



Challenges of Social Sector Systemic Collaborations: What's Cookin' in Houston's Food Insecurity Space?

Joe V's Smart Shop, courtesy Douglas Schuler



RICE | KINDER
INSTITUTE FOR URBAN RESEARCH

Building Better Cities
Building Better Lives

Authors: Douglas A. Schuler and Balaji R. Koka

Rice University
Kinder Institute for Urban Research, MS-208
6100 Main Street, Houston, TX 77005

For more information, contact us at kinder@rice.edu.

Copyright © 2019 by Rice Kinder Institute for Urban Research

All rights reserved.

Executive Summary

In this study, we seek to understand the nature of collaborations between organizations working in the food insecurity and food desert¹ social spaces in Houston, Texas. Within many neighborhoods, the lack of ready access to healthy foods such as fresh fruits, vegetables and whole grains combines with low incomes, and other factors related to transportation, time, ability and proclivity to cook to make food insecurity and food deserts a reality for many persons. An estimated 724,750 food insecure individuals live in the Greater Houston area with a food insecurity rate of 16.6 percent, about 4 percentage points above the national average. Over 500,000 Houston residents live in United States Department of Agriculture (USDA)-designated food desert areas.¹ Food insecurity and food deserts have grave effects on individual and community health. According to the Harris County Healthcare Alliance's 2015–2016 The State of Health report, about two-thirds of the area's adult residents were overweight and about one-third was obese,² with variation across ethnicity. In Harris County, about one in three children is likely to be obese and about one in three children born since 2000 is likely to develop diabetes.³ These health challenges result in additional health care costs of \$3 billion in just Harris County.⁴

The many factors behind food insecurity and food deserts as well as the wide range of impacts at the individual, neighborhood, city and metropolitan levels suggest that solutions will likely require inputs from and sustained cooperation across a number of organizations, including governments at all levels, nonprofit organizations and private sector, for-profit firms or businesses. We call this **systemic collaboration**. Systemic refers to the involvement of a collective set of organizations,

¹ We define both of these terms in the report. At times, we use these terms interchangeably.



Palm Center Community Garden

courtesy Terry Garner

institutions and other stakeholders in the overall system. Collaboration refers to the formal and informal non-hierarchical partnerships between these entities to collectively formulate and implement strategies, programs and interventions towards achieving collective impact at the system level.⁵ The literature suggests that such widespread collaborations need to be practiced over a long time to be effective at the community level.⁶

To do our study, we followed the standard protocols of qualitative research using multiple approaches to collect data: semi-structured interviews, experiential field visits and focus groups of individuals living in one food desert neighborhood.⁷ Our interviews and visits occurred over a course of 33 months beginning in October 2015 through June 2018. In all, this process yielded 58 interviews with 75 individuals at 39 organizations. In addition, we consulted secondary data sources such as surveys, reports and academic studies to identify, clarify, probe and validate information obtained through our primary sources.

Our analysis reveals the existence in Houston of many collaborations across different types of organizations, including nonprofit organizations, businesses, governmental agencies, schools and universities and funders. Most of these collaborations, however, were narrow in scope and oftentimes involved delivering a single intervention. Through the research, we identified four types of collaborations in the Houston food insecurity and food deserts space. First, we found several **dominant player supply chain collaborations**, including the Houston Food Bank's relationships with its food vendors and pantries, plus several of its Food for Change partners. Second, we observed several **neighborhood wrap-around collaborations**. Those collaborations focus on users who frequent a food pantry and require a dedicated director and staff to assess the holistic needs of their clients and connect them to other social services. Third, we saw one **umbrella collaboration**, operating in Pasadena but currently defunct, although portions of it continue to operate

discretely. The umbrella had many partners and was closest to a systemic collaboration of all collaborations observed. Finally, we identified a few **informational collaborations**. In these collaborations, an organization will collect and disseminate information about users, programs, funders, events, public policies, etc. to other organizations. However, none of these collaborations approximated the systemic collaboration that would require a variegated set of organizations rallying in unison over an extended period to solve such an important issue.

Our study thus turned on identifying the factors driving the formation of systemic collaborations. We focused on identifying factors leading organizations to enter into as well as refrain from or pull away from such collaborations. First, we identified two factors that direct organizations towards systemic collaborations, which we termed problem ambiguity and user ambiguity. **Problem ambiguity** refers to how much variance exists around the definition, scope and goals of the social problem. **User ambiguity** refers to the variance that exists as to whom the users are, what their needs are and to what extent they should be involved in solving the problem. Increasing problem ambiguity and user ambiguity sets the potential for the emergence of one of two contradictory outcomes. On one hand, as the levels of problem ambiguity and user ambiguity rise, the need and urgency for systemic collaboration becomes more apparent. On the other hand, such high levels of ambiguity across both dimensions also enable fragmentation and encourage organizations to pursue their efforts independently or within a narrow collaboration to focus upon their own particular definitions of the problem and user.

We find that the institutional context greatly influences which outcome emerges. Specifically, in the context of food insecurity we find that two factors push organizations away from systemic collaborations. The first, which we term **institutional barriers**, stems from funders, government policies and politics. In some instances, these institutional players set up expectations, rules, requirements and resources that create disincentives for systemic collaborations. A second factor working against systemic collaboration is a **mindset of competition**. We observed many organizations (and their managers, founders and directors), including nonprofits, push for resources and market dominance, sometimes at the expense of cooperation. We believe that institutional barriers and the mindset of competition combine to discourage systemic collaborations.

Our study thus highlights the need for funding agencies, government and organizations to revisit some of the assumptions underlying their strategies in the social sphere. We offer several remedies aimed at funders, government policies, the mindset of altruism and backbone organizations that suggest adopting policies, processes and mindsets that encourage collaborations, promote flexibility of operations, adopt more behavioral metrics and eschew competitive actions. We argue that adoption of such remedies is essential if we are to make substantial strides towards effectively addressing significant social issues in not just Houston but also other parts of the world.

Key Findings

1. Solving food insecurity issues requires systemic collaboration between many organizations transcending multiple sectors, rallying in unison over a significant period.
2. We find four types of collaborations: dominant player supply chain collaborations, neighborhood wrap-around collaborations, umbrella collaborations and informational collaborators. However, none of these are systemic collaborations.
3. Two factors emerge to create an environment that both encourages the formation of systemic collaborations as well as promotes fragmentation: problem ambiguity and user ambiguity.
4. Two factors push organizations away from systemic collaborations: institutional barriers and the mindset of competition. The result is fragmented, narrow interventions resulting in significant gaps in service provision that ultimately fail to improve impact at the community level.
5. We offer remedies aimed at funders, government policies, mindset of altruism and backbone organizations that require them to adopt to policies, processes and mindsets that encourage collaborations, promote flexibility of operations and adopt more behavioral metrics while eschewing competitive actions.

Table of Contents

1	Executive Summary
4	Table of Contents
5	Introduction
7	Definitions and Limitations
8	Food Insecurity in Houston
11	Collaborations We Observed
14	Emergent Model of Systemic Collaboration
22	Remedies
24	Discussion and Conclusions
26	APPENDIX: Methods and Data
29	Acknowledgements
30	Endnotes

Introduction

Houston is the fourth largest city in the United States, located in the Texas Gulf Coast, with a 2017 population of nearly 2.3 million and over 4.6 million in Harris County within which the city lies. Despite being one of the fastest growing cities in the United States and an economic juggernaut, Houston suffers a myriad of economic, social and health problems, including food insecurity, defined as a lack of consistent access to enough food for an active, healthy life.

Our project aims to understand the mechanisms behind the collaborative efforts of various organizations to address food insecurity in Houston, an issue related to individual and public health. Two aspects of food insecurity make it worthy of investigation: the problem is broadly important across our community, as it is detrimental to individuals and many neighborhoods, and different organizations tackle different aspects of it with varying degrees of coordination.

The first aspect of food insecurity—that it is a broad social problem of significance to Houston—puts it in a category of collective impact. Collective impact involves actors from different sectors committing to a common agenda to solve a social problem.⁸ Examples of collective impact include programs and interventions that aim to raise educational outcomes for students, to provide better employment opportunities for disadvantaged persons, to improve the conditions of neighborhoods and to mitigate hunger. According to a report published by Feeding America, more than 700,000 people in Harris County remain afflicted by food insecurity.⁹ While these numbers fortunately have been ticking downward, those food insecure individuals face many other barriers. Food insecure persons are more likely to suffer from health maladies, including obesity, diabetes and coronary disease and may lag on socio-emotional health.¹⁰ They are also more likely to miss work and lose productivity and earning power

than non-food insecure individuals.¹¹ For those individuals and neighborhoods where it is prevalent, food insecurity is a grave problem.

The second aspect is that food insecurity is more than likely a problem too big for any one organization to tackle alone. The corollary is that credible solutions will require input from and cooperation across a number of organizations, including governments at all levels, nonprofit organizations and private sector, for-profit firms or businesses. We call this systemic collaboration. Systemic refers to the involvement of a collective set of organizations, institutions and stakeholders in the overall system. Collaboration refers to the formal and informal non-hierarchical partnerships between these entities to collectively formulate and implement strategies, programs and interventions towards achieving collective impact at the system level.¹² One of the more famous examples of systemic collaboration is from Finland regarding collective efforts to reduce the high levels of coronary disease. Over a roughly 20-year period, “specific services in North Karelia, Finland were provided exclusively by *existing* public health and medical personnel, although reorganized to some extent,”¹³ as well as extensive contributions by businesses, farmers, civil society organizations and mothers.¹⁴ This systemic collaboration led to astonishing improvements in individual and community health: cardiovascular illness and mortality decreased by over



Courtesy Robins

Finca Tres Robles

80 percent in a 30-year period. What is impressive is that many of the organizations had to adjust what they were previously doing in order to contribute to the collective good. Equally impressive is that many of these organizations and individuals contributed without explicit direction.¹⁵ While the research design of our study is not oriented toward formally testing hypotheses, we wish to discover the extent to which the organizational efforts in Houston approach the systemic collaborations seen in places like Finland.

In this report, we describe the results of a 33-month investigation of organizations working in and around food insecurity in Houston. Pointedly, our study focuses on the factors influencing organizations to cooperate with other organizations as well as factors leading organizations to refrain from and/or pull away from such collaborations. Using a variety of qualitative techniques, we identified two factors that direct organizations towards certain types of collaborations, including systemic collaborations necessary for collective impact. The first factor is what we call problem ambiguity and refers to how much variance exists around the definition, scope and goals associated with the problem. The second factor, user ambiguity refers to the variance that exists as to who the users are, what their needs are and to what extent they should be involved in solving the problem. Increasing problem ambiguity and user ambiguity sets the potential for the

emergence of one of two contradictory outcomes. On one hand, increasing ambiguity highlights the need and urgency for systemic collaboration. On the other, such ambiguity also enables fragmentation and dissipation of efforts by enabling different entities to focus on their particular definitions of the problem and user. We find that the institutional context influences which outcome emerges. Specifically, in the context of food insecurity we find that two factors push organizations away from systemic collaborations. The first, which we term institutional barriers, stem from funders, government policies and politics. In some instances, these institutional players set up expectations, rules, requirements and resources that create disincentives for systemic collaborations. A second factor against systemic collaboration is a mindset of competition. We observed many organizations (and their managers, founders and directors), including nonprofits, push for resources and market dominance, sometimes at the expense of cooperation. We believe that institutional barriers and the mindset of competition combine to dissuade systemic collaborations. Finally, we offer remedies geared toward funders, government policies, a mindset of altruism and backbone organizations that need to be adopted by these entities if we are to collectively impact the significant social issues not just in Houston but in other parts of the world.

Definitions and Limitations

We use food insecurity and food deserts interchangeably¹⁶ throughout this report, although they connote different but related issues. The U.S. Department of Agriculture (USDA) defines **food insecurity** as “reports of reduced quality, variety, or desirability of diet.” For low severity cases, such reports reveal “little or no indication of reduced food intake” and for high severity cases, they include “multiple indications of disrupted eating patterns and reduced food intake.”¹⁷ In urban contexts within developed countries, such as Houston, the vast majority of people purchase food at the marketplace: grocery stores, convenience stores, restaurants, etc. In such circumstances, food insecurity means an individual faces impediments to purchasing foods at these venues. Impediments may include individual-level income and disposable income; eligibility for and use of government food programs, such as the Supplemental Nutrition Assistance Program (SNAP); factors influencing food prices, such as natural disasters, transportation costs and international trade; as well as factors influencing alternative means to obtain foods within urban areas such as urban farms and community gardens. Although food insecurity is declining across the United States, those experiencing food insecurity tend to suffer from many unmet needs, including hunger.¹⁸

Food deserts, on the other hand, refer to locations in a geographic space inhabited by low-income individuals who “lack access to affordable fruits, vegetables, whole grains, low-fat milks, and other foods that make up a full and healthy diet.”¹⁹ The USDA defines food deserts in terms of access of low-income individuals to healthy food sources. To qualify as a “low-access community,” at least 500 people and/or at least 33 percent of the census tract’s population must reside more than one mile from a supermarket or large grocery store in an urban area, though others have argued for different parameters. Furthermore, food deserts can contain many source-

es of unhealthy foods, such as fast foods. These have been termed **food swamps**.²⁰ The overall picture is that persons living in food deserts do not have easy access to locally situated healthy foods, which is associated with reduced physical and mental well-being for the residents.²¹

We also wish to explain up front several limitations of this report. First, although our research methods, as explained in the Appendix, allowed us to collect data from a large number of organizations and individuals, we do not claim to have covered every organization and intervention for food insecurity in Houston. We readily admit that we may have missed several important organizations, collaborations and interventions. We believe, however, that our methodology still allows us to make credible inferences about systemic collaborations. Second, we collected data over only a 33-month period. As we argue later in this report, the type of outcomes of systemic collaborations or even less expansive collaboration types may not manifest for many years. Third, we do not endorse any organizations or interventions. Neither do we have relationships, such as grants or consulting assignments, with any of these organizations. Throughout the report, we offer examples from organizations and interventions that we consider to illustrate given concepts, sometimes positively and other times negatively.



Dollar General

Food Insecurity in Houston

Houston has a very diverse population and is home to people with a broad range of income levels. According to the 2016 American Community Survey 5-year estimates, 29 percent of Houston residents were foreign-born. A quarter of the residents were non-Hispanic whites, 22 percent non-Hispanic blacks, 44 percent Hispanics and 7 percent Asians. Of languages spoken at home, 56 percent were English only, 33 percent were Spanish, 5 percent were Asian and Pacific Islander and 6 percent were other languages. According to a report by the Pew Research Center, Houston and its surrounding suburbs had the third-largest undocumented immigrant population in the country in 2014, totaling 575,000 people, about 8.7 percent of the area's population.²² In 2016, while the median household income in Houston was \$47,010 (in 2016 inflation adjusted dollars), 18 percent of Houstonians between the ages of 18 and 64 reported living in poverty. An estimated 724,750 food insecure individuals live in Harris County with a food insecurity rate of 16.6 percent, about 4 percentage points above the national average.

These economic issues connect with health issues. In 2012, Men's Fitness magazine rated Houston as the fattest city in the U.S.²³ although another ranking of the fattest cities placed it as 53 out of 100 in 2018.²⁴ According to the Harris County Healthcare Alliance's 2015–2016 The State of Health report, about two-thirds of the area's adult residents were overweight, meaning they had a body mass index above 25, and about one-third of the population was considered obese, with a body mass index above 30, with variation across ethnicity. One in three children is likely to be obese in Harris County and one in three children born since 2000 is likely to develop diabetes.²⁵ These health challenges result in additional health care costs of \$3 billion in just Harris County.²⁶ Finally, the cost to Texas due to obesity was estimated at \$10.5 billion in 2001, rising to \$39 billion in 2040.²⁷

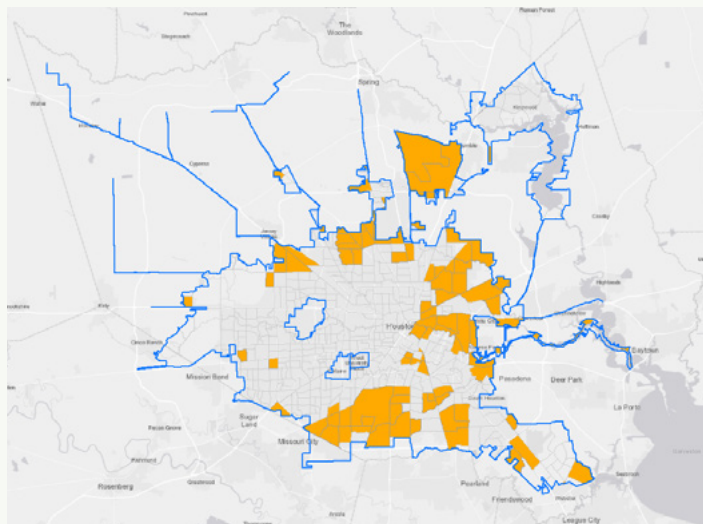
Additionally, according to the U.S. Census Bureau, about 25 percent of Houston's population did not have health insurance in 2016,²⁸ which is double the U.S. national average of 12 percent. Houston's lack of health insurance coverage is higher than many other major cities, including Chicago (15 percent), Los Angeles (18 percent) and New York City (11 percent).

The paucity of grocery stores in many of these communities reduces easy access to fresh and healthy foods, exacerbating these health problems. Over 500,000 Houston residents live in USDA-designated food desert areas.²⁹ Many residents of food desert neighborhoods face transportation challenges such as not having public transportation or access to private transportation. In some areas of Harris County, over 50 percent of the residents report travelling over 6 miles to reach the nearest grocery store.³⁰ In spite of the increased attention to food deserts, of the 20 grocery stores established in Houston between 2011 and 2015, only one of them was located in a food desert area.³¹ Figure 1a shows food deserts in Houston, Figure 1b shows food deserts in Harris County and Figure 1c shows them throughout the Greater Houston area.



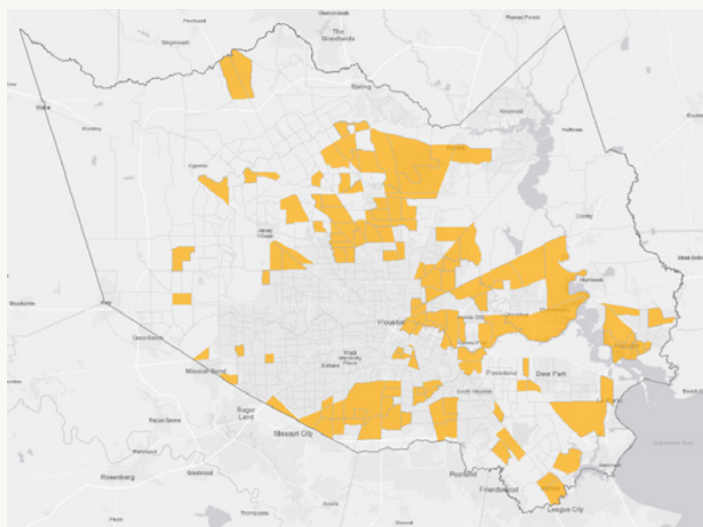
Hope Farms

FIGURE 1a

Food Desert Map of the City of Houston

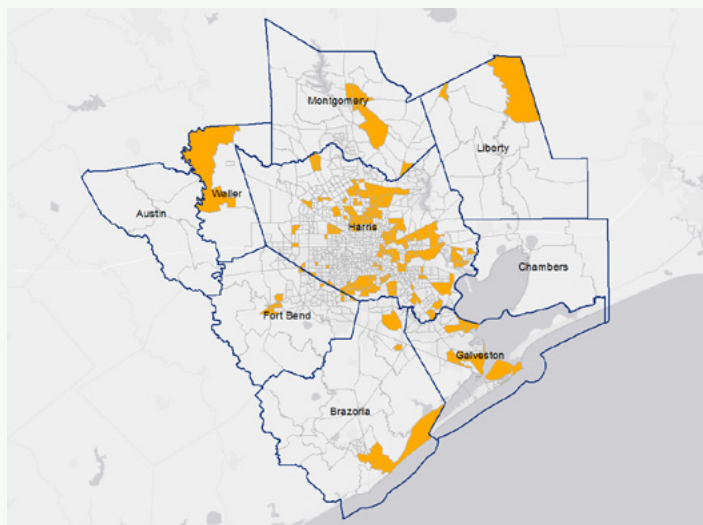
Source: USDA Food Access Research Atlas (2017), Low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.²²

FIGURE 1b

Food Desert Map of Harris County

Source: USDA Food Access Research Atlas (2017), Low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.

FIGURE 1c

Food Desert Map of the Greater Houston Region

Source: USDA Food Access Research Atlas (2017), Low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.

Similar to other large cities, such trends have spurred efforts in Houston to address food insecurity through many initiatives. Over the past several years, collaborations across multiple organizations from different sectors have become increasingly prevalent. These include, but are not limited to the public financing of private sector grocery stores, “healthier corner stores,” nutrition education for

children in public schools and government and foundation-aided efforts to develop community gardens and farmers markets. As such, Houston’s food insecurity and food deserts are a rich context to examine the issues surrounding collaborative activity towards solving complex societal problems. Table 1 lists some of the organizations working on food insecurity in the Greater Houston area.

TABLE

1

List of Organizations with notable work in Houston Food Insecurity Space

Government	Nonprofit Service Providers	For-Profit	Others
Houston Health Department (various programs)	Houston Food Bank (distribution)	Pyburns Farm Fresh Foods (food retail)	Texas Hunger Initiative at Baylor University (advocacy)
City of Pasadena	Brighter Bites (education and distribution)	Large Grocers, e.g., Kroger, H-E-B, Fiesta, Walmart, Target (food retail)	Hunger Free Texans (advocacy)
Harris County Public Health (various programs, e.g., nutrition education, mobile food truck)	Urban Harvest (education, community gardens, farmers markets)	Smaller format grocers, e.g., Joe V’s, Aldi (food retail)	Houston Food Policy Working Group (advocacy)
State of Texas (various programs, e.g., support for farmers markets)	Recipe for Success (education, gardens, urban farm)	Corner/Convenience Stores (food retail)	Texas Southern University Food Desert Mitigation Project (garden)
Federal programs (food assistance, SNAP, WIC)	CAN DO Houston (healthier corner store)	Finca Tres Robles (urban farm)	Texas A&M AgriLife Extension Master Gardeners (garden education)
	Community Family Centers (food pantry)		UnitedHealth Foundation (funding)
	Target Hunger (food pantry)		Episcopal Health Foundation (funding)
	Palm Center Community Garden (community garden)		The Food Trust (research and advocacy)
	East End Farmers Market (neighborhood market)		University of Texas School of Public Health (research)
	Second Servings of Houston (food waste)		University of Houston Downtown, Center for Urban Agriculture & Sustainability (research)
			Clinton Foundation (research)
			Rice University (research)
			American Heart Association (advocacy)
			Memorial Hermann Community Benefit Corporation (funding and advocacy)

Collaborations We Observed

Unsurprisingly, given the size of the food insecurity problem in Houston, we see many collaborations. The collaborations involve many different types of organizations, including nonprofit organizations, businesses, governmental agencies, schools and universities and funders. Most of these collaborations involve narrow relationships that focus on delivering and implementing a single intervention. We also find that some collaborations are broader involving multiple organizations. Overall, we observe four types of such collaborations: dominant player supply chain, neighborhood wrap-around, umbrella food systems services and information collaborators. These collaborations varied considerably in their goals, activities, scope, attention to users, incentives and scale potential that another article more fully describes.³³ Even these broader collaborations are narrow in their scope and impact, addressing only a slice of the problem. Here, we briefly introduce each type of collaboration.

Dominant Player Supply Chain Collaboration

The dominant organization in hunger relief in the Greater Houston area is the Houston Food Bank (HFB). HFB is widely known within and outside of Houston. HFB received the Food Bank of the Year award in 2015. As the largest food bank in America, HFB reaches 800,000 people in 18 counties³⁴ throughout Texas and delivers over \$100 million worth of food. HFB's primary role is to act as a food distributor. It procures food from farmers and vendors such as Sysco as well as the Feeding America program. Then HFB operates as a distribution hub to over 600 organizations, mostly food pantries operated by nonprofit organizations and churches, that serve as "the last mile" in bringing food to those in need.

In addition, HFB leverages its position to collaborate with many other nonprofit organizations, such as Brighter Bites,³⁵ to pursue demand-side initiatives. Brighter Bites



Houston Food Bank

has collaborated with the CATCH Global Foundation to develop nutrition education for elementary-aged children enrolled in low-income schools. Through the program, these children learn about nutritious and delicious dishes using fresh fruits and vegetables, have a "fun food tasting experience" with their parents and take home about 20 pounds of fresh fruits and vegetables per week during the eight weeks, or each semester, of the course. Brighter Bites began in Houston in one school in 2012 and now reaches over 45 schools in Houston, 10 in Austin, 20 in Dallas, as well as new sites in New York City, Washington, D.C. and southwestern Florida.

In Houston, HFB and Brighter Bites are engaged in what we call a dominant player supply chain collaboration. HFB's relationships with many vendors allow it to procure and supply a variety of healthy foods for Brighter Bites' program. HFB's expertise in sourcing and distributing allows Brighter Bites to have consistent access to high quality foods for their students and their families. In dominant player supply chain collaborations, partners share a common agenda and have a self-reinforcing relationship. The downsides are that the scope is narrow and users falling outside the bounds of the collaboration are left unserved.

The Neighborhood Wrap-Around Collaboration

The neighborhood wrap-around collaboration centers on local food pantries. It concentrates on the persons who visit or otherwise access pantries to receive their food. In this model, when a client comes to the pantry for food, the pantry's staff additionally tries to assess whether that person needs other services, such as transportation, housing or health services. The pantry staff dials into these many needs and regularly connects clients to such services.

The neighborhood wrap-around collaboration provides high attention to clients. We know of at least two food pantries, Target Hunger and Community Family Centers, using this model. Each has directors keenly attuned to users' needs and has a trusting relationship with them. Another strength is its broad scope: the users' needs are not limited to their immediate food need but instead extend to their underlying problems leading to such needs. From a user's perspective, such personalized attention increases the probability of successful interventions. The disadvantages of this type of collaboration include a lack of a common agenda across collaborators, failure to self-reinforce (for example, the transportation services organization does not do better or worse if the client accesses pantry services) and a somewhat limited scale, often just the neighborhood served by such organizations.

Umbrella Collaboration

Another effort in Houston's food insecurity space is a multi-organization collaboration such as the Harris County Build Health Partnership (Harris County BUILD

Health Partnership, 2017) that operated from June 2015 until June 2017. Using a \$250,000 grant from the national program, BUILD Health Challenge, the Harris County BUILD Health Partnership worked with sponsoring organizations to improve the entire food system within Pasadena, with particular emphasis on increasing access to quality foods such as fresh produce for lower-income residents. This effort encompassed initiatives for local food production, like supporting a vertical farm and capacity building for future farmers; food distribution, including a healthier foods corner stores initiative and consumption, with a local health center referring food insecure patients to a local food pantry.

We call this type of arrangement an umbrella collaboration. Under the umbrella, the lead organizers, Harris County Public Health, the City of Pasadena, The University of Texas MD Anderson Cancer Center, University of Texas Health and the HFB, identified and recruited organizations to deliver many of these services. Some of the organizations were involved in Healthy Living Matters,³⁶ an earlier and ongoing collaboration to curb childhood obesity. The advantage of the umbrella is that the scope is wide: the entire food system in the community is considered. Because the lead organizers attempted to recruit key service providers, the scale is also large, encompassing Pasadena. However, umbrella organizations are difficult to hold together. Some of the services-providing organizations may not share the collective goals of the leadership. Incentives may be misaligned. For example, a service provider of food prescriptions is not aligned with the local food production or corner stores components. Finally, umbrella organizations may not fully attend to users' needs. Umbrellas tend to be top down, treating users as beneficiaries, instead of bottom up where users have more personal agency.

Information Collaborators

A final class of collaboration in the food insecurity space is in the information—not services delivery—area. Several organizations act to gather and disseminate information to others. Such information assists other organizations to learn about programs, potential sources of funding and support, as well as better ways to access and serve users. These informational collaborators also



Target Hunger

provide information to governmental actors (elected officials and their staffs and agency personnel), the media and the public.

One such organization is the Texas Hunger Initiative, affiliated with Baylor University. The Texas Hunger Initiative conducts research to determine the effectiveness of various anti-hunger programs. It also supports, advocates for and provides resources to various organizations in the food insecurity space.³⁷ We observed Texas Hunger Initiative as brokers of information and best practices to several organizations that lack the internal capacity to analyze certain activities. Texas Hunger Initiative also connects such organizations to other organizations, such as service-delivers to funders and to governmental agencies. As is evident, information collaborators do not provide direct services on their own.

In summary, with the exception of the now-defunct umbrella collaboration in Pasadena (of which certain parts have been absorbed into the existing Pasadena Health Living Matters and Pasadena Vibrant Communities programs), none of these collaborations encompasses the entirety of the social problem. This is not to diminish these collaborations, as within the spheres they define, many of them deliver positive social outcomes. For example, in the vast majority of Brighter Bites' schools, the families report positive outcomes after the intervention.³⁸ In many of the wrap-around services collaborations, users have positive experiences. Still, none of these are as comprehensive as the efforts undertaken in systemic collaborations like that in Finland. There, most organizations were unified and consistently practiced activities that in sum produced impressive social outcomes.³⁹ In contrast, the lack of unity across the collaborations and subsequent gaps in service puzzled us, given the apparent severity of the food insecurity problem in Houston. Thus, we were compelled to dissect the



Finca Tres Robles

Courtesy Robins



Texas Hunger Initiative—Houston

courtesy of Meghan Hoag

two elements of social problem identification: problem ambiguity and user ambiguity, to more readily understand the kind of observed collaborations and where systemic collaborations would stand. Further, we sought to understand the barriers to the emergence of systemic collaboration and identified how institutional barriers and mindsets of organizational competition influence the nature of collaborations in this space.

Emergent Model of Systemic Collaboration

From the data collected, we built a general model about systemic collaboration.⁴⁰ The model features two leading forces that together generate the latent conditions that might both facilitate systemic collaboration and encourage fragmented discrete collaborations. These forces emerge from how organizations and individuals define the social problem and have two parts: problem ambiguity about the social issue and user ambiguity about those involved in the social problem. We describe each of these in turn.

Problem Ambiguity

We found that problem ambiguity about food insecurity leads to significant fragmentation of meaning across organizations. We explain three components of problem ambiguity: definitional ambiguity, scope ambiguity and goal ambiguity.

Definitional ambiguity

We found significant ambiguity as to how respondents define the problem. We observed a range of problem characterizations that extended from outright doubt as to whether Houston, for example, has a food insecurity (or food deserts) problem at all to deep convictions that food insecurity is a grave problem negatively affecting individual and community well-being.

Some skeptics saw food deserts as an artifact of the measures used to define it. As they pointed out, changing the distance criterion (such as to 2 miles; the USDA definitions are 1 mile and 0.5 miles in urban areas) between neighborhoods and grocery stores negates the existence of many food deserts. Others argued that broad changes in family life such as less emphasis on the familial and cultural aspects of home-cooked meals contribute more to poor dietary habits associated with food-related chronic diseases than the lack of grocery stores in a neighborhood.

Among those viewing food insecurity or deserts as a grave social problem, respondents differed as to whether

it was a supply-side issue or a demand-side issue. The USDA's definition of food desert, as shown earlier, frames food deserts as a supply problem related to people living in low-income neighborhoods without reasonable access to supermarkets. Organizations defining food deserts as a supply problem sought to increase the supply of fresh food in the community by supporting initiatives aiming to start more community gardens, form farmers markets, subsidize new grocery stores and re-make convenience stores into healthy venues that sell fresh fruits and vegetables. Other organizations defined food deserts as a demand-related problem—generally, low demand for fruits and vegetables in many low-income neighborhoods provided little incentive for organizations to supply such foods in these markets. Such framing coincided with many of the Houston Food Bank's Food for Change⁴¹ collaborations. For example, the Food for Change program supports demand-oriented programs by offering food scholarships for healthy food to community college students who remain enrolled and food prescriptions for healthy food to community members screened in health clinics as food insecure and at risk for or previously diagnosed with various health maladies. Other demand-oriented initiatives focus upon teaching food, gardening, nutrition and related knowledge to children, such as the programs offered by Brighter Bites and Recipe for Success. As one informant told us, "Our focus is on providing the tools necessary for individuals to make informed choices [when they select foods]," which is necessary to stimulate demand in the community.

Scope Ambiguity

We also found scope ambiguity about food insecurity and food deserts. Scope ambiguity affects the boundaries of the social problem. As boundaries expand, more organizations and stakeholders from different sector agencies gain an interest in the problem; as boundaries narrow, fewer organizations typically exhibit interest in it.

Some respondents viewed food deserts as a symptom of deeper underlying social problems. For instance, some respondents saw the paucity of grocery stores in low-income neighborhoods as evidence of racial discrimination and social injustice. They believed some options, such as grocery stores and farmers markets, available in privileged neighborhoods are systematically denied to less well-off ones. Framing food deserts in terms of racial or social injustice influences the interpretations of certain interventions. For example, some politicians and local community leaders who had pushed for H-E-B to open up a conventional grocery store in a low-income neighborhood were quite hostile to the possibility that H-E-B instead intended to open Joe V's, one of its smaller format stores. They saw it as a slight to the neighborhood (note: the store was not built). Others view the food desert problem as a symptom of the lack of economic development in the neighborhood. Therefore, any new supermarket had to include other elements of economic development, such as the development of other local businesses and local jobs, which could raise local employment and incomes. Other informants saw food deserts as a failure of urban planning, pointing to a lack of walkable neighborhoods and public spaces as well as insufficient public transit as barriers for residents to access supermarkets and other fresh food sources within their neighborhoods. For instance, some of the community development organizations like the Greater East End Management District advocated for better public transportation, repairing or demolishing abandoned houses, fixing sidewalks, putting in street lights, policing and other such aspects as key components of improving the access to healthy foods in the neighborhood.

Goal Ambiguity

Ambiguity also existed as to whether goals should be set at the individual or community level. Thus, while a goal of establishing a grocery store in a food desert may fulfill community-level goals of bringing such food supply into the neighborhood, if the store is not heavily visited by those living in the neighborhood it may fail to affect healthier food consumption at the individual level. For example, in our focus groups with residents of the OST/South Union neighborhood held in February 2017, we discovered that most participants did not know about or shop at Pyburns Farm Fresh Foods, the subsidized grocery store advocated for by the Houston Grocery Access Task Force and brought into the neighborhood in 2015 during Mayor Annise Parker's administration. Instead, many said they preferred other grocery stores.

Goals also differed as to timeframes. Some organizations developed interventions for proximate goals while others pursued distant goals. Proximate goals focused on getting users to do something immediately, such as visiting a farmers market or participating in a gardening education program this week, this month, this semester, etc. Distant goals focused on producing behaviors that might take longer to achieve positive outcomes. Examples include some of the healthier diet initiatives that might minimize the risks of obesity, diabetes and other maladies if followed for a significant amount of time. Food prescriptions, for example, yield a small but sustained positive effect by increasing fruit and vegetable intake, decreasing fat intake and decreasing dietary cholesterol intake per day.⁴² Despite the relatively small effect sizes, these interventions could be quite impactful if practiced over an extended period because they create healthy habits for users. Thus, ambiguity in the timeframe of an intervention could cause organizations to abandon interventions that do not yield immediate results, despite their overall effectiveness.

User Ambiguity

We identify two aspects of users that lead to ambiguity about their association with the social problem. The first is what we call user roles. Interventions varied in terms of assumptions of user roles. Some interventions required users to be active participants while others commanded a more passive role. Likewise, some interventions placed considerable time demands upon users while others did not. The second aspect is what we call user heterogeneity. This concept is about the range of users and diversity of user needs that influence the necessity for different interventions.

Ambiguity about Users' Roles towards the Social Problem: Effort and Time

Some interventions require relatively small changes in user behavior. For example, proponents of new food sources in food desert neighborhoods, such as opening a supermarket, bringing fresh fruits and vegetables into a local corner store, driving a produce truck into the neighborhood or establishing a farmers market, believe that only the unavailability of healthy foods prevents users from eating it. Going beyond mere availability, such interventions may also involve guiding customers through a store towards healthy foods by designing grocery store layouts, color schemes and aisle displays in ways that make healthy food selections perhaps even subconscious, as demonstrated in a convenience store "bodega" project in Los Angeles, California.⁴³ However, improving infrastructure in a food desert (e.g., by inserting a grocery



Brighter Bites



Urban Harvest

store) does not seem to ensure any measurable changes. Although residents perceived food to be more accessible after a new grocery store opened in a Philadelphia food desert, no changes occurred in the residents' intake of fruits and vegetables or body mass index.⁴⁴ In contrast, other interventions require users to undertake significant behavioral efforts. For example, the students participating in the Brighter Bites' intervention study the nutrition curriculum for two eight-week sessions per academic year and parents or guardians are required to be at school for produce delivery. Other food insecurity interventions probe broader causes such as lack of employment or low wage employment that require users to engage intensively in job training, interviewing skills and resume writing programs.

We found that the length of the interaction with the user is another critical component that varies across interventions. Specifically, how much time is the user required to change his or her behaviors that would solve the social problem? Here again, interventions, such as placing more nutritious foods near users perhaps by introducing new grocery stores or farmers markets into the neighborhood assume that users need little time to change their shopping and eating habits if only presented with healthier selections. In contrast, many of the demand-side interventions such as the aforementioned nutrition and food preparation skills curricula and job skills training require the user to have sustained interaction over a longer period to achieve desired outcomes. A recent systematic review found that nutrition education interventions lasting at least five months were more effective at meeting their stated nutritional goals than those lasting less than five months.⁴⁵ For instance, Recipe for Success, a nonprofit organization, developed a year-long curriculum educating elementary and middle school children in public schools on gardening and culinary skills with the hope of inculcating healthier eating habits. However, the extent

to which these semester or year-long

programs could create the behavioral changes necessary for observing changes in community-level health metrics remains an empirical question.

User Heterogeneity

Finally, we found a significant role for user heterogeneity. Our interviews revealed a composite picture of a context where different interventions were targeting different types of users. For instance, Brighter Bites has a relatively focused target: generally targeting low-income households with young children reached through the public school system. Other interventions target local residents with certain conditions beyond their immediate need for healthy food. For example, some of the infrastructure programs such as sidewalks and street lighting focused

upon individuals who might access food sources on foot, such as senior citizens or low-income citizens who may not have access to automobiles. Some of the community gardens and farmers markets focused upon long-term residents, “the neighbors,” to create a sense of community pride. Our two focus groups provided further evidence for user heterogeneity: we found significant differences in automobile access, concerns of homeowners (especially long-time residents) from more-transient renters, age and family structure, among others, affecting views about the neighborhood, food, shopping, cooking and eating. We also discover that users were heterogeneous based on their range of needs. For instance, single parent-families may have multiple needs related to income, time available for shopping and cooking that differ from two-parent households, all of which have consequences for the family’s relationship with healthy food and health. Interventions that account for such heterogeneity are more likely to be successful than those that do not.

Problem Identification Suggests Certain Types of Collaborations

We believe that problem ambiguity and user ambiguity combine to produce pressure toward certain types of collaborations. We suggest that organizations differ on the extent to which they recognize ambiguity and design interventions that address the multiple sources of ambiguity. In addition, organizations vary in their emphasis on problem ambiguity and user ambiguity. For example, some collaborations emphasize the ambiguity of the problem and potential solutions. A great example is Brighter Bites working on improving the diets and nutritional literacy of their children and families. Brighter Bites rec-

ognized that the problem is complex and devoted significant attention to a robust solution. Thus, Brighter Bites teamed with many partners, each with specialized scope and skills. For example, they collaborate with food providers, with schools and school principals to find appropriate sites, with parents to get the volunteers needed to package the food, with the CATCH Global Foundation to create a curriculum that could be taught in public schools and with the University of Texas School of Public Health to design metrics and analyze the data. Brighter Bites’ collection of these partners shows that they recognize successful solutions involve inclusion of many facets of the problem instead of just “plunking down” an intervention without attention to its complexity.

The emphasis on user ambiguity is another point of differentiation across collaborations. Some collaborations recognize the heterogeneous roles and needs of users. Community Family Centers is an example of collaborations emphasizing the variety of users’ roles and needs. For example, besides the immediate need for food, a particular user (perhaps a senior) might have government benefits needs, whereas a non-senior adult may have childcare needs, whereas another young adult may have education needs. Initiatives that intervene in the built environment (e.g., transportation systems) may complement other health-related initiatives, such as adding targeted grocery stores to the neighborhood. The quality of the infrastructure influences the user’s perceptions of active transportation and likelihood that the community will be active.⁴⁶ These sorts of collaborations home in on those variegated roles and needs and try to locate partners that can fulfill such needs.



“Healthy Corner Store” in Pasadena

In creating this “2x2” matrix, depicted in Table 2, we are not suggesting that organizations are incapable of emphasizing both of these aspects. For example, Brighter Bites recognizes that the after-school “touchpoint” does not reach all of its students and thus have begun experimenting with other forms of distribution. However, considering children and their families more homogeneously is what makes the program scalable. Likewise, it is not to suggest that wrap-around services collaborations never consider the complexity of the social problem. However, they most emphasize servicing their heterogeneous users in the areas where they need social services.

courtesy Douglas Schuler

TABLE 2

The relationship between problem ambiguity emphasis and user ambiguity emphasis on collaboration type

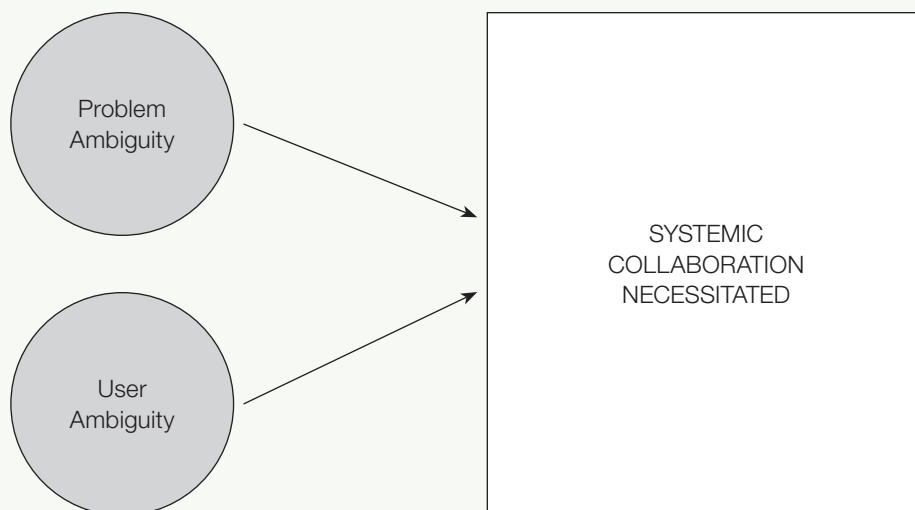
		Problem Ambiguity Emphasis	
		Low	High
User Ambiguity Emphasis	Low	Transactions, e.g., users of SNAP in grocery stores & urban farmers markets	Dominant Supply Chain Collaborations, e.g., HFB & Brighter Bites
	High	Neighborhood wrap-around collaboration; e.g., Community Family Centers & local social services partners	Systemic collaboration

What is missing in our matrix is the “high-high” category that we label systemic collaboration. We did not see any systemic collaborations in the Houston food insecurity space. If it had lasted for more than two years (more below), we may have offered Pasadena’s BUILD Health Alliance as an example in this cell. However, as of August 2018, this alliance is discontinued, although some parts remain. High problem ambiguity and user ambiguity reflect the interdependence between the different facets of the problem and the needs of the users. Addressing the problem successfully requires a systemic approach that addresses these different facets simultaneously. Thus, addressing food insecurity and food deserts may require addressing multiple factors such as economic development, infrastructure, ensuring multiple supply sources of healthy foods while simultaneously providing individuals and families, skill and

knowledge to make healthy food choices. In addition, addressing the problem in such contexts also requires tailoring the multiple interventions to different needs of target demographics. As our Figure 2 shows, initiatives that emphasize high problem ambiguity and high user ambiguity necessitate the need for the formation of systemic collaborations involving multiple organizations and entities. However, high problem ambiguity and high user ambiguity also provide the conditions for organizations to tailor their interventions and collaborations narrowly by discretely defining problems or identifying some users and their needs. Many of the collaborations that we observed in this space seem to represent that reality. The question is why is it so hard to observe collaborations falling into the “high-high” cell. We argue in the next section that significant barriers exist against such systemic collaborations.

FIGURE 2

Factors enabling systemic collaborations



Pressures Against Systemic Collaborations

Our fieldwork also revealed many pressures that hinder the emergence of systemic collaborations. Some of these pressures come from what we call institutional barriers, consisting of funders, public policies and politics. These pressures might be seen as external to each organization. The second set of pressures comes from what we call a mindset of competition. The source for this set is internal and is prevalent in both businesses and nonprofit organizations. We describe each of these pressures in turn.

Institutional Barriers

Funders

Many of our informants mentioned three aspects of funding that hinder systemic collaboration. First, funding typically flows to programs that can be scaled rapidly, because rapid scale means more users are served which drives collective impact.⁴⁷ Scalability also links closely to a focus on metrics that are easily measured. Not surprisingly, this leads organizations to focus on interventions that provide quick metrics on the services delivery side (for example, more meals served each year; more children who participate in a food or gardening curriculum; more pounds of food given). Services are easiest to deliver and scale when users are homogeneous or at least considered to be homogeneous in terms of their roles and characteristics. Thus, it is easiest to gain scale when considering one type of user, say school-aged children, or one type of user role, say his or her “at premises” shopping decision, than to have a range of users. Thus, we see funding prioritizes narrow sets of user roles and characteristics.

Second, funders preferred supporting evidence-based interventions where impacts can be measured. Government funders were the subset of funders most focused on data and results. The focus on evidence-based intervention leads to tightly targeted parameters that provide little flexibility for deviations and experimentation. A good example of this is the Houston Food Bank’s partnership with Brighter Bites and elementary schools where each partner has a specified role and the program is intentionally standardized for children (and their families) meeting the selection criteria. Interventions not meeting such criteria are excluded. The pressure to show evidence also influences organizations to pursue projects where positive outcomes can be attributed to themselves and not to other organizations as in a collaboration. This might lead to a preference for solo projects, or when collaboration is necessary, developing relationships where the parameters of engagement can be clearly defined. Not surpris-

ingly, many such collaborations are operationally-driven where evidence is seemingly straightforward such as how many pounds of food were delivered and received. In our fieldwork, we also see nonprofit organizations attempting to demonstrate “success” based on such evidence rather than more indirect and distant measures that actually track users and the potential benefits to the users arising out of such interventions. For example, the evidence of successful performance of the Healthy Corner Store Network in Pasadena presented by CAN DO Houston is based on the number of stores that stock fresh fruits and vegetables as part of this program.⁴⁸ Whether this program has changed the shopping and eating behaviors on a sustained basis is not specified.

Third, most funding sources offered short-term time horizons such as one or two years to their recipient organizations even for seemingly complex and intractable social problems. While some funding came with possibilities of renewals, short funding cycles create significant uncertainty in the planning of interventions. For instance, the Harris County BUILD Health Partnership, described above, received a grant to create an entire food system for a city in just two years. As one respondent noted, the funding period was long enough only to understand the problem sufficiently, identify metrics and develop a questionnaire for residents’ needs assessment, but not long enough to implement many interventions.

Government Policies

Government policies are another critical factor impeding the emergence of systemic collaboration. Government plays an outsized role in the food desert problem due to its influence across multiple levels (federal, state, city, community), investments in programs and mandates to individuals and institutions. The federal government spent about \$68 billion on SNAP funding and about \$5.6 billion on Women, Infants, and Children (WIC) program in 2017.⁴⁹ A positive example of what we saw is the extension of SNAP benefits into many of the Houston-area farmers markets so that the recipients could use their food benefits in those venues.

However, public policies sometimes worked against systemic collaborations. Some public funding for food desert initiatives came with tight parameters that brooked no deviations. For instance, one informant expressed frustration that the City of Houston declined several million dollars of U.S. Department of Housing and Urban Development grants. The informant lamented that city officials refused to consider projects aimed at building new

sidewalks and making safer street crossings in a food desert neighborhood as food desert related, even though such interventions have been associated with better walkability and use of neighborhood assets such as corner stores.⁵⁰

Organizations were also constrained by public policies that dictated with whom and how they can collaborate. Several organizations work with public schools in implementing some of their interventions. Working in public schools requires tailoring interventions to the school calendar, school day and meeting other criteria for working with school-aged children.

The organizations had to make sure that their curriculum met the Coordinated Approach to Childhood Health (CATCH) educational requirements set by the Texas Education Agency. Changes in district or school policies, curriculum and personnel (for instance, when a supportive school principal moved) all affected the continuity of those interventions.

Regulations also played a role in affecting interventions. One informant recounted how policies about property taxation instituted by the City of Houston's Land Assemblage Redevelopment Authority and the State of Texas affect the feasibility of urban gardens and urban farms.⁵¹ Ironically, when urban gardens and urban farms successfully improve ambience in those neighborhoods, the property values rose such that the property taxes (taxed at higher rates than rural farms) increased to such an extent that it became difficult to continue the project.

Politics

Finally, politics favors interventions with quick, visible and locally identifiable impacts. For elected officials, election cycles and political terms appear to dictate timeframes on many projects. A public official recounted that a staff member was allowed to pursue a food desert intervention project on the condition that it could be completed within the electoral term. Elected officials also preferred visible and identifiable projects. Thus, we have witnessed many public officials participating in groundbreakings of new grocery stores, such as Pyburns Farm Fresh Foods, partially subsidized by the City of Houston, as well as at openings of several urban gardens and farmers markets. In March of 2017, Houston City Council voted to use



Pyburn's Farm Fresh Foods

public funds to entice H-E-B, a large grocer, to develop a property within the city. City Council Member Dwight Boykins, who represents the district with the site of the new store, stated, "The beauty of this is that you will have low-income and high-income people shopping in the same store."⁵² However, other politicians were more reserved, such as Houston Mayor Sylvester Turner, who said, "I'm not going to say that I'm jumping up and down about it. There are several [other] areas that are literally food deserts."⁵³ Such projects offer visible and delineated deliverables for public officials even though many of these interventions may not have widespread community support or demand for the outputs. Electoral cycles also favor collaborations with quick payoffs instead of those where outcomes may not become visible for many years.

Politics also threatens to contaminate many collaborations with unnecessary "local" elements. As politics is local, politicians want interventions in their jurisdictions. Thus, they want a garden, a farmers market, a grocery store, etc., in their jurisdiction, even if there is one "next door" or even if residents regularly travel outside of the immediate neighborhood to access food that they prefer.

Mindset of Competition

A second barrier to systemic collaboration was the competition between organizations for resources, public attention and reputation and legitimacy. What was surprising was that what we call the mindset of competition is not limited to for-profit businesses but extends as well to nonprofit organizations and even (to a lesser extent) to governmental offices.⁵⁴ In this section, we concentrate upon the mindset of competition as practiced by nonprofit organizations.

In resource scarce environments, nonprofit organizations tailor their interventions to attract resource providers.⁵⁵ In addition, because uncertainty underlies resource acquisition, nonprofit organizations seek funding from multiple sources. Due to the programmatic desires of funders, as discussed above, nonprofit organizations must sometimes move away from their core capabilities, locations and strategies to develop programs able to attract new funds.

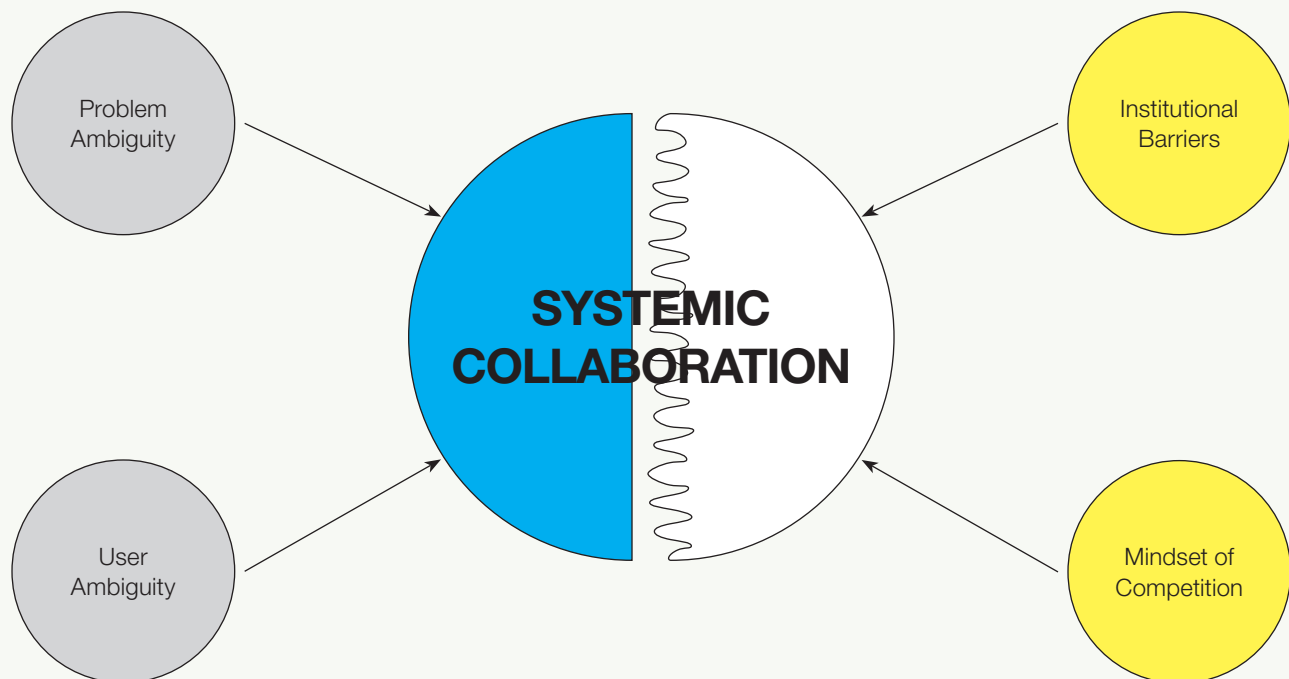
Resource scarcity also affects the nature of interventions since funding one intervention means fewer resources are available for other interventions. There are heated debates as to which organizations should receive public subsidies for locating grocery stores in a food desert neighborhood, with each organization vociferously making its claim. On the one hand, some community members viewed large grocery chains as the only acceptable option because that is where most people shop or at least state that they like to shop. For some individuals, even the smaller formats of the large chains were considered less than ideal. As a former public official noted, “Some of the neighborhoods are afraid of bait and switch; when they hear that you will get a grocery store, they think H-E-B [a major chain] and they end up with something lesser like a Joe V’s.” Others, however, questioned whether providing subsidies to large chains such as Kroger and H-E-B was wise at all. As one

respondent countered, “One challenge with the Food Trust type of subsidy especially to the big guys [large national chains] is that you are giving city money to them to compete against little independents.”

The mindset of competition has implications for how organizations perceive and work with other organizations. While in the for-profit context, some organizations are defined as competitors in product-market terms, in the nonprofit context competitors are often seen as other organizations with whom they compete for grants, loans and volunteers. This ultimately impedes the sharing of knowledge, information, resources and relationships across organizations. We see nonprofits using scale as well as branding on certain aspects of food insecurity in order to gain funding and other external support over rival organizations.

In sum, we believe that institutional barriers and the mindset of competition combine to weaken and even destroy systemic collaboration. Figure 3 illustrates the full model. As shown earlier, we believe that as social problems have higher levels of problem ambiguity and user ambiguity they enable the formation of systemic collaborations. However, institutional barriers and the mindset of competition weaken and even tear apart systemic collaborations as we depicted.

FIGURE 3 Model of Systemic Collaborations



Remedies

This section offers potential remedies, particularly aimed at offsetting the institutional barriers and the mindset of competition that we revealed in the prior section. We base these remedies on the data we collected as well as inferences we make beyond such data. Our remedies relate to funders, governments, a mindset of altruism and backbone organizations.

Funders

As described above, the ways that funders operate often can impede systemic collaborations. Funders tend to prefer investing in services interventions with visible “outcomes” that manifest in the short-run and that are tied to a single organization. Less preferred are investments encouraging collaborations, capacity building, support and infrastructure that can drive longer-term programs that tap into multiple organizations.

Following this logic, we suggest several things for funders. The first is that funders should be willing to invest more in capacity building efforts. Many of the organizations, particularly smaller ones, do not have the resources for scanning, communicating, measuring and reporting outcomes (more on this below). We are pleased to see that capacity building funding is beginning to occur more regularly.

Second, funders need to move against measuring short-term programmatic outputs, such as the number of meals served by a particular pantry during a day or the number of students who participated in a curriculum taught by a particular NPO, and particularly against giving or withholding funding based upon those metrics. That would require moving away from measuring outputs to evaluating outcomes.

In addition, funders need to recognize multiple organizations in the social problem, paying particular attention to some of the supporting or connecting services. This means that funders should require their recipients report activities across multiple dimensions, including how they contribute to other organizations and what they receive from other organizations outside of their own programs. What this suggests is that organizational evaluations shift towards behavioral metrics from simple outcome metrics. All of this necessitates thoughtful and scientifically based models about the outcomes of the intervention within the existing social context.⁵⁶ It also requires funders to think broadly about the inter-connectedness of different interventions. Without being self-serving, this means that funders should support and require research efforts similar to how we conducted this study to accompany any commitment of resources towards any specific intervention.

Governments

On the policy side, we would advocate making policies as flexible as possible to support systemic collaborations. As public policies often raise the costs of doing business, we would encourage governments at all levels to contemplate ways of decreasing their fees and regulations, where reasonable (e.g., public safety should not be sacrificed), such that certain food insecurity goals might be reached. For example, we had informants representing small farmers markets tell us that rules and fees related to getting a farmers market permit, roadside signage and other matters made it exceedingly difficult to run such events sustainably. If combatting food insecurity is a community priority, governments need to set policies to encourage (not discourage) such activities.

Mindset of Altruism and Civic Consciousness

In the private sector, managers of businesses sometimes adopt several approaches to food insecurity that are inspired, in part, by altruism. At the more modest level, business firms might support some of these collaborative efforts through their “social responsibility” or “corporate social responsibility” (CSR) programs. For example, most of the large-scale grocers in Houston such as Kroger, H-E-B and Fiesta, regularly cull their stores’ shelves for nearly expired and otherwise unsaleable foods and make these available on the back dock for pickup by local food pantries. A host of food companies, including Calavo and Buena Foods,⁵⁷ donate fresh produce to Brighter Bites to support its school-based nutritional programming. More ambitiously, private sector retailers might come up with alternative business models to make money in food deserts and otherwise food insecure areas. Some examples include new formats like H-E-B’s Joe V’s stores, which allow it to serve lower-income areas but make the internal margin requirements. Aldi has also entered into some lower-income neighborhoods, as was the case with its store on OST near Scott Street. Fiesta has traditionally served many of these neighborhoods as well. Finally, we have seen attempts at cross-subsidization models. For example, Finca Tres Robles, an urban farm in the Second Ward, sells bundles of fresh vegetables to subscribers at high margins to support donations of bundles to low-income neighbors of the farm.

We argued above that many leaders of non-profit organizations utilize the mindset of competition in running their organizations. This leads many to engage in branding and scale to dominate competition, among other competitive practices. However, we do not see it as apparent that nonprofit organizations need to adopt the competition logic over other mindsets, such as altruism and civic consciousness. If the goal is to address the problem of food insecurity for instance, it should not matter which organization does this or receives credit for it. We encourage nonprofit organizations to share more of their knowledge and to create and adopt user-focused collaborations with other organizations.



Urban Harvest

Douglas Schuler

Backbones

A popular solution to the proliferation of programs across multiple organizations in many social areas is to have one organization as the coordinator. This coordinating organization is called the backbone.⁵⁸ A backbone is a separate organization and staff with a very specific set of skills to serve as the coordinator, not a deliverer of services, for large-scale social initiatives.

In our study, we do not see a backbone organization dedicated to food insecurity in Houston. Some other cities have food insecurity related backbones including Cincinnati, Ohio and Omaha, Nebraska.^{59,60} However, in Houston, backbones exist in other social areas such as Houston Immigration Legal Services Collaborative, Good Reason Houston, Arts Access Collaborative, Harris County Civic Engagement Initiative, One Breath Partnership, Dual Status Youth Initiative and Combined Arms. Given the mindset of competition and institutional barriers, our study suggests that the emergence of systemic collaboration may need a catalytic organization, like a backbone. More significantly, our study implies that such a backbone organization should ideally be a foundation and/or government body, or perhaps an information collaborator, given the significant barriers to systemic collaboration that we described for most nonprofit organizations.

Discussion and Conclusions

From our investigation of the organizations participating in Houston's food insecurity and food deserts space, we conclude that systemic collaboration is not present although many other types of collaborations exist. Furthermore, although we identify forces pushing organizations towards systemic collaborations, we also identify significant barriers to such collaborations emanating from institutional barriers and mindsets of competition. Finally, we identify some countervailing forces aimed at reducing the barriers against systemic collaborations.

We identified four types of collaborations in the Houston food insecurity space. First, we found several dominant player supply chain collaborations. These would include all of the HFB's relationships with vendors as well as pantries, plus several of their Food for Change partners. Second, we observed several neighborhood wrap-around collaborations. Those collaborations focus upon users who frequent a food pantry and require a dedicated director and staff to assess the holistic needs of their clients and to connect them to other social services. Third, we saw one umbrella collaboration, currently defunct, although portions of it continue to operate discretely. The umbrella is closest to a systemic collaboration of all collaborations observed. Finally, we identified a handful of informational collaborators. These organizations collected and disseminated information about users, programs, funders, events, public policies, etc. to many stakeholders. Two informational collaborators also tried to convene periodically many of the services providers. However, none of these collaborations approximated the systemic collaboration seen, for example, in Finland where a variegated set of organizations rallied in unison over an extended period to solve an important social issue in their community.

As such, our qualitative data collection and analyses focused upon the forces in Houston pushing or deterring organizations from working together toward systemic

collaborations. As described above, we identify two forces that propel organizations toward systemic collaboration: problem ambiguity and user ambiguity. Problem ambiguity is the variance around the meaning of the food insecurity problem. Some ambiguity stems from definitional ambiguity. Some organizations view food insecurity as a problem of social injustice (e.g., "haves and have-nots" in our community), while others defined it as nutrition, economic development, culinary skills, lifestyle, etc. Problem ambiguity also is about the scope of the problem. Is it connecting a person with reasonable access to fresh fruits and vegetables, such as making such foods available near to the user (if they were not near previously) or addressing many of the reasons that underlie why that person lacks such reasonable access? For the former scope, organizations may promote solutions such as locating a grocery store in a food desert neighborhood or providing and/or subsidizing transport of that person to a grocery store with such foods. For the latter scope, it might mean providing job training to that person so that they have the skills to raise their income that might allow them to access fresh fruits and vegetables in a number of ways or teaching users about nutrition and cooking that might change the demand patterns of grocery shoppers. Finally, we encountered goal ambiguity. Some organizations focused upon goals for a neighborhood (such as opening a farmers

market in food desert neighborhoods) whereas others focused on individuals (e.g., improved health measures). We propose that as problems assume disparate meanings, wide scope and multiple goals, a wider range of organizations will need to be involved that lay the groundwork towards systemic collaboration.

Conceptions about users also were a force towards systemic collaborations. We identified two dimensions driving user ambiguity—ambiguity about the user role and user heterogeneity - that may push organizations towards systemic collaborations. First, while some interventions require little additional efforts from their users, such as simply selecting a healthier food at the store where they regularly shop, other interventions require that users do many activities like attend classes, prepare foods differently at home, alter lifestyles, etc. Second, some interventions require that users engage for a short amount of time, make a selection of produce at the store at which the user shops at the time in which he or she is shopping, while others require users to invest a long time with the intervention, as is the case for many of the educational and gardening initiatives. Finally, some interventions are targeted at a relatively homogenous set of users, such as elementary-aged students in low-income schools within a certain school district, while others have a wide range of users, like at a pantry that serves low-income seniors, adults with small children, homeless individuals and families, etc. We argue that as the user requirements expand in magnitude and time and as the user heterogeneity increases, organizations have incentives to seek a variety of partners leading toward systemic collaborations.

Less optimistically, we identify two sets of formidable barriers to systemic collaborations. The first, institutional barriers, consists of funders, government policies and politics. Funders act to retard systemic collaborations by preferring to fund direct services offered by a given organization or narrow set of organizations over other investments such as capacity building. Funders also tend to have short funding cycles, as we saw in Pasadena with the two-year cycle to rebuild the entire food system. These combine to limit the amount of inter-organizational activities, especially those aimed at organization, advocacy and capacity building. Public policies also constrained some systemic collaborations. Policies generally have specific purposes with limited flexibility. Yet systemic collaborations sometimes require organizations, including governmental entities, to be flexible in supporting not only the specified program but elements around the program (how can a user access it?). Finally, politics sometimes

gets in the way. Elected officials typically crave vivid and newsworthy projects to show constituents that they are addressing a social problem. Thus, we see that politicians have tended to support new stores, new gardens and new farmers markets in their jurisdictions, regardless of whether such interventions effectively solve the food insecurity problem.

A second institutional barrier is the mindset of competition that permeates many of the organizations operating in food insecurity. As professors in Rice University's Jones Graduate School of Business, we are familiar considering this mindset in regard to for-profit businesses. What we found surprising was how this mindset also dominates many of the nonprofit organizations in this space. Some of the competition mindset arises from resource scarcity. All of the organization types in the food insecurity space need strategies to manage the uncertainty about securing resources. As such, they compete to "own" space within the larger food insecurity problem, a branding strategy per se. While some of this ownership may follow their competence in the area, other ownership may crowd out resources to other organizations that also could effectively serve such constituencies. We also see organizations using scale to push out competitors as well as diversifying into areas where they do not necessarily have any expertise or synergy with their existing organization. Finally, we see organizations pursuing strategies that yield discrete and measurable outcomes that can be claimed by themselves that they will use as evidence of their success. As we saw with funders above, organizations offer such evidence to secure more funds. Thus, a feedback loop between the mindset of competition and funders rewards narrow interventions over broad, systemic collaborations.

There appears to be no easy way out. We suggest four possible remedies related to funders, governments, a mindset of altruism and civic consciousness, and backbones. Sadly, none of these seems imminent in Houston now. However, we have more than 6 million residents living in our community. Hopefully, at least a few might step forward to begin the long process of solving the problem innovatively.

APPENDIX: Methods and Data

Following the standard protocols of qualitative research,⁶¹ we used multiple approaches to collect data: semi-structured interviews aided by archival data analysis, experiential field visits and focus groups of individuals living in one food desert neighborhood. In addition, we used secondary data sources such as surveys, reports and academic studies to identify, clarify, probe and validate information we were getting through our primary sources. Our interviews and visits occurred over the course of 33 months beginning in October 2015 through June 2018.

Semi-Structured Interviews

Our main data collection efforts involved conducting semi-structured interviews of relevant individuals in the food desert space and analyzing third-party archival documents. To ensure that we interviewed the relevant actors, we pursued a multi-pronged strategy. First, we read news articles, reports, web pages, surveys, and other documents about the food insecurity in Houston and elsewhere. For example, The Food Trust's report, *Roadmap for Encouraging Grocery Development for Houston and Texas*,⁶² identified many individuals and organizations operating in the food desert space. These individuals and organizations came from a wide range of sectors including government, non-profit organizations, foundations, private sector businesses and educational institutions. Second, we reached out to a handful of individuals and organizations who appeared to be prominent experts in this area (e.g., Houston Food Bank) in order to solicit their views as well as to validate names on our list. Third, as we conducted our interviews with our informants, as part of our protocol, we solicited names of other individuals and organizations they believed would be important for us to meet. Over time, respondents tended to refer us to organizations and individuals already on our list, validating the robustness of this data collection process. In addition, we used a theoretical sampling method to ensure that we

interviewed respondents outside of these circles, especially those who appeared to hold different viewpoints about food insecurity.⁶³

The vast majority of our respondents held key decision-making positions within their organizations such as founders, presidents, chief officers, directors, elected officials, agency officials and staff and funding heads. In addition, we interviewed respondents who were part of their organization's operations and assessment teams. In all, this process yielded 58 face-to-face interviews with 75 individuals at 39 organizations (for some organizations, we interviewed several people during a meeting; additionally, we had more than one interview with a handful of organizations) and telephone interviews with four individuals at four organizations.

Most interviews were face-to-face, generally with both authors present, about one hour in length (range was about 30 to 90 minutes), open-ended and focused on eliciting information necessary to structure our research efforts.⁶⁴ Our data collection focused primarily on understanding the organization and its activities in the moment by examining "The What?" (What is the issue? What is the role of your organization in this issue?), "The Why?" (Why is your organization doing these programs?) and "The How?" (How does your organization execute these programs?).

Previous interviews informed our data collection process. As we continued our interviews, we reframed research questions for clarity, concision and depth. For instance, we included more collaboration-related questions in our later interviews as collaborations emerged as an important theme from our initial series of interviews. This changing context is consistent with grounded theory tenets, whereby the data led us to emerging research questions and theories rather than seeking data to confirm or reject pre-determined theory-based hypotheses.⁶⁵

Experiential field visits

Our own experiences at many of the sites provided a second source of data. During the study period, we visited several food pantries, the Houston Food Bank, many “conventional” grocery stores (e.g., Fiesta, H-E-B, Kroger, Walmart, etc.), smaller grocery stores, corner stores, general stores (e.g., Dollar General), urban gardens, and farmers markets. We also occasionally attended neighborhood and citywide meetings that dealt at least in part with food insecurity (e.g., food and housing crises in the aftermath of Hurricane Harvey). During all of these events, we primarily sought to look and listen, but when possible also engaged various stakeholders such as clients, customers, employees and citizens.

While largely informal, such visits provided insights about how various stakeholders perceived these programs. For instance, we found that one pantry had adopted a “user focused” approach, broadening its services to include, for example, registering eligible residents for SNAP and arranging for vaccinations, dental services and immigrant-related services. We were also surprised to discover in another pantry that because users were limited to using the pantry services just once a month (and that similar restrictions were the norm at most pantries), they spent considerable effort and ingenuity mapping and scheduling their visits to multiple pantries across the area. The additional strain associated with such ingenuity may limit food insecure individuals’ resources to make healthy choices. Food coping strategies, such as reducing the time and effort required for food (e.g., skipping meals, eating fast food), are often used to manage stress that “spills over” from one’s work and personal life.⁶⁶ As food insecurity is associated with a significant risk of severe psychological distress,⁶⁷ it is of considerable import to have healthy choices readily available in a manner that minimizes the strain for the user. This led us to wonder at the lack of coordination among the pantries that led to our thesis for the need for systemic collaboration.

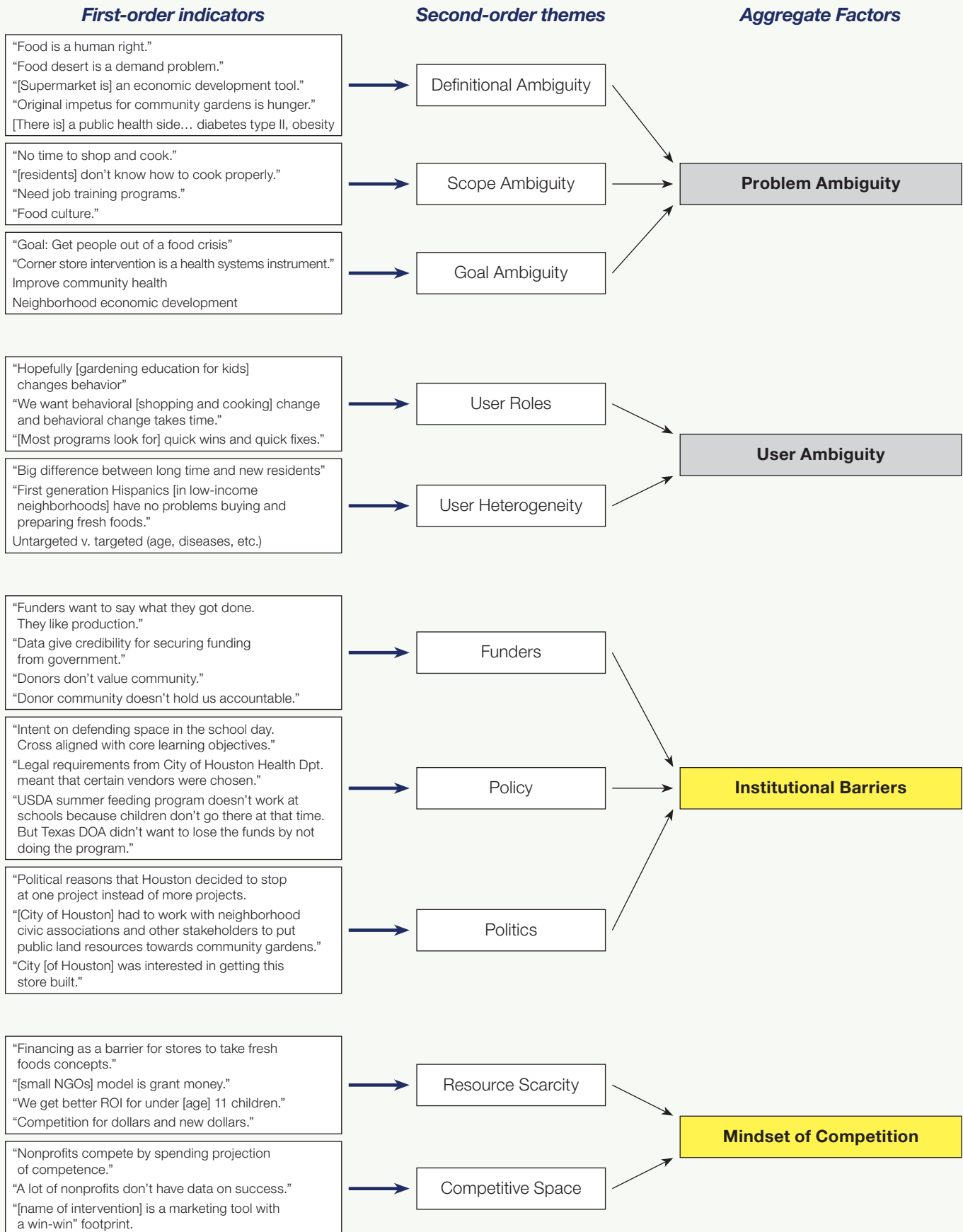
Focus Groups

Through our interviews, we came across a range of perspectives, views and assumptions about users in the communities. This led us to wonder how users really felt about these interventions. We therefore organized two focus groups of individuals living in South Union/OST, one of the low-income neighborhoods with several food insecurity interventions in recent years. Held in February 2017 and led by a professional facilitator, these focus groups of about a dozen persons each yielded important

insights as to users’ perceptions about both the neighborhood and food-specific concerns. For instance, in one focus group, respondents resoundingly expressed that they did not view themselves as living in a food desert, indicating instead that they had easy access to conventional grocery stores that they considered quite close and convenient to reach. In another focus group, participants were largely unaware of or had not shopped at Pyburns Farm Fresh Foods, located in the neighborhood, and arguably one of the highest profile food desert interventions undertaken to date by the City of Houston.

Data Reduction

We began recording and evaluating the information obtained through all of these sources. For example, we both independently reviewed the transcripts of our interviews and other meetings we attended, reports, web pages, transcripts from our focus groups and other materials to begin to develop factors that seemed to be at play. We followed the standard data reduction techniques of qualitative analysis.⁶⁸ From this process, several themes began to appear, such as problem ambiguity (about food insecurity and/or food deserts), user roles, funders, politics and competitive space. From these themes, we began to group them into higher order factors (or “constructs”). Figure 4 shows the Final Coding Structure. It begins with “first-order indicators” of which we show some sample quotes (as indicated) or other facts associated with that theme. We group these indicators into “second-order themes” which are ultimately linked into “aggregate factors.”

FIGURE 4 Final Coding Structure

Acknowledgements

First, and foremost, we wish to thank the countless women and men in and around Houston who devote their lives towards improving the lives of others in our community. We have been both humbled and appreciative that such individuals were willing to share their tales and open their organizations to us during our fieldwork. We also appreciate the excellent research assistance of Ryan Brown, Rachel Buissereth, Charlie Card-Childers, Asiya Kazi, Kristen Nault and Mingming Zhang. We also thank Rice University students taking Social Entrepreneurship (BUSI 464) who analyzed many of these interventions during the spring terms of 2016–2018. We acknowledge the useful feedback of Dian Nostikasari, Jie Wu and seminar participants at the Chinese University of Hong Kong and at the Business & Society Seminar in Mannheim, Germany. Finally, we are grateful for the financial support we received from Rice University's Kinder Institute for Urban Research.

Endnotes

- 1 Harden J.D. 2015, December 15. Interactive: Do you live in one of Houston's many food deserts? *Houston Chronicle*. <https://www.houstonchronicle.com/houston/article/Houston-still-have-long-way-to-go-to-address-food-6689980.php>. Accessed June 13, 2018.
- 2 Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women. According to the National Institutes of Health, overweight is defined as BMI between 25 and 29.9; while obese is defined as BMI is 30 or more.
- 3 Healthy Living Matters. 2011. A Community Action Plan for a Healthier Harris County. *Healthy Living Matters*.
- 4 Ibid.
- 5 Astley, W.G. & Fombrun, C.J., 1983. Collective Strategy: Social Ecology of Organizational Environments. *Academy of Management Review*, 8 (4): 576–587.
Waddock, S.A., Post, J.E. 1995. Catalytic alliances for social problem solving. *Human Relations*, 48 (8): 951–973.
- 6 Puska, P, Nissinen, A, & Tuomilehto, J. 1985. The Community-Based Strategy to Prevent Coronary Heart Disease: Conclusions from the Ten Years of the North Karelia Project. *Annual Review of Public Health*, 6: 147–193.
- 7 Miles, M.B. & Huberman, A.M. 1994. *Qualitative data analysis*. (2d. ed.). Thousand Oaks, CA: Sage.
- 8 Kania, J. and Kramer, M. 2011. Collaboration: collective impact. *Stanford Social Innovation Review*, Winter. Available at: https://ssir.org/articles/entry/collective_impact.
- 9 Gundersen, C., Dewey, A., Crumbaugh, A., Kato, M., & Engelhard, E. *Map the Meal Gap 2017: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2015*. Feeding America, 2017.
- 10 Ibid.
- 11 Shepard, D.S., Setren, E., & Cooper, D. 2011. *Hunger in America: Suffering we all pay for*. Center for American Progress, 1–24.
- 12 Astley, W.G. & Fombrun, C.J., 1983. Collective Strategy: Social Ecology of Organizational Environments. *Academy of Management Review*, 8 (4): 576–587.
Waddock, S.A., Post, J.E. 1995. Catalytic alliances for social problem solving. *Human Relations*, 48 (8): 951–973.
Kania, J. and Kramer, M. 2011. Collaboration: collective impact. *Stanford Social Innovation Review*, Winter. Available at: https://ssir.org/articles/entry/collective_impact.
- 13 Wagner, E. H. 1982. The North Karelia Project: What it tells us about the prevention of cardiovascular disease. *American Journal of Public Health*, 72 (1): 51–53.
- 14 Buettner, D. 2015. The Finnish town that went on a diet. *The Atlantic*. <https://www.theatlantic.com/health/archive/2015/04/finlands-radical-heart-health-transformation/389766/> Accessed September 7, 2017.
Puska, P, Nissinen, A, & Tuomilehto, J. 1985. THE COMMUNITY-BASED STRATEGY TO PREVENT CORONARY HEART DISEASE: Conclusions from the Ten Years of the North Karelia Project. *Annual Review of Public Health*, 6: 147–193.
Puska, P. 2002. Successful prevention of non-communicable diseases: 25 year experiences with North Karelia Project in Finland. *Public Health Medicine*, 4 (1): 5–7.
- 15 Wagner, E. H. 1982. The North Karelia Project: What it tells us about the prevention of cardiovascular disease. *American Journal of Public Health*, 72 (1): 51–53.
- 16 This interchange of food insecurity and food deserts, which we observe in many of the conversations about the challenges in this social space, is a good example of problem ambiguity that we shall later explain.
- 17 <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>
- 18 Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. 2016. *Household Food Security in the United States in 2015*, ERR-215. U.S. Department of Agriculture- Economic Research Service. Available at: <https://www.ers.usda.gov/webdocs/publications/err215/err-215.pdf?v=42636>
Gundersen, C., Dewey, A., Crumbaugh, A., Kato, M., & Engelhard, E. *Map the Meal Gap 2017: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2015*. Feeding America, 2017.
- 19 USDA. 2009. Access to Affordable and Nutritious Food-Measuring and Understanding Food Deserts and Their Consequences: Report to Congress. Retrieved at <https://www.ers.usda.gov/publications/pub-details/?pubid=42729>
- 20 Reel, J.J. & Badger, B.K. 2014 From Food Deserts to Food Swamps: Health Education Strategies to Improve Food Environments in Urban Areas. *Journal of Obesity & Weight Loss Therapy*. doi: 10.4172/2165-7904.S4-002 Accessed June 8, 2018.
Sanae, I., Cohen, D.A., Brown, A.F., & Asch, S.M. 2009. Body Mass Index, Neighborhood Fast Food and Restaurant Concentration, and Car Ownership. *Journal of Urban Health* 86 (5): 683–95.
- 21 Cannuscio, C.C., Weiss, E.E., & Asch, D.A. 2010. The Contribution of Urban Foodways to Health Disparities. *Journal of Urban Health*, 87(3): 381–93.
- 22 Passell, J. & Cohn, D. 2017. 20 Metro Areas Are Home to Six-in-Ten Unauthorized Immigrants in US. Pew Research Center. February 9.

- 23 Milado, N. & Vigneri, S. 2012. The Fittest and Fattest Cities in America. *Men's Journal*. <https://www.mensjournal.com/health-fitness/the-fittest-and-fattest-cities-in-america/>
- 24 Wallethub. 2018. <https://wallethub.com/edu/fattest-cities-in-america/10532/>. Accessed May 27, 2018.
- 25 Healthy Living Matters. 2011. A Community Action Plan for a Healthier Harris County. *Healthy Living Matters*.
- 26 Ibid.
- 27 Ibid.
- 28 "Adults With Health Insurance." <http://www.houstonstateofhealth.com/indicators/index/view?indicatorId=83&localeId=2675>. Accessed August 6, 2018.
- 29 Harden J.D. 2015, December 15. Interactive: Do you live in one of Houston's many food deserts? *Houston Chronicle*. <https://www.houstonchronicle.com/houston/article/Houston-still-have-long-way-to-go-to-address-food-6689980.php>. Accessed June 13, 2018.
- 30 Healthy Living Matters. 2013. Harris County Food System. Harris County Public Health and Environmental Services. http://www.healthylivingmatters.net/userfiles/Servers/Server_59212/file/Final-Food-Assessment-Report-for-Web.pdf. Accessed June 17, 2018.
- 31 Harden J.D. 2015, December 15. Interactive: Do you live in one of Houston's many food deserts? *Houston Chronicle*. <https://www.houstonchronicle.com/houston/article/Houston-still-have-long-way-to-go-to-address-food-6689980.php>. Accessed June 13, 2018.
- 32 USDA. 2017. Food Access Research Atlas. <https://www.ers.usda.gov/data-products/food-access-research-atlas/>
- 33 Schuler, D.A., Koka, B.R., Buissereth, R., & Card-Childers, C. 2017. Collaboration: Beyond the Backbone. *Stanford Social Innovation Review*. Nov. 10, 2017 https://ssir.org/articles/entry/beyond_the_backbone.
- 34 The Houston Food Bank reaches additional people in nearby counties through its partnerships with the Galveston County Food Bank, The Montgomery County Food Bank, and the Brazos Valley Food Bank. <https://www.houstonfoodbank.org/about-us/our-service-area/>
- 35 <https://www.brighterbites.org/>
- 36 <http://www.healthylivingmatters.net/>
- 37 <https://www.baylor.edu/texashunger/index.php?id=946238>
- 38 Sharma, S.V., Markham, C., Helfman, L., Albus, K., Pomeroy, M., & Chuang, R.J. 2015. Feasibility and acceptability of Brighter Bites: A food co-op in schools to increase access, continuity and education of fruits and vegetables among low-income populations. *Journal of Primary Prevention*, 36 (4): 281–286.
- 39 Puska, P. 2002. Successful prevention of non-communicable diseases: 25 year experiences with North Karelia Project in Finland. *Public Health Medicine*, 4 (1): 5–7.
- 40 Following standard protocols of qualitative research, we used multiple approaches to collect data: semi-structured interviews aided by archival data analysis, experiential field visits and focus groups of individuals living in one food desert neighborhood. In addition, we used secondary data sources such as surveys, reports and academic studies to identify, clarify, probe and validate information gathered through our primary sources. Our interviews and visits occurred over the course of 33 months beginning in October 2015 through June 2018. Detailed data collection methods and data reduction are included in the Appendix.
- 41 <http://www.houstonfoodbank.org/programs/ffc/>
- 42 Bhattarai, N., Prevost, A. T., Wright, A. J., Charlton, J., Rudisill, C., & Gulliford, M. C. (2013). Effectiveness of interventions to promote healthy diet in primary care: systematic review and meta-analysis of randomised controlled trials. *BMC Public Health*, 13(1). <https://doi.org/10.1186/1471-2458-13-1203>
- 43 Garth, H., & Powell, M. G. 2017. Rebranding a South Los Angeles Corner Store: The Unique Logic of Retail Brands. *Journal of Business Anthropology*, 6 (2): 576–587.
- 44 Cummins, S., Flint, E., & Matthews, S.A. 2014. New Neighborhood Grocery Store Increased Awareness Of Food Access But Did Not Alter Dietary Habits Or Obesity. *Health Affairs*, 33(2), 283–291. <https://doi.org/10.1377/hlthaff.2013.0512>
- 45 Murimi, M.W., Kanyi, M., Mupfudze, T., Amin, M.R., Mbogori, T., & Aldubayan, K. 2017. Factors Influencing Efficacy of Nutrition Education Interventions: A Systematic Review. *Journal of Nutrition Education and Behavior*, 49(2), 142–165.e1. <https://doi.org/10.1016/j.jneb.2016.09.003>
- 46 Gadais, T., Boulanger, M., Trudeau, F., & Rivard, M.C. (2018). Environments favorable to healthy lifestyles: A systematic review of initiatives in Canada. *Journal of Sport and Health Science*, 7(1), 7–18. <https://doi.org/10.1016/j.jshs.2017.09.005>
- 47 Kania, J. and Kramer, M. 2011. Collaboration: collective impact. *Stanford Social Innovation Review*, Winter. Available at: https://ssir.org/articles/entry/collective_impact.
- 48 Harris County BUILD Health Partnership. 2017 Improving Health Through a Sustainable Food System: North Pasadena, Texas. Evaluation Report: Executive Summary.
- 49 USDA. 2018. Supplemental Nutrition Assistance Program (SNAP). <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>. Accessed June 14, 2018.
- 50 Healthy Living Matters. 2018. <http://www.healthylivingmatters.net/> Accessed June 14, 2018.
- 51 Texas Comptroller of Public Accounts. 2016. *Property tax basics: Texas Property Tax*. Publication 96-1425. Austin, Texas.
- 52 Houston Business Journal. 2017. <https://www.bizjournals.com/houston/news/2017/03/08/houstoncity-council-approves-deal-to-bring-an-h-e.html>. Accessed June 13, 2018.
- 53 Houston Chronicle. 2017. City to lend H-E-B \$13.9M to build store near Museum District. On-line: <http://www.houstonchronicle.com/news/politics/houston/article/City-to-lend-HEB-13-9M-to-build-store-near-10984828.php>. Accessed October 3, 2017.
- 54 La Piana D. 2005. *Play to win: The nonprofit guide to competitive strategy*. San Francisco, CA: Jossey-Bass.
- Moore, M.H. 2000. Managing for value: Organizational strategy in for-profit, nonprofit, and governmental organizations. *Nonprofit and Voluntary Sector Quarterly*, 29 (suppl. 1): 183–208.
- Pallotta, D. 2008. *Uncharitable: How restraints on nonprofits undermine their potential*. Lebanon, NH: Tufts University Press.
- 55 Pfeffer, J. & Salancik, G.R. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- 56 Rogers, E. 1995. *Diffusion of Innovations*. (5th ed.). New York: The Free Press.
- 57 <https://www.brighterbites.org/partners/>
- 58 Kania, J. and Kramer, M. 2011. Collaboration: collective impact. *Stanford Social Innovation Review*, Winter. Available at: https://ssir.org/articles/entry/collective_impact.
- 59 Soapbox Cincinnati. 2016. Going Green: Collective Impact connects at-risk residents to cleaner air and healthier food. <http://www.soapboxmedia.com/features/081616-GCF-special-report-green-umbrella-collective-impact-3.aspx>. Accessed June 14, 2018.
- 60 The Reader (Omaha). 2013. Organization seeks to turn food desert into oasis. https://thereader.com/news/organization_seeks_to_turn_food_desert_into_oasis/. Accessed June 13, 2018.
- 61 Miles, M.B. & Huberman, A.M. 1994. *Qualitative data analysis*. (2d. ed.). Thousand Oaks, CA: Sage.

- 62 Manon, M. & Koprak, J. (2012). *Roadmap for Encouraging Grocery Development in Houston and Texas: A Report of the Houston Grocery Access Task Force*. Philadelphia, PA: The Food Trust.
- 63 O'Reilly, K., Paper, D., & Marx, S. 2012. Demystifying Grounded Theory for Business Research *Organizational Research Methods*, 15(2): 247–262.
- 64 Ibid.
- 65 O'Reilly, K., Paper, D., & Marx, S. 2012. Demystifying Grounded Theory for Business Research *Organizational Research Methods*, 15(2): 247–262.
Gioia, D.A., Corley, K.G., & Hamilton, A.L. 2013. Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1): 15–31.
- 66 Devine, C.M., Jastran, M., Jabs, J., Wethington, E., Farell, T.J., & Bisogni, C.A. 2006.
“A lot of sacrifices.” Work-family spillover and the food choice coping strategies of low wage employed parents. *Soc Sci Med*. 63 (1): 2591–2603.
- 67 Becerra B.J., Sis-Medina R.C., Reyes A., & Becerra M.B. 2015. Association between Food Insecurity and Serious Psychological Distress Among Hispanic Adults Living in Poverty. *Preventing Chronic Disease*;12:150334. DOI: <http://dx.doi.org/10.5888/pcd12.150334>.
- 68 Delmestri, G., & R. Greenwood. 2016. How Cinderella became a queen: Theorizing Radical Status Change. *Administrative Science Quarterly*, 61(4) 507–550.
Miles, M.B. & Huberman, A.M. 1994. *Qualitative data analysis*. (2d. ed.). Thousand Oaks, CA: Sage.

The Kinder Institute thanks the following contributors for their transformational support of our mission to *build better cities and improve people's lives*.

KINDER FOUNDATION

HOUSTON
ENDOWMENT



Laura and Tom Bacon *



Reinnette and
Stan Marek *



Hines



Kathryn and Hank
Coleman *

Sarah and
Doug Foshee

Sis and
Hasty Johnson

Becky and
Ralph O'Connor *

BRACEWELL



Laura and John Arnold

Patti and Richard Everett

Melissa and Steve Kean

Franci Neely

Regina Rogers

Phoebe and Bobby Tudor

Additional support comes from the **Friends of Kinder Institute, Kinder Institute Corporate Council**
and **Kinder Institute Supporting Foundations and Funds**.

* Denotes multi-year commitments to the Kinder Institute.

‡ Includes gifts made through family foundations, donor-advised funds, or other organizations.

Current as of December 31, 2018

Mission

The Kinder Institute for Urban Research builds better cities and improves people's lives by bringing together data, research, engagement and action.



RICE | KINDER
INSTITUTE FOR URBAN RESEARCH