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Ending Injustices That Cause Hunger and Environmental Destruction

Development Report No 19

**Food System Meta-Analysis
for the San Francisco Bay Area**

By Heather Wooten, MCP and Amy Parente of
Public Health Law & Policy
in collaboration with Food First

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The *Bay Area Food System Meta-Analysis* builds on and substantially benefits from work undertaken by the HOPE Collaborative, an Oakland-based initiative focused on systems and environmental change to improve health and quality of life by transforming the food and fitness environments in Oakland neighborhoods suffering the most from health disparities. In 2008 the HOPE Collaborative, in partnership with PHLP and Food First, carried out a similar meta-analysis of food system and community food assessments that had been conducted in Oakland, California. Portions of this report appeared in that document.

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Executive Summary

Over the past decade, more than 50 studies have examined food system and community food issues throughout the Bay Area. While all of the studies have an obvious element in common—food—each addresses different “sectors” of the food system, including food production, processing and distribution, consumption, and waste recovery. The design and intent of each study varies widely, making cross-comparisons difficult. Public Health Law & Policy (PHLP), in collaboration with Food First, developed this Bay Area Food System Meta-Analysis to provide an overview of the work that has been done and draw some meaningful conclusions to inform future research and action on food system issues.

We reviewed 38 studies, ranging from resident surveys and statistical summaries to full food system assessments. We also interviewed key informants involved in Bay Area food system work to get a clearer sense of how research has affected on-the-ground action and policy change. A number of major findings emerged:

- **Few studies to date have used a “food system” framework** to approach food security, food retail, or other community food issues. The absence of this framework signifies a historic lack of understanding or emphasis on how problems in one sector of the food system (such as a lack of grocery stores in low-income neighborhoods) are connected to broader systemic patterns and trends.
- **The vast majority of Bay Area studies have focused on only two counties.** While communities throughout the Bay Area clearly experience many of the same dynamics when it comes to the food system, the knowledge and practical experience some counties have developed is not necessarily accessible regionally. A regional constituency for food system policy change could bring more political capital and focus to these issues and highlight where resources could be shared or leveraged.
- **The most commonly addressed sector of the food system was consumption,** with a focus on food security, food access, and public health. Nearly every study analyzed here addressed consumption in some way. This indicates a primary emphasis on food access, often at the expense of considering larger questions of food system organization and policy.
- **Community participation in the policy-making and program planning process, especially youth involvement, is tremendously important.** The role of schools, planning departments, and other groups that engage residents in planning, education, and program development is critical in creating opportunities for residents to work toward change across the food system.
- **Surprisingly few studies included policy recommendations to address their findings and observations.** While programmatic and other recommendations are likely useful for organizations engaged in this work, without explicit policy recommendations, the information generated through food system assessments is unlikely to redirect public and private resources or otherwise inform environmental or policy change.
- **The Bay Area needs a strong regional constituency to improve collaboration and follow up on recommendations, and to establish political will at the local, regional, state level to address the needs of our food system.** Whether formal or informal, regional dialogue among existing food system advocates and researchers (as well as new partners) could help target future research to identified gaps, improve the effectiveness of research at creating policy change, and foster regional innovation.

We have compiled these findings to foster a clearer understanding of existing food system assessments, and to identify where and how they have been used effectively to create community change. We hope this report serves to further the work of the many advocates and stakeholders whose efforts we have analyzed here.

I. Introduction

The Bay Area has an active community of stakeholders interested in food issues ranging from food security and hunger, to sustainable agriculture, to grocery store access. These stakeholders and interests are encompassed in the concept of a “food system,” each framed as a component of the social, environmental, and economic lifecycle that follows food from the farm to the table and back again (via composting and recycling). A food system includes five major categories of activities: production, processing, distribution, consumption, and recycling/waste recovery.¹

One way community-based organizations and public agencies have sought to understand their food system, benchmark or catalogue the activities and actors participating in it, and achieve program or policy change is to use a “community food assessment” or a “food system assessment.” Over the last 15 years, academics, community groups, think tanks, and government agencies across the United States have carried out dozens upon dozens of food-related assessments;² in the Bay Area alone, we found more than 50 studies that addressed food and the food system in some way between 1991 and 2008.

Against the complex landscape of research questions, actors, and outcomes these studies represent, we conducted this meta-analysis to provide an overview and some insights about the role food assessments have played in this region.

The impetus for this work was an informal convening of food system activists and researchers hosted by Food First in 2006.³ The goal of this convening was to identify outstanding questions regarding food system assessments, and the set that emerged formed the basis for the Bay Area Meta-Analysis, including:

- Who conducts food system assessments, and why?
- How have communities been engaged in these assessments, and what are their capacity-building benefits?
- Where are there information gaps (by geography or issue, for example), and what assessment techniques have been used?
- Have food system assessments influenced the private sector? (In particular, have they made a “triple bottom line” case to businesses?)
- What impact have food system assessments had on program, policy, and community change?
- How have food system assessments contributed to progress toward overarching community goals?

In short, these questions suggested the need for an inventory and evaluation of food system assessments in order to advance the field and to see whether a case could be made for more regional coordination and collaboration. In some cases, assessments have led to food policy councils and/or strengthened relationships among stakeholders, particularly local community organizations. Some assessments have helped launch specific projects like community supported agriculture (CSA) programs, farmers’ markets, and community gardens.⁴ And in other cases, not much has happened—generally for lack of funding, lack of strategy, lack of interest or support, or a combination of these and other factors.

What can we learn from the Bay Area’s substantial crop of food system assessments? What have they accomplished, and what might new assessments achieve going forward? Public Health Law & Policy (PHLP), in collaboration with Food First, developed this Bay Area Food System Meta-Analysis to inform food system work by providing meaningful information about what we already know about the food system in the Bay Area, making clear

¹ See Section II, “Definition of the Food System and Its Sectors” for a detailed description of the food system and its component sectors.

² See *CFAs in CA* and *CFAs Outside of CA* at the Community Food Security Coalition’s *Community Food Assessment Program*. Available at: http://foodsecurity.org/cfa_home.html.

³ Convening attendees: Besty Edwards (Alameda County Community Food Bank); Ron Strolch and Cathy Wirth (California Institute for Rural Studies); Leslie Mikkelson (Prevention Institute); John Bilaroski (Western Institute for Social Research); Brahm Ahmadi and Vanya Goldberg (Peoples Grocery); Jessica Bell; Gerardo Marin (Farm Fresh Choice); Navina Khanna (University of California Cooperative Extension, Alameda County); Christy Getz (University of California, Berkeley Cooperative Extension Specialist in the Division of Society and Environment) Willow Rosenthal (City Slicker Farms); Kate Casale (Alameda Point Collaborative/Growing Youth Project); Paula Jones (SF Food Systems); Garrett Barnicoat and Eric Holt-Giménez (Food First).

⁴ Several case studies have been published on specific community food assessments and their outcomes. See Community Food Security Coalition. *What’s Cooking in Your Food System? A Guide to Community Food Assessment*. 2002. Available at: <http://foodsecurity.org/pubs.html#cooking>; and see also World Hunger Year. *Community Food Assessment Program Profiles / Case Studies*. Available at: www.worldhungeryear.org/fsic/faqs/ria_083.asp?section=7&click=3#5.

what issues or areas we know little about, identifying where studies provide common recommendations for further action, describing the impact these assessments have had on communities in terms of developing capacity, programs, and policy, and identifying capacities and potential synergies between communities carrying out FSA's for Bay Area-wide analysis, policies, programs and activities.

II. Definition of the Food System and Its Sectors

Food system assessment methodology has developed a framework over the past decade that defines the food system as including the following sectors or components:⁵

- **Production**
- **Processing**
- **Distribution**
- **Consumption**
- **Waste/Resource Recovery**

These broad sectors describe groups of specific activities, indicators, and areas of analysis. Consumption, for example, typically includes both *food retail* (the availability and distribution of food within the community) and *food security* (the ability of individuals and families to access safe, nutritious, affordable, and culturally appropriate food). The following table briefly explains these components and describes some activities that fall within each.

Table 1. Food System Components⁶	
PRODUCTION	<p>Cultivation of edible plants and raising of domesticated animals</p> <ul style="list-style-type: none"> - “Urban” production includes community or school gardens, rooftop gardens, urban greenhouses, edible landscaping, and backyard gardening - Rural agricultural production (the “regional foodshed”) is also part of the local food production system
PROCESSING	<p>All processes of value-adding; transforming food into food products</p> <p>Facilities responsible for processing include bakeries, commercial kitchens, and food packaging firms</p>
DISTRIBUTION	<p>Transporting, storing, and marketing food products to consumers</p> <ul style="list-style-type: none"> - Includes facilities such as wholesalers, brokers, food warehouses, logistics, and direct marketing/distribution channels (e.g., community-supported agriculture and farmers’ markets)
CONSUMPTION	<p>All activities and processes by which an individual, society and culture acquires (e.g. purchases, manages, ingests, digests) and utilizes (e.g. cooks, ritualizes, presents) food that has been produced and distributed</p> <ul style="list-style-type: none"> - Consumption sites include grocery stores, farmers’ markets, restaurants, schools, hospitals, home kitchens
WASTE/RESOURCE RECOVERY	<p>The series of activities where discarded food materials are collected, sorted, processed, and converted into other materials and used in the production of new products</p> <ul style="list-style-type: none"> - Examples include backyard composting, large-scale composting, edible food waste recovery, recycling, landfilling

⁵ Not all food system researchers or activists use these exact categories for food system activities. However, most taxonomies are very similar to this one.

⁶ “Introduction.” In *Oakland Food System Assessment*. July 15, 2008, p. 14. Available at: http://oaklandfoodsystem.pbwiki.com/f/OFSA_Introduction.pdf. (Modification)

What is a “Food System Assessment”?

While there is largely consensus on what the food system is and how to describe it, there is less agreement on how to study or assess it—especially when moving from the relatively academic format of describing best practices to the actual on-the-ground implementation. The first significant work in promoting and compiling “community food system” assessments emerged out of the Community Food Security Coalition’s (CFSC) *Community Food Assessment Program*,⁷ which was originally funded by the California Nutrition Network in 2001.^{8,9} Community food assessments were presented as a way to engage diverse stakeholders “in working together to research their local food system, publicize their findings, and implement changes based on their findings.”¹⁰

The CFSC described a community food assessment as:

A powerful way to tell the story of what’s happening with food in a community... [and] a participatory and collaborative process that examines a broad range of food-related issues and assets in order to inform actions to improve the community’s food system.... Through such assessments, a diverse group of stakeholders work together to research their local food system, to publicize their findings, and to implement or advocate for changes based on those findings.¹¹

In promoting methodology and best practices, CFSC advocated for a community-based and community-driven process, which allowed local needs and contexts to drive what issues were examined, what kind of data (both primary and secondary) was collected and analyzed, and how results should be framed and presented.

The CFSC has stated that a community food assessment is a very flexible tool, and each one is unique.¹² Throughout our process of analyzing the 40-plus assessments compiled for this meta-analysis, this certainly rang true. Despite the fact that each study shared a focus on food, the food system sector(s) addressed, data collected or used, geographic scope, stakeholders involved, and assessment goals varied widely (see the Section III. “Methodology” for a detailed description of the assessment analysis).

This diversity highlights a distinction that is seldom made in the literature describing assessments or assessments themselves: the difference between a (community) *food system* assessment and a community *food* assessment. A “complete” food system assessment methodology would address all or most of the above-mentioned food system sectors, and, perhaps more important, would analyze the *relationship between* and *synergies among* sectors. Many studies that fall into a “community food assessment” or “food security assessment” framework focus on one or two sectors (usually within consumption/retail). Other studies may address only one component of the food system, such as urban food production or participation in backyard composting programs.

Given this criteria, only a small handful (about four) of the total number of studies identified here would qualify as “food system assessments.”¹³ However, for the purposes of this meta-analysis, a much broader net was cast than that dictated by this definition of food system assessments. A meta-analysis of Bay Area food system-related studies would be greatly deficient if only the four “food system assessments” were analyzed—much significant work has been done that falls outside of this definition. Instead, we included studies that focused on one or more sectors of the food system and categorized assessments based on study design/intent and content (*see* Section IV, *Overview of the Studies Analyzed*, for more information).

⁷ Available at: http://foodsecurity.org/cfa_home.html.

⁸ Because of the funding requirements of the California Nutrition Network, most of the focus of this project was originally in California, and specifically on food security and food access issues in low-income (food stamp-eligible) communities. In fact, in 2004, only three years after the initiative’s launch, about half of the approximately 40 community food assessments completed in the U.S. at the time were in California. For more information, *see* “Community Food Assessment: A Tool to Develop Better Food Systems.” *CFSC Spring 2004 Newsletter*. Available at: <http://foodsecurity.org/CFSCSpring2004.pdf>.

⁹ In 2002, the USDA published the “Community Food Security Assessment Toolkit,” another influential resource that provided “standardized measurement tools” for assessing food access and food security at the community level. Available at: www.ers.usda.gov/Publications/EFAN02013/.

¹⁰ Community Food Assessment Homepage. Available at: http://foodsecurity.org/cfa_home.html.

¹¹ Siedenburg K and Bournhonesque R. “Community Food Assessment: A Tool to Develop Better Food Systems.” *CFSC Spring 2004 Newsletter*. Available at: <http://foodsecurity.org/CFSCSpring2004.pdf>.

¹² *Id.*

¹³ For a categorization of the assessments by type, *see* p. 11.

III. Methodology

To conduct this meta-analysis, PHLP sought studies conducted in the Bay Area that focused on one or more sectors of the food system. We prioritized studies that were completed in the last five years, were accessible to us,¹⁴ and/or included the most recent information for a particular geography or food system issue.

We identified a total of 38 studies that fit these criteria. Only a few additional studies were identified that did not match the prioritized criteria. For a complete bibliography of all studies identified, including those not included in this meta-analysis see *Appendix A*. In general, the latter were either completely unavailable¹⁵ and/or older (conducted before 2002); none had a “food systems” focus.

PHLP analyzed each study to summarize research methods, findings, conclusions, and recommendations. Once each analysis was completed, broader trends and conclusions regarding commonalities and gaps in i) food system sectors addressed, ii) geographic scope, and iii) common themes and recommendations or conclusions were identified.

In addition to analyzing studies related to the food system, PHLP staff conducted interviews with a variety of key informants involved in food system work in the Bay Area. For a complete list of individuals interviewed for this meta-analysis and the interview protocol, see *Appendix B*.

Bay Area Meta-Analysis Study Area

This Meta-Analysis uses the Association of Bay Area Government’s definition of the “Bay Area,” which consists of nine counties:

- Alameda County
- Contra Costa County
- Marin County
- Napa County
- San Francisco County
- San Mateo County
- Santa Clara County
- Solano County
- Sonoma County

¹⁴ We generally chose to use whether a document was available online as a baseline measure of its accessibility.

¹⁵ Efforts were made to directly contact study authors or organizations responsible for producing studies when they were not accessible online.

IV. Overview of the Studies Analyzed

Categorizing Assessments by Type

To see how the assessments we analyzed compared in terms of intent, design, and conclusions or recommendations, we developed a rough typology, shown in Table 2. Many of the assessments had a relatively narrow scope and intent; their findings reflect this. Many had no recommendations; this is likely more a reflection of the studies' intent (perhaps only to provide data or information) than an inherent deficit in the study itself. With that caveat, studies that analyzed a food-related issue and offer concrete policy-related conclusions or recommendations were rare.

As we seek to build upon past work here in the Bay Area, the shortage of findings intended to inform and shift policy is one gap (in addition to content and geographic scope) that could be filled, either in the design of future research and assessment or in repackaging and presenting findings from existing studies.

Assessment Type	Intent / Design	Conclusions / Recommendations	Number	Percent
Literature Review / Case Study	<ul style="list-style-type: none"> ▪ Follows an academic format, reviewing a body of literature relating to a specific issue ▪ Presents case studies of organizations involved in this issue. 	Focused on theory of change and observed application	3	8%
Fact Sheet / Summary of Statistics	<ul style="list-style-type: none"> ▪ Briefly summarizes primary data sources (such as census or other survey information) for a specific issue and geographic area in order to highlight an issue 	General; focused on using the document as an educational tool	12	32%
Food System Assessment	<ul style="list-style-type: none"> ▪ Follows the methodology outlined in Section II, "Definition of "Food Systems" and description of each component ▪ Addresses at least four sectors of the food system 	Generally policy-focused, although specificity and policy target varies	5	13%
Program Evaluation / Survey	<ul style="list-style-type: none"> ▪ Designed to measure impact of a specific program ▪ Usually involving a description of the program and a survey of participants 	Focused on improving the effectiveness of the program; may or may not include broader policy recommendations	8	21%
Resident / Participant Survey	<ul style="list-style-type: none"> ▪ Designed to gather input from community residents about a food-related issue ▪ May or may not focus on participants in a specific program or activity 	Generally both practice- and policy-focused	6	16%
Planning Study	<ul style="list-style-type: none"> ▪ Seeks to analyze need, context and influencing factors for a proposed project or program 	Narrowly focused on recommendations that can improve the success or viability of a proposed project or program	4	11%
Total Studies			38	100%

Geographic Focus of Assessments: Overlap and Gaps

The number of assessments completed in each Bay Area county varies significantly, as shown in Table 3 below. Alameda County and San Francisco County have had the most, with 16 and 9 studies respectively. Perhaps some of this variation can be attributed to basic need; many of the communities most underserved and adversely impacted by our current food system in the Bay Area are in these two counties. However, this does not completely explain the discrepancy, as there are certainly communities in other counties that suffer from a lack of access to healthy foods and other consequences of an unjust, unsustainable food system.

Additional gaps can likely be attributed to an uneven distribution of organizations and individuals who focus on food security, food systems, and community food access throughout the Bay Area. However, communities throughout the region clearly experience many of the same dynamics when it comes to the food system, both positive and negative—including a very high cost of living and, even with the recent downturn in the housing market, a serious housing affordability problem. There are shared barriers in access to healthy foods, including land use, economic development, and transportation policies that in general fail to serve low-income communities. At the same time, the existing food system infrastructure, including produce wholesalers and distributors, as well as the enormous productive capacity of the regional foodshed, are obviously shared regionally.

Table 3. Assessments by Geography/Location		
	Total Across County	Total by Jurisdiction
Alameda County	16	7
<ul style="list-style-type: none"> ▪ <i>Abating Hunger Among the Elderly</i> ▪ <i>Alameda County Foodshed Report</i> ▪ <i>Alameda County Nutrition Profile</i> ▪ <i>Free Summer Lunch for Kids and Teens</i> ▪ <i>Alameda County: A Profile of Hunger, Poverty, & Food Assistance</i> ▪ <i>Finding the Gaps in Child Nutrition: A Report on the Summer Food Service Summer Program in Alameda County</i> ▪ <i>Identifying The Logistical, Economic, Social, And Regulatory Barriers And Opportunities To Bring Sustainably Produced Food Into Alameda County's Food Marketplace</i> 		
City of Alameda		1
<ul style="list-style-type: none"> ▪ <i>Community Food Assessment of the Alameda Point Collaborative</i> 		
City of Berkeley		2
<ul style="list-style-type: none"> ▪ <i>A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach</i> ▪ <i>Food Waste Recovery: A Model for Local Government Recycling and Waste Reduction</i> 		
City of Oakland		2
<ul style="list-style-type: none"> ▪ <i>A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan</i> ▪ <i>Hunger Prevents Healthy Eating Amongst Seniors</i> 		
West Oakland		4
<ul style="list-style-type: none"> ▪ <i>A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach</i> ▪ <i>City Slickers 2006 Annual Report</i> ▪ <i>Food Justice and Community: Motivations and Obstacles to the Attainment of Food Security</i> ▪ <i>West Oakland FRESH Study</i> 		
East Oakland		1
<ul style="list-style-type: none"> ▪ <i>Needs Assessment: Access to Nutritious Food in East Oakland and South Hayward</i> 		
City of Hayward		1

South Hayward		
▪ Needs Assessment: Access to Nutritious Food in East Oakland and South Hayward		
Contra Costa County	2	2
▪ Food Mapping Project: Thrifty Food Plan Market Basket Survey		
▪ Contra Costa County Nutrition Profile		
Marin County	1	1
▪ Marin County Nutrition Profile		
Napa County	3	3
▪ Identifying Priority Health Needs: Napa County Community Health Needs Assessment		
▪ Napa County Community Health Needs Assessment		
▪ Napa County Nutrition Profile		
San Francisco City/County	9	6
▪ Food Deserts, Oases, Or Mirages?: Small Markets And Community Food Security In The San Francisco Bay Area		
▪ Food Waste Recovery: A Model for Local Government Recycling and Waste Reduction		
▪ San Francisco 2005 Collaborative Food Assessment		
▪ San Francisco County Nutrition Profile		
▪ San Francisco Foodshed Assessment: Think Globally- Eat Locally		
▪ The San Francisco Farm-To-School Report: Results From The 2003 Feasibility Study		
Bay View/Hunters Point		3
▪ A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach		
▪ Addressing Food Security Through Public Policy Action In A Community-Based Participatory Research Partnership		
▪ Youth Envision: Bayview Hunters Point Food Study		
Santa Clara County	1	1
▪ Santa Clara County Nutrition Profile		
Solano County	2	2
▪ Children and Weight: Taking Action In Solano County. A Strategic Plan To Improve Our Children's Health		
▪ Solano County Nutrition Profile		
Sonoma County	2	2
▪ Maternal, Child, And Adolescent Health Five-Year Needs Assessment For 2005-2009		
▪ Sonoma County Nutrition Profile		
Santa Cruz County	1	0
City of Santa Cruz		1
▪ Food Waste Recovery: A Model for Local Government Recycling and Waste Reduction		
Total Assessments Reviewed	38	

In many ways, given the number of completed assessments and organizational capacity, Alameda and San Francisco are the leaders in terms of knowledge and practical experience about food systems. However, this capacity is not necessarily accessible regionally; there is no obvious mechanism for “technology transfer,” shared policy platforms, or even a regional research agenda to identify gaps and promote best practices. One hope is that this meta-analysis might begin a conversation among Bay Area food system stakeholders about how this sort of platform might be developed, either formally or informally.

In several studies, the geographic focus of the report corresponded to the governmental jurisdiction in which the studies’ authors sought to achieve policy change. Advocates seeking to develop a regional policy to advance food systems policies will need to consider which governmental entity is the appropriate target. The regional governance structure for the Bay Area, the Association of Bay Area Governments (ABAG), has had historically little power or

influence over city and county policy (other than their control of the distribution of federal transportation dollars). In other words, ABAG is not a likely target for policies that could be shifted to create healthier, more equitable food systems at the county, city, or even neighborhood level. On the other hand, a regional constituency for food system policy change could bring more political capital and focus to these issues—and highlight where resources could be shared or leveraged. One such example is the San Francisco Urban Rural Roundtable,¹⁶ which is attempting to develop a dialogue between urban and rural leaders to inform municipal policies that have a positive regional influence on the food system (see Section V for more information).

¹⁶The San Francisco Urban-Rural Roundtable is sponsored by Roots of Change. More information is available at: www.rocfund.org/campaign/campaign/bringing-urban-and-rural-leaders-together.

V. Themes and Recommendations of Bay Area Food System Assessments

Cross-comparisons among the studies in this meta-analysis are inevitably imperfect, given the diversity in intent, issue(s) of focus, design, and goals among studies. As discussed in Section IV, this variation is seen in both the type of assessment (e.g., program evaluation, resident survey) and the geographic area studied (Bay View/Hunters Point, Solano County, and so on).

In order to create as much parity as possible for this meta-analysis, we compared assessments by the food system sectors they addressed as well as by cross-cutting themes in general. This discussion helped to then explore the information gaps and common recommendations that exist across assessments.

Table 4 shows this breakdown by food system sector and sub-sector. The “number” refers to the number of studies (of all 38 reviewed for this meta-analysis) in which this sector/sub-sector was addressed.

Production	7
• <i>Regional Foodshed/Regional Farming</i>	6
• <i>Urban Gardening/Urban Farming</i>	4
Processing	4
• <i>Food Processors</i>	4
Distribution	8
• <i>Community Development Marketing</i>	1
• <i>Wholesale Markets/Warehouses</i>	7
Consumption	37
• <i>Food Access/Transportation</i>	14
• <i>Food Retail</i>	14
• <i>Food Security</i>	24
• <i>Health/Nutrition</i>	29
Waste Recovery	5
• <i>Recycling/Composting</i>	5
<i>Total Assessments Reviewed</i>	38

What We Know: Food Access, Health/Nutrition

The consumption sector was, by far, the most commonly addressed food sector across all studies—in fact, the only sector addressed by nearly all studies analyzed. This finding, however, should not be surprising as food security and nutrition are particularly high profile policy issues in urban areas (like the Bay Area), as compared to behind-the-scenes sectors like food wholesaling or recycling/composting. The organizations responsible for conducting the assessments were often those with food security and/or health and nutrition as their primary highlighted mission (such as the Nutrition Profiles for various California counties, provided by California Food Policy Advocates) or secondary to another food system sector activity (such as the *San Francisco Foodshed Assessment: Think Globally — Eat Locally*, which combines concerns about urban food consumption and nutrition with an analysis of local food production/food availability). Funding often guides the work and focus of public agencies and community-based organizations as well; a longstanding emphasis on hunger, obesity, and food security (without a food system frame to these issues) on the part of major funders has also driven the focus on consumption.

In general, the primary focus on food security and health and nutrition issues as the primary subject of study (often divorced from larger questions of food system organization and policy) is clearly a trend replicated across the Bay Area, in places that have undertaken many studies as well as those that have few.

What is Missing: Urban and Regional Agriculture, Processing, Distribution, and Composting/Recycling

After consumption, production and distribution sectors were addressed relatively equally. This finding is interesting due to traditional perceptions that have existed about the two—generally, urban communities are understood as distribution hubs and market centers for food, not as major sources of agricultural production themselves. However, the recent surge of interest in urban agriculture as a strategy for improving food access, increasing food sovereignty, and greening communities is reflected in these studies.

A slim minority of studies addressed the food processing and waste recovery sectors. Even studies with a multiple sector perspective often failed to include food processing and waste recovery in their analysis. Our first hypothesis for this absence is that funding is more readily available to study factors related to consumption than other areas of the food system. Without doing a systematic review of funders—and relying on the information available in our pool of assessments—this hypothesis seems likely. Many of the funders for studies, such as the Network for a Healthy California (formerly the California Nutrition Network), have a focus on food access and food security among low-income consumers.

A second hypothesis is that, in comparison to the resources available for measuring food access, quality, and other consumption factors, there has been less published on how to assess a community’s agricultural, processing, distribution, and waste recovery activities and resources, and little research concretely connecting the organization or performance of these sectors directly to access problems faced by consumers. Without standardized toolkits and indicators of measurement, researchers may be less likely to tackle these topics (especially if their connection to obvious problems of food security and poor health are not commonly understood).

Lastly, we might assume that the absence of analysis is a result of the perception that the production, processing, distribution and waste recovery sectors are functioning adequately, and/or not directly linked to consumers’ experience of the food system. However, preliminary findings in those studies that have addressed these sectors¹⁷ suggest that, in fact, there are major challenges to increasing access to fresh, healthy, local, and affordable food within these sectors. In distribution alone, studies list barriers that include a lack of transparency and traceability of food from farm to table, high costs for fresh, local food, and difficulties distributing produce and other healthy foods to small “corner stores” (which many low-income communities rely on for food due to a lack of supermarket access in urban neighborhoods).

As communities and researchers seek to close the gaps in our understanding of the food system (and identification of strategies to increase its contributions to health, sustainability, and equity) there is a particular need to develop the tools to measure neglected food system sectors, and to develop awareness among funders and other decision-makers about the value of assessing a community’s food resources in a systemic way.

What Common Recommendations Emerge?

As shown in Table 5, a little more than 75 percent of the studies we analyzed included recommendations. Most recommendations were targeted to the consumption sector (like the focus of analysis in general), followed by production and distribution. Food processing and waste recovery were the sectors for which the least number of studies provided recommendations.

Production	5
○ <i>Regional Foodshed/Regional Farming</i>	3
○ <i>Urban Gardening/Urban Farming</i>	3
Processing	4
○ <i>Food Processors</i>	4
Distribution	6

¹⁷ See *Appendix A* for a bibliography of studies with the food system sector addressed by each.

○ <i>Community Development Marketing</i>	1
○ <i>Wholesale Markets/Warehouses</i>	5
Consumption	23
○ <i>Food Access/Transportation</i>	2
○ <i>Food Retail</i>	4
○ <i>Food Security</i>	18
○ <i>Health/Nutrition</i>	11
Waste Recovery	2
○ <i>Recycling/Composting</i>	2
<i>Total Assessments with Recommendations</i>	29
<i>Total Assessments Reviewed</i>	38

The rest of this section presents general recommendations identified in the assessments, categorized according to the subtopics within the five primary sectors of the food system (outlined above). Note that while the recommendations have not been precisely weighted and ranked by frequency, we did make an effort to present recommendations made most frequently across all studies analyzed. For some little-studied topics, a recommendation may only appear once. Recommendations within each subsector are grouped by the agency or entity responsible for implementing or enacting them.

1. Production

Assessments provided recommendations related to urban gardening and farming, and regional (“foodshed”) production, and highlighted opportunities to strengthen food production capacity.

Urban Gardening/Urban Farming:

Of the five assessments that included recommendations on food production, three highlighted opportunities to strengthen urban food production capacity. Recommendations for urban gardening and farming were aimed at various community stakeholders, including public, non-profit, and private actors. Two studies highlighted the need for local governments to adopt zoning policies and regulations that support the use of gardens and production of fresh fruits and vegetables, as well as other urban agricultural products like eggs and honey. Several assessments also emphasized the need for the local jurisdiction to adopt a plan for increasing urban food production.

Community-based organizations and local governments should:

- Initiate an inventory of land potentially suitable for urban agricultural production
- Work with school districts, county cooperative extension programs, and other local organizations to support resources for school gardening
- Use available open space to grow foods for use in partnering programs and services (i.e., schools, meals-on-wheels, etc.)
- Expand and improve current garden activities, including raising chickens, harvesting honey from beehives, supporting seed saving, and improving management of fruit crops
- Pursue backyard gardening incentive programs that promote and assist homeowners and renters to maintain household gardens

Local governments should:

- Conduct a comprehensive review of current policy and zoning obstacles that hinder urban food production to increase availability of land and opportunities
- Encourage edible landscaping, community gardens, and rooftop gardens for new large-scale residential and mixed-use development projects
- Develop urban agriculture zoning designations along with related policies for the city zoning map and general plan
- Adopt a formal policy on expanding urban agriculture that includes benchmarks and a corresponding timeline
- Adopt a plan, goals, and timeline for how [the jurisdiction] will produce a determined percentage of its food consumption
- Where schools have shared space with city parks, increase support for the development of shared school/community gardens

Regional Foodshed / Regional Farming:

Of the five assessments that included recommendations on food production, three highlighted opportunities to strengthen regional production capacity, the majority of which included a focus on direct assistance, such as technical support, workshops on marketing tactics, and other training for small and medium-sized local farmers.

Along with direct assistance, the recommendations highlighted opportunities for local governments to support regional food production through incentives, such as taxation laws, that would allow local agriculture to remain a viable land use in high-cost real estate and development markets.

In addition, recommendations about water use and regulation played a large role, with about three-quarters highlighting such issues as exemptions on groundwater use restrictions, subsidies to offset pumping costs, and

programs to control groundwater pollution as possible solutions to the financial concerns of small and medium-sized local producers.

Universities and agricultural extension institutions should:

- Devote more resources to research and education for local growers to promote healthier, tastier, and fresher locally grown food that conserves energy and other resources

Community-based organizations and local governments should:

- Work with local small and ethnic farmers in the area to provide produce for weekly food boxes, events, local markets, and/or cafés
- Supplement existing zoning laws and other agricultural land preservation efforts with more direct assistance in order to link struggling local farmers with the vast market opportunities in the Bay Area
- Address critical barriers related to start-up costs, access to clean irrigation water, and taxes
- Aid local growers by providing brokerage or other collective marketing tactics in order to connect local producers with local processors and restaurant supply markets
- Create zoning and taxation laws tailored to keep productive agriculture land costs competitive with neighboring counties
- Expand countywide incentives for production and use of organic farm products
- Provide local growers with special exemptions on groundwater use restrictions and/or subsidies to offset pumping costs to remain viable
- Provide technical assistance to improve irrigation efficiency and create cost-effective farm water purification to encourage the establishment of new farms
- Support additional or improved efforts to control groundwater pollution and prevent worsening water quality
- Take advantage of federal funding available to increase incentives for farmland conservations and stewardship
- Adopt accountability measures to increase development efficiency and minimize the loss of high-quality farmland

2. Processing

Among the Bay Area food system assessments, food processing was the least-assessed sector. However, all of the studies that did address the food processing sector provided recommendations. In general, recommendations focused on easing pressure on the Bay Area's industrial land base from developers hoping to receive zoning changes and construct housing, and connecting food processing with local food distribution to build synergies across sectors.

Local governments should:

- Expand and strengthen the current food processing sector to allow it to serve new retail markets, including schools, hospitals, and low-income communities

Food processors should:

- Participate in efforts to process and preserve local food for out-of-season consumption

3. Distribution

Of the six assessments that included recommendations specific to the food distribution sector, five highlighted opportunities to strengthen distribution capacity in the Bay Area through wholesale markets and distribution hubs, or through direct marketing and distribution (such as community supported agriculture).

The most commonly addressed recommendations referred to the need to develop distribution structures that increase and prioritize affordable, local food, and increasing accountability and transparency (“preserving the story of the food,” as the *San Francisco Foodshed Report* suggested). Recommendations highlight the role of local government and other players to incentivize a distribution sector that improves access to local food while increasing its affordability for low-income and other price-sensitive customers, such as hospitals, schools, and other institutions.

Distributors should:

- Harness information technologies to provide details about the entire history of their food, not just its origin and nutrition content
- Expand infrastructure for transporting and storing in-season food

School districts should:

- Invest in their long-term capacity to participate in farm-to-school and other programs that improve school food, such as increasing consumption of fresh fruits and vegetables and other healthy, local foods

Local governments should:

- Support wholesale produce companies to procure goods from regional and organic farms
- Restore local packing and wholesaling facilities to support or expand local agricultural production
- Increase the capacity to prepare for long-term needs of farm-to-school programs and other food improvements at schools
- Collaborate with local food distribution centers to aid in delivery of healthy foods to various communities
- Adopt a local food ordinance that requires city governments to purchase, by or through its food service contractor, locally produced and organic food when a public agency serves food in the usual course of business

Community-based organizations should:

- Partner with distributors such as food banks and farmers’ markets to aid in the distribution of healthy foods

Employers should:

- Take advantage of economies of scale that exist by partnering with other firms in the area to buy and support transportation of locally grown food for corporate cafeterias and sponsoring CSAs for their employees

4. Consumption

As mentioned earlier, the food consumption sector was the most frequently assessed in the studies included in this analysis. About half included recommendations, the majority emphasizing ways to increase the consumption of safe, local, fresh, and culturally appropriate food.

Within the food consumption sector, food security and health/nutrition were the most widely studied areas, and, similarly, a significant number of the food consumption recommendations were also found in these two subsectors. Recommendations drawn by the studies span local, state, and federal levels of policy and program development.

Food Security:

The most common recommendation in the food security subsector focused on the need for state and local governments to maximize participation in federal food and nutrition programs, such as food stamps (Electronic Benefit Transfer, or EBT) and Women, Infants, and Children (WIC). Recommendations also emphasized the importance of increasing low-income residents' access to appropriate food and nutrition services, particularly programs that target schools, youth programs, and the elderly.

State governments should:

- Remove barriers to participation in federal food programs, and fully utilize federal food assistance programs
- Increase funding for food assistance programs that specifically target elderly populations

Local governments should:

- Offer incentives to schools and community programs that host summer lunch sites and participate in the Summer Foods Service Program
- Create comprehensive interventions to address the high cost of produce and the minimal availability of quality produce and other healthy foods in inner-city stores
- Encourage the use of WIC and EBT at farmers' markets

Community-based organizations and *food and nutrition program providers* should:

- Partner with school districts to develop a universal classroom breakfast that provides all children with a nutritious breakfast, at no charge, at their desks at the start of the school day, and to develop outreach programs to increase and stabilize participation rates for the National School Lunch and School Breakfast Programs, and Child and Adult Care Food Program
- Develop an outreach program to increase WIC and EBT usage at farmers' markets
- Increase access to fresh and local foods for residents who participate in federal and emergency food programs
- Encourage residents to write letters in support of state legislation to eliminate red tape in the Food Stamp Program

Food Access:

There were a number of recommendations within the consumption sector that specifically targeted local land use and economic development planning to ensure that low-income and other underserved residents have access to fresh, local, and healthy food.

Local governments should:

- Study how unique economic development histories and cultural politics of neighborhoods affect food availability and consumption preferences
- Include food access needs in the planning, zoning and development process

- Expand transportation services, community shuttles, and public transit routes for residents to create better connections and increase access to healthy stores and farmers' markets

Community-based organizations should:

- Collaborate with other organizations to buy in bulk from markets as a way to offer low-cost, healthy food to low-income residents

Food Retail:

Recommendations within the food consumption sector built on the core capacities and functions of local governments to attract and improve local businesses and stimulate local economic development.

Local governments and economic development agencies should:

- Identify the needs of small and medium-sized grocers as an avenue for expanding the market for food produced using sustainable practices
- Devote funding to neighborhoods traditionally believed to be "high-risk investments," as studies have proven that these areas are predominately high-density markets with significant purchasing power and unmet need for retail, grocery, and banking services
- Increase funding for studies to identify factors that provide incentives to establish stores in some areas and not in others
- Provide tax and other incentives for food retailers to move into parts of the city that are currently underserved
- Help develop healthy small businesses and support full-service small stores while considering living wage and labor issues.
- Acknowledge retail competition within neighborhoods so new efforts do not undermine the viability of already existing stores
- Collaborate with the existing Bay Area Green Business Program to add food criteria in addition to water, energy, solid waste, and pollution protection criteria for green business compliance and certification

Federal, state, and local policy makers should:

- Enact policies and support other innovative retail strategies that increase the number of grocery stores in areas with minimal access to fresh produce, and set limits on the number of fast-food and liquor stores
- Require restaurants and supermarkets to include more information about the sources of their food to increase transparency within the food system

Health / Nutrition:

The need to improve health and nutrition among underserved communities appeared in many recommendations, specifically through education, outreach, and awareness-building around food. This included the role of schools, youth, community groups, and childcare centers to engage community residents in healthy eating and nutrition education.

State and local governments should:

- Increase funding for incentives and disincentives to encourage healthy choices, such as a tax or regulatory fee on candy and soda and a ban on television junk food ads
- Promote breastfeeding as a high-priority health issue
- Set realistic targets to lower the number of overweight and obese children, and increase programs and campaigns that focus on childhood and adult obesity
- Expand consumer education about the value and availability of local foods, for example by including local food information in a food guide to help consumers follow "sustainable diets"
- Support and encourage more nutrition education in youth, adult, and senior programs

- Promote increased purchasing power through job creation to ensure that residents can afford healthy food
- Sponsor community events and public health campaigns that promote healthy foods and urban agriculture

School districts should:

- Integrate and coordinate efforts in the greater school community to ensure healthy school food and foster healthy and active school environments

Community-based organizations should:

- Link effective community resources to high-risk populations
- Engage with school districts in the ongoing development of a wellness policy
- Work with small food stores and residents to conduct nutrition education classes and activities, including shopping and food budgeting guidance
- Work with childcare centers and foster care homes to ensure that children receive nutritious meals

The health care system should:

- Provide effective evaluation and management of children who are overweight or at-risk

Restaurants and food retailers should:

- Increase their accountability to ensure access to healthy food through activities such as providing customers with nutritional information at fast food restaurants

5. Waste Management

The two assessments that included recommendations for the food waste recovery sector focused on strengthening opportunities for recycling and composting. Additionally, both highlighted the increased need for education, incentives, outreach, and technical assistance in the field in order to create a recycling and reuse system that is user-friendly and accessible to a greater number of Bay Area residents, businesses, and industries.

Local governments should:

- Increase incentives for recycling and composting
- Encourage education and outreach around waste recovery practices
- Provide technical assistance to food waste generators and fund/subsidize pilot projects
- Educate residents about easy ways to separate food scraps from the rest of their waste
- Increase food waste diversion by supporting community-based organizations that use urban food waste as compost for urban food production

Food waste recovery program providers should:

- Target all food types, and allow food discards to be added to existing yard debris collection

Community Participation in Policy and Program Development

A number of assessments and studies emphasized the importance of including community-based participation, specifically youth involvement, in the policy-making and program planning process. The role of schools, planning departments, community-based organizations, and other groups and agencies that engage residents in planning, education, and program development was acknowledged as critical in creating opportunities for residents to work toward change across the food system.

Policy-makers and program developers should:

- Sponsor and engage food policy councils and community-based organizations to engage community residents, develop and implement healthy community events, and sponsor public relations and educational campaigns related to food systems
- Expand youth involvement in policy-focused process in order to successfully promote healthy environments in challenged urban neighborhoods
- Increase community-based participation by involving families and community advocates in the creation of food policy, education/outreach/and program planning
- Ensure that the material and services presented are fulfilling the needs of the community, and connecting with those whom they are intending to serve
- Ensure public participation and genuine decision-making power at the community-level
- Cultivate partnerships whenever possible, and help community members develop the practical skills as part of an engagement process
- Communities should employ their own values and vision in food system work; this will sustain motivation during difficult times
- Include healthy & seasonal recipes, and important nutrition information that may not be well-known in the community in newsletters
- Initiate a work exchange program so residents can trade food related goods and services
- Increase the availability of community/teaching kitchens for classes and events

The “Food Systems Movement” should:

- Create opportunities for residents to share ideas about food systems, and spaces for broad community organizing within the movement.
- Incorporate multiple disciplines

VI. What are the Gaps in Assessing and Understanding the Bay Area's Food System?

In looking across the studies selected for this meta-analysis, we have attempted to “slice” the information in several ways to understand similarities, gaps, and areas of consensus or disagreement. Assessments were analyzed by type (*p. 11*), geography and location (*p. 12*), and sectors of the food system studied or addressed (*p. 15*). Each of these slices has helped develop a picture of the landscape of study and knowledge about the Bay Area's food system. Layered together, several main themes emerge.

Some communities in the Bay Area have been the focus of significantly more food system study than others.

There are clearly geographically defined pockets of food-system knowledge and food system activists in the Bay Area. Alameda County, the City of Oakland, and the City/County of San Francisco are relatively “overevaluated,” compared with other counties in the Bay Area. While information about the food systems within these communities are no doubt incredibly useful, it does not allow for a deeper examination of the connections that exist between these counties, cities and neighborhoods and similarities *across* the region as a whole. According to permaculturist Arthur Getz in the article *Urban Foodsheds*, the issue of “Where our food is coming from and how it is getting to us,” suggests “a need to protect a source, as well as the need to know and understand its specific geographic and ecological dimensions, condition and stability in order for it to be safeguarded and enhanced.”¹⁸ From this perspective, food consumption issues in San Francisco cannot be understood as separate from food processing and distribution issues in Oakland or from food production activities in Solano and Santa Cruz Counties.

There are also few existing mechanisms or platforms for “technology transfer” or information sharing about assessments, outcomes, and recommendations specific to the Bay Area, so that food system assessments conducted for a specific jurisdictional level may not always be leveraged or used to inform assessments in other communities that clearly share many of the same food system dynamics.

Assessments have focused on a few sectors of the food system almost exclusively, while minimally addressing others.

While nearly all the assessments included some study of the consumption section, other sectors of the food system received significantly less focus and analysis. In particular, there has been little attention paid to food processing, distribution, and waste recovery. This fact is also evident in the recommendations as products themselves of the food assessments: the majority focus on opportunities within the consumption and then production sectors to improve health and nutrition and provide more fresh and local food to residents.

Only a handful of studies have explicitly explored the relationships between and synergies among food system sectors.

In looking at the assessments' intent and design, we find that very few were explicitly designed with a “systems” focus. Information on the connection between and among sectors of the Bay Area's food system is extremely limited, as the majority of assessments address the various food sectors and subsectors individually. On the occasions where recommendations are provided on multiple sectors, discussion about the interconnectedness of the food sectors also remains extremely limited. In other words, while there has been substantial and significant research on food and food-related topics (nutrition, retail, gardening, etc.) there is a real need for additional analysis that takes a food system approach. A food system approach to analysis would also be more likely to identify recommendations that address upstream- and downstream- barriers to improving individual food system outcomes, perhaps more appropriately labeled “symptoms” (such as obesity, poor access to healthy food, low rates of local food consumption, farmland conversion, and so on).

¹⁸ Kloppenberg et al. “Coming into the Foodshed.” *Agriculture, and Human Values*, 13(3): 33, 1996.

Assessments have not always made connections between system/policy change and the food system problems they study.

A surprising number of studies did *not* include policy recommendations as responses to their findings and observations. This finding gets right to the heart of the purpose of this analysis—presumably, assessments with no explicit recommendations will have diminished political impact, if we assume that a lack of recommendation means the assessment was not intended to inform environmental or policy change processes. While this generalization may be a bit simplistic, it does call attention to a significant gap in the use of assessments to explicitly inform environmental and policy change across all food system sectors.

Even with an acknowledgement of each of these gaps, we still found that a litany of recommendations have been made in assessments. What has happened to these recommendations? Have these assessments been successful in informing policy conversations or directing resources? Have they forged new partnerships between previously disparate stakeholders? In the next section, we examine this important question of assessments' impact and outcomes.

VII. How Have Assessments Contributed to Local Food System Change?

We conducted a series of key informant interviews¹⁹ for further insight into the recommendations, outcomes, and impact of selected Bay Area food system assessments. Key informant interviews were used to highlight themes and lessons ranging more widely than what is generally represented by an individual study, and to highlight how food system research has affected on-the-ground action and policy change. As we develop a broader picture of how food system action-research can build upon past work and make regional connections, these outcomes are particularly relevant. Interview candidates were carefully selected to represent a diverse range of positions and perspectives; we drew from philanthropy, public sector / local government, and community-based/nonprofit organizations (individuals working in these sectors were also most likely to have been engaged in assessments in some capacity). A complete list of interviewees and the interview protocol can be found in *Appendix B*.

Generally, the interviews highlighted the fact that recommendations or findings that result from a study do not lead to policy or program changes without additional advocacy efforts. The interviews also provided valuable information about existing collaborative efforts around community food security and food systems, as well as a broader understanding of the role of policy in developing safe, sustainable, and healthy food systems.

The results from the interviews are organized into key themes that materialized across these discussions, but it should be noted that not all individuals interviewed had the same perspective on each of the themes highlighted.

Assessments that focused on expanding and strengthening federal food programs have been particularly effective in achieving some policy change.

Several informants who had engaged in assessments themselves noted that their primary goal was to create a case for increased federal funding from state and local government for food and nutrition programs. For example, California Food Policy Advocates (CFPA) annually conducts *County Food Profiles* to assess the levels of poverty, hunger, obesity, and availability of/participation in federal food programs for every California county. During our conversation with CFPA Executive Director Ken Hecht, he explained the studies' goal to "provide evidence for the need for healthy, affordable food in our communities as well as the extent to which the federal nutrition programs can work to alleviate this need."²⁰

Increasing federal food and nutrition funding to state and local programs was also emphasized in the goals of the San Mateo County Public Health Department's current *Health and Quality of Life Survey*, which includes research about where in San Mateo County food deserts are most prevalent, where there are more fast food establishments, and where there are healthy food establishments. As Community Health Planner Jennifer Gross explained, the department's desire is to "strengthen, expand, and promote federal food programs."²¹

Our conversations with Ken Hecht and Jennifer Gross highlighted their past studies' successes in informing state and federal food policies. CFPA believes the *County Nutrition Profiles* have played a role in influencing the federal Child Nutrition Program and the Nutrition Title (which includes the Food Stamp Program) of the Farm Bill, by strengthening the voice of state and local governments who, as a result of the *Nutrition Profiles*, understand how their own communities could benefit from increased access to these programs.²² Past studies conducted by the San Mateo County Public Health Department have been used as leverage to coordinate local groups working to increase the accessibility of local food and nutrition programs to federal funding opportunities.²³

¹⁹ Key informants included: Jess Bell, Organizer (California Food and Justice Coalition); Michael Dimock, President (Roots of Change (ROC)); Lucrecia Farfan-Ramirez, Director (University of California Cooperative Extension (UCCE), Alameda County); Gail Feenstra, Food Systems Analyst (University of California at Davis, Sustainable Agriculture Research & Education Program); Jennifer Gross, Community Health Planner (San Mateo County Health Department); Ken Hecht, Executive Director (California Food Policy Advocates); Grayson James, Executive Director (Petaluma Bounty); Paula Jones, Senior Health Planner (San Francisco Department of Public Health Environmental Health).

²⁰ Personal interview. October 8, 2008.

²¹ Personal interview. October 8, 2008.

²² Ken Hecht. Personal interview. October 8, 2008.

²³ Jennifer Gorss. Personal interview. October 8, 2008.

Interdisciplinary efforts linking food, health, and sustainability are under way at the local, state, and federal level.

Many of the individuals interviewed mentioned their organizations' involvement in collaborative efforts linking community, nonprofit, government, and (though less often) the private sector, and the role that assessments played in such collaborations. One such organization is the University of California at Davis' Sustainable Agriculture Research and Education Program (SAREP), which utilizes grants and assessments to link partners and bring food system and food security issues to the forefront in local communities. For example, SAREP funded the first food policy council project in West Oakland, bringing residents and community-based organizations together to develop recommendations on food systems issues.²⁴

The Roots of Change (ROC), a statewide funder and convener dedicated to advancing the development of a sustainable food system in California, has used assessments and studies to attract more resources to food system issues and build relationships between the philanthropy community, the private sector, and government entities.²⁵ ROC has been participating in the visioning process led by the California Department of Food and Agriculture, as well as leading "urban-rural roundtables" which bring together urban and rural stakeholders in a discussion around creating "foodshed management plans." The first of these roundtables is taking place in San Francisco.

Before and since the *San Francisco 2005 Collaborative Food Assessment*, the Public Health Department has focused on advancing their work in food systems by nurturing multi-sectoral partnerships. In part, their assessment was explicitly intended as a vehicle for stakeholder engagement and collaboration. Senior Health Planner Paula Jones notes that a significant amount of her time now is dedicated to furthering these partnerships. She also noted the difficulties of working across county/city lines, explaining there is not many established avenues for city-to-city or county-to-county partnerships within public agencies.²⁶

As a direct result of the *Oakland Food System Assessment*, the Oakland City Council approved a resolution to provide seed funding for a Food Policy Council. The formation of a food policy council was believed to be critical in assuring long-term dialogue between stakeholders across Oakland's food system, as well as establishing a body of constituents to advocate for implementation of assessment recommendations or other food system policy changes. Indeed, without a dedicated (and, it might be pragmatic to add, staffed and funded) group to continue to build awareness and political capital, assessments in and of themselves are probably unlikely to generate significant policy change.

Limited funding has hindered "success" in translating recommendations into action.

While funding has been available for conducting assessments and studies, the studies themselves have not always been successful in shifting resource investment—specifically, in committing public, although also private and philanthropic resources to implementing recommendations. Almost all of the key informants talked about funding as the primary challenge in effectively addressing the findings from their studies. "Counties and states are broke," noted Ken Hecht. "The will is there, but not the money." Similarly, Grayson James, in his discussion of Petaluma Bounty and the Sonoma County Food Systems Working Group's ongoing Sonoma County food assessment, commented that "funding is always a challenge, especially when trying to source local food and get it into schools."²⁷

For all key informants, constraints on both time and money translated into a lack of proper infrastructure for supporting the policies and programs necessary to increase access to healthy, local, and culturally appropriate food.

Gail Feenstra emphasized the importance of relationship-building across communities and sectors as a way to adapt to limited resources: "Efforts must be sustained over time," she said. "Resources always dry up, but relationships and commitments to a cause can survive."²⁸ Michael Dimock agreed with these sentiments, noting that "people's hearts and minds must be won first, and then dependence on funding can follow."²⁹

²⁴ Gail Feenstra. Personal interview. June 17, 2008.

²⁵ Personal interview. June 19, 2008.

²⁶ Michael Dimmock. Personal interview. June 19, 2008.

²⁷ Personal interview. October 13, 2008.

²⁸ Personal interview. June 17, 2008.

²⁹ Personal interview. June 19, 2008.

The role and design of community engagement in assessments has an impact on outcomes.

Many of the informants had completed, or were in the process of completing, studies or assessments through their organizations that had a community outreach or engagement component. Across these assessments, engagement was targeted at different groups, from low-income community residents to “key stakeholders” and other high-level constituents.

Gail Feenstra focused on relationships and momentum-building as success outcomes in the assessments that SAREP has engaged in or supported. She believes it is critical to develop trust between groups and people involved in food systems, as personal relationships ultimately sustain food systems over time. “Personal relationships form the basis for leadership development,” she maintained. “It is critical to have consistent, committed local leadership from the community to sustain change.”³⁰

ROC has undertaken several assessments and studies, two of which it used to host conversations with community leaders and key stakeholders throughout the state about developing “the New Mainstream,” a sustainable food system platform.³¹ After receiving criticism that the reports did not reflect the priorities or views of a broad enough constituency, ROC developed a Fellows program to allow new voices and perspectives to be present, and plans more outreach to low-income communities for the future. Michael Dimock suggested that, despite the lack of universal agreement about the assessments, they were successful in getting people’s attention and advancing the “next level of this work.”³²

The importance of technical assistance in allowing communities to perform their own food assessments was highlighted by the work of the University of California Cooperative Extension- Alameda County (UCCE). Lucrecia Farfan-Ramirez believes that the fact that UCCE was able to get youth and community members to lead assessments influenced the level of the county’s support for further studies.³³

³⁰ Personal interview. June 17, 2008.

³¹ Roots of Change Reports. Available at: www.rocfund.org/reports.index.php

³² Personal interview. June 19, 2008.

³³ Personal interview. June 24, 2008.

VIII. Conclusion and Proposal for Further Action

While a substantial amount of research and thoughtful study has gone into food system assessments in the Bay Area, some important gaps have emerged through this meta-analysis. Bay Area food system researchers and activists can build on existing assessments and advance their impact on communities by pursuing some of the following recommendations for further research and action.

Fill in the gaps and the quality of information about the Bay Area's food system to target and shape research toward specific policy goals

Food system activists and researchers should consider how additional research might be targeted to close gaps or promote policy change (including research on how policy change may be motivated in the current context of extremely constrained public budgets and limited fiscal resources).

Beyond the limited resources available for implementing recommendations, there may be other factors at work that have hampered studies' impact. The scope of many of these studies is quite broad, and they are usually written for a diverse audience. Politicians respond to (perceived) emergencies, which are often conveyed through direct correlations between the problem and the solution. Integrating targeted, solution-oriented studies with a systems frame that acknowledges upstream and downstream factors and impacts will be challenging but critical.

Build a regional constituency to improve collaboration and follow-up on recommendations, and to establish political will at the local, regional, and state level to address the needs of our food systems.

Across the region there is tremendous interest and capacity to generate information on our food systems from the ground up. The Bay Area is home to some of the most innovative work happening around food systems; this is reflected in the assessments we analyzed and in our interviews with those engaged in carrying them out. However, this potential is currently underutilized. For example, information about the food system is biased by topic and geography, and follow-up on recommendations has not been as strong as it could be, which hampers both local and regional policy actions.

Many of the food systems' problems are multi-jurisdictional or regional in nature, and our weak regional planning infrastructure in California limits advocates' ability to make desired changes. This means advocates must look for other avenues of collaboration that cross jurisdictional boundaries, at either the local or state level:

- Present findings of this meta-analysis to a broad audience of food system activists, organizers, and policymakers—the original authors of the studies assessed here and the new generation of advocates that has emerged. Use this forum as an opportunity to build institutional memory and develop a regional list of top priority policies.
- Consider forming a regional collaborative of food system advocates to develop a common policy platform that could be promoted within each jurisdiction, resulting in more regional cooperation/planning,
- Develop an advocacy and leadership training program for food system advocates to strengthen their ability to move from assessment to outcome. (Organizations like the California Food and Justice Coalition should be engaged to build the capacity of advocates to implement recommendations.)
- Build new alliances to implement policy recommendations. For example, food system advocates could partner with environmental organizations with an interest in waste reduction to build new alliances around food waste recovery and composting, or food access advocates could partner with local farmer organizations (such as the Community Alliance with Family Farmers) to host a convening on regional food distribution challenges and opportunities.
- Consider participating in the development of a statewide food policy council association to share best practices, develop common goals, and address challenges.

The current moment presents both opportunities and challenges to achieving a healthier, more sustainable, and more just food system. Through policy change and a shift in public and private resources, our local food systems can become economic engines for local and regional economic growth. Strengthening and enhancing the regional food system will be particularly important as Bay Area communities look to weather the current global financial crisis and future trends that impact the availability and cost of food. This meta-analysis should serve to inform these efforts going forward, creating greater transparency and understanding of the successes and limits of food system assessments as one tool to leverage community change.

Epilogue: Building Local Food Systems within the Current Food and Financial Crises

In 2007, the world food crisis has caused 982 million global citizens to go hungry and 50 million people within the United States to be classified as at risk of being food insecure. Experts explain the key causes as poor weather, low grain reserve, high oil prices, the increasing consumption of meat worldwide, an increase in agrofuels, and speculation within the private sector. Finding the root cause, however, requires understanding a deeper systemic problem: the current food crisis is a symptom of a food system in crisis, one that has become highly vulnerable to economic and environmental shock.

Within the United States, this crisis is evident in the increased retail prices of food, overdependence on the emergency food system due to dwindling federal funding for food and nutrition programs, and the decreasing number of small and family farms. This is only compounded by the current financial crisis, which has led the American economy into its worst state since the Great Depression. Traditionally underserved communities within the United States and abroad—who lack the proper resources to rebound from such devastation—have been hit the hardest by both crises, which are rooted in the same free market reform policies that have not only allowed the industrial agri-foods complex to flourish but also permitted large banks and commodities traders to invest in futures markets, deeply intertwining the world's food and financial systems.

Only by stabilizing both the food and financial markets, and increasing support for local economies and banks and small farmers and borrowers, can we begin to experience a shift away from the free-market paradigm that has placed the world in its current economic and financial state. Domestic food production—based on principles of social, economic, and ecological justice—must be supported at the international level. Fair prices must be guaranteed to farmers, workers, and consumers. We must promote a return to smallholding farms, and increase support for locally based approaches to food production and food systems management.

There is no doubt the Bay Area region is among the leaders in promoting policies and programs that address these various concerns and inequalities. As this report shows, there is a plethora of studies, assessments, and program evaluations illustrating the impact of various programs and policies in trying to build local, healthy, and sustainable food systems—but we still have much work to do to adequately address all aspects of the food system, and to build the social and political will to make systemic changes to our food system. We hope this analysis helps define and clarify the areas most in need of future support to build much-needed resiliency into our food systems.

Appendix A: Bibliography of All Studies Identified

#	Status	Study Name	Year	Location		Produced By (Organization)	Authors	Funder	FS Sectors Addressed
				City	County				<i>Production; Processing; Distribution; Consumption; Waste Recovery</i>
1	Reviewed	Community Food Assessment of the Alameda Point Collaborative	2006	Alameda	Alameda	Alameda Point Collaborative	Carraway, Casale, Freeman, Green, Harris, Haskins, Williams	USDA's Cooperative State Research, Education, and Extension Service	Production; Processing; Distribution; Consumption; Waste Recovery
2	Reviewed	A Food System Assessment for Oakland, CA: Toward a Sustainable Food Plan	2006	Oakland	Alameda	Oakland Mayor's Office of Sustainability	Wooten, Heather; Unger, Serena	Unfunded (student thesis)	Production; Processing; Distribution; Consumption; Waste Recovery
3	Reviewed	City Slicker Farms 2006 Annual Report	2006	Oakland	Alameda	City Slicker Farms	Logan Rockefeller Harris, Amourance Lee, Hilary Melcarek, Willow Rosenthal		Production; Consumption; Waste Recovery
4	Reviewed	Food Justice And Community: Motivations And Obstacles To The Attainment Of Food Security	2008	Oakland	Alameda	Environmental Justice Institute/ Department of Sociology UC Davis	Alison Hope Alkon		Consumption/Retail
5	Reviewed	Hunger Prevents Healthy Eating Among Seniors: A summary of findings from focus groups with low-income seniors	2004	Oakland	Alameda	Alameda County Community Food Bank	Jamila Iris Edwards, Erica Richard	Alameda County Community Food Bank; student volunteer	Consumption
6	Reviewed	West Oakland Fresh Study	2007	Oakland	Alameda	Alameda County Public Health Department	Kim Gilhuly		Consumption
7	Reviewed	Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward	2003	Oakland; Hayward	Alameda	UC Berkeley School of Public Health, Alameda County Public Health Dept.	Tsai, Sandra.	Unfunded (student thesis)	Consumption
8	Reviewed	Abating Hunger Among the Elderly: A Study of Hunger and Food Insecurity Among Elderly Brown Bag Program Participants in Alameda County	2003	--	Alameda	Alameda County Community Food Bank in association with Mercy Brown Bag Program, St. Mary's Center	Jessica Bartholow, Ursula Chanse, Erica J. Erney, Caroline Glesmann, Mike Ziegler	Goldman Foundation	Consumption
9	Reviewed	Alameda County Foodshed Report	2002	--	Alameda	University of California Sustainable Agriculture Research and Education Program (UC SAREP) and Berkeley Youth Alternatives	Shauna Cozad, Gail Feenstra, Shawn King, Henry Krusekopf, Sarah Prout		Production; Processing; Distribution; Consumption
10	Reviewed	Alameda County Nutrition Profile	2008	--	Alameda	California Food Policy Advocates	Development & Consulting		Consumption
11	Reviewed	Alameda County: A Profile of Poverty, Hunger & Food Assistance	2002	--	Alameda	California Food Policy Advocates			Consumption
12	Reviewed	Finding the Gaps in Child Nutrition: A Report on the Summer Food Service Program in Alameda County	2003	--	Alameda	Alameda County Community Food Bank	Chanse, Ursula	Alameda County Community Food Bank	Consumption
13	Reviewed	Free Summer Lunch for Kids and Teens Report	2007	--	Alameda	Alameda County Community Food Bank		Alameda County Community Food Bank	Consumption
14	Reviewed	Identifying The Logistical, Economic, Social, And Regulatory Barriers And Opportunities To Bring Sustainability Produced Food Into Alameda County's Food Marketplace	1991	--	Alameda	Alameda County Food Planning Council	Valerie Frances (Pelto)	SAREP	Consumption

#	Status	Study Name	Year	Location		Produced By (Organization)	Authors	Funder	FS Sectors Addressed <i>Production; Processing; Distribution; Consumption; Waste Recovery</i>
				City	County				
15	Reviewed	A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach	2005	Berkely, Oakland; San Francisco	Alameda; San Francisco	University of California, Berkeley Center for Weight and Health	Sujatha Ganapathy, MS, Center for Weight and Health		Consumption
16	Reviewed	Food Waste Recovery: A Model for Local Government Recycling and Waste Reduction	2000	San Francisco, Berkeley, Santa Cruz	Alameda; San Francisco; Santa Cruz				Waste Recovery
17	Reviewed	Contra Costa County - Food Mapping Project: Thrifty Food Plan Market Basket Survey		--	Contra Costa	Contra Costa Food and Nutrition Policy Consortium			Consumption
18	Reviewed	Contra Costa County Nutrition Profile	2008	--	Contra Costa	California Food Policy Advocates			Consumption
19	Reviewed	Marin County Nutrition Profile	2008	--	Marin	California Food Policy Advocates			Consumption
20	Reviewed	Identifying Priority Health Needs: Napa County Community Health Needs Assessment	2007	--	Napa				
21	Reviewed	Napa County Community Health Needs Assessment	2007	--	Napa	Napa County Collaborative of Health Organizations and Community Funders	BARBARA AVED ASSOCIATES		Distribution, Consumption
22	Reviewed	Napa County Nutrition Profile	2008	--	Napa	California Food Policy Advocates			Consumption
23	Reviewed	Food Deserts, Oases, Or Mirages?: Small Markets And Community Food Security In The San Francisco Bay Area	2007	San Francisco	San Francisco	University of California, Berkeley; University of California, Santa Cruz	Anne Short, Julie Guthman, Samuel Raskin	National Science Foundation Graduate Student Research Fellowship.Switzer Environmental Leadership Fellowship	Distribution, Consumption
24	Reviewed	San Francisco 2005 Collaborative Food Assessment	2005	San Francisco	San Francisco	San Francisco Food Alliance, The San Francisco Foundation Community Initiative Funds		Columbia Foundation, the San Francisco Department of Public Health's Environmental Health Section, the USDA Food Stamp Program	Production, Processing, Distribution, Consumption, Waste Recovery
25	Reviewed	San Francisco Foodshed Assessment: Think Globally- Eat Locally	2008	San Francisco	San Francisco	American Farmland Trust (AFT)	Edward Thompson, Jr., Alethea Marie Harper, Sibella Kraus	American Farmland Trust (AFT), Sustainable Agriculture Education (SAGE), Agriculture in Metropolitan Regions (AMR)	Production, Consumption, Distribution
26	Reviewed	The San Francisco Farm-To-School Report: Results From The 2003 Feasibility Study	2004	San Francisco	San Francisco	San Francisco Food Systems	Leah Rimkus, Paula Jones, and Fernando Ona	Clarence E. Heller Charitable Foundation, The Columbia Foundation, U.S. Department of Agriculture, The San Francisco Department of Public Health (Occupational and Environmental Health Section), and The California Nutrition Network	Production, Processing, Distribution, Consumption, Waste Recovery

#	Status	Study Name	Year	Location		Produced By (Organization)	Authors	Funder	FS Sectors Addressed <i>Production; Processing; Distribution; Consumption; Waste Recovery</i>
				City	County				
27	Reviewed	Addressing Food Security Through Public Policy Action In A Community-Based Participatory Research Partnership	2007	San Francisco: Bayview/Hunters Point	San Francisco	Society for Public Health Education	Victoria Breckwich Vásquez, Dana Lanza, Susanna Hennessey-Lavery, Shelley Facente, Helen anne Halpin, Meredith Minkler	W.K. Kellogg Foundation	Cross-cutting (community participation)
28	Reviewed	San Francisco County Nutrition Profile	2008	--	San Francisco	California Food Policy Advocates			Consumption
29	Reviewed	Youth Envision: Bayview Hunters Point Food Study	2001	San Francisco: Bayview/Hunters Point	San Francisco	San Francisco League of Urban Gardeners		San Francisco City and County Department of Health	
30	Reviewed	Evaluation Of The San Mateo County Prevention Of Childhood Obesity Task Force Activities And Selected Community Outcomes	2007	--	San Mateo	Healthy Communities Task Force	Brown, Daniel and Task force Evaluation Committee	San Mateo County	Distribution, Consumption, Cross-cutting (evaluation of community participation methods)
31	Reviewed	San Mateo County Nutrition Profile	2008	--	San Mateo	California Food Policy Advocates			Consumption
32	Reviewed	Searching For Healthy Food: The Food Landscape In San Mateo County	2007	--	San Mateo	San Mateo		California Vitamin Cases Consumer Settlement Fund	Consumption
33	Reviewed	Santa Clara County Nutrition Profile	2008	--	Santa Clara	California Food Policy Advocates			Consumption
34	Reviewed	Children And Weight: Taking Action In Solano County. A Strategic Plan To Improve Our Children's Health	2004	--	Solano	Children and Weight Coalition of Solano County	Sally Livingston, RD, MA, Nutrition Consultant	California Endowment	Consumption
35	Reviewed	Solano County Nutrition Profile	2008	--	Solano	California Food Policy Advocates			Consumption
36	Reviewed	Maternal, Child, And Adolescent Health Five-Year Needs Assessment For 2005-2009	2004	--	Sonoma	Department of Health Services	Sharon Oman David Goodman	Sonoma County	Consumption (children's health)
37	Reviewed	Sonoma County Nutrition Profile	2008	--	Sonoma	California Food Policy Advocates			Consumption
38	Reviewed	Touched By Hunger: A County-By-County Report On Hunger And Food Insecurity In California	2005	--	Bay Area	California Food Policy Advocates			Consumption
39	In progress	Sonoma County Community Food Assessment	In progress	--	Sonoma	Sonoma County Food Matters			
40	Unavailable	Cultivating Health: A West Oakland Food Security Planning Project: A profile of West Oakland Neighborhoods	2002	Oakland	Alameda	University of CA Cooperative Extension	Lucrecia Farfan-Ramirez, UCCE Alameda		N/A
41	Unavailable	CX3 Nutrition and Physical Activity Mapping - West Oakland	N/A	Oakland	Alameda	Alameda County Public Health Department and Mandela Foods Collaborative			N/A
42	Unavailable	Food Mapping Project: West Contra Costa County	1999	--	Contra Costa	West Contra Costa County Food Security Council	Gwen White		Unknown

#	Status	Study Name	Year	Location		Produced By (Organization)	Authors	Funder	FS Sectors Addressed <i>Production; Processing; Distribution; Consumption; Waste Recovery</i>
				City	County				
43	Unavailable	Making Good Neighbors: Creating Food Security With Small Food Retailers In Bayview/Hunters Point	2003	San Francisco: Bayview/Hunters Point	San Francisco	Client Report for Literacy for Environmental Justice	MacLaughlin, Kate	Student dissertation; University of California, Berkeley Department of City and Regional Planning	
44	Unavailable	Creating Space For Sustainable Food Systems: Lessons From The Field	2002	--		University of California Sustainable Agriculture Research and Education Program (UC SAREP)			
45	> 5 yrs, did not review	The Thin Red Line: How The Poor Still Pay More	1993	--	San Francisco	Consumers Union	DD Trout		Distribution, Consumption
46	> 5 yrs, did not review	Good Farming, Healthy Communities: Strengthening regional sustainable agriculture sectors and local food systems	2001	Berkeley and region	Alameda	San Francisco State University, Urban and Environmental Studies Program	Joshua Miner and Raquel Pinderhughes		N/A
47	> 5 yrs, did not review	Rethinking Direct Marketing Approaches for Urban Market Gardens in Low and Moderate Income Communities	1999	Berkeley and region	Alameda	University of California Sustainable Agriculture Research and Education Program (UC SAREP); Berkeley Youth Alternatives			N/A
48	> 5 yrs, did not review	Hunger: The Faces and Facts 1997	1997	--	Alameda	Alameda County Community Food Bank			N/A
49	> 5 yrs, did not review	Improving Access To Food In Low-Income Communities: An Investigation Of Three Bay Area Neighborhoods	1996	San Francisco: Tenderloin, Bayview/Hunters Point; Oakland: Fruitvale	Alameda, San Francisco	California Food Policy Advocates	K Hecht, E Steinman		Consumption
50	> 5 yrs, did not review	The San Francisco Food Systems Guidebook	2003	San Francisco	San Francisco	San Francisco Food Systems Council	Leah Rinkus	San Francisco Department of Public Health, Environmental Health Section; The Columbia Foundation	Production, Processing, Distribution, Consumption, Waste Recovery

Appendix B: Interview List and Interview Protocol

Food System Meta-Analysis Interviewees				
Name	Title	Organization	Contact Info	
Fundors				
Michael Dimock ^a	President	Roots of Change	michael@ROCFund.org	415-391-0545 x12
Public Sector / Local Government				
Jennifer Gross ^b	Community Health Planner	City of San Mateo, Public Health Department	jgross@co.sanmateo.ca.us	650-573-2319
Paula Jones ^a	Senior Health Planner	City of San Francisco, Department of Public Health, Environmental Health	Paula.jones@sfdph.org	415-252-3853
Community-Based Organizations / Non-Profits				
Ken Hecht ^b	Executive Director	California Food Policy Advocates	khecht@cfpa.net	510-465-4660
Jess Bell ^a	Organizer	Community Food and Justice Coalition	jessicambell@gmail.com	510-433-1131
Lucrecia Farfan-Ramirez ^a	County Director	Alameda County Cooperative Extension	cdalameda@ucdavis.edu	510-567-6812
Gail Feenstra ^a	Food Systems Analyst	University of California, Davis, Sustainable Agriculture Research and Education Program	gwfeenstra@ucdavis.edu	530-752-8408
Grayson James ^b	Executive Director	Petaluma Bounty	grayson@petalumabounty.org	707-775-3663
^a Interview Protocol A was used in these interviews.				
^b Interview Protocol B was used in these interviews.				

Interview Protocol A

<Interviewer: Explain purpose of project, explain concept of “food systems”>

Public Health Law & Policy, Food First, and BAE are working with the HOPE Collaborative, a Kellogg Foundation-funded initiative to create environmental and systems change to promote healthy, sustainable food systems and safe, livable neighborhoods. This project involves reviewing strategies related to food systems, local economic development, and the built environment.

We are conducting a “meta analysis” of food system assessments and community food assessments that have been completed in the City of Oakland. The goal of this research is to understand how food system assessments have been conducted, what issues they have addressed, and what recommendations and outcomes they have generated. We will use this information to identify information gaps and opportunities for improving local food systems.

Interviewee:

Organization:

Date Interviewed:

1. What components of the food system do you directly address through your work?
 - a. Production, distribution/processing, consumption, waste recovery
2. In what way does your work support healthy, sustainable food system in Oakland?
3. Does your work intentionally or unintentionally produce any of the following outcomes?
 - a. Food access/food security/food sovereignty
 - b. Transitioning to more environmentally sustainable practices/technologies
 - c. Creating urban-rural food linkages (such as farm-to-institution, etc)
 - d. Increasing production and/or consumption of local food
 - e. Developing social networks
 - f. Public-Private partnerships
 - g. Skills development (particularly youth and families)
 - h. Organizational capacity building

- i. Community capacity building
 - j. Political support
 - k. Policy development
 - l. Others...
4. Have you been directly or indirectly involved in any assessments of community food security, food systems, or some component of the food system (such as urban gardening, access to food retail, etc)?
5. Describe the study: geographic area, population/issue addressed, methodology, findings, recommendations
6. (If yes) In your opinion, what were the goals of the assessment(s)?
7. In relation to the goals of the assessment, what do you think the outcomes of conducting this assessment were? (e.g., engagement of youth, skills building, awareness among policy makers of issue, policy change, etc).
8. Do the outcomes match the goals or recommendations of the study/assessment? Why or why not?
9. Do any of these goals simultaneously support local economic development and food security? How?
10. What are the major opportunities that you see to leverage your work in creating a healthy, sustainable food system?
11. What are constraints or barriers in making your work successful as it relates to your goals but also to broader local food system development?
12. Do you have any policy recommendations for Oakland that the HOPE Collaborative could advocate for?
13. Is there anyone else we should talk to?

Interview Protocol B

<Interviewer: Explain purpose of project, explain concept of “food systems”>

Public Health Law & Policy is working with Food First, an Oakland-based non-profit focused on food justice and food sovereignty on a research project looking at the role of food system assessments and community food and nutrition assessments in creating food system change. The goal of this research is to understand how food system assessments have been conducted, what issues they have addressed, and what recommendations and outcomes they have generated. We will use this information to identify information gaps and opportunities for improving local food systems.

Interviewee:

Organization:

Date Interviewed:

1. What food system activities do you directly address through your work?
 - a. E.g., production, distribution/processing, consumption, waste recovery
2. Have you been directly or indirectly involved in any studies or assessments of community food security, food systems, or some component of the food system (such as urban gardening, access to food retail, etc)?
3. **Describe the study:** geographic area, population/issue addressed, methodology, findings, recommendations
 - Geographic area:
 - Population/issue addressed:
 - Findings
4. (If yes) In your opinion, what were the **goals** of the assessment(s)?
5. In relation to the goals of the assessment, what do you think the **outcomes** of conducting this assessment were? (e.g., engagement of youth, skills building, awareness among policy makers of issue, policy change, etc).
6. Did you feel that the outcomes of the study matched initial study goals? Why or why not?

7. Have any recommendations of the study/assessment resulted directly in **policy or other changes**? Why or why not?
8. What are the **major opportunities** (such as policy opportunities or other opportunities) that you see in creating a healthy, sustainable food system?
9. What **constraints or barriers** do you see in achieving your organizational goals as well as broader local food system development?
10. Do you have any **policy recommendations** that Bay Area food system advocates should prioritize?
11. Is there anyone else we should talk to?