that lesser firms are regional and much smaller suggests that the major players wield vast power over supply chains, particularly those directed at national buyers such as institutional networks. Further, the rate is rising rapidly with the CR4 rising 10% between 2003 and 2013. In 2019 Performance Food Group (PFG) successfully acquired the sixth largest firm, increasing the estimated CR4 to 77% - despite the lack of success acquiring US Foods - Sysco management has publicly expressed interest in acquiring PFG.

While no clear data exists for higher education, only six GPO firms control 90% of food supply to US hospitals and health care organisations (Klein, 2013). It is estimated that the three major FMSCs operate 81% of dining operations in higher education, taking in 83% of the revenue from the top 50 operators (Apoliona-Brown et al., 2020).¹⁶⁹ Although these figures combined cannot reveal an exact measure of concentration in the higher education foodservice distribution supply chain it indicates a tightly controlled, anti-competitive market. In both health and higher education there are several hundred smaller GPOs however these are likely regional and not competitive with national, or international firms such as the GPOs operating as subsidiaries of the three major FSMCs. The sector operates in line with the hourglass model proposed by Heffernan et al. (1999) – with many producers and consumers subject to the prices and conditions set by the few powerful firms in the middle as demonstrated in Figure 8-1, below.

¹⁶⁹ Based on a sample taken by Apoliona-Brown, P., Dunn-Wilder, E., Guthrie, L., Robbins, P., Steel, A., & Strader, K. (2020). *Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our Communities - and What to do About It*. <https://www.realfoodgen.org/kickbacks-report-2020> of 247 4-year HEIs in the US – the calculations were based on numbers of contracts held, not revenue of total contracts.

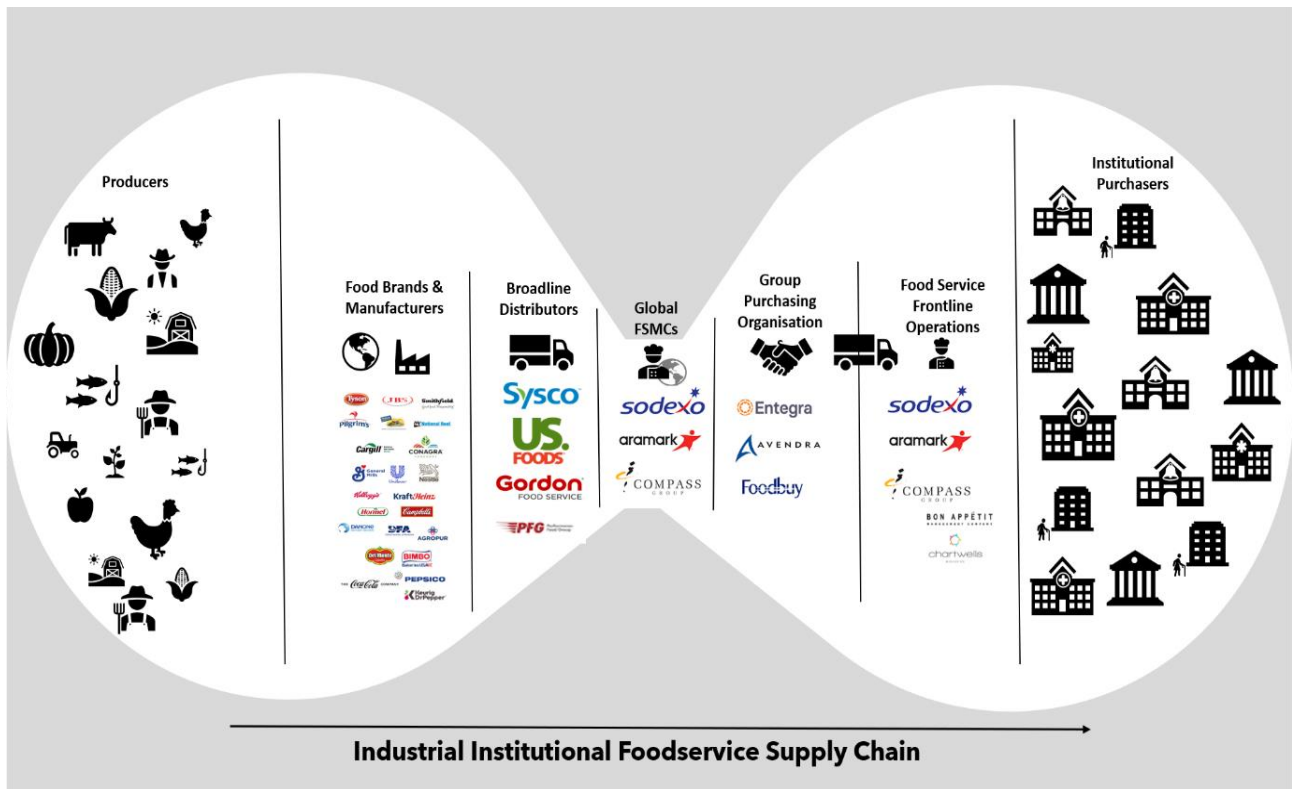


Figure 8-1 Concentration in Institutional Foodservice supply chains

8.2.2 Outsourcing Foodservice in Higher Education

Funding for higher education in the US is divided between income and revenue generating activities, philanthropic giving, a small amount of local funding and state and federal funding. Public institutions, which educate 70% of post-secondary students are particularly reliant on government funding, these institutions receive 98% and 71% of state and federal funding respectively (Urahn & Irwin, 2019). Although federal funding saw a slight increase per full-time-equivalent students between 2000 and 2015, the money is allocated primarily to institutional research activities and student support funding - such as Pell Grants¹⁷⁰ (Urahn & Irwin, 2019). Whereas operational costs are mostly

¹⁷⁰ Pell Grants are a federal subsidy provided to low-income students who are undertaking their first bachelor's degree as discussed in section 2.3.2

covered by state funding and tuition income. Following the financial crisis of 2008 state funding in higher education declined by nearly 20% and despite minor increases in the last decade funding still remains below pre-recession levels. In turn this has led to rapid tuition and fee increases for students (Mitchell et al., 2019; Urahn & Irwin, 2019).

Traditionally dining services were managed in-house as university auxiliary operations. However higher education providers facing reduced budgets have frequently turned to out-sourcing various operational functions to FSMCs. Food and dining services are the most commonly privatised service in US higher education. In 2005 74.6% of outsourcing across the higher education sector related to food and dining (Gupta et al., 2005).¹⁷¹ Martin and Andrée (2012) argue the turn to outsourcing happened in lockstep with waves of privatisation in previously state-run services throughout the neoliberal era.¹⁷² The idea that ‘non-core’ activities such as food, cleaning and accommodation can be managed externally has become normalised over the past two decades. Increasingly, the practice is creeping into other areas such as technology management, human resources, curriculum development and teaching.

8.2.3 Arguments for Outsourcing Services in Higher Education

Outsourcing is a means of privatising a service, or services, to an external organisation (Lok & Baldry, 2015; Phipps & Merisotis, 2005; Wekullo, 2017). Doing so may result in the private firm either taking on existing institutional

¹⁷¹ There is an apparent dearth of more recent data on food and dining, more current studies have focused on the outsourcing of IT services and the rise in outsourced teaching and curriculum-development activities.

¹⁷² The article by Martin and Andree (2012) provides broader context of the history of the major foodservice corporations discussed here as well as the socio-political context which assisted in the consolidation of their power in the sector.

employees or replacing staff with those selected by the firm (Phipps & Merisotis, 2005). Further the institution and contractor share resources and risks associated with service delivery (Brailsford and Dunlavey, 2018). The core reason given for outsourcing is cost saving and mitigation of tuition price rises due to passing on service costs to students (Conradson, 2014; Glickman et al., 2007; Gupta et al., 2005). Phipps and Merisotis (2005) categorise the practice as an inevitable response to diminished government funding. Arguments in favour of outsourcing include the ability to take advantage of private firms' economies of scale and their existing supplier relationships; sharing or shifting risk away from the institution, and utilising specialised expertise and ability to employ innovative models intended to attract more students to an institution (Glickman et al., 2007; Quigley & Pereira, 2011). Sharing risk was offered by a respondent as one of the core drivers for institutions' choice to outsource,

there's an enormous amount of risk being self-managed, self-operated and there's financial risk, there's safety and sanitation risk, right. When an institution chooses to outsource their dining, they are relinquishing a certain amount of control, but in the same sense, they're also relinquishing a certain amount of liability and risk. And it's an institutional decision, way beyond my paygrade¹⁷³

Glickman (2007) also notes that institutions may outsource in response to government regulation, in hope that a private firm may be better placed to manage specialised regulatory burdens such as food safety requirements. For example, in some jurisdictions such as Florida, the state stipulates which services must be outsourced by public institutions. Institutions may also choose to engage an outside provider when faced with equipment and infrastructure

¹⁷³ IR10

renovations preferring to pass the project management and its associated costs on to a third party (Glickman et al., 2007).

8.2.4 Negative Impacts of Outsourcing Services in Higher Education

Outsourcing services and associated employee management risks eroding existing workplace culture, inciting employee discontent and losing long-term institutional knowledge (Allen et al., 2002). Publicly-listed corporations¹⁷⁴ tend to operate with a remit to their shareholders to generate profit and deliver efficiency, however, in doing so they may create less stable work conditions for employees and environments more hostile to unions (Glickman et al., 2007; McCartin, 2018). Working conditions and job stability have been shown to decline after outsourcing institutional services (Classens et al., 2020; Phipps & Merisotis, 2005). Wekullo (2017) further highlights that there is little empirical evidence that demonstrates the overall savings and benefits of outsourcing and that much of the existing literature repeats assumed logic that the practice should be efficient and save institutions money. A review by Johnson and Graman (2015) found that there was no strong trend towards improved services or change in expenditure. Instead, the most significant variables were the nature of the service, how the services were managed, and the relationships between organisations and external providers. They also found that as the practice becomes more entrenched the profit motive of firms resulted

¹⁷⁴ The major FSMCs in Higher Education Aramark, Sodexo and Compass Group are all publicly listed companies. Sodexo is registered on the Paris Stock Exchange and Compass Group on the London Stock Exchange – resulting in lesser filing obligations to the SEC as foreign entities. Aramark has been listed on the New York Stock Exchange (NYSE) three times. The company has origins in two California-based vending machine companies (begun in 1936 and 1945) who combined in 1959 to become ‘Automatic Retailers of America’ – this company was listed as ARA on the NYSE from 1960 to 1984, then again as RMK under the Aramark name from 2001 to 2007. Finally, it was re-listed under its current stock symbol ARMK in 2013 – being only the fourth company to attempt three IPOs in the NYSE’s history.

in services becoming more expensive, an outcome such relationships were intended to avoid.

Passing control to external organisations also results in the institution having less direct control over decision making and increased hurdles to implement novel programming and policy (Glickman et al., 2007; Gupta et al., 2005). Contractual requirements may also make it difficult to remove an underperforming provider. Although in both models students are paying money for the food they consume in the privatised system any profits are funnelled away from the university and cannot be used at the institution's discretion (Glickman et al., 2007; Gupta et al., 2005). Over time displacement of these services can lead to loss in available resources, institutional knowledge, capacity and infrastructure owned by the institution making the return to in-house foodservice more difficult (Maharaj, 2020; Morgan, 2008).

8.2.5 Impact of Outsourcing on Foodservice Workers

Support and service workers are a key part of school and campus communities and essential to institutional operations. Many testimonies have lamented job losses, lower wages, the decline in work culture and food quality after outsourcing foodservices. To further consolidate profits service companies often shift to more 'heat and serve' models needing less kitchen labor than cooking from scratch, and engage in partnerships and joint ventures with snack and beverage brands, further jeopardising the nutrition standards in foodservice (Maharaj, 2020; Martin & Andrée, 2012; Molnar, 2005; Nestle, 2013; VanderSchee, 2005). The drive for cost savings tends to push corporate suppliers towards procurement of processed foods and pre-prepared foods to lessen kitchen labour costs resulting in less healthful options with less variety

(Classens & Sytsma, 2020; Maharaj, 2020; Reynolds & Hunter, 2017). This economic rationalism also undermines workplace conditions. Gaddis (2019) reports the experience of Lisa who had worked delivering school lunch for sixteen years and after the shift to Aramark as a service provider, had seen the overall standards and nutritional quality of the food decline, her wages diminish to the point of barely covering her commute to work and conditions which denied any time to interact with the children she served. She felt her role as a ‘caring, nurturing [and] smiling’ lunch lady was no longer sustainable (2019: 2). Although the workers were frequently working unpaid overtime and missing breaks to manage increased workloads, examination showed that outsourced operations still often ran at a deficit while channelling income towards private companies. Providing her own experience to a collaborative, co-created study of first-generation students Nancy Valencia, a young Latinx student from UCLA, tells of the solidarity she found after taking a job as a student-worker in her college’s dining hall. It was there that she found her ‘work-moms’ and community which helped her acclimate to the university, which she described as ‘not being created for people like her’ (Valencia & Prescott-Johnson, 2021:132-133).

A 2009 study found that after outsourcing, staff wages were cut by \$4-6 an hour and shifts often reduced, including being offered only one or two hour split shifts, and benefits (including healthcare) were lost or reduced (McCain, 2009). Contract changes when shifting to outsourcing, or changing providers open up opportunities for foodservice corporations to undermine hard-won union conditions or to de-unionise the workforce all together – worsening the situation of vulnerable workers who may be non-citizens or students (Martin &

Andrée, 2012). Sodexo runs the non-profit Sodexo Foundation primarily devoted to the ‘STOP hunger campaign’. It has invested around \$1 million a year in this fund – amounting to 0.01% of its annual \$20 billion profits. Simultaneously — while simultaneously there have been reports of US Sodexo employees receiving wages so low they were forced to rely on government welfare and take advantage of hunger-relief charity (Saltmarsh, 2010). The precarity of these working conditions not only demean the workers but undermine the stability of foodservice jobs and threaten the more-than-service roles these workers play in their communities, reducing workers to interchangeable units rather than integral members of campus communities

8.3 Institutional Foodservice Supply Chains

To comprehend how these operators influence campus foodscapes it is necessary to understand the relationships between the FSMCs, GPOs and broadline distributors. So far there has been relatively little attention paid to the influence of these corporations and virtually no research on their role in higher education. Each of the major FSMCs working in higher education have acquired subsidiary GPOs: Aramark owns Avendra; Compass Group owns Foodbuy and Entegra operates as an in-house division of Sodexo.¹⁷⁵ While each of these GPOs procure food from a variety of sources they are reliant on broadline distributors who are able to provide access to thousands of stock lines and have national reach, Aramark has stated that it believes itself to be one of Sysco’s biggest customers, benefitting from the scale of their purchases,

¹⁷⁵ Avendra, founded in 2001 was acquired by Aramark in 2017; Foodbuy, founded in 1999 was acquired by Compass Group in 2001. Entegra operates as an in-house division of Sodexo. All three operate internationally after acquisition by the larger FSMCs.

We negotiate the pricing and other terms for the majority of our purchases of food and related products in the U.S. directly with national manufacturers. We purchase these products and other items through SYSCO Corporation and other distributors ... Due to our ability to negotiate favorable terms with our suppliers, we receive vendor consideration, including rebates, allowances and volume discounts–

(Aramark, 2019)

Real Food Generation (RFG) authored a 2020 report investigating the practices of FSMCs and their relationships with suppliers and distributors drawing on court documents, publicly available information and testimonies of former foodservice employees as well as farmers and other suppliers to FSMCs. While Aramark notes the benefit of ‘vendor considerations’, RFG frames these as ‘kickbacks,’¹⁷⁶ income which has now grown to become a major source of revenue for foodservice corporations – by one estimate accounting for 50% of net profits (anonymous testimony provided to Apoliona-Brown et al., 2020). Figure 8-2 below, shows an example of an advertisement targeted at foodservice managers, outlining which brands are eligible for rebates. A former foodservice employee recalls a corporate boss boasting: ‘the millions of dollars that purchasing directs to the company’s profits dwarf what you guys in operations are doing’ (anonymous testimony provided to Apoliona-Brown et al., 2020: 13).

¹⁷⁶ They note kickbacks are referred to by various names: kickback system; volume discounts; deviated pricing, off-invoice rebates; sheltered income and/or back-end allowances. The 2011 senate enquiry noted use of terms such as ‘marketing incentives’, ‘marketing agreements’, ‘sheltered income’, ‘contingent compensation’ and ‘vendor consideration’ and ‘deviated pricing’ – it was also noted that corporations created subsidiary companies specifically to manage these transactions and/or rebate services.

MCR PROGRAM Participating Vendors offering Rebates and/or Deviated Pricing exclusively through US Foods.			Additional Savings Agreements
• ACH • ARYZTA • BASIC AMERICAN FOODS • BEVOLUTION/LEMON-X • BRANDING IRON HOLDING • BRIDGFORD • BURRY FOODS • BUSH'S BEST • BUTTERBALL • CAMPBELL SOUP CO • CONAGRA* • CONTINENTAL MILLS • COUNTRY PURE JUICE • CUSTOM CULINARY • DANNON • DARLINGTON • DINEX • DIXIE • DOLE • DON'S SALADS • EcoPRODUCTS • EQUAL* • FLORIDA'S NATURAL • GENERAL MILLS • GEORGIA PACIFIC • GOOD HUMOR	• H.J. HEINZ • HATFIELD* • HIGH LINER • HILLSHIRE • HOFFMASTER • HORMEL FOODS • HORMEL HEALTHLAB • J&J SNACK FOODS • JENNIE-O TURKEY STORE • KELLOGGS/KEEBLER • KEN'S • KETTLE CUSINE • KEURIG DR PEPPER/MOTT'S • KOZY SHACK • KRAFT -MAXWELL HS COFFEE • LEAHY • McCain • McCORMICK COMPANY • MICHAEL FOODS • MONARCH - FOOD DIVISION • MOTT'S • MRS. T'S • NESTLE NUTRITION • NESTLE PROFESSIONAL • NESTLE WATERS • OCEAN SPRAY	• OLD NEIGHBORHOOD • PILGRIMS/PIERCE • PINNACLE FOODS • PRECISION FOODS • QUAKER OATS • RASTELLI FOOD GROUP • RICH PRODUCTS • SARA LEE BAKERY • SCA TORK • SHASTA • SIMPLY THICK • SMUCKERS • STARKIST • STRATAS • SUGAR FOODS • SUN RICH • SWEET STREET • THIN n TRIM • TROPICS MIXOLOGY • TYSON • UNILEVER* • US FOODS CULINARY EQUIPMENT & SUPPLIES • WELLS DAIRY • WINCUP	• DEAN FOODS DAIRY • ELLIS COFFEE • G.T.S. WELCO/ PRAXAIR • HD SUPPLY • JACK & JILL ICE CRE • KCI • NESTLE NUTRITION • PREMIER ENERGY GROUP • US FOODS • VILLAGE OFFICE SUPPLY • WOODRUFF ENERGY

Figure 8-2 Examples of brands with rebates through US Foods 'manufacturer cost reduction program' (MCR program) (HGP Group, 2021)

Following on from the series of controversies in which FSMCs did not pass on rebate-derived savings to school districts a federal senate enquiry investigated practices between distribution companies and foodservice operators. Hearings included testimony that summarised the operators' tactics,

Food is bought either directly from food manufacturers or through distributors. These food vendors pay foodservice management companies millions of dollars to buy food from them. These payments are called rebates or, tellingly, off-invoice rebates. The Attorney General's investigation has identified several problems with the system which, in other contexts, has been labelled as an unlawful kickback.

(John F. Carroll, New York Assistant Attorney General, testimony for: *Are Contractors Overcharging the Government?*, 2011)

The testimony of the New York Assistant Attorney General highlighted the lack of transparency in these relationships and the limited means of gathering information on rebates due to distributors and FSMCs making their agreements intentionally complex to the point of inscrutability. The Assistant Attorney General stated, ‘the system is kind of designed to be complicated’. It is further complicated by deals that are multi-party and multi-directional, running between distributors, FMSCs, wholesalers and manufacturers (illustrated in Figure 8-3). The practice creates conflicts of interest as it encourages ‘rebate chasing’, where ‘companies are more likely to enter into rebating agreements with large agribusiness and may thereby forego entering into business arrangements with local farmers’ (*Are Contractors Overcharging the Government?*, 2011).

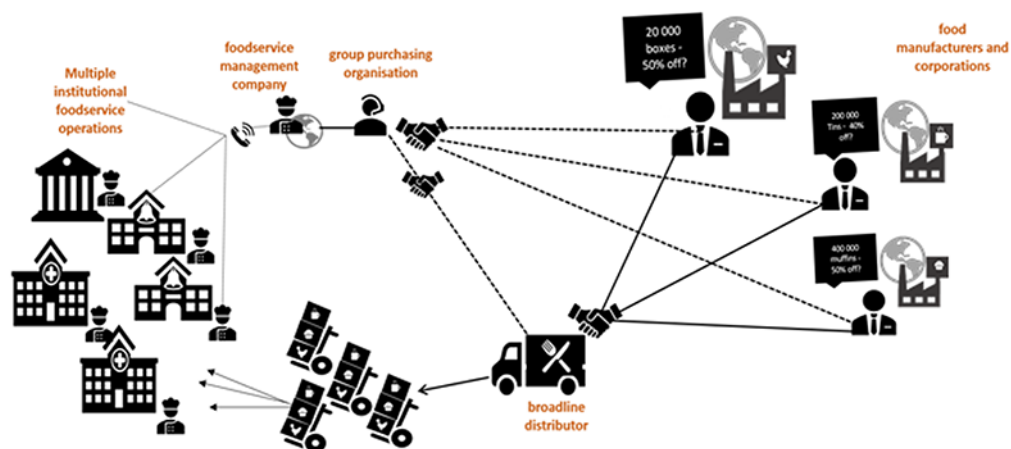


Figure 8-3 Purchasing Cycle in Corporate Institutional Food Supply Chains

The value of these relationships encourages FMSCs to exert pressure on their employees. Frontline workers are given strict ordering parameters and approved vendor lists – which stipulate the amount of purchases which must be made from the selected companies, usually between 80-100% of purchases from approved suppliers (Apoliona-Brown et al., 2020). Reports from employees

make it clear that company culture ensured that it was understood that job security and access to pay rises and promotions are contingent on ordering from approved vendors who generate large rebates (Apoliona-Brown et al., 2020; *Are Contractors Overcharging the Government?*, 2011).

8.3.1 Negative Outcomes in Single Source Supply Chains

Despite the lucrative nature of these deals little of the savings, or rebates are returned to institutional customers, instead the financial benefits are shared between manufacturers, distributors and FSMCs. In some instances the profits are collected via artificial price-inflation (by the manufacturer for the benefit of the FSMC who collects the difference between the rate paid by the institution and the amount due to the manufacturer) which risks distorting market rates (Obadia, 2015).

Stahlbrand interviewed foodservice workers, many of whom explained that large and medium firm in the middle of institutional supply chains accrue profits from these rebates from less powerful, smaller actors, one stating, ‘manufacturers make up the difference by pushing down on farmers’. At the other end, they continued, ‘a box of apples that would have cost \$10, now costs \$11. The foodservice company needs to make back that dollar on every box, so the rebate automatically gets pushed onto the end user’ (2017: 198). Contractual ordering obligations have been described as ‘rigid’, disallowing individual choice for frontline workers without explicit corporate approval (Pullman & Wikoff, 2017). Studies have found that operators find the contractual requirements burdensome and a barrier to implementing reforms around environmental policies, local food and lessened packaging (Boys & Fraser, 2019; Klein, 2015; Pullman & Wikoff, 2017). Frontline operators have

also complained that because of the corporation's core business in shelf-stable and packaged foods it is more difficult to acquire healthy and fresh food and doing so requires laborious work-arounds, more staff labour for food preparation and more expensive ingredients (Graham et al., 2018).

Institutions are particularly vulnerable to the demands of these corporations due to the necessary scale of their purchasing requirements and the monopoly broadline operators have over some product lines (Hauter, 2014; Klein, 2013, 2015). There is very little data available on expenditure in higher education, however, healthcare groups are estimated to spend the majority of their procurement budgets on a single distribution provider – and despite the presence of over 600 GPOs - 90% of healthcare foodservice distribution contracts are negotiated through just six providers (Klein, 2015). It is estimated that 65% of food procurement in higher education is controlled by broadline distributors, and despite little data on the percentage of contracts negotiated through GPOs, it is expected that as the three largest GPOs used by higher education service providers are subsidiaries of the three largest FSMCs the concentration would be similar, if not higher (Hale Group, 2020). The major FMSCs have close relationships with broadline distributors, Aramark, for example purchases 50-60% of its total inventory from Sysco and is one of the distributor's largest customers.¹⁷⁷ The previous statement from Aramark notes their reliance on national manufacturers, echoed by Sysco who state that their suppliers 'consist generally of large corporations selling brand name and private label merchandise' – estimating only 8% of its product lines count as fresh

¹⁷⁷ Based on reports in SEC filings 2012-2019. The percentage of purchases varies per year but consistently accounts for the majority of the FSMCs purchases – though the percentage has been declining since 2012. Aramark's 10-K reports are available to view via <https://www.sec.gov/edgar/browse/?CIK=0001584509>.

produce (Sysco, 2019). Due to the scale of broadline operations their main product lines tend to be processed, shelf stable, or pre-prepared, such as pre-washed and bagged salad mixes, or finished ready-to-heat meals (Klein, 2015).

8.3.2 Acquisitions by Sysco and US foods

Major broadline distributors Sysco and US Foods have successfully acquired 30 smaller providers since 2011, accelerated by an influx of cash from private equity firms (Gordon, 2018). Table 8-2, below, illustrates a timeline of these acquisitions since the year 2000. Controversially, Sysco attempted to acquire US Foods, its main competitor, in 2013. However, the plan was met with fierce public criticism and eventually abandoned following a filing by the Federal Trade Commission (FTC) and a ruling of anti-competitiveness from a US federal court (FTC, 2015; Harik et al., 2017). NGO Food and Water Watch opposed the merger, noting in a public submission to the FTC that the threat of further concentration must be understood within the specific sector of broadline distribution, not wholesale distribution or the broader foodservice market, in which case the concentration of their power was much higher than previously estimated (Hauter, 2014). As the two firms were, and still are, the only players to have a truly national network the merger would eliminate Sysco's only competitor in an entire 'node' of the supply chain and increase concentration within the niche to 75% (Howard, 2021: 43). Concentration substantially increases both monopolistic and monopsonist power held by these companies, allowing them to both increase prices to foodservice providers and leverage price cuts from manufacturers while garnering rebates as well as stifle innovation and emerging competitors (Hauter, 2014; Howard, 2021; Klein, 2015).

As broadline operators are in a position to purchase directly from manufacturers they then determine what products are available to foodservice operations. They market, target coordinated manufacturer/distributor campaigns and rebate programs to operators. In turn this determines what is and what is not available to consumers. The lack of choice in these channels hastens the conventionalisation of the food system in line with the mores of the industrial gatekeepers and the paradigm of a technocratic, profit-driven food regime (Klein, 2015). Further the practice of rebates results in small vendors being unable to afford the extra costs to secure a novel market, locking out small and regional producers, particularly impacting those already vulnerable to the demands of the industrial food system including people of colour, indigenous peoples and woman-run and small family farms (Apoliona-Brown et al., 2020; Obadia, 2015).

*Table 8-2 Companies acquired by Sysco and US Foods 2000-present
including company name, state of origin and sector*

US FOODS		SYSKO
PYA/ Monarch (SC) Broadline Distributor	2000	FreshPoint Holdings (TX) System Distributor - Produce
Alliant Foodservice (IL) Broadline Distributor	2001	Freedman Food Service (TX) System Distributor - Meat, Texas Meat Purveyors (TX) System Distributor - Meat
	2002	Asian Foods Inc. (MN) Speciality Distributor - Asian Foods
	2003	
	2004	International Food Group Inc. (FL) Broadline Distributor
	2005	
	2006	
	2007	
	2008	

	2009	
Nino's Whole Distributor – Italian Foods	2010	
Cerniglia Products (WI) Speciality Distributor - Italian Foods, Great Western Meats, Inc (FL) Food Processor - Produce, Midway Produce (IN) System Distributor - Produce, Ritter Foodservice (PA) System Distributor - Poultry, Vesuvio Foods (NY) Speciality Distributor - Italian Foods, White Apron (CA) System Distributor - Poultry		
New City Packing Co (IL) Food Processor - Produce	2011	
Quandt's Foodservice (NY) Broadline Distributor	2012	European Imports LTD (IL) Specialty Importer
	2013	Appert's Foodservice (MN) Broadline Distributor, Buchy Food Service (OH) Broadline Distributor, Central Seafood Company (FL) System Distributor - Seafood
Dierks Waukesha (WI) Broadline Distributor	2014	
Cara Donna Provision Co. (MA) Broadline Distributor, Freshway Foods (OH) Food Processor - Produce, Jeraci Foods (NY) Speciality Distributor - Italian Foods, Save On Seafood (FL) Food Processor - Seafood	2015	
All American Foods (RI) Broadline Distributor, Braunger Foods (IA) Broadline Distributor, F. Cristiana (LA) Broadline Distributor, FirstClass Foods (CA) Food Processor - Meat, SRA Foods (AL) Broadline Distributor, The Thompson Company (NE) Broadline Distributor, Variety Foods (SD) Broadline Distributor	2016	Northstar Seafood (FL) System Distributor - Seafood
Ingardia Brothers Produce (CA) System Distributor - Produce	2017	HFM Foodservice (HI) Broadline Distributor
AmeriFresh Inc (WA) System Distributor - Produce, Ameristar Meats (WA) System Distributor - Meat, Food Services of America Inc (AZ) Broadline	2018	Doerle Food Services (LA) Broadline Distributor

Distributor, Systems Services of America Inc (AZ) Broadline Distributor	
	2019 Armstrong Produce (HI) System Distributor - Produce, Imperio Foods (CA) Speciality Distributor - Hispanic Foods, J & M Wholesale Meats (CA) System Distributor - Meat, J. Kings Food Service Professionals (NY) Broadline Distributor, Kula Produce (HI) System Distributor - Produce, Waugh Foods Inc. (IL) Broadline Distributor
	2020 Coastal Sunbelt Produce (MD) System Distributor - Produce, East Coast Fresh (MD) Food Processor, Greco and Sons
	2021 (IL) Speciality Distributor - Italian Foods, Lancaster Foods (MD) Wholesaler - Produce, Paragon Foods (PA) Food Processor - Produce

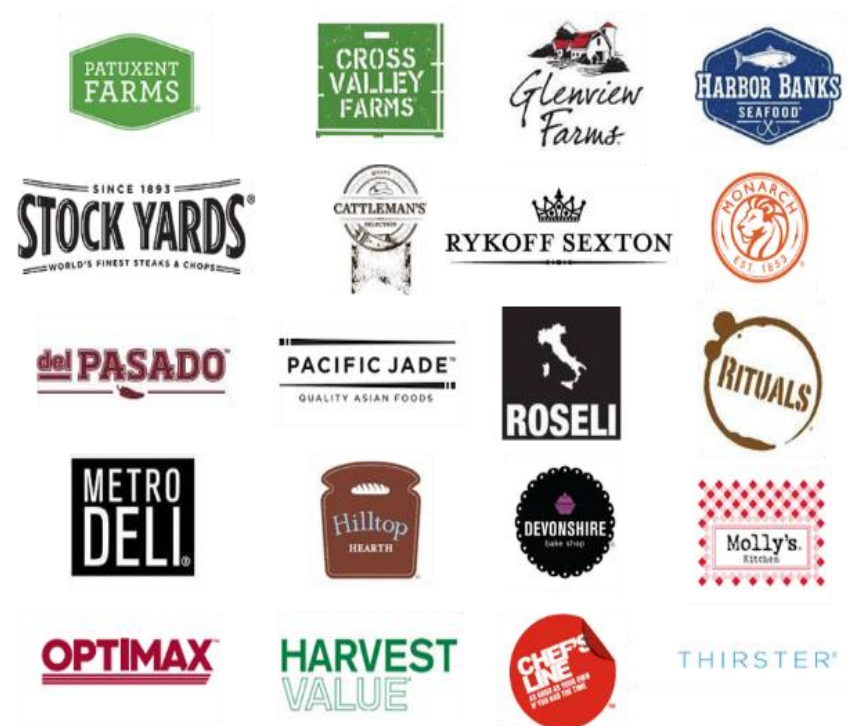


Figure 8-4 Sysco (L) and US Foods (R) own-brand portfolios including meat, dairy, seafood, smallgoods, beverages, tea and coffee, and a range of other thematic brands

8.3.3 Distributor Horizontal Power, Services and Own Brands

Responding to increasing customer interest in disruptive technologies and digital alternatives, broadline distributors have begun expanding into more client-service oriented models and expanded portfolios of own-brands. Sysco and US Foods have expanded multiple lines including meat, seafood, bakery, tea and coffee and dairy as well as thematically oriented brands such as Italian, Asian and environmentally conscious lines (Figure 8-4). These direct-to-foodservice own-brands are both invented by the distributors and acquired companies – their multiplicity obscuring the single-source ownership while further inculcating profits and power to broadline corporations (Woodall & Shannon, 2018). These brands evoke place-based food systems, for example ‘Glenview Farms’ and ‘Fire River Farms’ and conjure homeliness through gingham tablecloth motifs and names like ‘Molly’s Kitchen’. They seek to lend legitimacy to their operations – for example US Foods’ use of a logo from a pre-existing meat-processing operation, Stock Yards, claiming ‘World’s Finest Steaks and Chops since 1893’, relying on customer loyalty aligned to acquired brand. These brands have higher margins for the corporations and are likely the subject of lucrative promotional rebates, further locking out other operators (Hale Group, 2020).

8.4 Protesting Corporate Foodservice in Higher Education

Objections to outsourced dining services have often focused on the poor company records of corporate firms, primarily the three major foodservice corporations, citing labour violations, failures in public financial administration

and disclosures and their entanglement with the prison industrial complex. Aramark has settled legal suits with state administrative bodies including school districts in Illinois, Georgia, Texas and Pennsylvania for poor performance, under-delivering on food quality and quantity as well as over-charging and failing to pass on volume discounts and savings gained from federal subsidies. The company has been sued and fined by several state corrections departments including Ohio, Kentucky and Florida for conduct issues including under-staffing, poor hygiene and cleanliness, violent and sexual misconduct with inmates and smuggling contraband, improper conduct in tender processes as well as over-charging, and failing to pass on cost-savings to the state from using cheaper than agreed on ingredients in inmates' meals. In 2013 Aramark was found to have served spoiled, past-use-by food to prisoners in New Jersey and to have maggot infestations in prison kitchens in Ohio and Michigan in 2015 (Egan, 2014; Zoukis & Bower, 2015). The company has also had repeated labour violations, engaged in anti-union activities, and has settled lawsuits for under-payment of employees as well as denying appropriate breaks to staff.

Both Sodexo and Aramark have been found to engage in racially discriminatory hiring practices and to have systematically denied promotions to black employees (Good Jobs First, 2020). Sodexo paid a \$20 million settlement and Chartwells \$18 million to the state of New York for systematic overcharging of school districts and profiting from costs saved due to federal subsidies (Bruske, 2010; Schneiderman, 2012). The company has been accused of repeated anti-union activities and intimidation and firing of employees involved in union activity (Compra, 2010). As opposed to Aramark and Compass who

mainly provide services to prisons – Sodexo actually runs detention facilities as well as providing services. The French corporation have divested their interests in the American prison industry but still run many facilities globally. Sodexo-run private prisons in the UK have repeatedly breached human rights: In 2013 one prisoner was left in isolation for five years; In 2017 staff were found to have conducted illegal, humiliating strip searches breaching prisoners' human rights and In 2019 a female prisoner was left alone to give birth in a cell and denied medical support, after which the baby was found deceased (Hardwick, 2014; "LW, Samantha Faulder, KT, MC v. Sodexo Limited," 2018; McAllister, 2021).

Sodexo-Marriot, as it was then known, became the target of extensive campus protests in the early 2000s as students objected to shareholdings and operational interests the services conglomerate had in the private prisons industry, particularly their stake in the Corrections Corporation of America (CCA), the largest provider of for-profit prison services in the US. Supported by the Prison Moratorium Project under the banner of 'Not With Our Money', students organised boycotts and actions on roughly 50 campuses with Sodexo contracts and 3 universities to drop their contracts (Chambliss, 2000; Hagerty, 2002). Students reacted not only to the human rights and ethical problems surrounding private prisons but as well to channelling money from public education to support the expansion of profit-driven incarceration facilities and services (Featherstone, 2000). Although the company sought to distance the move from any link to the protest it divested all stock in CCA and the US prison industry in 2001 (Sodexo Alliance, 2001).

Although the swell of protests backed by the Moratorium Project has lessened, there has been a continuous stream of objections raised against all

three dining corporation's links to the prison industrial complex. Table 8-3, below, demonstrates a sample of reported campus-based objections and protests – collected via a targeted publications search using ProQuest of UWire, a service that aggregates articles from college newspapers across the US. Each article has been categorised to illustrate the main issues being raised by students. The two major themes indicated by Table 8-3 are labor complaints and links to the prison industrial complex, with equal number of occurrences each. Labor issues frequently coincided with service-workers' strikes or contract negotiations or were raised in response to particular mistreatment of workers by corporations – including racialized abuse.¹⁷⁸ In relation to the protests and issues raised about the links of the companies to prisons, the majority (21 out of a total of 26) have been raised since 2018 and the majority of those against Aramark.¹⁷⁹ In part this renewed interest in organising against profiting from prisons has been to community organising efforts from members of the Community Coalition for real meals, specifically Real Food Challenge, and its offshoot - formed in 2018, Uprooted & Rising. The third category included complaints about the foodservice such as lack of choice and lack of diversity, poor quality food, lack of options catering to those suffering allergies or undertaking a specialised diet, and the practice of raising costs with a lack of consideration of students' vulnerability to food insecurity. Some of these campaigns and their strategies used are examined in more detail in Chapter 9,

¹⁷⁸ A number of articles from 2020 and 2021 included protests relating to the contract conditions of workers laid off or with reduced hours as a result of cafeteria shut-downs due to COVID-19 related campus closures. Although important these were excluded as they were a result of a specific and extraordinary occurrence and not part of the ongoing campaigns against these companies. There was however a general trend that workers in subcontracted operations had much more precarious work conditions than employees in self-operated services – which is indicative of the general trends discussed in this research.

¹⁷⁹ This is not an exhaustive summary of protests and issues raised by students but representative of overall trends.

providing a summary on strategies and modalities for effecting change in campus foodscapes.

Table 8-3 US University Students Complaints and Protests Against Major Foodservice Corporations

Major objections raised in complaint/s or protest/s – L = labor rights including contract negotiations and mistreatment of employees; P = Corporation's links to the private prison industry and F = complaints about the quality, variety and/or affordability of food			
	*L	*P	*F
Aramark			
Student Worker Alliance protests claims of Aramark worker rights abuse - The Eagle, American University, Washington DC, 21/10/2014	x		
WSU defends foodservice provider after controversy, student criticism - The South End, Wayne State University, Detroit MI, 05/12/2014	x		
Student group protests Aramark's role in prisons - Chicago Maroon, University of Chicago, Chicago IL, 13/01/2016		x	
Student Senate to address student relationship with Aramark - The South End, Wayne State University, Detroit MI, 01/02/2017	x	x	
DUSP students call for boycott of campus dining provider - The Tech, Massachusetts Institute of Technology, Cambridge MA, 13/05/2017		x	
U.Va. must cut ties with Aramark - Cavalier Daily, University of Virginia, Charlottesville VA, 07/11/2017		x	
Tapingo's ties to private prison company Aramark - The California Aggie, UC Davis, Davis CA, 22/01/2018		x	
University prepares to potentially cut ties with Aramark, open bidding process for new vendor - The Eagle, American University, Washington DC, 07/03/2019	x		
Aramark Will Not Be NYU's Dining Service Provider After July, Employees Say - Washington Square News, New York University, New York NY, 25/03/2019		x	
Students Say New Dining Service Provider, Same Problems - NYU News, New York University, New York NY, 01/04/2019	x		
Missing the (Ara)mark on divestment - The Daily Princetonian, Princeton, Princeton NJ, 09/04/2019	x		
Leo's Workers Plan Protest as Contract Talks Remain Unresolved - The Hoya, Georgetown University, Washington DC, 11/04/2019	x	x	
Barnard breaks with Aramark, announces Chartwells as new foodservice provider - Columbia Spectator, Barnard, New York NY, 12/04/2019		x	
CSUF food contractor Aramark draws controversy across U.S. - The Daily Titan, California State University Fullerton, Fullerton CA, 23/09/2019		x	

Aramark On Thin Ice: University administrators deliver firm ultimatum to meal provider - The UMass Lowell Connector, University of Massachusetts Lowell, Lowell MA, 11/02/2020	x		
Shred the Contract advocates for self-operated dining system - The Front Western, Western Washington University, Bellingham WA, 04/06/2020			x
University students lead a driving force for food sovereignty - Minnesota Daily, University of Minnesota, Minneapolis MN, 25/09/2020	x		
Aramark is decadent and depraved - The Oracle, Hamline University, Saint Paul, MN, 30/09/2020	x		
Demand Berklee to End All Contracts with Aramark - Google Docs (petition), Berklee College of Music, Boston MA, 14/10/2020		x	
Aramark's ties to the prison-industrial complex - Saber, Columbus State University, Columbus GA, 18/12/2020		x	
Dining hall dilemma: Aramark at FSU - Tallahassee Democrat, Florida State University, Tallahassee FLA, 18/01/2021		x	
GV needs to end its contract with Aramark – Grand Valley Lanthorn, Grand Valley State University, Grand Rapids MI, 19/01/2021	x	x	x
Students petition to end UT's contract with Aramark as company falls under national scrutiny for ties to prison system, racist actions - The Daily Beacon, University of Tennessee, Knoxville, Knoxville TN, 20/01/2021		x	x
Steps taken by BU administration to divest do not go far enough to warrant a full-out celebration - Bostonia, Boston University, Boston, MA, 26/03/2021	x	x	
Student Government Calls for Switch to In-House Dining - Loyola Phoenix, Loyola University Chicago, Chicago IL, 14/04/2021	x	x	
UF students and Gainesville activists denied opportunity to change the university's food system - Independent Florida Alligator, University of Florida, Gainesville, Gainesville FLA, 21/05/2021	x	x	x
Aramark and the international detention industry – The Review, University of Delaware, Newark DE, 09/11/2021		x	

Compass Group (including subsidiaries Bon Appetit and Chartwells)

Bon App��tit Workers Criticize Changes - Emory Wheel, Emory, Atlanta GA, 01/04/2016	x		
Contract workers demand \$15 living wage - The Johns Hopkins News-Letter, Johns Hopkins University, Baltimore MD, 09/02/2017	x		
SLAC Calls for Worker Self-Management in Dining Services - The Oberlin Review, Oberlin College, Oberlin OH, 05/05/2017	x		
MIT Student Worker Alliance organizes virtual rally for dining hall workers: Chief shop steward Sims' final warning removed by Bon Appetit prior to rally - The Tech, Massachusetts Institute of Technology, Cambridge MA, 25/02/2021	x		
Protest staged for better conditions for Chartwells workers - The Miami Hurricane, University of Miami, Coral Gables FLA, 24/02/2013	x		

Food Service Workers Unite to Protest Chartwells - The Tripod, Trinity College, Hartford CT, 18/10/2016	x		
Trabajadores de la Universidad DePaul Chartwells votan a favor de la huelga, exigen mejores salarios – [DePaul Chartwell's workers vote to strike, seek better wages] The Depaulia, DePaul University, Chicago IL, 26/09/2021	x		
Contract cooking: students serve up alternatives to private food corporations on campus - The Blue Banner, University of North Carolina, Asheville, Asheville NC, 02/05/2017			x

Sodexo

United Campus Workers protest job outsourcing - East Tennesseean, East Tennessee State University, Johnson City TN, 30/03/2017	x	x	
Sodexo Workers Demand "Hands Off Our Healthcare" - The Recorder, Central Connecticut University, New Britain CT, 07/10/2017	x		
What Will it Take for UAlbany to Replace Sodexo's Dining Services? - The Albany Student Press, State University of New York, Albany, Albany NY, 08/11/2017	x		
Concerns with Sodexo prompt student protest - The Daily Athenaeum, West Virginia University, Morgantown WV, 23/08/2018			x
Sodexo employees demand higher wages - The Journal, Webster University, Saint Louis MO, 20/03/2019		x	
Sodexo Gets Chopped College Ends contract with widely criticized food provider - The Ithacan, Ithaca College, Ithaca NY, 21/03/2019	x		
Sodexo presentation at Scripps met with student protest, dining staff support - The Student Life, Pomona College, Claremont CA, 06/02/2020		x	
Howard University Sodexo Employees Petition for 'Cost-of-Living Wage' - Hilltop, Howard University, Washington DC, 13/02/2020		x	
Drop Sodexo - The Herald, Hobart and William Smith Colleges, Geneva NY, 26/09/2020	x	x	x
In defense of self-operated dining at Brandeis - The Brandeis Hoot, Brandeis, Waltham MA, 13/11/2020	x		
Recipe for disappointment: Meal plan rates increase without meeting student needs - The Bulletin, Emporia State University, Emporia KS, 12/03/2021			x
Continual problematic actions necessitate ending BU's contract with Sodexo - Sodexo's exploitation of prison labor and treatment of Black employees is unacceptable - BU Pipe Dream, State University of New York, Binghamton, Binghamton NY, 19/04/2021		x	x

While Real Food Challenge focused on appealing directly to institutional food services with an aim of shifting procurement to local and sustainable suppliers the more recently formed Uprooted & Rising, a sibling organisation, as discussed in

chapter 4, specifically targets corporate control and the influence of big food corporations in higher education. Uprooted & Rising also works to address the racism inherent in the food system and the ongoing disempowerment of smaller actors, especially black and indigenous food producers and suppliers who are negatively impacted by the previously discussed corporate control of supply chains. Student groups have mobilised across US campuses to target the influence of Aramark, Compass and Sodexo, both on individual campuses and collectively. For example, Figure 8-5 shows a protest organised by Uprooted & Rising outside Aramark's Philadelphia headquarters where demonstrators, including students and foodchain workers, delivered a petition with 100,000 signatures demanding a commitment to change in corporate practices including a commitment to 25% 'real food' sourcing, racial equity and reduced reliance on carbon intensive foods, as well as more transparency in company practices.



Figure 8-5 Students and workers protest outside Aramark's Philadelphia Headquarters, organised by Uprooted & Rising, photo Sophia Epstein via Kelloway (2019)

Individual campus chapters are supported by the organisation such as the student-run campaign group at Western Washington University including protests, organising strategies and the production of community media including the zines

on following pages explaining the kickback system and the links between university food service and the prison Figure 8-6 to Figure 8-8

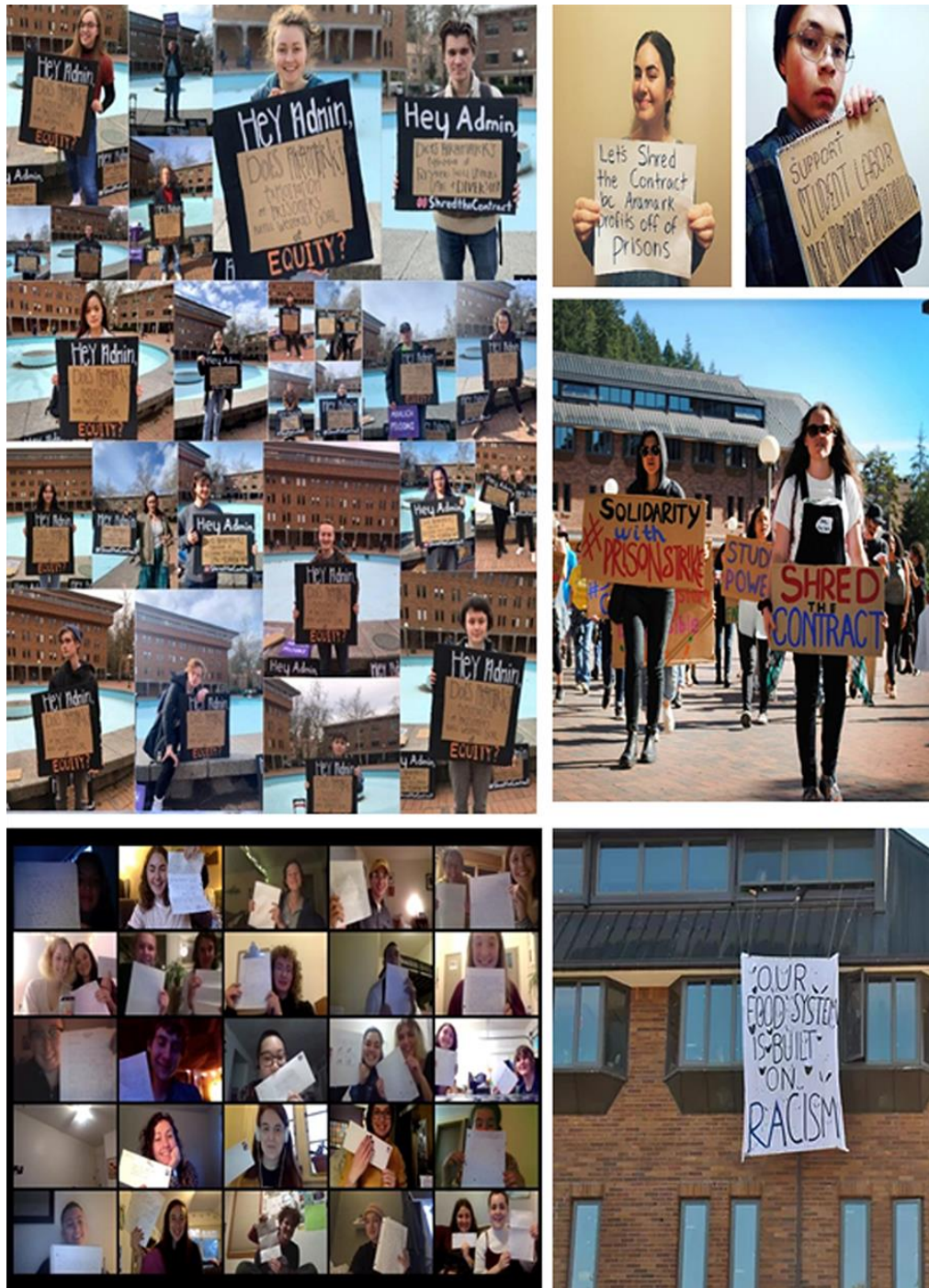


Figure 8-6 - Top-bottom, L-R: Actions by Shred The Contract WWU - Photo-based campaign with students sharing their concerns with university administration, organised via face-to-face organising and social media (2020); Virtual meeting to organise letter writing campaign to university administration sharing concerns re: campus dining operator (2020); On campus protest: 'Real Meals, Not Dirty Deals' as part of Food Justice Summit (2018); Banner dropped from Miller Hall as protest action: 'Our Food System is Built on Racism' (2017).



Figure 8-7 L-R, Top-Bottom: Testimony from Aramark foodservice student worker shared via the Shred the Contract website and social media platforms (2020-1); Facebook graphic with information for campus boycott of dining services (2019); Screenshot from student-produced YouTube video explaining the rebate system in corporate foodservice (2017); Memes shared via Shred the Contract Facebook and Instagram page (2018-9); Student-produced zine – 'Food Justice for WWU' Emmaline Bigongiari (2018)

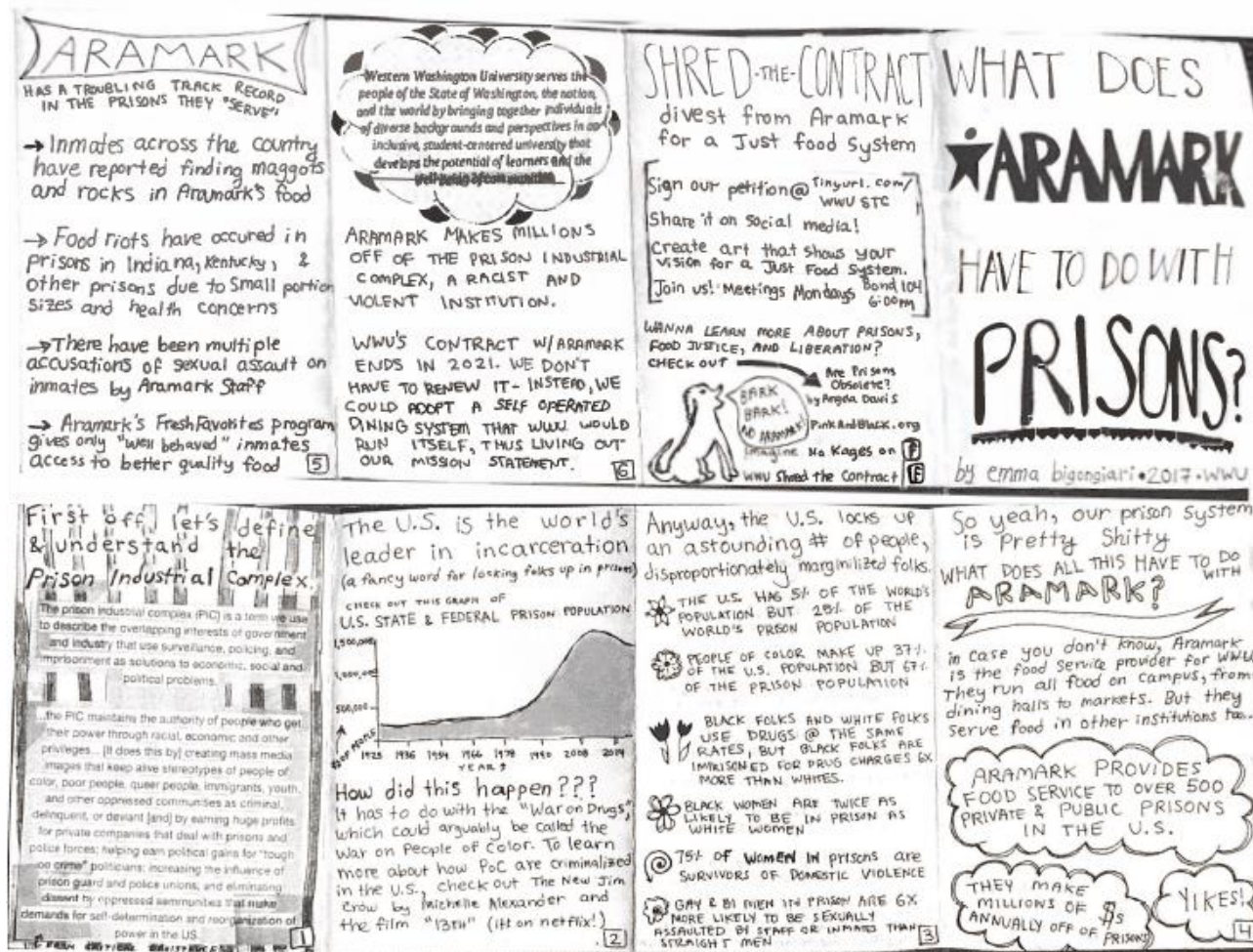


Figure 8-8- Zine: 'What Does Aramark Have to do with Prisons?', Emmaline Bigongiari, WWU 2019 - given to the researcher by students at the AASHE 2019 conference in Spokane Washington



Figure 8-9 Zine: 'Let's Talk About Self Operated Dining', Emmaline Bigongiari, WWU 2019 - given to the researcher by students at the AASHE 2019 conference in Spokane Washington

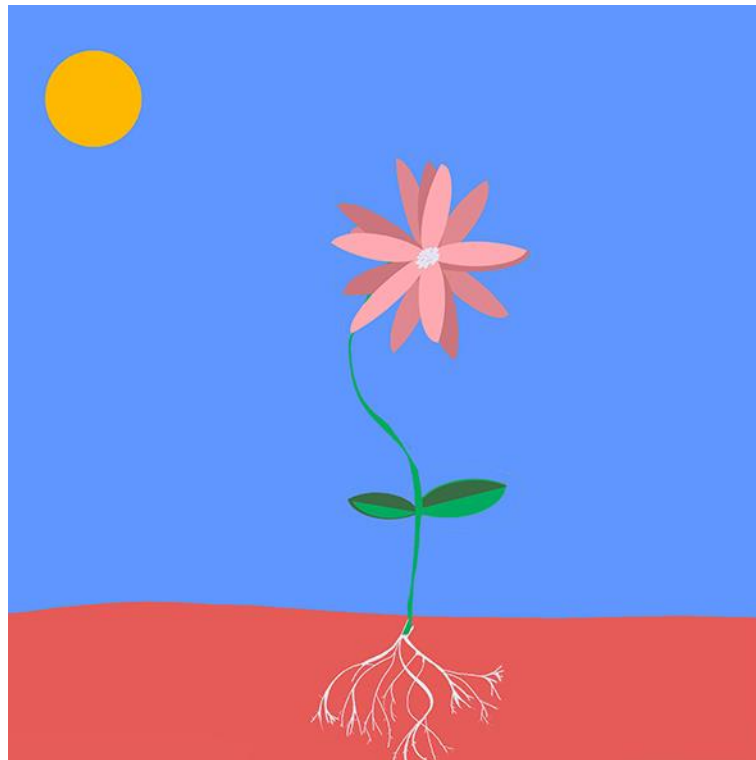
The strategies used in campaigns to protest corporatized dining services are similar to strategies used by the students in protesting pouring rights contracts, discussed in the previous chapter. Campaign strategies used at Western Washington University are detailed in Table 8-4, below.

<i>Table 8-4 Campaign Strategies Used to Protest FSMCs in Higher Education – Western Washington University</i>	
Direct Action	
Organised protest: ‘Real Meals, Not Dirty Deals’ as part of an on-campus Food Justice Summit Organising campus-based actions and boycotts Dropping banner: ‘Our Food System is Built on Racism’ from central university hall	
Targeted Campaigning	
Photo-based campaign of student voicing individual concerns. Students sharing their concerns with university administration, organised via face-to-face organising and social media	
Community Engagement and Education	
On-campus Food Justice Summit Student organisers holding public information sessions/hosting tables at student events for community to sign petition and get involved Virtual meeting held to organise letter writing campaign to university administration sharing concerns re: campus dining operator	
Communications	
Hosting campaign website and social media channels: Instagram, Facebook and Twitter – used to share campaign information, educative material on campaign issues, campaign updates and memes Collecting and sharing foodservice workers’ testimonies via communication channels Publishing articles and opinion pieces in student media	
Coalition Building	
Networked with other campuses and national organisations to strategise campaigns and share materials	

8.5 Conclusion: Community-Led Responses to Outsourced Dining Services

Chapter Four illustrated the interconnections between external organisations and campus foodscapes. The networks surrounding organisations like Real Food

Challenge and Uprooted and Rising (under the umbrella of Real Food Generation) act as a conduit between broad networks of food justice and community-oriented civil society groups and issues directly impact universities. The examples used here, and in the previous analysis on pouring rights contributes to analysis addressing the impact of external networks on higher education foodscapes and contribute to models presented in the following chapter illustrating pathways to transformation within campus foodscapes.



9

CAMPUS FOODSCAPES AS SITES OF TRANSFORMATION

9 **CAMPUS FOODSCAPES AS SITES OF TRANSFORMATION**

This penultimate chapter draws on the ideas and evidence presented so far throughout this research. It returns to the voices of practitioners to emphasise critical elements of working to deliver healthy, sustainable and equitable transformations in campus and higher education foodscapes. First, this chapter shows how practitioners' reflections emphasise the role that policy plays in making lasting change within institutions. The second section of this chapter returns to the role of external stakeholders in influencing campus foodscapes. It suggests a typology of different kinds of networks working for change within higher education foodscapes, and aligns the key organisations discussed in this thesis to this framework. This analysis is enriched by consideration of an emergent theme from the practitioner interviews, on the discursive role of individual choice and behaviour change in different models of transformation in the different types of external stakeholder networks. Following this, the critical issues of race and equity are discussed as key justice frames when working within food systems and within higher education institutions. The chapter culminates with an analysis of campus foodscapes and key dynamics of change within campus foodscapes that draws on the summation of the findings throughout the thesis. This includes a holistic model of a campus foodscape, an illustration of the catalysts that spark change within institutions, the frameworks which guide the distribution of food in campuses and finally, the pathways to institutionalisation for novel ideas and practices within institutional settings. These models preface the conclusion, presented in the following chapter which outlines the key contributions delivered by this research.

9.1 Policy

Practitioners emphasised policy as a key factor in maintaining impactful and long-lasting outcomes for transforming campus foodscapes. An experienced staff member described policy as ‘absolutely crucial,’ expanding,

Moving from initiatives and the grassroots stuff, or top down — it has to get into policy... it all has to move into policy so that it can transcend the turnover and personnel¹⁸⁰

From the perspective of working within dining services, an interviewee articulated that universities are in a position to ask,

“How can we go the next step?” Because we all agree - if we don't do it now, we are going to have to do it later. So why follow when we've always been considered the industry leader?

This articulated their belief that it was the responsibility of institutions to set and implement progressive standards, modelling best practice beyond their own operations.

Across different aspects of campus foodscapes, practitioners gave examples indicating that policy was often more than what was formally recognised and named as such. In practice, regulatory instruments come in a variety of wide-reaching formats. A respondent recognised this multiplicity, reflecting

I think there's a difference between guidelines and operational policy — guidelines are always going to be less enforceable than actual regulation. But policy is both

¹⁸⁰ IR21

right? I mean, many of the things that we call policies on this campus are guidelines.¹⁸¹

When asked directly about the existence of policies in place in their own universities, responses from interviewees recognised the fluidity of the concept, providing a variety of different policies and policy-like levers as examples. These were described by numerous labels including guidelines, standards, commitments, goals, and targets. At times a number of these terms were used interchangeably by practitioners.

One of the common mechanisms provided as an example was the use of contracts with external providers to embed certain conditions. Referring to indicators concerning local food purchasing, sustainability and innovation, a respondent suggested ‘what gets put into a contract is really what you can then use to leverage things.’¹⁸² Using contracts as policy-by-proxy presents certain limitations. For example, the need to roll out these requirements one provider at a time, as noted by an informant, ‘there are some entities on campus that don't adhere to it because they have contracts that pre-dated it.’ The informant continued to note that only when these existing contracts expire, ‘they will have to get in line.’¹⁸³ Another sustainability staff member reflected, ‘the caveat is once they've got the leases, [the university] is not going to kick you off because you're not meeting the sustainability targets.’¹⁸⁴ The interviewee asserted how important it is to thoroughly vet potential vendors and contractors, not only to

¹⁸¹ IR23

¹⁸² IR26

¹⁸³ IR23

¹⁸⁴ IR24

assess their capacity to meet the set criteria but also for accountability, the contract provides ‘something to say, “you said you were going to do this.”’¹⁸⁵

Achievability is recognised as an important characteristic of effective policy, often manifesting as stepwise targets implemented over time. A respondent involved in policy creation described their institution’s current approach, ‘these standards are presently loose, with a tightening net,’¹⁸⁶ elaborating that they are ‘creating a benchmark, and then over time the goal is that you’re reducing against that benchmark.’¹⁸⁷ Collaboration and information were also identified as critical for success. Explaining the process for rolling out newly implemented campus-wide standards, a sustainability practitioner urged,

Meet with your food vendor and then scale it down to what they think they can do. If you have multiple food vendors ... or if you have one food vendor — team up with them, give them all the resources.¹⁸⁸

The policy in question focused on healthy and sustainable food, which the interviewee framed as wanting to ‘nourish our community.’ They offered advice to ‘start with uncontroversial values and then build on the research you think is important.’¹⁸⁹ For others, the process of creating and implementing policy was not always free of controversy or opposition. Having recurring reviews to update policy targets is an important aspect of aligning to emergent issues and incorporating innovations. However, the need for further change can be met with resistance, as experienced by an interviewee responsible for stewarding a

¹⁸⁵ IR24

¹⁸⁶ IR6

¹⁸⁷ IR6

¹⁸⁸ IR11

¹⁸⁹ IR11

new version of an existing policy concerning sustainable food, ‘we did get a little pushback on making the definition stronger. Now we’re asking for 25% by 2030.’ Despite this, however, they countered such arguments resolutely, ‘my response is “we’re expecting the food system to change over the next 10 years– we have seen a change over the past 10 years!”’¹⁹⁰

Practitioners identified a range of catalysts for creating and implementing effective and lasting policy and initiatives for transforming campus foodscapes. The following Table 9-1, uses examples provided in interviews to illustrate some of the many factors seen as critical in increasing momentum and commitment for policy and change. These examples have been arranged in order from the scale of localised, community-led factors to broader, contextual factors.

Table 9-1 Policy Catalysts Identified by Interviewees

Policy Catalyst Identified	Example Provided	Interviewee
INTERNAL POLICY / STANDARDS	The [sustainability and health] food standards -- every dining -- every operator at the university is required to follow these standards.	IR24
STUDENT GOVERNMENT	The basic needs referendum was passed last year that was just all for student action -we decided we wanted funding from the [student government] for basic needs specifically.	IR5
RESPONDING TO INTERNAL RESEARCH	We also work closely with [our] school of public health [they have] a department of nutrition that provides a healthy eating plate.	IR6
RESPONDING TO TEACHING	It was really a student initiative to begin with. There was a group of students, they were taking a class with food systems professor here, ‘the ideas that changed the world’... it culminates in a student project -- that particular semester the students decided to create a permaculture design for a space on campus ... so now at this point we have five gardens on campus.	IR6

¹⁹⁰ IR24

WORKING GROUPS / COMMITTEES	The sustainable food committee is a group of faculty administration, there are a few students too, and they are figuring out how to push the needle, how to source more sustainably -- keeping in mind where our food comes from and how we can be better as university.	IR8
RESPONDING TO A STATED FUNDING PRIORITY	They were like, "Here's a pot of money. What's the most pressing issue?" What was the most pressing issue was basic needs --I watched that initiative go from being very unclear, to being very clearly about addressing these basic needs issue that's popping up on campuses and doing something about that.	IR13
STUDENT ORGANISING	In 2009, it was students engaged with the real food challenge, that really pushed the policy to include a food services section.	IR4
INTER-INSTITUTION OR INTER-CAMPUS COLLABORATION	We're a committee of all 10 campuses and four health systems. We kind of manage the logistics and operations around the sustainable practices policy	IR24
TENDERS/CONTRACTS AS AN OPPORTUNITY FOR POLICY SHIFT AND/OR STANDARDS CREATION	I was involved in the renegotiation of the contract with [our contractor] for dining and retail. We absolutely embedded sustainability more prominently into that contract with purchasing goal around local foods.	IR24
RESPONDING TO REPORTING FRAMEWORK	We redefined sustainable food by AASHE STARS -- we set a goal for 25% by 2030, and then 30% for the health centers because their policies were a little less strict for their definition of sustainable food.	IR26
POLICY DIFFUSION BETWEEN INSTITUTIONS	We do have a lot of networks where we're able to share -- like best practice ... they're [another university]going to be probably taking our sustainable meeting and event guide and adapting it for their system -- they might be developing food standards-so we're talking with them.	IR11
RESPONDING TO EXTERNAL CERTIFICATION	We are certified by the green restaurant association out of Boston- we did that purposely because they were very legitimate ... we were one of the first schools to jump on board my goal was I was going to get all eight dining units, green restaurant certified before anybody else.	IR12
ADOPTING GUIDELINES FROM EXTERNAL ORGANISATION	Because we have this real food challenge, and we want to accomplish our goal and we're very close to that 20% progress. 20%	IR2
ALIGNING WITH MEMBERSHIP OR NETWORK	We're doing it here to teach and learn from others -- and be this community of people trying out different strategies that will scale and be replicated ... [for example] we are part of this anchors for resilient food economy	IR11

This table presents a range of examples demonstrating that the drivers and catalysts for implementing policies and transformative change come from all levels of the university community. These drivers and catalysts extend to the multi-scalar communities of practice and international policy environment for education for sustainable development discussed in Chapter Two and Chapter Four.

9.2 Influence of Key Organisations and Networks in Higher Education Foodscapes

From the analysis of outside actors and networks, and their influence on campus foodscapes developed from the mapping, fieldwork and further in-depth case studies of protests and other responses to corporate influence on campus foodscapes set out in this thesis, the following original typology is proposed to describe the orientation and activities of each networks' stakeholders. These categories exist along a spectrum, with many organisations satisfying characteristics from more than one of the groupings in the typology. The groups are: firstly, justice-oriented community organising networks; second, solution and capacity building networks; and third, public-private research for behaviour change networks. Each is described in greater detail in *Table 9-2*, below.

Table 9-2 Typology of Networks in the US Higher Education Foodscape

Justice-Oriented Community Organising Networks

Networks of community-based organisations working through research, solidarity activities, and community organising, supplying issues-specific research and training to campus and locally-based chapters to drive change across a range of issues such as equity and justice, procurement reform, labour rights, corporate control Campus-focused organisations are a conduit between broader, non-profit organisations dedicated to food sovereignty and food justice, locally-oriented supply chains and alternative economy models, worker-solidarity, environmental justice, and racial equity. Organisations in these networks are mostly funded through philanthropic grants and community fundraising, as well as institutional support for on-campus programs.

Solution Oriented, Capacity Building Networks

Networks formed around providing solutions to a specific problem, for example procurement, food waste, hunger or community health. Organisations within these networks work with institutions to build scale-appropriate supply chains and broker relationships for alternative food system development and regional capacity building. Many of the actors in these network work across institutional sectors bringing together health, education and other public sector institutions together for collective impact. This work is often framed through the lens of 'anchor institutions' and the capacity of large organisations to be support alternative economies for social transformation and environmental action. They often work through broadscale, collaborative partnerships. Organisations in these networks are mostly funded by philanthropic grants, donations, government research and projects grants, and income from social-impact driven business models.

Behaviour Change Oriented Public-Private Research Networks

High-profile issue-oriented research networks oriented towards the application of academic research to real world settings and research translation strategies. Within campus foodscapes the orientation of these networks is primarily geared towards dietary behaviour change as a method of food systems transformation. Organisations in these networks are often based on membership models, comprising high-profile members including corporations and large institutions, they tend to be funded by high-profile corporate sponsors.

The following graphic (Figure 9-1) illustrates the alignment of key stakeholders discussed in this research. The left hand, or pink end of the spectrum includes student-led organisations such as Real Food Challenge and Uprooted & Rising. The middle, or blue band represents organisations working on (re)building structures to support institutions transform their foodscapes,

for example Farm to Institution New England. The right end, or green section represents research-oriented networks focused on interventions around behaviour change, particularly around the impact of diets on health and the environment. Groups at this end include the Cool Food Pledge and Menus for Change University Research Collective.

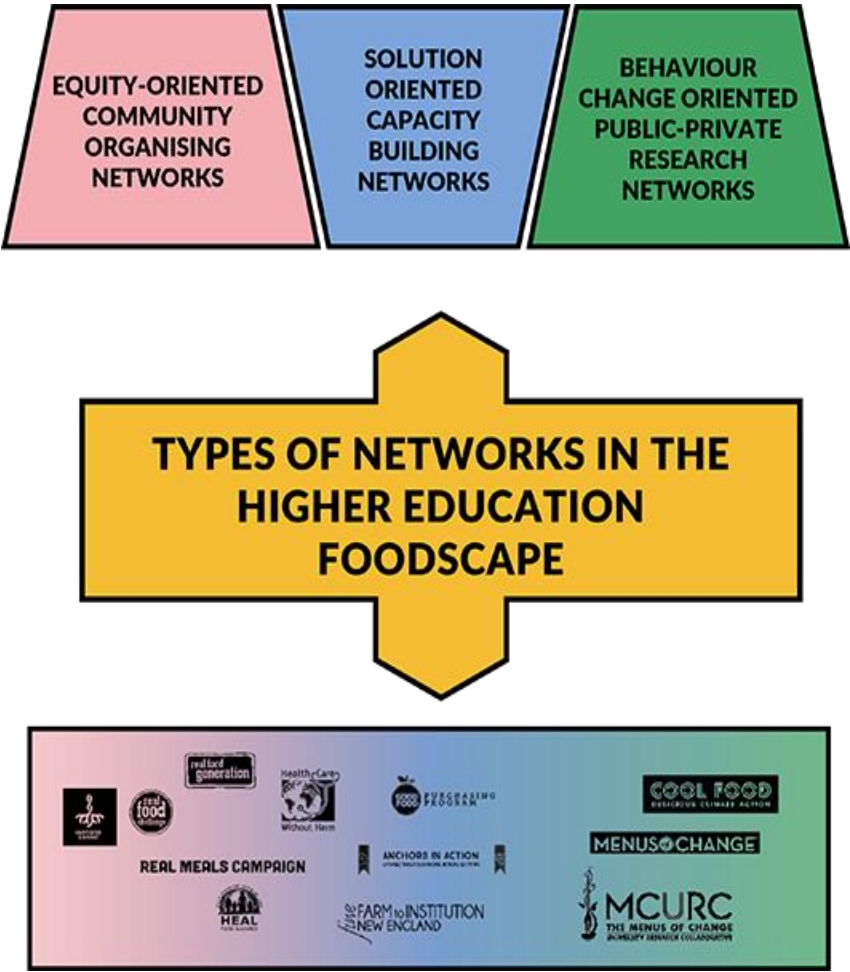


Figure 9-1 Typology of Networks in the Higher Education Foodscape

The framework for transformation at the green end aligns with some of the paradigms for change discussed in the introduction to this thesis, in section 1.2.2, broadly aligned with the ‘life sciences paradigm’ proposed by Lang and Heasman (2015). Organisations such as EAT Foundation and its associated EAT

Lancet Great Food Transformation publications also sit alongside the campus foodscape stakeholders shown above. In Chapter 4, stakeholder and network maps demonstrated explicit links between organisations in the higher education foodscape and these other multi-stakeholder organisations. Walter Willet, the lead author on the EAT Lancet report is also the chair of Menus of Change's Scientific and Technical Advisory Council. Further, the networks show many linkages between corporate actors, placing these organisations as a conduit between corporate agendas and the higher education foodscape.

Practitioners interviewed in this research discussed ideas related to the models promulgated by organisations in and aligned to this behaviour change oriented public-private research networks. Many saw this as a refocusing of the discourse around transformation to an issue of individualised responsibility as observed by a respondent,

The idea of charging the individual to ask for these things is I think an unfair casting of responsibilities ... the idea of like voting with your dollars is beautiful in as much as it empowers people, but when it starts to paralyse people, they don't have time to look at all the labels and it pushes people to corporate solutions. That's a snazzy, flashy, beautiful story that a big corporation can tell. ¹⁹¹

Similar ideas have been included in critiques of broader food movement trends towards 'voting with your fork' and other modalities of consumer power. Echoing the discussion of neoliberalism in section 2.3.2, it has been suggested that ethical consumerism 'individualises and privatises responsibility of injustices in the food system' (Dieterle, 2022). The interviewee above went on to argue, 'I think that's where institutions have the work of accountability, being sceptical

¹⁹¹ IR11

of claims and doing that work for the consumer.’¹⁹² As has been argued throughout this study, the scale of institutional buying power does hold the potential to make an impact. However, it still continues to affirm the centrality of market logic and market-based mechanisms as the tools for transformation (Alkon & Mares, 2012; Allen & Guthman, 2006; Dieterle, 2022).

When asked to indicate barriers to change, one staff member offered a one-word answer: ‘capitalism.’¹⁹³ Another interviewee offered a more expansive answer, while admitting the importance of aligning operations, purchasing and policy aspirations, acknowledged the limits of institution-as-ethical-consumer,

It turns the university into an institutional consumer. It puts forward this message that being sustainable is making the right consumption choices. It's about choosing to “buy this green thing, not that the green thing” — effectively a matter of what you choose to consume — let's say, a sustainability vision which is unsustainable.

I think the message which is received when [an elite university] does that, is ‘sustainable food is rich people food’ And that is not a message that you can really work with constructively over the long haul. ¹⁹⁴

This respondent was especially aware, not only of the signals this sent, but the context of historical and continued legacy of power held by universities who have amassed wealth and disenfranchised many through their operations. Choosing a market-based approach to transformation may be an available pathway to those with the available resources yet fails to contend with the complex work of dismantling enduring oppressive structures.

¹⁹² IR11

¹⁹³ IR23

¹⁹⁴ IR19

Conversely, the organisations at the left end of the spectrum focused on justice and equity-oriented approaches to dismantling structural power imbalances inherent in higher education and the food system. As one advocate explained,

So, we were like - great. We know that corporate control and white supremacy are at the root of a lot of issues historically and today in our food system. And like — we were also trying to figure out — what is our leverage to challenge that?¹⁹⁵

Organisations such as Real Food Challenge have a strategic orientation towards holistic standards and frameworks accounting for issues beyond health and sustainability, including labor issues, especially concerning mistreatment and harm caused towards undocumented and migrant workers, and the outsourcing of labor to less-developed economies. The networks illustrated in Chapter 4 document that many of these organisations facilitate connections between campus foodscapes and labor-rights organisations, farmer and producer-led organisations and other non-profit advocacy organisations. Behaviour-change oriented organisations groups such as Real Food Generation also facilitated connections to global and linguistically diverse advocacy organisations, pushing against the trend to only give voice to stakeholders from English-speaking (or other European) countries. Connections between non-profits and campus foodscapes were also fostered by organisations in the blue area of the above diagram. However, owing to the remit of their missions these networks tend to be at a more local scale.

¹⁹⁵ IR15

9.3 Working for Justice in Campus Foodscapes

Chapter 2 discussed that foodscapes, and in particular campus foodscapes reflect the broader issues in food systems (Fanshel & Iles, 2020). Race and power are critical food systems issue and ones often marginalised at the expense of other issues in work to transform food systems. In Chapter 5 a number of staff working in foodscape projects identified that one of their key motivations came from the importance of cultivating critical citizenship in the students they work with. A student who had been involved in a number of projects on campus foodscapes and had gone on to work in broader food systems advocacy emphasised their concern with the framing they had encountered,

[It's] such an important part of food systems work; recognizing injustices in the landscape and speaking to them and seeking reparations ... Understanding that history– I don't think it is recognized enough in our food system. Indigenous history too, understanding indigenous geographies as well — we are on occupied land. That is not recognized and not even acknowledged in so many food conversations¹⁹⁶

The myopia of food movement participants and campaign framing has been recognised by advocates for food justice seeking a more intersectional approach to food systems work (Alkon & Agyeman, 2011a; Alkon & Cadji, 2018; Allen, 2008, 2010; Black, 2022; Bohunicky et al., 2021; Broad, 2016; Dieterle, 2015; Moragues-Faus, 2018).

Alkon and Agyeman recognise that food activism can be a monoculture of white, middle-class participants with 'similar backgrounds,

¹⁹⁶ IR9

values and proclivities, who have come to similar conclusions about how the food system should change' (2011b: 2). Such criticisms have been frequently levelled at transformative work solely focused on consumer power to choose local food, and those promoting change requiring buy-in from participants with high economic mobility. Referring to work they had witnessed in campus foodscapes, practitioners were wary of the limitations of such framing, as one interviewee submitted, 'that food culture is one that is not welcoming to a lot of people.'¹⁹⁷

University campuses are key sites in engaging with critical, reflexive and intersectional activism seeking to redress injustices in food systems, in education and in broader social structures. A campaigner stressed the centrality of this advocacy,

There's a huge legacy of universities that has not been grappled with in this country ... land grant universities were explicitly created to support white farmers. Almost every university in this country was built on stolen land. The wealth of [particular private universities] came from the slave trade. There's a lot of work that's starting to happen on universities in the US to call up the histories and the legacies of slavery and colonisation that universities were a part of. Until schools grapple with that in some way it's really hard to have a fully honest conversation about the food system... as long as you have the statue of the slave master, or the plantation master on campus it's hard to say our local food is coming from those same fields¹⁹⁸

A staff member at a private university reflected on the tensions of engaging in anti-racist framing of food systems transformation within a higher education institution. They acknowledged the university has had a role in

¹⁹⁷ IR23

¹⁹⁸ IR15

‘forming, reproducing and perpetuating divisions, whether you’re talking race, class, geography, gender — [our] role there has gone back before this was actually a country.’¹⁹⁹ They drew the connection between this historical legacy and discursive engagement with popular food movement framing, ‘it’s not that that vision of sustainable food is inherently xenophobic, racist and classist - but the problem is that it does not actively oppose xenophobia, racism and classism.’²⁰⁰ To counter this they used their role to work with students to cultivate criticality through ‘ideas of reflexivity, and reflecting and reflexing’ as a starting point to building more just and equitable institutions, and more just and equitable engagement between institutions and food systems.

A number of practitioners working on project-oriented aspects of campus foodscapes admitted that overall, the student participants did not reflect the diversity of broader student populations, one stated for example,

I will say most of the students who are drawn to working in the farmer's market or the gardens, who opt into working with us, tend to be a lot of women ... it is definitely not the case that we find a lot of racial, ethnic diversity, even gender diversity ... there's just not a whole lot of natural diversity represented by those who are opting in²⁰¹

Another recalled the beginnings of a now institutionalised project, ‘I would say it was overwhelmingly white, very overwhelmingly from high wealth backgrounds.’²⁰² To counter this, newer projects are proactively working to build more accessible, diverse and equitable projects. A staff member

¹⁹⁹ IR19

²⁰⁰ IR19

²⁰¹ IR27

²⁰² IR16

contributed to the process they had engaged in while developing a newer program,

We started by putting together a leadership team that was truly diverse, both in terms of positionalities of staff and students. But also, just as humans, we were very ethnically diverse. We put together a series of specific workshops to ask questions about diversity, equity and food systems on this campus.²⁰³

As a result of this, the project included participants reflective of the diversity in the broader campus community.

When asked what their vision of a thriving, resilient foodscape looked like, a student said, ‘A campus that's responsive to change and includes voices from different backgrounds, making sure that that is represented in the change that we make going forward and always going back to those voices.’²⁰⁴ However, another student recalled their experience as a student in environmental studies, ‘it’s a lot of white faculty. I think a lot of students draw away from that.’²⁰⁵ They relayed a campaign run on campus named ‘Environmentalism So White,’

[the students] wrote an open letter – “All of our staff are white men. We need people that represent us and look like us. Teach with us, not about us”. That was very powerful, I think, activism type of action taken by the students²⁰⁶

This correlates with the statement by an interviewee in Chapter 5, who recounted a similar issue in their definition of a campus foodscape, suggesting

²⁰³ IR23

²⁰⁴ IR25

²⁰⁵ IR9

²⁰⁶ IR9

that it should include questions such as ‘is the program of study one that is relevant to them- that has faculty that are identifiable and make sense to them.’²⁰⁷

Despite many participants identifying anti-racism and equity as a critical concern of working towards healthy, sustainable and more just foodscapes, challenges in doing this work were also discussed. When campaigning, an interviewee encountered colleagues who would readily engage in conversations about local food but any turn to issues such as corporate control, or racial justice in the food system and ‘they would absolutely shut down.’²⁰⁸ This hesitance was also witnessed in resourcing work in foodscape transformation, the same respondent explained,

There were some good regional funders and good national funders that were really excited about like local food and sustainability and youth leadership development... it's become more challenging because some of our funders who care about local food systems don't want to talk about racial justice. They don't want to talk about colonisation in the food system²⁰⁹

Facing this they expressed the view that it motivated them to work on growing the broader ecosystem for funding intersectional food systems work and recalled the advice of their organisation’s director who guides campaign strategy with the belief that ‘funding follows vision.’²¹⁰

²⁰⁷ IR23

²⁰⁸ IR15

²⁰⁹ IR15

²¹⁰ IR15

9.4 Modelling Campus Foodscapes

The research presented in this thesis has demonstrated the richness of activity and knowledge creation around working in and working to transform campus foodscapes, as well as the networks crucial in distributing information through this field. Networks assist in sharing projects, both in terms of successes and lessons learned, sharing best practice, and strengthening relationships for support and coalition building. All of this exerts influence on institutions to engage (or not engage) in work for transformation.

Drawing on the discussions and the data presented throughout this research the following figures present four diagrams modelling key dynamics in campus foodscapes. The first, Figure 9-2, summarises factors and influences that drive change within campus and higher education foodscapes. Secondly, Figure 9-3 shows a holistic model of campus foodscapes, including input and outputs, framing factors such as regulatory influences and structural conditions, as well as elements within foodscapes, key issues and opportunities for intervention. Following this, Figure 9-4, demonstrates that each of the operating areas for food distribution on campus can operate along a spectrum, from business as usual, representing alignment with productivist, industrialised food system frameworks through to alignment with innovative, and transformative models designed to build institutional capacity for contributions to healthy, sustainable and equitable food systems. It is likely that different elements within the one campus foodscape will co-exist at various points along these spectrums, potentially promoting contradictory outcomes.

The final diagram, Figure 9-5 illustrates pathways to transformation of campus foodscapes, beginning from the catalysts that spark a drive for change through to the way in which novel elements (eg policies, practices and/or projects) are introduced within institutions, and finally, if successful, the ways in which they become institutionalised and shared. These pathways are not intended as a fixed or linear modelling of these processes. They are rarely so simple and likely more iterative than is suggested here.

MODELS

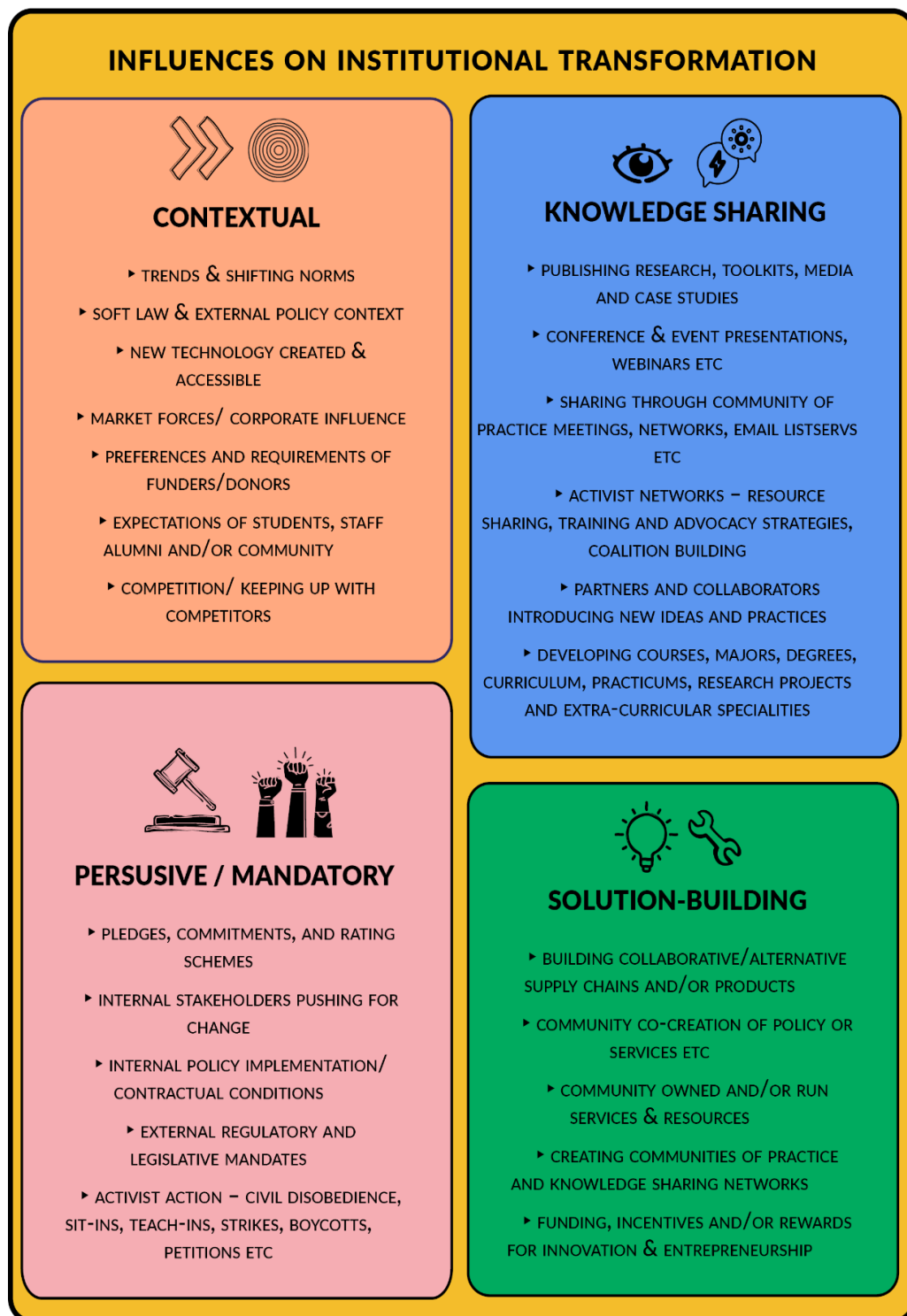
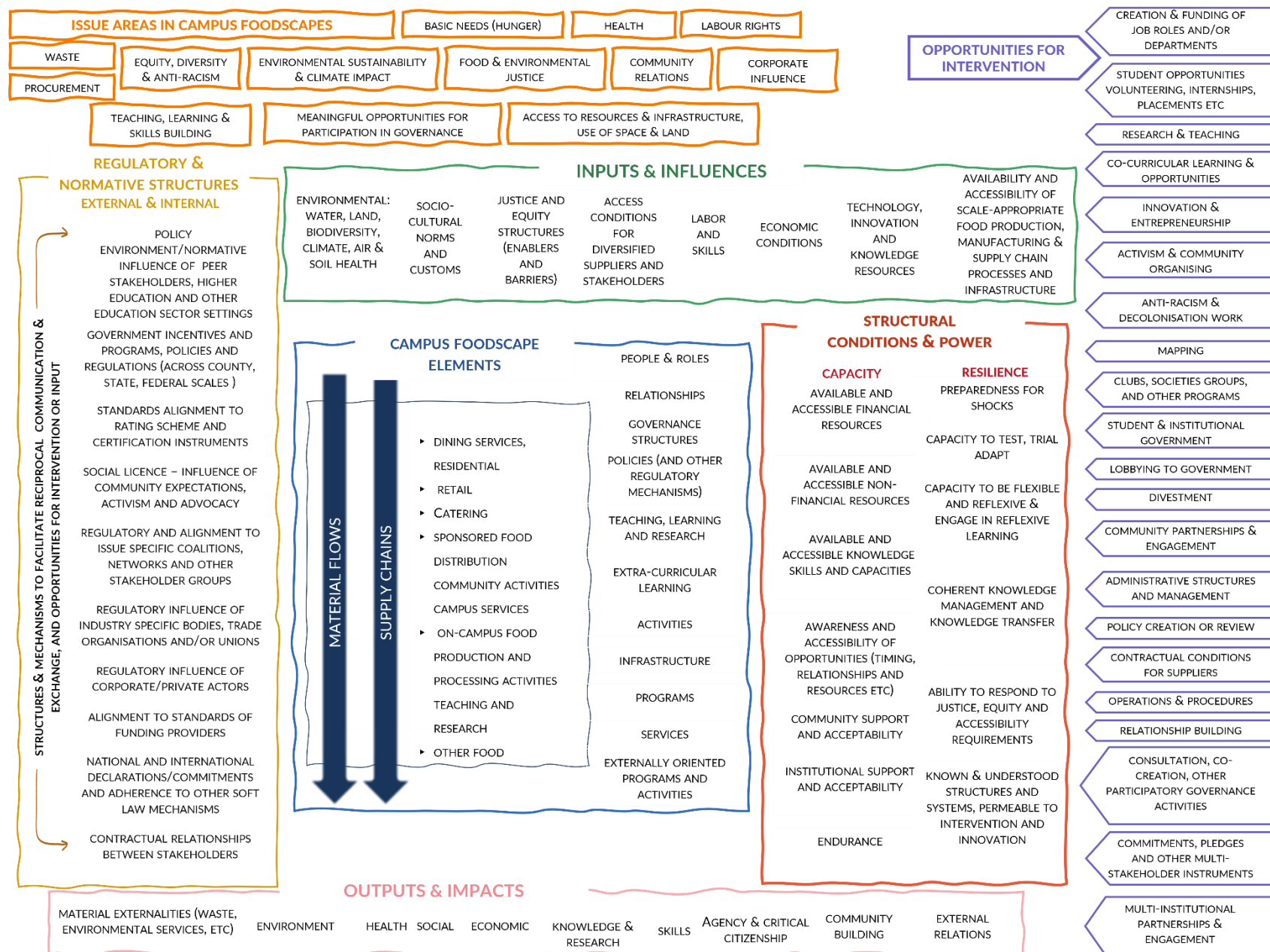


Figure 9-2 Influences on Institutional Transformation

Figure 9-3 A model for campus foodscapes



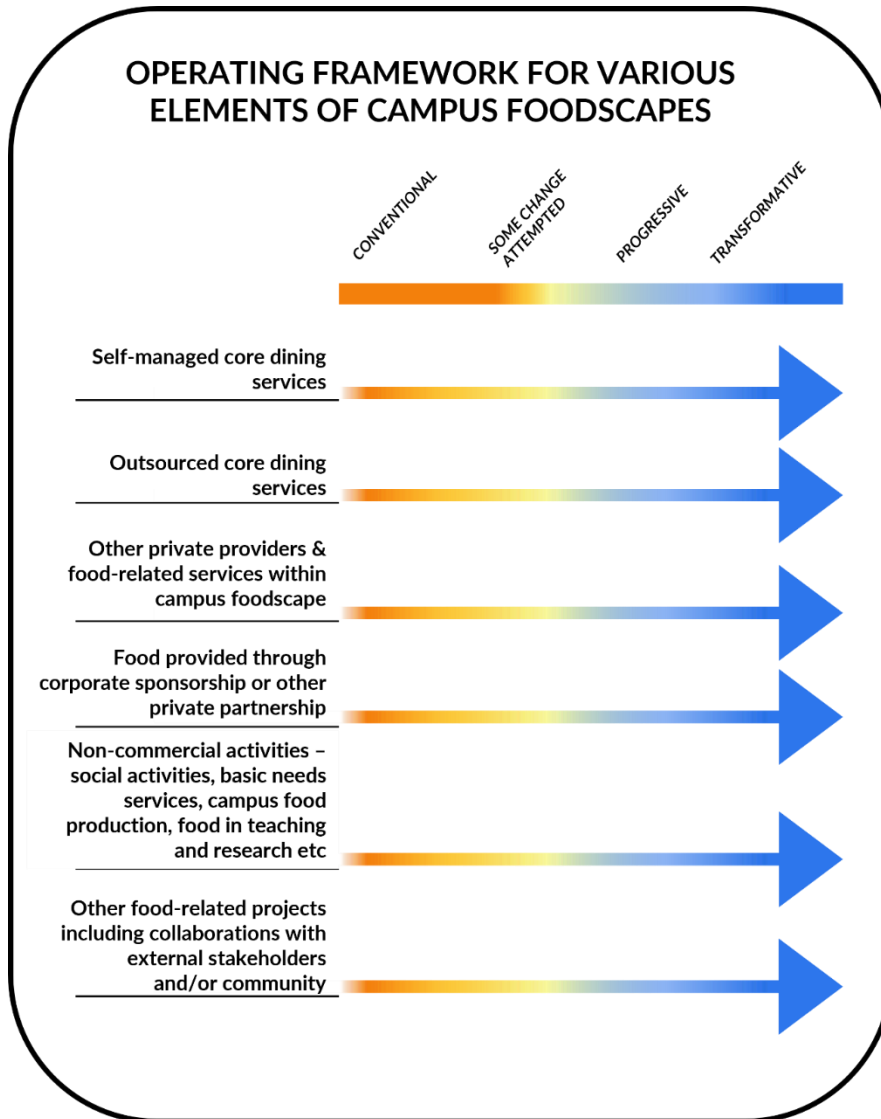


Figure 9-4 Operating Framework for Food Distribution in Campus Foodscapes

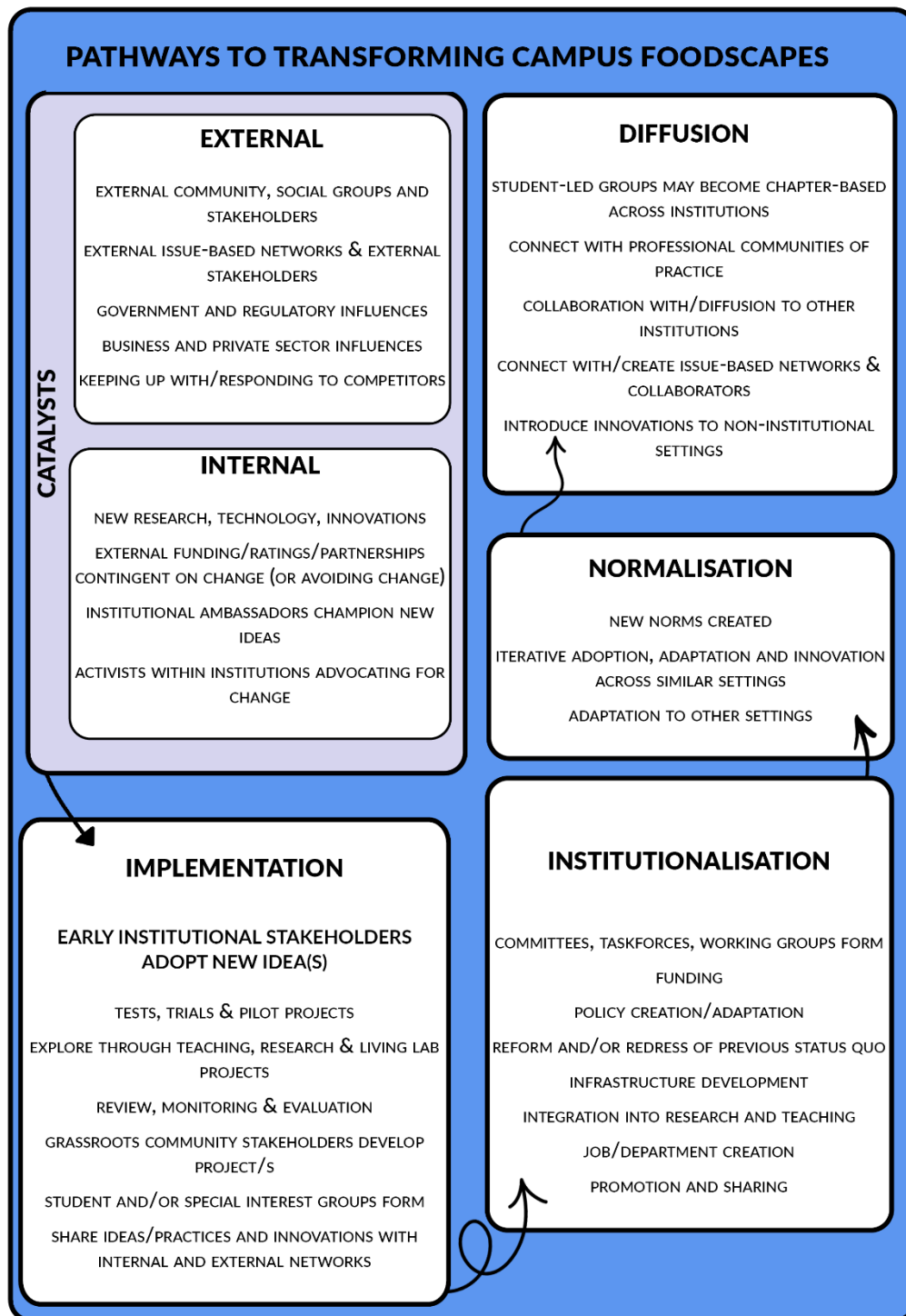


Figure 9-5 Pathways to Transforming Campus Foodscapes

These models can be used and adapted as starting points for a series of questions to research and think about campus foodscapes.

- Where is food on campus?
- Where does the food in the campus foodscape come from?
- Where does the food in the campus foodscape go?
- What issues emerge in campus foodscapes?
- What activities take place in the campus foodscape?
- Who are the stakeholders in campus foodscapes?
- Who has access to food in the campus foodscape?
- Who works in the campus foodscape and who is paid, and who is not paid?
- How do people get involved in the campus foodscape?
- What policies and governance mechanisms support activities and elements in campus foodscapes?
- How are activities and elements in campus foodscapes financed?
- Who holds knowledge about the campus foodscape?
- What teaching, learning and research activities relate to food (and who is responsible for these activities?)
- Who benefits and who does not benefit from activities and elements in campus foodscapes?
- What is the demonstrable impact from activities in campus foodscapes?
- What networks emerge from campus foodscapes?

Although these models were developed in the settings of US higher education institutions they can be adapted for universities in international contexts and further adapted to other institutional settings. They offer a starting point, not only for research but for practitioners within campus foodscapes to model their own institution's relationship with food. As well as provide a starting point to map pathways to action for foodscape transformation.

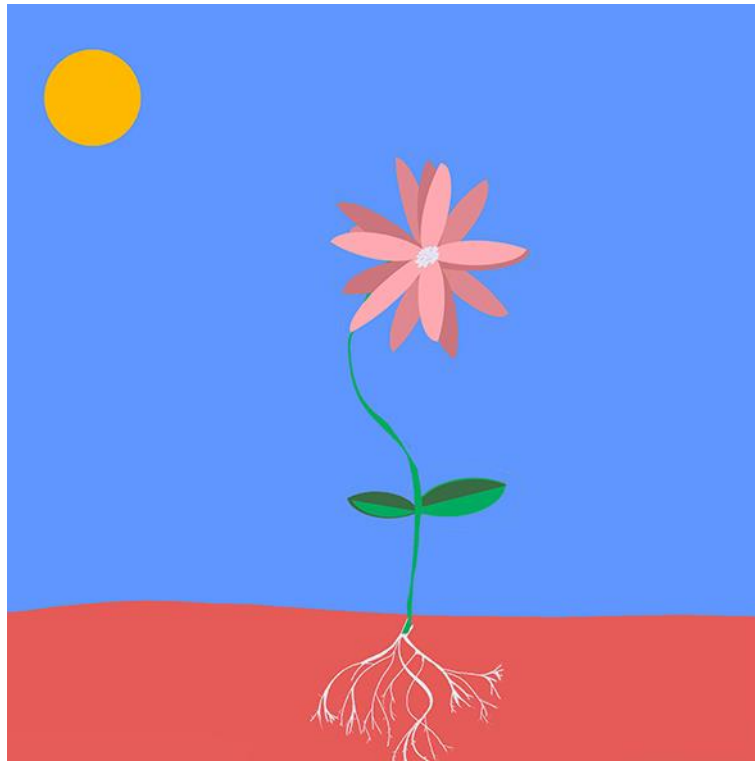
9.5 Conclusion

This chapter provides a bookend for the research presented in the previous chapters. The interviewees working within campus foodscapes emphasised two critical points. Firstly, that policy is an important element in

driving change within higher education institutions. It helps to connect stakeholders together, communicates priorities clearly and creates a mandate for long term adoption of key issues. Secondly, practitioners called for work to drive transformation in institutions to do so with consciousness of the role of institutions in historical and contemporary structures of power, particularly as these relate to the historical and contemporary structures of power in the food system. Participants reflected on the importance of centring racial equity and engaging in pro-active dismantling of barriers to participation.

This chapter also returned to the role of external stakeholders in higher education foodscapes and indicated a typology for the networks created by the relationships between stakeholders and institutions. It demonstrated the connection between these network typologies and the food systems governance paradigms discussed in Chapter 2. Key organisations act as a conduit between food systems stakeholders and higher education institutions. When asking the question posed at the start of this thesis, '*how does the food system influence universities?*' it is crucial to consider the operating frameworks and agendas perpetuated by various organisations, networks, and collaborators.

Finally, this chapter presented four models including a holistic model of campus foodscapes and three further models of factors influencing transformative work in higher education foodscapes. These models offer a starting point for work and research in foodscapes. The contributions of this research, discussed in the following chapter, add to these models and the broader ideas around defining and researching campus and higher education foodscapes.



10

CAMPUS FOODSCAPES AS SITES OF TRANSFORMATION

‘When we are asked how we are going to build a new world, our answer is, “We don’t know, but let’s build it together”’²¹¹

John Jordan

10 CONCLUSION – COLLABORATION FOR TRANSFORMATION

10.1 It Begins and Ends with Collaboration

I have had the quote above scrawled on a post-it, pinned to a cork board above my desk for most of the time I’ve been writing this thesis. Now tattered and stained, the note has somehow survived several office moves, the shift to work from home, and finally, an interstate relocation. The whole time I have thought it was quoting JK Gibson-Graham, but when I look up the reference to include here, I realised they were quoting artist and activist John Jordan. In turn Gibson-Graham cite the quote to Rebecca Solnit’s *Hope in the Dark: Untold Histories, Wild Possibilities*. I reach for my copy and realise it’s missing from my bookshelf. I have no idea where it is but I am sure I have given it to a friend – I can see myself pressing it into their hands with an excited and urgent call to read. Tracing this tiny lineage strikes me as a type of onomatopoeia; the quote arrived above my desk, quietly overseeing the creation of this research, through the collective story-telling of all of the above. Research is a collaborative act. So too is each of the examples of projects, policies, activism and creative intervention that I have included within this work. This thesis has shown the wide scope of activities making up a dynamic and ever-evolving landscape of transformative work to build better, healthier, more sustainable and more

²¹¹Quoted in Gibson-Graham, J.-K. (2006). *A postcapitalist politics*. University of Minnesota Press.

equitable campuses through sourcing, growing, sharing and eating good food. Many of these extraordinary actions likely started as a ‘what-if...?’ question in someone’s mind, and slowly became reality through the sharing of ideas and pooling of skills and resources to make the intangible real.

10.2 Overview

This thesis began with three framing questions: What is a campus foodscape? How does the food system influence universities? And how can universities transform the food system? It answered this by providing a vocabulary for, and a taxonomy of elements and pathways for working in and working to transform campus foodscapes. It provided a showcase of innovative actions and the voices of experienced practitioners working to change their own campus’ relationship to food. This thesis presented analysis into the ways in which corporations and institutions interact to shape campus foodscapes, and the ways in which campus communities are organising to push back against these relationships. This analysis was supported by the creation of a dataset from the AASHE STARS reporting framework and longform interviews conducted during fieldwork. This involved 27 participants from 10 schools and 2 external organisations. The higher education institutions from which these interviewees were drawn included public and private universities from a mix of urban and rural areas covering six US states.

The introduction provided an overview of the modern, industrial food system, describing the multiple influences, inputs, supply chains and impacts that comprise the production and distribution of food. It argued that a systems of food systems approach accounts more fully for the complexity and conflicting models that work together and interact to make up the total concept that we

invoke when using the term ‘food system’ (Blay-Palmer et al., 2016; Hipel et al., 2010). There are many issues that arise from the food system. The introduction chapter summarised critical problems including the contribution of food systems, and their vulnerability to increasingly chaotic climate dynamics (Shukla et al., 2019; Tubiello et al., 2021); and the issues of broader environmental health including air, soil and water quality as well as land use and biodiversity (Elbehri et al., 2017; Fanzo & Davis, 2021; IPES Food, 2017). Hunger is also an ever-present issue in the global food system, often resulting from macro decisions concerning control and distribution of globalised commodities (FAO, 2019, 2021; Micha et al., 2021). The food that people can and cannot access, and how they choose to consume it, has wide-ranging implications for human health manifesting in growing rates of non-communicable diseases (Swinburn et al., 2019).

The governance and control of food systems is a major concern of the analysis in this research, including corporate control, consolidation and access to resources for food production and distribution (Clapp, 2021; Clapp & Fuchs, 2009; Mann, 2021; McMichael, 2013; Milsom et al., 2021). So too is the impact of food system governance on those who work in all aspects of the food chain, especially those vulnerable to exploitation, and small-scale producers and food chain workers who are disenfranchised as they are further displaced from opportunities to partake in participation and governance of food chains (Gray, 2014; Mann, 2014; Reese, 2019; Sbicca et al., 2020). In response to these multiple and interacting issues, the turn to discourses of transformation was discussed, noting that visions for transformation broadly align with food systems paradigms. These paradigms range from corporate-centred, market

oriented approaches to visions for people-centred, devolved food systems with a concern for human and environmental health and investing in localised economic development (Alkon & Agyeman, 2011a; Beacham, 2021; Glennie & Alkon, 2018; Lang & Heasman, 2015; Mann, 2014, 2021).

Chapter 2 located this research in the practices and theoretical concerns of food studies (Arce et al., 2017; Belasco, 2008; Cadieux et al., 2016; Caldwell, 2021; Levkoe, Anderson, et al., 2016). It expanded on the use of foodscapes as a framing tool to set parameters for the field of research, and the particular value of utilising this frame in institutional settings. (Fanshel & Iles, 2020, 2022; Greenleaf & Robinson, 2020; Miewald & McCann, 2014; Mikkelsen, 2011; Vonthron et al., 2020). Chapter 2 also introduced the emergence and development of research in food in campus and higher education foodscapes and the strands of inquiry that have been centred in these studies. It also introduced the presence and role of external stakeholders as important actors in the higher education foodscape.

Action in sustainable development and transformation to sustainable, healthy and equitable food systems will require broad collaboration, research and knowledge exchange. Chapter 2 introduced several key concepts to facilitate this including first, communities of practice, as clusters of actors with common interests and mechanisms for sharing knowledge (Pyrko et al., 2017; Snyder & Wenger, 2004; Wenger, 2010b). Second the idea of translocalism was discussed as a way in which site-specific ideas and practices are shared so that they can ‘scale out’ and adapt to novel settings, growing the impact of transformative innovation (Greiner & Sakdapolrak, 2013; McFarlane, 2009; Moragues-Faus & Sonnino, 2018; Smith, 2021). Last, the concepts of institutional and

organisational thickness were introduced as a lens to assess the maturation of the area of action and transformation in campus foodscapes as a distinct field of research and inquiry (Beer & Lester, 2015; Coulson & Ferrario, 2007; Zukauskaitė et al., 2017). This work is inevitably situated in macro social and political contexts. The impact of neoliberal governance models in education governance was put forward as a contextual factor which manifests across all areas of this enquiry. The chapter particularly suggested that neoliberal governance impels institutions to turn to market-based mechanisms which shapes campus foodscapes (Davies & Bansel, 2007; Ferguson, 2010; Giroux, 2014b; Harvey, 2007; Peck & Theodore, 2019). Chapter 2 concluded with a discussion on education for sustainable development which contextualised the emergence of organisations such as AASHE and the development of sustainability reporting frameworks across institutional settings.

This was followed by Chapter 3, which explained the methods used to develop a dataset from the AASHE STARS reporting framework, alongside methodological and theoretical frameworks drawn from institutional ethnography and the application of mapping processes to understanding the elements and social dynamics of complex institutions.

Chapters 4 through 8 went on to present in-depth analysis of campus foodscapes. Chapter 4 demonstrated the use and results of mapping to expand the concepts and holistic understanding of campus foodscapes. Chapter 5 added the lived experience of practitioners in campus foodscapes to introduce further depth to defining this field. Chapters 6, 7, and 8 presented data and insights from interviews and follow up in depth desktop research to investigate the ways in which corporations interact with campus foodscapes and shape

university food environments. These chapters looked at the responses of campus communities to the presence of corporations in educational spaces. Chapter 9 brought together a summary of these themes and highlighted the importance of policy creation for transformation and the critical work of addressing race and power when working for transformation. The following section, demonstrating the contributions of this research will further expand on the findings presented in chapters 4 to 9.

10.3 Contributions to Theory, Methodology and Analysis

The research within this thesis puts forward nine key contributions to theory, methodology and analysis in the field of food systems research, food studies and the study of food in institutional settings as set out in turn below.

Contribution One

Bringing together food systems research, food studies and research in higher education as a framework for studying campus and higher education foodscapes.

This research draws together a deep understanding of the interconnected inputs, processes, elements, and outputs of the food system with the critical and theoretical outlook of food studies, as set out in Chapters 1 and 2. This is applied to the specific setting of higher education as a generative framework for investigating campus foodscapes as a distinct area of enquiry. Within this study further theoretical contributions were utilised including the concepts of communities of practice, translocal exchange and institutional thickening and methodological contributions from institutional ethnography and mapping practices (see Chapter 3). This research has demonstrated that this combination of theoretical and methodological

tools delivers deep and wide-ranging insights into the research questions encountered within this study. Although applied to campus foodscapes in this study, there is potential for this combination of literature, theory and methods to be applied to a range of institutional settings.

Contribution Two

Demonstrating the institutional thickening of the higher education foodscape.

Chapter 4 presented a summary of data, 13 maps and a multitude of project examples demonstrating elements, including projects, policies, infrastructure and stakeholders that occur in campus foodscapes. It also mapped the presence of many stakeholders operating with and between campus foodscapes representing a broad range of issues. The identification of these elements and stakeholders was further developed via insights from practitioners in Chapter 5 and analysis in Chapter 6, 7, 8 and 9. Returning to the diagnostic conditions presented in Chapter 2, this wealth of evidence demonstrates a strong presence of stakeholders; interaction between localised stakeholders; the presence of structures and patterns of coalition and mutual aware of common aims (Amin & Thrift, 1994; Coulson & Ferrario, 2007). It also shows a critical mass of firms, bodies, institutions and support organisations demonstrating organisational thickness (Zukaускаite et al., 2017). These findings provide evidence of the maturation of the field in and around campus and higher education foodscapes as a distinct area of practice, process and research.

Contribution Three

Methods for the use of reporting data for research in campus foodscapes, particularly AASHE STARS and methods for mapping elements and stakeholder networks in foodscapes.

Chapter 4 outlined a detailed process for utilising reporting data from the AASHE STARS sustainability reporting framework. This included the collection of data and methods to refine and collate a dataset for further use in research. These methods can be utilised to conduct further enquiries using the same source of data or adapted to other reporting frameworks. For example, reporting with a greater focus on health promotion. Expanding the use of these methods will inevitably provide further insights and perspectives into the elements and stakeholders in campus foodscapes.

Chapter 3 put forward an argument for the application of visual methods in the practice of food studies research. This was applied in Chapter 4 which presented 13 maps of the elements in campus foodscapes and a further ten maps showing the networks and interconnections between external stakeholders in campus foodscapes. The maps themselves can be utilised in future research, and by practitioners in campus foodscapes to illuminate potential collaborators, communities of practice, vested interests or areas of actions across the higher education foodscape. Further, the method of mapping can be utilised by future researchers to make their own maps utilising novel datasets, viewpoints or use of different research questions.

Contribution Four

Identification and development of a typology of key external stakeholders and their contributions to higher education foodscapes.

Chapter 4 outlined the presence and role of stakeholders across the higher education foodscape. It provided contextual information on four key stakeholders, Real Food Generation, Farm to Institution New England, Menus for Change University Research Collaborative, and the Cool Food Pledge. These actors were

identified through their occurrence in the STARS-derived dataset and from mentions by interview participants. The maps illustrate how these organisations act as a conduit between campuses and broader stakeholders in the food system. A typology was put forward derived from analysis of these maps, which included justice-oriented community organising networks, solution and capacity building networks, and public-private research for behaviour change networks. Analysis aligned these typologies with broader paradigms for food systems governance and transformation. This is a critical insight to apply to assessing and researching relationships between institutions and external food systems stakeholders.

Contribution Five

An expanded and delineated definition of campus and higher education foodscapes.

Chapter 5 drew on existing literature, data, and the experience of practitioners to present an expanded definition of campus foodscapes. This definition acknowledged the fluid boundaries of determining where a campus foodscape begins and ends. The definition physical elements, relationships, governance structural, community-institution relationships and dynamics related to equity and power. Further, a definition was included to delineate between the concepts of campus foodscapes and higher education foodscapes and suggested how these are conceptually nested within broader institutional foodscapes.

Contribution Six

Analysis of the drivers and barriers to enacting transformations in campus foodscapes.

Chapter 5, as well as additional analysis in Chapters 7, 8 and 9 drew on the lived experience of practitioners in campus foodscapes to provide a deeper understanding of motivations for working within campus foodscapes and the drivers and barriers

that occur while engaging in work to transform campus foodscapes. Key themes that were identified as motivating transformative work in foodscapes included a sense of duty as a representative of an educational institution, responding to broader social and environmental issues, and a sense of responsibility to cultivate critical citizenship in campus community members. Practitioners discussed the importance of being able to access sufficient resources, especially financial resources, the importance of policy and the key role of maintain wide-ranging relationships and networks across campus communities. Practitioners also highlighted the critical role that students play in driving change within institutions. Chapter 9 summarises key insights from practitioners including the critical role of policy creation to institutionalise transformations. It also draws on practitioners' experiences to emphasise that transformative work must be intersectional, centred in anti-racist practice, and confrontation of the historical role institutions have played in maintaining unequal and discriminatory power structures.

Contribution Seven

The importance of addressing pouring rights contracts and the influence of corporations secured through sponsorship agreements.

Chapter 6 presented an in-depth analysis of pouring rights contracts and the contractual relationships between multi-national corporations and higher education institutions. The methods and sources for the data used in this analysis is an important contribution to the study of how corporations interact with public institutions. Further, the details of these contracts can be used for further research and campaigns related to the specific issue of sponsorship in higher education. This research also presented a brief history of campus-based movements to oppose these public/private agreements and provide insight for interviewees about motivations and strategies for doing so. Opposition to these contracts is still a nascent

movement and the work herein can be used to inform research, strategy and action for future campaigns.

Contribution Eight

Analysis of the opaque supply chains serving institutional foodservice.

Responding to the paradigms of neoliberal governance higher education institutions have increasingly outsourced auxiliary operations. Three major corporations are responsible for the majority of outsourced institutional foodservice. The analysis in Chapter Eight applied analytic models developed by earlier researchers (Clapp, 2021; Clapp & Fuchs, 2009; Hendrickson et al., 2020; Howard, 2021; McMichael, 2013) to interrogate the impact of concentration on institutional food and to analyse the complex relationships and agreements between various actors in these supply chains. These processes are relatively obscured from public view, and there is little research on their impacts. The analysis presented in this thesis can be used as the basis for further investigation into the practices, impacts and outcomes of the power consolidated in corporate-controlled institutional foodservice supply chains.

Contribution Nine

Models for campus foodscapes.

The penultimate chapter presented several models for campus foodscapes. The diagram presented in figure 9-2 summarises the work throughout this thesis in a holistic model of inputs, influences, elements, outputs and impacts of campus foodscapes, as well as opportunities for intervention. Figure 9-1 outlines the external influences and catalysts that drive transformative change within institutions, categorised as: contextual influences; knowledge-sharing influences; persuasive or mandatory influences; and solution-building influences. Figure 9-3 demonstrates the various operational areas responsible for food distribution on campus and that these distribution pathways can operate in a variety of frameworks

from business-as-usual to innovative and transformative. Figure 9-4 outlines the pathways that novel ideas, projects and policies travel from introduction to institutionalisation. These models can be used and adapted to inform research and work in the field of campus and higher education foodscapes.

10.4 Conclusion

This research illustrates the dynamic and flourishing networks in and around campus and higher education foodscapes in the US. It identifies collaborators, organisations, certifications and other actors working towards common goals for food systems transformation. Underpinning the analysis in this thesis are methods which can be used, adapted and improved on for further investigation and research in this arena. This research is applicable beyond the specific setting of higher education and can be applied and adapted in other institutional and civic contexts. This research demonstrates the maturation and institutional thickness of practice, policy and within campus and higher education foodscapes. It contributes to the growing literature in the field and adds foundational concepts and tools for future research.

The cheese and tomato toasted sandwich described in the preface to this thesis is a distant memory. Today, I cannot even remember the last time I bought a coffee at a café, let alone when I last had a coffee while sitting with a colleague sharing our ideas for work and research. A lot has changed since I first started reading, writing, and thinking about how to define and work in a campus foodscape. This research has resulted in that definition. It has also uncovered many examples of brilliant ways students, faculty and staff in universities, and the community members who work alongside them are starting where they are to transform their relationship with food. The ideas and tools presented in this thesis will help to answer at least some of the questions

I posed about that near-forgotten breakfast. Hopefully this research is just a beginning, and a foundation for more questions, the development of more ideas, more tools, more research, more policies and more transformations. Most of all the foundation of more collaborations so we can build a new world together.

APPENDICES

Appendix I Theses Written About University Foodscapes

Anchor Institutions and the Food System

Cunningham, N. (2022). *Anchoring Communities Through Crisis: Enhancing Anchor Institutions' Roles in Local Food Systems*. (Master of Science). University of Vermont, Burlington, VT.

Kostansek, J. (2020). *A Full Plate: A Case Study Analysis of Anchor Institution Investment in a Regional Food System*. (Master of Arts). Ohio University, Athens, OH.

Campus Foodscapes/ Food environments

Minaker, L. (2006). *Exploring the Food Environment of the University of Alberta*. (Master of Science Masters). University of Alberta, Edmonton.

Robbins, Cassandra. (2015). *Organic Dining: Exploring Student Acceptance of Organic Foods in University Facilities*. (Master of Science) University of Missouri, Columbia, MI

Critical citizenship and food education

Bryan, J. A. (2007). *The University as a site for challenging conventional food geographies: the case of sustainability in food services at Queen's University*. (Master of Arts Masters). Queen's University, Kingston, Ontario.

Liu, A. (2015). *Campus Student Unions as Spaces for Fostering a Critical Pedagogy of Consumption*. (Doctor of Philosophy in Education PhD). University of California, Los Angeles.

Dining Services

Gordon, R. (2019). *University Auxiliary Services: A Review of Factors Impacting Privatization Decisions*. (Doctor of Philosophy Educational Leadership, Research and Technology). Western Michigan University

Jillani, Zara. (2020) *Cultural Distinction in Campus Dining*. (Master of Arts) The University of North Carolina at Charlotte, Charlotte, NC

Ruiz, L. (2009). *Rethinking Food Services in Higher Education Institutions: A Case Study of Dining Services at The University of Cincinnati* (master's thesis) University of Cincinnati, Cincinnati Ohio

Food Co-ops

Marple, A. (2018). *Democratizing university foodscapes? student food cooperatives and the neoliberal university*. (Master of Arts in Geology and Geography). West Virginia University, Morgantown, West Virginia.

Oatfield, C. (2010). *Best Practices for Starting Sustainable Food Cooperatives in University Communities*. University of California, Berkeley, Berkeley.

Growing/Producing Food on Campus

Gardner, L. D. (2012). *Down on the Farm: A Qualitative Study of Sustainable Agriculture and Food Systems Education at Liberal Arts Colleges and Universities*. Michigan State University, Community, Agriculture, Recreation and Resource Studies

Kearsley, P. (2017). *Program Development at the Outback: Exploring Place-Based, Experiential Education through a Campus Farm*. (Masters in Environmental Education). Western Washington University, Bellingham, WA.

LaCharite, K. (2014). *Cultivating Sustainability: Impact of Campus Agriculture Projects on Undergraduate Student Connections to Nature, Environmentally Responsible Behaviors, and Perceptions*. Prescott College

Li, J. (2016). *Cultivating the campus productive strategies for the University of Washington's educational landscape*. (Masters). University of Washington, Seattle, WA.

Lim, B. (2022). *Exploring the Development of Gardening Identity in College Students: Project "Aggies Grow Veggies" at UC Davis* (Master of Science). University of California, Davis, Davis, CA.

Healthy Food

Adase, C. (2015). *A healthier way for CSULA: an analysis of the food and beverage options available to the university population*. (Master of Science in Nutritional Science Masters). California State University, Los Angeles.

Sorden, C. (2017). *Assessment of the Campus Food Environment Using Components of the Healthy Campus Environmental Audit*. (Master of Science). University of Nebraska, Lincoln, Nebraska.

Thompson, H. (2019). *Awareness and Opinions About Sugar-Sweetened Beverage Policy in a University Setting*. (Master of Science in Health and Human Physiology). University of Iowa, Iowa City, Iowa.

Wilmoth, S. (2012). *College students' fruit and vegetable consumption and their perspective on establishing a farmers' market at an urban University in South Texas*. (Master of Science in Health and Kinesiology Masters). University of Texas, San Antonio.

Hunger and Food Security

Allen, C. E. C. (2021). *Environment and affluence: How food insecurity shapes student identity at a selective flagship institution*, (PhD) Baylor University, TX

Borchers, Lori A. (2021) *A Study of a One World Everybody Eats Cafe and how it Affects Food Insecurity and a Sense of Community in College Students*. (Doctor of Education) Texas Christian University

Coyne, Marisa Ann. (2018). *Farm-based food access: Lessons from the university of california, davis student farm's food security work*. (Ph.D) University of California, Davis, Davis, CA

Dodo, K. (2018). *Food policy: Understanding food insecurity risk factors and the food environment on an HBCU campus*. (Doctor of Public Health). Morgan State University, Baltimore, MA.

Gilbert, Kathleen Crowley. (2021) *College Student Perspectives of Food Insecurity during the COVID 19 Pandemic: A Photo-Elicitation Narrative Inquiry* (PhD) Sam Houston State University

Goh, Viviana Marie. (2021) *A FRESH Approach to Addressing Food Insecurity: Student Feedback on University of California Irvine's Basic Needs Hub*. (Master of Arts) University of California, Irvine

Gootee-Ash, Amy. (2019). *Examining University Food Systems: Understanding Student Food Insecurity Levels and Food Waste at Minority-Serving Institutions*. Northern Illinois University, IL

Lewis, Sesley J. (2020) *An Evaluation of Basic Needs Work in the University* (Masters) California State University, Los Angeles, CA

Sharifard, S. (2020). *Books or food? food insecurity and the rise of campus food pantries*, (Doctor of Philosophy in Global Leadership and Change) Pepperdine University, Malibu CA

Verderaime, M. (2020). *Exploring college food insecurity: A qualitative case study of the perspectives of the university of central Missouri food pantry clientele* (Doctor of Educational Leadership and Policy Analysis) University of Missouri, Columbia, MI

Organisations: Real Food Challenge

Hill, K. (2016). *Eating Local at URI: The Real Food Challenge*. (Honors). University of Rhode Island, South Kingstown, RI.

Hull, R. A. W. (2018). *Winning real food on campus: The role of opportunity structures, strategic capacity, and identity in the outcomes of student campaigns*. (Doctor of Philosophy). Georgia Institute of Technology, Atlanta, GA.

Kington, L. (2015). *Analyzing Ohio State University's Food Purchasing System: Opportunities for Change through the Real Food Challenge*. (Honors). The Ohio State University, Columbus, OH.

Porter, J. (2015). *Get Real: An Examination of the Real Food Challenge at the University of Vermont*. (Master of Science). University of Vermont, Vermont.

Other

Chen, J. (2021). *The Impact of COVID-19 on a University Food System*. (Master of Science). University of Washington, Seattle WA.

Procurement

Flagg, L. (2018). *Small-Scale Food Processing's Role in Farm to Institution: Filling Market Gaps and Moving toward a Regional Supply Chain*. (Masters). Tufts University Massachusetts.

Hochschild, A. (2016). *Sustainable Campus Food Procurement: An Assessment and Recommendation of Dining Purchasing at the college of Charleston*. (Master of Science in Environmental and Sustainability Studies). College of Charleston, Charleston, SC.

Mulvihill, L., & Prasenjit, R. (2020). *Empire State of Food: Two-Sided Marketplace for Matching Local Farmers and Institutional Buyers*. (Master of Science). Cornell University Ithaca, NY.

Stahlbrand, L. (2017). *Going the Distance So Our Food Doesn't Have to": Case Studies of Creative Public Procurement at Canadian And UK Universities*. (PhD in Geography PhD). Wilfred Laurier College, Waterloo.

Wallace, L. L. (2016). *Farm-To-College Programs: Relocalization, Sustainable Development, and Ecological and Social Sustainability*. (PhD Sociology PhD). University of California, Santa Cruz.

Research, Teaching and Pedagogy

Nordstrom, K. (2015). *Pedagogical Praxis Models in Sustainability Education: A Focus on Food Systems and Environment*. (PhD). University of Vermont, Burlington, VT.

Roberts-Stahlbrand, A. (2020). *Is the Meal Hall Part of the Campus Learning System? Investigating Informal Learning in a University Residence Meal Hall*. (Adult Education and Community Development). University of Toronto, Toronto, Canada.

Winslow, D. (2012). *Food for Thought: Sustainability, Community Engaged Teaching and Research and Critical Food Literacy*. (PhD in Composition and Cultural Rhetoric PHD). Syracuse University, Syracuse.

Student action and participation

Murray, J. A. (2021). *A Comparative Analysis of Student Actors for Sustainability in Canadian Higher Education*. University of Saskatchewan, Saskatchewan

Regan, J. (2015). *The Alternative Campus Food System at Dalhousie University: Exploring the experience of participants in student-led food initiatives on Studley campus*.

Sustainable Food

Cai, Q. (2016). *Ingredients for Sustainable Campus Food Systems: A Case Study of the University of Waterloo*. University of Waterloo, Waterloo.

Fichtner, M. (2011). *Researching the Viability of a Sustainable Food System at the University of Canterbury*. (Summer Sustainability Scholarship). University of Canterbury, Canterbury.

Nowicki, G. (2019). *Perceptions of Green Eating Behaviors on College Campuses in an Urban vs Rural Setting*. (Master of Science Major in Nutrition and Exercise Sciences). South Dakota State University Brookings, SD.

Schulte, A. (2016). *Universities and Sustainable Food Practices: An International Comparison Along the Pacific Coast of North America*. (Bachelor of Arts). Western Kentucky University, Bowling Green, KY

Appendix I.

***Appendix II Fields Drawn from STARS Dataset for
Use in Maps and Further Research on Campus
Foodscape***

***Appendix III Interview Consent and Plain Language
Statements***

Appendix II.

Consent Form

Melbourne Law School



Project: Campus Food Revolutions: Investigating Policy and Projects for Food System transformation in North American Universities

Responsible Researcher: Prof Christine Parker (Melbourne Law School)

christine.parker@unimelb.edu.au

Primary Researcher: Sophie Lamond (Melbourne Law School, Melbourne School of Government) – sophie.lamond@unimelb.edu.au | 510 701 5530

Name of Participant: _____

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.
2. I understand that the purpose of this research is to investigate policies and projects that impact university food environments.
3. I understand that my participation in this project is for research purposes only.
4. I acknowledge that the possible effects of participating in this research project have been explained to my satisfaction.
5. In this project I will be required to participate in an interview, which will last for 45-60 minutes. Should the interview go longer I will be asked if I am able to continue and have the right to terminate the interview due to time constraints.
6. I understand that my interview may be audio recorded.
7. I understand that my participation is voluntary and that I am free to withdraw from this project anytime without explanation or prejudice and to withdraw any unprocessed data that I have provided.
8. I understand that the data from this research will be stored at the University of Melbourne and will be destroyed after 5 years.
9. I understand that data from this research may be used in other, closely related projects, by the same named researcher.
10. I have been informed that any private or confidential information that I provide will be safeguarded subject to any legal requirements; my data will be password protected and accessible only by the named researchers.
11. I understand that given the small number of participants involved in the study, it may not be possible to guarantee my anonymity.
12. I understand that after I sign and return this consent form, it will be retained by the researcher.

Participant Signature: _____ **Date:** _____

Ethics ID Number: 1955275.1

Project Start Date: November 2019 Version 1.0

Interview Guide

Project: Campus Food Revolutions: Investigating Policy and Projects for Food System transformation in North American Universities

Thank you for agreeing to take part in this interview. The interview will last around 45-60 minutes, and you can stop the interview at any time. If you would like to continue past 60 minutes the student researcher is happy to keep the interview going until you have expressed your views on the topic. The following questions are indicative. Additional, follow up questions may be posed in response to the participant's answers and any new lines of enquiry that may arise during the interview.

The purpose of the interview is to discuss policy and projects that take place in university food environments.

With your permission, I would like to audio record this interview. You can ask me to switch off the audio recording at any time.

Questions:

First, I want to ask a few questions about you...

- What is your role in relation to the university? [How long have you been in that job? Have you had other roles relevant to campus food issues?]
- How did you get involved in campus food issues?
- What do you see as the biggest issues facing your university?

Note that some participants will be more involved in specific food projects and others will be more involved with university food policies, so interviews are likely to vary in the length spent on each of these sections depending on the research participant.

Now I want to ask you about any specific practical campus food projects you're involved in. (I'll ask about university policy and systems later. For now, I'm interested in projects that aim to work with the campus community to improve the campus food system ...

- What do you believe to be the biggest issues in your campus food system?
- Describe your involvement in food projects on campus.
- How did you get involved in this/these campus project/s?
- Do you know how they started? What problems was each project intended to address?
- Do you think this/these project/s are viable in the long term?
- What do you think impacts the long-term viability of this/these project/s
- Do you think it is easy for interested members of the community to get involved in these politics?
- Which stakeholders were consulted/involved in the development of this/these project/s
- Are you aware of any significant financial commitment the university has made to transformative campus food project/s and/or policy/ies? If so, is this commitment ongoing or one-off?
- Are you aware of any collaborations with outside stakeholders or significant investment/sponsorship from external stakeholder in campus food system projects?

- Apart from initiatives you are directly involved in can you tell me about any other campus food projects you are aware of?

Now I want to ask you about university wide policies that support campus food projects and seek to improve campus food systems.

- Are you aware of any specific university policy/ies relating to improvement of the campus food system? If so, can you tell me about them? What are they aimed addressing? How do they work?
- If yes, have you had any involvement in the development of this/these policy/ies?
- If yes, do/es this/these policy/ies have an impact on any of the projects you are involved in?
- Do you think this/these policy/ies are viable in the long term?
- What do you think impacts the long-term viability of this/these policy/ies?
- Do you think it is easy for interested members of the community to get involved in policy development?
- Which stakeholders were consulted/involved in the development of this/these policy/ies?
- Are you aware of any significant financial commitment the university has made to transformative campus food project/s and/or policy/ies? If so, is this commitment ongoing or one-off?
- Have any external stakeholders had a significant influence on the development of campus food policy/ies?

Now I want to finish with some questions about your own reflections on working in campus food systems and what others might learn...

- What are the biggest drivers of a resilient and thriving campus food systems?
- What are the biggest barriers to a resilient and thriving campus food system?
- Are you connected to a community of practice of colleagues/peers within your institution working on similar issues?
- Are you connected to a community of practice to colleagues/peers at other institutions working on similar issues?
- Is there any advice you would give others at other universities in the US or Australia who were just starting out to do the kind of thing you have been doing here?
- Are there any other issues and topics you would like to discuss about your experience working with campus food systems?

Thank you for your time today. The information that you have provided is a valuable contribution to this research.

You will be forwarded a transcript of this interview when available and you will have an opportunity to review the transcript. You can withdraw from the study at any time before approving the transcript.

Plain Language Statement



Appendix III.

Melbourne Law School

Project: Campus Food Revolutions: Investigating Policy and Projects for Food System transformation in North American Universities

Prof Christine Parker (Responsible Researcher)

Email: christine.parker@unimelb.edu.au

Sophie Lamond (Student Researcher: Melbourne Law School, Melbourne School of Government)
sophie.lamond@unimelb.edu.au | 510 701 5530

Introduction

Thank you for your interest in participating in this research project. The following few pages will provide you with further information about the project, so that you can decide if you would like to take part in this research.

Please take the time to read this information carefully. You may ask questions about anything you don't understand or want to know more about.

Your participation is voluntary. If you don't wish to take part, you don't have to. If you begin participating, you can also stop at any time.

What is this research about?

The purpose of this research is to explore how universities and their communities work to improve their campus food environments including in the areas of health, wellbeing, sustainability and social inclusion. It includes investigating the implementation of campus projects and the processes that go to forming institutional policies. It seeks to understand how such projects came about and the networks and policy and governance structures that support their development and implementation.

This research considers the role of universities as 'living laboratories' that can model transformations for the benefit of broader society. The research aims to develop a typology of campus food projects and aims to identify examples of international best practice in this area.

I am interviewing a broad range of stakeholders from American universities who are key stakeholders in their campus food systems. Stakeholders include professional and academic staff and student leaders.

In addition, the research aims to identify examples of international best practice in strategies to improve campus food environments and create a best-practice framework for campus food system work.

What will I be asked to do?

You are invited to be interviewed by myself, Sophie Lamond a doctoral student at the University of Melbourne. The interview will focus on your experience of your campus food environment and campus projects that seek to improve the campus food system. You will also be asked to discuss relevant policies and the processes through which those policies have been developed.

The interview will be audio recorded by the interviewer and the interviewer will make hand-written notes. It is expected that the interviews will last between 45-60 minutes at a convenient location of your choosing. If you would like to extend the interview past the 60 minute mark the researcher will allow for up to 90 minutes for the interview.

There will be a number of questions and an opportunity to share your own insights on this topic.

What are the possible benefits?

The findings of this research will be used to identify strategies to strengthen international best practice in campus food systems work and policy development. This research has the potential to:

Develop a broader understanding across stakeholder groups about the opportunities and barriers to

strengthening transformative practice in sustainable, healthy and inclusive university food environments

Inform the development of future policy to drive positive transformations in university food environments

Identify how work undertaken on university campuses has the potential to support sustainable, resilient communities outside university food systems.

Create a typology and framework for action for best practice in campus food systems work

What are the possible risks?

We (the student researcher, and supervisors) intend to protect your anonymity and the confidentiality of your responses to the fullest possible extent, subject to any legal requirements. No interviewees will be named in the publications arising from the project, and steps will be taken to remove details from responses that could identify participants. Your name and contact details will also be kept in a password-protected computer file, separate from any data that you supply. However, due to the small number of participants in the study, it may not be possible to completely guarantee your anonymity.

Do I have to take part?

Participation is completely voluntary. You are free to withdraw your participation up until you have approved a copy of the interview transcript that the researchers will email to you. If the researchers do not hear from you within two weeks of the transcript having been sent to you, you will be regarded as having approved the transcript.

Will I hear about the results of this project?

The findings of the project will be documented in the student researcher's doctoral thesis. Participants will be notified upon the completion of this thesis. The results of the project may also be written up in one or more journal articles or book chapters and may be presented at conferences. It is possible that data from this research may be used in future projects by the same researcher, such as a post-doctoral research project exploring similar themes and issues.

What will happen to information about me?

Audio files, interview transcripts and interview notes will be stored on a password-protected computer during fieldwork and data analysis. At the end of the research, data will be held securely for 5 years in locked facilities at the University of Melbourne in the Melbourne Law School. All data will be destroyed after 5 years. In the event that the responsible researcher were to leave the university, responsibility for data storage would be transferred to the new responsible researcher on the research project and the same procedures for data storage would apply. The interview data will not be made available for future research.

Who is funding this project?

This project is funded by a post-graduate research training scholarship from the University of Melbourne

Where can I get further information?

If you would like more information about the project, please contact the student researcher;

Appendix IV List of Key Campus Food Project and Policy Guides

CAMPUS REPORTS

Hoey, L., Jones, A., Baloga, C., Bellaire, S., Harley, B., Jaruzel, M., . . . Soster, K. (2021). Food at the University of Michigan: A Report Developed for and Supported by the U-M President's Commission on Carbon Neutrality. Retrieved from Ann Arbor, MI: <https://doi.org/10.3998/mpub.12094868>

Fanshel, R. Z., Iles, A., & Prier, M. (2018). Building Equitable and Inclusive Food Systems at UC Berkeley: Foodscape Mapping Project Report. Retrieved from Berkeley, CA: <https://food.berkeley.edu/wp-content/uploads/2018/09/Foodscape-Map-Policy-Recommendations-webspreads.pdf>

Michigan State University Residential and Hospitality Support Services. (2014). Sustainable Food Procurement Guide, Michigan State University. Retrieved from East Lansing, MI: https://hub-media.aashe.org/uploads/procurement_guide_WEB.pdf

DIETARY NUDGES AND SUSTAINABLE DIETARY CHOICES

Attwood, S., Voorheis, P., Mercer, C., Davies, K., & Vennard, D. (2020). Playbook for guiding diners toward plant-rich dishes in food service. Retrieved from Washington, DC: https://files.wri.org/d8/s3fs-public/19_Report_Playbook_Plant-Rich_Diets_final.pdf

Default Veg. (nd.). Default Veg Resource Guide. Retrieved from <https://res.cloudinary.com/hyjcvcxjt/image/upload/v1578002945/resource/default-veg-resource-guide.pdf>

Fitch, C. (2018). Sourcing "Less Meat, Better Meat" Through Foodservice Contracts. Retrieved from Portland Oregon: <https://res.cloudinary.com/hyjcvcxjt/image/upload/v1603140744/resource/sourcing-less-meat-better-meat-through-foodservice-contracts.pdf>

Health Care Without Harm (2016). Health Care Procurement Guide Sustainably-Raised Meat and Poultry. Retrieved from Washington, DC: <https://noharm-uscanada.org/sites/default/files/documents-files/3841/Health%20Care%20Procurement%20-%20Sustainable%20Meat%20and%20Poultry.pdf>

Hamerschlag, K., Culver, A., Waterman, C., & Bartholomew, B. (2017). The Meat of the Matter: Climate-Friendly Food Purchasing. Retrieved from Oakland, CA: http://responsiblepurchasing.org/purchasing_guides/food/climate_friendly_food_purchasing.pdf

Menus of Change University Research Collaborative. (nd.). The (Almost) Perfect Plant Forward University. Retrieved from Stanford, CA: https://www.ciaprochef.com/PDFs/MCURC_AlmostPerfectPlantForwardUniversity/

Menus of Change University Research Collaborative. (nd.). Edgy Veggies Toolkit. Retrieved from Stanford, CA: http://sparqtools.org/wp-content/uploads/2019/10/20190925_EdgyVeggiesToolkit-1.pdf

Menus of Change University Research Collaborative. (nd.). Food Waste Research in College and University Settings: An Overview. Retrieved from Stanford, CA:
https://www.ciaprochef.com/MCURCFoodWasteResearch_Overview/

Menus of Change University Research Collaborative. (nd.). Globally Inspired, Plant-Forward Recipes and Inspirations for Campus Menus and Dining. Retrieved from Stanford, CA:
<https://drive.google.com/file/d/1pWDjpoCwPGzgnxwrGIS4BZ-MyJ-Mrmlk/view>

Menus of Change University Research Collaborative. (nd.). Plant Forward Opportunity. Retrieved from Stanford, CA: <https://www.ciaprochef.com/Plant-ForwardOpportunityReport2021/>

Menus of Change University Research Collaborative. (nd.). The Protein Flip. Retrieved from Stanford, CA: https://www.ciaprochef.com/MCURC_ProteinFlip/

Northwest Earth Institute. (2017). Menu for the Future. Available from Portland, OR:
<https://store.ecochallenge.org/products/menu-for-the-future?variant=14694000525347>

DINING OPERATIONS

Apoliona-Brown, P., Dunn-Wilder, E., Guthrie, L., Robbins, P., Steel, A., & Strader, K. (2020). Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our Communities - and What to do About It. Retrieved from Boston, MA: <https://www.realfoodgen.org/kickbacks-report-2020>

Responsible Purchasing Network. (2013). Fair Trade Purchasing Guide for College and University Food Service Purchasers. Retrieved from Oakland, CA: <https://fairtradecampaigns.org/wp-content/uploads/2013/12/Fair-Trade-Purchasing-Guide.pdf>

Toong, K., & DiStefano, G. (2016). Making Local, Healthy, Sustainable Delicious: the how-to guide for foodservice operators. Retrieved from Amherst, MA:
https://umassdining.com/sites/default/files/Umass_HowToGuide_V7b.pdf

FAIR TRADE

Responsible Purchasing Network. (2013). Fair Trade Purchasing Guide for College and University Food Service Purchasers. Retrieved from Oakland, CA: <https://fairtradecampaigns.org/wp-content/uploads/2013/12/Fair-Trade-Purchasing-Guide.pdf>

FOOD WASTE

Berkenkamp, J. (2016). Beyond Beauty: The Opportunities and Challenges of Cosmetically Imperfect Produce. Retrieved from Minneapolis, MN:
<https://foodsystemsleadershipnetwork.org/wp-content/uploads/2020/09/Beyond-Beauty-Collegiate-Food-Service-Report-5.pdf>

GROWING FOOD

Yale Sustainable Food Project (2010) Starting a College Farm: Stories from the Yale Sustainable Food Project, Yale Sustainable Food Project, Retrieved from New Haven, CT:
<https://www.farmtoinstitution.org/sites/default/files/imce/uploads/2010%20White%20Paper%20How%20to%20Start%20a%20College%20Farm.pdf>

HUNGER

Galarneau, T., Canedo, R., Heng, E., Rosenberg, A., & Sheean-Remotto, G. (2017). Student Food Access & Security Toolkit. Retrieved from Oakland, CA: https://www.ucop.edu/global-food-initiative/_files/food-security-toolkit.pdf

Global Food Initiative. (2015). Swipe Out Hunger A Guide to Creating Your Campus Sustainable Meal Sharing and Recovery Program. Retrieved from Oakland, CA: https://www.ucop.edu/global-food-initiative/_files/Swipe%20Out%20Hunger%20Guide_Final.pdf

POLICY

Healthy Food Policy Project. (2021). Policy Drafting Companion Guide: Turning Your Community Vision into Local Healthy Food Law or Policy. Retrieved from South Royalton, VT: <http://healthyfoodpolicyproject.org/wp-content/uploads/Policy-Drafting-Companion-Guide.pdf>

National Student Food Charter. (2012). People's Food Policy Project; Center for Studies in Food Security at Ryerson; BC SPCA; Local Food Plus; California Food Literacy Center; Food System Concepts – John Ingram; Food Security Network of Newfoundland and Labrador and The Stop Community Food Center. Toronto, CA: https://drive.google.com/file/d/1kRgwNYsKfdSIDJUX7j7m8O_jcNO01f7W/view

PROCUREMENT

American Farmland Trust. (2012). Scaling Up Strategies for Expanding Sales of Local Food to Public and Private Institutions in New York Retrieved from Saratoga Springs, NY: https://finys.org/sites/default/files/uploads/aft_finys_scaling-up-strategies-report.pdf

Becot, F., Conner, D., & Etman, K. (2016). How to Develop a Local and Regional Institutional Food Buying Program. Retrieved from Burlington, VT: <http://nofavt.org/sites/default/files/files/resources/becot-conner-ettman-developing.pdf>

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Buck, M. (2011). A Guide to Developing a Sustainable Food Purchasing Policy Retrieved from Portland, OR: https://assets.jhsph.edu/clf/mod_clfResource/doc/SustainableFoodPolicyGuide.pdf

Colasanti, K., & Matts, C. (2013). Farm to Institution: A Summary of Research on Local Food Purchasing by Institutions. Retrieved from East Lansing, MI: <https://www.canr.msu.edu/foodsystems/uploads/files/fti-summary.pdf>

Engel, T. (2011). Sustainable Food Purchasing Guide. Retrieved from New Haven, CT: <https://www.sare.org/wp-content/uploads/Sustainable-Food-Purchasing-Guide.pdf>

Farm to Institution New England. (2016). Setting the Table for Success: A Toolkit for Increasing Local Food Purchasing by Institutional Food Service Management. Retrieved from Hartland, VT: <https://www.farmtoinstitution.org/food-service-toolkit#8A>

Farm to Institution New England. (2017). Campus Dining 101: Benchmark Study of Farm to College in New England. Retrieved from Hartland, Vermont:

Farm to Institution New England. (2017). Campus Dining 201: Trends, Challenges, and Opportunities for Farm to College in New England. Retrieved from Hartland, Vermont:

<https://www.farmtoinstitution.org/sites/default/files/imce/uploads/FINE%20Campus%20Dining%20Report.pdf>

Farm to Institution New England. Sample Language & Resources for Local Foods in Contracts & RFPs (nd.)

<https://www.farmtoinstitution.org/sites/default/files/imce/uploads/Local%20Food%20Language%20for%20Contracts.pdf>

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<https://clf.jhsph.edu/sites/default/files/2019-01/Instituting-change.pdf>

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https://finys.org/sites/default/files/uploads/ontheplatesuny_fnl_may2018.pdf

Maine Food for UMaine. (2015). Contract & RFP Language that Would Lead to an Increase in Local & 'Real' Food in the University of Maine System Dining Operations Retrieved from Lincolnville, ME:

https://www.farmtoinstitution.org/sites/default/files/imce/uploads/MaineFoodfortheUMaineSystem_RFPReco.pdf

NC10percent. (2017). How It Works Handbook: A Guide to University Food Systems & Local Food Programs Retrieved from Raleigh, NC:

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https://www.realfoodchallenge.org/documents/39/The_Real_Food_Standards_2.1_Package.pdf

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Smith, E. (2021). Institutional Investment in Praxis. Retrieved from Little Rock, AR: <https://foodsystemsleadershipnetwork.org/wp-content/uploads/2021/06/Inst-Inv-Article-2.pdf>

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Smith, E. (2021). Key Components of Success: What institutions need to know to move beyond

Wilson, M. (2013). Farm to Institution: A Step by-Step Guide to Selling Products to Local Institutions for Mississippi Growers. Retrieved from Cambridge, MA: https://assets.jhsph.edu/clf/mod_clfResource/doc/MS-FTI-Grower-Guide-Final-2013.pdf

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POLICIES/STANDARDS/GUIDELINES

SUSTAINABILITY GUIDELINES FOR FOOD SERVICE PURCHASING EMORY UNIVERSITY
SUSTAINABLE FOOD COMMITTEE <https://sustainability.emory.edu/wp-content/uploads/2018/02/SustFoodPurchGuidelns5-27-16.pdf>

Harvard Sustainable and Healthful Food Standards
https://green.harvard.edu/sites/green.harvard.edu/files/SustainableHealthfulFoodStandards_April2019.pdf

Harvard Sustainable Meeting and Event Guide <https://green.harvard.edu/campaign/sustainable-meeting-and-event-guide>

Michigan State University Eat at State Sustainable Food Procurement Guide
<https://eatatstate.msu.edu/sustainability/guide>

University of California Policy on Sustainable Practices (H: Sustainable Foodservices)
<https://policy.ucop.edu/doc/3100155/SustainablePractices>

Duke Dining Sustainability Standards https://studentaffairs.duke.edu/sites/default/files/2017-07/Duke%20Dining%20Sustainability%20Plan_Reduced.pdf

North Carolina 10% Campus Local Food Guides <https://www.nc10percent.com/campus-local-food-guides>

NACUFS Collegiate Foodservice Sustainability Guide <https://www.nacufs.org/SustainabilityGuide>
(fee to purchase)

Farm to University: Guide for Extension Agents <https://content.ces.ncsu.edu/farm-to-university-guide-for-extension-agents> North Carolina State Extension Program

UVM Real Food Working Group Charter https://www.uvm.edu/sites/default/files/Real-Food-Challenge/Spring_2018_Final_Draft_Review_UVM_RFWG_Charter.docx.pdf

Appendix V Further Policy and Organisation Details for Policy Environment for Pouring Rights Contract at the University of California Berkeley

University of California Office of the President, Healthy Campus Network:

<https://www.ucop.edu/global-food-initiative/systemwide-engagement/healthy-campus-network/index.html>

University of California Office of the President, Policy on Sustainable Practices:

<https://policy.ucop.edu/doc/3100155/SustainablePractices>

University of California Office of the President, Principles on Community:

<https://www.ucop.edu/local-human-resources/op-life/principles-of-community.html>

University of California Office of the President, Sustainable Procurement Policy & Guidelines:

<https://www.ucop.edu/procurement-services/for-ucstaff/sustainable-procurement/sustainable-procurement-policy-guidelines.html>

University of California Office of the President, Zero Waste Policy:

<https://www.ucop.edu/sustainability/policy-areas/waste-reduction-and-recycling/index.html>

University of California Office of the President, Sustainable Foodservice Policy:

<https://ucop.edu/sustainability/policy-areas/sustainable-foodservice/index.html>

University of California Office of the President, Healthy Campus Network:

<https://www.ucop.edu/global-food-initiative/systemwide-engagement/healthy-campus-network/index.html>

University of California Office of the President, Healthy Beverage Initiative:

<https://ucnet.universityofcalifornia.edu/news/2019/11/promoting-healthy-beverages.html>

University of California Office of the President, Healthy Vending Policy:

<https://www.ucop.edu/global-food-initiative/files/uc-healthy-vending-toolkit-final-for-dissemination.pdf>

University of California, Berkeley Food and Beverage Choices Policy:

<https://campuspol.berkeley.edu/policies/foodbeverage.pdf?Refresh=0.731378036966&Refresh=0.731378036966>

University of California Berkeley Campus Policy Governing the Promotion of Alcoholic Beverages and Tobacco Products on the Campus and at Campus Sponsored Events:

<https://sa.berkeley.edu/uga/alcohol>

University of California, Berkeley Bear Minimum Nutrition Standards for Foodservice:

<https://uhs.berkeley.edu/foodbeveragepolicy>

UC Berkeley Healthy Meeting and Event Guide – University Health Service Be Well at Work Program: <https://uhs.berkeley.edu/healthymeetings>

Berkeley Food Institute: sustainable and just catering guidelines: <http://food.berkeley.edu/wp-content/uploads/2018/03/Sustainable-and-Just-Catering.pdf>

City of Berkeley Sugary Beverage Tax

<https://www.cityofberkeley.info/uploadedFiles/Clerk/Elections/Sugar%20Sweeetened%20Beverage%20Tax%20-%20Full%20Text.pdf>

Let's Get Healthy California: <https://letsgethealthy.ca.gov/>

U.S. Department of Agriculture and U.S. Department of Health and Human Services, Dietary Guidelines for Americans: https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

Center for Disease Control, Improving the Food Environment Through Nutrition Standards:

https://stacks.cdc.gov/view/cdc/5910/cdc_5910_DS1.pdf?

National Alliance for Nutrition and Activity (NANA) Model Beverage and Food Vending Machine Standards: <https://cspinet.org/resource/nana-model-beverage-and-food-vending-machine-standards>

Partnership for a Healthier America Healthier Campus Initiative:

<https://www.ahealthieramerica.org/articles/healthier-campus-initiative-146>

Menus of Change: <https://www.menusofchange.org/>

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