

# San Mateo County Food System Assessment

A Practical Tool for  
Food System Change

San Mateo County  
Food System Alliance

MAY 2014



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The San Mateo County Food System Alliance (SMFSA) is a community-based collaborative of farmers, fishermen, farmers' market managers, public health and environmental professionals, garden-based educators, distributors, and residents seeking to promote and support a sustainable food system. We aim to increase access to healthy, local food for all residents, increase the economic viability of our food system, and ensure that land and waterways are not just maintained, but are preserved for future generations.

Ag Innovations Network, a non-profit organization that convenes stakeholders to discuss challenges and create solutions to improve the food system, facilitates the San Mateo County Food System Alliance.

*San Mateo County Food System Alliance, 2014*

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# Executive Summary

## BACKGROUND

The San Mateo County Food System Alliance (Alliance) is a collaborative of farmers, fishermen, farmers' market managers, distributors, garden-based educators, residents, and public health and environmental professionals seeking to promote and support a sustainable food system. In this type of food system, all people have equal access to local,<sup>1</sup> healthy, affordable, culturally appropriate food; farmers and fishermen earn enough to sustain and maintain their businesses; and farmers, fishermen, and other stakeholders protect our land and waterways for future generations' use. Formed in 2006, the Alliance outlined several goals to achieve a sustainable food system. These include facilitating a connection between county producers and institutions, engaging parents in farm to school<sup>2</sup> efforts, promoting a garden in every school, ensuring that farmers have access to land and can build equity on their land, encouraging increased local food production by looking at land-use patterns in the county, and assisting cities with adopting sustainable food policies.

Working toward these goals requires a shared understanding of the state of our current food system. As a result, the Alliance decided to conduct a comprehensive local food system assessment. Get Healthy San Mateo County, an initiative that works collaboratively with individuals, communities, and organizations to bring about positive long-term change to the environments where people live, learn, work, and play, provided staff support for this report.

This document shares secondary data and key findings in five major components of the food system: production, processing, distribution, consumption, and reuse/waste disposal.<sup>3</sup> It describes trends, challenges, and opportunities. The Alliance hopes that policymakers, residents, and advocates will review the programs and policies outlined in each chapter, and that these ideas will inspire action in communities across the county.

Photos courtesy of:

San Mateo County Food System Alliance  
Don Pemberton  
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<sup>1</sup> Local food is produce, fish, or meat grown, harvested, or raised within the boundaries of the county.

<sup>2</sup> Farm to school is "the practice of sourcing local food for schools or preschools and providing agriculture, health and nutrition education opportunities, such as school gardens, farm field trips and cooking lessons. Farm to school improves the health of children and communities while supporting local and regional farmers." Source: The National Farm to School Network, accessed December 18, 2013, <http://www.farmtoschool.org/>.

<sup>3</sup> Greater Kansas City Food Policy Coalition, "Food System," accessed October 4, 2013 <http://www.kcfoodpolicy.org/>.



## KEY FINDINGS

### PRODUCTION

- Though San Mateo County is small in land area, agricultural production is robust. In 2012, the county had an agricultural production value of \$140 million.<sup>4</sup> Using a multiplier of 1.35,<sup>5</sup> the agricultural production value is estimated to be approximately \$189 million.
- The production value of food crops and total number of acres in production has been decreasing over time, except for a very slight increase in 2012.<sup>6</sup>
- Seventeen percent of the agricultural production value comes from edible crops, and 81% comes from floral and nursery crops.<sup>7</sup> The three top-grossing edible crops were Brussels sprouts (\$8.7 million), leeks (\$1.5 million), and peas (\$738,000).<sup>8</sup>
- San Mateo County producers grow over 50 types of vegetables, over 30 types of fruits and nuts, and six types of domesticated animals.<sup>9</sup>
- The production value of seafood, \$10.2 million in 2011, has been on the rise for the past six years. With a multiplier of 1.58 to 1.77, the multiplier for seafood, the value was between \$16 million and \$18 million in 2011. The main grossing commercial seafood was crab at \$8.2 million.<sup>10</sup>
- Between 1990 and 2010, the total amount of important farmland, as defined by the California Department of Conservation's Farmland Monitoring and Mapping Program, dropped 42%, from 9,169 to 5,292 acres.<sup>11</sup> The primary cause of the loss of productive San Mateo County farmland has been cessation of use rather than development, as was the main cause about 60 years ago.<sup>12</sup>
- Decreased availability of water is one of the primary causes of the decrease in active farmland production. Small streams are the primary source of irrigation water along the San Mateo County coast. Farmers limit or curtail use of streams when they are low, since these streams provide essential spawning and rearing habitat for steelhead trout, which are part of the commercial fishery in San Mateo County.<sup>13</sup>
- Despite a decrease in productive farmland, the number of San Mateo County farmers has been increasing since 2006.<sup>14</sup>

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4 "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>.

5 The multiplier effect refers to an increase in income when money is reinvested in a community. The value of the multiplier varies depending on the crop, location, and existing infrastructure. The Monterey Institute of International Studies found that every dollar of agricultural production contributes \$1.35 in economic activity in San Mateo County. A report about this study will be released in spring 2014.

6 "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>.

7 "San Mateo County 2011 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf>.

8 Ibid.

9 Data obtained from the San Mateo County Department of Agriculture/Weights and Measures.

10 "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>.

11 The California Department of Conservation's Farmland Monitoring and Mapping Program defines important farmland as prime farmlands, farmlands of statewide importance, unique farmlands, and farmlands of local importance. Source: "Important Farmland Categories," California Department of Conservation, accessed November 22, 2013, [http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map\\_categories.aspx](http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx).

12 "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf).

13 Ibid.

14 "San Mateo County 2011 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf> and "San Mateo County 2006 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2000s/2006%20Crop%20Report.pdf>.

- Farmworkers play a critical role in production, and reports on the availability of affordable housing and the quality of farmworker housing vary. Some of these reports describe clean, affordable, long-term housing that helps retain valuable employees,<sup>15</sup> and others describe overcrowded housing that lacks basic amenities.<sup>16</sup>
- Many San Mateo County residents participate in noncommercial food production. An assessment of county residents found that more than one in four people grow and consume food from their own garden,<sup>17</sup> and as of 2011, 52% of San Mateo County public schools and 48% of private schools had vegetable or herb gardens.<sup>18</sup>

## POTENTIAL OPPORTUNITIES FOR PRODUCTION

- Explore economic incentives for farmers and greenhouse operators to grow more edible crops.
- Determine how to use county GIS maps to encourage more agricultural production.
- Continue to work with local open space district and local land trusts to focus efforts on protecting agricultural land, increasing access to land, and building equity.
- Identify and support policies and other opportunities to improve affordable housing options, access to health care, and transportation for agricultural workers and their families.
- Explore agricultural conservation tools such as easements, affirmative easements specifically with parcels that are being actively farmed, opportunity to purchase at agriculture value, and equity leases.
- Adopt policies and programs to promote and support more backyard, school, and community gardens.
- Support and promote resources, programs, and funding to help local families pass their agricultural business on to the next generation by collaborating with organizations like California FarmLink.
- Promote education, training, and incubator programs such as UC Cooperative Extension's Beginner Farmer and Rancher Development Program for new farmers and ranchers.
- Identify and support policies for improving legal assistance to farmers at a pro bono or reduced rate when legal circumstances arise around apprenticeships and regulations.
- Continue to advocate for regulatory permit streamlining to facilitate construction of off-stream water storage for agricultural irrigation.
- Make a county GIS vacant parcels map that indicates potential sites for community gardens available for public use.
- Support sustainable food systems and urban agricultural education for youth, adults, and seniors.
- Explore and, if necessary, revise zoning laws that may discourage or prevent residents of certain cities from establishing backyard gardens or small-animal husbandry.
- Incorporate good food education into pre-K, elementary, middle, and high school curricula for San Mateo County students.

<sup>15</sup> Steve Oku, e-mail message to author; November 6, 2013 and Burns, B.J. Personal communication, November 14, 2013.

<sup>16</sup> "San Mateo County 2007–2014 Draft Housing Element, December 2012," County of San Mateo, accessed November 22, 2013, [http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major\\_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf](http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf).

<sup>17</sup> "2013 Community Health Needs Assessment: Health & Quality of Life in San Mateo County," the Healthy Community Collaborative of San Mateo County, 2013, accessed May 24, 2013, [http://www.plsinfo.org/healthysmc/pdf/2013\\_Executive\\_Summary\\_Final.pdf](http://www.plsinfo.org/healthysmc/pdf/2013_Executive_Summary_Final.pdf).

<sup>18</sup> In 2010–2011, 171 San Mateo County public and 50 private schools were contacted. This is less than the total number of public and private schools in San Mateo County school districts. Though the percentage of gardens in each school district varied, data for specific school districts is not presented here because not all schools were contacted. A more robust data set is forthcoming from the UCSC Life Lab survey. This data will be available in spring 2014.

## PROCESSING

- Based on the California Economic Development's Quarterly Census of Employment and Wages (QCEW), in the first quarter of 2012, food manufacturers made up over one-tenth of the county's entire manufacturing industry. This census found that the number of processing establishments has decreased in the past 15 years and is currently dominated by bakeries and tortilla manufacturing, and sugar and confectionery product manufacturing.
- According to the QCEW, the total number of processing establishments in San Mateo County peaked at 123 establishments in 1998 and has since declined to 78 in 2012.
- Anecdotally, many producers process their goods outside of San Mateo County.
- The total revenue of the food manufacturing industry in 2009, the latest year for which data is available, was \$5.1 million, or 12.3% of the total manufacturing revenue in San Mateo County.<sup>19</sup>
- Ranchers, who must have animals slaughtered at a USDA-inspected and certified facility, and then butchered into individual cuts at a USDA-inspected facility in order to sell directly to consumers, restaurants, or stores, face many barriers to processing. The processing establishments are located a few hours' drive away, these facilities are small, and it can take months to schedule processing of one or two animals.<sup>20</sup>
- There is limited data on food retail workers in San Mateo County. However, the U.S. Department of Labor suggests that the food retail industry pays its employees lower wages than most other industries, and food system workers often face poor working conditions.
- A national survey conducted by the Food Chain Workers Alliance found that over three-fourths of food workers surveyed didn't have paid sick days or didn't know if they had paid sick days, over half worked when sick, close to a third didn't always receive a lunch break, and over half had suffered an injury or health problem on the job.<sup>21</sup>

## POTENTIAL OPPORTUNITIES FOR PROCESSING

- Explore how to process more San Mateo County products within the county.
- Assess the feasibility of establishing a county-based USDA-certified slaughter facility and USDA-certified cut-and-wrap (butcher shop) to enable ranchers to process beef more easily.
- Explore the formation of a county-based seafood distribution company.<sup>22</sup>
- Determine how to increase the participation of eligible food system workers to access health insurance, Cal-Fresh, Earned Income Tax Credit (EITC), and other governmental programs that can help reduce economic and health disparities.
- Participate in and serve as drop-off points for Community Supported Agriculture & Fisheries.

## DISTRIBUTION

- Food grown in San Mateo County may be distributed to a wholesale distributor; a packing or processing facility, or a produce or seafood distributor; or directly to a consumer.

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19 United States Census Bureau, 2012 Nonemployer Statistics, accessed November 22, 2013, <http://www.census.gov/econ/nonemployer/>.

20 Kathy Webster, e-mail message to author; December 16, 2013.

21 S. Jayaraman, the Food Chain Workers Alliance, "The Hands That Feed Us: Challenges and Opportunities for Workers Along the Food Chain" (2012): 3-68, accessed October 21, 2013, <http://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf>.

22 The Alliance hired Community Alliance with Family Farmers (CAFF) to research and analyze opportunities to aggregate, market, and distribute county-grown products. CAFF identified several strategies to enhance the livelihoods of food producers and increase buyers' and consumers' access to locally grown and harvested products. This report will be available online at the San Mateo County Food System Alliance website in February 2014.



- As there are five main hospitals that serve over 6,000 meals daily and employ close to 11,000 people,<sup>23</sup> more than 90,000 students attend public schools, about 1.5 million meals are served annually in county jails, and the top 10 employers have about 30,000 employees, there is a very large potential market for products grown or harvested in San Mateo County.
- Between 1997 and 2007, the number of farms engaged in direct sales (e.g., to a consumer via a farmers' market, community supported agriculture or CSA,<sup>24</sup> or farm stand) remained around 37, yet the value of direct market sales increased by 20% from \$820,000 to \$980,000, adjusted for inflation.<sup>25</sup>
- Recognizing an interest in buying and selling goods locally, the San Mateo County Convention and Visitors Bureau, the San Mateo County Farm Bureau, and the San Mateo County Harbor District developed "As Fresh As It Gets." It is both a label that signifies that produce, fish, meat, dairy, flowers, or wine has been grown or harvested in the county, and an annual program recognizing restaurants, catering companies, and bed-and-breakfasts that prioritize buying and preparing meals with local products. The San Mateo County Department of Agriculture/Weights and Measures and the San Mateo County Health System funded and supported this project.
- The Alliance hired Community Alliance with Family Farmers (CAFF) to assess the feasibility of aggregating, processing, and distributing county-grown products to public and private institutions. The study recommended four strategic directions that should be implemented simultaneously: coordinating the production of crops to be sold to institutions; enhancing the As Fresh As It Gets brand; exploring whether horticultural greenhouses could be used for an extended season for fruit and vegetable production; and supporting an independently operated service facility that would aggregate, process, and help distribute products to institutions. More information will be available on the Alliance website in spring 2014.

## POTENTIAL OPPORTUNITIES FOR DISTRIBUTION

- Incorporate a preference for local food in purchasing contracts.
- Develop ordinances encouraging institutions and businesses to buy products with the As Fresh As It Gets label.
- Encourage institutional food buyers to use their collective buying power to influence the food supply chain and provide healthier food and more foods grown, raised, harvested, and processed in San Mateo County.
- Explore funding to hire a market facilitator to implement some of the recommendations noted by the CAFF feasibility study, such as coordinating production and facilitating a link between buyers and consumers.



Photo courtesy of Community Alliance with Family Farmers

<sup>23</sup> Francine Serafin-Dickson, e-mail message to author, December 13, 2013.

<sup>24</sup> Community supported agriculture consists of a network of individuals who support one or more local farms, and both producers and consumers share in both the risks and benefits of production. Source: Suzanne DeMuth, Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide, United States Department of Agriculture, 1993, accessed December 4, 2013, <http://www.nal.usda.gov/afsic/pubs/csa/csadef.shtml>.

<sup>25</sup> American Farmland Trust, Greenbelt Alliance, "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," Sustainable Agriculture Education (SAGE), March 2011.



## CONSUMPTION

- Between 1970 and 2010, Americans' daily calorie consumption increased by almost 500 calories.<sup>26</sup>
- Americans cook less and eat out more frequently now than in the past.<sup>27</sup> According to the 2011–2012 California Health Interview Survey, almost one-third of San Mateo County residents consumed fast food once a week, and almost 9% consumed fast food four or more times a week—similar to the state averages of 37% and 11%, respectively.<sup>28</sup>
- The proportion of overweight adults in San Mateo County has been rising but is starting to decline. It increased from 50.8% in 1998 to 56.7% in 2008, but decreased to 55.4% in 2013.<sup>29</sup>
- The proportion of obese adults continues to rise. In San Mateo County, it increased from 13.4% in 1998 to 21.7% in 2013.<sup>30</sup> Obesity and related diseases are estimated to cost San Mateo County approximately \$574 million annually.<sup>31</sup>
- Regarding children, the number of overweight and obese fifth-, seventh-, and ninth-grade public school students in San Mateo County decreased by 5.6%, from 36.11% to 34.07%, between 2005 and 2010. This is lower than the state average of 38%.<sup>32</sup> However, some school districts continue to have high percentages of students who are overweight or obese (i.e., South San Francisco, San Bruno, and Daly City).<sup>33</sup>
- Over the past five years, there was a 46% decrease in daily soda consumption among county children aged 2–11 but a 17% increase in daily soda consumption among county youth aged 12–17.<sup>34</sup>
- Most county residents have many options for purchasing food at one of 68 grocery stores, 487 corner stores (6,000 square feet or less), 972 counter service restaurants (also known as fast-food outlets), 911 full-service or sit-down restaurants, or 235 specialty restaurants, which include places like doughnut shops, coffee shops, and ice cream shops.<sup>35</sup>
- While numerous establishments sell food, not all are healthy retailers. The Retail Food Environment Index (RFEI) is a ratio of unhealthy to healthy food retailers in an area.<sup>36</sup> In 2011, San Mateo County had an average RFEI of 4.5. This means that there were nearly five unhealthy retailers for every healthy retailer.<sup>37</sup>

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26 US Department of Agriculture, Economic Research Service, "Loss Adjusted Food Availability Data," accessed December 31, 2013, <http://www.ers.usda.gov/data-products/chart-gallery/detail.aspx?chartId=40070&ref=collection&embed=True&widgetId=39734#.UsNN6tjDsef>.

27 Bing-Hwan Lin and Rosanna Mentzer Morrison, "Food and Nutrient Intake Data: Taking a Look at the Nutritional Quality of Foods Eaten at Home and Away from Home," *Amber Waves* 10(2), Economic Research Service/USDA, June 2012, accessed July 9, 2013, <http://www.ers.usda.gov/media/783958/Data-feature.pdf>.

28 2011–2012 California Health Interview Survey, accessed November 18, 2013, <http://ask.chis.ucla.edu/main/DQ3/topic.asp>.

29 "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," San Mateo County, accessed November 14, 2013, <http://smhealth.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

30 *Ibid.*

31 Chenoweth & Associates, Inc., "The Economic Costs of Overweight, Obesity, and Physical Inactivity among California Adults—2006," California Center for Public Health Advocacy, 2009, 1–9.

32 Susan H. Babey, Joelle Wolstein, Allison L. Diamant, Amanda Bloom, and Harold Goldstein, "A Patchwork of Progress: Changes in Overweight and Obesity among California 5th, 7th, and 9th Graders, 2005–2010," 2011, UCLA Center for Health Policy Research, accessed December 18, 2013, <http://escholarship.org/uc/item/8wr3t0zc>.

33 *Ibid.*

34 Susan H. Babey, Malia Jones, Hongjian Yu, and Harold Goldstein, "Bubbling over: Soda consumption and its link to obesity in California." UCLA Health Policy Research Brief, 2009.

35 San Mateo County Health Policy, Planning, Epidemiology Unit. A grocery store is any retail food store that has more than 6,000 square feet and has been identified by Environmental Health food inspectors to sell fruits and vegetables. A corner store has 6,000 square feet or less and may or may not sell fruits and vegetables. Due to limitations in the data collection methods and categorization, these definitions are approximate.

36 The Health System defined healthy food outlets as those that sell fruits and vegetables and unhealthy food outlets as those restaurants that offer counter service. San Mateo County Health System Environmental Health Division and Health Policy and Planning, Epidemiology Unit.

37 San Mateo County Health System, "Data and Community Health Profiles," Get Healthy San Mateo County, 2012, accessed December 16, 2013, <http://gethealthysmc.org/data>.

- East Palo Alto is the only community designated as a food desert in San Mateo County.<sup>38</sup> The term food desert, as defined by the United States Department of Agriculture, is a region where healthy, fresh, affordable food is difficult to obtain.<sup>39</sup>
- Overall, a survey of San Mateo County residents found that the overwhelming majority, 77%, rated the ease of accessing affordable fresh fruits and vegetables as “excellent” or “very good.” However, women, young adults, people with a high school education or less, those living below 200% of the federal poverty level,<sup>40</sup> blacks, Hispanics/Latinos, and residents living in the South County region rated access to affordable fresh fruits and vegetables as “fair” or “poor” more frequently than other respondents.<sup>41</sup>
- Food insecurity, defined as a lack of access to affordable, nutritious, and culturally relevant food at all times,<sup>42</sup> in San Mateo County increased by 51.6%, from 28,000 in 2001 to 41,000 in 2009.<sup>43</sup> Some barriers to purchasing healthy food may include significant distance to a healthy food retail outlet from a person’s home or place of work, unreliable or nonexistent transportation, and lack of affordable, healthy food.
- As a result, food assistance programs diligently work to keep pace with demand. Second Harvest Food Bank of Santa Clara and San Mateo Counties provides food to low-income residents through 210 community-based organizations that have over 430 satellite locations. Between 2011 and 2012, they fed an average of 72,151 people per month in San Mateo County and distributed 11.8 million pounds of food, over half of which was fresh fruits and vegetables.<sup>44</sup> In 2012, the need for food grew by nearly 9%, yet food assistance programs kept pace by growing 8% in San Mateo County.<sup>45</sup>
- Moreover, Village Harvest, a nonprofit that gleans<sup>46</sup> produce from backyards and small orchards in Santa Clara, San Mateo, and Yolo Counties, donates gleaned produce to community agencies such as Ecumenical Hunger Program in East Palo Alto and Hope House in Redwood City. In 2012, 231,291 pounds of produce were gleaned, of which 8,152 pounds were harvested in San Mateo County and 5,441 pounds were distributed throughout the county.<sup>47</sup>
- Another kind of food assistance is CalFresh<sup>48</sup> or food stamps. Over the past six years, the number of residents participating in CalFresh has increased from over 21,000 in 2006 to nearly 56,000 in 2012.<sup>49</sup> Between 53,570 and 67,674 people were eligible but were not receiving CalFresh benefits as determined by an analysis of eligible versus participating residents.<sup>50</sup>

38 US Department of Agriculture Economic Research Service, “Food Access Research Atlas,” accessed October 21, 2013, <http://www.ers.usda.gov/data/fooddesert/fooddesert.html>.

39 Ibid.

40 According to the 2013 Federal Poverty Guidelines, 200% of the Federal Poverty Level for a household of four is \$47,100 or less. Source: <http://www.familiesusa.org/resources/tools-for-advocates/guides/federal-poverty-guidelines.html>.

41 “2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo,” County of San Mateo, accessed August 21, 2013, <http://sm-health.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

42 “Food Security,” USDA Food and Nutrition Services, accessed May 24, 2013, <http://www.fns.usda.gov/fsec/>.

43 M. Pia Chaparro, Brent Langellier, Kerry Birnbach, Matthew Sharp, and Gail Harrison, “Nearly Four Million Californians Are Food Insecure,” UCLA Center for Health Policy Research Brief, June 2012, <http://healthpolicy.ucla.edu/publications/Documents/PDF/FoodPBrevised7-11-12.pdf>.

44 Susan Takalo, e-mail message to author; January 8, 2014.

45 Ibid.

46 Gleaning is the process whereby volunteers or farm owners harvest and donate surplus fresh produce from backyards, small orchards, and farms.

47 Craig Diserens, e-mail message to author; August 1, 2012.

48 CalFresh, also known as food stamps, provides low-income eligible individuals and households with a debit card that can be used for the purchase of most types of foods at grocery stores and other stores that accept CalFresh in San Mateo County. Source: “CalFresh,” San Mateo County Human Services Agency, accessed October 10, 2013, <http://www.co.sanmateo.ca.us/portal/site/hsa/menuitem.cdaaf542325a7a5174452b31d17332a0/vgnnextoid=f35153bc-299d0210VgnVCM1000001d37230aRCRD>.

49 Data obtained from the San Mateo County Human Services Agency, 2013.

50 The San Mateo County Health Policy and Planning Division collaborated with the San Mateo County Human Services Agency and the Second Harvest Food Bank of Santa Clara and San Mateo Counties to document the gap in the number of people participating and the number of people eligible for CalFresh. Using methodology from a Food Research and Action Council (FRAC) publication, “SNAP Access in Urban America, January 2011,” this analysis subtracted the number of people enrolled in CalFresh in San Mateo County, provided by the San Mateo County Human Service Agency, from the number of income-eligible residents for CalFresh, based on the 2006–2010 American Community Survey when an individual’s income was equal or less than 130% of the Federal Poverty Level.

- If all eligible residents participated in CalFresh, economic activity would likely increase and access to food would be enhanced. Specifically, one report estimates that the county could earn an additional \$84.8 million, resulting in a \$152 million increase in activity due to a multiplier effect.<sup>51</sup>
- WIC (Women, Infants, and Children) offers food vouchers for affordable, healthy food and nutrition education to San Mateo County pregnant mothers and their children who are five years old and younger. In March 2013, the San Mateo County WIC offices served about 13,475 clients. As of March 2013, they were running at 90% of their caseload, or 12,138 clients.<sup>52</sup>
- In 2009, nearly 20,000 San Mateo County students participated in the National Free and Reduced Lunch program, but another 10,000 children were eligible but not enrolled.<sup>53</sup> Over 7,000 students participated in the National Free and Reduced Breakfast program, but another 12,000 were eligible but were not enrolled.<sup>54</sup>

## POTENTIAL OPPORTUNITIES FOR CONSUMPTION

- Collaborate with community partners (e.g., cities, the County, the County Health System, and others) to review data such as the RFEI and high rates of overweight and obese youth, and implement activities (e.g., conducting a healthy corner store makeover, creating a healthy corner store network, or developing a healthy mobile vending policy) to increase the number of retail outlets that offer healthy food.
- Adopt wellness policies that offer guidelines for food and beverages served in internal meetings and at public events.
- Develop programs and policies to increase participation in food assistance programs (e.g., the Free and Reduced school lunch and breakfast programs, CalFresh, WIC, after-school snack and dinner programs, and the many programs offered by Second Harvest Food Bank of Santa Clara and San Mateo Counties).
- Explore ways to help more stores accept CalFresh and WIC.

## REUSE AND WASTE DISPOSAL

- Waste management policies (e.g. AB 939 and AB 341) can promote a sustainable food system by encouraging the diversion of food scraps and other organic materials into compost facilities. Compost is a beneficial substance that enriches soil and can be made available to farmers and gardeners.<sup>55</sup>
- There is widespread availability of waste management programs for residences and businesses. In fact, 17 out of 21 jurisdictions provided curbside pickup of both yard and food waste for residents.<sup>56</sup>
- One way to assess waste management compliance is assessing the residential disposal per capita or employment disposal per capita in each jurisdiction. Data indicate that all cities met their residential disposal per capita targets and all but two cities met their employment disposal per capita targets.<sup>57</sup>
- Implementing AB 341, which encourages 75% of California waste to be source-reduced, recycled, or composted (which includes anaerobic digestion) by 2020, could generate economic growth opportunities. With enhancements in composting and recycling infrastructure, collecting and processing materials and manufacturing new products, 100,000 full or part-time jobs could be added to California's economy.<sup>58</sup>

51 Kenneth Hanson, The Food Assistance National Input-Output Multiplier (FANIOM) Model and Stimulus Effects of SNAP. ERR-103. U.S. Dept. of Agriculture, Economic Research Service, October 2010, [http://www.ers.usda.gov/media/134117/err103\\_1.pdf](http://www.ers.usda.gov/media/134117/err103_1.pdf).

52 Sujatha Tadimeti, e-mail message to author; May 3, 2012.

53 California Food Policy Advocates, "2010 San Mateo County Nutrition and Food Insecurity Profile," accessed January 13, 2014, <http://cfpa.net/GeneralNutrition/CFPAPublications/CountyProfiles/2010/CountyProfile-SanMateo-2010.pdf>.

54 Ibid.

55 "California's New Goal: 75% Recycling," CalRecycle, accessed February 10, 2014, <http://www.calrecycle.ca.gov/75percent/Plan.pdf>.

56 "Haulers," San Mateo County, Recycle Works, 2013, accessed February 5, 2014, [http://www.recycleworks.org/resident/haulers.html#aw\\_sanmateo](http://www.recycleworks.org/resident/haulers.html#aw_sanmateo).

57 "Per Capita Disposal and Goal Measurement (2007 and Later)," Recycle Works: A Program of San Mateo County, [http://www.recycleworks.org/per\\_cap\\_disposal.html#2010](http://www.recycleworks.org/per_cap_disposal.html#2010), accessed February 10, 2014.

58 "Update on AB 341 Legislative Report," Cal Recycle, October 2013, accessed February 12, 2014, <http://www.calrecycle.ca.gov/75percent/UpdateOct13.pdf>.

## POTENTIAL OPPORTUNITIES FOR REUSE/WASTE DISPOSAL

- Explore ways to support cities and the county to implement AB 341, and use and distribute city- or county-made compost.
- Reduce loss and waste in the food system.



## NEXT STEPS

The Alliance will review and analyze data from this assessment to observe trends, gaps, challenges, and opportunities in the San Mateo County food system. In addition to reviewing and analyzing data from this study, the Alliance will incorporate findings from other studies into its analysis, most of which should be completed by spring 2014. These include an assessment of the feasibility of aggregating, processing, and distributing county-grown products; an analysis of the viability of San Mateo County agriculture and how Peninsula Open Space Trust (POST) can preserve more farmland; and findings on the economic multiplier effect of food and other crops grown in San Mateo County.

As a result of this work, the Alliance will prioritize programs and policies for the upcoming year; engage with various community stakeholders on strategy development and potential partnerships, and identify indicators to measure progress over time, helping us to ensure that we are effectively working toward supporting San Mateo County's food system in a holistic way.

# Background

## *What is the San Mateo County Food System Alliance?*

The San Mateo County Food System Alliance (Alliance) was the first collaboration of its kind in the state of California. Formed in 2006, it has sought to bring together the divergent parts of the San Mateo County food system<sup>1</sup> to promote and support a healthier and more vibrant local food economy. It consists of representatives from numerous sectors such as farming, fishing, environment, public health, education, distribution, and labor. The Alliance seats both the county's Agricultural Commissioner and its Public Health Officer, creating an unprecedented opportunity to link local food production to healthy citizens.

Throughout 2007, the group worked to hear and understand the various Alliance members' perspectives on food and farming in the county by listening to the diverse stakeholders of coast-side food producers and bay-side community service workers struggling against poverty and obesity.<sup>2</sup> These views informed the formation of the Alliance and helped set the group's agenda.

The Alliance has worked over the last six years to envision, advocate for, and create a sustainable food system that is economically viable, environmentally sound, and socially just. To the Alliance, sustainability means that all producers, fishermen, and ranchers are paid a fair price for their products; San Mateo County land and waterways can continue to be farmed and fished for future generations; and all people, regardless of income and where they live, have easy access to affordable, healthy, locally grown and harvested food. The Alliance defines local products as produce, fish, or meat grown, harvested, or raised within the boundaries of the county.

## *What is Get Healthy San Mateo County?*

Get Healthy San Mateo County is a County initiative that works collaboratively with individuals, communities, and organizations to bring about positive long-term change to the environments where people live, learn, work, and play. Staff members from the San Mateo County Health Policy and Planning Division oversee Get Healthy San Mateo County. Given the similar goals of Get Healthy San Mateo County and the Alliance, Get Healthy San Mateo County offers some staff support to the Alliance.

## *What is the food system?*

A food system is defined as the chain of activities connecting food production, processing, distribution, consumption, and waste management, as well as all of the associated regulatory institutions and activities. While a food system is often thought of and examined in its different parts, it is important to view the collection of these parts holistically, as each affects the other.

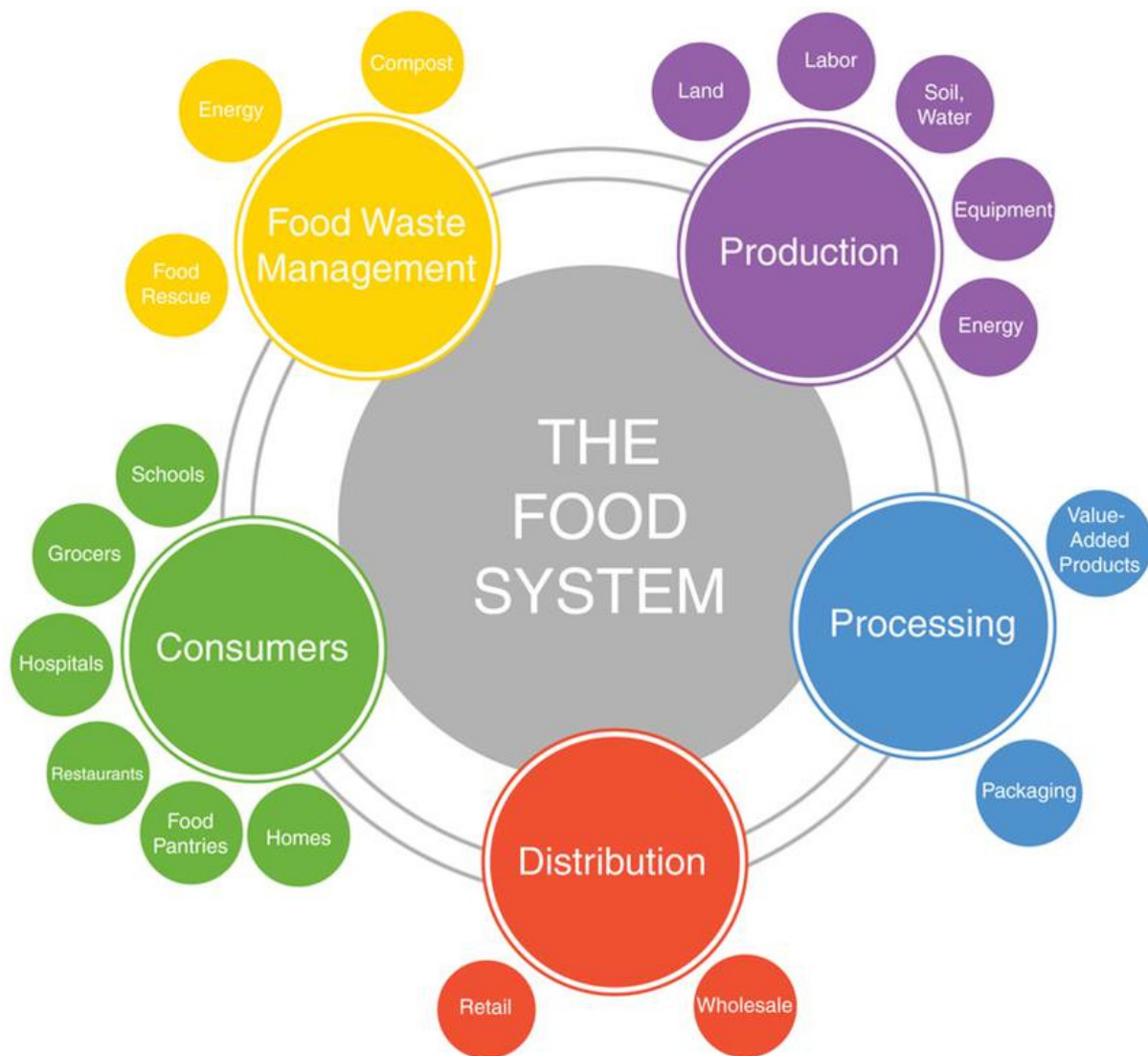
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<sup>1</sup> "Producing, Distributing & Consuming Healthy Local Food—Ingredients for a Sustainable Food System," San Mateo County Food System Alliance, accessed September 11, 2012, [http://aginnovations.org/images/uploads/SustainableFoodBrief\\_March\\_2012.pdf](http://aginnovations.org/images/uploads/SustainableFoodBrief_March_2012.pdf).

<sup>2</sup> San Mateo County is divided by the Santa Cruz mountain range into two major geographical areas colloquially called "coast side," referring to the geographic area bordering the Pacific Ocean, and "bay side," referring to the region that borders the San Francisco Bay.

For example, when describing agricultural production, it is essential to note how that product was processed, where it was shipped, who bought it, how it was consumed, and what was done with the ensuing waste. While there are parts of the food system that exist before production (e.g., inputs, environmental factors) and in between the subsequent phases, this report will focus on the five major components of the food system: production, processing, distribution, consumption, and waste management.

### KEY COMPONENTS OF THE FOOD SYSTEM



Source: Julia Pon of Wholesome Wave for the CT Farms. Food and Jobs Working Group, January 2012.



Though the diagram below omits workers involved in reusing/disposal, it illustrates the important role of food system workers. When data is available, several chapters in this report describe some of the challenges that food system workers face.



**PRODUCTION** As the first stage of all food items, workers plant, care for, and harvest raw food items as well as raise livestock. Some of these raw foods, such as corn and grains, become material for processed food items and animal feed. Other fruits and vegetables are brought directly to market for consumption. This stage also includes fisheries.

**PROCESSING** Workers in food processing turn raw food items into finished products, either by hand or on assembly lines in plants or factories. This includes both highly processed snack foods as well simpler items such as breads, cheese, and tortillas. Also included in this category are slaughterhouse workers and animal processors.

**DISTRIBUTION** At this stage, workers transport food from one destination to another and load and unload food at warehouses and distribution centers. These may be final points of sale or intermediate locations for storage or further processing. Essentially, distribution connects the material at each stage of the food system. While a large component of this involves transportation, this stage also includes warehousing, refrigeration, logistics, and coordination.

**RETAIL** Workers in this sector sell food directly to consumers in retail outlets including supermarkets, convenience, grocery stores, and buyers' clubs. Workers in retail also include those who cook and prepare foods for delis and bakeries within the retail outlets, receive shipments, stock shelves, and clean the facilities.

**SERVICE** The service sector is the largest segment of the food system. Workers in this segment prepare, cook and serve food, bartend, and wash dishes. This sector includes full-service restaurants, casual dining and quick service establishments, catering businesses, food trucks, and food service establishments such as cafeterias and dining halls.

Source: "The Hands That Feed Us," Food Chain Workers Alliance (2012), accessed December 31, 2013, <http://foodchainworkers-wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf>.



### *What is a food system assessment report?*

A food system assessment report is a tool to help citizens, businesses, advocates, and policymakers understand the broad trends in their regional food system. Food system assessment reports are growing in popularity as the nation's focus continues to shift toward local food production, processing, distribution, consumption, and waste management.

### *Why write a food system assessment report?*

The Alliance and Get Healthy San Mateo County initiated this food system assessment report to better inform the work of the Alliance and member organizations, and to provide a baseline set of data for all stakeholders. With information from this document, the Alliance and its partners will be able to reference current and historical trends in San Mateo's food system. This data will also help stakeholders to make more well-informed decisions about how to best affect positive food system change. Using data from this report, the Alliance and Get Healthy San Mateo County will be able to create a system to track progress over time, develop a shared vision of the food system, and inspire stakeholders such as residents, policymakers, and local officials to review this data and take action to improve the food system.

It is the intent of this document to spark conversation among the citizens of San Mateo around some central questions, including:

- How has the San Mateo County food system changed over time, and what does it look like today?
- What are the implications of the broad changes in the San Mateo food system?
- How can we proactively develop a food system that benefits the health and sustainability of local businesses, institutions, our land and oceans, and our people?

At the end of each chapter, the Alliance identifies specific opportunities to serve as catalysts for further discussion and possible future improvements to the San Mateo County food system.

## CURRENT ALLIANCE GOALS AND ACTIVITIES

The Alliance has been working on a number of projects for the past several years. Specific goals and activities are listed below in Table 1.

Table 1. 2013 San Mateo County Food System Alliance goals and activities.

Goals	Current Activities
Facilitate a connection between local food and institutions (e.g., schools, hospitals, county facilities, and businesses).	<p>Collaborate with at least two school food service directors (e.g., Redwood City and Ravenswood City School District) to clarify their district's farm to school vision, encourage stakeholders to implement their vision, and share lessons learned with other school districts.</p> <p>Collaborate with Community Alliance with Family Farmers (CAFF) on: (1) Get Healthy San Mateo County's Farm to School Challenge, which funds one farm to school program in the county, (2) promoting Harvest of the Month (HOTM), and (3) encouraging county grower participation in HOTM.</p>
Engage parents in farm to school efforts.	Conduct presentations to parent-teacher associations/organizations (PTAs/PTOs) on resources available for school gardens, HOTM, farm to school, and the Rethink Your Drink campaign.
Promote a garden in every school and integrated health and nutrition education.	Implement an annual garden recognition award program for schools and after-school programs that employ sustainable gardening practices. Increase applicants by 10% each year.
Conduct a feasibility study.	Assess the economic viability of aggregating, processing, and distributing local food to institutions and businesses (expected completion date spring 2014).
Encourage increased local food production by looking at land-use patterns in the county.	<p>Advocate for water catchment and water storage best practices in county, and determine actions for county participation in statewide conversations related to these topics.</p> <p>Assist Supervisor Horsley's office with some outcomes of the November 2012 Agricultural Workshop (e.g., streamline permitting process for growers and conservation organizations, and hire an agricultural ombudsperson for the county).</p> <p>Monitor and support county conversation and action around Williamson Act contracts.</p>
Promote sustainable food policies in cities and the county.	<p>Meet and work with city officials from at least two cities to write/adopt a sustainable food policy.</p> <p>Share some proposed policies that cities can adopt and that can accompany the food policy brief <i>Producing, Distributing and Consuming Healthy Local Food: Ingredients for a Sustainable Food System</i>.</p> <p>Conduct presentations describing the food policy brief and food policies that cities can adopt with community groups/cities to increase awareness of sustainable food policies.</p> <p>Encourage the City/County Association of Governments in the county to include sustainable food language in their climate action plan template developed for the county and 20 cities in San Mateo County.</p> <p>Respond to requests from the California Food Policy Council, a collaborative of representatives from other Food System Alliances and Food Policy Councils across the state.</p> <p>Respond to requests from other local, state, and federal groups that encourage support for or opposition to proposed legislation or policies. Vet policies with the San Mateo County Food System Alliance when appropriate.</p>
Engage community stakeholders via Facebook and other social media strategies.	Moderate Facebook page for the San Mateo County Food System Alliance, and share information about upcoming events, news, photos, videos, reports, etc.

# I. Production

This chapter describes the types of products grown and harvested in the county, including data about the commercial agricultural operations and operators, and the commercial fishing industry in San Mateo County. It also includes information about noncommercial food production, such as school, community, and backyard gardens.

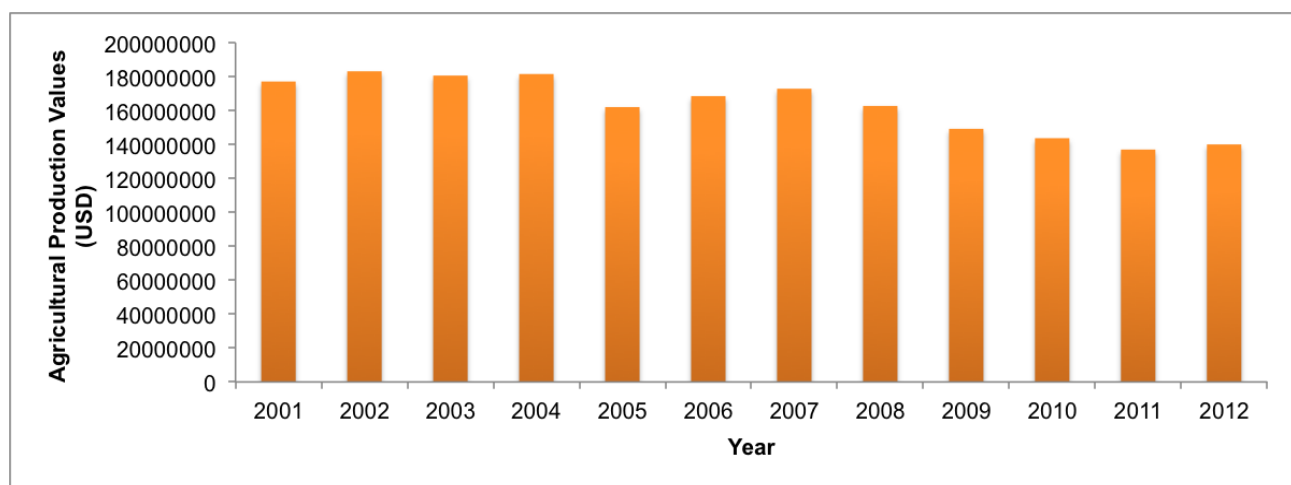
## I.1 PRODUCTION VALUE OF CROPS GROWN IN SAN MATEO COUNTY

Although San Mateo County is the third-smallest county by land area in California, its agricultural output is significant. As of 2011, the latest year for which rankings are available, San Mateo was ranked 36th out of 58 counties in California in terms of agricultural production value.<sup>1</sup>

Among the top crops accounting for that production value are Brussels sprouts and nursery crops. In 2011, San Mateo County was the second-largest Brussels sprouts producer in all of California, and in 2010, San Mateo County ranked number one in the state for production of indoor flowering potted plants.<sup>2</sup> Producers in San Mateo County also have the capacity for diverse agricultural operations, growing nearly 50 types of vegetables, over 30 types of fruits and nuts, and 6 types of domesticated animals. Fishermen harvest over 15 types of seafood.

According to the 2012 San Mateo County Department of Agriculture/Weights and Measures Crop Report, the total value of agricultural production in the county was \$140,032,000. This dollar figure represents a 23% decrease from 2004. Figure 1 describes the San Mateo County production value over the last decade, Table 2 compares the production value between 2004 and 2012, and Figure 2 shows how, with the exception of nursery and floral crops, the total agricultural production output from San Mateo County has been falling steadily since the 1950s.

Figure 1. San Mateo County production value over the last decade.



Source: Data adapted from "San Mateo County Department of Agriculture/Weights and Measures, Agricultural Crop Report, 2011," and "San Mateo County Department of Agriculture/Weights and Measures, Agricultural Crop Report, 2012."

<sup>1</sup> "San Mateo County 2011 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf>.

<sup>2</sup> Ibid.

However, the \$140 million figure reported for 2012 still has a large impact on the economy, both in real dollar terms and through the multiplier effect. The multiplier effect refers to an increase in income when money is reinvested in a community. Based on a report completed by the Monterey Institute of International Studies, scheduled to be released in spring 2014, the San Mateo County Agricultural Department estimated that every dollar of agricultural production contributes \$1.35<sup>3</sup> in economic activity. This figure is much less than the estimated multiplier of 1.62 to 3.5 in economic activity noted in the “San Mateo County 2011 Agricultural Crop Report.”

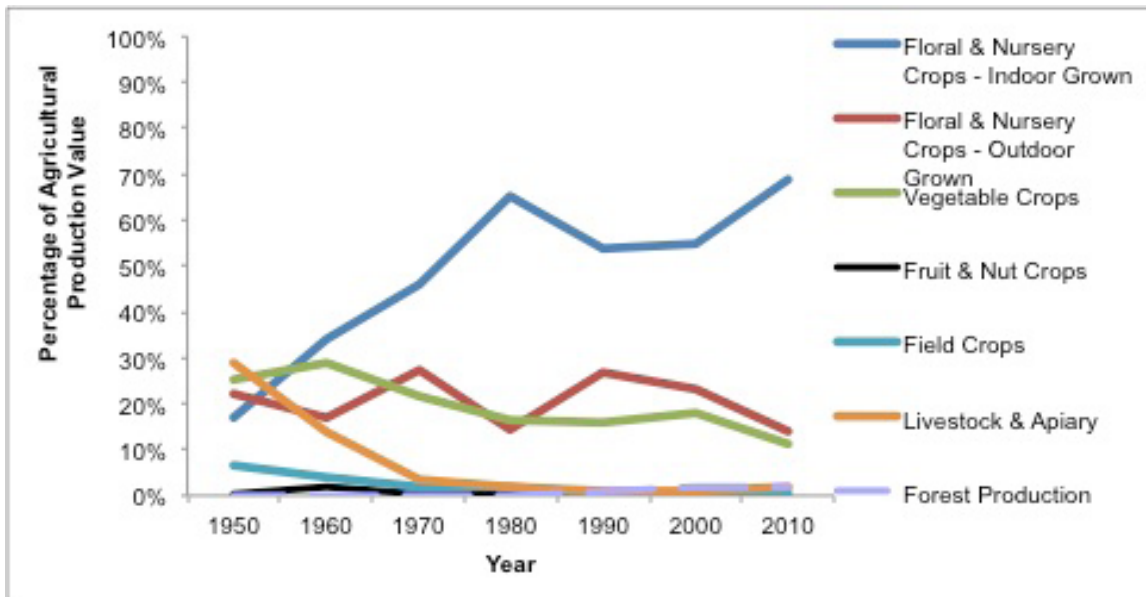
*Table 2. The total value of agricultural production in 2004 and 2012 with and without a multiplier effect.*

Year	Total Value of Agricultural Production	Percent Decrease in Total Value of Agricultural Production, 2004–2012	Total Value of Agricultural Production with Multiplier Effect of 1.35
2004	\$181,536,000	—	\$245,073,600
2012	\$140,032,000	23%	\$189,043,200

Sources: Data adapted from “San Mateo County Department of Agriculture/Weights and Measures, 2004 Agricultural Crop Report,” and “San Mateo County Department of Agriculture/Weights and Measures, 2012 Agricultural Crop Report.”

The landscape of the principal crops in San Mateo County has changed notably over the last six decades. In the 1950s, most of the agricultural production resulted from livestock and apiary products (29%), vegetable crops (25%), and outdoor-grown floral and nursery crops (22%), while in 2010, nearly 70% of the production value came from floral and indoor-grown nursery crops, and about 14% came from outdoor-grown floral and nursery crops. San Mateo County’s nursery and floral industry evolved into highly efficient operations producing a high crop return, necessary to survive the high land and labor costs of the Bay Area and strong competition.

*Figure 2. Percentage of total production value by crop category and year, 1950-2010.*

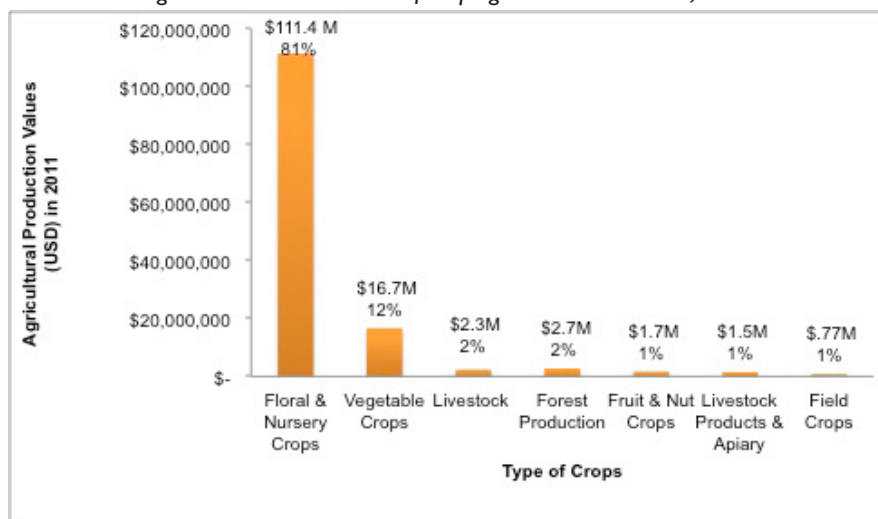


Source: Data adapted from San Mateo County Department of Agriculture/Weights and Measures, Agricultural Crop Reports (1950–2010).

<sup>3</sup> The value of the multiplier varies depending on the crop, location, and existing infrastructure.

Figure 3 below shows the production value of crops grown in San Mateo County in 2011. It highlights the large contribution that nursery and floral crops make to the county agricultural production value, 81%, and the correspondingly small contribution by fruit and vegetable crops, 17%.

Figure 3. Production value of crops grown in San Mateo, 2011.



Source: Data adapted from "San Mateo County Department of Agriculture/Weights and Measures, 2011 Agricultural Crop Report."

## 1.2 PRODUCTION VALUE OF SEAFOOD HARVESTED IN SAN MATEO COUNTY

The seafood industry in San Mateo County has fared well over the last few years, as indicated in Table 3 by a 41% increase in sales between 2006 and 2011.

Table 3. Total value of seafood production in San Mateo County in 2006 and 2011.

Year	Total Value of Seafood Harvest	Percent Increase between 2006 and 2011	Total Value of Seafood Harvest with Multiplier Effect of 1.58 to 1.77
2006	\$5,963,266	—	\$10 million–\$21 million
2011	\$10,151,124	41%	\$16 million–\$18 million

Sources: Data adapted from "San Mateo County Department of Agriculture/Weights and Measures, 2006 Agricultural Crop Report;" and "San Mateo County Department of Agriculture/Weights and Measures, 2012 Agricultural Crop Report." Note: Data from the 2012 crop report provides information for the 2011 seafood harvest.

## 1.3 TYPES OF EDIBLE CROPS GROWN AND TYPES OF SEAFOOD HARVESTED IN SAN MATEO COUNTY

Again illustrating the shift from food production to nursery and potted plant production, Table 4 shows that in 2011, edible crops were just 17% of the agricultural production value, while in the 1950s, cattle, ducks, and a number of other items were among the top 10 agricultural commodities by value.

Table 4. The Top 10 agricultural commodities by value, 1954 and 2011.

1954	2011
Chrysanthemums (field grown)	Flowering potted plants (indoor grown)
Hogs	Ornamental nursery stock
Brussels sprouts	Brussels sprouts
Artichokes	Cut flowers (indoor grown)
Dairy cattle	Cut flowers (outdoor grown)
Potted plants (greenhouse grown)	Foliage potted plants (indoor grown)
Carnations	Forest products
Heather	Cattle and calves
Ducks	Leeks
Ferns	Livestock products (cheese, eggs, wool, etc.)

Source: Data adapted from "San Mateo County Department of Agriculture/Weights and Measures, 2004 and 2011 Agricultural Crop Reports."



Though they are losing overall market share, edible crops do bring their fair share of revenue. In 2011, fresh Brussels sprouts, leeks, and peas were the most profitable crops and collectively brought in nearly \$10 million (see Table 5 below).

Table 5. Vegetable breakdown by revenue and acreage, 2011.

Vegetable	Total Revenue	Acreage
Brussels sprouts	\$8,658,781	617
Leeks	\$1,506,720	160
Peas	\$738,276	218
Fava beans	\$560,000	210
Pumpkins	\$638,915	226
Snap beans	\$389,172	94
Artichokes	\$249,067	56
Swiss chard	\$164,215	23
Squash	\$56,404	12
Potatoes	\$50,313	7
Beets	\$48,961	12
Arugula	\$30,596	3
Cucumbers	\$27,081	1
Carrots	\$19,621	2
Cabbage	\$18,239	5
Spinach	\$17,208	3
Onions	\$16,829	3
Garlic	\$11,355	3
Radishes	\$10,821	1
Turnips and rutabagas	\$9,437	1
Shallots	\$1,550	0.14
Miscellaneous vegetables (field and indoor grown)	\$3,204,104	243
<b>Total</b>	<b>\$16,448,651</b>	<b>1,668.14</b>

Source: Data obtained from 2011 records, San Mateo County Department of Agriculture/Weights and Measures.

Note: The table above includes only commodities with three or more growers and where no one grower has 50% or more of the production. This category covers about 22% of the production value of all food crops grown in San Mateo County. The miscellaneous category notes that there are many other producers growing different types of crops that cover nearly 250 acres. Also, this data is more detailed than the annual crop reports released by the Department of Agriculture/Weights and Measures, so the data listed here does not align with the crop report.



As of 2010, the total acreage in food crop production was 23,072<sup>4</sup> acres, or approximately 8% of county land. The peak was during the 1960s at 58,849 acres, or 21% of county land.<sup>5</sup> Not counted in these numbers are acres under greenhouse production. San Mateo County houses 214 acres of greenhouse space, primarily used to produce ornamentals.<sup>6</sup>

There are a wide variety of commodities including, but not limited to, anise, artichokes, arugula, snap beans, other beans, beets, bok choy (also known as tatsoi, pac choi, and hon tsai), tai, broccoli, broccoli rabe (rapini), Brussels sprouts, cabbage, cardooni, carrots, cauliflower, celery, celery root (celeriac), collard greens, corn, cucumbers, eggplant, endive (escarole), fava beans, fennel (bulbing), flowers (edible), garlic, ginger, gourds, herbs, kale, kohlrabi, leeks, lettuce, mushrooms, mustard greens (mizuna), onions, peas, peppers, potatoes, pumpkins, radishes, rhubarb, shallots, spinach, sprouts, squash, Swiss chard, tomatillos, tomatoes, turnips and rutabaga, watercress, and zucchini.

In addition, a wide variety of fruits and nuts are grown by at least one grower in San Mateo County. These include apples, apricots, avocados, blackberries, blueberries, cactus, chayote, cherries, chestnuts, feijoas, figs, grapefruit, grapes, kiwi, lemons, limes, loganberries, melons, olallieberries, mulberries, olives, oranges, peaches, pears, persimmons, plums, quince, raspberries, strawberries, tangerines, walnuts, and watermelons.

San Mateo County farmers grow several different types of dry edible beans: black, cannellini, fava, pinto, cranberry, romano, giganti, Italian butter, Manchurian, and premanica are among the beans grown in the county. In 2012, growers planted 58 acres and produced 59 tons worth \$325,000. Dry edible beans are not irrigated crops and can therefore be farmed in areas with limited water.<sup>7</sup>

In addition to vegetables, meat, fruits, nuts, and dried beans, the 2012 Crop Report estimates that approximately \$430,000 of honey was sold by San Mateo County beekeepers. As of March 2013, the San Mateo County Beekeepers Guild had over 280 members, including beekeepers and their supporters. According to the Agricultural Commissioner's Office, San Mateo County Beekeeper's Guild, and independent beekeeper reports, in 2013, 19 beekeepers had a certified producer's certificate enabling them to sell to certified farmers' markets in the county, 13 of which were organic, and an additional 15 beekeepers were registered with the Agriculture Department.

Of the livestock sold in San Mateo County in 2011, cattle and calves were the largest category, at 2,393 head sold for a total gross revenue of \$1,800,000; 740 head of sheep and lamb were sold worth \$107,000; 1,073 head of hogs and pigs were sold worth \$110,000; and 3,952 head were sold in the "other" category, which includes goats, chickens, turkeys, etc., for \$315,000.<sup>8</sup>

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4 Note: The number of acres presented in the San Mateo County crop reports is likely an underestimate of the actual numbers of acres in production because this data is compiled from several sources: an annual voluntary survey of growers, pesticide permits sought by growers, and general knowledge about who is farming in the area. Some growers are reluctant to respond to a voluntary survey and share data related to their farming business. Also, some of the acres may be reported multiple times, as farmers report one field with 20 acres of beans and corn as 20 acres of beans and 20 acres of corn, though the beans and corn are planted on the same land.

5 This excludes non-irrigated pasture. Source: "San Mateo County 1950, 1960, 1970, 1980, 1990, 2000, 2010 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://agwm.smcgov.org/agricultural-crop-report>.

6 Ornamental crops include herbaceous perennials, shrubs, Christmas trees, hydrangeas, stock, tulips, yarrow, calla lilies, larkspur, etc. and are grown for decorative purposes. Source: "San Mateo County 2011 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf>.

7 "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed January 30, 2014, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>.

8 "San Mateo County 2011 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf>.



Selling their catch at “G” Dock, Pillar Point Harbor

San Mateo County has a thriving commercial fishing industry, bringing in almost one-third (5.3 million pounds) of the San Francisco Bay Area’s total commercial seafood in 2011. This is the latest year for which data is available. This food enters the county primarily through the Princeton–Half Moon Bay port, with a smaller portion coming through the South San Francisco port. According to an e-mail exchange with Pietro Parravano, commissioner, San Mateo County Harbor District, as of 2012, there were 122 fishing vessels at the harbor. In 2011, Pillar Point Harbor had the second-largest landing of commercial fish out of 13 major ports in the San Francisco Area, behind the port of San Francisco. Pillar Point landed 5,299,847 pounds of commercial fish valued at \$10,151,124. Dungeness crab, a regional specialty, represented the majority of this value.<sup>9</sup> Out of 18 counties in California that landed commercial salmon in 2006, San Mateo County had the second-highest frequency of salmon fishing trips (17%), behind Sonoma County (29%).<sup>10</sup>

As shown in Table 6 below, the top five commercial fish are crab, sablefish, salmon, squid, and halibut, with crab and sablefish having the highest production value.

*Table 6: Top five landings of commercial fish by value in Princeton–Half Moon Bay Port, 2011.*

Type of Fish	Value	Poundage
Crab	\$8,240,626	3,371,188
Sablefish	\$560,346	158,791
Salmon, Chinook	\$389,657	57,804
Squid, market	\$352,700	57,804
Halibut, California	\$272,427	61,301

Source: Data adapted from California Department of Fish and Game, “Table 17PUB—Poundage and Value of Landings by Port, San Francisco Area During 2011,” San Mateo County, California, 2011.

<sup>9</sup> “Table 17PUB—Poundage and Value of Landings by Port, San Francisco Area During 2011,” California Department of Fish and Game, 2012, accessed December 7, 2012, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=57119&inline=true>.

<sup>10</sup> Steven C. Hackett and Doreen M. Hansen, “Cost and Revenue Characteristics of the Salmon Fisheries in California and Oregon,” Humboldt State University/National Marine Fisheries Service 2008, accessed December 7, 2012, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=36441&inline=true>.

In addition to the top five types of seafood, fishermen in Half Moon Bay also harvest all types of rockfish, prawns (spot), tuna (albacore), sole (all types), sea bass (white), crab (rock unspecified), sand dab, flounder (all types), lingcod, and miscellaneous other fish.<sup>11</sup>

All of the figures above regarding the acres, pounds, and dollar value of food grown and harvested in San Mateo County represent the county's agricultural and seafood diversity and abundance. Though the statistics show a clear decline in amount of food crops grown and acres under cultivation over the last few decades, they also highlight the potential of San Mateo agriculture. This report seeks to highlight that potential, as fodder for an active public discussion around prioritizing and supporting agriculture, seafood, and other producers in the county.

## 1.4 FARMLAND AREA

Similar to most crop categories highlighted in the first section of this chapter, farmland in active production in San Mateo County has dropped substantially in recent years. This is due to a number of factors, including access to land and water; high input costs; high costs for farmland, labor, and housing; and the pressure of national and intrastate competition and international imports.<sup>12</sup>

Every two years the California Department of Conservation (CDC) surveys farmland use and conversion throughout the state as part of the Farmland Monitoring and Mapping Program (FMMP). The FMMP provides a comprehensive database for comparing the relative use of farmland in each county. The CDC uses several criteria and distinctions to determine what land is and is not farmable or ranch-able. According to the FMMP, they are primarily looking at water conditions, such as the soil water retention capacity, whether the land has a developed irrigation supply, the height of the water table, and if the land has a propensity to flood. They are also examining soil conditions, such as the soil temperature range, acid-alkali balance, sodium content, erodibility, permeability, rock fragment content, and rooting depth.

Table 7 below shows that all categories of CDC designated farmland—prime farmland,<sup>13</sup> farmland of statewide importance,<sup>14</sup> unique farmland,<sup>15</sup> and farmland of local importance<sup>16</sup>—decreased in San Mateo County between 1990 and 2010. Farmland of Local Importance lost the highest percentage of land, decreasing by 83% during the 20-year period. Despite this overall decline, the second-largest category of important farmland, prime farmland, defined as land with the best combination of physical and chemical features to be able to sustain long-term agricultural production, experienced only an 8% loss in that time. It is likely that given its properties, prime farmland is doubly protected because of its relative agricultural production value, and as such, it is restrictively zoned so as to prevent its development.

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11 "San Mateo County 2011 Agricultural Crop Report," County of San Mateo, Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2011%20Crop%20Report.pdf>

12 "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf)

13 FMMP prime farmland is defined as the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. Source: "FMMP—Important Farmland Map Categories," State of California Department of Conservation, Farmland Mapping, accessed November 22, 2013, [http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map\\_categories.aspx](http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx)

14 FMMP farmland of statewide importance is defined as farmland similar to prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. Source: Ibid.

15 FMMP unique farmland is defined as farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. Source: Ibid.

16 FMMP farmland of local importance is defined as land of importance to the local agricultural economy as determined by each county's Board of Supervisors and a local advisory committee. Source: Ibid.

Ironically, some of the loss of San Mateo County prime farmland as a whole has come not from development but from the cessation of agricultural use. This generally means the fallowing of land and its conversion to open space and grazing land.<sup>17</sup> As Table 7 indicates, the total amount of important farmland dropped 42% from 9,169 to 5,292 acres.<sup>18</sup>

*Table 7. Different categories of land by acreage between 1990 and 2010.*

Land-Use Category	Acreage by Category in 1990	Acreage by Category in 2010	2010 % of Total Important Farmland	1990–2010 % Change
Prime farmland	2,381	2,180	41%	-8%
Farmland of statewide importance	219	146	3%	-33%
Unique farmland	2,443	2,271	43%	-7%
Farmland of local importance	4,126	695	13%	-83%
Important farmland subtotal	9,169	5,292		-42%

Source: Data adapted from California Department of Conservation, "San Mateo County Land Use Conversion Data," Division of Land Resource Protection (1990–2010).

The FMMP database also documents the land-use changes of grazing land. As demonstrated in Table 8, grazing land actually increased by 6%, from 46,060 to 48,797 acres between 1990 and 2010.<sup>19</sup>

*Table 8. Acreage of grazing land, 1990–2010.*

Land-Use Category	Acreage by Category in 1990	Acreage by Category in 2010	1990–2010 % Change
Grazing land	46,060	48,797	6%

Source: Data adapted from California Department of Conservation, "San Mateo County Land Use Conversion Data," Division of Land Resource Protection (1990–2010).

Though San Mateo County has instituted aggressive policies protecting agricultural land, the overall amount of San Mateo County cropland being farmed continues to decrease. The County's General Plan and the Local Coastal Program (LCP) include right-to-farm protections, restrictions on subdividing agricultural land, and coastal preservation policies.<sup>20</sup> Despite comprehensive land-use policies and community support of cultivated farmland, these efforts have not been able to curtail a 40% reduction in the county's cropland from 1990 to 2008.<sup>21</sup> However, prime cropland, which is 41% of all cropland in the county, had only a 7% loss within that time frame.<sup>22</sup> It is necessary to foster the continued use of prime cropland and simultaneously develop ways to contain losses.

<sup>17</sup> "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf).

<sup>18</sup> "San Mateo County 1990–2010 Land Use Summary," California Department of Conservation, Farmland Monitoring and Mapping Program, accessed November 22, 2013, [http://redirect.conservation.ca.gov/dlrp/fmmp/pubs/1984-Present/smt\\_1984-Present.xls](http://redirect.conservation.ca.gov/dlrp/fmmp/pubs/1984-Present/smt_1984-Present.xls).

<sup>19</sup> According to the Farmland Monitoring and Mapping Program, grazing land is defined as land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. Source: "FMMP—Important Farmland Map Categories," State of California Department of Conservation, accessed December 3, 2012, [http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map\\_categories.aspx](http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx).

<sup>20</sup> "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf).

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

As an outgrowth of the 2012 Agricultural Workshop hosted by County Supervisor Don Horsley, in 2013 the Resource Conservation District hired an Agricultural Ombudsman with two years of funding provided by San Mateo County. The Agricultural Ombudsman is working closely with the County and agricultural stakeholders to assist agricultural stakeholders with county permitting; help County staff to understand agriculture and specific projects in such areas as water supply, water quality, stream protection, use of agricultural easements, product diversification, housing, and support systems; assess County programs and policies for their impact on agricultural operations, and recommend improvements for how the County may improve the viability of agriculture within the County.

## 1.5 CHALLENGES FACING FARMLAND

Competition for water among agricultural, urban, and environmental restoration needs is intensifying as a result of limited water supply. The county's water supply is primarily from rain and groundwater-fed streams and wells, as it does not have a snowpack. Moreover, irrigation is challenging, since the county does not have an irrigation district, and the majority of agricultural operations in coastal San Mateo County depend on the diversion of water from perennial creeks and streams during the summer months for irrigation and/or stock watering purposes.<sup>23</sup> In a survey of San Mateo County's agricultural industry conducted by the American Farmland Trust (AFT) in 2004, eight of the nine farmers who were surveyed identified water as a major operational challenge.<sup>24</sup> Given San Mateo County's smaller land area and distributed nature of streams in the coastal watershed, farmers have a limited ability to irrigate during the dry season and are competing for resources with the steel-head fishery that uses summertime stream flows.<sup>25</sup>

As a result of constraints in water supply and its implications for sustaining and expanding agricultural activity within San Mateo County, several community stakeholders initiated the Ponds Project in 2002 to streamline permits and encourage off-stream water storage during wet winter months in San Mateo and Northern Santa Cruz Counties. Sustainable Conservation led the effort through funding from the California Coastal Conservancy, with assistance from multiple project partners, including San Mateo and Santa Cruz County Farm Bureaus, Natural Resources Conservation Service, San Mateo and Santa Cruz County Resource Conservation Districts, and members of the Bay Area Open Space Council, including Peninsula Open Space Trust, Committee for Green Foothills, Trust for Public Land, and others, to improve in-stream conditions for declining populations of anadromous salmonids and protect the viability of agricultural operations.<sup>26</sup> Despite broad support for this effort, community stakeholders experienced great difficulty navigating the regulatory permit process. Nevertheless, this effort may be the first phase of a larger movement to increase awareness, incite action, and develop lessons around innovative water storage solutions at the county level.

Beyond this project, there is widespread local support for recognizing the importance of water management solutions within San Mateo County. This is exemplified by the Natural Resources Conservation Service and San Mateo and Santa Cruz County Resource Conservation Districts, with assistance from diverse stakeholders, prioritizing water conservation and supply consistently each year; and by 83% of Half Moon Bay approving Measure P, which was intended to develop recycled water for agriculture.<sup>27</sup>

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23 "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf).

24 "San Mateo County Agricultural Industry Profile and Strategic Farmland Maps," American Farmland Trust, 2004.

25 "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," American Farmland Trust, Greenbelt Alliance, Sustainable Agriculture Education, accessed November 22, 2013, [http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area\\_march-2011.pdf](http://www.sagecenter.org/wp-content/uploads/2009/05/sustaining-our-agricultural-bounty-an-assessment-of-agriculture-in-the-sf-bay-area_march-2011.pdf).

26 "The Ponds Project," Sustainable Conservation, accessed November 6, 2013, [http://www.suscon.org/ponds/pdfs/PondsProject\\_FINALReport\\_2-11-08.pdf](http://www.suscon.org/ponds/pdfs/PondsProject_FINALReport_2-11-08.pdf)

27 "Measure P, Recycled Water; City of Half Moon Bay, November 8, 2005 Election," League of Women Voters of California Education Fund, accessed November 13, 2013, <http://www.smartvoter.org/2005/11/08/ca/sm/meas/P/>.



In addition to water availability limiting the growth of crops, international imports harm San Mateo's floriculture industry. While flower and nursery producers are still the top-grossing agricultural production sector in the county, they have lost much of their original market share. International trade agreements, which have flooded US markets with inexpensive floral products from certain countries, have squeezed all US floral growers. These external market pressures prevented San Mateo County growers from being able to compete with the low cost of flower production in other countries and put many growers out of business. A rapidly growing nursery industry in Southern California and in Southern states has also significantly increased competition for local nursery operations.<sup>28</sup>

Using the current data from the FMMP in 2012, the Land Use Committee of the San Mateo County Food System Alliance and San Mateo County GIS personnel collaborated to create maps to visually demonstrate the potential of agricultural lands in the county.

Figure 4. Potential Ag Lands Map.



Source: San Mateo County, Information Services Department, 2012.

<sup>28</sup> Fred Crowder, e-mail message to author; November 23, 2013.

The Potential Ag Lands Map in Figure 4 shows how much undeveloped agricultural, grazing, and forestry land is left in San Mateo County that could be potentially used for local food and fiber.

This map contains four of the five categories of FMMP (prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance) in one layer. The fifth category of FMMP land is grazing land, which is included in a second layer. Other layers include the Planning Prime Soils layer, which is land designated by the San Mateo County Planning Department as Prime Soils, and the Agricultural Planning Zones (including “Planned Agricultural District” and “Timberland Production Zone”), which highlights a much larger swath of land that includes row crop, grazing, and forestry land.

This map is not meant to represent current agricultural production, but rather the land that could be used for production should the landowner, public, private, or otherwise, decide to actively farm or graze it.

## 1.6 PRESERVING FARMLAND

Like the majority of California’s counties, San Mateo County used to have an agrarian economy and was one of several counties responsible for feeding the urban Bay Area population. Over the past few decades, the farmland in the eastern half of San Mateo County disappeared and was replaced by roads, businesses, schools, and housing.<sup>29</sup> The majority of the 727,209 people living in San Mateo County live in the eastern half of the county,<sup>30</sup> and according to the 2010 US Census, about 27,896 people live in the western half of the county on the coast, where much of the agriculture is based.<sup>31</sup>



Photo courtesy of Blue House Farm

29 Ned Conwell, Jered Lawson, and Jessica Beckett, “Farmland for Farming: the Pie Ranch Access to Land Project,” <http://aginnovations.org/images/uploads/FarmlandforFarming-1.pdf>, accessed October 2, 2013.

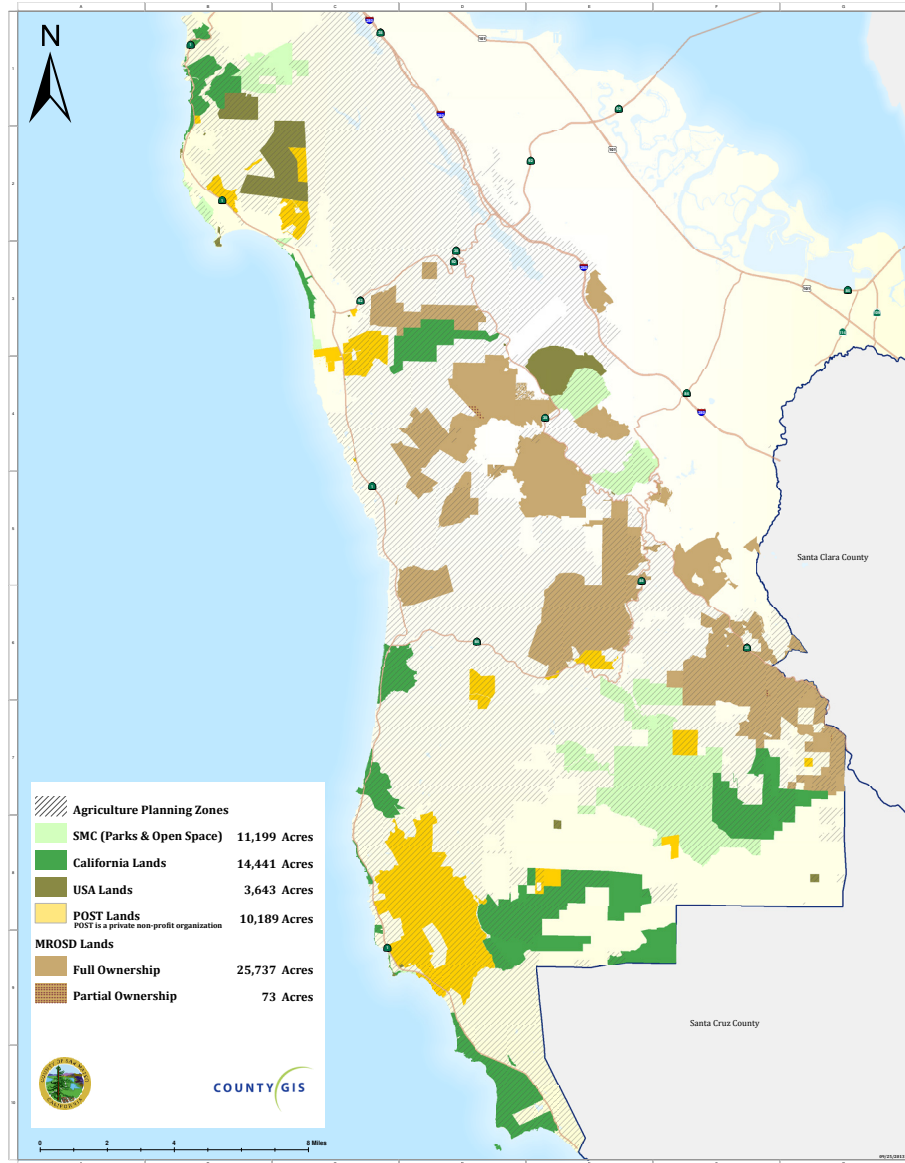
30 United States Census Bureau, “State and County Quickfacts,” accessed November 23, 2013, <http://quickfacts.census.gov/qfd/states/06/06081.html>.

31 The coastal population includes zip codes from Half Moon Bay, Pescadero, and Pacifica and includes these zip codes: 94019, 94020, 94021, 94037, 94038, 94060, and 94074. Source: Ibid.



Many other counties around California and across the nation have begun to recognize that public land or land held by nonprofit land trusts, open space districts, and state parks may hold potential for agricultural projects that benefit the environment, conservation goals, and the local food system. County GIS staff created Figure 5, Public Land Owners Map, below, which illustrates how much land that is currently protected in San Mateo County is held in the public domain, both in state and federal hands, as well as in nonprofit stewardship.

*Figure 5. Public and Other Conservation Lands Map.*



Source: San Mateo County, Information Services Department, 2012.

This map illustrates the fact that San Mateo County has conserved much of its land, which may be able to be utilized for agriculture.

In addition, private, federal, and state organizations have successfully helped preserve thousands of acres throughout San Mateo County. For example, Peninsula Open Space Trust (POST) has preserved more than 70,000 acres of open space in San Mateo County, approximately 1,500 acres of which are in active row crop agriculture and 3,500 acres of which are in active grazing.<sup>32</sup> Midpeninsula Regional Open Space District (MidPen), a regional greenbelt system, has preserved over 64,000 acres of open space, 133 acres of which are agricultural land.<sup>33</sup> According to an e-mail exchange with Steve Abbors, district general manager, MidPen, on June 5, 2012, an additional 3,050 acres can be utilized primarily for grazing, due in part to the steepness of the land.

Given their long histories of land conservation, POST and MidPen will likely continue to be major players in the preservation of agriculture in San Mateo County. POST has been investigating innovative methods that other land trusts nationally have used to keep agricultural land in production, and it may soon be expanding its farmland protection efforts to include these and other models in collaboration with other local and regional partners.

Several conservation tools are available to help farmers access land and stay in farming. These include: conservation easements, the Williamson Act,<sup>34</sup> affirmative easements, options to purchase agricultural value (OPAV), traditional leases, and equity leases. The Land Use Committee of the San Mateo County Food System Alliance has been exploring how to increase access to land for farmers, and different methods to preserve agriculture in the county. Some members of this committee conducted research and completed the report: *Farmland for Farming: The Pie Ranch Access to Land Project*.

One tool, a conservation easement, is a voluntary legal agreement that permanently restricts certain nonagricultural uses, development, and other activities on a property in exchange for a financial payment. It is one method employed by POST and MidPen to encourage land to be used for agriculture. According to Paul Ringgold, vice president of land stewardship at POST, of the 29 conservation easements that POST holds, seven of these are on lands that are actively being farmed, and five are on properties with grazing. Another seven fee-owned properties have active agricultural production on a total of 1,400 acres. Additional POST land that could be leased is limited because of lack of agricultural infrastructure, including irrigation and fencing.

Another tool that empowers farm owners to preserve their land is the Williamson Act, a contract between the landowner and County requiring the landowner to use the land for agriculture for 10 years in exchange for a reduction in property taxes. Williamson Act contracts renew automatically. Between 2010 and 2012, San Mateo County identified 128 noncompliant properties because owners were not engaged in farming or didn't respond to the County's inquiry.<sup>35</sup> Should these

**POST** has commissioned a study of agricultural viability in San Mateo County. This study will identify threats (e.g., pressures of land-use conversion from agricultural land to other uses, insufficient agricultural infrastructure) and explore the role that POST, as a local land trust, can play to address these threats. The goals of this study are to help POST (1) prioritize farmland protection projects; (2) determine the role of these projects in ensuring a sustainable agricultural economy in the region; (3) identify key partners with which POST can work to achieve collective impact; and (4) articulate the impact that this will have in the community. Sustainable Agriculture Education (SAGE) has been retained to prepare the study, which is anticipated to be complete in spring 2014.

32 Paul Ringgold, e-mail message to author, November 8, 2013.

33 "Open Space Preserves," Midpeninsula Regional Open Space District, accessed November 22, 2013, <http://www.openspace.org/preserves>.

34 The Williamson Act is a California state program designed to provide property tax relief primarily to owners who have commercially viable agriculture on their land. As of January 2014, there is no state funding attached to this program.

35 Jim Eggemeyer, community development director, to Honorable Board of Supervisors, "EXECUTIVE SUMMARY: Study Session: San Mateo County Land Conservation (Williamson Act) Uniform Rules and Procedures," San Mateo County, October 22, 2012, accessed November 22, 2012, [http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major\\_Projects/Draft\[Williamson%20Act\]ProgUpdate.pdf](http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major_Projects/Draft[Williamson%20Act]ProgUpdate.pdf).

landowners be interested in renewing their contracts, they will have to transition their land back into commercial agriculture. Including the 128 Williamson Act contracts that have been deemed invalid, San Mateo County had 292 contracts covering more than 47,000 acres.<sup>36</sup>

San Mateo County recently adopted revised Williamson Act Uniform Rules and Procedures for production agriculture. The County is in the process of reviewing all existing contracts for compliance with the requirements of the Williamson Act.

An affirmative easement is a type of conservation easement that, in addition to standard restrictions on development, requires the property to remain in active agricultural production. This additional provision ensures that eased lands will not lie fallow, for as long as agriculture is economically viable. In addition to potentially reducing the cost of the property, these easements help to ensure that lands will remain available to farmers as either owners or operators under a lease.<sup>37</sup>

Option to Purchase at Agricultural Value (OPAV) is another tool that communities can use to preserve agricultural land. It's an additional statement in a conservation easement that gives the easement holder the right to buy a conserved farm property anytime that property is sold on the open market. The price of this property is the appraised value that is solely based on commercial agriculture use, excluding factors such as location or views.<sup>38</sup> This means that the value of the agricultural land is less than the "estate" value, discouraging non-farm buyers and incentivizing the sale of conserved farmland to another farmer or land trust.<sup>39</sup>

In addition, traditional leasing and equity leasing are two related tools that facilitate access to and continued farming of land. Leasing allows for easier entry into farming because it requires limited capital, and year-to-year leases permit greater flexibility for both owners and farmers. However, this deters farmers from investing in infrastructure, as they do not own the land and the accompanying improvements. Moreover, the short-term nature of leasing reduces the likelihood and ability of farmers to plan for and implement sustainable land management practices that minimize land degradation, sustain the ecosystem, and enhance productivity.<sup>40</sup>

Equity leasing eliminates some of the disadvantages of traditional leasing by permitting farmers to establish a long-term lease and build equity.<sup>41</sup> There are two main benefits. First, farmers have long-term security, since they have a lifetime, inheritable, and transferrable lease for the land, and a public or private entity or private nonprofit land trust holds the fee title. Second, the farmers retain equity through purchasing existing infrastructure in addition to building equity in the infrastructure they develop, which they own. These are fungible assets that can be sold at agricultural value determined by a set of valuation criteria. The landowners continue to monitor their land and ensure that all development and other restrictions in the lease are adhered to, thereby preventing nonagricultural development and other inconsistent uses of the land.

With time, communication, and innovation, the San Mateo County Food System Alliance Land Use Committee hopes to explore and perhaps advocate for some of these proactive tools to encourage farmers and landowners to keep land in agriculture.

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36 Mark Noack, "County poised to annul faulty Williamson Act contracts," *Half Moon Bay Review*, August 4, 2011, accessed November 22, 2013, [http://www.hmbreview.com/news/county-poised-to-annul-faulty-williamson-act-contracts/article\\_f1e3416e-bf01-11e0-838c-001cc4c03286.html](http://www.hmbreview.com/news/county-poised-to-annul-faulty-williamson-act-contracts/article_f1e3416e-bf01-11e0-838c-001cc4c03286.html).

37 Ned Conwell, Jered Lawson, and Jessica Beckett, "Farmland for Farming: The Pie Ranch Access to Land Project," accessed October 2, 2013, <http://aginno-vations.org/images/uploads/FarmlandforFarming-1.pdf>.

38 Ibid.

39 Ibid.

40 Ibid.

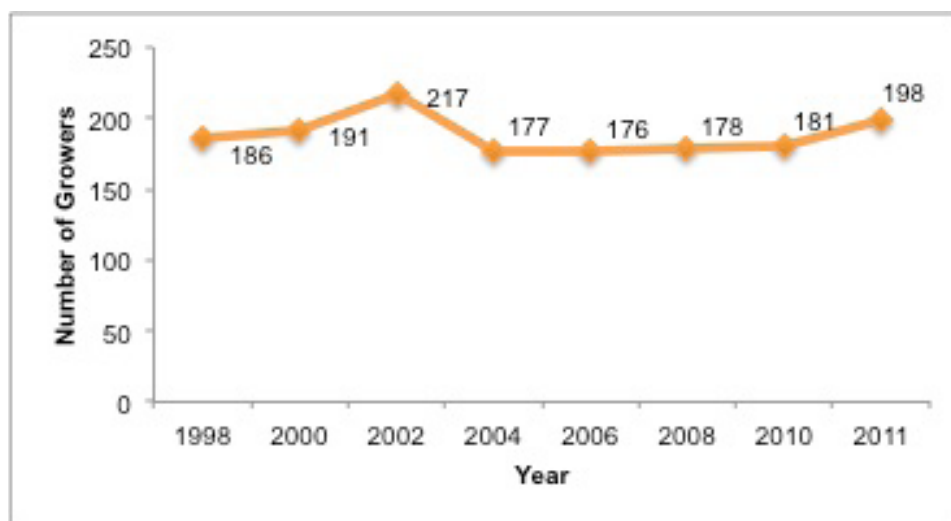
41 Ibid.

## 1.7 WHO IS FARMING LAND IN SAN MATEO COUNTY

As in much of the country, and all of California, the farming population is aging. According to the 2007 USDA Census of Agriculture, the average age of farmers in San Mateo County is 57.9.

The San Mateo County Department of Agriculture/Weights and Measures has been collecting data on the total number of agricultural producers in San Mateo County since 1998, based on the number of certified producers certificates, organic registrants, pesticide use permits, and historical knowledge. As of September 2013, the San Mateo County Department of Agriculture/Weights and Measures issued 62 San Mateo County certified producer certificates. This number includes not just typical farmers but also backyard producers who might produce honey or a small amount of produce for sale at farmers' markets. Although the number of farmers has been steadily declining across the United States for the past 30 years, the number of growers in San Mateo County increased in 2002, decreased, and is now on the rise, as shown in Figure 6.

Figure 6. Number of San Mateo County growers surveyed by San Mateo County Department of Agricultural/Weights and Measures, 1998–2011.



Source: Data adapted from San Mateo County Department of Agriculture/Weights and Measures, 2011.

## 1.8 ORGANIC AGRICULTURE

Organic agriculture in San Mateo County has fluctuated over the past few years but is now increasing. In 2006, there were 8 organic farms on 153 acres.<sup>42</sup> In 2012, there were 18 certified organic producers<sup>43</sup> in San Mateo County growing on over 410 acres of land, a 50% increase from 2006.<sup>44</sup> Though most producers sell wholesale, around one-third also sell at farmers' markets, and four farms sell through Community Supported Agriculture<sup>45</sup> programs.<sup>46</sup>

42 All organic producers are certified through a USDA-accredited certification agency. Source: "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed October 1, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>.

43 Some growers cannot afford the cost of organic certification, so this is likely an underestimate of the total number of growers and acres engaged in organic farming.

44 "San Mateo County 2012 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed October 1, 2013, <http://www.co.sanmateo.ca.us/Attachments/agw/pdfs/cropreports/2010s/2012%20Crop%20Report.pdf>

45 Community Supported Agriculture consists of a network of individuals who support one or more local farms, and both producers and consumers share in both the risks and benefits of production. Source: Suzanne DeMuth, "Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide," US Department of Agriculture, 1993, accessed December 4, 2013, <http://www.nal.usda.gov/afsic/pubs/csa/csadef.shtml>.

46 "Organic Directory," California Certified Organic Farmers, last modified 2010, accessed November 22, 2013, [http://www.ccof.org/cgi-bin/organicdirectory\\_search.cgi](http://www.ccof.org/cgi-bin/organicdirectory_search.cgi).

## 1.9 FARMWORKERS, HOUSING OPTIONS, AND SOME CHALLENGES FARMWORKERS FACE

The exact number of farmworkers in San Mateo County is unknown, though well-informed approximations are available. As of 2012, the Federal Bureau of Labor Statistics estimated that there were 1,603 employees engaging in occupations related to agriculture, forestry, fishing, and hunting, which is likely an underestimate.<sup>47</sup> Since 81% of San Mateo County agriculture consists of floral and nursery crops, most farmworkers likely work in greenhouses.<sup>48</sup> In another report, San Mateo County social service providers estimated that approximately 3,000 to 5,000 migrant and seasonal farmworkers reside in the county.<sup>49</sup> According to these service providers, most county farmworkers come from Mexico, with a smaller percentage coming from other parts of Central and South America. Coast-side migrant and seasonal farmworkers typically work in plant nurseries, fruit or vegetable farms, and wineries.<sup>50</sup>

Many farm owners provide housing for their farmworkers. If farm owners have four or more employees, that housing is inspected by the San Mateo County Environmental Health Division. Farms may offer barracks-style housing; dorm rooms with bunk beds, the most common type of housing; or small cottage houses. A number of farmers built housing years ago and intended it to be used by male seasonal farm laborers rather than by their families. More and more farmworkers are staying in these units for the entire year rather than for just a season or two. Though data on the number of people residing in one home isn't specific to farmworkers, the California Department of Housing and Community Development noted a 24% increase in the number of San Mateo County residences housing large families of five or more persons between 1990 and 2000.<sup>51</sup> This suggests a need for additional affordable housing.

Farmworker housing exists for only about 495 farmworkers. These include larger multifamily housing projects developed on or near active farms; smaller, scattered small-site housing; and one large-scale affordable housing project known as Moonridge Farm Labor Housing, which includes 160 units of farmhouse-style homes for households earning 50% or less of the median income and offers services such as computer training, after-school programs, health and wellness programs, and financial literacy programs.<sup>52</sup> Based on the estimated number of farmworkers, there is likely an additional need because there are between 1,000 to 5,000 county farmworkers.

Reports cite differences in the quality of farmworker housing. Some noted that housing is not as well maintained as it should be,<sup>53</sup> and one mentioned that farmworker families lived in overcrowded conditions without basic amenities such as running water.<sup>54</sup> However, some farm owners described the high quality of the housing they offered and were willing to give tours of their farmworker housing. It seems that the quality of housing may differ depending on the farm.<sup>55</sup>

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47 Federal Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," QCEW Industry Tables, accessed November 22, 2013, <http://www.bls.gov/cew/cewind.htm#year=2010&qtr=1&own=5&ind=10&size=0>.

48 Steve Oku, e-mail message to author; November 6, 2013, and B. J. Burns, phone conversation, November 2013.

49 The term "migrant agricultural worker" refers to an individual who is employed in agriculture of a seasonal or other temporary nature, and who is required to be absent overnight from his or her permanent place of residence. "Seasonal agricultural worker" means an individual who is employed in agriculture of a seasonal or other temporary nature and is not required to be absent overnight from his or her permanent place of residence. Source: "Migrant and Seasonal Agricultural Worker Protection Act as Amended," United States Department of Labor, accessed December 18, 2013, [https://www.osha.gov/pls/epub/wageindex.download?p\\_file=F28165/wh1465.pdf](https://www.osha.gov/pls/epub/wageindex.download?p_file=F28165/wh1465.pdf).

50 Alexis Wielunski and Diana Lieu, "Health Outreach Program Development Consultation Summary Report." Presented to San Mateo County Medical Center; September 18, 2012.

51 Ibid.

52 "San Mateo County 2007–2014 Draft Housing Element, December 2012," County of San Mateo, accessed November 22, 2013, [http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major\\_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf](http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf).

53 Ibid.

54 Alexis Wielunski and Diana Lieu, "Health Outreach Program Development Consultation Summary Report," September 18, 2012.

55 Steve Oku, e-mail message to author; November 6, 2013, and B. J. Burns, phone conversation, November 2013.



As with data on quality of housing, there is a dearth of data on the cost of housing for farmworkers. The average monthly rent for farmworkers is not available. However, several farm owners noted that most of their colleagues provide free or subsidized housing and free utilities, particularly as a tool to retain their best employees. At one farm, the owner mentioned that most farmworkers had been working full time and living in housing on the farm for over 10 years, paying subsidized rental rates.<sup>56</sup>

Despite the lack of data, the cost of living within the county and the limited wages for some farmworkers suggest a need for high-quality, affordable housing for this population.<sup>57</sup> Regarding cost, for example, the Housing + Transportation Affordability Index estimates that 60% of the San Mateo County population spends 45% or more of their income on housing and transportation costs.<sup>58</sup> In addition, as of March 2013, the market average rent for a two-bedroom apartment in the county was \$2,066 per month, a 47% increase in rent for a two-bedroom since 2003.<sup>59</sup> Using a local self-sufficiency standard, which takes into account the higher costs of San Mateo County for housing, child care, and food, a single parent with two children must earn approximately \$78,000 annually to meet the family's basic needs.<sup>60</sup> In comparison, the average annual wage for workers in crop production and floriculture in San Mateo County in 2011 was \$29,364 and \$29,390, respectively.<sup>61</sup> With this average monthly rent, crop production or floriculture workers who don't receive free or subsidized housing would need to spend about three-fourths of their average monthly earnings on rent.



Moon Ridge Farm Labor Housing Complex  
Photo by Cesar Rubio

56 Steve Oku, e-mail message to author; November 6, 2013.

57 "San Mateo County 2007–2014 Draft Housing Element, December 2012," County of San Mateo, accessed November 22, 2013, [http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major\\_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf](http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major_Projects/Housing%20Element%20Project%20Draft/SMCo%20Housing%20Element%20May%202012.pdf).

58 "The Housing + Transportation Affordability Index," the Center for Neighborhood Technology, accessed December 16, 2013, <http://htaindex.cnt.org/about.php>.

59 San Mateo Housing Indicators, accessed November 14, 2013, <http://www.co.sanmateo.ca.us/Attachments/housingdepartment/PDFs/March-2013-Indicators-DOH.pdf>.

60 "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," San Mateo County, accessed November 14, 2013, <http://sm-health.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

61 Federal Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," QCEW Industry Tables, accessed November 22, 2013, <http://www.bls.gov/cew/cewind.htm#year=2010&qtr=1&own=5&ind=10&size=0>.



Given high housing costs and limited availability, many families have little money left over to cover other essential costs, such as medicine, groceries, and school supplies. According to Karen Hackett, San Mateo County public health nurse, companies that employ 40 or fewer employees tend to have a constant flow of seasonal workers and are not required by law to provide health insurance. However, two farms in San Mateo County, Bay City Flower Company and Swanton Berry Farm, provide health benefits for their employees. Many migrant and seasonal workers struggle to acquire their own health insurance through the ACE (Access to Care for Everyone) program or Medi-Cal.

In addition to health insurance, service providers on the San Mateo County coast note that migrant and seasonal county farmworkers face many challenges in their daily lives. Most county farm laborers have less than a fifth-grade education, are unable to read and write, and have poor nutritional status. Some cannot properly store perishable foods and don't have access to running water or to stores that accept food stamps.<sup>62</sup> Anecdotaly, social services workers from Puente de la Costa Sur note that many San Mateo County farmworkers struggle with food security. Thus, they are unable to consistently access affordable, nutritious, and culturally relevant food; are malnourished; and are very likely eligible for CalFresh.<sup>63</sup> In a study of California's Central Valley agricultural workers, 45% were food insecure, and nearly half were eligible for CalFresh benefits. Isolated coastal regions of the county prevent farmworkers and their families from accessing vital resources, leading to numerous environmental and occupational health problems. Fear due to immigration status and poor public transportation exacerbate farmworkers' isolation. There is only one bus from the South Coast of Half Moon Bay in the morning and evening. Many roads are not paved and flood yearly. As a result, farmworkers rely on biking or carpooling as their primary mode of transportation.<sup>64</sup>

In addition, because farm labor populations and farm labor housing conditions change frequently, the County does not have complete, up-to-date information on the types and condition of all farm labor housing, the types and numbers of farm laborers occupying various kinds of housing, and the precise quantitative and qualitative housing needs of the county's farm labor population, including the need for new housing and the need for improvements to existing housing.



Farmers and workers, Swanton Berry Farm

<sup>62</sup> Alexis Wielunski and Diana Lieu, "Health Outreach Program Development Consultation Summary Report," presented to San Mateo County Medical Center; September 18, 2012.

<sup>63</sup> CalFresh, also known as food stamps, provides low-income eligible individuals and households with a debit card that can be used for the purchase of most types of foods at grocery stores and other stores that accept CalFresh in San Mateo County. Source: "CalFresh," San Mateo County Human Services Agency, accessed October 10, 2013, <http://www.co.sanmateo.ca.us/portal/site/hsa/menuitem.cdaaf542325a7a5174452b31d17332a0/vgnnextoid=f35153bc-299d0210VgnVCM1000001d37230aRCRD>.

<sup>64</sup> Ibid.

## CASE STUDY

### GROWERS' SURVEY BY PUENTE DE LA COSTA SUR

In 2011, Puente de la Costa Sur conducted a survey of South Coast growers, located in Pescadero and La Honda, to assess challenges that the agricultural community faces and identify opportunities to support South Coast growers. This survey showed that the key challenges facing the South Coast agricultural community in San Mateo County are limited land access, high housing costs, high costs of conducting business, and business regulations. Most survey respondents noted that they lease their land because it's nearly impossible to purchase land, and there is a risk that the leased land could be sold. Further education and outreach to landowners regarding the importance of using land for agriculture may encourage landowners to provide long-term leases and lease agreements that give farmers the opportunity to purchase land. This survey also found that many policies are onerous and one-size-fits-all. These regulations are difficult for many in the agriculture community and are especially challenging for small farmers and ranchers.

## 1.10 NONCOMMERCIAL FOOD PRODUCTION

In addition to commercial food production, San Mateo County has a range of community and personal noncommercial food production sites. As with the trend in the United States, more county residents are starting backyard or community gardens because they appreciate gardening and are interested in buying and consuming locally grown food. According to a 2009 National Gardening Association Survey, 43 million US households sought to grow their own food that year, up 19% from 2008.<sup>65</sup> A survey of county residents in 2013 found that 26% grew and consumed food from their own garden.<sup>66</sup> Community gardens bring people together, beautify communities, raise property values, and offer a source of local food and potential jobs for local residents. An Internet search and an informal survey of Alliance members in 2012 identified 15 community gardens, primarily located within community centers, city parks, health clinics, and residential plots, that utilize a total of roughly 2.5 acres of land for food production. Figure 7 below shows the locations of the identified community gardens in San Mateo County. This is likely an underestimate, though, as many community gardens don't have websites.

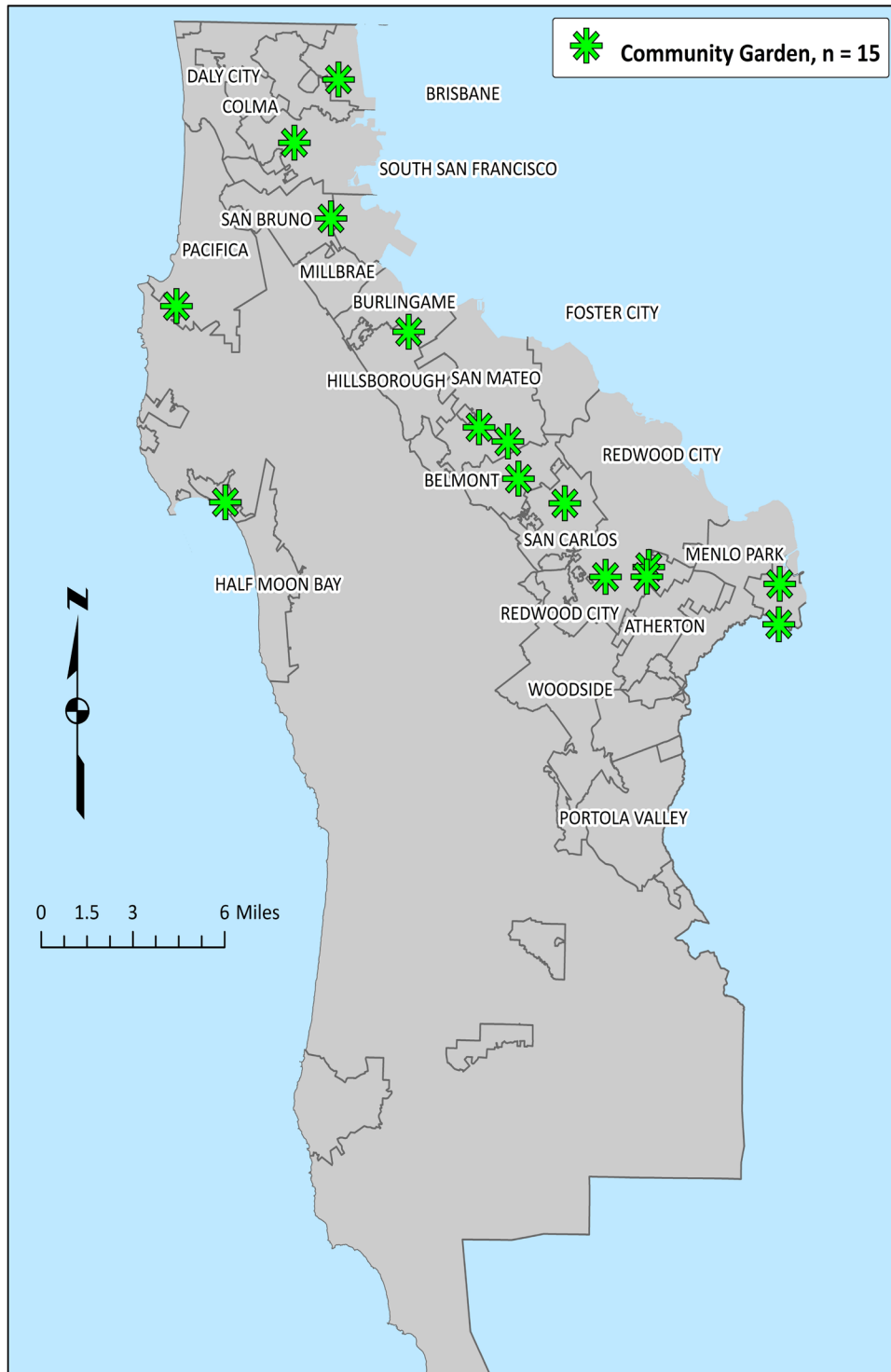


Kids show off their harvest from the San Mateo County School Farm Project

<sup>65</sup> Bruce Butterfield, "The Impact of Home and Community Gardening In America," the National Gardening Association, 2009.

<sup>66</sup> "2013 Community Health Needs Assessment: Health & Quality of Life in San Mateo County," the Healthy Community Collaborative of San Mateo County, 2013, accessed May 24, 2013, [http://www.plsinfo.org/healthysmc/pdf/2013\\_Executive\\_Summary\\_Final.pdf](http://www.plsinfo.org/healthysmc/pdf/2013_Executive_Summary_Final.pdf).

Figure 7: Community Gardens in San Mateo County, 2012.



Source: San Mateo County Health System, Health Policy and Planning, 2012.

## 1.11 SCHOOL GARDENS

Garden-based education contributes to better physical and mental health and academic achievement, an appreciation for where food comes from, and improved eating habits. A survey by the San Mateo County Health Policy and Planning Division found that of the San Mateo County public and private schools in 2011 that were contacted, 52% of public schools and 48% of private schools had vegetable and/or herb gardens.<sup>67</sup>

The Alliance published *Call to Action: A Garden in Every School*.<sup>68</sup> With support from Get Healthy San Mateo County, the Alliance hosted an annual school and after-school program garden recognition ceremony in 2012 and 2013. Between 35 and 40 schools and after-school program gardens applied both years, and about 25 school and after-school program gardens received awards for employing sustainable gardening practices each year.

### Potential Opportunities

Based on the data noted in this chapter, some potential opportunities include:

- 1) Creating economic incentives for growers to plant more edible crops, as just 17% of agriculture production value comes from edible crops.
- 2) Exploring whether more greenhouses could be used for contract growing with schools, hospitals, and other institutions.
- 3) Encouraging food production as a beneficial land use on public lands where such uses and lands have the capacity to grow food products.
- 4) Making county GIS important soils map available for public use and farmer use.
- 5) Continuing to work with local open space district and local land trusts to focus efforts on agricultural land protection, increasing access to land, and building equity.
- 6) Identifying and supporting policies and other opportunities to improve affordable housing options, access to health care, and transportation for agricultural workers and their families.
- 7) Encouraging promotion of agricultural conservation tools such as easements (affirmative easements, specifically), with parcels that are being actively farmed, opportunity to purchase at agricultural value, and equity leases.
- 8) Continuing to advocate for regulatory permit streamlining to facilitate construction of off-stream water storage for agricultural irrigation.
- 9) Supporting and promoting resources, programs, and funding to help local families pass their agricultural business on to the next generation by collaborating with organizations like California FarmLink.
- 10) Promoting education, training, and incubator programs such as UC Cooperative Extension's Beginner Farmer and Rancher Development Program for new farmers and ranchers.



Photo courtesy of John Muir School

<sup>67</sup> In 2010-2011, 171 San Mateo County public and 50 private schools were contacted. This is less than the total number of public and private schools in San Mateo County school districts. Though the percentage of gardens in each school district varied, data for specific school districts is not presented here because not all schools were contacted. A more robust data set is forthcoming from the UCSC Life Lab survey. This data will be available in spring 2014.

<sup>68</sup> Ag Innovations Network, "Call to Action: A Garden in Every School," San Mateo County Food System Alliance, April, 2012, accessed November 22, 2013, [http://aginnoations.org/images/uploads/FINAL\\_garden\\_ed\\_brief\\_spring\\_2012.pdf](http://aginnoations.org/images/uploads/FINAL_garden_ed_brief_spring_2012.pdf).

- 11) Identifying and supporting policies for improving legal assistance to farmers at a pro-bono or reduced rate when legal circumstances arise around apprenticeships and regulations.
- 12) Making county GIS vacant parcels map that indicates potential sites for community gardens available for public use.
- 13) Supporting sustainable food systems and urban agricultural education for teens, adults, seniors, and youths.
- 14) Exploring and, if necessary, revising zoning laws that may discourage or prevent residents of certain cities from establishing backyard gardens or small animal husbandry.
- 15) Incorporating good food education into pre-K, elementary, middle, and high school curricula for San Mateo County students.

### **Areas for Further Research**

Some areas for further research include the following:

- 1) Determining the amount of dairy products and eggs raised in San Mateo County.
- 2) Understanding the demand for certain crops desired by different ethnic groups in San Mateo County and county farmers' willingness to plant more of these crops.
- 3) Given that farmers currently report 20 acres of beans and corn as 20 acres of beans and 20 acres of corn, determining how to avoid double and triple counting cropland.
- 4) Determining how to ensure that all farmworkers have access to high-quality, affordable housing, since some reports noted that affordable housing for farmworkers is inadequate.
- 5) Assessing the poundage of fish landed at Pillar Point Harbor by transient fishermen and understanding where this seafood is then distributed and consumed.
- 6) Assessing the number of boats home-ported elsewhere but that use Pillar Point Harbor as a temporary base; though we have data on the number of boats, no information on their harvest and whether they sell at Pillar Point Harbor or somewhere else exists.

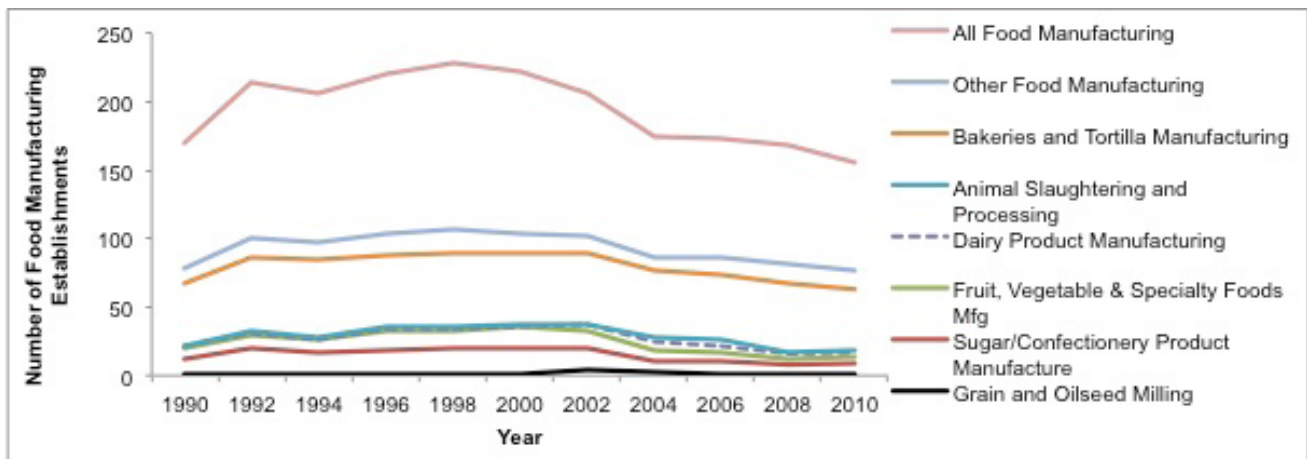


## 2. Processing & Manufacturing

The second major component of our food system, processing, may involve storing, packaging, cooking, mixing, bottling, canning, packing, slaughtering, preparing, or handling food prior to its distribution.<sup>1</sup> In changing the state of raw, unprocessed food, processing can increase profit margins, provides jobs, and can help the local economy.<sup>2</sup> This chapter describes the food manufacturing industry in San Mateo County, industry wages, and work conditions for employees in this sector.

Food manufacturers make up over one-tenth of the county's total manufacturing industry. In the first quarter of 2012, the Quarterly Census of Employment and Wages reported 78 food manufacturers in San Mateo County. The total number of processing establishments in San Mateo County has declined since its peak in 1998. The total revenue of the food manufacturing industry in 2009, the latest year for which data is available, was \$5.1 million, or 12.3% of the total manufacturing revenue in the county.

Figure 8. Food manufacturing establishments in San Mateo County, 1990–2012.



Source: Data adapted from Quarterly Census of Employment and Wages (QCEW), California Employment Development Department, 2012.

Of the food manufacturing establishments in the county, more than half were bakeries or tortilla factories (see Figure 8), followed by seafood product preparation and packaging.<sup>3</sup> These two business types also produced the largest share of revenue, at \$2.1 million (40%) and \$1.5 million (30%).<sup>4</sup>

Data on where farmers process their produce and which farms have packing sheds is not currently available. As interest in consuming locally grown products grows, there may be an opportunity to process more in San Mateo County.

1 State of California Legislative Council, "California Health and Safety Code Section 111950-112055," Official California Legislative Information, accessed October 17, 2013, <http://bit.ly/1ceNOQI>.

2 Oakland Food System Assessment, "Chapter 3. Food Distribution and Processing," Mayor's Office of Sustainability, 2005, accessed October 17, 2013, [http://oaklandfoodsystem.pbworks.com/f/OFSA\\_DistribProcess.pdf](http://oaklandfoodsystem.pbworks.com/f/OFSA_DistribProcess.pdf).

3 The Quarterly Census of Employment and Wages did not report 2012 data for Grain + Oilseed Milling, Dairy Product Manufacturing, and Animal Slaughtering/Processing Manufacturing in order to protect the anonymity of the small number of employees.

4 United States Census Bureau, 2012 Nonemployer Statistics, accessed November 22, 2013, <http://www.census.gov/econ/nonemployer/>.





## CASE STUDY

### RANCHERS' AND FISHERMEN'S PROCESSING BARRIERS IN SAN MATEO COUNTY

Ranchers must have animals slaughtered at a facility inspected and certified by the USDA, and then butchered into individual cuts at a USDA-inspected facility in order to sell directly to consumers, restaurants, or stores. Because the closest USDA-inspected processing establishments are located in Santa Rosa and Esparto, San Mateo County ranchers who sell their meat directly to consumers need to travel long distances for processing. In addition, these facilities are small, and it often takes several months to schedule processing. Often, these facilities only have capacity for one or two animals, which increases the ranchers' total costs for transportation and labor. One potential solution is to assess the feasibility of establishing a county-based USDA cut-and-wrap facility (or butcher shop). Additional cold storage could be provided as well.

Like ranchers, fishermen face challenges with processing seafood. Forty percent of boats in Pillar Point Harbor, the main county harbor, are operated by independent fishermen. Independent fishermen have two options: they can sell whole fish (in which case they are subject to fluctuations in consumer traffic), or they can sell to a wholesale distributor. It is illegal to conduct any on-boat processing. Since processed fish are sold at a higher price than whole fish, fishermen's profit margins are reduced.<sup>5</sup>



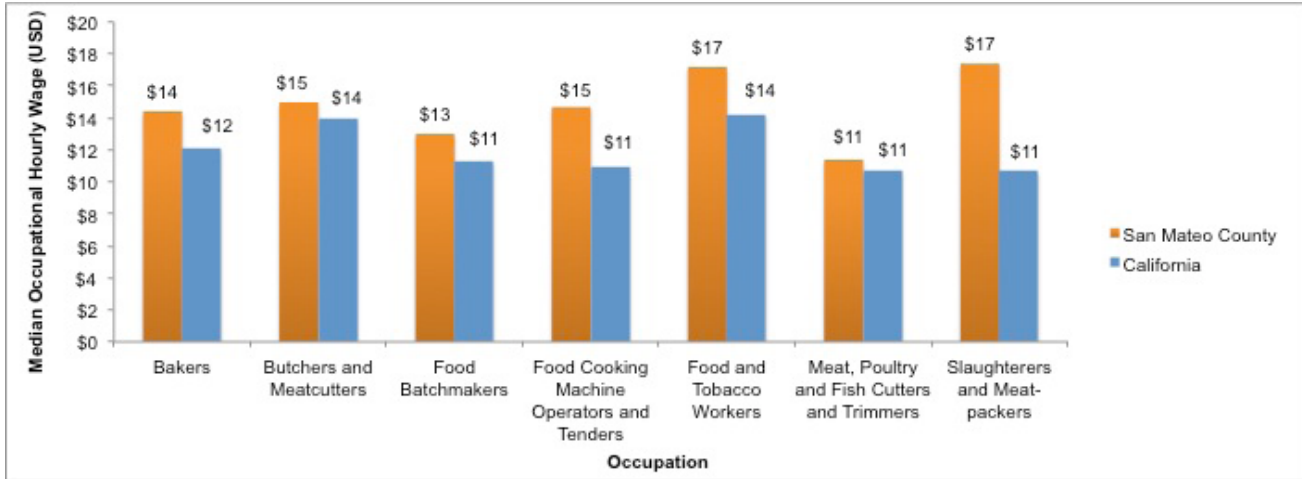
Photo courtesy of Marin Sun Farm

<sup>5</sup> United States Census Bureau, 2012 Nonemployer Statistics, accessed November 22, 2013, <http://www.census.gov/econ/nonemployer/>.

## 2.1 INDUSTRY WAGES

San Mateo County food manufacturing workers—which include food cooking machine operators and tenders;<sup>6</sup> food batchmakers;<sup>7</sup> food and tobacco workers;<sup>8</sup> slaughterers and meat-packers;<sup>9</sup> butchers;<sup>10</sup> meat, poultry, and fish cutters and trimmers;<sup>11</sup> and bakers<sup>12</sup>—earned a median hourly wage of \$14.20 in the first quarter of 2012, based on data available for San Francisco, San Mateo, and Marin Counties. Median occupational worker wages are seen in Figure 9 below.

Figure 9. Median hourly wage for various food workers in San Mateo County, 2011.<sup>13</sup>



Source: Data adapted from Quarterly Census of Employment and Wages (QCEW), California Employment Development Department, 2012.

In 2012, San Mateo County's food manufacturing industry employed 2,443 people,<sup>14</sup> or 0.6% of the entire county's 335,100-person labor force.<sup>15</sup> Most of these workers are employed in bakeries and tortilla manufacturing, and other food manufacturing (see Table 9 below).<sup>16</sup>

<sup>6</sup> Food machine operators and tenders operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products. "Labor Market Info, Data by Occupation, Occupation Profile," State of California Employment Development Department, 2010, accessed October 28, 2013, <http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1004>.

<sup>7</sup> Ibid. Batchmakers set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products, and includes candy makers and cheese makers.

<sup>8</sup> Ibid. Food and tobacco workers operate/tend food or tobacco roasting, baking, or drying equipment (includes hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment).

<sup>9</sup> Ibid. Slaughterers and meat-packers prepare meat and may include cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.

<sup>10</sup> Ibid. Butchers cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.

<sup>11</sup> Ibid. Meat, poultry, and fish cutters and trimmers use hand tools to perform routine cutting and trimming of meat, poultry, and fish.

<sup>12</sup> Ibid. Bakers mix and bake ingredients according to recipes to produce breads, rolls, cookies, pies, pastries, or other baked goods.

<sup>13</sup> Slaughterhouse workers and meatpackers are included in Figure 9 because this data reflects median wages for workers in San Francisco, San Mateo, and Marin Counties. Though no slaughterhouses exist in San Mateo County, one does exist in Marin County.

<sup>14</sup> State of California Employment Development Department, "Quarterly Census of Employment and Wages (QCEW) industry Detail," <http://bit.ly/HpB2W8>, accessed October 28, 2013.

<sup>15</sup> Employment Development Department, Labor Market Information Division, Monthly Labor Force for Counties, accessed December 17, 2013, <http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/cesReport.asp?menuchoice=ces>.

<sup>16</sup> State of California Employment Development Department, "Quarterly Census of Employment and Wages (QCEW) Industry Detail," accessed October 28, 2013, <http://bit.ly/HpB2W8>.

Table 9. Types of food manufacturing establishments in San Mateo County, 2012.

Type of Establishment	# of Establishments	Average Number of Employees, First Quarter, 2012	Average Weekly Pay (\$1,000)
Bakeries and tortilla manufacturing	44	1,114	\$769
Other food manufacturing	13	398	\$595
Sugar and confectionary product manufacturing	9	566	\$915
Fruit and vegetable preserving and specialty food manufacturing	4	93	\$568
Animal slaughtering and processing	Data unavailable	Data unavailable	Data unavailable
Dairy product manufacturing	Data unavailable	Data unavailable	Data unavailable
<b>Total food manufacturing</b>	<b>78</b>	<b>2,443</b>	<b>\$938</b>

Source: Quarterly Census for Employment and Wages, Industry Wages, [http://www.labormarketinfo.edd.ca.gov/qcew/CEW-Detail\\_NAICS.asp?MajorIndustryCode=1013&GeoCode=06000081&Year=2012&OwnCode=50&Qtr=01#footnotes](http://www.labormarketinfo.edd.ca.gov/qcew/CEW-Detail_NAICS.asp?MajorIndustryCode=1013&GeoCode=06000081&Year=2012&OwnCode=50&Qtr=01#footnotes). Note: The number of food establishments do not total 278. Data for industries with less than three companies, such as dairy product manufacturing and animal slaughtering and processing, are not included to protect the identify of cooperating employers.

There is no specific data for San Mateo County food retail workers, unlike food manufacturing workers. However, national trends suggest that food retail workers are among the lowest-wage earners in the United States. The US Department of Labor determined that 7 of the 10 lowest-paid jobs are in the restaurant industry. The federal minimum wage rate of \$2.13 for tipped workers, which has not been raised since 1991, is one of the main reasons for restaurant workers' low wage rates.<sup>17</sup> The minimum wage rate for California restaurant workers is \$8 per hour.<sup>18</sup> It will increase to \$9 per hour effective July 1, 2014 and to \$10 per hour effective January 1, 2016.<sup>19</sup>



Diverse crops at farmers market

<sup>17</sup> Dave Jamieson, "Minimum Wage for Restaurant Servers Remains Stagnant for 20 Years Under Industry Lobbying," Huffington Post, June 2, 2012, accessed January 2, 2014, [http://www.huffingtonpost.com/2012/06/02/minimum-wage-restaurant-workers\\_n\\_1515916.html](http://www.huffingtonpost.com/2012/06/02/minimum-wage-restaurant-workers_n_1515916.html).

<sup>18</sup> United States Department of Labor, "Minimum Wages for Tipped Employees," Wage and Hour Division (WHD), January 2013, accessed October 21, 2013, <http://www.dol.gov/whd/state/tipped.htm#California>.

<sup>19</sup> State of California, Department of Industrial Relations, "Minimum Wage," accessed March 4, 2014, [http://www.dir.ca.gov/dlse/faq\\_minimumwage.htm](http://www.dir.ca.gov/dlse/faq_minimumwage.htm).



In addition to low wages, a 2012 report released by the Food Chain Workers Alliance reviewed data from the US Department of Labor's Bureau of Labor Statistics and conducted a current population survey of more than 600 food system workers, interviews with nearly 50 food employers, and several other secondary sources, and found the following:

- 40% of food system workers worked more than 40 hours per week.
- 79% did not have paid sick days or did not know if they had paid sick days.
- 83% do not receive health insurance from their employer.
- 58% do not have any health coverage at all.
- 53% have worked when sick; 30% did not always receive a lunch break.
- 40% did not always receive a 10 minute break.
- 57% suffered injury or a health problem on the job.

Many food workers cannot afford to eat the very food they harvest, cook, prepare, sell, or serve. Nationally, food workers tend to use food stamps at twice the rate of the rest of the US workforce.<sup>20</sup> Though this data is not specific to San Mateo County, we surmise and San Mateo County Food System Alliance members anecdotally confirm that it is true for many food system workers in the county.

### Potential Opportunities

Based on the data above, some opportunities are:

- 1) Explore increasing the number of processing facilities for San Mateo County-grown products within the county.
- 2) Determine feasibility of establishing a county-based USDA cut-and-wrap facility (butcher shop).
- 3) Explore a county-based seafood distribution company.<sup>21</sup>
- 4) Encourage eligible workers to access health insurance, CalFresh, Earned Income Tax Credit (EITC), and other governmental programs that can help reduce economic and health disparities.

### Areas for Further Research

Some areas for further research include:

- 1) Assessing the number of farms that carry out basic processing and have packing sheds.
- 2) Determining the amount of San Mateo County products (e.g., produce, seafood, meat, dairy) processed in San Mateo County.

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<sup>20</sup> S. Jayaraman, the Food Chain Workers Alliance, "The Hands That Feed Us: Challenges and Opportunities for Workers Along the Food Chain" (2012): 3-68, accessed October 21, 2013, <http://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf>.

<sup>21</sup> The Alliance hired Community Alliance with Family Farmers (CAFF) to research and analyze opportunities to aggregate, market, and distribute county-grown products. CAFF identified several strategies to enhance the livelihoods of food producers and increase buyers and consumers' access to locally grown and harvested products. This report will be available online at the San Mateo County Food System Alliance website in spring 2014.

# 3. Distribution

The distribution portion of the food system occurs when raw and/or processed agricultural products are transported from one place to another. It includes the loading and unloading of food at warehouses and distribution centers and necessitates the coordination of warehousing and refrigeration.

In San Mateo County, producers sell to wholesale distributors such as the Golden Gate Produce Terminal in South San Francisco, packing and processing facilities throughout the region, and directly to consumers. San Mateo County grown and harvested products end up all over California, the United States, and the world. Smaller, organic growers tend to sell their produce directly at farmers' markets, farm stands, specific sites for Community Supported Agriculture (CSA),<sup>1</sup> restaurants, or some local grocery stores. Fishermen sell their products at the dock to one of the three main seafood distributors, or directly to customers. Niche-market beef producers (e.g., grass-fed, pasture-raised) and other meat producers tend to sell beef through meat-buying clubs, farmers' markets, CSAs, restaurants, online Web stands, health food stores, or direct to consumers.

Regardless of where it ends up, produce is often first sent to wholesalers or packing and processing facilities and is then sold to grocery stores, corner or convenience stores, restaurants, mobile food vendors,<sup>2</sup> fast-food outlets, and cafeterias in hospitals, schools, county facilities, and corporations. The majority of food sold in San Mateo is sold by grocery operations and restaurants once it has been bought from wholesalers. There are 68 grocery stores 6,000 square feet or greater, 487 corner or convenience stores, 972 counter service restaurants, and 242 mobile vendors<sup>3</sup> that purchase the bulk of their products through wholesale channels. At each of these steps, the physical transport, refrigeration, and storage coordination is crucial to getting raw products from producer to market.



Photo courtesy of the Sonoma County Food Alliance

<sup>1</sup> Community Supported Agriculture consists of a network of individuals who support one or more local farms, and both producers and consumers share in both the risks and benefits of production. Source: Suzanne DeMuth, "Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide," US Department of Agriculture, 1993, accessed December 4, 2013, <http://www.nal.usda.gov/afsic/pubs/csa/csadef.shtml>.

<sup>2</sup> Mobile food trucks are usually set up to prepare fresh food or to heat or chill food. Vendors who operate them commonly sell their foodstuffs at street fairs, outside office buildings, and near schools during lunchtime. Most trucks are owner operated or sublet to individuals, while others are associated with restaurants.

<sup>3</sup> According to the San Mateo County Health Policy, Planning Division's Epidemiology Unit, a grocery store is any retail food store that has more than 6,000 square feet and has been identified by San Mateo County Environmental Health food inspectors to sell fruits and vegetables. A corner store has 6,000 square feet or less and may or may not sell fruits and vegetables. Due to limitations in the data collection methods and categorization, these definitions are approximate.

Tracking where products grown or harvested in San Mateo County are consumed is difficult. Most producers are hesitant to share distribution data. When data is available, it's likely an underestimate of the produce grown on their farm. In addition, once raw agricultural products are purchased by a wholesaler, they are aggregated with products of the same type from other counties, further complicating tracking from specific locations. It is at this wholesale stage that tracking the ultimate destination of what is grown or harvested in the county becomes virtually impossible.

### 3.1 WHOLESALE DISTRIBUTION

A September 2012 study conducted by Community Alliance with Family Farmers (CAFF) to assess the feasibility of aggregating, processing, and distributing county-grown products to county institutions found about 46 produce wholesalers operating within or around the Golden Gate Produce Terminal. However, only about 25 wholesalers buy produce from San Mateo County farms. CAFF's report will be available spring 2014 on the San Mateo County Food System Alliance website.

Though the specific amount of county-grown produce sold to wholesalers within San Mateo County is not known, there were 157 grocery wholesalers for "other" grocery products, fruits and vegetables, frozen food, fish/seafood, general line (which consists of a wide range of groceries), dairy products, confectionary merchants, meat and meat products, and poultry products in San Mateo County in 2012 (see Table 10 below).<sup>4</sup>

*Table 10. Number of food industry establishments by category, 2012.*

Type of Grocery Wholesaler	Number of Establishments
Other grocery product merchant wholesalers	63 (40%)
Fruit and vegetable merchant wholesalers	28 (18%)
Packaged frozen food merchant wholesalers	32 (20%)
Fish and seafood merchant wholesalers	14 (9%)
General line grocery merchant wholesalers	5 (3%)
Dairy product merchant wholesalers	6 (4%)
Confectionery merchant wholesalers	4 (3%)
Meat and meat product merchant wholesalers	3 (2%)
Poultry product merchant wholesalers	2 (1%)
<b>Total grocery product merchant wholesalers</b>	<b>157 total</b>

Source: State of California Employment Development Department, "Quarterly Census of Employment and Wages (QCEW): Industry Detail," 2013.

Although there are a number of fish and seafood merchant wholesalers, the majority of fishermen who land seafood at Pillar Point Harbor sell to the three wholesale purveyors stationed at the port: Morningstar Fisheries, Three Captains Sea Products, and Pillar Point Seafood Products.<sup>5</sup> According to e-mail communication with Pietro Parravano, commissioner, San Mateo County Harbor District, outside buyers can contract with these three existing buyers to use their unloading equipment or can use their own hand carts and trucks.

<sup>4</sup> State of California Employment Development Department, "Quarterly Census of Employment and Wages (QCEW): Industry Detail," accessed November 14, 2011, <http://www.labormarketinfo.edd.ca.gov/aspdotnet/dataBrowsing/empResults.aspx?menuChoice=emp&searchType=Geography&geogArea=0604000081&keyword=42&naicscode4=4244>.

<sup>5</sup> "Pillar Point Harbor: Lessees and Other Local Businesses," San Mateo County Harbor District, accessed December 7, 2012, <http://www.smharbor.com/pillarpoint/ppbus.htm>.



## 3.2 SELLING PRODUCTS TO OTHER CALIFORNIA COMMUNITIES, STATES, AND COUNTRIES

Since most large producers in the county don't have their own shipping and processing facilities, the producer or a responsible party often transports their products to facilities throughout the state, where it's then exported to cities throughout the state, the United States, or other countries. The exact number of processing and packaging facilities is unknown in San Mateo County. Much of the produce grown in the county is transported to Watsonville and other parts of California and consolidated with product from other processing or packaging facilities. This makes tracking exports from the county to other parts of California and the United States difficult. A relatively new piece of legislation, the Food Safety and Modernization Act (FSMA), is the first update of food safety laws since 1938. Signed into law in 2011, the FSMA allows the Food and Drug Administration (FDA) to prevent and address food safety problems, and increase the safety of imported food. It targets food safety standards at farms and food facilities. According to a phone conversation with Fred Crowder, agricultural commissioner and sealer of weights/measures, California currently requires all produce boxes to identify the producer or a responsible party. The FSMA will likely facilitate a better method to track food-borne illnesses and allow for better tracking of the origins of produce grown in San Mateo County.

Though limited data exists regarding where San Mateo County-grown products ultimately end up, some data is available for products exported internationally. Of the food exported outside of the United States, San Mateo County producers sell most of their products to Japan (65%), Micronesia (9%), the Marshall Islands (8%), and Taiwan (6%). The rest of their products are sold to Canada, Republic of Korea, Palau, and a number of other countries.<sup>6</sup> Many shipments of produce are exported to American military bases.



<sup>6</sup> "San Mateo County 2010 Agricultural Crop Report," San Mateo County Department of Agriculture/Weights and Measures, accessed May 21, 2013, <http://agwm.smcgov.org/sites/agwm.smcgov.org/files/documents/files/2010%20Crop%20Report.pdf>

### 3.3 DIRECT SALES

Many smaller, organic growers in San Mateo County tend to sell products directly to consumers as well as to wholesalers. Between 1997 and 2007, the number of farms engaged in direct sales remained around 37, yet the value of direct market sales increased by 20 percent from \$820,000 to \$980,000, adjusted for inflation.<sup>7</sup> By 2007, direct market sales represented 6 percent of total food crop sales in San Mateo County, the highest in the San Francisco Bay Area and much higher than the national average of 0.8%.<sup>8</sup> In 2012, the San Mateo County Agricultural Department reported that 48 county farmers and fishermen sold their products directly to consumers. This included farms registered with the County Agriculture Department to sell their produce/fish at markets within the county or at farm stands. Though many smaller county growers sell directly to consumers, most don't sell to county farmers' markets. Pescadero Grown, the farmers' market in Pescadero, is the only county market that sells products exclusively from county producers. Table 11 lists the type of outlet and number of outlets where county residents could purchase locally produced or harvested goods directly from producers in 2012.

Table 11: Type and number of direct sales outlets, 2012.

Type of Outlet	Number of Outlets
Certified Farmers' Market	26
Community Supported Agriculture (CSA) that delivers within the county	16
Community Supported Fishery (CSF) (Half Moon Bay Fishermen's Association)	1
Fishing boats	30
Farm stands	Data not available

Sources: Certified Farmers' Markets in San Mateo County, <http://www.co.sanmateo.ca.us/portal/site/cmo/menuitem.7592865717b71e-7455f3cdc7917332a0?vgnextoid=882374bfd76a0210VgnVCM1000001d37230aRCRD&vgnextfmt=subDivisionsDetails>, and Pietro Parravano, commissioner, San Mateo County Harbor Commission, e-mail message to author June 14, 2012, and Peter Ruddock, e-mail message to author, August 5, 2012.



Photo courtesy of Puente de la Costa Sur

Puente de la Costa Sur is working with six San Mateo County organic farmers to aggregate their products through the website Good Eggs. This is similar to an online farm stand. Puente is also exploring whether it can sell county-grown products from multiple growers in a space in San Francisco in 2014.<sup>9</sup>

7 American Farmland Trust, Greenbelt Alliance, "Sustaining Our Agricultural Bounty: An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area," Sustainable Agriculture Education (SAGE), March 2011.

8 Ibid.

9 Markegard Family Grass-Fed Buying Club, <http://markegardfamily.com/buyingclub>, accessed November 22, 2013.

### 3.4 LARGE FOOD SERVICE PURVEYORS

The largest potential buyers of San Mateo County products are cafeterias in public and private institutions such as hospitals, schools, jails, county offices, and corporations. They serve millions of meals daily and collectively spend millions of dollars purchasing food for their employees, students, patients, inmates, and clients.

#### Hospitals

As of 2011, four (4) of the five (5) main county hospitals, combined, served over 6,000 meals daily and spent between 6% and 20% of their food budget on fruits and vegetables. This amounts to over \$768,000 spent annually on fresh produce.<sup>10</sup> The five hospitals employ 10,781 people.<sup>11</sup> In 2009, the Hospital Consortium of San Mateo County committed to increasing the purchase of “locally grown” fruits and vegetables by 10% in all of the county hospitals. Though the consortium did not indicate the baseline percentage of produce locally grown, they determined local sourcing<sup>12</sup> as one of their key priority areas.

Despite their interest in this goal, hospital food buyers have had difficulty purchasing county-grown produce. They lack the resources to process fresh produce and the ability to store it, both significant challenges to purchasing locally grown food. They are also required to purchase the majority of their food products through Group Purchasing Organizations (GPOs), larger buying companies that purchase food from wholesale distributors. In general, San Mateo County growers do not sell to the wholesale distributors that work with San Mateo County Hospitals' GPOs. Therefore, it is difficult for these hospitals to source San Mateo County-grown produce through their traditional purchasing agreements.

#### San Mateo County Public Schools

San Mateo County public schools are another type of institution interested in purchasing local food. There are 93,674 students enrolled in public schools in San Mateo County<sup>13</sup> in 25 school districts, in 177 public schools, continuation schools, and child development centers, who could be eating more San Mateo County products.

The Alliance partnered with Community Alliance with Family Farmers (CAFF) on a farm to school pilot project in 2011 and learned that the amount of money that school districts spend on fresh produce varies widely due to factors such as the number of schools and students in each district and student preferences. In Ravenswood Elementary School District in East Palo Alto and Jefferson Unified School District in Daly City, food service directors purchased nearly \$124,000 of fresh produce from a San Francisco-based distributor and over \$18,500 in fresh produce from a San Mateo County-based distributor in 2009 and 2010, respectively. As these were just two San Mateo School Districts out of 25, this study suggests the potential for large amounts of public funding to be shifted toward locally grown produce.

Like hospitals, many school districts are interested in buying local produce. A 2010 survey by the Alliance found that most school districts, 10 out of 17 surveyed, were interested in purchasing more local produce. However, despite their interest, as of 2012, only one district sourced San Mateo County-grown produce regularly, and less than a third of the districts bought

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<sup>10</sup> The San Mateo County Food System Alliance collected data from four of the five hospitals in 2011. It excludes data from Kaiser as their data included their entire region, and not just the Kaiser hospitals in San Mateo County. The estimated amount of money spent on fresh fruits and vegetables noted here is likely an underestimate.

<sup>11</sup> Francine Serafin-Dickson, e-mail message to author; December 13, 2013.

<sup>12</sup> Each hospital will define what local means to it.

<sup>13</sup> California Department of Education, “The Condition of Education, Elementary/Secondary Enrollment,” California Basic Educational Data System (CBEDS), November 2012, accessed November 22, 2013 [http://www.kidsdata.org/data/topic/table/public\\_school\\_enrollment.aspx?loc=26,4&fmt=0](http://www.kidsdata.org/data/topic/table/public_school_enrollment.aspx?loc=26,4&fmt=0).



50% or more of their produce from within 150 miles. However, at least one school district, Redwood City Elementary School District, sources nearly 50% of local produce (which is defined as produce within 100 miles of its district) during some months of the growing season. When asked about the main barriers to incorporating local produce into cafeterias, schools noted their limited processing capacity, their concern that farmers wouldn't be able to meet the volume they needed, the availability of produce of interest to students, and the cost.



Photo courtesy of Redwood City School District

Moreover, in 2013, the US Department of Agriculture conducted a nationwide Farm to School Census to gather information on the proportion of the food budget spent on local foods, types of local products purchased, expected increased purchasing of local produce, and additional farm to school activities, including the prevalence of school gardens, activities, and curriculum integration.<sup>14</sup> Table 12 describes the total food costs and percentage of food budget spent on local products in San Mateo County public schools. Of the county's 25 school districts (which include the schools operated by both the County Office of Education and the Community College District), five (5) districts reported their total food costs and four (4) districts reported the percentage of their food budget used on locally grown food. Of these four districts, the percentage of the budget used to buy locally grown food ranged from 4% (Cabrillo Unified School District) to 26% (San Mateo–Foster City School District). Eight (8) districts were not conducting any activities related to using locally grown food, and 11 districts have not yet responded to the survey. This data, while incomplete, is an important first step in understanding county schools' purchasing patterns for locally grown food.

<sup>14</sup>The US Department of Agriculture, "Farm to School Census," accessed November 13, 2013, <http://www.fns.usda.gov/farmtoschool/census/#/state/ca>.

Table 12. San Mateo County School Districts' total food costs and percentage of food budget spent on local products.

School District	Total Food Costs	Percent of Food Budget Spent Locally
San Mateo County Office of Education School District	No current activities	
Bayshore Elementary School District	Not responded	
Belmont–Redwood Shores Elementary School District	No current activities	
Brisbane Elementary School District	Not responded	
Burlingame School District	No current activities	
Cabrillo Unified School District	\$350,000	4%
Hillsborough City School District	Not responded	
Jefferson Elementary School District	No current activities	
Jefferson Union High School District	No current activities	
La Honda–Pescadero Unified School District	Not responded	
Las Lomas Elementary School District	Not responded	
Menlo Park City Elementary School District	No current activities	
Millbrae Elementary School District	No current activities	
Pacifica School District	Not responded	
Portola Valley Elementary School District	Not responded	
Ravenswood City Elementary School District	\$1,200,000	Not Listed
Redwood City Elementary School District	Not responded	
San Bruno Park Elementary School District	No current activities	
San Carlos Elementary School District	No current activities	
San Mateo County Community College District	Not responded	
San Mateo–Foster City Elementary School District	\$570,147	26%
San Mateo Union High School District	\$600,000	15%
Sequoia Union High School District	Not responded	
South San Francisco Unified School District	Not responded	
Woodside Elementary School District	\$18,000	0%

Source: The US Department of Agriculture, "Farm to School Census," accessed November 13, 2013.

## CASE STUDY

### HOW ONE SCHOOL DISTRICT IS SUCCESSFULLY SOURCING COUNTY-GROWN PRODUCE

The La Honda Pescadero Unified School District is one district that sources county-grown produce. They revamped their school meal program and now prepare 270 school lunches and 150 school breakfasts daily from scratch, using as many locally sourced organic ingredients as possible. Several Pescadero farms donate produce, and three (3), TomKat Ranch, Pie Ranch, and Fifth Crow, grow and donate produce specifically for the school district. A grant from TomKat Ranch Educational Foundation for a part-time school nutritionist complemented the renovation of the school district's kitchen in 2009. The district spends about \$10,000 per year on produce, 35% of their food budget, of which 25% is sourced within 150 miles. They have been able to keep the cost of the food consistent, and have increased participation in their food program and decreased other costs associated with garbage collection and packaging. Kathy Webster, senior programs officer for TomKat Ranch Educational Foundation, stated, "Change can be hard, but I recommend you start serving local produce one day a week at your school's salad bar."

## Cafeterias

Cafeterias in San Mateo County jails, offices, and corporations are also potential customers for San Mateo County products. In 2012–2013, a total of 1.5 million meals were served in the Maguire Correctional Facility and the Maple Street Complex Facility; the Youth Services Campus, or the youth correctional facility; probation correctional facilities; Camp Glenwood; and the Canyon Oaks Youth Center. Table 13 below lists the top employers in San Mateo County in 2012.

*Table 13. Top 10 employers in San Mateo County, 2012.*

Employer	Location	Type	# of Employees
Genentech Inc.	South San Francisco	Biotechnology	8,800
San Mateo County	Redwood City	Government	6,079
Oracle Corporation	Redwood City	Software	5,600
Mills Peninsula Health Services	Burlingame	Health care	2,500
Visa, Inc.	Foster City	Global payments technology	2,462
San Mateo County Community College District	San Mateo	Education	1,951
SLAC National Accelerator Laboratory	Menlo Park	Science laboratory	1,764
Seton Medical Center	Daly City	Health care	1,672
Gilead Sciences Inc.	Foster City	Biopharmaceuticals	1,587
Electronic Arts Inc.	Redwood City	Entertainment software	1,400

Source: "San Francisco Business Times Book of Lists," San Francisco Business Times, accessed December 16, 2013, <http://www.bizjournals.com/sanfrancisco/research/bol-marketing/>.

While the total dollar value spent on purchasing fruits and vegetables, other products like meat and seafood, and the total number of meals served in these cafeterias is not known at this time, the large amount of food being served to over 30,000 employees suggests that there is an opportunity for producers to sell their products to these institutions.

## 3.5 ENCOURAGING RESIDENTS TO PURCHASE SAN MATEO COUNTY PRODUCTS

To capitalize on and encourage the growing interest in buying locally grown food, the San Mateo County Convention and Visitor's Bureau, the San Mateo County Farm Bureau, and the San Mateo County Harbor District developed the "As Fresh As It Gets" (AFAIG) initiative. AFAIG contains two components: a label that can be used by producers to signify that produce, fish, meat, dairy, or wine has been grown, harvested, or prepared in the county, and an annual program recognizing restaurants, catering companies, and bed-and-breakfasts that prioritize buying and preparing meals with local products. The San Mateo County Department of Agriculture/Weights and Measures and the San Mateo County Health System funded and supported this project. In 2012, the San Mateo County Convention and Visitor's Bureau recognized 73 restaurants and companies for buying and serving county-grown produce or seafood.<sup>15</sup> As of August 2012, a total of 22 fishermen and farmers and one beekeeper signed a Memorandum of Understanding (MOU) to use the AFAIG label on their products. In fall 2013, the San Mateo County Department of Agriculture/Weights and Measures received \$80,000 for the next two years to reinvigorate this program. San Mateo County Farm Bureau and the San Mateo County Convention and Visitors Bureau will be working with the Agricultural Department to deliver AFAIG program services.

<sup>15</sup> San Mateo County Health System, "As Fresh As It Gets Winners," San Mateo County/Silicon Valley Convention and Visitor's Bureau, accessed August 6, 2012, <http://www.freshasitgets.com/index.php/site/overview/winners#recipients>.



## CASE STUDY

### EXPLORING OPPORTUNITIES TO AGGREGATE, PROCESS, AND DISTRIBUTE LOCAL FOOD

Recognizing this potential demand and the benefits to producers and the local economy, the Alliance secured funding to assess the feasibility of aggregating, processing, and distributing county-grown products to public and private institutions, and hired Community Alliance with Family Farmers (CAFF) to implement this study. CAFF interviewed numerous stakeholders in the food system, including farmers, fishermen, food distributors, public institutional buyers (e.g., schools, hospitals, and county jails and cafeterias), private institutional buyers (e.g., corporations), restaurants, and food outlets such as grocery stores. The study identified challenges and opportunities, and offered several recommendations to increase sales within the county. Of the producers who responded, most think it's important for their crops to be sold to county residents, most sell to farmers' markets and restaurants, most noted that labor and operating costs are their main challenges, and many expressed interest in contract growing and cooperative production planning. The study found that fishermen are highly regulated, have high operating costs, and are unable to set prices for their products. Instead, they're considered to be "price-takers." Many institutional buyers want to buy more products grown or harvested in San Mateo County, but they noted seasonality, cost, unreliable delivery, and lack of a food safety plan as some of their barriers to procuring more local products.

The study recommended four strategic directions that should be implemented together: coordinating the production of crops to be sold to institutions, enhancing the As Fresh As It Gets brand, exploring whether horticultural greenhouses could be used for extended-season fruit and vegetable production, and supporting an independently operated service facility to aggregate, process, and distribute products to institutions. The study also noted an opportunity that is currently being explored: a new nonprofit seafood distributor who would pay fishermen a premium price, and identify the boat and fishermen who caught the fish for their customers. The study will be released in spring 2014 and shared online at <http://www.aginnovations.org/alliances/SanMateo>.

### Potential Opportunities

Listed below are some opportunities to enhance the distribution of county-grown products throughout San Mateo County:

- 1) Explore opportunities for municipal buildings, nonprofits, businesses, hospitals, and schools to participate in and serve as drop-off points for CSAs or Community Supported Fisheries (CSFs).
- 2) Encourage institutional food buyers to use their collective buying power to influence the food supply chain and provide healthier food and more foods grown, raised, harvested, and processed in San Mateo County. For example, the Michigan Health & Hospital Association, a coalition of more than 100 hospitals, has committed to Health Care Without Harm's "Healthy Food in Health Care" program. It is one of the first hospital associations to initiate a campaign supporting a healthy food environment in hospitals throughout the state. It aims to improve the nutritional content of pediatric menus, label cafeteria and menu items, and purchase at least 20% Michigan-grown and sustainably produced food products.<sup>16</sup> In addition, California's Healthy Food in Health Care program provides information, tools, and resources to help health facilities purchase foods that are produced, processed, and transported in ways that protect the environment and public health. As a result of these efforts, 25% (127) of all hospitals in the state of California participate in

<sup>16</sup> "Advancing Michigan Good Food, Purchasing with Purpose: Institutions Can Power Local Food Supply Chains," Michigan Good Food, accessed November 12, 2013, [http://www.michiganfood.org/assets/goodfood/docs/Agenda\\_Briefs\\_Priority8\\_InstPurchasing.pdf](http://www.michiganfood.org/assets/goodfood/docs/Agenda_Briefs_Priority8_InstPurchasing.pdf).

the Healthy Food in Health Care program. Data from 22 facilities revealed that in 2012, they spent a total of \$3,582,924 on local and/or sustainable food and beverages.<sup>17</sup>

- 3) Encourage cities and the county to adopt and implement healthy, local, sustainably produced food procurement guidelines for city contracts, events, and facilities. For example, to help bolster the local economy and increase access to local, fresh food, New York City has established a set of procurement guidelines.<sup>18</sup> They will allow agencies to give a price preference to New York State food products if the estimate is within 10% of the lowest bidder; will mandate that certain products (e.g., apples) come from New York, and will encourage agencies to include contract provisions about freshness and perishability of food products. Since New York City spends the second-largest amount of funds on institutional spending, only second to the United States military, this will foster healthier food access and benefit the local economy.<sup>19</sup>
- 4) Encourage cities, organizations, schools, and the county to develop ordinances to encourage the public to buy products with the As Fresh As It Gets label and to buy from restaurants and catering companies that have received an award from the As Fresh As It Gets program.
- 5) As noted in the feasibility study conducted by CAFF, explore funding to hire a market facilitator to implement some of their recommendations, such as coordinating production and facilitating a link between buyers and consumers.

### Areas for Further Research

Some areas for further research:

- 1) Calculate the total food expenditures on produce, seafood, and meat by the county's top 10 private employers, schools, and county facilities.
- 2) Ask producers for information about the final destination of their products that are county grown or harvested.
- 3) Explore San Mateo County producers' constraints/barriers to participating in county farmers' markets.

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<sup>17</sup> "California Healthy Food in Health Care," Health Care Without Harm, San Francisco Bay Area Physicians for Social Responsibility, accessed November 13, 2013, [http://sfbaypsr.org/wordpress/wp-content/uploads/2012/07/California\\_Report\\_Final.pdf](http://sfbaypsr.org/wordpress/wp-content/uploads/2012/07/California_Report_Final.pdf).

<sup>18</sup> New York City Office of the Mayor, press release, "New York City Is One of First Major Cities with Specific Local Food Initiatives," June 12, 2012, accessed December 31, 2013, [http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor\\_press\\_release&catID=1194&doc\\_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2012a%2Fpr211-12.html&cc=unused1978&rc=1194&ndi=1](http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor_press_release&catID=1194&doc_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2012a%2Fpr211-12.html&cc=unused1978&rc=1194&ndi=1).

<sup>19</sup> Megan Saynisch, "NYC Announces Local Food Procurement Guidelines," Ecocentric, June 18, 2012, accessed December 31, 2013, <http://www.gracelinks.org/blog/1281/nyc-announces-local-food-procurement-guidelines>.

# 4. Consumption

This chapter describes national and county residents' food and beverage consumption patterns, and some of the health outcomes that result from their diets. It describes some of the federal and state bills that affect Americans' and county residents' food options, where residents tend to purchase food in San Mateo County, and some tools to measure access to food. It explores the concept of food security, defined as access to affordable, nutritious, and culturally relevant food at all times;<sup>1</sup> food assistance, such as the federal Supplemental Nutrition Assistance Program (SNAP) benefits (also known as food stamps or CalFresh in California), the Women, Infants, and Children (WIC) program, and the Free and Reduced School Lunch and Breakfast programs; and some local food distribution programs.

## 4.1 NATIONAL FOOD CONSUMPTION PATTERNS

Thirty years ago, Americans snacked less often, ate fewer meals, and consumed smaller portion sizes when compared with today. In fact, Americans consumed close to 500 more calories in 2010 than in 1970; their intake increased from 2,064 calories to 2,538 calories per person per day.<sup>2</sup>

Americans are also eating out more frequently now than in the past. In 2005–2008, 32% of Americans' caloric intake came from food away from home, up from 18% in 1977–1978. Data also suggests that when eating out, people either eat more or higher-calorie foods—or both—and that this tendency appears to be increasing.<sup>3</sup> People who rated their diet as “poor” eat food away from home nearly six times per week as compared with those individuals with “excellent” diets who eat out a little over three times per week. People who noted that they have “poor” diets got 39% of their calories from food away from home, while people with “excellent”-rated diets got 26% of their calories from food away from home.<sup>4</sup>

## 4.2 FEDERAL AGRICULTURAL POLICIES

Federal agricultural policies play an important role in Americans' food consumption patterns and resulting health outcomes. Food choices are primarily influenced by one piece of federal legislation, the farm bill. It is a set of federal policies that affect the price of many foods and ultimately determine what many of us choose to eat. It is also the main source of funding for food stamps, also known as SNAP or CalFresh. The farm bill allocates funding for 15 titles or categories, such as nutrition, commodity programs, and conservation, and authorizes subsidies for certain commodity crops (e.g., corn, wheat, rice, soybean, and cotton).

It affects what is eaten in every county and state throughout the country for multiple reasons. First, approximately 15% (47,305,667) of the American population, or just over one in seven citizens, receives SNAP (food stamp) benefits, as of December 2013.<sup>5</sup> Second, the commodity subsidies in the farm bill incentivized farmers to grow particular crops such as

1 “Food Security,” USDA Food and Nutrition Services, accessed May 24, 2013, <http://www.fns.usda.gov/fsec/>.

2 US Department of Agriculture, Economic Research Service, “Loss Adjusted Food Availability Data,” accessed December 31, 2013, <http://www.ers.usda.gov/data-products/chart-gallery/detail.aspx?chartId=40070&ref=collection&embed=True&widgetId=39734#.UsNN6tjDsef>

3 Bing-Hwan Lin and Rosanna Mentzer Morrison, “Food and Nutrient Intake Data: Taking a Look at the Nutritional Quality of Foods Eaten at Home and Away from Home,” *Amber Waves* 10(2), Economic Research Service/USDA, June 2012, accessed July 9, 2013, <http://www.ers.usda.gov/media/783958/Data-feature.pdf>.

4 Christian Gregory, Travis A. Smith, and Minh Wendt, “How Americans Rate Their Diet Quality: An Increasingly Realistic Perspective,” US Department of Agriculture, Economic Information Bulletin Number 83 (September 2011), accessed July 9, 2013, [http://www.ers.usda.gov/media/106615/eib83\\_1\\_.pdf](http://www.ers.usda.gov/media/106615/eib83_1_.pdf).

5 “Supplemental Nutrition Assistance Program: Number of Persons Participating,” US Department of Agriculture, accessed December 4, 2013, <http://www.fns.usda.gov/pd/29snapcurpp.htm>.

corn and soy, which are then converted to substances used in processed foods. Processed foods are cheaper to produce, store, and transport. Therefore, along with significant marketing, lower prices enable consumers to purchase more of this processed food.



Agricultural Commissioner and Sealer of Weights/Measures, Fred Crowder, teaches San Mateo County students how to use a scale

Congress writes the farm bill every five to seven years.<sup>6</sup> Congress could not agree on a new bill in 2012 and thus extended the 2008 farm bill to 2013. In the latter part of 2013 and early part of 2014, the House-Senate conference committee worked to negotiate a modest but meaningful reform to the farm safety net program.<sup>7</sup> Titles involving commodity subsidies, crop insurance,<sup>8</sup> and food stamps were the most difficult, with food stamps being the most contentious. President Obama signed the new farm bill, the Agricultural Act of 2014, in February 2014. This \$956 billion<sup>9</sup> bill is over 350 pages and offers a number of reforms to US agricultural policies. Only two aspects of this bill, changes in payments to farmers and cuts to food stamps, will be discussed here. Farmers who previously received subsidies will no longer receive fixed payments; instead they can access federal crop insurance.<sup>10</sup> The bill also cuts \$8 billion from SNAP funding over 10 years.<sup>11</sup> This means that 850,000 households, one-third of which will be in California, will receive fewer SNAP benefits.<sup>12</sup> This is primarily due to closing a loophole known as “heat and eat” used in 15 states and Washington, D.C.<sup>13</sup> Monthly food stamp benefits are based on the

6 ChangeLab Solutions, “Growing Change: A Farm Bill Primer for Communities,” 2012, accessed July 9, 2013, [http://changelabsolutions.org/sites/default/files/GrowingChange\\_FarmBillPrimer\\_Final\\_20120514\\_0.pdf](http://changelabsolutions.org/sites/default/files/GrowingChange_FarmBillPrimer_Final_20120514_0.pdf).

7 National Sustainable Agriculture Coalition, “NSAC Writes to Conferees on Key Priorities for 2013 Farm Bill, October 22nd, 2013,” accessed November 7, 2013, <http://sustainableagriculture.net/blog/farm-bill-conference-letter/>.

8 A crop insurance contract is a commitment between insured farmers and their insurance providers. The insurance provider agrees to indemnify the insured farmer against losses that occur during the crop year. In most cases, the insurance covers loss of yield exceeding a deductible amount. Losses must be due to unavoidable perils beyond the farmer’s control. Over the last few years, policies that combine yield and price coverage have been introduced. These cover loss in value due to a change in market price during the insurance period, in addition to the perils covered by the standard loss of yield coverage. “History of the Crop Insurance Program,” US Department of Agriculture, Risk Management Agency, accessed November 13, 2013, <http://www.rma.usda.gov/aboutrma/what/history.html>.

9 Douglas W. Elmendorf, Congressional Budget Office, Director, communication on January 28, 2014, accessed February 12, 2014, <http://www.cbo.gov/sites/default/files/cbofiles/attachments/hr2642LucasLtr.pdf>.

10 Ibid.

11 Jennifer Liberto, “Senate Passes Farm Bill,” February 4, 2014, CNN, accessed February 12, 2014, <http://money.cnn.com/2014/02/04/news/economy/food-stamps-farm-bill/index.html>.

12 Richard Gonzalez, “Small Cuts to Food Stamps Add Up to Big Pains for Many Recipients,” NPR, January 30, 2014, accessed February 12, 2014, <http://www.npr.org/blogs/thesalt/2014/01/30/268876193/small-cuts-to-food-stamps-add-up-to-big-pains-for-many-recipients>.

13 Ibid.

amount of disposable income a family has after rent, utilities, and other expenses. If an individual or family qualifies for the Low Income Home Energy Assistance Program, even if it is only \$1 a year, a standard utility charge is deducted from their income, resulting in a lower disposable income and thus a smaller amount of food stamp money.<sup>14</sup>

### 4.3 SAN MATEO COUNTY FOOD CONSUMPTION PATTERNS

San Mateo County residents can purchase or obtain food in a number of places: near or in their neighborhood, place of work, and school. While some residents buy their food directly from producers at farmers' markets, through Community Supported Agriculture (CSA) or Community Supported Fishery (CSF) programs, at farm stands or on a dock, most purchase food from a grocery store, corner store, restaurant, or fast-food outlet. These retail food outlets tend to be found in the more populated parts of the county, where a large customer base can support their business. The more rural areas of the county have noticeably fewer retail outlets.

Due in part to corn and soy subsidies from the farm bill, San Mateo County residents now consume more processed foods with greater amounts of sugar, fat, and sodium than ever before. These troubling consumption trends have been linked to higher rates of diabetes, obesity, heart disease, and related disease.

Sugary drinks (e.g., sodas, sports drinks, and other beverages that contain added caloric sweeteners) provide a significant source of calories in Americans' daily diets.<sup>15</sup> In San Mateo County, 15% of children aged 2–11 drink one or more sodas every day, 56% of youth aged 12–17 drink one or more sodas every day,<sup>16</sup> and 14% of adults drink one or more sodas every day.<sup>17</sup> As compared with the rest of California, San Mateo County youth and adults drink fewer sodas than their California counterparts, who drink on average 1.2 sodas per day.<sup>18</sup> Table 14 below indicates that the majority of sugar that has been added to the American diet comes from soft drinks and soda.<sup>19</sup>

Over the past five years, between 2005–2007 and 2011–2012, there was a 46% decrease among children aged 2–11 drinking one or more sugary drinks a day. This decline in sugary drink consumption did not take place among older youth. Instead, youth aged 12–17 experienced a 17% increase in consumption. Among the 15 largest counties in California, San Mateo County youth aged 12–17 experienced the second-highest increase in teens consuming one or more sugary drinks every day.<sup>20</sup>

14 Erika Eichelberger, "Republicans Just Won the Food Stamp War," Mother Jones, January 29, 2014, accessed February 12, 2014, <http://www.motherjones.com/politics/2014/01/republicans-won-food-stamps-farm-bill>.

15 Centers for Disease Control and Prevention, "The CDC Guide to Strategies for Reducing the Consumption of Sugar-Sweetened Beverages," CDC Sugar Sweetened Beverage Guide, March 2010 (1–34), accessed July 9, 2013, [http://www.cdph.ca.gov/SiteCollectionDocuments/StratstoReduce\\_Sugar\\_Sweetened\\_Bevs.pdf](http://www.cdph.ca.gov/SiteCollectionDocuments/StratstoReduce_Sugar_Sweetened_Bevs.pdf).

16 Susan H. Babey, Joelle Wolstein, and Harold Goldstein, "Still Bubbling Over: California Adolescents Drinking More Soda and Other Sugar-Sweetened Beverages," UCLA Center for Health Policy Research, 2013, accessed November 5, 2013, [http://www.publichealthadvocacy.org/\\_PDFs/stillbubblingover/PolicyBrief.pdf](http://www.publichealthadvocacy.org/_PDFs/stillbubblingover/PolicyBrief.pdf).

17 Susan H. Babey, Malia Jones, and Harold Goldstein, "Bubbling Over: Soda Consumption and Its Link to Obesity in California," UCLA Center for Health Policy Research 2009, accessed July 9, 2013, <http://healthpolicy.ucla.edu/publications/search/pages/detail.aspx?PubID=104>.

18 According to the California Center for Public Health Advocacy, on average, California teens consume 1.2 sodas every day, assuming that each "soda" is a 12-ounce can. Source: Karen Kaplan, "Soda Flows Freely in California," Los Angeles Times, September 17, 2009, accessed July 9, 2013, [http://latimesblogs.latimes.com/booster\\_shots/2009/09/soda-consumption-in-california-bubbling-over.html](http://latimesblogs.latimes.com/booster_shots/2009/09/soda-consumption-in-california-bubbling-over.html).

19 Peter J. Huth, Victor L. Fulgoni, Debra R. Keast, Keigan Park, and Nancy Auestad, "Major food sources of calories, added sugars, and saturated fat and their contribution to essential nutrient intakes in the US diet: Data from the national health and nutrition examination survey (2003–2006)." *Nutrition Journal* 12, no. 1 (2013): 116, accessed December 16, 2013, <http://www.nutritionj.com/content/12/1/116/table/T2>.

20 Babey, Jones, and Goldstein, "Bubbling Over."





Photo courtesy of Puente de la Costa Sur

Table 14. Contribution of the top 10 sources of added sugars in the US diet to nutrient intakes for individuals aged two and older, National Health and Nutrition Examination Survey, 2003–2006.

Sources of Added Sugars	Added Sugars (% total intake)	Total Sugars (% total intake)
Soft drinks, soda (includes diet)	33	21.8
Candy, sugars, and sugary foods	19.5	13.4
Cakes, cookies, quick bread, pastry, pie	14.4	10.3
Fruit drinks and -ades	11	8.2
Milk desserts	5.4	4.4
Ready-to-eat cereal	3.9	2.8
Yeast breads and rolls	2.1	2.7
Milk drinks	1.8	1.9
Yogurt	1	1.1
Condiments and sauces	0.9	1.1

Source: Peter J. Huth, Victor L. Fulgoni, Debra R. Keast, Keigan Park, and Nancy Auestad, “Major food sources of calories, added sugars, and saturated fat and their contribution to essential nutrient intakes in the US diet: Data from the national health and nutrition examination survey (2003–2006),” *Nutrition Journal* 12, no. 1 (2013).

Moreover, based on the 2013 San Mateo County Community Needs Health Assessment, residents of San Mateo County reported eating an average of 4.45 servings of fruits and vegetables, which is below the recommended 5 servings of fruits and vegetables per day.<sup>21</sup> Only 31% of individuals surveyed consumed the recommended 5 servings per day;<sup>22</sup> this is lower than in 2008 but similar to previous years. Also of note, men, seniors, residents with higher education or income levels, and whites report among the lowest fruit/vegetable consumption.<sup>23</sup>

21 Susan H. Babey, Malia Jones, and Harold Goldstein, “Bubbling Over: Soda Consumption and Its Link to Obesity in California,” *UCLA Center for Health Policy Research* 2009, accessed July 9, 2013, <http://healthpolicy.ucla.edu/publications/search/pages/detail.aspx?PubID=104>.

22 To determine the appropriate number of servings of fruits and vegetables that should be consumed daily, the Centers for Disease Control and Prevention now recommends that Americans consider their age, sex, and activity level. Source: The Centers for Disease Control and Prevention, “Nutrition for Everyone,” accessed December 17, 2013, <http://www.cdc.gov/nutrition/everyone/fruitsvegetables/>.

23 “2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo,” County of San Mateo, accessed November 14, 2013, <http://sm-health.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

## 4.4 HEALTH OUTCOMES: OVERWEIGHT & OBESITY IN SAN MATEO COUNTY

A diet high in sugar and fat, limited physical activity (which is true for many Americans and San Mateo County residents), poverty, food insecurity, and a number of other factors can lead to an unequal balance where more calories are consumed than are expended.<sup>24</sup> This results in overweight and obesity. Food-insecure individuals may not eat three meals a day, may eat a lot of calories at one meal since they may not have another meal that day, may eat food of low nutritional value, and often aim to buy food that is both cheap and high in calories.

Hunger and malnutrition result in many long-term problems, including impaired physical and mental development, and obesity and related diseases. Obesity contributes to absenteeism from school and poor academic performance, and can lead to an array of other health problems. In addition to decreased productivity and quality of life, obesity and related diseases are estimated to cost San Mateo County approximately \$574,000,000 annually.<sup>25</sup> It is important to note that overweight, obesity, and diabetes disproportionately affect African Americans, Latinos, and Pacific Islanders.<sup>26</sup>

As of 2010, data from the Pediatric Nutrition Surveillance System found that of the low-income children who participate in the San Mateo County Child Health and Disability Prevention Program, 18.1% between the ages of 2 and 4 were overweight and 17.9% were obese. Both of the figures in San Mateo County were slightly higher than statewide data, where 17.3% and 16.1% of children ages 2–4 were overweight or obese. For low-income children between 5 and 19 in San Mateo County, 23.6% were overweight and 20.4% were at risk for being overweight, compared with 23.3% overweight and 18.8% at risk for overweight in California.<sup>27</sup> Until 2010, at risk of being overweight was defined as having a body mass index (BMI) between the 85th and 95th percentile. In 2010, an American Medical Association expert committee recommended a change that has been adopted by the Centers for Disease Control and Prevention and the National Center for Health Statistics. Now BMI between the 85th and 95th percentiles is considered to be overweight.<sup>28</sup>

Figure 10 below displays the percentage of fifth-, seventh-, and ninth-graders who were overweight or obese in 2010 by city in San Mateo County, the entire county, and the state. South San Francisco had the highest rate of students overweight or obese, at 47%, while Burlingame had the lowest percentage of students overweight or obese, at 24.4%.

Between 2005 and 2010, San Mateo County experienced the highest percentage of improvement in overweight and obese fifth-, seventh- and ninth-grade public school students among all counties in the state of California. The decline from 36.11% to 34.07% is 5.6% percent and is lower than the state average of 38%.<sup>29</sup>

24 Also of note, according to the 2013 *Community Needs Health Assessment, Health and Quality of Life in San Mateo*, 53.9% do not participate in vigorous exercise, though this is an improvement compared with 64.1% in 2001.

25 Chenoweth & Associates, Inc., "The Economic Costs of Overweight, Obesity, and Physical Inactivity among California Adults—2006," California Center for Public Health Advocacy, accessed November 27, 2013, [http://www.publichealthadvocacy.org/PDFs/Costofobesity\\_BRIEF.pdf](http://www.publichealthadvocacy.org/PDFs/Costofobesity_BRIEF.pdf).

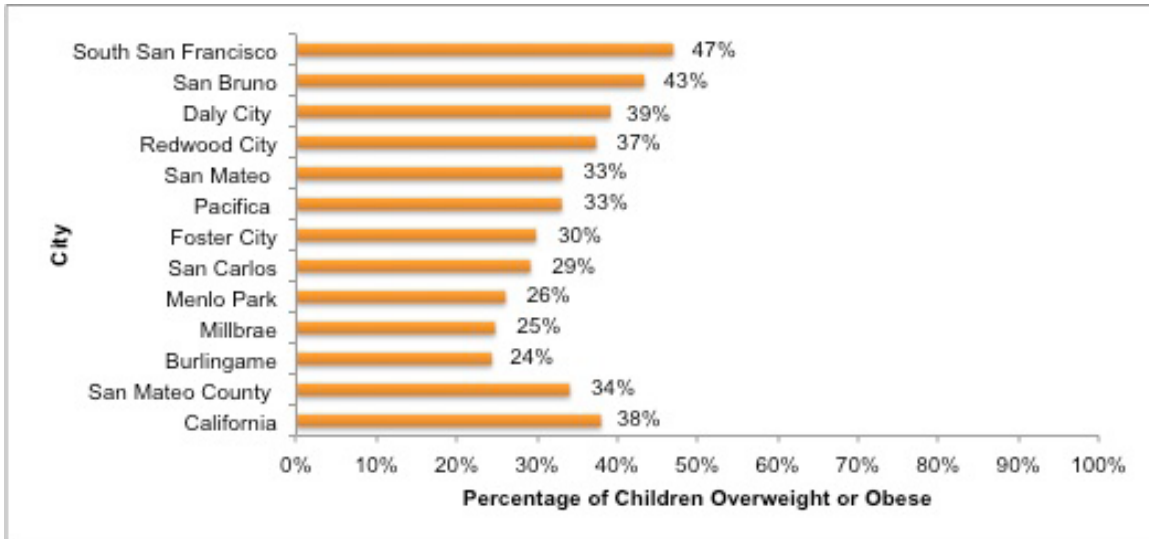
26 Centers for Disease Control and Prevention, "Groups Especially Affected by Diabetes," accessed October 2, 2013, <http://www.cdc.gov/diabetes/consumer/groups.htm#9>.

27 "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," County of San Mateo, accessed November 14, 2013, <http://sm-health.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

28 Cynthia L. Ogden and Katherine M. Flegal, "Changes in Terminology for Childhood Overweight and Obesity," National Health Statistics Reports, Number 10, June 25, 2010, accessed August 21, 2013, <http://www.cdc.gov/nchs/data/nhsr/nhsr025.pdf>.

29 Susan H. Babey, Joelle Wolstein, Allison L. Diamant, Amanda Bloom, and Harold Goldstein, "A Patchwork of Progress: Changes in Overweight and Obesity among California 5th, 7th, and 9th Graders, 2005–2010," 2011, UCLA Center for Health Policy Research, accessed December 18, 2013, <http://escholarship.org/uc/item/8wr3t0zc>.

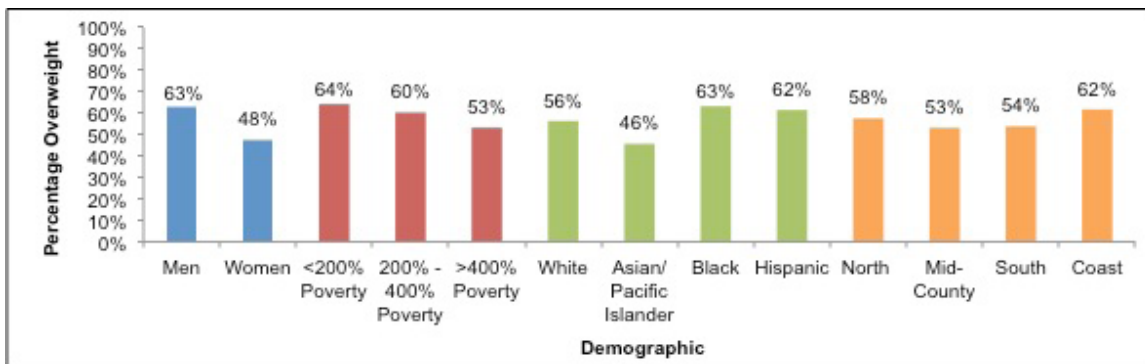
Figure 10. Overweight and obesity among children in San Mateo County by city, 2010.



Source: Susan H. Babey, Joelle Wolstein, Allison L. Diamant, Amanda Bloom, and Harold Goldstein, "Overweight and Obesity among Children by California Cities—2010," UCLA Center for Health Policy Research and California Center for Public Health Advocacy, June 2012.

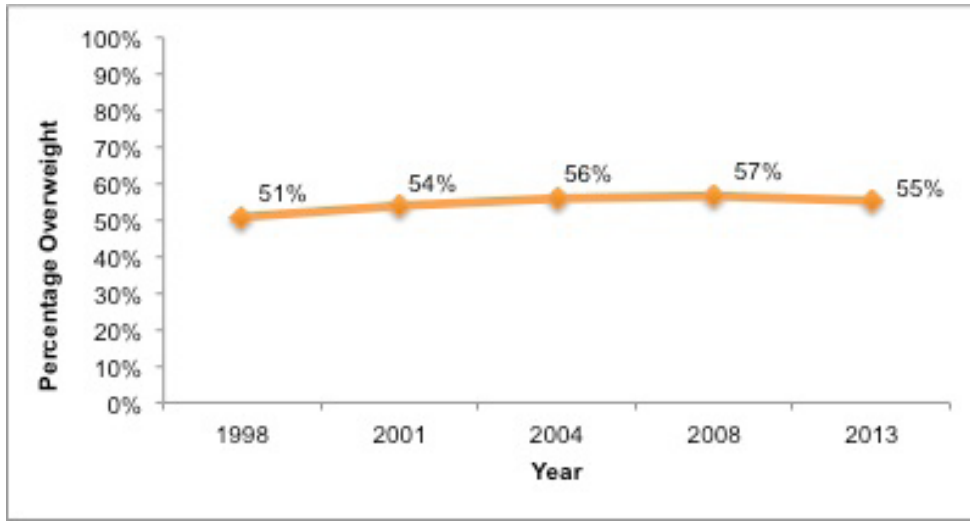
Similar to San Mateo County youth, the proportion of San Mateo County adults who are overweight has also started to decrease over the past few years. Though it was increasing between 1998 and 2008 from 50.8% to 56.7%, it started to decrease in 2008 and is now 55.4%. Figures 11 and 12 describe the proportion of overweight adults in San Mateo County in 2013 by gender, poverty level, race, and region of county, and shows the changes in the proportion of overweight adults between 1998 and 2013.

Figure 11. Proportion of overweight adults in San Mateo County, 2013.



Source: "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," San Mateo County.

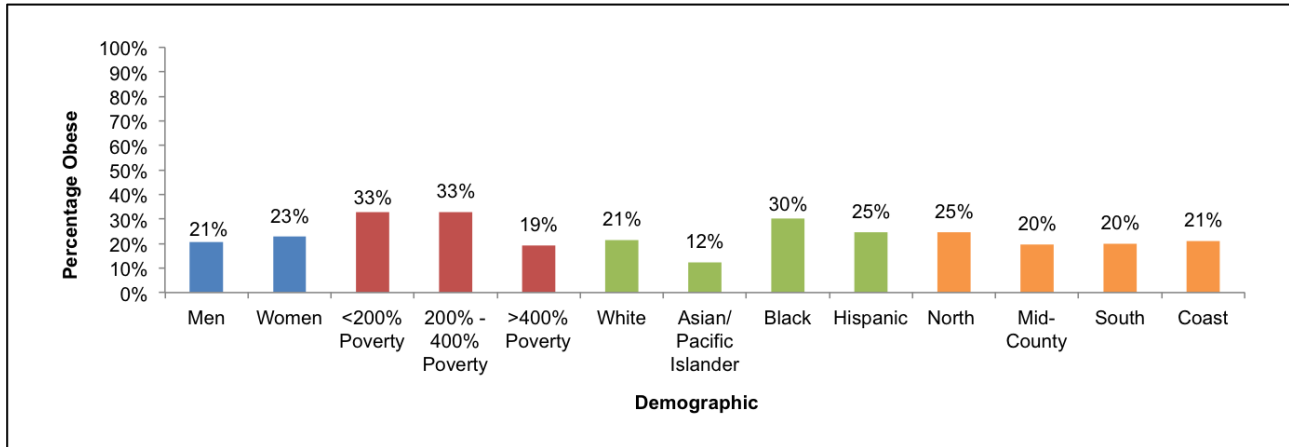
Figure 12. Proportion of overweight adults in San Mateo County between 1998 and 2013.



Source: "2013 Community Health Needs Assessment: Health and Quality of Life Survey," San Mateo County.

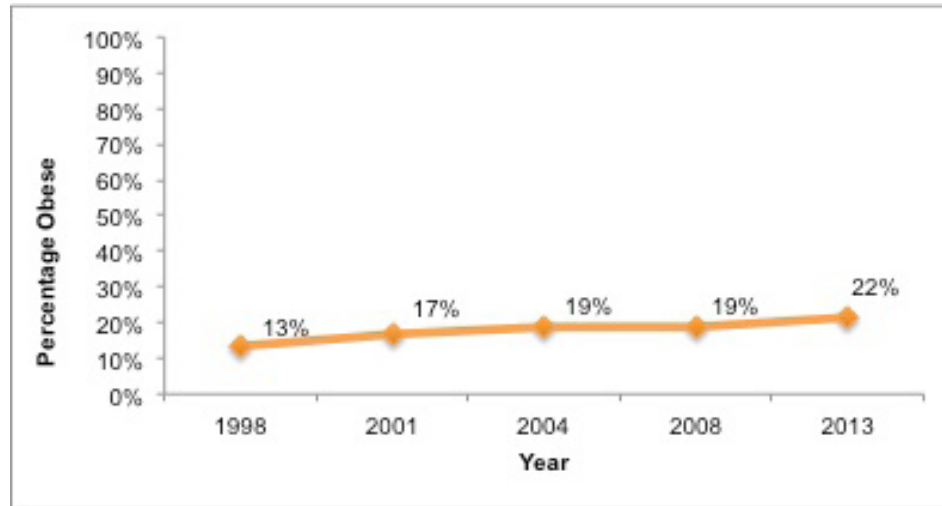
Additionally, Figures 13 and 14 show the proportion of adults who are obese by gender, income, race, and region. The prevalence is highest among those living at <200% of the Federal Poverty Level, between 200% and 400% of the Federal Poverty Level, blacks, Hispanics, and those living in the North County. Figure 14 shows that in 2013, 21.7% of San Mateo County adults were obese, having a BMI of 30 or higher. This again represents a significant increase since 1998 (13.4%).

Figure 13. Proportion of obese adults in San Mateo County, 2013.



Source: "2013 Community Health Needs Assessment: Health and Quality of Life Survey," San Mateo County.

Figure 14. Proportion of obese adults in San Mateo County between 1998 and 2013.



Source: "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," San Mateo County.

The four figures above indicate that the percentage of adults that are overweight is declining, yet the percentage of adults that are obese is increasing.

## 4.5 FOOD CONSUMED NEAR THE HOME

Our food environment—the food options available to us in our homes, workplaces, neighborhoods, and schools—has a significant effect on our food choices, and consequently affects health outcomes like overweight and obesity mentioned above. For most San Mateo County residents, food is available everywhere. Whether from a grocery store, farmers' market, restaurant, fast-food outlet, corner store, mobile food vendor, or vending machine, it is relatively easy to find a snack or a meal for purchase. Most county residents have many options; they can shop at one of the 68 grocery stores, 487 corner stores, 972 counter service restaurants (also known as fast-food outlets), 911 full-service or sit-down restaurants, or 235 specialty restaurants, which include places like doughnut shops, coffee shops, and ice cream shops.<sup>30</sup>

### GROCERY STORES

According to data from the San Mateo County Environmental Health Department, of the 68 grocery stores in San Mateo County, 67 are located on the bay side, and 1 is located in the rural, coast-side, western part of San Mateo County.

### CORNER STORES

Like many Americans, many county residents obtain a significant portion of their food from corner stores, as there are almost twice as many corner stores as grocery stores in the county. Most corner stores line the 101 and El Camino Real (State Highway 82) corridor. The quantity and quality of fresh produce and other foods sold in corner stores varies widely. In some communities, corner stores are the sole provider of food. Many sell unhealthy foods high in fat, sugar, and sodium along with other unhealthy products such as alcohol and tobacco. Offering and promoting healthier options in corner stores are strategies to increase the consumption of healthy food in areas where large grocery stores are unfeasible.

<sup>30</sup> According to the San Mateo County Health Policy, and Planning Division's Epidemiology Unit, a grocery store is any retail food store that has more than 6,000 square feet and has been identified by Environmental Health food inspectors to sell fruits and vegetables. A corner store has 6,000 square feet or less and may or may not sell fruits and vegetables. Due to limitations in the data collection methods and categorization, these definitions are approximate.



## CASE STUDY

### YOUTH TAKE CHARGE OF CREATING HEALTHY NEIGHBORHOODS AND SUPPORTING LOCAL BUSINESSES

San Mateo County's Youth Leadership Institute (YLI) completed five corner store makeovers with a grant from Kaiser Permanente and recently launched the Healthy Neighborhood Stores Network, also known as *Las Tienditas Saludables* in Spanish, a youth-led effort to create a network of healthy corner stores in the North Fair Oaks community. Project outcomes include building authentic relationships with local corner stores to help them make changes that increase access, availability, and desirability of healthy, affordable produce and other healthy items, and decrease the sales and promotion of alcohol, tobacco, and junk food and beverages.

### RESTAURANTS AND FAST-FOOD OUTLETS

As Americans increasingly work longer hours, spend more time in their cars, and shuttle their children to numerous activities, they are preparing less food at home and are frequenting more restaurants and fast-food outlets. In fact, 41% of a household's food expenditure was spent outside of the home; in particular, Americans spend approximately \$100 billion every year on fast food, and accordingly, adults, on average, consumed 11.3% of their daily calories from fast food.<sup>31</sup> Data on the proportion of residents who regularly cook their meals and the number of times people eat out is limited. However, information on the frequency of eating at fast-food outlets exists at the county level. According to the 2011–2012 California Health Interview Survey (CHIS), 40% of county residents consumed fast food at least twice a week, and 9% consumed fast food four or more times a week—similar to the state averages of 45% and 12%, respectively.<sup>32</sup> A study of San Mateo County parents in 2005 found that they tended to patronize restaurants with limited healthy options, such as fast food, pizza, and buffets. Families mentioned the prohibitive cost of healthy food and reported shopping at budget stores such as Foods Co, Pak-N-Save, and small neighborhood markets with limited healthy options.<sup>33</sup>



HEAL Project students water their school garden

31 Centers for Disease Control and Prevention, "Caloric Intake from Fast Food Among Adults: United States, 2007–2010," accessed December 5, 2013, <http://www.cdc.gov/nchs/data/databriefs/db114.htm>.

32 UCLA Center for Health Policy Research, "California Health Interview Survey," 2011–2012, accessed December 3, 2013, [http://ask.chis.ucla.edu/main/DQ3/output.asp?\\_rm=0.0509302](http://ask.chis.ucla.edu/main/DQ3/output.asp?_rm=0.0509302). [http://www.ci.east-palo-alto.ca.us/economicdev/pdf/Tax\\_Base\\_Growth\\_Study\\_2009-Color.pdf](http://www.ci.east-palo-alto.ca.us/economicdev/pdf/Tax_Base_Growth_Study_2009-Color.pdf)

33 Harder + Company Community Research, "Qualitative Research Findings: Focus Groups and Key Informant Interviews on the Prevention of Childhood Obesity in San Mateo County," Healthy Communities San Mateo County Prevention of Childhood Obesity Task Force, September 2005, accessed December 1, 2013, [http://www.co.sanmateo.ca.us/vgn/images/portal/cit\\_609/30/36/628423080QualitativeFindingsRound21.20.06.pdf](http://www.co.sanmateo.ca.us/vgn/images/portal/cit_609/30/36/628423080QualitativeFindingsRound21.20.06.pdf).

## CASE STUDY

### MIDDLE AND HIGH SCHOOL STUDENTS PARTNER WITH SAN MATEO COUNTY TO PROMOTE HEALTHY NEIGHBORHOODS

Several Daly City middle and high schools received funding from the California Endowment for Project Heart, a grant to promote healthy eating habits and regular exercise. Students mapped fast-food outlets surrounding their high school and determined whether these restaurants offered healthy food choices.<sup>34</sup> The youth worked with a nutritionist from the San Mateo County Health System and graded the nearby restaurants. According to the students' survey, 24% of the outlets—mostly fast-food restaurants or pizza places—were tagged unhealthy. They presented their findings to Daly City's City Council and requested a moratorium on fast-food restaurants.<sup>35</sup>

### MOBILE FOOD VENDORS

In addition to restaurants or fast-food outlets, and permanent food facilities, in 2012 there were 242 mobile food vendors in the county who had full food preparation trucks, ice cream trucks, pushcarts, hitch (concession trailer attached to a vehicle), or prepackaged food carts. They are primarily located along the Highway 101 corridor in the northern and southern parts of the county. Of the 137 San Mateo County-based mobile food vendors who responded to a survey in 2012, most sell from a food truck (40%), an ice cream truck (20%), or a pushcart, hitch, or some other means of transportation (17%). They often sell at one location, but those who sell in multiple places don't move much from a few locations. Nineteen percent of the mobile food vendors sell "healthy" items, defined as items such as fruit, vegetables, and/or water. However, this definition includes vendors that sell both healthy and less healthy items. Most mobile food vendors are owned and operated by one person.<sup>36</sup> Each city is responsible for determining where and when a vendor may operate, what a vendor may sell, and/or incentives for encouraging the sale of healthier foods.<sup>37</sup>

## 4.6 FOOD CONSUMED AT WORK

The proximity of healthy retail outlets or mobile food vendors to place of work, and the food sold in office cafeterias and vending machines, also affects diet. Employed adults in the United States ages 25 to 54 living in households with children under 18 spend 8.8 hours working or in work-related activities where they eat at least one meal per day.<sup>38</sup> If fruit, vegetables and water are promoted and are more readily available than junk food and soda, employees are more likely to eat those items. Worksite wellness policies are one type of policy that can encourage employees and the clients they serve to eat healthy foods and drink more water.

34 "The Feast of Daly City: A Collection of Healthy Family Recipes Gathered by Students at Westmoor and Jefferson High Schools in Daly City, California," accessed December 2, 2013, [http://www2.smcoe.k12.ca.us/projects/19/Project\\_Heart/Social\\_Marketing/Available\\_Media/Recipe\\_Book/FeastCookbookRevised.pdf](http://www2.smcoe.k12.ca.us/projects/19/Project_Heart/Social_Marketing/Available_Media/Recipe_Book/FeastCookbookRevised.pdf).

35 Christine Morente, "Healthy Eating and Right Training," *Contra Costa Times*, accessed December 2, 2013, [http://www.contracostatimes.com/ci\\_12406097](http://www.contracostatimes.com/ci_12406097).

36 San Mateo County Health Policy and Planning, 2011–2012.

37 *Ibid.*

38 United States Department of Labor; Bureau of Labor Statistics, "Charts from the American Time Use Survey," *American Time Use Survey*, accessed November 16th, 2012, <http://www.bls.gov/tus/charts/chart1.pdf>.



## CASE STUDY

### DEVELOPING INNOVATIVE HEALTH POLICIES ACROSS 15 AGENCIES IN SAN MATEO COUNTY

Get Healthy San Mateo County and the Bay Area Nutrition and Physical Activity Collaborative (BANPAC) funded Dan McClure of McClure Nelson & Associates to assist San Mateo County nonprofits and cities in writing and implementing wellness policies. Through funding from these two coalitions, Dan assisted 10 county-based nonprofits (the Sheriff's Activities League in Redwood City, Ravenswood Family Health Center, Mid-Peninsula Gateway Housing Facility, Collective Roots, the THRIVE Alliance, Footsteps, One East Palo Alto, the Silicon Valley YMCA, the African American Community Health Advisory Committee, and Peninsula Conflict Resolution Center) and five cities in San Mateo County (Daly City, Belmont, Burlingame, South San Francisco, and Foster City). These policies prohibit the sale and distribution of sugary drinks, and promote active public transportation. Since 2011, according to an e-mail exchange with Susan Karlins, BANPAC coordinator, over 60 Bay Area agencies have passed healthy food, beverage, and physical activity policies, which will affect over 680,000 staff, volunteers, and clients annually. For more information about wellness policies, visit <http://gethealthysmc.org/WorkplaceWellness>.

## 4.7 FOOD CONSUMED IN SCHOOLS

Schools are also a place where San Mateo County youth spend a significant part of their day. On average, youth consume about 30% to 50% of their calories while at school where many eat both breakfast and lunch.<sup>39</sup> The federal Healthy Hunger-Free Kids Act and California Senate Bills 12, 965, and 1413 guide food and beverages sold in schools today.

The Healthy Hunger-Free Kids Act (HHFKA), signed into law by President Barack Obama in 2010, raised the nutrition standards of school breakfast and lunch, the first major changes to school meals in more than 15 years. This bill reauthorizes child nutrition programs for the next five years, gives the USDA the authority to set nutritional standards in schools, offers some additional funding to help schools implement these new standards, funds farm to school programs, and continues to help the

<sup>39</sup> Nanci Hellmich, "Students push back on new school lunches," USA Today News, September 28, 2012, accessed December 2, 2013, <http://usatoday30.usatoday.com/news/nation/story/2012/09/28/kids-push-back-on-new-school-lunch/57842204/1>.



USDA improve the nutritional quality of commodity foods that schools receive on behalf of the Free and Reduced Lunch program.<sup>40</sup> Starting in 2012, schools are now required to offer both fruit and vegetable choices during lunch, whereas previously schools only had to offer either a fruit or a vegetable. The new standards also specify which subgroups of vegetables must be offered weekly and emphasize more dark leafy greens, red and orange vegetables, and beans and legumes. In addition, this bill sets caloric requirements for school lunches for different grades. School lunches for kindergarten through fifth-graders, sixth- through eighth-graders, and ninth- through 12th-graders should range from 550–650 calories, 600–700 calories, and 750–800 calories, respectively.<sup>41</sup>

Over the past 10 or so years, SB 12, SB 965, and SB 1413, each have contributed to improving the school food environment in California. SB 12, also known as the School Nutrition Standards Bill, specified the nutrition standards for snacks and entrees sold in schools.<sup>42</sup> SB 965, known as the Healthy Beverage Bill, described nutrition standards for beverages sold in elementary, middle, and high schools.<sup>43</sup> And SB 1413 required that all school districts provide access to free, fresh drinking water during meal times in food service areas.<sup>44</sup>



Learning how to prepare a healthy breakfast at Puente de la Costa Sur

## 4.8 LIMITED ACCESS TO HEALTHY FOOD AND TOOLS TO MEASURE FOOD ACCESS

Despite the numerous food outlets in San Mateo County, some residents still struggle to access food, and in particular, healthy food. Some do not live or work near a store that sells healthy food, some don't have transportation to get to a healthy retail outlet, and others cannot afford to pay for healthy food. There are several ways to measure residents' access to healthy food, such as assessing the number who are food insecure, asking residents to describe their access to healthy food via a survey, calculating a city's or jurisdiction's retail food environment index (RFEI), or determining if a region is considered to be a food desert.

The current economy and high rates of unemployment have led more residents to experience food insecurity than ever before. Table 15 below details the large increase in food-insecure adults in low-income households between 2001 and 2009.<sup>45</sup>

40 "Nutrition Reauthorization Healthy, Hunger-Free Kids Act of 2010," Let's Move (2010) 1-2, accessed October 15, 2013, [http://www.whitehouse.gov/sites/default/files/Child\\_Nutrition\\_Fact\\_Sheet\\_12\\_10\\_10.pdf](http://www.whitehouse.gov/sites/default/files/Child_Nutrition_Fact_Sheet_12_10_10.pdf).

41 The Food Revolution Team, "School Lunches, the Calorie Limit Debate," Jamie Oliver's Food Revolution, October 12, 2012, accessed October 15, 2013, <http://www.jamieoliver.com/us/foundation/jamies-food-revolution/news-content/school-calorie-lunch-kickback>.

42 "SB 12 (Escutia): School Nutrition Standards—Summary," California Center for Public Health Advocacy, accessed May 24, 2013, <http://www.publi-chealthadvocacy.org/PDFs/SB12Summary.pdf>.

43 "SB 965 (Chapter 237, Statutes of 2005)," San Diego and Imperial Regional Nutrition Network, accessed May 24, 2013, [http://www.banpac.org/pdfs/healthy\\_vending/what\\_are\\_sb12\\_and\\_sb965.pdf](http://www.banpac.org/pdfs/healthy_vending/what_are_sb12_and_sb965.pdf).

44 "Drinking Water for Students in Schools," California Department of Education, accessed May 24, 2013, <http://www.cde.ca.gov/ls/nu/he/water.asp>.

45 M. Pia Chaparro, Brent Langellier, Kerry Birnbach, Matthew Sharp, and Gail Harrison, "Nearly Four Million Californians Are Food Insecure," UCLA Center for Health Policy Research Brief June 2012, <http://healthpolicy.ucla.edu/publications/Documents/PDF/FoodPBrevised7-11-12.pdf>.

Table 15. Food insecurity in San Mateo County and California, 2001–2009.

Region	Food-Insecure Adults among Low-Income Households, 2001	Food-Insecure Adults among Low-Income Households, 2009	% Increase (2001-2009)
San Mateo County	28,000 (22.8%)	41,000 (34.8%)	52.6%
California	2,536,000 (29.1%)	3,767,000 (40.4%)	38.8%

Source: UCLA Center for Health Policy Research, "Exhibit 1: Prevalence of Food Insecurity (with and without hunger) Among Adults (Ages 18+) Below 200% Poverty by County/County Group: California 2001 and 2003 and UCLA Center for Health Policy Research, "More Than 2.9 Million Californians Now Food Insecure -- One in Three Low Income, An Increase in Just Two Years."



Greenhearts Family Farm, Half Moon Bay Farmers' Market

A 2013 survey of all county residents found that 77% of respondents rated the ease of accessing affordable fresh fruits and vegetables as "excellent" or "very good." Another 18% rated it as "good." In contrast, 5% of respondents believe that access to affordable fresh fruits and vegetables is "fair" or "poor." Higher "fair/poor" responses were noted among women, young adults, people with a high school education or less, those living below the 200% poverty level, blacks, Hispanics/Latinos, and residents living in the South County region when compared with other residents and parts of the county.<sup>46</sup>

Residents who noted that they have fair or poor access to healthy food tend to live in

neighborhoods where there are few healthy food options. The Retail Food Environment Index (RFEI) is a ratio of unhealthy to healthy food retailers in an area.<sup>47</sup> An RFEI over 1.0 indicates that there is a greater number of unhealthy than healthy food retailers. In 2011, San Mateo County had an average RFEI of 4.5. In the city of San Mateo, there were more than four unhealthy food outlets for every healthy outlet (the city had a score of 4.3). Daly City had an RFEI score of 3.9, indicating that there were nearly four unhealthy food outlets for every healthy food outlet. Redwood City had a score of 6.6 (there were nearly seven unhealthy food outlets for every healthy food outlet). San Bruno had a score of 9.1, indicating that there were more than nine unhealthy food outlets for every healthy food outlet.<sup>48</sup>

46 "2013 Community Needs Health Assessment, Health and Quality of Life in San Mateo," County of San Mateo, accessed August 21, 2013, <http://sm-health.org/sites/default/files/docs/HPP/2013FullReport%28low%29.pdf>.

47 The San Mateo County Health System Environmental Health Division and Health Policy and Planning Epidemiology defined healthy food outlets as supermarkets, produce vendors, and unhealthy food outlets as fast-food restaurants and convenience stores. San Mateo County Health System, "Retail Food Environment Index," Get Healthy San Mateo County, 2012, <http://www.gethealthysmc.org/sites/default/files/users/destremera/Retail%20Food%20Environment%20Index.pdf>.

48 San Mateo County Health System, "Data and Community Health Profiles," Get Healthy San Mateo County, 2012, accessed December 16, 2013, <http://gethealthysmc.org/data>.



## CASE STUDY

### FOOD QUALITY, AVAILABILITY, AND AFFORDABILITY IN SELECT LOW-INCOME NEIGHBORHOODS

Funded by the California Department of Public Health, San Mateo County Public Health's Family Health Services Division led the Communities of Excellence in Nutrition, Physical Activity and Obesity Prevention (CX3) to assess food quality, availability, and affordability in low-income communities in 2009. This project focused on several census tracts in East Palo Alto, Redwood City, North Fair Oaks, downtown South San Francisco, the Broadmoor section of Daly City, and Pescadero La Honda. Data from the study in 2009 and the updated data from 2013 will be made available on the Get Healthy San Mateo County website in spring 2014.<sup>49</sup>

Designating an area as a food desert or region where healthy, fresh, affordable food is difficult to obtain is another method used to assess residents' access or lack of access to healthy food. Food deserts are prevalent in both rural and urban areas and are most often found in low-socioeconomic communities dominated by certain minority groups. According to the US Department of Agriculture's definition of food deserts, East Palo Alto is the only city designated as a food desert in San Mateo County.<sup>50</sup> Fast-food chains and corner stores can be found on many street corners throughout East Palo Alto. The grocery chain Mi Pueblo, introduced in the Ravenswood Shopping Center in 2009, was the first full-service supermarket in 23 years. Before then, East Palo Alto's seven smaller markets were the only outlets with any fresh produce and meat serving the city's 28,000 residents.<sup>51</sup> Previously, high prices, limited selection, and lack of accessibility made them an unviable option, however, forcing many to travel outside of the city to meet their food needs.<sup>52</sup>

As in East Palo Alto, barriers to healthy, affordable, fresh food lead some residents to travel across cities and sometimes county boundaries to buy healthy food. When household spending is greater than local retail sales, it is clear that consumers are leaving the community for some of their shopping needs, resulting in a "leakage" of potential sales outside the local economy.<sup>53</sup> Data for retail leakage by city is limited to cities that compile this data. In North Fair Oaks, an unincorporated part of San Mateo County, food and beverage stores experienced \$10.9 million in retail leakage in 2009, 41% of its spending power.<sup>54</sup>

## 4.9 FOOD ASSISTANCE PROGRAMS

Given that not all residents can access healthy retail outlets, there are a number of free or low-cost food assistance programs available for low-income residents to use in or near their neighborhood, place of work, and school. These programs help residents who don't have enough food on a regular basis. Some of the programs available to low-income residents include the federal Free and Reduced School Lunch and Breakfast programs; CalFresh; Women, Infants, and Children (WIC); and food distribution programs from Second Harvest Food Bank of Santa Clara and San Mateo Counties or their partner agencies. Licensed child-care facilities and adult day care programs for elderly, mentally impaired, or disabled adults in nonresidential day care settings may receive food subsidies through the USDA Child and Adult Care Food Program (CACFP). Other programs also exist, such as the senior farmers' market nutrition program, but will not be discussed in detail here. In 2011, of the

49 San Mateo County Health Policy and Planning Division Epidemiology Unit.

50 US Department of Agriculture Economic Research Service, "Food Access Research Atlas," accessed October 21, 2013, <http://www.ers.usda.gov/data/fooddesert/fooddesert.html>.

51 United States Census Bureau, "State and County Quickfacts," accessed November 23, 2013, <http://quickfacts.census.gov/qfd/states/06/0620956.html>.

52 Holly McDede, "Farming in a Food Desert: East Palo Alto Gardens Take Root," accessed January 2, 2014, <http://kalw.org/post/farming-food-desert-east-palo-alto-gardens-take-root>.

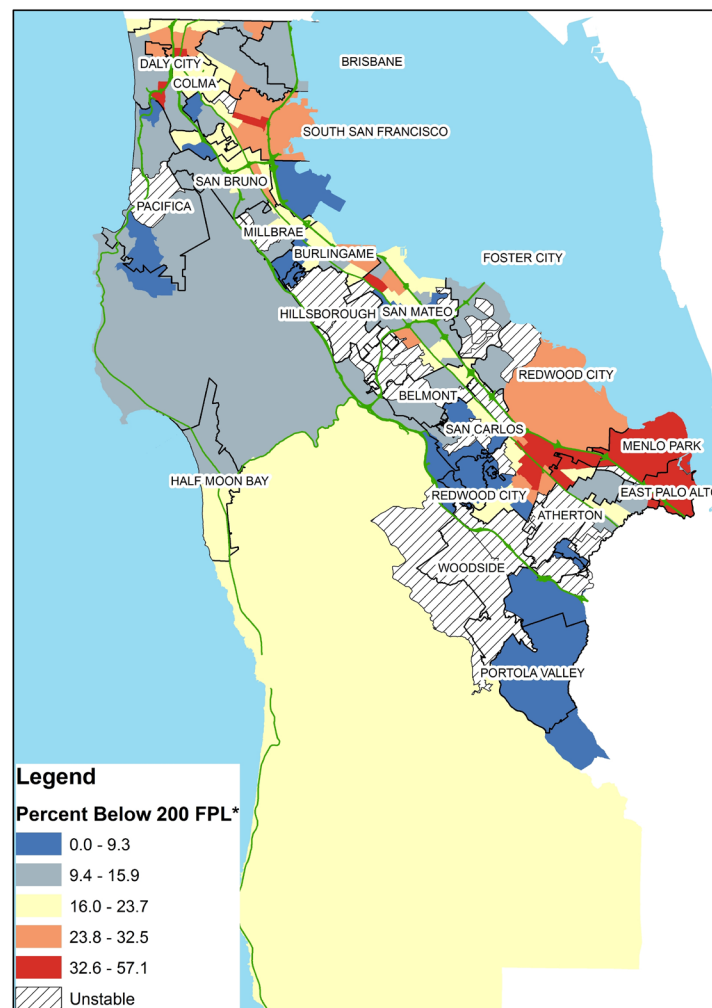
53 "North Fair Oaks Community Plan," County of San Mateo Planning and Building Department, accessed December 3, 2013, [http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major\\_Projects/North%20Fair%20Oaks%20EIR/NFO\\_FinalPlan\\_APPENDIX\\_A\\_ExistingConditions.pdf](http://www.co.sanmateo.ca.us/Attachments/planning/PDFs/Major_Projects/North%20Fair%20Oaks%20EIR/NFO_FinalPlan_APPENDIX_A_ExistingConditions.pdf).

54 Ibid.

40 million meals provided, CalFresh provided most (40%), followed by Second Harvest Food Bank of Santa Clara and San Mateo Counties (25%), school meals (16%), and WIC (12%).<sup>55</sup> Based on the 2012 Index, while food assistance grew by 8%, the need grew by 9% within San Mateo County.<sup>56</sup>

Though food assistance programs have different income eligibility requirements, most are available to residents who live at or below 200% of the Federal Poverty Level (FPL). Figure 15 below displays census tracts and the proportion of residents who live at or below 200% of the FPL. Tracts with higher percentages of residents living at or below 200% of the FPL include Daly City, South San Francisco, parts of San Bruno and San Mateo, Redwood City, North Fair Oaks, Menlo Park, and East Palo Alto.

*Figure 15. Prevalence of people living at or below 200% FPL in San Mateo County Census tracts, 2013.*



\*Federal Poverty Level, Source 2006 - 2011 American Community Survey

<sup>55</sup> "Closing the Meal Gap: 2011 Index of Hunger in Santa Clara and San Mateo Counties," accessed October 10, 2013, <http://shfb.org/Hungerindex>.  
<sup>56</sup> Susan Takalo, e-mail message to author; January 8, 2014.

## FREE AND REDUCED-PRICE SCHOOL LUNCH AND BREAKFAST PROGRAMS

As Table 16 below indicates, 19,520 of San Mateo County students participated in the National School Lunch program and 7,015 students participated in the National School Breakfast program between October 2008 and May 2009.<sup>57</sup> However, there are many more students eligible for both programs. As of 2009, there were nearly 10,000 students eligible but not enrolled in the free or reduced-price lunch program and over 12,000 students who were eligible but not enrolled in the free or reduced-price breakfast programs, respectively. On average, 35% of low-income students participate in school breakfast, whereas 73% of students participate in school lunch. About 50% of eligible students participate in both the free and reduced-price school breakfast and lunch programs.<sup>58</sup>

This means that many low-income families are spending money on lunch or breakfast for their children when that money could be spent elsewhere. Or in some cases, these youth are skipping breakfast or lunch. San Mateo County schools could also earn an additional \$7 million if more eligible county students participated in free and reduced-price meal programs. This would provide more money for school food budgets and enable food service directors to purchase higher-quality foods and more fresh produce, hire additional labor to prepare it, and improve overall quality of their programs.

*Table 16. San Mateo County public school student participation in free and reduced-price meals between October 2008 and May 2009.*

Type of Program	Number of Students Participating	Number and Percentage of Eligible Students Who Are Not Participating	Total Number of Eligible Students	County Rank (1=best, out of 58 counties)	Additional Federal Meal Reimbursement If Full Participation in Program
National Free and Reduced Price School Lunch Program	19,520	9,451 (33%)	28,639	44	\$4,237,555
National School Breakfast Program	7,015	12,505 (64%)	19,539	47	\$2,996,095

Sources: "San Mateo County Nutrition and Food Insecurity Profile," California Food Policy Advocates, 2010, and "Countywide Profile, Fiscal Year 2010-11," Ed-Data, 2012.

## CALFRESH

CalFresh is another opportunity for low-income eligible individuals and households to receive assistance in the form of a debit card that can be used for the purchase of most types of foods at grocery stores and other stores throughout San Mateo County.<sup>59</sup> It helps individuals and families meet their nutritional needs<sup>60</sup> and benefits low-income residents in several ways. It not only increases food security but also enables low-income residents to use dollars normally devoted to food for other basic needs, such as transportation and housing.<sup>61</sup> Eligibility for CalFresh is determined by federal and state guidelines

57 This section focuses on free and reduced-price school lunch and breakfast programs; however, some schools, nonprofits, and others offer free summer meals that meet federal guidelines to children 18 and under who qualify. Unfortunately, data on these programs is limited and thus will not be discussed. Source: "Summer Food Service Programs," USDA Food and Nutrition Service Program, accessed December 18, 2013, <http://www.fns.usda.gov/sfsp/summer-food-service-program-sfsp>.

58 California Food Policy Advocates, "School Meal Analysis 2010–2011," Breakfast First: Healthy Food for Healthy Minds, accessed October 21, 2013, <http://www.breakfastfirst.org/pdfs/SchoolMealAnalysis-DistrictSummary-2010-11.pdf>.

59 "CalFresh," San Mateo County Human Services Agency, accessed October 10, 2013, <http://www.co.sanmateo.ca.us/portal/site/hsa/menuitem.cdaa-f542325a7a5174452b31d17332a0/?vgnnextoid=f35153bc299d0210VgnVCM100001d37230aRCRD>.

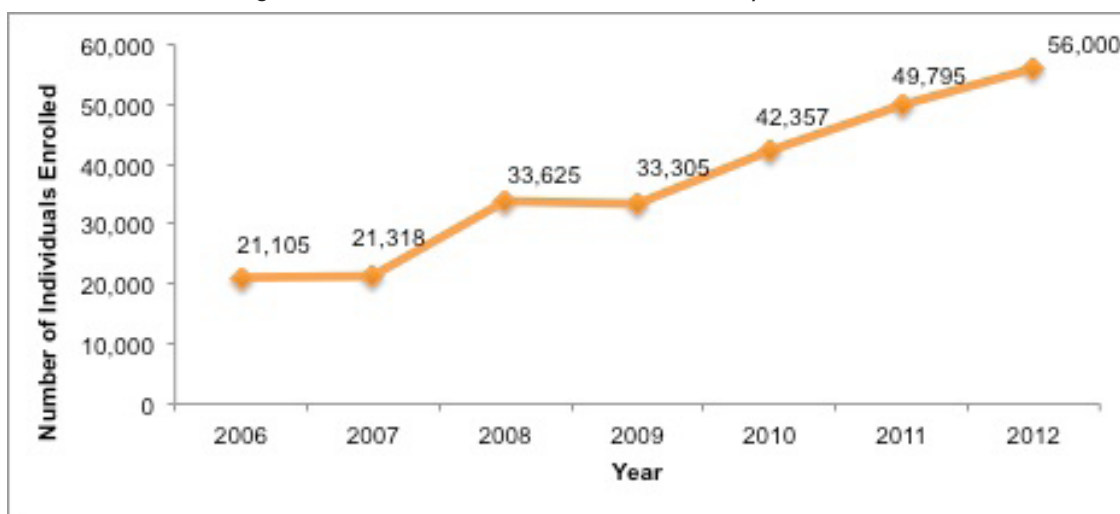
60 "CalFresh Program," California Department of Social Services, accessed October 10, 2013, <http://www.calfresh.ca.gov/>.

61 Kenneth Hanson, "The Food Assistance National Input-Output Multiplier (FANIOM) Model and Stimulus Effects of SNAP," US Department of Agriculture (2010), accessed October 21, 2013, [http://www.ers.usda.gov/media/134117/err103\\_1\\_.pdf](http://www.ers.usda.gov/media/134117/err103_1_.pdf).

based on income, age, citizenship status, and participation in other federal assistance programs.<sup>62</sup> Current federal law states that recipients of Supplemental Security Income/State Supplemental Payment (SSI/SSP) don't qualify for CalFresh.

Between 2006 and 2012, an average of 36,786 county residents enrolled in CalFresh annually at any one period.<sup>63</sup> See Figure 16 below to observe the dramatic rise in the number of residents participating in CalFresh between 2006 and 2012.

Figure 16. CalFresh enrollment in San Mateo County, 2007–2010.



Source: "San Mateo County Human Services Agency, 2014.

According to the CalFresh Participation reports from the California Department of Social Services, from August 2010 to August 2013 there was a 30% increase in CalFresh enrollment across the state. During the same time period, San Mateo County experienced a 60% increase in enrollment. The increase in enrollment across California is likely due to the recession in 2008, the continued high unemployment level during this time period, and the increased need for food assistance.

The elimination of a fingerprinting requirement in California in 2011 also likely helped reduce one of the barriers to CalFresh participation.<sup>64</sup> Within San Mateo County, the reasons for the larger number of residents enrolling in CalFresh may have also been due to increased outreach to eligible residents (e.g., Second Harvest Food Bank of Santa Clara and San Mateo Counties started contracting with a number of community-based organizations to conduct outreach) and the fact that the county now allows residents to participate in phone interviews rather than coming into the office for an in-person interview when signing up for CalFresh.<sup>65</sup>

Using data from 2008, the California Food Policy Advocates (CFPA) developed a San Mateo County Nutrition Profile in 2010. In this report, they compared CalFresh penetration rates and the number of income-eligible individuals participating in CalFresh among all California counties. Though it stated that San Mateo County ranked second to last in California in CalFresh penetration, their report should be interpreted with caution. The number of income-eligible people in San Mateo County presented does not include immigration status and property ownership that may otherwise disqualify an individual

62 "Eligibility and Insurance Requirements," California Department of Social Services, accessed December 3, 2013, <http://www.calfresh.ca.gov/PG841.htm#inc>.

63 San Mateo County Human Services Agency, 2013.

64 Alexis Fernandez, "CDSS Guidance on Elimination of Fingerprint for CalFresh," California Food Policy Advocates, December 2009, accessed December 4, 2013, <http://cfpa.net/calfresh/cdss-guidance-on-elimination-of-fingerprint-requirements-for-calfresh#more-1618>.

65 Anna Dyer, e-mail message to author, November 4, 2013.

for the CalFresh program. In order to be eligible for CalFresh, an individual must be a U.S. citizen, a naturalized citizen, or a legal permanent resident. In addition, some CalFresh households must meet the property resource limit to be eligible for the program. Also, the report does not address the fact that the number of beneficiaries of CalFresh has increased (substantially) since 2008 (see Figure 16 above).<sup>66</sup> However, it does suggest that the county likely has fewer numbers of eligible people participating in CalFresh as compared with other counties in California.

Second Harvest Food Bank of Santa Clara and San Mateo Counties conducted interviews with food service professionals, their partners, and residents participating in CalFresh in the county and compiled data into the report *Struggling for Sustainance: Food Stamp Program/SNAP Access Barriers in Santa Clara and San Mateo Counties* in 2010. It found that understaffing in certain County offices where residents sign up for CalFresh, stigma by store clerks in Pacifica and the coast-side in general, isolation of the coast side due to poor public transportation, and no stores accepting CalFresh in Pescadero were the main barriers for county residents.<sup>67</sup>

To identify the areas in San Mateo County where focused CalFresh enrollment should occur, CalFresh penetration at the city level in San Mateo County was estimated adjusting for the eligibility criteria not accounted for in the CFPa report, using methods from a Food Research and Action Council (FRAC) publication, "SNAP Access in Urban America, January 2011." FRAC used data from the 2006–2010 American Community Survey to determine the number of potentially eligible residents. This figure was calculated by subtracting the number of people enrolled in CalFresh in San Mateo County, provided by the San Mateo County Human Service Agency, from the number of residents who were income eligible for CalFresh when an individual's income was equal to or less than 130% of the Federal Poverty Level. CalFresh eligible counts were adjusted to account for immigration status, property ownership,<sup>68</sup> and participation in other social programs, since these factors may disqualify a resident who otherwise meets the income requirement. Table 17 below shows the estimated number of residents participating in CalFresh by place (i.e., city, town, or unincorporated area), the estimated range of potentially eligible CalFresh clients, and the percentage of people who qualify and aren't accessing CalFresh in each municipality. Similar to the results from the CFPa report, this table must also be interpreted with caution because of the sampling limitations of the American Community Survey and the complexity of estimating CalFresh eligibility and enrollment.



Youth Organizers from the Youth Leadership Institute led a corner store makeover of La Peña Meat Market in North Fair Oaks. A new sign indicating that they accept CalFresh now adorns their storefront. Photo courtesy of Jenn Gross.

66 "2010 San Mateo County Nutrition and Food Insecurity Profile," California Food Policy Advocates, accessed December 3, 2013, <http://cfpa.net/General-Nutrition/CFPAPublications/CountyProfiles/2010/CountyProfile-SanMateo-2010.pdf>.

67 Etan Newman, "Struggling for Sustainance: Food Stamp Program/SNAP Access Barriers in Santa Clara and San Mateo Counties," Second Harvest Food Bank of Santa Clara and San Mateo Counties, February 2010, accessed December 3, 2013, [http://www.shfb.org/docs/advocacy/foodstamp\\_accessbarriers.pdf](http://www.shfb.org/docs/advocacy/foodstamp_accessbarriers.pdf).

68 This calculation was adjusted for property ownership because at the time that this methodology was employed, we were not aware of the fact that as of February 1, 2011, all CalFresh households are exempt from the resource test. Source: "Am I Eligible for CalFresh?" San Francisco Human Services Agency, accessed December 18, 2013, <http://www.sfhhsa.org/157.htm>.



Table 17. Estimated number of residents receiving CalFresh and residents potentially eligible for CalFresh in San Mateo County, 2006–2010.

City, Town, or Unincorporated Area	Estimated Average Number of Residents Receiving CalFresh, 2006–2010	Estimated Range* of People Potentially Eligible for CalFresh (People)	Estimated Percentage Range* of People Potentially Eligible for CalFresh (%)
Atherton	<10**	516–775	<5**
Belmont	376	987–1,360	28–38
Burlingame	478	2,052–2,832	17–23
Daly City	4,167	7,438–8,542	49–56
East Palo Alto	5,978	5,352–6,732	89–100
Foster City	241	1,208–1,578	15–20
Half Moon Bay**	471**	768**– 1,235**	38**–61**
Hillsborough San Mateo Highlands**	24	313–479	5–8
Millbrae	289	1,212–1,756	17–24
Menlo Park, W Menlo Park	1,359	2,394–2,720	50–57
El Granada, Loma Mar, Montara, Moss Beach**	136**	291**–573**	24**–47**
Broadmoor, Colma, Brisbane	374	794–1,228	31–47
North Fair Oaks	1,919	3,717–4,571	42–52
Pacifica	822	2,033–2863	29–40
Portola Valley**	<10**	76**–390**	<10**
Redwood Shores	Unknown	Unknown	Unknown
Redwood City, Emerald Lake Hills	4,245	8,499–9,492	45–50
San Bruno	1,309	3,097–4,318	30–42
San Carlos**	796	984**–1,616**	49*–81*
San Mateo	3,867	6,699–7,053	55–58
Pescadero, La Honda**	102	230**–517**	20**–44**
South San Francisco	2,311	4,749–5,969	39–49
Woodside**	<10	162**–1,076**	<10
San Mateo County	29,290	53,570–67,674	43–55

\* Range is based on published margins of error from the American Community Survey.

\*\* Very statistically unstable; interpret with caution.

Created by Brad Jacobson, San Mateo County Health System Health Policy and Planning.

## CASE STUDY

### WEBSITE CONNECTS COUNTY RESIDENTS TO SOCIAL SERVICES

In 2013, the San Mateo County Human Services Agency applied for and received several fellows from Code for America to work on a project to increase San Mateo County residents' enrollment in CalFresh and to enhance coordination among public and nonprofit food service providers. San Mateo County was one of 10 municipalities to receive a fellowship team.

Three fellows began collaborating with the San Mateo County Human Services Agency in January 2013 to research the issue of food insecurity with various community-based organizations, community leaders, and clients. The fellows developed an accurate and easy-to-use Web application that connects residents to available social services resources (including food pantries and other local food service programs). The outcome of Code for America is the [www.SMC-Connect.org](http://www.SMC-Connect.org) website that allows residents to search by keyword and zip code for services throughout the county and brings awareness of the CalFresh program, farmers' markets, and other human and social services offered by community-based organizations. This partnership is funded by the Philanthropic Ventures Foundation and the County of San Mateo.

### CALFRESH ENROLLEE ACCESS TO FRESH FRUITS AND VEGETABLES

People enrolled in CalFresh may face a number of challenges when trying to access healthy foods. Stores in some neighborhoods might not accept CalFresh, or they might not sell very many healthy options. To examine these issues, the San Mateo County Health Policy and Planning Division conducted a Geographic Information System (GIS) buffer analysis. GIS buffer analysis is a technique to estimate the number of people living near a landmark such as a store, school, or park. The buffer is calculated by drawing a circle of a certain distance around a landmark and counting the number of people who live within that circle.<sup>69</sup> This analysis uses the addresses of CalFresh enrollees and retail food establishments that sell fresh fruits and vegetables and accept Electronic Benefits Transfer (EBT)<sup>70</sup> to determine how far CalFresh enrollees live from stores.<sup>71</sup> This analysis found that only 49% of CalFresh households live within a half-mile of a grocery store or supermarket (6,000 square feet or greater). When smaller markets were added to the analysis of grocery stores and supermarkets, 82% of CalFresh clients in San Mateo County live within walking distance (1/2 mile) of any business selling fruits and vegetables.<sup>72</sup> Overall, 84% of CalFresh enrollees live within a half-mile of a business that accepts EBT (i.e., can accept CalFresh funds). Additionally, of the 270 food retailers that accept EBT, 258 are on the urban side of the county, while 12 are on the coast.<sup>73</sup> The results of this analysis suggest: (1) that while the majority of CalFresh enrollees live near retailers accepting EBT and selling fruits and vegetables, a small number of households on CalFresh live beyond walking distance from a CalFresh-participating, fruit and vegetable source, (2) the quantity, quality, or affordability of the fruits and vegetables sold in some corner markets requires further assessment, and (3) food accessibility issues differ on the coastal region of San Mateo County when compared with the urban region.

69 Brad Jacobson, e-mail message to author; October 17, 2013.

70 CalWORKs, General Assistance, and CalFresh can all be issued on an EBT card.

71 This analysis was conducted using electronic benefit transfer participation (EBT) which includes CalFresh, CalWORKs, and General Assistance.

72 The San Mateo County Human Services Agency provided CalFresh enrollment data. Addresses of approximately 16,000 households with at least one member enrolled in CalFresh for any reason and time period in 2010 were geocoded using ArcGIS. Data, also geocoded, on food retailers was provided from the San Mateo County Environmental Health (EH) agency. During food permit inspections, EH inspectors classified each retail food establishment based on size. Stores with fewer than 6,000 square feet were classified as corner and small markets. Stores greater than 6,000 square feet were classified as grocery stores and supermarkets. One-half-mile buffers were drawn around food retailers selling both fresh fruits and vegetables, and the number of CalFresh households was enumerated.

73 US Department of Agriculture, "SNAP retailer data set," accessed December 16, 2013, <http://www.fns.usda.gov/snap/retailerlocator>.

## CASE STUDY

### HELPING ONE STORE IN RURAL SAN MATEO COUNTY TO ACCEPT CALFRESH

With few stores accepting CalFresh in Pescadero, CalFresh recipients are sometimes forced to travel to Santa Cruz or Half Moon Bay. Recognizing this gap, Get Healthy San Mateo County funded Puente de la Costa Sur in 2010 to help stores accept both WIC and CalFresh. They assisted the La Honda Country store with their application and requirements to become a CalFresh-accepted vendor. In an e-mail message to the author on December 7, 2013, Kerry Lobel, executive director, Puente de la Costa Sur, revealed that it is currently the only store in Pescadero and La Honda that accepts CalFresh.

A 2012 report from the California Food Policy Advocates, *Lost Dollars Empty Plates: The Impact of CalFresh Participation on State and Local Economies*, estimated how much money the county could earn if CalFresh participation increased. They created a figure, the Program Account Index (PAI), to measure the number of income-eligible CalFresh participants. They found that 57,372 San Mateo County residents are eligible. This is not as accurate as the FRAC methodology mentioned above, as the PAI uses eligible people who are living at or below the 125% Federal Poverty Level, and CalFresh provides benefits for people at or below 130% of the Federal Poverty Level. Also, they did not include immigration status, one additional criterion of the CalFresh program. However, their report did provide an estimate of the number of dollars that could be injected into San Mateo County if 57,732 additional people used their CalFresh benefits at stores in San Mateo County. Their estimate of the number of eligible residents, 57,732, is close to the estimated range of potentially eligible CalFresh residents, 53,570–67,674, that was obtained using the FRAC methodology. Using their figure of 57,732, the estimated additional federal benefits that could be received annually through CalFresh is \$84,771,635.<sup>74</sup> According to the USDA, every federal dollar spent on SNAP expenditures generates \$1.79 in economic activity, suggesting that the estimated resulting increase in annual economic activity is actually \$151,741,227.<sup>75</sup> Recognizing the opportunity to help more residents access food through CalFresh and increase revenue for the county, many organizations, including the San Mateo County Human Services Agency, Second Harvest Food Bank, and a number of other community partners are working together to determine how to increase the number of participants enrolled in CalFresh.

### WOMEN, INFANTS, AND CHILDREN

Women, Infants, and Children (WIC) is another federal program but focuses on pregnant women or families with children five years of age or younger. It provides funding for them to buy affordable healthy foods and receive nutrition education, and it connects residents to health care and other community services.<sup>76</sup> As of March 2013, the monthly average caseload for WIC was about 13,475. As of fall 2013, they were running at 90% of their caseload, which means that they were serving 12,138 clients each month. They need to add about 900 more participants per month to continue receiving their current level of funding. In April 2012, San Mateo County WIC clinics provided 6,962 children with \$6 fruit and vegetable vouchers and 3,197 adults with \$10 vouchers. This means that San Mateo County residents participating in WIC received \$73,742 worth of WIC checks to be spent on fruits and vegetables in that month. In this same month, San Mateo County had 39 chain WIC vendors and 28 neighborhood and independent vendors accepting WIC; many of these vendors derive over 50% of their food sales from the redemption of WIC vouchers.<sup>77</sup> Also in 2012, San Mateo County WIC participants from approximately 700 families purchased \$10,812 in fresh fruits and vegetables at farmers' markets using the special vouchers they receive for use specifically at farmers' markets. This special program is called the WIC Farmers' Market Nutrition Program.<sup>78</sup>

<sup>74</sup> To calculate the additional federal benefits received annually through CalFresh, California Food Policy Advocates calculated the income-eligible individuals not receiving CalFresh benefits, multiplied it by the average monthly benefit for eligible individuals, and multiplied that by 12 months. This assumes that 100 percent of income-eligible individuals would participate in the program.

<sup>75</sup> Tia Shimada, "Lost Dollars, Empty Plates: The Impact of CalFresh Participation on State and Local Economies," California Food Policy Advocates 2012, accessed October 3, 2013, <http://cfpa.net/CalFresh/CFPAPublications/LDEP-FullReport-2012.pdf>.

<sup>76</sup> US Department of Agriculture, "About WIC—WIC at a Glance," accessed January 2, 2014, <http://www.fns.usda.gov/wic/about-wic-wic-glance>.

<sup>77</sup> Sujatha Tadimeti, e-mail message to author; May 3, 2012.

<sup>78</sup> Eliana Schultz, e-mail message to author; November 8, 2013.

Of the 26 San Mateo County certified farmers' markets operating in November 2013, 13 accepted WIC and 13 accepted CalFresh. It is important to note that there are 13 markets that do not accept WIC and 13 markets that do not accept CalFresh. According to communication with Carle Brinkman, program manager, Statewide Farmers' Market EBT Program, Ecology Center; and data from the California Department of Social Services and the California Food and Nutrition Services, CalFresh redemption at San Mateo County farmers' markets was approximately \$90 in 2011 for the East Palo Alto (EPA) Community Farmers' Market and \$5,400 in 2012 for the EPA, coast-side, and Pescadero farmers' markets. This data omits information from many of the other markets in the county that accept CalFresh and is due to limitations in the way data is currently collected on CalFresh redemption at farmers' markets. Most farmers' markets that accept CalFresh and WIC are dispersed throughout the county, with a concentration in the areas around South San Francisco, San Mateo, and Redwood City.



Photo courtesy of Puente de la Costa Sur

#### 4.10 LOCALLY FUNDED FOOD ASSISTANCE PROGRAMS

Programs offered by Second Harvest Food Bank of Santa Clara and San Mateo Counties, top-up programs where low-income residents can obtain funding for fresh fruits and vegetables at farmers' markets, and several other programs are also available to low-income residents.

##### SECOND HARVEST FOOD BANK OF SANTA CLARA AND SAN MATEO COUNTIES

Second Harvest Food Bank of Santa Clara and San Mateo Counties collaborates with more than 210 community-based organizations that have over 430 satellite locations that offer food assistance to residents. Between 2011 and 2012, they fed an average of 72,151 people per month in San Mateo County and distributed 11.8 million pounds of food, over half of which was fresh fruits and vegetables. More than 45% of those receiving assistance were children. An average of 2,743 people living at or below 200% of the Federal Poverty Level received fresh fruits and vegetables through their Mobile Produce program every month at 17 sites throughout San Mateo County. Less than 2% of the produce they distribute comes from San Mateo County growers.<sup>79</sup>

<sup>79</sup> Susan Takalo, e-mail message to author; August 14, 2012.

Second Harvest Food Bank of Santa Clara and San Mateo Counties also offers Kids NOW (Nutrition on Weekends), which serves healthy, ready-to-eat food each Friday to children and their families;<sup>80</sup> Family Harvest, which provides supplemental, nutritious food every month to low-income families with minor dependents; Operation Brown Bag, which offers low-income seniors (age 60 and above) and disabled individuals (age 55 and above) a weekly bag of groceries; a Mobile Pantry, which assists families and individuals living in geographically isolated areas with protein-rich foods and fresh produce monthly; and Food Connection, a free hotline that connects people to food in their neighborhood.<sup>81</sup>

## TOP-UP PROGRAMS

Another type of program that increases opportunities for low-income community members to eat more fresh produce is a top-up program at farmers' markets, providing low-income residents funding for fresh fruits and vegetables. Their eligibility is usually determined by their income. Collective Roots' Fresh Checks program at the East Palo Alto Community Farmers' Market distributes \$1 tokens to eligible low-income residents to buy fresh fruits and vegetables at their market. Customers who use WIC Farmers Market Nutrition Program (FMNP) checks, Senior FMNP checks, or CalFresh are entitled to receive one East Palo Alto Fresh Check per \$1 they spend at the market, up to \$20 each month. During the first three months of the market's operation in 2012, the East Palo Alto Fresh Checks program accounted for over \$6,900 in fresh produce purchased.<sup>82</sup> Another market in San Mateo County, the Pescadero farmers' market, offers a similar top up program. Funded by the California Farmer's Market Consortium, and Friends of Pescadero Grown, the program matches CalFresh and WIC purchases up to \$10 at each market. These funds can be spent on California-grown produce such as fruits, vegetables, or nuts.<sup>83</sup>

## GLEANING

Gleaning<sup>84</sup> also takes place in several parts of the county and is an easy way for farmers and backyard growers to ensure that the produce grown on their farms or in their backyards doesn't rot and serves low-income residents. Village Harvest is a nonprofit organization that gleans produce from backyards and small orchards in Santa Clara, San Mateo, and Yolo counties. In fiscal year 2012, the organization gleaned 231,291 pounds, of which 8,152 pounds was harvested in San Mateo County and 5,441 pounds was distributed throughout the county. Most of this gleaned produce came from Woodside, Menlo Park, and Portola Valley (6,962 pounds mostly from Filoli orchards, 905 pounds, and 285 pounds, respectively). Village Harvest donates gleaned produce to community agencies such as Ecumenical Hunger Program in East Palo Alto and Hope House in Redwood City, and in fiscal year 2012, it donated over 5,000 pounds to St. Anthony's Padua Dining Room in Menlo Park.<sup>85</sup>

Village Harvest has most recently scaled back its efforts, as the organization needed to conserve its resources. Currently it has the capacity to collect fruit from only 156 homes and property owners in San Mateo County, which is a small fraction of the total available homes where fruit could be gleaned. However, several cities in San Mateo are interested in participating, and thus Village Harvest expects to regain its broader presence in San Mateo and expand operations in the near future.

## OTHER LOCAL FOOD ASSISTANCE PROGRAMS

Other local food assistance programs include Peninsula Volunteers' Meals on Wheels program, which delivers over 1,300 hot, nutritious meals to primarily homebound seniors and adults with disabilities in South San Mateo County from Belmont

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80 In a Second Harvest Food Bank of Santa Clara and San Mateo Counties 2010 Survey, 82% of children in this program serving Santa Clara and San Mateo counties reported sharing food they received from this program with three or more people in their household. "Kids N.O.W. Program," Second Harvest Food Bank of Santa Clara and San Mateo Counties, accessed December 4, 2013, <http://www.shfb.org/kidsnow>.

81 "Food Bank Facts," Second Harvest Food Bank of Santa Clara and San Mateo Counties, accessed January 14, 2013, <http://www.shfb.org/aboutus>.

82 "Fresh Checks Success," Collective Roots, accessed August 2012, <http://www.collectiveroots.org/whats-growing/community-based-programs/fresh-checks/fresh-checks-success/>.

83 "Market Match: A Market for All!" Pescadero Grown!, accessed December 5, 2013, <http://www.pescaderogrown.org/market-match>.

84 Gleaning is the process where volunteers or farm owners harvest and donate surplus fresh produce from backyards, small orchards, and farms.

85 Craig Diserens, e-mail message to author; August 1, 2012.



through East Palo Alto on a weekly basis;<sup>86</sup> and the USDA Child and Adult Care Food Program (CACFP), which provides parents and referral agencies a list of locations that offer free or low-cost nutritious meals.<sup>87</sup> The CACFP subsidizes food for Head Start programs, licensed child-care facilities, and elderly, mentally impaired, or disabled adults in nonresidential day-care settings. Participants in this program receive funds if they meet certain nutrition guidelines as outlined by the USDA. As of 2010, there were 154 (17.1%) licensed child-care facilities enrolled in CACFP out of 899 total licensed child-care facilities in San Mateo.<sup>88</sup> This covers approximately 22,179 children in licensed child-care programs. Nearly 83% of San Mateo County child-care providers are not enrolled in this program and could be receiving reimbursement for nutritious meals. Any licensed or in-home/license-exempt family child-care provider is eligible to participate in the program, and data shows that both lower- and higher-income child-care providers can boost their cash flow by participating.<sup>89</sup>

Despite all of these services, food assistance programs in San Mateo County covered only 43% of the meals eaten by low-income families, leaving 57% of meals as “missing”—those not provided by any food assistance programs.<sup>90</sup>

### Potential Opportunities

There are numerous opportunities to address some of the challenges noted in this chapter. These include:

- 1) Cities or the County could establish a healthy mobile vending program where a discount on permit fees, preferential location, or other incentives for mobile food vendors who sell 50% or 75% healthy items is offered. Some examples include the New York City Green Carts program, where outdoor mobile vendors are permitted to sell whole, fresh produce only in certain areas,<sup>91</sup> or Kansas City's healthy vending policy, where vendors receive a 50% discount on their annual vendor permit fee for selling healthy items.<sup>92</sup>
- 2) Cities, nonprofits, and businesses could adopt wellness policies that describe nutrition guidelines for meetings and public events, and for vending machines on city or County property similar to wellness policies passed by Daly City, the African American Community Health Advisory Committee, and San Mateo County.<sup>93</sup> In 2012 and 2013, Get Healthy San Mateo County provided free technical assistance to cities and nonprofits that wanted to write and adopt a wellness policy.
- 3) Support public schools to enroll more eligible students in the National Free and Reduced Price Lunch program and School Breakfast program.
- 4) In communities that have a high Retail Food Environment Index, partner with youth and other community groups to conduct corner store makeovers. This will encourage the sale and consumption of healthy food and beverages.
- 5) Explore ways to implement AB 402, a bill signed by Governor Jerry Brown in 2011 to increase participation in CalFresh and the free and reduced-price school lunch program. Since income-eligibility requirements are the

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86 Peninsula Volunteers, Inc., “Meals on Wheels: Hot, Nutritious Meals Are a Real Life Saver!” Meals on Wheels, November 2012, <http://www.penvol.org/mealsonwheels/>.

87 “Services We Provide,” Second Harvest Food Bank of Santa Clara and San Mateo Counties, 2011, accessed December 4, 2013, <http://www.shfb.org/services>.

88 “2010 San Mateo County Nutrition and Food Insecurity Profile,” California Food Policy Advocates 2010, accessed December 4, 2013, <http://cfpa.net/GeneralNutrition/CFPAPublications/CountyProfiles/2010/CountyProfile-SanMateo-2010.pdf>.

89 The annual reimbursement rates per child through June 30, 2008, for tier I providers, those living in low-income areas, receiving two meals and a snack, was \$983/year; and for tier II providers, higher-income providers, was \$473/year. Source: “Child Care Food Program,” Choices for Children 2007, accessed October 1, 2013, [http://www.choices4children-santaclara.org/program\\_3.aspx](http://www.choices4children-santaclara.org/program_3.aspx).

90 “Vision for a Hunger Free Community Annual Report,” Second Harvest Food Bank of Santa Clara and San Mateo Counties, accessed October 1, 2013, [http://www.shfb.org/docs/aboutus/annualreport/2011\\_annualreport.pdf](http://www.shfb.org/docs/aboutus/annualreport/2011_annualreport.pdf).

91 “NYC Green Cart,” the New York City Department of Health and Mental Hygiene, last modified May 24, 2013, <http://www.nyc.gov/html/doh/html/diseases/green-carts.shtml>.

92 June M. Tester, Stephanie A. Stevens, Irene H. Yen, and Barbara L. Laraia. An Analysis of Public Health Policy and Legal Issues Relevant to Mobile Food Vending. *American Journal of Public Health*: November 2010, Vol. 100, No. 11, pp. 2038-2046.

93 San Mateo County Health System, “Make It Easy to Be Healthy at Work,” Get Healthy San Mateo County, 2012, <http://gethealthysmc.org/Workplace-Wellness>.

same, this bill encourages schools and County CalFresh programs to sign a Memorandum of Understanding and share data regarding students who are participating in the free and reduced-price lunch program and CalFresh. This policy presents an opportunity to help students access both free lunch at schools and CalFresh dollars.<sup>94</sup>

- 6) Explore the feasibility of and interest in a San Mateo County city passing an ordinance that requires only large farmers' markets and/or supermarkets to accept CalFresh.<sup>95</sup> For example, as a result of the HealthTrust's Campaign for Healthy Food San Jose, San Jose passed a Certified Farmers' Market (CFM) Ordinance that requires CFMs to redeem food assistance benefits, such as CalFresh and WIC.<sup>96</sup> Also, San Francisco passed an ordinance requiring farmers' markets to accept payment from all food assistance programs.<sup>97</sup> After implementing this ordinance, San Francisco observed an increase in the number of residents using CalFresh at farmers' markets and an increase in revenue for farmers at those markets. San Jose is starting to implement its policy and does not yet have information to share about the outcome of its ordinance.
- 7) Explore the cost and benefit of employing a full-time employee to help more San Mateo County stores accept CalFresh.
- 8) Explore the cost and benefit of employing a full-time employee to help more San Mateo County stores accept WIC.
- 9) Encourage more licensed child-care programs to apply for reimbursements for food purchases from USDA's Child and Adult Care Food Program if they agree to meet the USDA guidelines.
- 10) Determine how to support nonprofits like Village Harvest to glean more produce from farms and backyard gardens.

### Areas for Further Research

Some areas for further research are:

- 1) Given that Governor Brown signed AB 402 into law in 2011, explore how school districts and the San Mateo County Human Services Agency can collaborate to increase participation in the free and reduced-price lunch and breakfast programs and CalFresh.<sup>98</sup>
- 2) Determine how to better assess the quantity, quality, and affordability of fresh fruits and vegetables.

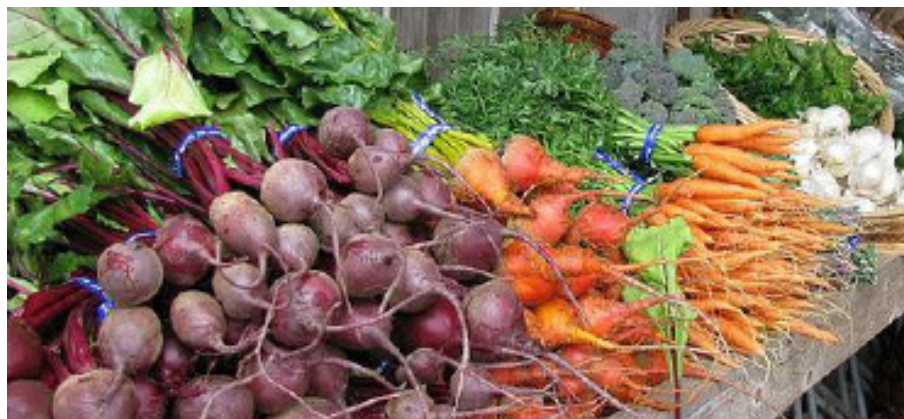


Photo courtesy of Blue House Farm

94 "AB-402 CalFresh program: School Lunch Program: Information 2011–2012," California Legislative Information, accessed December 4, 2013, [http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201120120AB402](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB402).

95 If an ordinance is considered in San Mateo County, it is recommended that it exempt small farmers' markets, as they often lack the resources to accept CalFresh, WIC, etc. within their markets. Or if this ordinance requires small markets to accept CalFresh, WIC, etc., then it should allocate funds for this program in small farmers' markets.

96 "The Campaign for Healthy Food San Jose," HealthTrust, accessed January 2, 2014, [http://www.healthtrust.org/campaignforhealthyfoodsantose/docs/Policy\\_Toolkit\\_FM\\_Ordinance\\_Overview\\_10-29-12\\_FINAL.pdf](http://www.healthtrust.org/campaignforhealthyfoodsantose/docs/Policy_Toolkit_FM_Ordinance_Overview_10-29-12_FINAL.pdf).

97 City and County of San Francisco, "Recreation and park—farmers' markets. Amendment of the Whole Ordinance No. 29-07: File No. 061112," accessed on January 2, 2014, <http://www.sfbos.org/ftp/uploadedfiles/bdsupvrs/ordinances07/o0029-07.pdf>.

98 State of California, "Assembly Bill-402 CalFresh Program: School Lunch Program," approved October 5, 2011, accessed January 2, 2014, [http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201120120AB402](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB402).

# 5. Waste Management

The US Environmental Protection Agency estimates that nationally, 12% of trash is food that could be composted.<sup>1</sup> According to the California Integrated Waste Management Board, food makes up the largest source of waste in California at 15.5%.<sup>2</sup> Waste management is a series of activities whereby discarded food materials are collected, sorted, processed, and converted into other materials and used in the production of new products.



Photo courtesy of RethinkWaste.org

Curbside collection is a convenient way to divert organics, or compostable food scraps, and other green waste from landfills into compost facilities. Compost, a beneficial substance that enriches soil, could be made available to farmers and gardeners. Given the pervasiveness of food waste and the opportunity to convert it to usable compost, waste management is one way to promote a sustainable food system.<sup>3</sup> This chapter will describe waste management policies and show how residents and businesses are faring in the cities and unincorporated areas in San Mateo County. Little data is available for waste management that takes place on San Mateo County farms, at San Mateo County processing facilities, and specifically at retail food outlets.

## 5.1 WASTE MANAGEMENT POLICIES

The California Integrated Waste Management Act of 1989, AB 939, enacted a 50% diversion mandate. It required 50% of waste materials to be diverted from traditional disposal, such as landfilling or incineration, and instead to be recycled, composted, or reused in local jurisdictions.<sup>4</sup> Currently, California's diversion rate is 65%. While this high number is an achievement, it is partly a result of California allowing diversion activities to include waste that covers landfills.<sup>5</sup>

1 "Food Waste Recycling," University of Southern California Sustainability, accessed February 10, 2014, <http://green.usc.edu/content/food-waste-recycling>.

2 Tina Mather, Kim Daniels and Shannon Pence, "Food to Waste" *Huntington Post*, June 25, 2012, accessed February 10, 2014, [http://www.huffingtonpost.com/2010/04/25/food-to-waste\\_n\\_551142.html](http://www.huffingtonpost.com/2010/04/25/food-to-waste_n_551142.html).

3 Philip Ackerman-Leist, "So Much Wasted Energy—Rethinking Food Waste," Post Carbon Institute, accessed February 10, 2014, <http://www.postcarbon.org/article/1658954-so-much-wasted-energy-rethinking>.

4 "California's New Goal: 75% Recycling," CalRecycle, accessed February 10, 2014, <http://www.calrecycle.ca.gov/75percent/Plan.pdf>.

5 *Ibid.*



More recently, the Mandatory Commercial Recycling Bill, AB 341, has an explicit recycling goal where at least 75% of solid waste should be source-reduced, recycled, or composted (which includes anaerobic digestion) by 2020. This is a more vigorous goal than diversion. Currently, the State of California has a 49% recycling rate. If this goal is met, the amount of solid waste going to landfills in 2020 will be reduced by 22 million tons.<sup>6</sup> AB 341 also requires all businesses that generate four (4) or more cubic yards of garbage per week and multifamily dwellings with five (5) or more units recycle by July 1, 2012.<sup>7</sup> One part of this bill emphasizes moving organics out of landfills.<sup>8</sup> The Department of Resource Recycling estimates that jurisdictions, schools, and businesses could save between \$40 million and \$60 million annually from 2012 to 2020 due to lower recycling costs than waste collection costs.<sup>9</sup>

## 5.2 WASTE MANAGEMENT IN RESIDENCES AND BUSINESSES

To understand how San Mateo County and cities are faring with regard to waste management, it is necessary to first assess the availability of waste management programs for residences and businesses. There are eight major franchised garbage and recycling service providers in San Mateo County, three of which provide curbside green waste/organics pickup to county residents. This means that they collect yard waste, and most also collect food waste. Of the 21 jurisdictions in San Mateo County that had some form of green waste pickup in 2013, 17 provided curbside pickup of both yard and food waste for residents.<sup>10</sup> In the unincorporated areas, there are several haulers that provide garbage and recycling services, and in areas where there is no curbside recycling, the County has established recycling drop-off centers in Pescadero and La Honda for rural residents.<sup>11</sup> As of 2011, one waste management company, Recology, now picks up food waste in unincorporated areas between Burlingame and Menlo Park.<sup>12</sup> Data on food waste pickup in other unincorporated areas was not readily available.



Photo courtesy of Recology San Mateo County

<sup>6</sup> "Californians Recycling at Highest Rate Ever in 2012," Californians Against Waste, accessed February 10, 2014, [http://www.cawrecycles.org/whats\\_new/recycling\\_news/june28\\_recycling\\_rates\\_2012](http://www.cawrecycles.org/whats_new/recycling_news/june28_recycling_rates_2012).

<sup>7</sup> "New State Law for Businesses and Multi-Family Dwellings," Effective July 1, 2012, Recology San Mateo County, accessed February 10, 2014, <http://www.recologysanmateocounty.com/ab341.php>

<sup>8</sup> "California's 75 Percent Initiative: Defining the Future," CalRecycle, February 10, 2014, <http://www.calrecycle.ca.gov/75Percent/>.

<sup>9</sup> "AB 341," Waste Management, Inc., accessed February 13, 2014, <https://www.wm.com/location/california/inland-empire/corona/ab-341.jsp>.

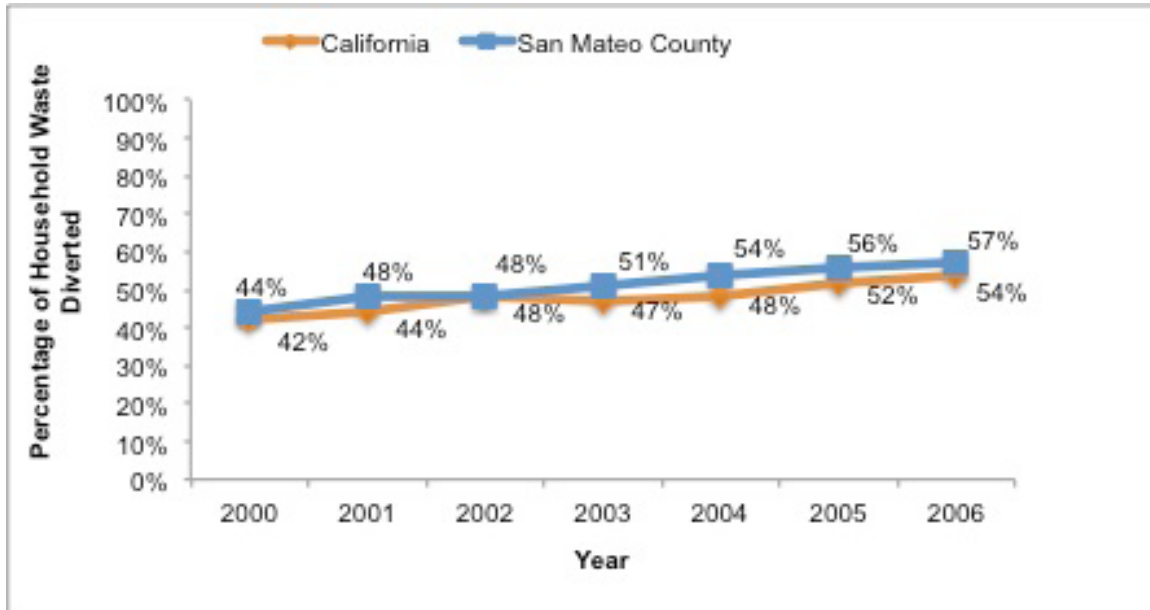
<sup>10</sup> "Haulers," San Mateo County, Recycle Works, 2013, accessed February 5, 2014, [http://www.recycleworks.org/resident/haulers.html#aw\\_sanmateo](http://www.recycleworks.org/resident/haulers.html#aw_sanmateo).

<sup>11</sup> Ibid.

<sup>12</sup> James C. Porter, Memo to the Property Owners in the Unincorporated Areas of San Mateo County (Burlingame to Menlo Park), Department of Public Works, San Mateo, CA, October 1, 2010, accessed February 12, 2014,

As of 2012, there were seven Solid Waste Information System sites with composting facilities in San Mateo County. However, six (6) of these seven (7) sites are primarily landscaping waste chipping and grinding facilities.<sup>13</sup> As composting infrastructure improves, composting and diversion rates, or the amount of recyclable materials that would otherwise be sent to landfills, will increase. Before 2007, San Mateo County, and most counties throughout California, recorded waste reductions by measuring diversion rates (see Figure 17). When diversion rates were measured, San Mateo County consistently outperformed California.<sup>14</sup>

Figure 17. Average jurisdiction diversion, San Mateo County, 2000–2006.



Source: "Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report," California Department of Resources Recycling and Recovery.

After 2007, a new method to assess waste management, per capita disposal, replaced diversion rates. This indicator allows for jurisdiction growth (see Tables 18 and 19). As the number of residents or employees increases, annual amounts of disposal tons can increase and still be consistent with per capita disposal targets.<sup>15</sup>

<sup>13</sup> "Solid Waste Information System (SWIS) Facility/Site Listing," California's Department of Resources Recycling and Recovery (CalRecycle), accessed December 31, 2013, <http://www.calrecycle.ca.gov/SWFacilities/Directory/SearchList/List?FAC=Composting&OPSTATUS=Active&LEA=41-AA>.

<sup>14</sup> "Local Government Central: Goal Measurement—California's Estimated Statewide Diversion Rates Since 1989," California's Department of Resources Recycling and Recovery (CalRecycle), accessed October 16, 2013, <http://www.calrecycle.ca.gov/LGCentral/GoalMeasure/DisposalRate/Graphs/EstDiversion.htm>.

<sup>15</sup> "Local Government Central: Basics Per Capita Disposal and Goal Measurement 2007 and Later," California Department of Resources Recycling and Recovery, accessed October 16, 2013, <http://www.calrecycle.ca.gov/LGCentral/Basics/PerCapitaDsp.htm#UsingPerCapita>.



Table 18. Residential disposal per capita (pounds per day), San Mateo County, 2010.<sup>16</sup>

Jurisdiction	Target	Annual
Atherton	11.4	5.1
Belmont	5.3	3.3
Brisbane	16.9	7
Burlingame	8.3	6.1
Colma	37.1	15.1
Daly City	2.6	2.8
East Palo Alto	8.5	3
Foster City	3.7	3
Half Moon Bay	9.4	8.3
Hillsborough	6.5	3.5
Menlo Park	7.5	4.7
Millbrae	5.3	3.5
Pacifica	3.5	2.9
Portola Valley	6	2.1
Redwood City	9.1	5.3
San Bruno	4.5	4
San Carlos	7.5	6.5
San Mateo	5.8	3.9
San Mateo, Unincorporated	5.1	3.2
South San Francisco	6.9	6.2
Woodside	13.7	4

Source: "Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report," California Department of Resources Recycling and Recovery, accessed January 2, 2014, <http://www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/DiversionDisposal.aspx>.

In 2011, the South Bayside Waste Management Authority, which covers 14 cities and towns and over 90,000 households, reported that residents set out 16,000 more tons of compost, both food scraps and yard trimmings, than garbage. Compared with 2010, residential recycling collected grew by 25 percent, and the collection of compost grew by 28 percent.<sup>17</sup>

Table 19. Commercial disposal per capita (pounds per day), San Mateo County, 2010.<sup>18</sup>

Jurisdiction	Target	Annual
Atherton	48.9	25.3
Belmont	20.2	15.8
Brisbane	7.9	4.8
Burlingame	6.6	5.4
Colma	12.5	7.1
Daly City	16.8	18.4
East Palo Alto	119.4	27.5
Foster City	7.1	5.6
Half Moon Bay	24.7	22.9

<sup>16</sup> The per capita disposal rate is specific to each jurisdiction and varies depending on the number of people in that city or town. Therefore, an analysis comparing jurisdictions should not be conducted. "Per Capita Disposal and Goal Measurement (2007 and Later)," Recycle Works: A Program of San Mateo County, accessed February 10, 2014, [http://www.recycleworks.org/per\\_cap\\_disposal.html#2010](http://www.recycleworks.org/per_cap_disposal.html#2010).

<sup>17</sup> Recology San Mateo County, "Big Increases in Cartsmart Curbside Recycling," February 6, 2012, accessed October 16, 2013, [http://www.recologysanmateocounty.com/press\\_room/curbside\\_recycling\\_increase.php](http://www.recologysanmateocounty.com/press_room/curbside_recycling_increase.php).

<sup>18</sup> The per capita disposal rate is specific to each jurisdiction and varies depending on the number of people in that city or town. Therefore, an analysis comparing jurisdictions should not be conducted. "Per Capita Disposal and Goal Measurement (2007 and Later)," Recycle Works: A Program of San Mateo County, accessed February 10, 2014, [http://www.recycleworks.org/per\\_cap\\_disposal.html#2010](http://www.recycleworks.org/per_cap_disposal.html#2010).

Jurisdiction	Target	Annual
Hillsborough	29.2	19
Menlo Park	9.2	6.4
Millbrae	22.8	16.8
Pacifica	33.2	28.9
Portola Valley	25.8	9.8
Redwood City	14.4	9.1
San Bruno	15.9	14.8
San Carlos	14.4	14.5
San Mateo	13.3	10
San Mateo, Unincorporated	15.7	10.7
South San Francisco	9	8.8
Woodside	37	13.5

Source: "Local Government Central: Basics Per Capita Disposal and Goal Measurement 2007 and Later," California Department of Resources Recycling and Recovery.

Table 18 shows that all cities were at or below their target for residential disposal per capita. In Table 19, all but two cities, Daly City and San Carlos, were at or below their target for employment per disposal rate in 2010.

### 5.3 WASTE AND RECYCLE COLLECTOR WAGES AND COLLECTOR/PROCESSING SECTOR GROWTH

Waste and recycle collection workers are integral to a sustainable food system. As shown in Table 20, San Mateo County waste and recycle collection workers have a higher median hourly wage compared with workers in the same sector in other parts of California. In addition, the wages of San Mateo's waste and recycle collection workers have increased at a greater rate than those of California's waste and recycle collection workers.

Table 20. Waste and recycle collectors' hourly median wages, 2008–2013.

Year	California	San Mateo County
2013	\$20.36	\$28.03
2012	\$20.43	\$29.40
2011	\$20.37	\$27.21
2010	\$19.40	\$24.78
2009	\$19.07	\$21.41
2008	\$18.25	\$21.67

Source: "Employment and Wages by Occupation," California Employment Development Department.

If the goals of AB 341 are met, and 75% of solid waste is source-reduced, recycled, or composted, collecting and processing materials and manufacturing new products could add as many as 100,000 new full-time or part-time jobs in the state of California. The processing and manufacturing of paper, plastics, and inert materials could contribute about 58,000 of these jobs, which, if completed domestically, could boost the local economy.<sup>19</sup> While organic materials make up one-third of the total material types, they do not require as much secondary processing or remanufacturing to produce a final product and thus would account for only about 14,000 jobs.<sup>20</sup> Regardless, organic processing and recycled content manufacturing are two areas with insufficient capacity; recycling jobs in particular have mostly been created in Asia. Expanding future capacity thus requires substantial investment in new or expanded manufacturing plants and composting and anaerobic digestion facilities.<sup>21</sup>

### Potential Opportunities

- 1) Explore ways to work with cities, the County, and waste management companies to understand the potential use of County- and city-made compost.
- 2) Reduce loss and waste in food systems, particularly from infrastructure, farming practices, processing, distribution, and household habits.<sup>22</sup>

### Areas for Further Research

- 1) Collect data on waste management at San Mateo County farms, San Mateo County-based processing facilities, and retail food outlets.



San Mateo County Food System Alliance members meet at Puente de la Costa Sur, La Honda Office. Photo courtesy of Lars Howlett

<sup>19</sup> "California's 75 Percent Initiative: Defining the Future," CalRecycle, February 10, 2014, <http://www.calrecycle.ca.gov/75Percent/>.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> "Achieving Food Security in the Face of Climate Change: Summary for Policy Makers from the Commission on Sustainable Agriculture and Climate Change," Commission on Sustainable Agriculture and Climate Change, accessed January 2, 2014, <http://ccafs.cgiar.org/commission/#.UsWtudJDsef>.



Reverend Bob Hartley, former member of Collective Roots' Backyard Growers Network, harvests his famous collard greens in East Palo Alto. Photo courtesy of Roberto "Bear" Guerra

## CONCLUSION

Data from a variety of sources has been culled and analyzed to encourage dialogue and action to improve San Mateo County's food system. Equally important, topics lacking data are identified in the report, such as the amount of food grown, harvested, and processed in San Mateo County, and how much of this food is actually consumed by San Mateo County residents.

The Alliance looks forward to reviewing trends, gaps, challenges, and opportunities in this report and other relevant studies to assist with strategy development. In addition to data from this report, the Alliance will review best practices from other food policy councils and food system alliances and information from three forthcoming studies: one initiated by the Alliance on the feasibility of aggregating, distributing, and selling products grown and harvested in the county to public and private institutions; one by Peninsula Open Space Trust (POST) that is exploring agricultural viability and POST's role in preserving farmland; and one led by the San Mateo County Department of Agriculture/Weights and Measures on the economic multiplier effect of food grown in the county. The Alliance will develop a process to update this report and measure change over time by identifying and tracking key indicators or data points.

Critical to our work, the Alliance will explore how to share information in this report with community stakeholders to assist them with prioritizing sustainable food policies and programs. We look forward to member organizations of the Alliance, Get Healthy San Mateo County, nonprofits, businesses, schools, hospitals, cities, the County, and other food system stakeholders using this data to develop a healthy, vibrant food system for all San Mateo County residents.





Ag Innovations Network  
[www.aginnovations.org](http://www.aginnovations.org)

San Mateo County Food System Alliance  
[www.aginnovations.org/alliances/sanmateo](http://www.aginnovations.org/alliances/sanmateo)

