

Food System Meta-Analysis for Oakland, California

September 2008

***Prepared for the HOPE Collaborative
by Public Health Law & Policy
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Ending Injustices That Cause Hunger and Environmental Destruction

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Executive Summary

More than a dozen studies involving food system and community food issues have been completed in Oakland, California, over the last decade. The studies, however—which address different “sectors” of the food system, including food production, processing and distribution, consumption, and waste recovery—are often neither readily accessible nor comparable.

To better understand how the information in these studies can inform future research and action, Public Health Law & Policy (PHLP), in collaboration with Food First, developed this Food System Meta-Analysis for the HOPE Collaborative. We reviewed 13 studies, ranging from surveys and statistical summaries to a full citywide food system assessment. We also interviewed key informants involved in Oakland’s 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.
- **Most studies have been conducted at the county and West Oakland neighborhood level.** Only two were citywide, and neighborhoods in East Oakland have been substantially underrepresented in these studies and food system work overall. Future research should both consider how the policy target influences scale (for example, by making a citywide case for change when city-level policy change is needed) and address the needs and issues of neighborhoods that have received less attention.
- **The extent to which residents are involved in studies has varied,** with most engagement happening in the form of surveys of community members or program participants. Youth, in particular, have been largely absent from engagement around food system-related studies and assessments.
- **The most commonly addressed sector of the food system was consumption,** with a focus on food security and food retail. This indicates a primary focus on food access, often at the expense of considering larger questions of food system organization and policy.
- **Studies that ask low-income residents about food retail shopping preferences** concur that affordability (followed by convenience and quality) is the most important factor that influences where they shop. Most studies did not identify underlying community values (such as local store ownership or healthy, clean environments) that may shape their preferences for the type of new retailers to bring into neighborhoods.
- **There are major gaps** in existing demand, availability, and purchasing power for healthy, local, sustainable food in low-income communities. Additional research and advocacy should focus on linking these issues and developing strategies that address these three gaps simultaneously.
- There is much to learn in terms of **how local food production, processing, and distribution can be better supported local policy and connected to regional farms and local food retail.** This is critical for achieving a healthy, just, sustainable food system.

For a more complete summary of the findings and recommendations explored in this meta-analysis, see Table 6 of this report, which includes guidance for further research and action targeted to each sector of the food system. We have compiled these findings to help build the HOPE Collaborative’s capacity to promote lasting policy change that will expand Oakland’s access to locally grown, affordable, healthy, fresh food.

I. Introduction

A number of studies addressing food systems and community food security have been conducted in Oakland over the last decade. The type and focus of these studies vary widely, from resident surveys about food access and shopping preferences to broad assessments analyzing dozens of indicators across many different sectors of the food system.

In part because ways of thinking about “food systems” have greatly evolved over the past 10 years, and in part because studies addressing food systems in Oakland have involved a range of actors and interests, the information generated by these studies is not necessarily easily accessible to advocates or organized in a way that makes overarching themes or recommendations clear. As a result, information relevant to a proposed food system policy is not readily available to inform the discussion, and additional studies are proposed or conducted without a full understanding of how new information will build on or relate to past work.

Public Health Law & Policy (PHLP), in collaboration with Food First, has developed this Food System Meta-Analysis to provide members of the HOPE Collaborative with a framework through which to understand the results of these studies while they examine potential systems change opportunities. The framework is designed to:

- Provide meaningful information about what we already know about food systems and food security in Oakland (an “evidence base”)
- Identify where studies provide common recommendations for further action
- Make clear what issues or areas we know little about that may require additional study or analysis

In sum, this meta-analysis provides an informal literature review with the goal of promoting sound action-oriented policy and systems change, or, if necessary, additional study.

Note that the Food System Meta-Analysis is one of a series of three papers applying the meta-analysis methodology to topics of interest to the HOPE Collaborative. The other two—a Local Sustainable Economic Development Meta-Analysis and a Built Environment Meta-Analysis—complement and reference this paper.

How to read the Food System Meta-Analysis

The HOPE Collaborative has asked for a report that summarizes key information types across food system-relevant assessments. These information types include:

- **Indicators, variables or factors** addressed by the assessment;
- **Methodology** used to measure those indicators, variables or factors;
- **Geographic areas** within Oakland covered by the assessment;
- **Findings** of the assessment; and
- **Conclusions and recommendations** resulting from the assessment.

This report is organized to provide a clear, cross-cutting analysis of each of these issues:

Section I. Introduction provides background on the HOPE Collaborative and the goals of the meta-analysis.

Section II. Definition of the Food System and Its Sectors defines the food system and the activities associated with it, providing the framework for how each sector (production, processing and distribution, consumption, and waste recovery) is addressed in the meta-analysis.

Section III. Methodology describes how the meta-analysis was conducted and the unique analysis process that was developed to guide it.

Section IV. Overview of Studies Analyzed provides a discussion of cross-cutting issues across all assessments, including **assessment type, community participation in assessments, geography.**

Section V. Findings: Themes, Recommendations and Information Gaps provides an overview of **food system themes**, after which each sector of the food system is addressed individually with themes, recommendations and conclusions, and information gaps summarized for each.

Section VI: Interview Observations and Recommendations presents themes and observations from a series of eight interviews from public, private, philanthropic and nonprofit perspectives on how past assessments have informed and shaped local action in the food system, activities currently under way, and promising directions for future efforts.

Section VI: Conclusion and Recommendations summarizes major findings from across the meta-analysis and provides recommendations for next steps.

It is worth noting that the **Appendices** of this report contain a great deal of rich information for further reading. Each assessment, in its analyzed form, is available for review in *Appendix A: Assessment Summaries*. Indicators, summarized across assessments, are presented in *Appendix B: Indicators and Themes*. A full bibliography (*Appendix C*) and list of interviewees and the interview protocol (*Appendix D*) are also included.

Relevance to HOPE Collaborative Goals, Planning, and Implementation

The HOPE Collaborative is a major collaborative project with the goal of improving equitable access to local food; improving safe, attractive built environments; promoting local, sustainable economic development; and supporting families and youth.¹ The vision of the HOPE Collaborative is to “create fundamental and sustainable environmental changes that will significantly improve the health and wellness of Oakland residents.”² During the current work phase, the HOPE Collaborative is charged with creating a Community Action Plan to guide its efforts, pending further funding from the W.K. Kellogg Foundation for implementation.

To engage its members in creating the Community Action Plan, the HOPE Collaborative has organized action teams focused on four key areas: Food Systems, Local Sustainable Economic Development, Built Environment, and Families & Youth. While the results of this meta-analysis will provide information relevant to all four action teams, it should serve primarily to advance the goals of the Food System Action Team, which are as follows:

- *Assess current access and availability of locally grown, affordable, healthy, fresh food*
- *Develop action plans that include indicators of increased access to the local food system and identify methods to track progress towards change*
- *Develop action plans that include strategies for policy and systems change that improve direct and retail marketing and institutional procurement opportunities to provide affordable, healthy, fresh, locally grown food*³

This meta-analysis will help the Food System Action Team understand existing conditions related to Oakland’s local food system, identify potential indicators to measure change, and recommend potential policy and systems change strategies to create or expand access to and availability of locally grown, affordable, healthy, fresh food. Its findings—along with other surveys, studies, and assessments the HOPE Collaborative has commissioned—are designed to be included in the Community Action Plan.

¹ HOPE Collaborative. *HOPE Meta-Analysis Request for Proposals*. February 14, 2008.

² HOPE Collaborative website. July 15, 2008. Available at: www.oaklandfoodandfitness.net.

³ HOPE Collaborative website. July 15, 2008. Available at: www.oaklandfoodandfitness.net/foodsysteamsactionteam.

Meta-Analysis Study Area

The HOPE Collaborative focuses on areas in the City of Oakland suffering the greatest impact of health disparities. These neighborhoods, often described as “the flatlands,” are located west of Interstate 580 along the entire north-south length of Oakland, from Berkeley to San Leandro. They are home to about 266,000 multiracial and multi-ethnic people, mostly low-income, who suffer disproportionate health impacts stemming from a variety of built environment, social, economic, and institutional factors.⁴

The Food System Meta-Analysis recognizes the primary importance of understanding studies which address issues that impact families and youth living in these neighborhoods; therefore, we have prioritized identifying studies and assessments that directly address these issues. We have also considered additional assessments and reports that address individual or multiple sectors of the food system, conducted at the neighborhood, city, or regional scale (to the extent that regional studies contribute to an understanding of Oakland’s food system). (*See Section II of this paper for a description of the sectors of the food system.*)

Finally, there is a perception – which it is fair to say reflects reality—that low-income neighborhoods like West Oakland have been “studied to death” with little or no resident ownership of knowledge produced and little or no positive outcomes generated. To a significant extent, this meta-analysis highlights this criticism; many of the studies which will be discussed here attempt to describe conditions in Oakland’s low-income neighborhoods related to food access, health, economic vitality, and other food system indicators. While it is far from accurate to say that we already know everything about food systems in Oakland’s flatlands, it should be emphasized that a lack of data has not been the primary factor inhibiting improvements and change.

We hope that by synthesizing and making this knowledge accessible, this meta-analysis will enable HOPE Collaborative members and allies to engage residents and decision makers in moving from data to action. Where additional research is needed, it should acknowledge past work and be designed to advance an action agenda.

⁴ HOPE Collaborative. *HOPE Meta-Analysis Request for Proposals*. February 14, 2008. (Summary)

II. Definition of the Food System and Its Sectors

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

- **Production**
- **Processing**
- **Distribution**
- **Consumption**
- **Waste 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 Components⁵	
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 food shed”) is also part of the local food production system
PROCESSING	<p>All processes of value-adding; transforming food into food products</p> <ul style="list-style-type: none"> - Facilities responsible for processing include bakeries, commercial kitchens, and food packaging firms
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 MANAGEMENT	<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 “Introduction.” In *Oakland Food System Assessment*. July 15, 2008, p. 14. Available at: http://oaklandfoodsystem.pbwiki.com/f/OFSA_Introduction.pdf. (Modification)

A “complete” food system assessment methodology would address all or most of the above-mentioned components *and* 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. While not all study designs allow a systems perspective, future assessments and studies should consider “upstream” and “downstream” factors whenever possible, given how important these relationships are in determining community outcomes.

Because the HOPE Collaborative has organized its planning effort into separate action teams for Food Systems and Local Sustainable Economic Development, this meta-analysis does not focus on studies that primarily or exclusively address the creation of jobs, expansion of economic opportunity, or other “economic development” studies. Studies of food processing jobs or business development programs to promote new grocery store development are both examples of studies that deal with activities or sectors of the food system, but are instead considered in the accompanying *Local Sustainable Economic Development Meta-Analysis*. In general, this meta-analysis has focused on studies that primarily address **production, distribution** (direct marketing only), **consumption**, and **waste recovery**, as well as studies that have used the food system assessment methodology and address multiple sectors. As it is impossible to completely segregate the economic factors of a food system (as it would be to isolate the social, political, or ecological factors), some economic development indicators are included here.

III. Methodology

To conduct this meta-analysis, PHLP sought studies that focused on one or more sectors of the food system. We prioritized studies that were completed in the last five years or included the most recent information on a particular issue, and focused on Oakland, specifically its low-income, underserved residents and the neighborhoods where they live.

We identified a total of 13 studies that fit these criteria. Only a few additional studies were identified that did not match the prioritized criteria. A complete bibliography of all studies identified, including those not included in this meta-analysis, can be found in *Appendix C*. In general, the latter were either completely unavailable⁶ or were older studies (conducted before 2002) that had less direct bearing on the focus of the HOPE Collaborative. None had a “food systems” focus.

PHLP created a table for each study analyzed that summarizes research methods, findings, conclusions, and recommendations (see *Appendix A*). Once analysis of each study was completed, broader trends and conclusions regarding commonalities and gaps in food system sectors addressed, geographic scope, and engagement of families and youth could be identified, along with common themes and recommendations or conclusions. Additionally, each study was analyzed for indicators used. A table listing all indicators and highlighting common indicators across studies can be found in *Appendix B*.

In addition to analyzing studies related to the food system, PHLP staff conducted interviews with a variety of key informants involved in Oakland’s food system work. Key informant interviews were used to highlight broader themes and lessons than what is generally represented by an individual study, and also to highlight how food system research has affected on-the-ground action and policy change. Because the HOPE Collaborative intends to move from research to action, these lessons and observations are particularly relevant to their success. Interview candidates were carefully selected from the following sectors to represent a diverse range of positions and perspectives:

- Funders / Philanthropy
- Public Sector / Local Government
- Community-Based Organizations / Non-Profit
- Private Sector / Business⁷

A complete list of individuals interviewed for this meta-analysis can be found in *Appendix D*. The interview protocol is also included in *Appendix D*.

⁶ Efforts were made to directly contact study authors or organizations responsible for producing studies when they were not accessible online.

⁷ While interview candidates from the private sector were identified for this meta-analysis, all private-sector interviews were conducted by BAE and included in the accompanying *Local Sustainable Economic Development Meta-Analysis*. Notes from these interviews informed this meta-analysis.

IV. Overview of the Studies Analyzed

The scan for assessments that fit our required criteria resulted in the following list of studies:

Table 2. Assessment List		
Study 1	<i>A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan (2006)</i> <i>A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach (2005)</i>	Oakland Mayor's Office of Sustainability
Study 2	<i>An Anti-Hunger Approach, A Food Systems Approach (2005)</i>	University of California, Berkeley Center for Weight and Health
Study 3	<i>Abating Hunger Among the Elderly (2003)</i>	Alameda County Community Food Bank; Mercy Brown Bag Program, St. Mary's Center
Study 4	<i>Alameda County Foodshed Report (2002)</i>	University of California Sustainable Agriculture Research and Education Program; Berkeley Youth Alternatives
Study 5	<i>Alameda County Nutrition Profile (2008)</i>	California Food Policy Advocates
Study 6	<i>Alameda County: A Profile of Poverty, Hunger & Food Assistance (2002)</i>	California Food Policy Advocates
Study 7	<i>City Slicker Farms 2006 Annual Report (2006)</i>	City Slicker Farms
Study 8	<i>Community Food Assessment of the Alameda Point Collaborative (2006)</i>	Alameda Point Collaborative
Study 9	<i>Food Justice and Community: Motivations and Obstacles to the Attainment of Food Security (2008)</i>	University of California, Davis, Department of Sociology
Study 10	<i>Free Summer Lunch for Kids and Teens (2007)</i>	Alameda County Community Food Bank
Study 11	<i>Hunger Prevents Healthy Eating Among Seniors (2004)</i>	Alameda County Community Food Bank
Study 12	<i>Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward (2003)</i>	University of California, Berkeley School of Public Health; Alameda County Public Health Department.
Study 13	<i>West Oakland FRESH Study (2007)</i>	Alameda County Public Health Department

These studies addressed one or more sectors of the food system, were geographically relevant to Oakland, and were the most recent or up-to-date examples of studies of their kind. Detailed analysis of each study, highlighting key findings, methodologies, and conclusions or recommendations may be found in *Appendix A*. A complete bibliography of all studies and assessments identified (including several that did not meet our criteria for this meta-analysis and therefore are not analyzed here) can be found in *Appendix C*.

Categorizing Assessments

In order to better understand the goals, methods, and focus of each assessment, a general category was assigned to each. The following table indicates which of the 13 assessments identified in Table 2 fit into each category, explains the intent or design of each type, and describes the focus of the conclusions.

Table 3. Assessment Types		
<i>Assessment Type</i>	<i>Intent / Design</i>	<i>Conclusions / Recommendations</i>
Literature Review / Case Study (<i>Study #2</i>)	<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
Fact Sheet / Summary of Statistics (<i>Studies #5, #6</i>)	<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
Food System Assessment (<i>Studies #1, #4, #8</i>)	<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
Program Evaluation / Survey (<i>Studies #3, #7, #10</i>)	<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
Resident / Participant Survey (<i>Studies #9, #11, #12, #13</i>)	<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

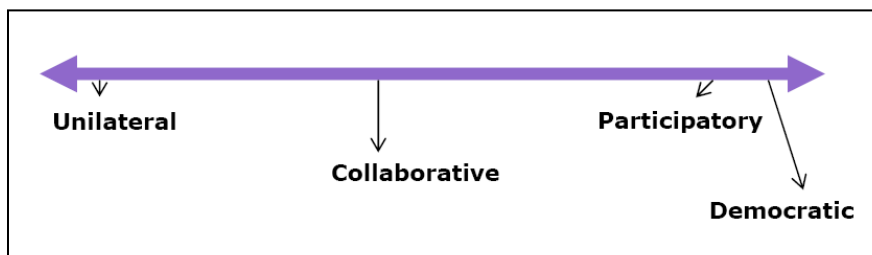
It is important to consider the intent and methodology of each assessment when drawing conclusions about general findings and recommendations. Many of the assessments analyzed had a relatively narrow scope and intent; their findings reflect this. Many had no recommendations; this is likely more a reflection 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.** Additional discussion of recommendations and conclusions can be found in Section VII.

Community Participation in Assessments

To evaluate the extent to which youth and community residents participated in assessments, we used a framework developed to evaluate Community-Based Participatory Research (CBPR) in which a continuum of potential engagement is described.⁸ This spectrum includes several indicators along the continuum:

- *Unilateral*: Researchers set the agenda and hold control over design without input from community members
- *Collaborative* and *Participatory*: Community members have increasing consultative roles
- *Democratic*: Requires all partners to use a participatory decision-making process and equity in representation

Figure 1. Research for Health: A Relationship Continuum⁹



The extent to which assessments engaged community residents varied. In both the “Program Evaluation / Survey” and “Resident / Participant Survey” categories of assessments, residents were engaged primarily through survey or focus groups, with the goal being to elicit their input and opinions about a given set of issues. However, a CBPR framework would likely place this kind of participation in the “unilateral” to “collaborative” category. In both cases, low-income community residents were generally the target population, although it is worth noting that in at least one study (*Food Justice and Community: Motivations and Obstacles to the Attainment of Food Security*), survey respondents were not primarily low-income despite living in a “low-income neighborhood” (in this case, West Oakland).

In some cases, researchers took a “grass-shoots” approach in which they engaged community stakeholders or representatives rather than community residents directly. The *Oakland Food System Assessment* is an example of the use of the type of “collaborative” approach featured on the CBPR continuum.

Only the *Community Food Assessment of the Alameda Point Collaborative* used the more community-intensive “collaborative” to “participatory” approach.

In several cases the resident engagement process was designed specifically to elicit ranking or prioritization of recommendations (including policy recommendations). The *Alameda Point Collaborative* study, the *West Oakland FRESH Study*, and *Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward* all used resident input directly to generate recommendations. While seniors and low-income community residents were the most frequently

⁸ Ritas C. *Speaking Truth, Creating Power: A Guide to Policy Work for Community-Based Participatory Research Practitioners*. July 2003. Available at: http://depts.washington.edu/ccph/pdf_files/ritas.pdf.

⁹ *Id.*

engaged demographic, only one assessment (the *Alameda Point Collaborative* study) directly engaged youth.¹⁰

When looking at community engagement across all studies, two key points emerge. The first is that community engagement of any kind is time-consuming and resource-intensive. The more engagement that is built into a study or assessment, generally the more resources are required. Many studies here likely did not have the time or budget to engage community stakeholders or residents in highly collaborative or participatory ways. The second is that engagement strategies generally flowed from the information needs of the research questions asked. As the HOPE Collaborative considers community engagement strategies for future research or strategy prioritization, they should assess whether there are opportunities to enhance or build on past engagement around food and food security issues.

Geographic Focus: Overlap and Gaps

As shown in Table 4, the geographic focus of studies varied, ranging from the county/regional scale to the neighborhood scale. The most common geographic scale was the county level. Given that the organizations which focus on food security and other food system issues are often county-level (e.g., Alameda County Community Food Bank, Alameda County Cooperative Extension, etc.), this distribution is unsurprising. Only 2 studies addressed the City of Oakland, while 4 studies took place in West Oakland. The only other Oakland neighborhood-based study took place in East Oakland and South Hayward. One study from the City of Alameda was included in this analysis for the following reasons: because of its proximity to Oakland; it used a food system assessment methodology; and it addressed the needs of a low-income, underserved population with many similarities to Oakland’s underserved population.

Table 4. Assessments by Geographic Area		
	<i>Number</i>	<i>Percent</i>
Alameda County	5	38%
<ul style="list-style-type: none"> ▪ <i>Alameda County Nutrition Profile</i> ▪ <i>Alameda County: A Profile of Poverty, Hunger & Food Assistance</i> ▪ <i>Alameda County Foodshed Report</i> ▪ <i>Abating Hunger Among the Elderly</i> ▪ <i>Free Summer Lunch for Kids and Teens</i> 		
City of Oakland	2	15%
<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 Among Seniors</i> 		
West Oakland	4	31%
<ul style="list-style-type: none"> ▪ <i>City Slicker Farms 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> ▪ <i>A Framework for Understanding Food Insecurity: An Anti-Hunger Approach, A Food Systems Approach</i> 		
East Oakland / South Hayward	1	8%
<ul style="list-style-type: none"> ▪ <i>Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward</i> 		
City of Alameda	1	8%
<ul style="list-style-type: none"> ▪ <i>Community Food Assessment of the Alameda Point Collaborative</i> 		
<i>Total Assessments Reviewed</i>	13	100%

¹⁰ One additional study that was identified but not reviewed here (it was not available to review) also directly involved youth. The Alameda County Public Health Department and Mandela Marketplace completed an assessment of West Oakland’s food retail environment using the CA State Department of Public Health’s “Community of Excellence in Nutrition, Physical Activity, and Obesity Prevention” (CX³) tool. Youth were engaged in collecting and analyzing this data.

An obvious geographic gap in studies-to-date is a focus on East Oakland neighborhoods. There are historic reasons for West Oakland's relative "oversampling," including the fact that West Oakland has established community-based organizations (CBOs) engaged in food security and food justice, as well as environmental justice work. East Oakland neighborhoods have been less organized around these issues. This gap points to a **need for more attention to the issues and needs of East Oakland residents** when undertaking future studies of food system sectors, including food security and access.

Interestingly, there is not always a relationship between the geographic scale of the study or assessment and the jurisdictional boundaries of government bodies at which policy recommendations would be targeted. For example, many of the policy recommendations highlighted in county-level studies would need to be enacted at the city level, while Oakland-specific information may not be presented. Similarly, neighborhood-scale studies may also make recommendations that would need city-level action, without creating a broad enough case for the problem across multiple neighborhoods or council districts. Since policy makers tend to respond most strongly to the needs of their own constituents, this is another issue that should be considered in future studies intended to further a policy agenda.

V. Findings:

Themes, Recommendations, and Information Gaps

Cross-comparisons among the studies included in this meta-analysis are inevitably imperfect, given that not all of the studies were intended to address a similar set of issues. They also varied significantly in both the geographic area studied (Alameda County, West Oakland, etc.) and the type of assessment (literature review, resident survey, etc.).

In order to create as much parity as possible for this meta-analysis, we compared themes, recommendations, and information gaps within food system sectors.

	<i>Number</i>	<i>Percent</i>
Production	4	31%
Processing	2	15%
Distribution	3	23%
Consumption	13	100%
Waste Recovery	2	15%
<i>Total Assessments Reviewed</i>	13	100%

The most common food system sector addressed across all studies was the **consumption sector**. In fact, all studies selected addressed consumption in some way. In many ways, this finding is not surprising, since most assessments of urban food issues highlight issues of food security or food access. The organizations involved in producing assessments were also frequently those with food security and/or access as either their primary mission (such as the Alameda County Community Food Bank) or secondary to another food system sector activity (such as City Slicker Farms, which combines food justice with urban food production). Funding drives the work and focus of public and community-based organizations as well; a longstanding focus on hunger, obesity and food security (without a food system frame to these issues) on the part of major funders has also driven a consumption focus.

In general, the **focus on food security and food access issues** as the primary subject of study (often divorced from larger questions of food system organization and policy) is one of the major findings of this meta-analysis.

Interestingly, given that urban communities are not generally seen as major sources of agriculture, **production** was the second most commonly addressed sector.

Other sectors of the food system (especially processing, distribution, and waste recovery) have not been subject to a comparable amount of analysis. Additionally, even when multiple sectors were addressed in a study, a “food system” perspective—where attention is given to the relationships between and among food system sectors—has not been frequently employed (*see* Table 3: Assessment Types).

The following pages provide a comparison of themes, recommendations, and information gaps identified in the assessments reviewed for this meta-analysis. This information is categorized according to the sectors of the food system described earlier.

Food Production

Themes

Assessments that covered food production addressed a variety of indicators related to both urban food production, such as community gardens and urban farms, and regional (“foodshed”) production. Studies addressing either urban or regional food production include:

- *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan (2006)*
- *Alameda County Foodshed Report (2002)*
- *City Slicker Farms 2006 Annual Report (2006)*
- *Community Food Assessment of the Alameda Point Collaborative (2006)*

The *City Slicker Farms Annual Report* and the *Community Food Assessment of the Alameda Point Collaborative* both addressed urban food production only. City Slicker Farm is a non-profit focused on improving food self-sufficiency for West Oakland residents by creating high-yield sustainable urban farms. Their annual report measures indicators such as pounds of food produced, total acres in cultivation, seedlings cultivated, and other indicators relevant to their program evaluation. The *Community Food Assessment* looked at school gardens and level of gardening interest and knowledge among Alameda Point Collaborative participant-residents.

The *Oakland Food System Assessment* measured both urban agriculture and regional agriculture through a variety of indicators. Indicators for urban agriculture included number and location of active community gardens and land use policies to support urban gardening, as well as an estimated number of existing “backyard” (or home) gardens. Regional foodshed indicators included the value of agricultural products within the foodshed, the relationship between Oakland consumer demand and agricultural production, and the strength of direct marketing (direct farm-to-consumer sales through venues such as farmers’ markets and community-supported agriculture, or CSA’s).

The *Alameda County Foodshed Report* was written to present and analyze “trends that describe the development of a sustainable, local food system in this region [Alameda County],” and included all sectors of the food system except waste recovery. Unlike the *Oakland Food System Assessment*, which was written four years later, the *Alameda County* report focuses only on rural agricultural production and capacity when analyzing the production sector. It measures indicators such as number of farms, top-earning farm commodities, and threats and barriers to continued agricultural production in Alameda County: land costs, water demand, and farmland loss, among others.

Appendix B lists all production indicators measured across all assessments reviewed. While at least 25 total indicators appear in these studies, the only indicators that appeared in more than one study were:

- Location of Community Gardens; and
- Schools with Community Gardens

Recommendations and Conclusions

All four studies highlighted opportunities to strengthen food production capacity. Recommendations for urban food production included:

- Conducting an inventory of land (public and private) available for urban and rooftop gardening
- Strengthening land use policies and creating new policies (such as zoning ordinances) that support urban gardening
- Improving coordination between Oakland’s Parks and Recreation, the Oakland Unified School District, and community-based organizations to maximize and leverage opportunities to create new urban gardens and increase community access to existing gardens

The program evaluation-focused assessments had recommendations specific to growing the community gardening components of the programs they offered (either increasing acres in cultivation or adding new components, such as livestock, to existing gardens).

Recommendations for strengthening rural food production capacity include those that target the site of rural food production (rural counties or rural/urban edge municipalities) and those that target urban cities as markets for rural products. Since the HOPE Collaborative is an Oakland-based initiative, we have pulled out those recommendations with most relevance to an urban community, including:

- Adopt a local food ordinance that requires the City government to purchase, by or through its food service contractor, locally-produced and organic food when a department of the City serves food in the usual course of business.
- Provide comprehensive zoning protection to protect Alameda County’s few remaining areas of prime farmland from development
- Support the creation and development of an organized countywide program to encourage local marketing of agricultural products
- Encourage community organizations to aid local growers by providing brokerage or other collective marketing tactics to connect local producers with local processors and restaurant supply markets.
 - This may include organizations working with small & ethnic farmers in the area to provide produce for weekly food boxes, events, and restaurants/café

Information Gaps

The following information gaps have been identified as providing promising opportunities for further research and action around food production:

1. Oakland’s urban food production capacity has not been fully evaluated.

As mentioned in the “recommendations” section above, basic information about the capacity of existing public and private land in Oakland to support urban gardening remains unknown. While there are promising models from other communities that use land use and other policies to support and expand urban gardening, it would be useful to have a better sense of production capacity in order to understand land acquisition and programming needs/costs. A better inventory of potential sites would take into account the role that urban gardening plays as a food education and neighborhood greening strategy as well as a strategy to increase food access and self-sufficiency for residents.¹¹

¹¹ To-date, at least one study is in the pipeline that will begin to fill in these gaps authored by Nathan McClintock, a PhD candidate at the University of California Berkeley, in collaboration with staff from Oakland’s Community and Economic Development Agency.

2. Urban gardening is not usually an indicator measured in “food access” or “food security” studies.

The role that urban gardening currently plays in augmenting food security or food access among community residents is not fully known. Most studies looking at indicators of food security do not include urban food production as a potential food access strategy. Nor do they measure resident interest in participating in gardening programs or knowledge of food growing techniques. Only the *City Slicker Farm Annual Report* contains substantial information about participation by West Oakland residents in community and backyard gardening programs. Measuring existing capacity, potential and demand for urban gardening (again, both in terms of large-scale community gardens as well as individual-scale back-yard gardening) is one area that could be substantially strengthened as a way to support or inform policy.

3. Existing connections between local food producers and local markets remain unclear.

The path that locally produced food currently follows between field and fork remains murky, despite the excellent overview of these sectors that the *Alameda County Foodshed Report* provided. A clearer understanding of the role existing wholesaling and distribution firms are playing, and how much local food retailers, restaurants and institutions like hospitals and schools are buying would provide a substantial benchmark against which to set policies and measure progress. This information would also help make clear gaps in the system. For example, do local farmers currently feel that they have adequate access to local retailers, institutions, and restaurants? The answer to this question would begin to lay the groundwork for targeting feasibility studies and policies to strengthen these networks.

4. Models for linking urban markets to local food production in ways that maximize accessibility for price-sensitive customers and provide farmers’ with living wages need development.

There are two major standing contradictions in the role of urban communities in promoting more local food production. The first is the fact that rural food production happens outside the boundary of cities. There is no jurisdictional authority on the part of cities to protect farmland or offer tax or other policy incentives at the site of production, despite the obvious interest that cities should have in supporting local agriculture. Instead, cities participate in “foodshed management” indirectly in a few ways. One is to help relieve development pressure off the urban fringe by creating affordable and attractive housing opportunities near existing employment centers. Another is to actively create market linkages, by supporting wholesale, processing, and distribution activities and by promoting local food. Nevertheless, this is a far from direct or robust way to intervene in an issue of such vital importance. New models of partnership and governance may need to be developed if urban and rural communities are to truly maximize the role each plays in a local food system. One model of a “foodshed management plan” linking urban and rural partners around food systems, envisioned by the Roots of Change, a collaborative funder focused on creating a sustainable food system in California, is in the conceptual stages, with San Francisco proposed at the first urban leader. (*See Section VI: Interview Observations and Recommendations*).

The second contradiction involves making local food more affordable and accessible to urban communities. Even when urban policy makers and advocates take a more active role in developing infrastructure for local food markets, it is unclear whether the tension between providing farmers with a living wage and a fair price for their food can be reconciled with the fact that poor communities may not be able to afford it—at least without a distinct and equally significant campaign to increase residents’ purchasing power. (*See Consumption Information Gaps and Section VI. Interview Observations and Recommendations for further discussion*). A better understanding of the existing connections between producers and markets (described

above) and how business models that promote fairness and affordability can be supported is crucial if this contradiction is to be overcome.

Processing and Distribution

Themes

Food processing and distribution play important roles in the viability of local food systems, by transforming raw agricultural products (like tomatoes) into food products for consumers (like salsa), and creating “economies of scale” that link producers and consumers. A local food system depends on local processing and distribution infrastructure. These sectors also serve as major sources of employment in the food system, offering the opportunity for living wage jobs – often in urban areas. In fact, Oakland was historically a center of food processing and distribution for the Bay Area.

Despite the lynchpin importance of these sectors, only two of the studies identified here addressed food processing:

- *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan (2006)*
- *Alameda County Foodshed Report (2002)*

Food distribution is addressed by both of the studies, with the addition of a third:

- *Community Food Assessment of the Alameda Point Collaborative (2006)*

Of these studies, only the *Oakland Food System Assessment* and the *Alameda County Foodshed Report* addressed either sector in a substantial way. Given this general lack of attention, it is unsurprising that few food distribution and processing indicators appeared more than two times. These included:

- Number of food processing firms
- Number of food processing jobs
- Number of wholesalers/warehouses
- Emergency food distribution

The findings from these studies specific to Oakland suggest that food processing and distribution remain important contributors to Oakland’s overall economy, not just the food sector. However, the future ability of these sectors to thrive within Oakland is far from certain. During the 1990’s and early 2000’s, pressure on Oakland’s industrial land base from developers hoping to receiving zoning changes and construct housing drove up the cost of land and made firm expansion and modernization difficult. The Oakland Produce Association (an association of individual food wholesaling firms in Jack London Square) has been in limbo for almost 10 years, trying to negotiate a new, larger space from the City of Oakland.¹²

Recommendations and Conclusions

The main conclusions from these studies point to the fact that Oakland has not established a land use or economic development policy around food processing and distribution attraction and

¹² The Oakland Produce Association has retained Jones Development Companies, which has submitted a Request for Qualifications (RFQ) for a 15-10 acre site with approximately 190,000 square feet of Produce Market buildings in the Oakland Army Base redevelopment. Available at: www.business2oakland.com/main/JonesDevelopment-ProduceRFQProposal.pdf.pdf.

retention. The adoption of Oakland's new industrial retention policy¹³ is a step in the right direction, in that it lays out a much clearer policy for preserving and retaining industrially-zoned land. This directly responds to one of the recommendations from the *Oakland Food System Assessment*, which was written before the industrial retention policy passed:

- Pursue an industrial retention policy that both preserves land for food processing uses and that plans for infrastructure upgrades so that food processing companies can maintain high levels of productivity and innovation.

However, additional recommendations have not yet been pursued or implemented:

- The existing [processing and distribution] sector could be expanded and strengthened through a targeted policy strategy in order to serve new retail markets, including schools, hospitals, and low-income communities
- Promote food systems policy goals within [Oakland's Community and Economic Development Agency] activities by helping with location and expansion, and streamlining fees and permitting processes for urban food production and processing and alternative distribution facilities (farmer's markets, local wholesalers, etc).
- Pursue the use of economic development and redevelopment incentives towards the establishment and development of a wholesale (farmers') Produce Market. Conduct a feasibility study on developing a market and market survey, research development feasibility, potential sites and programmatic possibilities.
- Build the food sector around [Oakland's] diverse population to create specialty and ethnic food products by fostering closer working relationships among restaurants and food / beverage processing entrepreneurs.
- Efforts to support or expand local agricultural production must include restoration of local packing and wholesaling facilities for changes to be sustained.

Information Gaps

The following information gaps have been identified as providing promising opportunities for further research and action around food processing:

1. Oakland's food distribution and processing sector needs high-profile political attention.

Little concerted political attention has been paid to real challenges and opportunities facing the retention and growth of the food processing and distribution sector, despite a series of economic development studies¹⁴ asserting the sector's current importance and potential for growing a substantial market for local food. Even less attention has been paid to how a strategy around food processing and distribution can be strategically linked to food retail and food access.

The fact that the Oakland Produce Association has been struggling so long to find new space highlights the fact that food wholesaling and processing has not been a major focus of either past-

¹³ Community and Economic Development Agency. *Report and Recommendations Adopting a Motion Establishing a City-wide Industrial Land Use Policy*. City of Oakland Agenda Report, February 19, 2008. Available at: <http://clerkwebsvr1.oaklandnet.com/attachments/18351.pdf>.

¹⁴ More detail on these studies is provided in the accompanying "Local Sustainable Economic Development Meta-Analysis."

Mayor Jerry Brown's administration or Mayor Ron Dellum's administration. Other cities that have seen major initiatives undertaken in these sectors have benefited from high-level political support in order to create momentum and direct staff and others to put resources and attention to feasibility analyses, policy proposals, and attraction and retention plans. New York City is a prime example of this. Their *New York City Wholesale Farmers' Market Study* was partially initiated as a result of Mayoral interest in expanding this sector and linking New York's restaurants, hospitals, and schools with local food. The HOPE Collaborative could begin to create this political momentum as a main focus of its advocacy and collaborative relationships, as well as initiating a relationship with the OPA to discuss how HOPE's goals intersect with their proposed expansion. The OPA is actively seeking public support for their proposal, and as such is interesting in demonstrating how programming and design of new wholesaling facilities could have a public benefit.¹⁵

2. More information is needed on the role of food processing and distribution in building a sustainable, local food system and contributing to a vibrant Oakland economy.

There are currently significant gaps in knowledge about the food processing and distribution sectors. These gaps are discussed in detail in the in the accompanying study, *Local Sustainable Economic Development Meta-Analysis*, and are summarized here:

- Engaging in a comprehensive food manufacturing industry analysis
- Identifying opportunities for “greening” the food manufacturing sector
- Engaging in a regionally-grown food distribution facility feasibility analysis, which could expand and compliment Oakland's existing produce wholesale sector

Any of the following will require expanding the HOPE Collaborative's partnerships with private sector representatives from wholesaling and processing firms and/or advocating for additional political attention and prioritization of these issues. HOPE can draw links between improving food access, creating jobs, and increasing environmental sustainability through these efforts (in other words, a “food system” perspective) in a way that few other collaboratives, organizations, or individuals have the capacity to do, and can influence potential food processing and distribution strategies to prioritize these outcomes.

¹⁵ More information is available at: www.business2oakland.com/main/JonesDevelopment- ProduceRFQProposal.pdf.pdf (Includes concepts around wholesale / retail business start-up capacity at this proposed site.)

Consumption

Themes

Food consumption is usually the most visible sector of the food system in an urban context like Oakland. From a food system perspective, the consumption sector includes the following components or “sub-sectors”: **food security** (including participation in federal food assistance programs, prevalence of poverty and hunger, use of emergency food sources like food banks and pantries, and access to affordable, culturally appropriate and nutritious foods); **food access and transportation** (focusing on location of food retail outlets, existing transit connecting residents to food retail, and ownership of private cars); **food retail** (quality, location, and type of food retail outlets, demand or market for food retail); and **health/nutrition** (rates of diet-related disease, nutrition education, fruit and vegetable consumption, etc).

Many food security and food justice advocates have focused their analysis to indicators within the consumption sector. As indicated earlier, consumption was the only food system sector addressed in some way by every study considered here.

Food security was the most widely studied area with the consumption sector. The top five most commonly measured indicators of food security were:

- Poverty rate
- Access to affordable fresh produce
- Underutilization of food stamps
- Residents lacking enough money for food
- Food stamp (Electronic Benefit Transfer) enrollment

Other indicators that appeared at least two times across all studies included:

- Women, Infants and Children (WIC) participation rate
- National School Lunch Program participation rate
- Number of people supported by emergency food aid
- Interest in receiving food stamps
- Summer food service program participation rate
- Child and adult care food program participation rate
- Acceptance of federal food aid at farmers' markets
- Amount of emergency food aid distributed
- Access to culturally appropriate foods
- National School Lunch Program underutilization
- School breakfast participation rate
- Residents going without meals
- Residents reducing meal size
- Food security policy

Along with food security, health/nutrition was another sub-sector where a number of indicators appeared two or more times across studies:

- Nutrition education
- Diet-related illness rate
- Gardening education
- Childhood obesity rate

- Fast food/junk food consumption

Food access and transportation was a less thoroughly-studied area. Only two indicators appeared two or more times:

- Vehicle ownership
- Adequate safe transit to grocery stores

Food retail had the least number of commonly studied indicators. Only one appeared more two or more times:

- Ratio of liquor/convenience to grocery stores

Overall, major findings in the consumption sector include the fact that Oakland residents face significant barriers to accessing fresh, healthy, local, affordable and culturally-appropriate foods. Poverty among Oakland residents limits their ability to buy food; when food competes with rent, medical bills, and other necessities, food is often the first place residents cut back. Findings from resident surveys, in particular the *West Oakland Fresh Study*, *Food Justice and Community: Motivations and Obstacles to the Attainment of Food Security*, and the *Needs Assessment: Access to Nutritious Foods in East Oakland and South Hayward* highlight the role that cost plays in decision-making. There was significant agreement in these three studies (two of which took place in West Oakland and one in East Oakland) that the most common factor influencing food choice was cost. Convenience, motivation, habits, transportation, social influence, and availability of healthy foods served as secondary competing factors. One conclusion that could be drawn from these findings is that even if a high-quality full-service grocery store were to open in Oakland's underserved neighborhoods, residents may still choose to shop outside of their neighborhood unless prices were competitive with the "discount" or "warehouse" stores where they shop now.

The *Food Justice and Community* study looked specifically at why West Oakland residents do or do not participate in various "food justice" programs (such as the West Oakland Farmers' Market) designed to bring high-quality local foods to residents. Findings from their surveys and focus groups suggest that low-income residents have heard of these initiatives, which offer discounted food, but that they either believe that organic food "is not something for them" or that it is still more expensive than processed food from grocery stores. Yet, in other surveys, residents expressed interest in seeing more healthy foods and high quality produce in neighborhood stores, and decreased marketing for unhealthy foods. The *Food Justice and Community* study concludes that, "Activists need to provide a framework through which food insecure people can read themselves into participation in local food systems" – which they suggest may include long-term subsidization of "sustainable" food (rather than, for example, programs to increase purchasing power).

In addition to findings around food and shopping preferences, the other major findings relate to the impact that food assistance programs have on low-income residents. There is significant underutilization of federal food assistance programs designed to boost the buying power of low-income residents (in particular, food stamps). Because of California's stringent requirements around food stamp eligibility and cumbersome enrollment process, many low-income seniors and families are not eligible or feel discouraged from participating in these programs.¹⁶

¹⁶ The California Food Policy Advocates has done extensive analysis on the barriers and costs for low-income individuals to enroll in Food Stamps in California (including fingerprinting and the fact that senior

In fact, California has the lowest rate of Food Stamp program participation among eligible individuals in the nation, with only half of those eligible actually receiving benefits.¹⁷ This can lead to hunger and a reliance on emergency food programs (such as food banks) as low-income residents struggle to choose between food and other necessities.

Recommendations and Conclusions

Recommendations and conclusions drawn by these studies span all levels of policy and program development, from the local (city and county) to state and federal levels. In addition to the diversity in policy target scale, there is also a mix or blend of recommendations that can be categorized as “anti-hunger” and those that are designed to address “community food security.” It is worth looking at the relationship between these two approaches as recommendations are considered, since anti-hunger and community food security advocates have not always seen eye-to-eye on how to prioritize efforts. With the obvious risk of over-simplification, the two approaches can be categorized thusly:

- *Anti-hunger* approaches tend to focus on strengthening and expanding state, federal, and emergency food assistance and feeding programs for low-income people (such as food stamps, Women, Infants and Children Program [WIC], food banks, and free school lunches)
- *Community food security* approaches tend to focus on creating sustainable, community-driven and often market-based strategies that build wealth and increase community ownership of the food system (such as opening co-operative grocery stores, youth entrepreneurial training in urban gardens and farmers’ markets, etc.).

Both approaches use policy advocacy and resource allocation as tools for improving the lives of low-income community residents.

The two major anti-hunger policies recommended across studies include:

- Support [advocate for] funding for state, federal, and emergency food assistance and feeding programs for low-income people (including senior programs, universal free school breakfast, summer food program and others), and eliminate red tape for the Food Stamp Program at the state level
- Develop an outreach program to increase WIC and Food Stamp usage at markets

The latter recommendation is one that has gained increasing traction among advocates in the last year as the WIC program has approved changes to their food package, which for the first time will now include fresh fruits and vegetables, whole-grain cereals, and new flexibility in meeting the needs of culturally diverse populations (including whole wheat tortillas, soy beverages, tofu, and brown rice). New cash value vouchers will make available to WIC participants \$6 to \$10 per month for fresh, frozen, or canned fruits and vegetables. The fruit and vegetable vouchers can be

citizens who receive Social Security Income are not eligible, among many others). Information about efforts to reform California’s Food Stamp program are available at: www.cfpa.net.

¹⁷ California Department of Public Health. *California Food Stamp Program Access Improvement Plan October 7, 2007 – September 30, 2008*. Available at: www.cdph.ca.gov/programs/CPNS/Documents/FoodStamp/FSOStatementofNeed-f-CPNS-2007.pdf.

redeemed at any authorized WIC vendor or farmers' market.¹⁸ Advocates are interested in leveraging this opportunity to enroll new WIC-authorized vendors, with WIC authorization (along with other potential local economic incentives) offered to stores. This potential new WIC income could incentivize small neighborhood "corner stores" who do not currently carry produce into restructuring their offerings. This strategy thus has both an anti-hunger component (increasing access to healthy foods in the neighborhoods where low-income moms live) and a community food security component (increasing income of local business owners and the sustainability of a produce-stocking business model).

There are a number of recommendations that specifically target local land use and economic development planning:

- The planning department should include food access needs in the planning, zoning and development process, including:
 - Providing leadership and guidance for new mixed-use development projects to include sites for food retailers that offer healthy foods
 - Identifying and/or acquiring underutilized or vacant land for food retail development
 - Streamlining any applicable license and permit processes for new food retail development
- Improve transportation services to food markets. Public transit routes can be designed to connect neighborhoods that lack healthy food outlets with areas that have such stores.
- Provide incentives for "corner-store conversions," including a specific package of grants, tenant improvement funds, tax breaks (e.g. reduction in business taxes at comparable rate to increased stock of local, fresh foods), and the guarantee or facilitation of low-interest loans
- Develop "food enterprise zones" in neighborhoods underserved by quality food retail, whereby food retailers that provide nutritious foods in these neighborhoods are exempt from Oakland business taxes.
- Provide technical assistance to entrepreneurs and storeowners who are interested in stocking nutritious food. This might include assistance with marketing, and feasibility and business plans.
- Because small stores are currently so predominant in Oakland's food retail landscape, food retail policy should address small stores in some way when attempting to improve food security and increase local food consumption.

All of these recommendations build on the core capacities and functions of local government to attract and improve local businesses and stimulate local economic development.

¹⁸ In December 2007, the U.S. Department of Agriculture (USDA) changed the WIC food packages for the first time in 20 years. This change aligns WIC-eligible foods with the 2005 Dietary Guidelines for Americans and infant feeding practice guidelines of the American Academy of Pediatrics. State agencies have until October 2009 to implement the changes. The USDA will then accept comments on the changes through February 2010, after which USDA will issue a final rule.

Several studies included recommendations in one other major area of “consumption,” specifically education, awareness, and outreach around food:

- Support and encourage more nutrition education in youth, adult and senior programs that are currently administered or funded by the City.
- Engage the Oakland Food Policy Council and community based organizations to develop and implement a “Healthy Oakland” public relations and educational campaign on healthy living and urban gardening.

Information Gaps

The following information gaps have been identified as providing promising opportunities for further research and action around food consumption and retail:

1. Oakland needs a comprehensive food retail attraction and improvement strategy.

Many of the studies profiled here compliment the result of market studies (addressed in the *Local Sustainable Economic Development Meta-Analysis*) with one overwhelming recurrent theme: residents want more food retail options in their neighborhoods. Additional studies, surveys, and focus groups with residents are likely to repeat this theme. Yet Oakland’s politicians and planning agencies have yet to tackle this in a concerted way. The needs of food retail businesses are in many ways specialized; economic and land use incentives should be packaged and tailored to these needs. The HOPE Collaborative could play a role in advocating for such a package and in bringing this issue to the political forefront. For example, in South and South East Los Angeles, community-based organizations have recently successfully engaged their elected officials in taking up the issue of an over-saturation of fast food and a lack of healthy food retail options. In response, councilmembers proposed and passed a Fast Food Interim Control Ordinance (ICO) (a one-year ban on all new permits), and a package of special incentives for grocery and sit-down restaurants who locate in underserved communities.¹⁹ Another example, in Pennsylvania, was the concerted advocacy effort and awareness-raising among policymakers that eventually led to the creation of a state-level public-private partnership to fund food retail development in underserved communities, known as the Fresh Food Financing Initiative.²⁰

2. The “right mix” of food retail (large supermarkets, small stores, farmers’ markets, etc.) needs to be identified for different neighborhoods.

One issue that existing studies do not fully delve into is a formula or description of the “right mix” of food retail options for different neighborhoods. More resident engagement needs to occur around this issue. While it was clear that residents were primarily interested in affordability, convenience and quality when it came to buying food, underlying values that can drive food purchasing (such as concerns about local wealth building, “sustainable” or organic food options, culturally-appropriate marketing and offerings) were largely absent from these discussions. Rather than focusing a conversation around the specific store format preferred by residents (i.e., the “box” that food comes in), market research and resident engagement should seek to probe these underlying factors when developing recommendations for specific types of retailers to outreach and attract to neighborhoods.

¹⁹ A description of the South Los Angeles ICO is available at: www.lacity.org/council/cd9/cd9press/cd9cd9press16554861_08012008.pdf ; The final ordinance is available at: <http://cityclerk.lacity.org/lacityclerkconnect/index.cfm?fa=ccfi.viewrecord&cfnumber=07-1658>.

²⁰ More information on the Fresh Food Financing Initiative is available at: www.thefoodtrust.org/php/programs/super.market.campaign.php.

3. New models must be developed that take into account existing systemic contradictions in building “sustainable food systems.”

While the findings of these studies underline existing resident demand for greater access to healthy food, the fact that studies and surveys have repeatedly captured “cost” as the biggest factor influencing purchasing in low-income communities should not be ignored. It is clear that sustainably produced and healthy foods are not currently the cheapest foods in the food system. (Recent advocacy efforts around the federal Farm Bill highlighted how subsidies for industrial monoculture, especially of corn, leads to an abundance of cheap, unhealthy food products in our food system.) In fact, major tenets of the sustainable food system paradigm are that farmers be paid a fair price for their products, that farm workers be treated fairly, and that quality and sustainability be valued over quantity and cost-minimization—all of which presumably lead to increased prices at the checkout line. A serious question presents itself in response to this reality: what is the relationship between building a market among low-income people for healthy, fresh, local foods (“creating a demand”), making fresh local food available in low-income neighborhoods, and increasing the wealth or purchasing power of low-income people to shift their food buying priorities?

It is not now clear the role each of these factors will play in achieving HOPE’s vision, and all will likely need to be addressed. The HOPE Collaborative should consider how different policy and systems change proposals will impact each of these factors and realistically assess their potential to create the greatest change in each area. A strategy for change that ignores one or more of these factors—such as simply attracting high-quality, fresh, local food retailers to low-income neighborhoods without increasing purchasing power or changing social norms around food purchasing preferences—is unlikely to result in real, systemic change.

Waste Recovery

Themes

Waste recovery is an oft-neglected sector of food system analysis, yet one in which policy and systems change has the potential to create significant economic and environmental sustainability opportunities. Food waste recovery can and should take many forms. The California Integrated Waste Management Board states that “food can be donated to charities, converted into animal feed, rendered into soap or other products, and composted. Food waste can also be avoided through prevention strategies.”²¹ New efforts are even under way to use food waste as a source of renewable energy: the Biogas Energy Project at the University of California at Davis, the first in the country to do so, is already turning food waste from the Bay Area into electricity.²²

The City of Oakland has already committed to a “Zero Waste” policy, which promotes a lifecycle analysis of inputs, outputs, and uses of all materials in order to minimize or eliminate pollution and increase efficiencies.²³ The Zero Waste policy is an excellent foundation on which to build further policies and strategies around reducing the amount of food waste (food sent to landfills) and increasing opportunities for reductions and reuse.

Only two studies analyzed here looked at food waste themes:

- *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan (2006)*
- *City Slicker Farms 2006 Annual Report (2006)*

Of these two studies, the *Oakland Food System Assessment* looks at a much broader range of policy and practice indicators related to food waste recovery, including the amount of food waste in the total waste stream, support for food recycling programs, the role of local food in reducing overall food waste, and food waste policy. Only two indicators were measured in both studies:

- Diversion of food waste from landfills
- Amount of compost created from food waste recovery

One of the most significant and interesting findings related to food waste highlighted in the Oakland Food System Assessment is the fact that food waste is the largest single material in Oakland’s “waste stream” (all “trash” that is landfilled), representing 12 percent of all waste.²⁴ There are many reasons for this, including the fact that food scrap recovery and food recycling is not available to all of Oakland’s residents (multifamily housing above five units do not participate

²¹ California Integrated Waste Management Board. ‘Innovations’ Case Studies: Food Waste Recovery - General Information. March 2006. Available at: www.ciwmb.ca.gov/LGLibrary/Innovations/FoodWaste/Program.htm.

²² See UC Davis News & Technology. *New Technology Turns Food Leftovers Into Electricity, Vehicle Fuels*. October 24, 2006. Available at: www-news.ucdavis.edu/search/news_detail.lasso?id=7915.

²³ *Resolution Adopting a Zero Waste Goal by 2020 for the City Of Oakland and Directing The Public Works Agency, in Concert with the Mayor's Office, to Develop a Zero Waste Strategic Plan to Achieve the City's Zero Waste Goal*. City of Oakland Agenda Report, February 28, 2006.

²⁴ Alameda County Waste Management. *Alameda County Waste Characterization Study – 2000*. March 2006. Available at: <http://recycle.stopwaste.org/wcs/Vol2/Oakland3.xls>.

in the program),²⁵ and that food scrap recycling has not yet achieved the kind of “social norm” behavior shift that bottle and can recycling saw in the 1990s.

Despite these challenges, increasing food waste diversion has the potential to provide significant amounts of compost and opportunities for “green jobs” in an emerging recycling and reuse-based economy. For example, if the City of Oakland was able to utilize all of the food materials currently landfilled through composting, this would generate enough compost for approximately 1200 community gardens (at 640 square feet each) per year.²⁶

Recommendations and Conclusions

Both the *Oakland Food System Assessment* and the *City Slicker Farms 2006 Annual Report* highlight an innovative program run by City Slicker Farms in which residential food scraps are collected by farm volunteers on bicycles and turned into compost to support their urban farms. These kinds of innovative partnerships between community-based organizations, residents, and Oakland’s Public Works Department have the potential to educate community residents and achieve greater food scrap recovery than the existing Green Cart program alone.

Recommendations include:

- Increase food waste diversion by supporting and following the City’s “Zero Waste” resolution recommendations and the polystyrene ban to improve the recyclability of food waste.
- Increase food waste diversion by supporting community-based organizations that use urban food waste as compost for urban food production.

Information Gaps

Because so few food security or community food assessments have addressed issues of food waste or food recovery, we know very little about how low-income residents especially perceive barriers to recycling, composting, or reducing waste. A better understanding of what would motivate community residents to increase their participation in food recycling programs would be extremely valuable. Additionally, we know that American households throw away a significant amount of food: about 14 percent of what they buy, or 1.28 pounds of food per household per day.²⁷ How could policy and programs help households waste less food—especially low-income households, whose food budgets are the most restricted?

Additional gaps related to food waste recovery as a green jobs/economic development strategy are included in the accompanying *Local, Sustainable Development Meta-Analysis*.

²⁵ Oakland’s food scrap recovery program grew out of the “Green Cart” yard trimmings recycling program, which was only available to single-family households and households living in multi-family units with five or fewer units. This was because apartment buildings did not generate significant amounts of green yard waste and were not considered cost-effective participants for this program.

²⁶ Unger S and Wooten H. “Chapter 5. Food Waste Recovery.” In *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan*. May 2006. Available at: <http://oaklandfoodsystem.pbwiki.com/>.

²⁷ Jones T. *The Garbage Project*. University of Arizona. August 10, 2005—September 12, 2005.

VI. Interview Observations and Recommendations

Key informant interviews yielded valuable insights and observations about the outcomes and impact of some of the studies and assessments analyzed here. They also provided valuable information about current partnerships and activities around community food security and food systems, as well as broader perspectives on how policy and systems change can create healthy and sustainable food systems. A full list of key informants interviewed and the interview protocol can be found in *Appendix D*.

The results from these conversations have been organized into key themes that emerged across interviews, although not all interviewees had the same perspective on each of the themes highlighted.

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

Almost every person interviewed mentioned their organization's involvement in collaborative efforts linking community, nonprofit, government, and (less commonly) private sectors. For example, in 2006, the Alameda County Public Health Department partnered with Oakland's Community and Economic Development Agency (CEDA) on a "corner store forum" to link corner store operators with resources and distributors in order to assess how their business and purchasing model could be shifted to healthy food options. The county health department is also advocating (through the Bay Area Regional Health Inequities Initiative) for build environment policies (like general plans) that include and support health.²⁸ Both activities represent cutting-edge areas of work for health departments.

The Coordinated School Health Council was also mentioned as a forum for linking community-based food efforts, such as the learning gardens run by Oakland Based Urban Gardens (OBUGS), to the Oakland Unified School District.

Other organizations, like the University of California at Davis' Sustainable Agriculture Research & Education Program (SAREP), take a less direct yet nonetheless important role in fostering innovation and collaboration. SAREP has used grants and assessments to link partners and bring food system and food security issues to the forefront in 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 system issues.²⁹

The Roots of Change (ROC) is another statewide effort using funding and convening to advance the development of a sustainable food system in California. ROC is looking to attract more resources to food system issues and build relationships with philanthropy, the private sector, and government.³⁰ ROC has been participating in the visioning process led by the California Department of Food and Agriculture, as well as leading urban and rural stakeholders in a discussion around creating "foodshed management plans." The first of these dialogues will take place in San Francisco, which has an obvious shared interest with Oakland in the same "local foodshed."

²⁸ Personal interview, June 18, 2008.

²⁹ Gail Feenstra. Personal interview. June 17, 2008.

³⁰ Michael Dimock. Personal interview. June 19, 2008.

Several people mentioned an increasing focus on AB 32, California's Climate Change Solutions Act, which has mandated the development of a Climate Action Plan to reduce California's greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Food and Justice Coalition will be targeting much of its advocacy and organizing efforts to ensuring that policies supporting local, sustainable food systems are part of a strategy for reducing GHG.

All of these efforts point to the fact that the HOPE collaborative is one of several efforts in Oakland and California that are focused (or at least interested) in the food system. HOPE should take advantage of this environment in building upon existing work and connecting to broader efforts.

2. Connect messages and policy proposals to crime prevention and safety.

Several people interviewed mentioned the fact that policy strategies the HOPE Collaborative may choose to advocate for should be connected to messages around how these strategies can increase public safety and reduce crime. Diane Woloshin, with the Alameda County Public Health Department's Nutrition Services, mentioned the importance of issues of crime and safety to the neighborhood residents that the Health Department works with, including "nuisance" liquor stores which attract and contribute to neighborhood crime.³¹ Trina Barton, special assistant to Oakland Mayor Ron Dellums, also underscored the importance of tying proposals to crime prevention, citing a "holistic solution to public safety" – including communities with jobs and access to healthy choices.³² Ms. Barton indicated this would be especially important in order to keep funding and city staff time focused on food systems issues.

All of the HOPE Collaborative's core work areas (*food systems, the built environment, local sustainable economic development and families and youth*) lend themselves to talking points that engage residents and policymakers around the benefits they share with policies that prevent crime and enhance safety. HOPE Collaborative members could frame their policy strategies around efforts such as these:

- Crime Prevention Through Environmental Design, which uses specific neighborhood and urban design techniques to enhance residents' feelings of safety and reduce the attractiveness of areas to criminals. These techniques include strategies that promote physical activity, such as using pedestrian-scale lighting and other pedestrian-friendly amenities.
- Retail development as a way to put "eyes on the street" and revitalize corridors that suffer from a general lack of investment and pedestrian activity.
- Economic development strategies that build opportunities for neighborhood youth to pursue meaningful careers. Such efforts can reduce unemployment, a known contributor to crime rates.

3. Work at the intersection between building a market and making healthy, fresh, local food available.

The importance of deepening an understanding of strategies that will address the previously mentioned "existing systemic contradictions in building 'sustainable food systems'" (*see Consumption Information Gaps*) was a key issue for many of those interviewed. All suggested that the issue of cost for fresh, local, healthy food is a major barrier increasing consumption

³¹ Personal interview. June 18, 2008.

³² Personal interview. June 17, 2008.

among low-income communities. However, there was a strong skepticism that simply changing the current reality of food availability in low-income neighborhoods (where healthy, fresh, local food is nonexistent) to increase access would be sustainable or truly change purchasing patterns of low-income residents. Since cost still remains such a huge purchasing factor, strategies to reduce cost, improve marketing and education, *and* increase availability of this kind of food would be necessary in order to increase the likelihood that low-income consumers will purchase them.

However, some expressed serious doubts that reducing the cost of fresh, local food is in fact compatible with increasing sustainability in the food system (the question - “Can we have our cake and eat it too?” - as articulated by Paula Jones, formerly of San Francisco Food Systems).³³ In this case, improving purchasing power of low-income communities through programs like Women, Infants and Children (WIC) and Food Stamps and investing in education and workforce development would be necessary to achieve the goals of “increasing access” to fresh, healthy, local food.

The HOPE Collaborative is positioning itself to participate in a great social norm experiment – one that will not be resolved over the short-term. Listening to these divergent opinions as strategies are selected will become critical, as well as acknowledging how policy and systems factors have led to our current food landscape. All our interviewees agreed that it will take many supportive and structural shifts to show food system change.

4. Develop a clear intended outcome for community engagement.

For the purpose of this meta-analysis, the question of community engagement was focused around the use of surveys and other studies to engage residents. One key question involved the intended outcome of the engagement: Was it to bring youth into the effort? Increase awareness of an issue among policymakers? Change policy? Had the outcome of the engagement matched the project’s initial goals or intentions? Why or why not?

Many of those interviewed had completed studies or assessments through their food-system-related organization (the Alameda County Public Health Department, SAREP, ROC, San Francisco Food Systems) that had a community outreach or engagement component. Across these assessments, engagement was targeted to different groups, from low-income community residents to key stakeholders and community leaders.

One project the Alameda County Public Health Department and Mandela Marketplace undertook was a study of West Oakland’s food retail environment using the California State Department of Public Health’s “Community of Excellence in Nutrition, Physical Activity, and Obesity Prevention” (CX3) tool. Youth from the community were directly engaged in data collection and analysis in this assessment. The goal of the community engagement in this project was to help youth describe their neighborhood conditions themselves and generate their own recommendations and proposals for further action.³⁴

Gail Feenstra focused on the role of relationship and momentum building in the assessments that SAREP has engaged in or supported. She believes that an important outcome of these studies has been the fact that there is now much more attention to food system and food security issues (especially in Oakland) above achieving specific project outcomes or goals.³⁵

³³ Personal interview. June 17, 2008.

³⁴ Diane Woloshin. Personal interview.

³⁵ Personal interview. June 17, 2008.

ROC has undertaken several assessments/studies, two of which it used to host conversations with community leaders and key stakeholders around the state about developing a sustainable food system platform (“The New Mainstream”).³⁶ After receiving criticism that the reports did not reflect the priorities or views of a broad enough constituency (in particular, low-income urban communities), ROC developed a Fellows program to bring in new voices, and plans additional outreach with low-income community members. Michael Dimock, the president of ROC, suggested that even despite a lack of universal agreement about the assessments, they were successful in getting people’s attention and advancing the “next level of this work.”³⁷

The San Francisco Food Assessment also targeted key stakeholders and community leaders to build capacity and create awareness about data on the San Francisco food system, specifically as it related to low-income people. Paula Jones, a senior health planner with the San Francisco Department of Environmental Health and former director of San Francisco Food Systems, led the assessment. She believes the most significant outcome of this assessment has been to get people to “think more from a food system perspective” and serve as a model for others who are seeking to start the conversation in their own communities.³⁸

None of those interviewed for this meta-analysis believed that a primary goal for engaging community in a past assessment process was policy and systems change. The HOPE Collaborative should consider how intended outcomes should relate to engagement structures when undertaking its own outreach efforts.

5. Respond to the political climate and policy opportunities

There are both challenges and opportunities ahead for the HOPE Collaborative in terms of building political capital and enacting policy change. Two major challenges that arose through the interviews were the current limited availability of fiscal support from both local and state government in California, and the burden that Oakland’s current problem of crime and public safety places on any local initiative that intends to compete for the attention of elected officials and staff.

These challenges are real but not insurmountable. Many of the strategies suggested in this meta-analysis require building a commitment to practice change among public, private and non-profit partners (a comprehensive food retail attraction strategy, for example, would require additional political capital but could build on and enhance the impact of existing resources). Others require re-alignment or better coordination of existing resources. The HOPE Collaborative has the opportunity to position itself as a force for better governance and a convener of partners, in addition to its role as an advocate for new resources.

On the opportunity side, it is clear that the Mayor’s Office is looking for leadership in the areas of food systems, health, and community development. The fact that there is not yet a Mayoral platform linking these issues means that the HOPE Collaborative could help shape one. In particular, staff pointed to land use, zoning, and the development of the Oakland Army Base as major opportunities to plug in sustainable, healthy food system goals.³⁹

³⁶ Roots of Change Reports. Available at: www.rocfund.org/reports/index.php.

³⁷ Personal interview. June 19, 2008.

³⁸ Personal interview. June 17, 2008.

³⁹ Trina Barton. Personal interview. June 17, 2008.

There is also clearly a convergence of interest at the local, regional, and state level in advancing healthy food system goals. Tapping into these additional efforts and partnerships through direct collaboration and the networks of individual members will help sustain the HOPE Collaborative's efforts over time and build leadership capacity.

Lastly, while there is obviously a need for HOPE members to take a long-term view and ensure long-term commitment to the Collaborative's goals, balancing this with quicker wins to keep members' interest may be an important way to move the Collaborative's work forward. Perhaps all of the assessments analyzed here represent efforts to achieve this kind of "quick win"—it seems that they were most successful at building relationships and getting organizations to the next step in their own programmatic or advocacy efforts, rather than triggering a major shift in food system policy (perhaps with the exception of the Oakland Food System Assessment, which directly led to the City funding an Oakland Food Policy Council).

VII. Conclusions and Recommendations for Future Action

Looking at the breadth and depth of information gleaned from the body of research reviewed for this meta-analysis, as well as the perspectives and experiences conveyed during conversations with stakeholders, it is clear that the HOPE Collaborative is in a strong position to build on a considerable body of work, knowledge, and resources. From the data and analysis provided by individual assessments to human capital that goes well beyond what a stack of assessments can capture, HOPE members have the opportunity to substantially advance thinking, research, and action around healthy, equitable, and sustainable food systems. And despite all of the challenges Oakland currently faces—including budget shortfalls and a serious crime and public safety problem that frequently commands residents’ and policymakers’ attention—the important role food plays in health and community vitality generates a level of interest that can be catalyzed into lasting policy change.

Every sector of Oakland’s food system, from production to waste recovery, could benefit from greater financial and political investment. However, some sectors clearly have been subject to much more research, analysis, and engagement than others. We understand the basics of consumption and food retail—communities want more opportunities to purchase fresh food, and they are concerned primarily with affordability as well as convenience, access and quality. We’ve seen in other communities that changing food retail landscapes and attracting new retailers usually requires targeted economic development and land use policies and incentives. We also know that these kinds of policy changes don’t occur without raising the profile of food retail among community decision-makers.

What are we missing? First, we must engage community residents—including youth—about values around food retail and access. This level of engagement can help shape what kinds of food retailers Oakland supports: small stores, supermarkets, farmers’ markets, community-supported agriculture (CSA) programs, and so on.

When it comes to research and advocacy, some significant geographic gaps still exist: East Oakland neighborhoods have been particularly underrepresented in terms of community food system engagement and assessment. We also have a lot to learn about opportunities to strengthen our local processing and distribution sectors, as well as how these sectors are currently linked to food retail and how we can shift business and operational models to make food more affordable and accessible.

Lastly, the HOPE Collaborative will need to engage with what may be the most challenging aspect of building local food systems that serve low-income communities: simultaneously tackling barriers around building consumer demand while shifting social norms, availability and accessibility, and purchasing power. Those with experience working on food system change may see this as a “chicken and egg” problem—how can you create demand when healthy, fresh food isn’t in the neighborhoods? How can grocers and corner stores shift their businesses models until demand supports it? In this case, the chicken and the egg (hopefully from a local free-range farm) must be cultivated simultaneously. To achieve its vision, the HOPE Collaborative will need to pursue integrated, mutually-supportive policy and systems strategies positioned to address this challenge.

Table 6. Recommendations for Further Study and Action

Recommendations	Targeted Strategies
<i>Production</i>	
1. Fully evaluate Oakland’s food production capacity	<ul style="list-style-type: none"> ▪ Understand and promote the role that urban gardening plays in neighborhood greening, nutrition education, and food access and self-sufficiency ▪ Collect and analyze basic information about the capacity of existing public and private land in Oakland to support individual and community gardening
2. Include urban farming and gardening as an indicator in food access and food security studies	<ul style="list-style-type: none"> ▪ Identify resident interest in participating in urban gardening programs (“existing demand”) ▪ Identify barriers and potential incentives for participating in urban gardening programs
3. Identify existing connections between local food producers and local markets	<ul style="list-style-type: none"> ▪ Understand the roles that existing wholesaling and distribution channels play in connecting Oakland consumers to local food ▪ Benchmark the amount of local food that restaurants and retailers currently purchasing, and the channels through which they access local goods ▪ Assess local farmers’ demand for increased access to local retailers, restaurants, and institutions (both through direct marketing or via third-party wholesaling/distribution channels)
4. Develop models for linking urban markets to local food production in ways that maximize accessibility for price-sensitive customers <i>and</i> provide farmers with living wages	<ul style="list-style-type: none"> ▪ Understand and promote direct and indirect roles that Oakland can play in supporting its regional foodshed through local policy and new governance or partnership structures (such as investing in local food processing and distribution infrastructure and increasing participation in food waste and water recycling) ▪ Build upon knowledge of existing connections between local farmers and local retailers to understand how existing business models can be shifted to increase fairness and affordability
<i>Processing and Distribution</i>	
5. Build high-profile political attention for Oakland’s food distribution and processing sector	<ul style="list-style-type: none"> ▪ Engage policymakers in the importance of supporting local food processing and distribution ▪ Explore and demonstrate how local food processors and distributors can be better linked to food retail and food access ▪ Initiate a relationship with the Oakland Produce Association (OPA) to assess how public resources used to assist with OPA’s expansion and relocation can support local jobs, entrepreneurial development, and a focus on regional food
6. Develop a better understanding of the role of food processing and distribution in building a sustainable, local food system and a vibrant Oakland economy (See the <i>Local Sustainable Economic Development Meta-Analysis</i> for more recommendations)	<ul style="list-style-type: none"> ▪ Expand partnerships with private-sector representatives from existing wholesaling and processing ▪ Advocate for policies and strategies that draw links between improving food access, creating jobs, and increasing environmental sustainability

Recommendations	Targeted Strategies
Consumption	
8. Advocate for a comprehensive food retail attraction and improvement strategy	<ul style="list-style-type: none"> ▪ Advocate for a targeted and concerted strategy to attract and improve food retail in Oakland’s underserved neighborhoods through economic development and land use strategies (such as targeted zoning, tax breaks, grants or loans to help with site identification, acquisition and business development) ▪ Engage Oakland’s elected officials, agency staff, community and private sector stakeholders in a dialogue about how public investment can support an accessible, sustainable food retail sector
9. Engage residents and stakeholders in a dialogue about the “right mix” of food retail models for Oakland’s diverse neighborhoods.	<ul style="list-style-type: none"> ▪ Build on existing research showing resident preference for affordable, convenient, accessible food and deepen the conversation to include community values for food retail ▪ Facilitate a conversation that can translate community values into appropriate store formats ▪ Use this information to add nuance and direction to a citywide food retail strategy (<i>see Recommendation 8</i>)
10. Develop systems change and advocacy models that take into account existing systemic contradictions in building “sustainable food systems”	<ul style="list-style-type: none"> ▪ Pursue strategies that address the relationship between building demand for, increasing availability of, and increasing wealth/purchasing power for healthy, local, sustainable food in low-income communities
Waste Recovery	
11. Include food waste recovery themes in future food security/community food assessments (See the <i>Local Sustainable Economic Development Meta-Analysis</i> for more recommendations)	<ul style="list-style-type: none"> ▪ Develop an understanding of what motivates diverse low-income communities to participate in food recycling, composting, and waste reduction – and what barriers they currently face in doing so ▪ Identify how policy and programs could help households reduce food waste

Appendices (see attached)

Appendix A: Assessment Summaries

Appendix B: Indicators and Themes

Appendix C: Bibliography of All Studies Identified

Appendix D: Interview List and Interview Protocol