

Coping with Accelerating Food Needs in San Francisco and Marin

An Analysis of Missing Meals and the Food Landscape in the Wake of the Great Recession

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Executive Summary

Though the Great Recession that officially began in late 2007 has been both extraordinarily long and deep, we lack rigorous local estimates of how unmet food need, or “missing meals” are expanding or contracting due to increasing need and the efforts of government and nonprofit food providers. This report provides an attempt to fill this knowledge gap in San Francisco and Marin Counties in California. We also seek to understand what the food landscape would look like if some of our major food assistance programs were administered and utilized to their fullest extent. By providing these estimates, we seek to help both public and private food providers and other relevant stakeholders understand what is being done and what remains to be implemented to meet the food needs of low-income residents of San Francisco and Marin Counties.

Using data from 2007-2010 from the American Community Survey and various administrative data sources, and accounting for a variety of local conditions, resources, and expenses, we find that:

- **Food need is rising in both San Francisco and Marin Counties:** From 2007 to 2010, the number of people in San Francisco falling under 185 percent of the poverty line has increased by 17.5 percent, and the number of people in Marin falling under this threshold increased by 38 percent. At the same time, the percentage of meals that these people can provide for themselves dropped slightly, from 45.1 percent of total meals to 38.9 percent of total meals.
- **Government Food Assistance, particularly Food Stamps, has increased substantially to help meet this need:** Government food programs, driven largely by CalFresh (California’s version of the Supplemental Nutrition Assistance Program, formerly known as food stamps), have increased substantially to help

meet this increased need. Government programs together provided nearly 16.6 million more meals in 2010 than they did in 2007. This is attributable both to the temporary increased value of food stamps due to the stimulus bill (which explains more of the increase in San Francisco) and the increased numbers of people enrolled in the programs (which explains more of the increase in Marin).

- **Non profit food providers have also helped to reduce unmet food need in San Francisco and Marin:** The San Francisco Food Bank and its partners provided over 10 million more meals to residents of San Francisco and Marin from 2007 to 2010.
- **On net, however, the number of missing meals rose by over 13 million meals between 2009 and 2010, and by over 17 million meals since 2007:** This increase in need is due to the fact that the increases in underlying economic need substantially outpaced the growth in food assistance in both counties, a trend that was particularly pronounced in 2010.
- **The number of missing meals remain at high levels and could be reduced considerably if government food programs were maximized:** Missing Meals in San Francisco and Marin remain at very high levels-- over 80 million meals in 2010 by our estimates. CalFresh, despite expanding significantly over the Great Recession, remains quite underutilized in both counties. We estimate that sizable dents in the missing meals gap could be achieved by increasing enrollment in our major food assistance programs, particularly CalFresh.

In 2011, we released a working paper attempting to provide rigorous estimates of the number of “missing meals” that remain after accounting for government and food bank meal provision, as well as the meals that low-income people can provide for themselves. We also sought to understand how many meals would remain missing if some of our major food assistance programs were administered and utilized more fully. By providing these estimates, we sought to help both public and private food providers and other relevant stakeholders understand both what is being done and what remains to be done to meet the food needs of low-income residents of San Francisco and Marin Counties.

Our 2011 analysis used publicly available data from 2007, 2008, and 2009, as well as administrative data on publicly and privately provided meals from those same years, to estimate: (a) the total number of meals needed by low and moderate-income San Franciscans ; (b) the total number of meals that low and moderate-income San Franciscans can reasonably be expected to provide for themselves, given their income; (c) the number of meals provided by government sources; (d) the number of meals provided by the San Francisco and Marin Food Banks; and (e) the number of meals provided by other non-government sources.

From estimates of these five totals, we then derived the total number of “missing meals,” that, if provided, could achieve adequate food security for all residents of San Francisco and Marin. This report makes a number of methodological improvements to that analysis, and extends the analysis to 2010 with newly released American Community Survey data and corresponding administrative counts. For details of the background and conceptual underpinnings of the missing meals analysis, see Wimer, Manfield, and Nothaft, 2011. In the pages that follow we first discuss the changes to the missing meals methodology that we undertook, and then discuss the updated results to 2010. The main finding is that unmet food need in both counties escalated rapidly in 2010, to such an extent that government and non-profit food providers were unable to keep pace with this need. Indeed, many government

programs, with the notable exception of CalFresh (or Food Stamps), failed to expand at all in 2010 in response to increases in underlying need.

Missing Meals Analyses: The Methodological Approach

The basic approach to our missing meals analysis involves estimating: (a) the total number of meals needed by low and moderate-income San Franciscansⁱ; (b) the total number of meals that low and moderate-income San Franciscans can reasonably be expected to provide for themselves, given their income; (c) the number of meals provided by government sources; (d) the number of meals provided by the San Francisco and Marin Food Banks; and (e) the number of meals provided by other non-government sources.ⁱⁱ From estimates of these five totals, we then derive the total number of “missing meals,” that, if provided, could achieve adequate food security for all residents of San Francisco and Marin.

The first step in estimating the number of missing meals is to identify the universe of people for whom meals might necessarily be needed. We therefore selected all people in the American Community Survey in San Francisco and Marin who fell under 185 percent of the federal poverty line. This percentage is a commonly used cutoff for eligibility in low-income assistance programs, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). To be considered under 185% of the poverty line, a family of three must have made no more than \$33,873.50 in 2009. This is fairly low, especially in a high-cost city like San Francisco, meaning that our estimates of missing meals are likely to be conservative because they do not include missing meals for people above 185 percent of the poverty line. To convert the data into the number of meals necessary to feed everyone in this universe, we simply multiply the number of people by three (the number of meals per day) and multiply that number by 365 (days in the year). This results in the total number of meals necessary to feed everyone under 185 percent of the poverty line.

In order to calculate how many meals are necessary from public and private sources to meet the needs identified above, we must first arrive at an estimate of how many meals low-income people might reasonably be expected to provide for themselves. But how

might we arrive at such an estimate? One approach might be to look at people's expenditure patterns. That is, if we knew that low-income people spent, on average, 20 percent of their incomes on food, then we could theoretically calculate the number of meals that could be purchased using 20 percent of that family's income.

At first glance, this seems a reasonable enough approach to take. Its main problem, however, is that if you look at actual consumer expenditure data, many low-income people, and especially very low-income people, spend an inordinate amount of their income on food, and this percentage increases the lower you go down the income ladder. For example, the 2008 Consumer Expenditure Survey (CEX) – our main data source on people's expenditure patterns – shows that people making between \$5,000 and \$10,000 annually spent nearly 39 percent of their income on food. If we accepted this 39 percent as the amount of food people in this income bracket could provide for themselves, we would wind up concluding that low-income people can afford to cover almost all of their necessary meals themselves.

But a closer examination of the data reveals a less rosy picture. Take that same income bracket, those making between \$5,000 and \$10,000 dollars: while the CEX shows their total after-tax income for the year to be, on average, \$8,214, the data also shows that their total *expenditures* over the course of the year come in at much more.ⁱⁱⁱ To put it another way, it appears that low-income households spend more than they can really afford on food, likely because food is so necessary for basic survival. Imagine you are a single mother of two children living in extreme poverty in San Francisco. You are trying to meet a number of needs for your family in order to get by with your annual income of, say, \$10,000. You might spend a bigger percent of your budget on essential necessities like food and shelter, but forego other essentials that would be required to meet a minimally adequate living standard. You might select substandard housing that is tainted with lead paint, as the rent is cheaper. You might skip necessary medical care because the costs are too high. You might leave your children without adequate

childcare when you're at work because you have no room left in your budget, after providing food and shelter, to pay someone to watch the children. For all these reasons (and more) simply taking the percentage of expenditures at face value is an inadequate method for calculating how many meals the low-income population can provide for themselves.

So what we really need is the percentage of income that low-income people *should reasonably be expected* to devote toward food. To arrive at such a figure, we first want to identify those families that are able to meet a minimally adequate living standard. Conceptually, these are families at or above the poverty line. That is, if the poverty line for a family of four is, say, \$25,000 a year, we can theoretically say that a family making \$25,001 is able to maintain a minimally adequate living standard in contemporary America. We can then ask what percentage of income do those people devote toward food? Let's say the answer to that question is 20 percent. We know that a family just barely getting by in America devotes 20 percent of their budget to food, or about \$5,000. For the family making half of that amount, or \$12,500, we can say that they should reasonably be expected to pay about 20 percent of *their* income to food, or \$2,500. This is because we know for the family just getting by, 80 percent of their income must be reserved for other necessities. Essentially, we are saying that it is not fair to expect families making *less* than what it takes to get by to devote relatively *more* of their budget to food than we expect of people just making it.^{iv}

So where do we derive estimates of this percentage for people just getting by? Here we turn to poverty thresholds recommended by the National Academy of Sciences (Citro, 1995) and produced by the United States Census Bureau (see Garner and Short, 2010).^v These thresholds find the amount of money it takes to cover five major categories of essential expenses: food, clothing, shelter, utilities, and medical care (plus a little extra to cover other essentials like toiletries, non-work related travel, etc.). These thresholds are produced each year, and can therefore be broken down into the percent

going toward each category, including food. The average percentage devoted to food was about 26.5%, which we use as our baseline.

Thus, it makes sense to assume that low-income people in our universe can afford to spend roughly a quarter of their income on food. Before proceeding, however, we make a number of key adjustments to both the percentage available for food and the amount of income to which this percentage applies. These adjustments are as follows:

Taxes:

The ACS only reports pretax income. For many poor, working families, the tax system boosts available income through programs like the Earned Income Tax Credit, the Child Tax Credit, and San Francisco's Working Families Credit. For families on the higher end of the income distribution (toward 185 percent of the poverty line), the tax system reduces available income. Thus, it is important to transform our measure of pretax income into a measure of post-tax income. To accomplish this, we put each of our ACS families through the National Bureau of Economic Research's publicly available tax calculator software. This results in a new measure of each family's available income after taxes.^{vi}

Child Care:

In addition to food, clothing, shelter, utilities, and medical care, the NAS poverty measurement procedures subtract out-of-pocket child care costs from families' income.^{vii} We use the Census Bureau's estimates of childcare costs for different income groups to subtract out available income for families in the ACS where all parents in the household are working and there are children present under the age of 15.

Medical Care:

San Francisco is notable for its creation of the *Healthy San Francisco* program. This program, created in 2008, provides low-cost medical care to San Franciscans without health insurance whose incomes fall below 500 percent of the poverty line. Thus, we

take the average enrollment in the Healthy San Francisco program for 2008 and 2009, and eliminate the medical component of the poverty threshold for the equivalent number of families in the ACS.^{viii} No such program exists in Marin, so for these areas we retained the medical costs implied in the NAS-style poverty measures, which are approximately 7.7 percent of the poverty threshold in all three years.

Shelter:

San Francisco and Marin are notorious for their high housing costs. Since the proportion of the NAS poverty threshold going to shelter is based on national averages, it is important to adjust this proportion to account for the fact that shelter costs are much higher in San Francisco. We thus take data on Fair Market Rents published by the U.S. Department of Housing and Urban Development for San Francisco (including Marin) and create a ratio of these costs to Fair Market Rents in the nation as a whole. We then inflate the proportion of the poverty threshold necessary to meet shelter expenses by this ratio, reducing the amount left over to pay for food.^{ix}

Food:

It is not only shelter that costs more in San Francisco, but also food. For each family in the ACS, we derive an average cost-per-meal based on U.S. Department of Agriculture guidelines for its “Low Cost Food Plan,” which roughly corresponds to the costs of adequately nutritious meals for families in the second quartile of the American income distribution. These costs-per-meal average nearly \$2.^x We further adjust these costs-per-meal to reflect the higher than average costs of food in San Francisco. More specifically, we use experimental Regional Price Parities (RPPs) developed by the Bureau of Economic Analysis for food goods in the San Francisco metro area, which show that food is estimated to cost approximately 14 percent more in the bay area than in the nation as a whole.

Ultimately, these adjustments reduce the percentage of income available for food from 26.5 percent to a bit under 20 percent. Perhaps not coincidentally, this is roughly in line with what the two income brackets around the federal poverty line report in the CEX report that they spend on food, 19.9 percent and 16.6 percent for families making \$15,000-\$19,999 and \$20,000-\$29,999 per year, respectively.

The Federal, State, and Local governments administer a number of food assistance programs in San Francisco and Marin Counties. Thus, we compiled data on both the number of dollars flowing into San Francisco and Marin from 2007 to 2010 from these programs and the number of meals distributed by these programs in those same years. All data were compiled from the relevant administrative agencies. When administrative data were provided in dollars, we converted those figures into meals using the average meal-cost across our low-income population in the ACS data.^{xi} The major programs factored into our analysis are:

- *CalFresh*: The CalFresh program, commonly known as food stamps (or Supplemental Nutrition Assistance Program [SNAP] nationally), is the largest program providing food assistance to low-income households. Administrative data for each year were obtained from the California Department of Social Services.
- *Women, Infants, and Children (WIC)*: WIC provides targeted food assistance for specific types of foods (e.g., milk, peanut butter) to pregnant women and women with infants and young children. Administrative data for each year were obtained from WIC Program Coordinators in San Francisco and Marin Counties.
- *School Nutrition Programs (SNP)*: SNP is provided in the public schools, and provides free and reduced cost meals (breakfast and lunch) to low-income children. Administrative data for each year were obtained from the California Department of Education. The number of Summer Meal Service (SMS) meals,

which are provided through the same program but during the summer months when school is not in session, were also obtained from the same administrative source.

- *Child and Adult Care Food Program (CACFP)*: CACFP provides meals typically through child care and adult care (typically elderly) providers. Administrative data for each year were obtained from the California Department of Education.
- *Senior Meals*: There are two primary programs providing meals to low-income seniors outside of the CACFP program. These are the Congregate Meals Program, which provides meals in community dining programs, and Home-Delivered Meals, which provides meals to home-bound seniors. Administrative data on these programs was provided by the Department of Aging and Adult Services in San Francisco and the Division of Aging & Adult Services in Marin County.
- *Fresh Fruit and Vegetable Program (FFVP)*: The FFVP is administered nationally by the USDA, and provides grants to states, primarily through state Departments of Education. San Francisco schools began receiving its first FFVP grants in 2008, and Marin schools in 2009. The program provides free fresh fruit and vegetables to children in their schools. Administrative data on FFVP was obtained from the California Department of Education

The primary non-governmental providers of food assistance in San Francisco and Marin are the San Francisco Food Bank (SFFB) and the Marin Food Bank (MFB), which have recently merged into a single organization. Each food bank provided us with the total number of pounds of food that they sent out of their doors from 2007 to 2010. These pounds were converted to meals assuming that one meal equals 1.3 pounds, the conversion factor recommended by Feeding America based off of data compiled by the USDA.^{xii}

SFFB also works with a network of approximately 500 food providers to which it distributes food. Some of these providers receive 100 percent of their food from SFFB, while some of the larger organizations (such as St. Anthony's, Glide, and St Vincent de Paul) receive some portion of the food they distribute from SFFB, and collect and distribute more food on their own. Unfortunately, there is no central database of all of these providers and exactly how much food they provide. But the SFFB has collected information from each provider in its network on what percentage of their food they receive from SFFB. Because of SFFB's centrality in the food provision network in San Francisco, we assume that only a negligible number of providers are not represented in SFFB's provider network. Using the percentages reported by network members, we are able to calculate how many non-SFFB meals are provided by network members, which becomes our estimate of non-governmental food provision by nonprofit organizations other than the Food Bank.^{xiii} While no such provider network data are available through the MFB, we assume the non-MFB non-profit food providers distribute a proportionately similar amount of food to the community, in this case approximately 20 percent of what the food bank provides.

Methodological Changes

During the process of updating this report for 2010, some modifications were made to the methodology for calculating missing meals. Our analysis continues to use the low cost meal plan, published yearly by the USDA, as a basis for our meal price calculations. Although the prices defined in the plan changed significantly from 2007 to 2008, it has remained steady through 2010.

As noted above, our method for adjusting these meal prices for the high cost of living in the bay area has changed. Regional Price Parities (RPPs) published by the Bureau of Economic Analysis (Aten, Figureoa, and Martin 2011), rather than the increase in CPI for food at home, are now used to account for the increased cost of food in the bay area relative to the nation. Unlike the CPI, which is used to track changes in price

over time, the RPPs are specifically designed to compare prices across geographic regions. According to the BEA data, food in the San Francisco, Oakland, and Fremont metro area is roughly 14% more expensive than the national average, a significant increase over our CPI estimates that pegged expenses at around 4% to 7% higher. As a result, our calculation of the number of meals families can afford has dropped substantially and the number of missing meals has gone up across the board. Unlike our old yearly CPI estimates or USDA food plans, RPPs do not currently change on a yearly basis.

As we have done in the past, we calculate the amount of money low income families spend on food using an estimate of the percentage of income that can reasonably be expected to go toward food. The source of this estimate continues to be the percentage going toward food in the poverty thresholds published by the United States Census Bureau in their calculation of the Supplemental Poverty Measure. This percentage varied from 2007 to 2008 but was constant between 2008 and 2009; the source of that variation was unclear. Furthermore, these figures have yet to be published for 2010. The current analysis, therefore, uses an average of the 2007-2009 food thresholds for each year under analysis.

In updating this report for 2010, our sources for administrative data on contributions from government and nonprofit programs remained largely the same. However, we did incorporate improved data for non-profit meals in Marin (as we now incorporate data on meals going out in Marin from both the Marin and San Francisco Food Banks, both before and after they merged in 2010). This resulted in an increase in non-profit meals in 2008 and 2009 relative to our old analysis.

The Big Picture: Missing Meals 2007-2010

Table 1 shows the results of our updated analyses for San Francisco, Marin, and the two counties combined for 2007 to 2010. In San Francisco, the numbers of people falling under 185% of the Federal Poverty Line and the resultant number of meals needed by the low-income population increases each year. The increase in need is small

from 2007 to 2008 – 1.9% or fewer than 4 million meals. The increase is larger between 2008 and 2009 – 4.2% or more than 8 million meals. From 2009 to 2010, the growth in need was most explosive – 10.7% or approximately 23 million meals.

The percentage of estimated meals that San Franciscans can afford for themselves, however, drops each year, creating a growing gap between meals needed and those afforded. This gap is nearly 111 million meals in 2007, and then grows to 121.7 million meals in 2008, 127.5 million meals in 2009, and 144.1 million meals in 2010.

Government and non-profit meal providers then attempt to help fill this gap. From 2007 to 2008, government meals grew by only 1.1 million meals, and non-profit meals by 2.2 million meals, and this growth of 3.3 million meals failed to keep pace with the growth in the meal gap of almost 11 million meals, resulting in a net increase in missing meals in San Francisco of approximately 7.5 million meals from 2007 to 2008. From 2008 to 2009, missing meals came back down by about 5 million meals as government and non-profit meal providers increased their provision by nearly 11 million meals, while the meal gap only increased by about 6 million meals. This means that in 2009, government and non-profit meal provision programs successfully expanded to meet, and even reduce, unmet food need in San Francisco.

In 2010, however, even though government-provided and non-profit meals continued to increase – by over 6 million meals, this was far outpaced by the large growth in unmet food need. From 2009 to 2010, the gap between meals needed and meals afforded grew in San Francisco by over 17.5 million meals, resulting in a net increase in missing meals of over 10 million meals.

The story in Marin County played out somewhat differently, though the end result was still a large jump in missing meals from 2009 to 2010. Like in San Francisco,

the number of low-income people in Marin grew modestly from 2007 to 2008, but then jumped much more substantially in 2009 and 2010 – resulting in 5.5 million more needed meals in 2009 and another 6.5 million needed meals in 2010.

Also like in San Francisco, the percentage of meals afforded dropped each year, resulting in an increased “meal gap” of approximately 800,000 meals from 2007 to 2008, 4.8 million meals from 2008 to 2009, and 5.7 million meals from 2009 to 2010. Unlike in San Francisco, however, government and non-profit meal providers were able to keep pace with this growth in need from 2007 to 2008, but struggled to keep pace with accelerating need in 2009. Meal providers contributed roughly 800,000 more meals from 2007 to 2008, which kept the overall number of missing meals in Marin roughly flat year-to-year. In 2009, however, meal provision increased by only about 3.3 million meals, resulting in an increase in missing meals of approximately 1.5 million. But in 2010 the situation got much worse in Marin just as it did in San Francisco, with a 2.5 million meal uptick from meal providers failing to keep pace with the 5.7 million meal growth in the meal gap. The result was an increase in missing meals of approximately 3.2 million. Interestingly, the increase in missing meals from 2009 to 2010 was approximately 22.5% in both counties. Figures 1a-1c depict the above story visually – the overall height of each bar indicates the total number of meals needed per year. The orange segment shows the number of meals that went “missing” after accounting for each of the other key parameters in the missing meals equation. As can be seen, in both counties and overall, missing meals spiked in 2010.

Figure 1a.

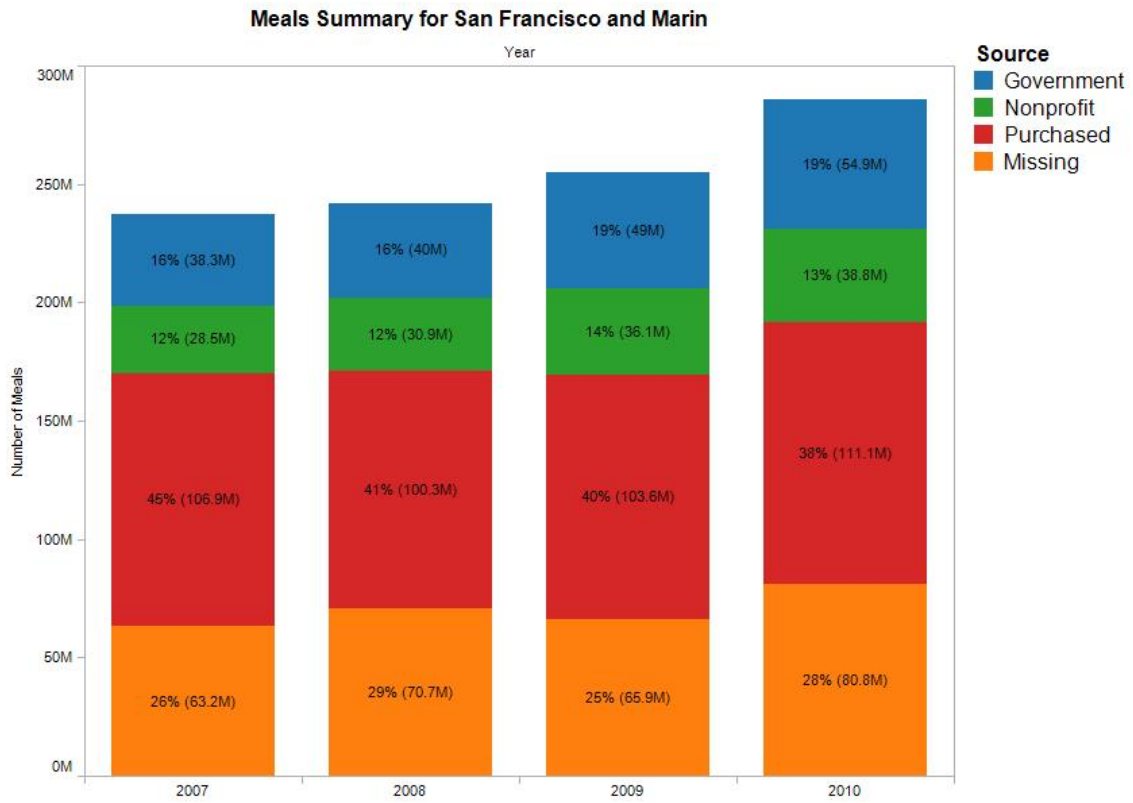


Figure 1b.

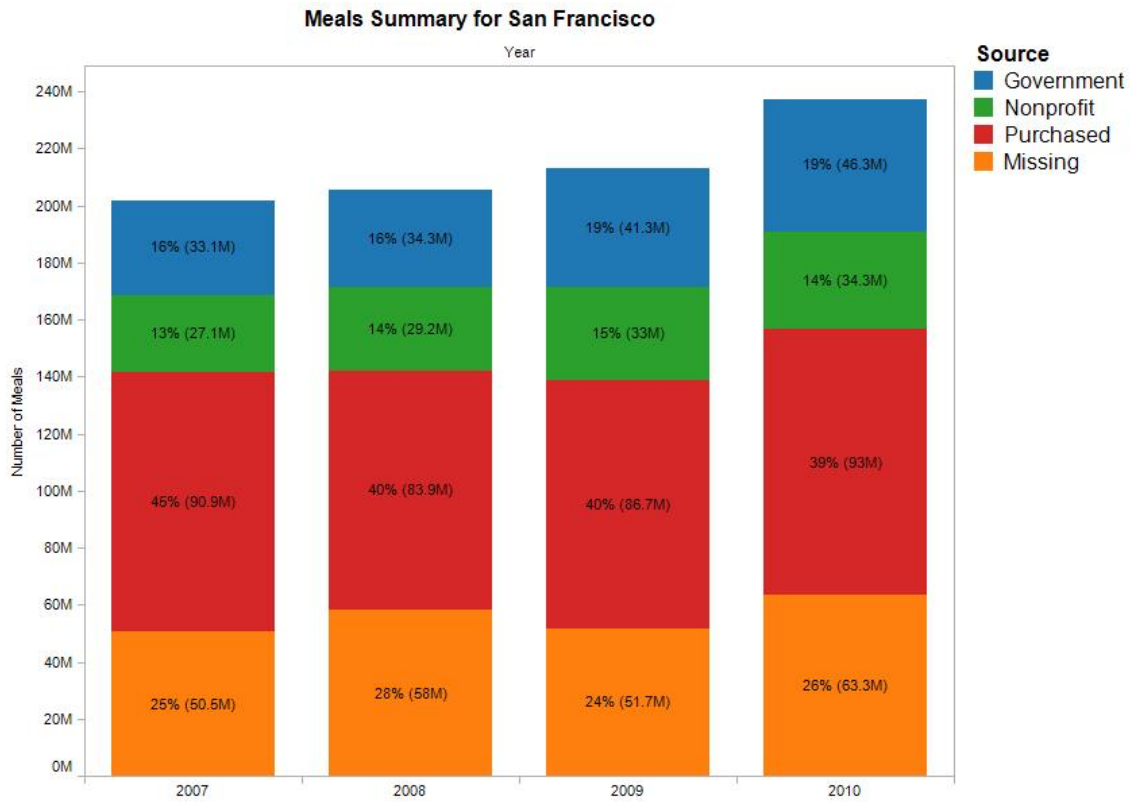
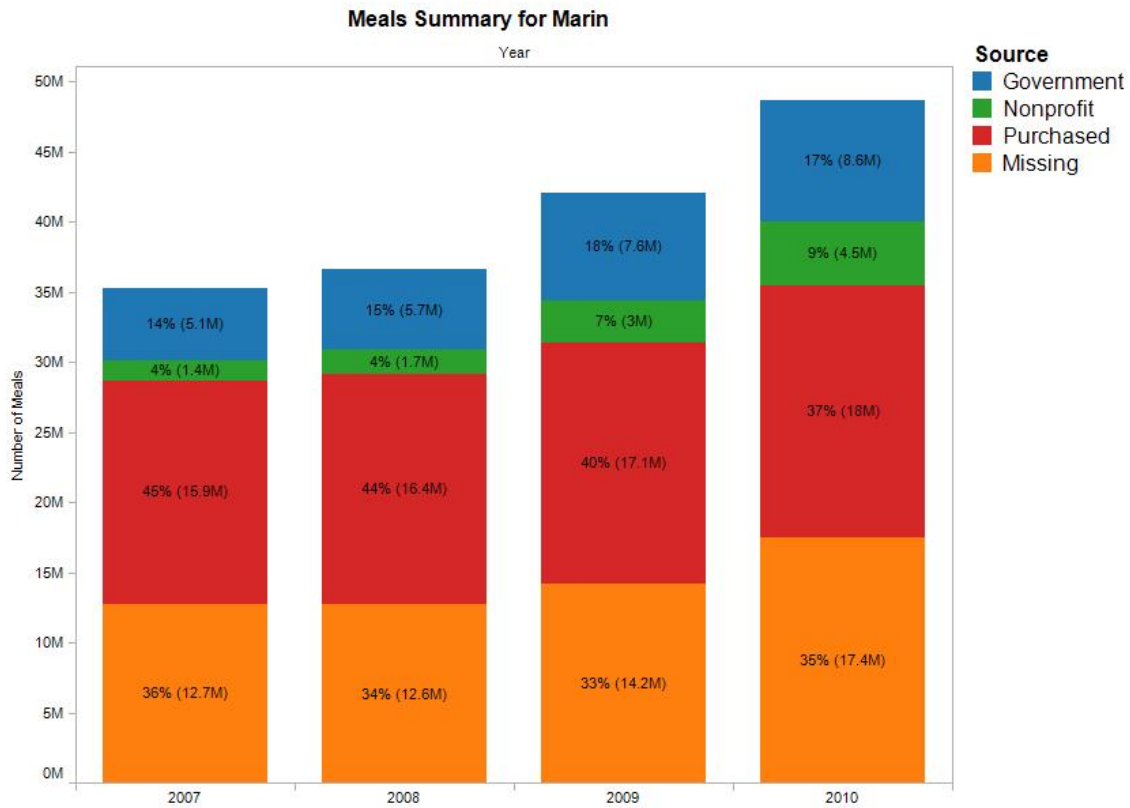


Figure 1c.



The Food Assistance Landscape

How has the food assistance landscape – from both public and private sources – responded to this increased need? Table 1 provides the big picture, but it’s also important to break out these trends by the type of program. Table 2 provides the number of meals provided by each of the major government programs that comprise the food-based safety net.

In San Francisco, CalFresh meals continued to rise in 2010, by a bit over five million meals. The pace of this increase, however, was somewhat slower than the increase from 2008 to 2009. Nevertheless, CalFresh was the primary engine of change behind growth in government-provided meals in 2010. Virtually all of the other programs stayed essentially flat, and some even dropped. Meals provided by WIC dropped by approximately 5%, meals provided by school nutrition programs grew by a rather anemic 2%, and meals provided in child and adult care facilities barely budged.

Senior meals programs, which are actually funded by a combination of public and private funds, nudged up by about 3%, while summer meals programs for youth dropped a bit in 2010. The Fresh Fruits and Vegetable Program, which is a very small program to begin with, got much smaller in San Francisco in 2010.

In Marin, the story is much the same. Only CalFresh experienced sizable growth between 2009 and 2010, where it provided an estimated 6 million more meals. Like in San Francisco, meals provided by WIC dropped in 2010, as did meals provided by summer meals programs. And also like in San Francisco, meals provided by school nutrition programs and senior meals programs experienced modest upticks. CACFP meals experienced virtually no change, and the Fresh Fruit and Vegetable Program also dropped off in Marin in 2010 just as it did in San Francisco (albeit from a very small base). Figures 2a-2c depict this story visually, and as can be seen from the blue bar segments, the increase in CalFresh dominates the change in the government food assistance landscape over the period.

Figure 2a.

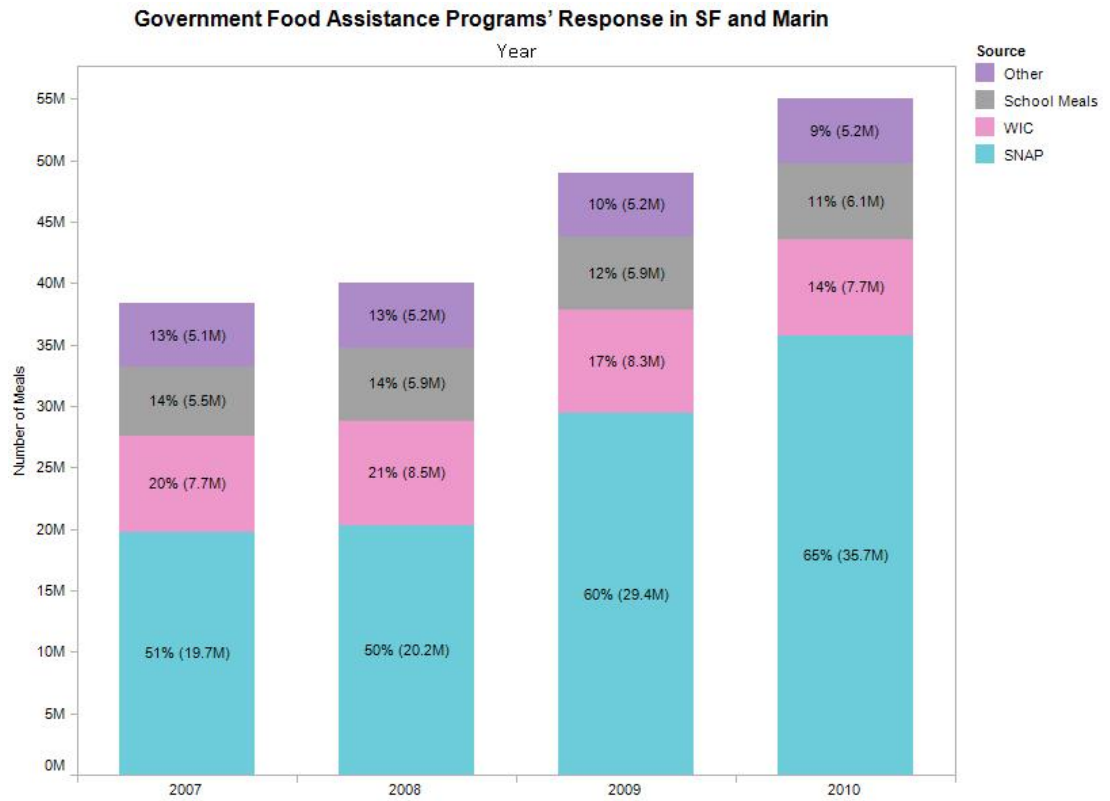


Figure 2b.

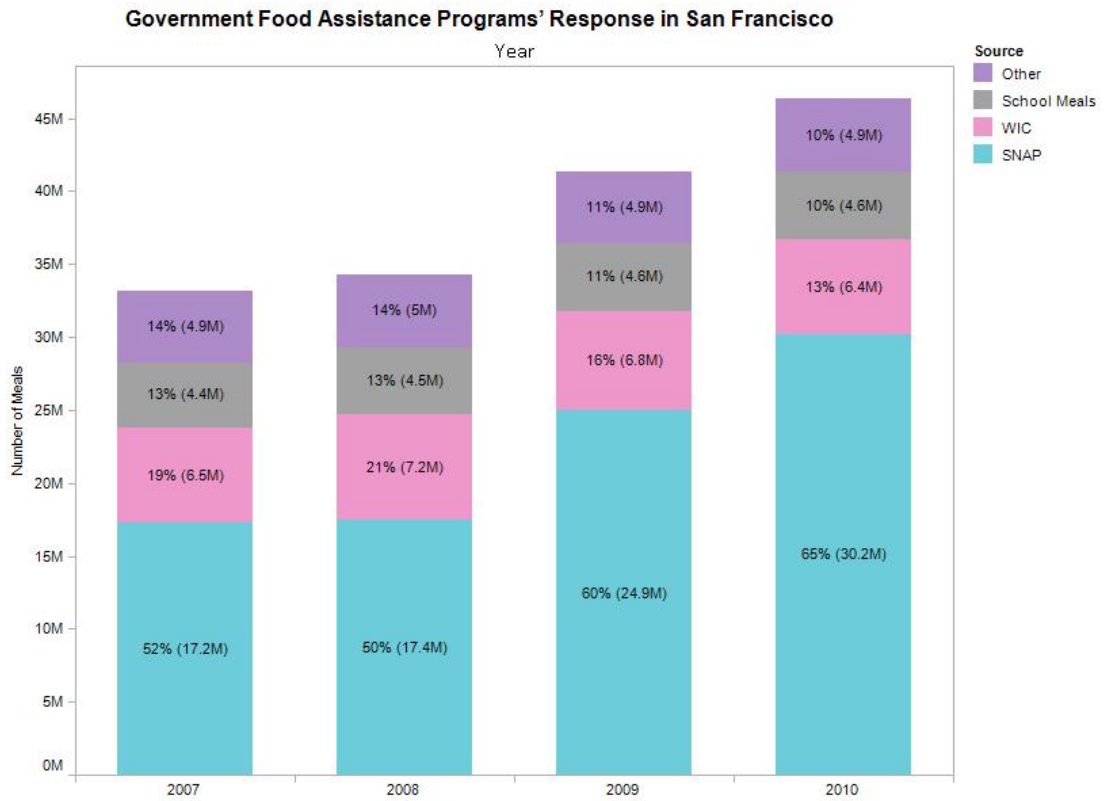
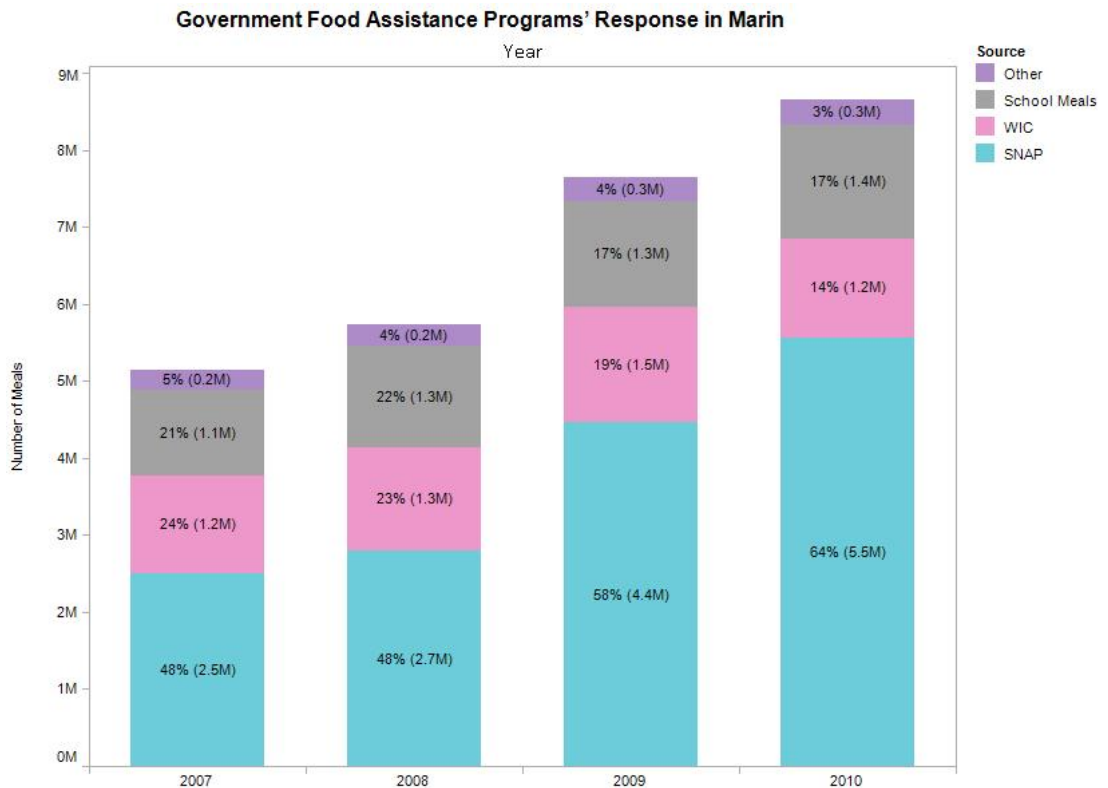


Figure 2c.

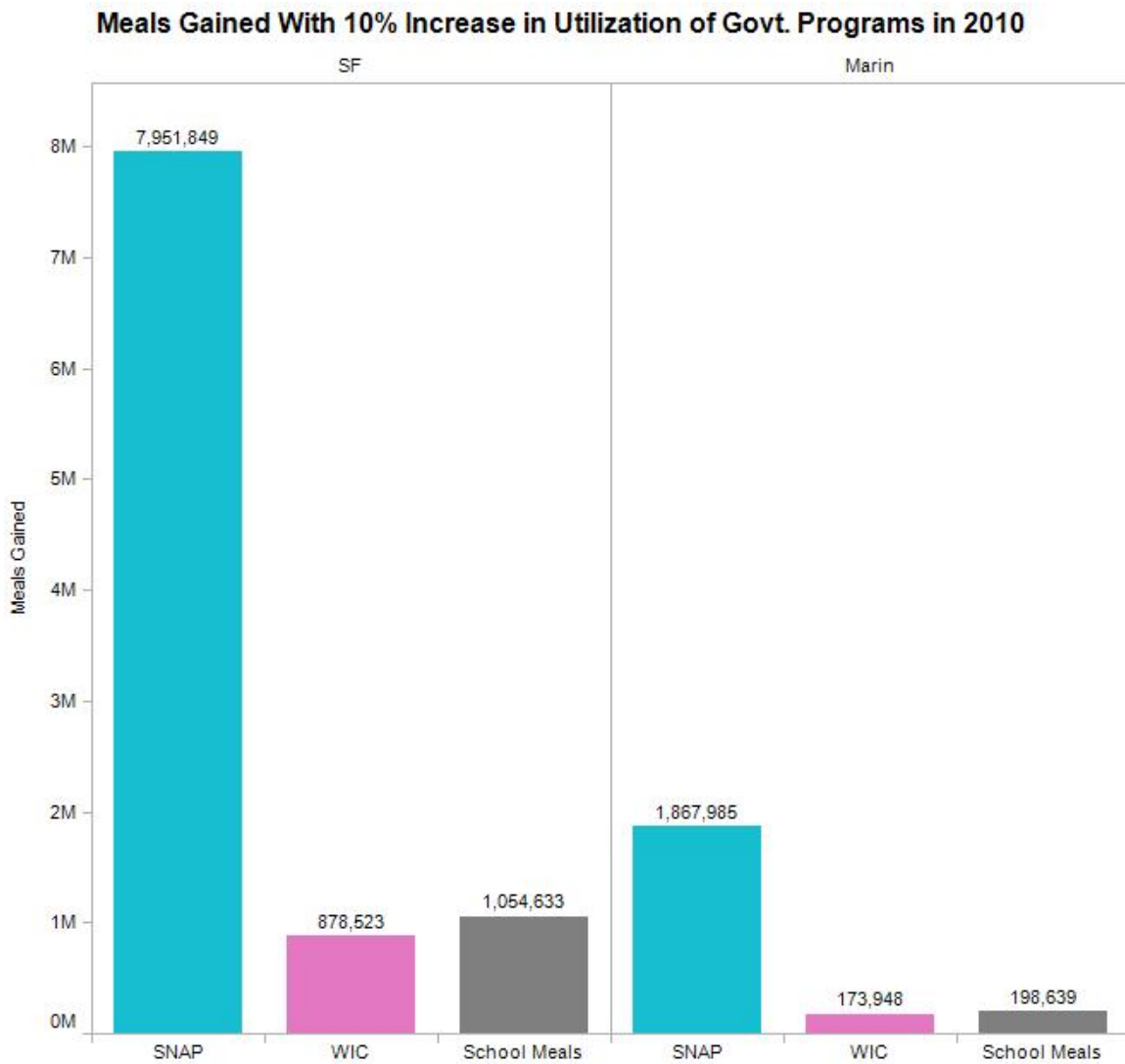


Impacts of Increased Utilization

How much could our estimated meal gap be reduced if safety net programs were more fully utilized? One way to examine this is to ask how many more meals would be provided for every, say, 10% increase in utilization. We know, for example, that many people in California, and especially in Marin and San Francisco Counties, are eligible for programs like CalFresh but do not participate. Though high-quality estimates of program eligibility and program utilization are hard to come by, data from the California Food Policy Advocates shows that for CalFresh, utilization rates (the percentage of eligible county residents that actually use the program) may be as low as 38% in San Francisco and 30% in Marin (Shimada, 2012).

Our analyses suggest that substantial progress could be made in reducing the amount of unmet food need if stakeholders could increase the utilization of food safety net programs. For every 10% increase in utilization of CalFresh in San Francisco, for example, the meals gap could be reduced by approximately 7.95 million meals (see Figure 3). While this assumes that new enrollees would be eligible for the same amount of food stamp benefits as current enrollees, an assumption that may not hold in practice, this still provides a rough measure of the “bang for one’s buck” of enrolling more participants in a given program. In Marin, the corresponding result of a 10% increase in CalFresh utilization would be 1.87 million more meals. For smaller programs like the School Nutrition Programs and WIC, the reductions would be smaller, though still substantial. For school meals programs, an increase of 10% utilization would result in an estimated 1.05 million meals in San Francisco and 200,000 meals in Marin. And for WIC, the result of a 10% increase in utilization would be 879,000 meals in San Francisco and 174,000 meals in Marin.

Figure 3:



Conclusion

In our analysis of 2007 to 2009, the results of our missing meals analysis told a somewhat hopeful story. Though levels of unmet food need were troublingly high, and more and more people were finding themselves with low incomes in both counties, meal provision seemed to be rising in tandem with this need. In 2010 our analysis suggests a markedly less hopeful result. Though the recession officially “ended” in June of 2009, unemployment rates were their highest throughout much of 2010, and it doesn’t appear the slow “recovery” took much hold at the bottom of the income distribution. The result is large increases in needed meals in both counties in 2010.

Unlike in 2009, CalFresh was really the only program to experience sizable increases in meal provision in San Francisco, while in Marin CalFresh and the San Francisco and Marin Food Banks combined forces keep need in check. Nevertheless, the net result in both counties were large and sustained increases in unmet food need. Only with an accelerated economic recovery or a more effective and efficient governmental and non-profit response to increased needs will unmet food need likely drop to pre-recession levels.

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Table 1: The Food Landscape in San Francisco and Marin, 2007-2010

San Francisco				
	2007	2008	2009	2010
Total Population <185% FPL	184,215	187,698	195,406	216,494
% Change		1.9%	4.2%	10.7%
Meals Needed	201,824,925	205,670,565	214,221,420	237,174,810
% Change		1.9%	4.2%	10.7%
Meals Afforded	90,974,627	83,984,369	86,707,204	93,087,624
% Change		-7.7%	3.2%	7.4%
% Of Meals Families Afford	45.08%	40.83%	40.48%	39.25%
Total Government Meals	33,195,896	34,302,346	41,367,024	46,336,178
% Change		3.3%	20.6%	12.0%
Total Nonprofit Meals	27,121,497	29,336,256	33,073,240	34,351,348
% Change		8.2%	12.7%	3.9%
Missing Meals	50,532,904	58,047,594	53,073,952	63,399,660
% Change		14.9%	-8.6%	19.5%

Table 1 (Cont.)

Marin				
	2007	2008	2009	2010
Total Population <185% FPL	32,212	33,410	38,394	44,445
% Change		3.7%	14.9%	15.8%
Meals Needed	35,298,420	36,593,805	42,029,385	48,676,035
% Change		3.7%	14.9%	15.8%
Meals Afforded	15,960,271	16,461,014	17,109,275	18,021,441
% Change		3.1%	3.9%	5.3%
% Of Meals Families Afford	45.22%	44.98%	40.71%	37.02%
Total Government Meals	5,150,771	5,735,515	7,645,413	8,656,788
% Change		11.4%	33.3%	13.2%
Total Nonprofit Meals	1,458,476	1,704,690	3,060,862	4,545,001
% Change		16.9%	79.6%	48.5%
Missing Meals	12,728,902	12,692,586	14,213,835	17,452,805
		-.003%	12.0%	22.8%

Table 1 (Cont.)

Total				
	2007	2008	2009	2010
Total Population <185% FPL	216,427	221,108	233,800	260,939
% Change		2.1%	5.7%	11.6%
Meals Needed	237,123,345	242,209,620	256,119,405	285,850,845
% Change		2.1%	5.7%	11.6%
Meals Afforded	106,934,898	100,390,633	103,685,078	111,109,065
% Change		-6.1%	3.3%	7.2%
% Of Meals Families Afford	45.10%	41.45%	40.48%	38.87%
Total Government Meals	38,346,668	40,037,861	49,012,437	54,992,966
% Change		4.4%	22.4%	12.2%
Total Nonprofit Meals	28,579,974	31,040,946	36,134,102	38,896,349
% Change		8.6%	16.4%	7.6%
Missing Meals	63,261,806	70,740,180	67,287,788	80,852,465
% Change		11.8%	-4.9%	20.2%

Table 2: Government Food Assistance Trends in San Francisco and Marin, 2007-2010

San Francisco				
	2007	2008	2009	2010
CalFresh Meals	17,271,599	17,464,710	24,989,172	30,217,026
% Change		1.1%	43.1%	20.9%
WIC Meals	6,539,889	7,236,695	6,829,554	6,474,716
% Change		10.7%	-5.6%	-5.2%
School Meals	4,450,520	4,597,519	4,618,505	4,699,525
% Change		3.3%	0.5%	1.8%
CACFP Meals	2,857,602	2,846,158	2,814,668	2,809,142
% Change		-0.4%	-1.1%	-0.2%
Senior Meals*	1,774,492	1,838,438	1,785,899	1,840,701
% Change		3.6%	-2.9%	3.1%
Summer Meals	301,795	310,587	299,473	292,221
% Change		2.9%	-3.6%	-2.4%
FFVP Meals	0	8,239	29,752	2,847
% Change			261.1%	-90.4%

Table 2 (Cont.)

Marin				
	2007	2008	2009	2010
CalFresh Meals	2,509,692	2,796,454	4,458,148	5,566,594
% Change		11.4%	59.4%	24.9%
WIC Meals	1,259,350	1,339,906	1,507,107	1,281,993
% Change		6.4%	12.5%	-14.9%
School Meals	1,116,963	1,315,839	1,361,450	1,475,908
% Change		17.8%	3.5%	8.4%
CACFP Meals	175,578	190,712	196,407	205,040
% Change		8.6%	3.0%	4.4%
Senior Meals*	70,860	75,846	90,374	85,755
% Change		7.0%	19.2%	-5.1%
Summer Meals	18,328	16,758	18,010	20,005
% Change		-8.6%	7.5%	11.1%
FFVP Meals	0	0	13,917	21,493
% Change				54.4%

Table 2 (Cont.)

Total				
	2007	2008	2009	2010
CalFresh Meals	19,781,291	20,261,164	29,447,321	35,783,620
% Change		2.4%	45.3%	21.5%
WIC Meals	7,799,239	8,576,601	8,336,661	7,756,709
% Change		10.0%	-2.8%	-7.0%
School Meals	5,567,483	5,913,358	5,979,955	6,175,433
% Change		6.2%	1.1%	3.3%
CACFP Meals	3,033,180	3,036,870	3,011,075	3,014,182
% Change		0.1%	-0.8%	0.1%
Senior Meals*	1,845,352	1,914,284	1,876,273	1,926,456
% Change		3.7%	-2.0%	2.7%
Summer Meals	320,123	327,345	317,483	312,226
% Change		2.3%	-3.0%	-1.7%
FFVP Meals	0	8,239	43,669	24,340
% Change				-44.3%

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ⁱ All analyses are conducted for both San Francisco and Marin Counties. For simplicity's sake, we use the terms "San Francisco" and "San Franciscans" throughout this report to encompass residents of both of these counties, except for when we make comparisons between the two.

ⁱⁱ We used administrative data provided by the SFFB to estimate the total number of meals provided by nonprofit organizations other than the Food Bank. The SFFB records not only which organizations it distribute food to, but also the proportion of meals distributed by these other organizations that are provided by other sources than the Food Bank.

ⁱⁱⁱ In 2008, the average expenditures for people making between \$5,000 and \$10,000 was \$19,125. The size of this discrepancy in consumer expenditure data is partially the result of some people likely underreporting their income from various sources. But another portion, according to the Bureau of Labor Statistics, is that: "Consumer units whose members experience a spell of unemployment may draw on their savings to maintain their expenditures. Self-employed consumers may experience business losses that result in low or even negative incomes, but are able to maintain their expenditures by borrowing or relying on savings. Students may get by on loans while they are in school, and retirees may rely on savings and investments." Nevertheless, the point remains that applying a percentage of expenditures to people's incomes is likely to provide an inaccurate reflection of the number of meals afforded by low-income families.

^{iv} In actuality, it may be even less fair to expect people earning less income to devote the same percentage of their incomes to food as those who are successfully getting by, given that they have less absolute income with which to make ends meet. This point, however, is debatable and ultimately normative. The percentage chosen here is conservative in the sense that it assumes a high end to the number of meals low-income people can afford for themselves. Assuming people are able to spend less than this percentage would serve to decrease the number of meals we estimate people can afford on their own and thus increase the total number of missing meals needed in the city after accounting for all meal sources.

^v The current Federal Poverty Level was originally developed in 1963 by multiplying a family's food costs on the USDA thrifty food plan by three. It is inflated every year using CPI data. In 1995, the National Academy of Sciences released a report detailing an alternative method for measuring poverty that relied on a far more thorough methodology. In this report, we use the methodology proposed by the NAS to better understand the expected food costs for low-income families. For updated 2007 to 2009 numbers, these results were produced by Thesia I. Garner, Research Economist, Division of Price and Index Number Research, Bureau of Labor Statistics for research purposes only using the Consumer Expenditures Interview Survey. These results are released to inform interested parties of ongoing research and to encourage discussion of work in progress. Decisions related to statistical, methodological, technical, and operational issues were made by the author and do not necessarily reflect official positions or policies of the U.S. Bureau of Labor Statistics.

^{vi} TAXSIM is the NBER's program for calculating tax liabilities under US Federal and State income tax laws from individual data. To calculate total tax liability for each family, we assume each family files a single tax return. Using the data from the ACS and our estimation of child care expenses from the SIPP, we were able to input the following variables obtained for each family into the the program: filing type, primary and secondary earner wages, number of dependents, welfare transfers, social security income, child care costs, and number of elderly filers. We used the latest version available at the time of writing, Version 9, which incorporates federal income tax law up to 2013, and state income tax law for each state up to 2008. Due to this limitation, we approximated 2009 California state tax liability using 2008 tax law. More information about the program can be found online at <http://www.nber.org/~taxsim/taxsim-calc9/>.

^{vii} We used the Survey of Income and Program Participation (SIPP) to obtain estimates of each family's childcare expenses. We determine that a family is in need of childcare if it contains a child under 15 and there are no nonworking adults. The Census Bureau released data tables in 2005 that provided both the percentage of working mothers who spent money on childcare and the average amount those families spent. This data is broken down into four income brackets. Within each income bracket, we select the proportion of families to make child care payments based on the percentages supplied by the data tables. These families are then assigned average child care costs for their bracket. Families are not allowed to spend more on childcare than the income of the lowest earning parent. The data tables can be found at <http://www.census.gov/population/www/socdemo/child/ppl-2005.html>.

^{viii} Administrative data provided by the city of San Francisco details the number of Healthy SF recipients for several income brackets. We randomly assign the benefits of the Healthy SF program to the appropriate number of San Franciscans in each income bracket. Mainly, since membership costs in the program are insignificant compared to the expected medical costs included in the NAS recommendations, we remove medical costs from the NAS poverty threshold and recalculate accordingly the percent of income that people at the poverty threshold are able to spend on food. This new percentage is used when calculating the total number of afforded meals for those families we randomly assigned the Healthy SF benefits.

^{ix} These ratios are 1.91, 1.85, and 1.86 in 2007, 2008, and 2009, respectively. We use a 3 year average to account of persistently high shelter costs in the bay area. Some low-income people do receive subsidized housing that caps the amount of income they have to spend on shelter (typically at around 30 percent of income). Theoretically, if we knew the number of individuals in each county receiving such assistance we could select a corresponding number of families in the ACS to cap the shelter percentage at 30 percent.

However, this data was unavailable to us as of this writing, and the amount of income (and therefore meals) this would cover after making this adjustment would likely be fairly negligible.

^x The weighted average meal costs per family in SF and Marin were \$2.13, \$2.33, \$2.32, and \$2.34 in 2007, 2008, 2009, and 2010, respectively. Note, however, that each individual family in the ACS is assigned its own average meal cost based on the age and gender of its members and the size of the family unit.

^{xi} For WIC, which is geared toward women with infants and young children, we used the average meal costs for families matching this demographic profile.

^{xii} According to Feeding America: “The USDA has made updates to the methodology used to estimate pounds per meal. The most recent assessment comes from the “What We Eat in America” study and is dated 2005-2006. The new estimate of 1.3 pounds per meal is based on more recent data and a more rigorous methodology. It reflects total U.S. food and beverage consumption across age groups, excluding water, and will be updated by the USDA every two years.”

^{xiii} These percentages were only collected once, in 2010. For 2007 to 2009, we assume the ratio of total non-profit non-SFFB meals to SFFB meals is constant, so simply calculate the total percentage of SFFB 2008 (and 2007) meals provided by non-profit non-SFFB providers using the 2010 ratio. If SFFB and its associated non-profits grew at differential rates, this assumption does not hold. But without consistent data over time on network members’ food provision or SFFB food shares, this assumption is essentially untestable.