A FOOD SYSTEMS ASSESSMENT FOR OAKLAND, CA: TOWARD A SUSTAINABLE FOOD PLAN

Serena Unger
Heather Wooten

Oakland Mayor's Office of Sustainability
and
University of California, Berkeley, Department of City and Regional Planning

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Acknowledgements

Chief Advisor and Editor:
Randy Hayes, City of Oakland, Mayor's Office of Sustainability

Faculty Advisors:
David Dowall, UC Berkeley, Department of City and Regional Planning
Fred Collignon, UC Berkeley, Department of City and Regional Planning

Additional Faculty:
Ananya Roy, UC Berkeley, Department of City and Regional Planning
Judith Innes, UC Berkeley, Department of City and Regional Planning

Resources and Information Provided by:
City of Oakland
Carol Misseldine, City of Oakland, Mayor's Office of Sustainability
Dave Grennel, City of Oakland, Mayor's Aid
David Ralston, City of Oakland, Community and Economic Development Agency (CEDA)
Emergency Food Providers Advisory Committee
Frank Rose, City of Oakland, Commission on Aging
Hui Wang, City of Oakland, CEDA
Jacoba Van Stevern, City of Oakland, Department of Parks and Recreation (retired)
James Bondi, City of Oakland, CEDA
Josh Amaris, City of Oakland, Department of Parks and Recreation
Keira Williams, City of Oakland CEDA
Margot Prado-Lederer, City of Oakland, CEDA
Mike Church, City of Oakland, Department of Human Services
Peter Slote, City of Oakland, Public Works Agency
Others
Anya Fernald, Community Alliance with Family Farmers
Aysha Massell, Oakland-Based Urban Gardens (OBUGS)
Bill Lambert, ShastaPros
Brahm Ahmadi, People's Grocery
Brian Matthews, StopWaste.Org
Dana Harvey, Environmental Justice Institute
Dana Rosenburg, City Slicker Farms
Don Shaffer, Business Alliance for Local Living Economies (BALLE)
Jeanne Nader, StopWaste.Org
Jennifer le Barre, Oakland Unified School District, Food Serves
John Jeavons, Ecology Action
Josh Miner, Food Policy Analyst (formerly at Alameda County Cooperative Extension)
Julia Shams, Sustaining Ourselves Locally (SOL)
Justin Watkins, Alameda County Cooperative Extension
Kenneth Hecht, California Food Policy Advocates
Leah Rimkus, San Francisco Food Systems
Leroy Musgraves, Central Valley Farmers, Mandela Farmers' Market Vendor
Malaika Edwards, People's Grocery
Mark Woo, Alameda County Public Health Department, Community Health Services
Pam Aziz, Alameda County Public Health Department, Nutrition Services
Suzan Bateson, Alameda County Community Food Bank
Temra Costsa, Community Alliance with Family Farmers
Willow Rosenthal, City Slicker Farms

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Executive Summary

Food touches the life of every Oakland citizen. It is a basic human need on par with water, housing, transportation and other essential urban infrastructure. Though complex and interrelated, the food system can be conceptually broken down into five basic elements: production, distribution, processing, consumption, and waste. These elements present social, economic, and environmental opportunities as well as challenges to our every-day lives and to society as a whole. Such current and interdisciplinary issues as obesity, fossil fuel consumption, urban sprawl, and job preservation/growth can all be seen through a "food lens." Concerns over quality of food, access to food, and the long-term environmental impacts of both patterns of agriculture and urban food consumption present a number of problems that current food system relationships have not adequately addressed. [1]

Across North America and around the world, a group of diverse actors in cities are stepping up to identify problems within the current food system that cause harm, and are searching for ways in which the system can be improved to provide for greater health and wellbeing of our cities and the surrounding countryside. Many organizations in Oakland, including departments within the City government, have been active in seeking solutions to problems that the food system presents to the community. Over recent years, these efforts have increased as new organizations, programs, studies, and partnerships have formed.

In June 2005, Mayor Jerry Brown's Office of Sustainability initiated this study in order to begin a process of evaluating each element of the food system in Oakland, and to provide key baseline information on the various activities that represent it. On January 10, 2006, the Oakland City Council, Life Enrichment Committee unanimously passed a resolution that:

> …[authorizes] the Mayor's Office of Sustainability to develop an Oakland Food Policy and Plan for thirty percent local area food production, by undertaking an initial food system assessment study, conducted by a research team from the Department of City and Regional Planning, University of California at Berkeley, at no cost to the City.

This baseline analysis is therefore intended to initiate discussion among City policymakers, staff, and community members to consider the impact that the City's food system might have on different areas of public concern. It also begins to assess the potential for increasing the consumption of local foods among Oakland residents. This includes exploring how systems of production, distribution, processing, consumption, and waste, as well as city planning and policymaking could support the objective of having at least 30 percent of the City's food needs sourced from within the City and immediate region.

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[1] "Food System Planning — Why Is It a Planning Issue?: An overview from APA's Divisions Council." Conferences 2006. *American Planning Association.* Nov. 2005. <http://www.planning.org/2006conference/sessionproposal/foodsystembg.htm>.

In order to guide the research and ensuing discussion, we proposed five preliminary goals that could represent a sustainable food system for Oakland. The proposed goals are to: 1) ensure food security, 2) promote economic development, 3) maximize urban agricultural and food waste recovery, 4) support regional agricultural preservation, and 5) increase community "food literacy." With these proposed goals in mind, the study highlights activities across a broad spectrum of food-related activities and sheds light on how interests and resources can come together to expand the discussion of food-related concerns. It is also intended to offer new and creative models, and detailed recommendations on how specific areas of concern might be addressed. Each chapter represents an element or set of elements of the food system (production, distribution and processing, consumption, waste) for which we provide a general description of that food system element, baseline information for Oakland, and areas of critical challenges and opportunities. The assessment uses both quantitative and qualitative analyses of local activities and efforts that contribute to the food system. The end of each chapter includes a summary of key findings as well as some of the barriers that we discovered to a sustainable food system in Oakland. The last chapter of the report focuses on recommendations for each element and provides case studies of sustainable food system initiatives in several cities.

About the Researchers

The study was conducted by Serena Unger and Heather Wooten, both graduate students at the University of California at Berkeley, and both candidates for their Masters of City and Regional Planning in May 2006. The framework and study were initiated by Ms. Unger in June 2005, and in September 2005 Ms. Wooten joined as a contributing researcher and author. While both contributed equally to the research and writing of the study, Ms. Unger was the principal author of Chapter 2, "Production," and part two of Chapter 4, "Consumption – Food Security," and Ms. Wooten was the principal author for Chapter 3, "Distribution and Processing," Chapter 4, "Consumption –Retail," and Chapter 5, "Waste." Both the "Introduction" and the final chapter, "Recommendations," were authored by both Ms. Unger and Ms. Wooten. A collaborative process between the two researchers was fundamental to the form and content of each chapter, with this exchange being an invaluable generative and critique process. Together, Ms. Unger and Ms. Wooten donated a combined total of approximately 725 hours of work for this assessment.

Production

Exploring how to increase Oaklanders' consumption of local food, this chapter focuses on the producers' end. In assessing how 30 percent of food consumed in the City of Oakland can be sourced from within the City and immediate region, it is important to evaluate agricultural productivity of the City's and region's land and the propensity for that land to be used for agricultural purposes. This chapter examines the state of regional agriculture within 32 counties immediately surrounding Oakland and discusses the types of land and space within Oakland that are currently in use for urban food production. Additionally, this chapter highlights community initiatives in Oakland that are engaged in urban gardening for educational and recreational purposes, entrepreneurial food production, job skills training, food security, and environmental sustainability.

An analysis of the food producing regions surrounding Oakland shows that in approximately a 300-mile radius, there are over 20 million acres in agricultural production representing well

over $16 billion in total sales of food. However, though California's farming regions are one of the most productive in the world, the majority of the food consumed in the state is imported from out of state and just under half of the state's raw agricultural production is exported. Our findings show that what Oaklanders spend on food represents a small fraction of the value of the region's agriculture goods. Oakland therefore represents a ripe market for the region, and the region is capable of supplying Oakland with most of its food needs. Sourcing food from this regional foodshed could have many positive social, economic, and environmental outcomes for both regional farming and for the City.

The City itself also has significant potential to produce food. While many argue that the City is too crowded, space too valuable, or land too contaminated to produce food within the City, our research on urban gardening projects shows that there are many innovative ways to maximize space for food production within an urban setting, and many benefits beyond food production that urban gardens provide for city dwellers. We found 35 community-based gardens currently operating in Oakland. The organizations and people responsible for these gardens are producing a wide range of nutritious food suitable to many different ethnic cuisines, demonstrating Oakland's long and productive growing season. Many of the organizations involved in community-based urban gardens are seeking to expand their production, but some (mostly schools) are struggling to keep their garden programs alive. Though Oakland has acknowledged the importance of community gardening in its general plan, there are no policies that support or protect future urban food production in the City.

Distribution and Processing

Food distribution and processing are the two elements of the food system whereby food transitions from production to consumption. Both processed and unprocessed foods must be distributed in some way – this might include distribution systems such as food wholesalers (mediated marketing), Community Supported Agriculture (CSA), farmers' markets, farm-to-restaurant or farm-to-institution programs (direct marketing). Oakland's existing food processing and distribution sectors contribute to the City's economic activity and to its job base, as well as having direct feedback implications for both producers and consumers, including the viability of local production systems and the availability of food for consumers.

The City of Oakland already has a significant food wholesaling and processing cluster, with approximately 4,000 people employed in the "Food Distribution and Processing" cluster, or 4.9 percent of payroll employees in Oakland's "target industry clusters" and 2.2 percent of total employee payrolls.[2] This is good news for local food, because this sector may function as an existing infrastructure on which to build. However, the food processing and distribution sector is in danger of being "squeezed out" of Oakland as industrial land prices rise and rents increase. The existing food processing and distribution base could be expanded and strengthened in order to serve new retail markets, including schools, hospitals, and low-income communities.

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[2] Developing Alternatives; Fike, David. "Labor Market Study Target Industry Cluster: Food Processing & Distribution." Oakland Workforce Investment Board, Oakland Community and Economic Development Agency. August 2004.

Emerging and innovative distribution models, such as CSA's, which distribute local produce directly from the farm to consumers, and other non-retail wholesale models (such as the "Grower's Collaborative") that offer increased efficiencies and lower prices for distributing local produce from many growers, provide opportunities to increase sustainability and accessibility in food distribution. Increasing consumption of local food in Oakland and developing a more sustainable food system that benefits all Oakland residents will be largely a function of leveraging City policy tools to help create new opportunities and tailor existing ones in the food distribution and processing sector.

Consumption – Retail

Food plays a large role in the overall vitality and health of a community and of individuals. The quality, accessibility, affordability and cultural appropriateness of food within a community should be a critical measurement of community sustainability. With an increased awareness of the linkages between food and health, communities have begun to focus on food retail as an important intervention point in improving the sustainability of the food system. Food retail can serve as community gathering places (especially restaurants and market-type establishments), and vibrant, community-serving food retail establishments have the potential to revitalize neighborhood commercial centers.

Because Oakland residents rely on some form of food retail for consumption, understanding the food retail landscape (both through "traditional" grocery or corner stores, as well as direct-marketing models such as farmers' markets) is central to increasing local food consumption. A food retail sector that is capable of effectively and sustainably serving its community offers a culturally appropriate, accessible, and affordable selection, preferably of fresh, nutritious, locally produced and processed foods.

Increasing Oakland's consumption of local food has a number of economic development benefits, as well as environmental, and community benefits, by increasing the community's overall food security, reducing price vulnerability (especially in the face of rising fossil fuel costs), and providing fresher, more nutritious seasonal products.[3]

There is currently substantial untapped food retail demand in Oakland neighborhoods, especially those neighborhoods currently underserved by full-service grocery and that rely on small food retail stores with few fresh offerings. Approximately 85 percent of Oakland food retail stores are less than 3,000 square feet, suggesting that food retail policy should address small stores when attempting to improve food security and increase local food consumption. "Corner store conversions" offer one model for increasing fresh, nutritious produce in all neighborhoods, but particularly in low-income and underserved communities. Existing economic development tools, including Neighborhood Commercial Revitalization and Redevelopment incentives, should be employed in encouraging food retail improvements through the use of a new "Food and Façade Improvement Program." Additional incentives, such as Food Retail Enterprise Zones and special certification programs like the current Green Business program could be implemented to further advance sustainable food retail goals.

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[3] Koc, Mustafa; MacRae, Rod; Mougeot, Luc J.A.; Welsh, Jennifer, Eds. *For Hunger-Proof Cities: Sustainable Urban Food Systems*. International Development Research Centre. Ottawa, ON, Canada. 1999.

Oakland's nine farmers' markets offer residents local, fresh and seasonal produce through direct-marketing, encouraging face-to-face relationships between farmers and consumers. All of Oakland's farmers' markets accept WIC and Senior Farmers' Market Checks, making farmers' markets affordable to Oakland residents who participate in these programs.

Promoting food retail that incorporates local food can help capture those food dollars as well as improve community food security. Retail sales of local food in particular can help increase a community's access to fresh, nutritious, and seasonal foods. Local food offers the possibility of increasing Oakland's environmental sustainability by reducing energy inputs from food distribution and helps to preserve farmland by contributing to regional agricultural viability.

Consumption – Food Security

Food Security means access by all people at all times to enough food for an active, healthy life. Food security includes at a minimum: 1) ready availability of nutritionally adequate and safe foods, and 2) an assured ability to acquire acceptable foods in socially acceptable ways.[4] This chapter examines three different approaches to alleviating food insecurity Oakland, including federal food assistant programs and emergency food programs, as well as community food security programs. Community food security programs are more systems-oriented, and utilizes grassroots resources and capacity building to produce long-term solutions in making healthy, nutritious, and affordable food accessible to the entire community.

A significant portion of Oakland's population experiences food insecurity or is at risk of experiencing food insecurity. While income is a major contributor to food security, environmental factors (such as location of and type of food retail) also play a part. A lack of access to nutritious food in terms of cost and convenience appear to be significant barriers to food security in Oakland. As of 2004, 20 percent of Oakland's population had incomes at or below the Federal poverty level. The California Budget Project determined that a family of three in California needs to earn $36,012 per year to meet their basic needs. In 2004, about 29 percent of all Oakland families (about 23,000 families) were earning under $35,000 per year in Oakland. Additionally, 20 percent of Oakland households did not have motor vehicles as of 2000. Use of motor vehicles is low especially in neighborhoods where there are high percentages of families with low income, and where there are few large food stores within walking distance, increasing the difficulty of access to a broad selection of nutritious food.

The Food Stamp program which provides supplemental income for people who cannot afford food and other basic needs is underutilized in Oakland. It is estimated that only 23 percent of the eligible population are enrolled in the program, resulting in the loss of over $54 million of dollars in unclaimed federal benefits (2003 figures), and a loss also to Oakland retailers and the Oakland economy. Approximately 90 percent of Oakland's eligible population is enrolled in the Women, Infants, and Children program.

[4] Definition from United States Department of Agriculture.

Federal programs serving youth and the elderly are the National School Lunch Program, the School Breakfast Program, Summer Food Service Program, and Child and Adult Care Food Program. The number of students using the lunch program appears to be high, while the breakfast program appears to be underutilized with about 25 percent of those eligible actually using the program for their breakfast needs. Participation rates for the Summer Food Service Program have been consistently growing in Oakland. Meals provided by the Child and Adult Care Food Program saw a significant decrease in participation rates over the last year.

The City of Oakland is engaged in food security in many ways. The Department of Human Services has six programs or initiatives that contribute to alleviating food insecurity. The Hunger Program is primarily responsible for providing emergency food, but is also focused on nutrition education. Other programs include funding for programs on hunger and nutrition, food stamp outreach, administration of the Summer Food Service Program, and Head Start, which serves breakfast and lunch and provides nutrition education.

Another emergency food organization is the Alameda County Community Bank which has national recognition for being innovative in its approach to food security. In addition to food distribution, they try to raise awareness both in the community and among policy makers of the root causes of hunger, and have been active in promoting food stamp participation. Still, while they provide emergency food to 120,000 adults and children in a given month, or 12 million pounds of food per year, they believe that they are still only reaching one-third of the people in need in Alameda County.

Part of this analysis includes a brief examination of health and nutrition in Oakland. Data show that Oakland is not in good shape when in comes to diet-related disease, particularly in childhood obesity. Though obesity is an issue of national concern, Oakland fairs poorly amongst its counterpart cities in Alameda County. Obesity among children is higher in Oakland than the county as a whole and diet-related disease among adults is higher than in most Alameda County cities.

Nutrition education is almost completely lacking where it is needed most. Oakland Unified School District, along with all other school districts in the state, are not currently required by the California Department of Education academic content standards to include nutrition in curriculum at any grade level. OUSD has a policy that commits the District to increasing its collaboration with county agencies and city organizations to bring nutrition education to the schools. However, resources are often too scarce to ensure that all schools are engaged in nutrition education and classroom time for extra curricular activities is almost nonexistent for teachers who already struggle to cover all required elements of the state-mandated curriculum.

Complimenting traditional food security programs and expanding food security activities are various community food security initiatives in Oakland that share an interest in getting local, fresh and nutritious food into communities where hunger and malnutrition are present, and in improving health in underserved neighborhoods. Often involving capacity building, community-based food security strategies have included community-based urban gardening, the facilitation of "corner store conversions," and partnerships with OUSD to provide garden-based nutrition education. Though our assessment highlights only a small portion of

food security efforts, we inventoried 70 organizations whose combined efforts have the potential to make great strides in combating food insecurity in Oakland.

Food Waste Recovery

Food Waste recovery represents an important part of the food system, and in particular a sustainable food system, by "closing the food loop." As the final step in the movement of food through human communities, food waste can be both a community output (as discarded or landfilled waste), and an input back into the food system (as a recoverable resource capable of being converted into compost or other recyclables). Increasing food waste recovery and recycling can help reduce pollution and the consumption of non-renewable resources, generate needed compost for urban and regional agricultural production, reduce costs for businesses, and ensure that edible food is re-distributed to those who need it.

Along with its current "Beyond 75%" diversion rate goal, Oakland recently adopted a "Zero Waste" resolution, demonstrating Oakland's support for increasing product recyclability, reducing toxics and pollution as a component of products and packaging, and creating opportunities for economic development through both increased efficiency and multiple markets for reused and recycled goods. One of the major barriers to increasing food waste recovery and recycling are non-biodegradable packaging, such as Styrofoam and plastic bags. These materials pollute the waste stream, making it harder to compost and recycle food.

Food waste is currently the largest single material in the Oakland waste stream (i.e., waste that goes to land fills rather than being composted or recycled in some other way), representing 12 percent of all waste in Oakland.[5] Oakland has initiated commercial and residential food scrap recovery programs to begin to increase diversion and recycling of food waste. Commercial food scrap recovery is excluded from the Oakland exclusive garbage franchise with Waste Management of Alameda County and is collected for profit on an open market. In 2005, 12,000 tons of commercial food scraps were diverted from the waste stream. The residential food scrap and yard trimmings recycling program, known as the "Green Cart," diverted 34,000 tons.[6]

Other community-based food scrap recovery programs include efforts run by City Slicker Farms, a West Oakland-based organization that runs organic, sustainable, bio-intensive market farms and backyard gardens, which accepts donated food scraps and uses them as inputs for composting. Edible food recovery by Oakland Potluck, which diverts edible food from the waste stream and donates it to those in need, is another community-based solution that increases food diversion and creates new opportunities for food scraps.

Locally produced and processed foods require less packaging due to reduced transportation distances could increase the recoverability of food scraps by reducing non-recyclable and non-compostable components. Increasing food waste recovery in Oakland requires cooperation and innovation among various stakeholders, including the city, waste haulers,

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[5] Alameda County Waste Characterization Study – 2000. *StopWaste.org.* March 2006. <http://recycle.stopwaste.org/wcs/Vol2/Oakland3.xls>.

[6] City of Oakland Public Works Agency, 2006.

businesses, residents, and community organizations. Increasing public awareness of food waste issues and building mechanisms into the food system that address waste minimization and recycling maximization will improve sustainability across the food system.