### **UCLA**

### **Recent Work**

### **Title**

Nearly Four Million Californians Are Food Insecure

### **Permalink**

https://escholarship.org/uc/item/5407m7mh

### **Authors**

Chaparro, M. Pia Langellier, Brent Birnbach, Kerry et al.

### **Publication Date**

2012-07-09

Peer reviewed



## Health Policy Brief

June 2012

# Nearly Four Million Californians Are Food Insecure

M. Pia Chaparro, Brent Langellier, Kerry Birnbach, Matthew Sharp and Gail Harrison

**SUMMARY:** Food insecurity has increased significantly among low-income Californians over the last decade. According to data from the 2009 California Health Interview Survey, 3.8 million adults in households with incomes at or below 200% of the Federal Poverty Level (FPL) could not afford enough food at least once in

the previous year. Low-income households with children and Spanish-speaking households suffered from the worst levels of food insecurity. Expanding nutrition assistance programs, such as the Supplemental Nutrition Assistance Program, could help reduce high rates of food insecurity among the low-income population.

Food insecurity increased substantially in California during the economic downturn.

ata from the California Health Interview Survey (CHIS) suggest that the number of low-income adults in California who could not afford enough food increased from 2.5 million in 2001 to 3.8 million in 2009. These individuals experienced periods during the year when they could not afford to put food on the table or had to forego other basic needs to do so. During this period, the number of food-insecure adults in California grew by half (49%), five times the increase in California's total population (10%). Food insecurity<sup>1</sup> increased from 2001 to 2003, declined slightly in 2005, and then increased substantially in both 2007 and 2009 (Exhibit 1). National data suggest a similar pattern, with a steady increase in food insecurity among low-income households (at or below 185% of the FPL) from 27.9% in 2001 to 34.8% in 2009.<sup>2,3</sup>

In 2009, a time characterized by high unemployment due to the economic recession, 40.4% of California's low-income adults (at or below 200% FPL<sup>4</sup>) were food insecure; this is well above the 34.8% who were food insecure in 2007 just prior to the

onset of the recession. In 2009, 1.4 million low-income adults had very low food security, a severe form of food insecurity, and had to cut back on food. Food insecurity was particularly common among low-income households with children, nearly half of which (47.5%) could not afford sufficient food for their families at least once during the year. Food insecurity was also more prevalent among Spanish-speaking, low-income adults (50.7%).

County-level analyses (Exhibits 2 and 3) suggest that:

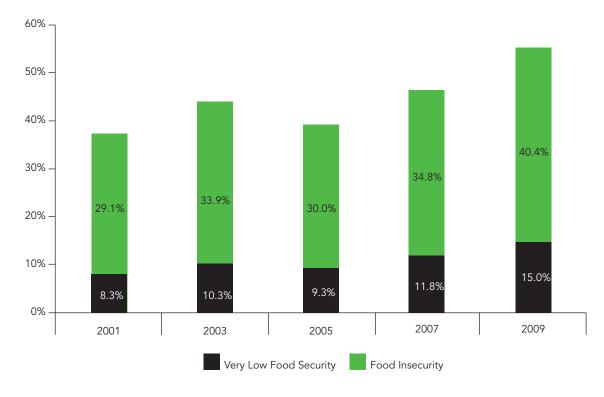
- In 2009, the highest rates of food insecurity across California were observed in the San Joaquin Valley, some Bay Area communities, as well as in Shasta, Butte, Sutter, Yuba, Ventura, San Bernardino, Orange and Riverside counties.
- Food insecurity increased in most
   California counties between 2007 and
   2009. The most notable increases took
   place in the counties in the northern Bay
   area, where an additional 249,000 low income adults became food insecure (a
   14.2 percentage point increase), and in
   southern California counties other than



Supported by a grant from California Food Policy Advocates.

Exhibit 1

### Prevalence of Food Insecurity and Very Low Food Security Among Low-Income Households, California, 2001-2009



Source: 2001 - 2009 California Health Interview Surveys

Households
with children
experienced some
of the largest
increases in food
insecurity.

Los Angeles, where an additional 361,000 adults became food insecure (a 9.6 percentage point increase).

### Why is Food Insecurity Important?

Numerous studies have found an association between food insecurity and health outcomes. Adults who are food insecure have poorer health<sup>5,6</sup> and are at increased risk of depression and poor mental health,<sup>7,8</sup> as well as chronic diseases such as diabetes and hypertension.<sup>9,10</sup> Women who are food insecure are more likely to be overweight or obese,<sup>11,12</sup> and food insecurity among children has been linked to negative academic outcomes.<sup>13,14</sup>

### **Food Insecurity Trends Since 2001**

Food insecurity has increased significantly since 2001 among nearly all segments of the low-income population in California. This increase was particularly dramatic between

2007 and 2009, consistent with the height of the economic downturn. The largest increases in the prevalence of food insecurity took place among households with children, Spanish speaking households, people who are divorced/widowed/ separated, the foreignborn and non-citizens. Since 2001, food insecurity also greatly increased among people who are married (28.8% to 40.2%), employed (28.4% to 42.6%), and those with less than a high school education (35.4% to 51.5%). Food insecurity increased among nearly all racial/ethnic groups, including lowincome Whites (21.8% to 35.7%), Asian/ Pacific Islanders (28.8% to 40.2%) and Latinos (33.9% to 43.7%).

### Trends in Very Low Food Security

The prevalence of very low food security among low-income Californians has nearly doubled since 2001. About 1 in 12 low-(continued on page 5)

### Prevalence of Food Insecurity and Very Low Food Security Among Low-Income Households by County/County Group, California 2007 and 2009

Exhibit 2

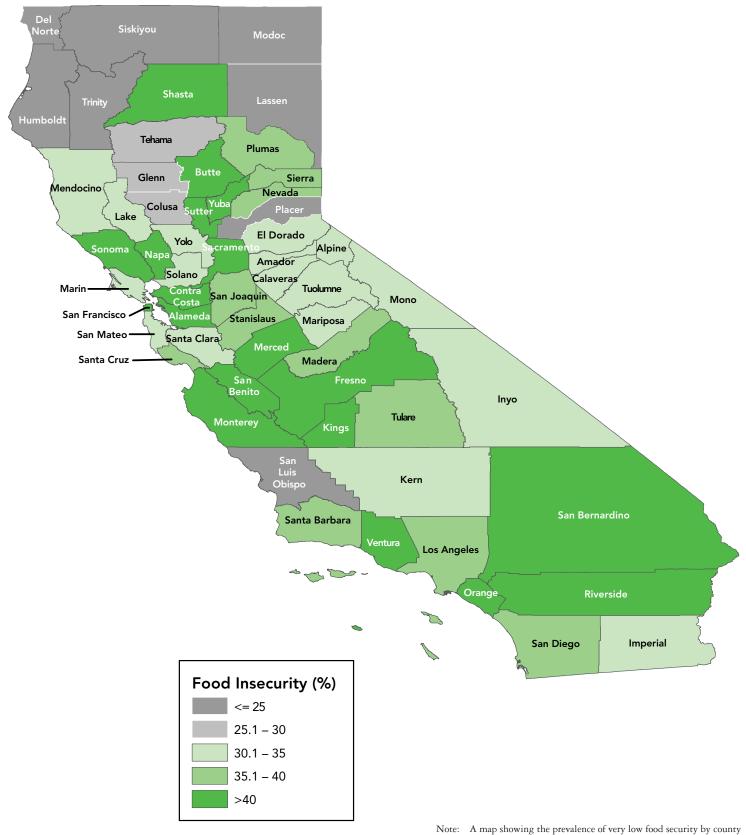
		2009 Food		2007 Food		2009 Vory Low		2007 Vory Low	
	In	rooa security	Insecurity		Very Low Food Security		Very Low Food Security		
Regions	%	Est Pop	%	Est Pop	%	Est Pop	%	Est Pop	
Northern & Sierra Counties	34.4	135,000	35.0	126,000	13.7	54,000	14.4	52,000	
Butte	45.5	29,000	30.4	18,000	20.8	13,000	11.5	7,000	
Humboldt, Del Norte	20.5	9,000	28.0	10,000	8.7	4,000	16.8	6,000	
Mendocino, Lake	34.0	16,000	36.2	18,000	13.5	6,000	15.1	7,000	
Nevada, Plumas, Sierra	37.7	8,000	34.7	8,000	23.9	5,000	9.1	2,000	
Shasta	41.9	18,000	38.3	19,000	14.3	6,000	8.6	4,000	
Siskiyou, Lassen, Trinity, Modoc	20.8	6,000	33.1	10,000	8.2	2,000	25.4	7,000	
Sutter, Yuba	41.2	20,000	41.1	17,000	14.8	7,000	18.3	8,000	
Tehama, Glenn, Colusa	28.4	12,000	40.1	15,000	10.9	5,000	17.5	7,000	
Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, Alpine	31.9	15,000	32.3	11,000	9.1	4,000	9.7	3,000	
Greater Bay Area	43.5	599,000	29.3	350,000	17.4	239,000	9.6	114,000	
Alameda	49.1	169,000	33.8	95,000	14.9	51,000	14.3	40,000	
Contra Costa	57.8	96,000	16.1	25,000	24.5	41,000	5.9	9,000	
Marin	33.3	13,000	37.3	11,000	11.2	4,000	17.2	5,000	
Napa	52.2	13,000	37.2	7,000	28.5	7,000	15.2	3,000	
San Francisco	44.3	85,000	20.4	33,000	22.2	43,000	2.7	4,000	
San Mateo	34.8	41,000	35.1	35,000	18.6	22,000	15.1	15,000	
Santa Clara	33.0	96,000	33.5	105,000	11.1	32,000	7.1	22,000	
Solano	34.3	34,000	33.8	22,000	15.9	16,000	12.3	8,000	
Sonoma	50.5	51,000	24.8	17,000	22.4	23,000	10.3	7,000	
Sacramento Area	38.8	157,000	38.3	139,000	15.2	61,000	11.4	41,000	
El Dorado	32.6	7,000	25.1	6,000	16.0	3,000	9.4	2,000	
Placer	19.0	8,000	41.3	13,000	3.4	1,000	12.0	4,000	
Sacramento	43.1	126,000	40.1	107,000	17.8	52,000	12.4	33,000	
Yolo	32.6	16,000	31.6	13,000	8.4	4,000	5.6	2,000	
San Joaquin Valley	38.5	468,000	34.5	351,000	12.9	156,000	11.8	120,000	
Fresno	41.9	139,000	28.3	71,000	12.5	42,000	10.6	27,000	
Kern	33.9	89,000	40.5	86,000	9.6	25,000	11.4	24,000	
Kings	43.3	21,000	34.9	13,000	17.0	8,000	11.0	4,000	
Madera	36.6	16,000	32.0	14,000	12.8	6,000	12.3	5,000	
Merced	40.4	35,000	27.9	23,000	19.7	17,000	8.8	7,000	
San Joaquin	38.7	67,000	30.2	41,000		28,000		17,000	
Stanislaus	37.0	44,000	37.1	46,000	12.0	14,000	8.1	10,000	
Tulare	37.5	57,000	43.8	56,000	11.0	17,000	19.6	25,000	
Central Coast	40.1	210,000	41.8	185,000	14.3	75,000	15.7	69,000	
Monterey, San Benito	43.2	64,000	46.0	53,000	19.9	29,000	16.0	18,000	
San Luis Obispo	23.0	11,000	28.6	15,000	7.0	3,000	18.0	9,000	
Santa Barbara	37.1	40,000	39.5	37,000	13.2	14,000	15.9	15,000	
Santa Cruz	37.7	23,000	37.1	22,000	14.5	9,000	13.2	8,000	
Ventura	44.9	73,000	47.3	59,000	11.9	19,000	15.4	19,000	
Los Angeles	38.2	1,128,000	36.3	1,013,000	14.3	421,000	11.9	332,000	
	38.2		36.3	1,013,000	14.3	421,000	11.9	332,000	
Los Angeles Other Southern California Counties	43.6	1,128,000 1,071,000	34.0	710,000	16.1	395,000	11.7	243,000	
Imperial	32.1	20,000	33.1	19,000	10.0	6,000	7.5	4,000	
·	_								
Orange Picaraida	52.4	379,000	33.7	211,000	18.3	132,000	11.9	74,000	
Riverside	42.4	221,000	35.4	154,000	16.4	86,000	11.1	48,000	
San Bernardino	43.6	241,000	37.0	162,000	16.9	94,000	12.6	55,000	
San Diego	35.1	210,000	30.7	164,000	12.9	77,000	11.5	61,000	
Statewide	40.4	3,767,000	34.8	2,875,000	15.0	1,401,000	11.8	973,000	

Source: 2007 - 2009 California Health Interview Surveys

Note: A technical version of this table, which includes the 95% confidence intervals for the prevalence of food insecurity and very low food security for 2007 and 2009, is available at: <a href="http://www.bealthpolicy.ucla.edu/pubs/Publication.aspx?pubID=555">http://www.bealthpolicy.ucla.edu/pubs/Publication.aspx?pubID=555</a>

Exhibit 3 Prevalence of Food Insecurity by County Am

Prevalence of Food Insecurity by County Among Adults Age 18 and Over in Families with Income Less than 200% of the Federal Poverty Level, California, 2009



Source: 2009 California Health Interview Survey

: A map showing the prevalence of very low food security by county for 2009 is available at: http://www.healthpolicy.ucla.edu/pubs/ Publication.aspx?pubID=555 income Californians had very low food security in 2001, a figure that had risen to nearly 1 in 6 by 2009. This increase was remarkably consistent across the low-income population, with the only exception being Californians enrolled in the Supplemental Nutrition Assistance Program (SNAP, known as CalFresh in California and formerly known as the Food Stamp Program).

### Participation in Federal Nutrition Assistance Programs

The prevalence of food insecurity and very low food security among CalFresh participants remained virtually unchanged between 2001 and 2009 (50% and 17-18%, respectively). At the same time, food insecurity increased substantially and significantly among those who were income eligible but were not participating in the program (from 34.5% to 45.7%), as well as among income ineligible low-income adults (from 23.3% to 29.5%). The prevalence of food insecurity among participants of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) was about the same as for all families with children (48.5% in 2009), which is still a significant increase from 2001 (40.1%).

#### **Recent Economic Trends**

The increase in food insecurity is just one of the indicators that the economic plight of low-income Californians has reduced quality of life and health. California, one of the states hit hardest by the recession, saw unemployment increase from 5.3% in 2007 to 11.3% in 2009.15 Between 2009 and 2010, inflation-adjusted median household income decreased by nearly 5% in California, the largest decline on record.16 From 2007 to 2009, the rate of poverty in California rose faster than national levels<sup>17</sup> and unemployment increased in every county in California. 18 It is clear that unemployment and decreased income, along with other economic dislocations such as the foreclosure epidemic, all contributed to increased food insecurity in California.

At the time that the 2009 CHIS data were collected, several components of the American Recovery and Reinvestment Act of 2009 (ARRA) were already in effect. These economic boosts may have provided temporary relief to some low-income households and provided a barrier against deepening food insecurity. For example, in April 2009, SNAP (CalFresh) benefits were increased by about 17% nationwide.<sup>19</sup> The ARRA also injected an economic boost through expanding child tax credits to more families,20 implementing a Making Work Pay tax credit, and providing a one-time economic recovery payment to retirees, veterans and Supplemental Security Income (SSI) recipients.<sup>21</sup> Research indicates that without the economic boost from the ARRA, low-income Californians would be deeper in poverty. 21,22 ARRA's benefits boost is set to expire in 2013.<sup>23</sup> As the California economy slowly recovers, the success of the ARRA investments at protecting Californians from falling deeper into poverty demonstrates the importance of maintaining a strong safety net in a tumultuous economy.

### **Policy Implications and Recommendations**

This study demonstrates the work yet to be done to ensure food security for the most vulnerable populations. Specifically, California's policymakers should:

Continue efforts to simplify and increase participation in federal nutrition programs that make food affordable and accessible. The most direct response to food insecurity is to implement statewide policies to increase participation in nutrition assistance programs such as CalFresh, WIC, school breakfast, lunch and child care nutrition programs. CHIS data from 2001 through 2009 demonstrate the important role that CalFresh can play in preventing greater food insecurity.

Stigma, misinformation about eligibility and burdensome application processes hinder CalFresh participation. In 2011, state leaders made several important policy changes

The American Recovery and Reinvestment Act of 2009 may have provided a barrier against deepening food insecurity.

Policymakers
need to preserve
the safety net
assistance
programs that
assist low-income
Californians to
break the cycle
of poverty.

to CalFresh which eliminated excessive paperwork and removed mandatory trips to the local county administrative office in order to receive benefits. More extensive policy changes, such as improving the ability of CalFresh applicants to apply online and over the phone, would assist households that lack time and transportation to apply for benefits in person.

Additional opportunities exist to connect low-income households to assistance through alignment with other programs. As a part of health care reform, federal law requires states to implement a health benefit exchange by 2014 to ensure affordable access to care, presenting an opportunity to transform not only health coverage, but access to other benefits that support health. After enrolling in health coverage, Californians should be able to access additional human services benefits for which they may be eligible.

Strengthen child nutrition programs and improve participation. Nearly half of low-income households with children (47%) experienced food insecurity in 2009. Although parents may attempt to shield their children from food insecurity, adequate nutrition for children is likely still at risk. Because of the critical role that nutrition plays in child development, behavior and academic achievement, policymakers should ensure that funding for child nutrition programs is preserved and that all eligible children are served by these programs. The federal child nutrition programs provide free or subsidized meals in schools, after school and at child care. More than half of California's six million public school students are eligible for free or reduced-price meals,<sup>24</sup> yet less than one million eat breakfast at school each day. Policymakers should ensure that all public schools-including charter schools-offer breakfast and lunch to all lowincome students. Participation in breakfast programs, including serving breakfast in the classroom, is the most effective strategy to ensure that school children have adequate nutrition to sustain them during the day. Given the extraordinary attention to childhood obesity and the opportunities to use school cafeterias to teach students healthy habits for life, policymakers would do well to provide school districts with adequate guidance and technical assistance for improving the nutritional quality and appeal of school meals.

Pursue robust policies to reduce poverty by raising wages, supporting working families, and maintaining adequate income assistance programs. Limited household income is directly associated with risk of food insecurity. Efforts to increase the earning power of California households, through employment opportunities and living wages, will boost household income. Within a household budget, food expenditures are frequently compromised in order to make ends meet; increased income will help to reduce food insecurity. Food-insecure households face multiple economic pressures. To alleviate this stress, policymakers need to preserve the safety net assistance programs, such as CalWORKS and Supplemental Security Income, as well as maximize tools like the earned income tax credit. These strategies assist low-income Californians to break the cycle of poverty.



This publication contains data from the California Health Interview Survey (CHIS), the nation's largest state health survey.
Conducted by the UCLA Center for Health Policy Research, CHIS data give a detailed picture of the health and health care needs of California's large and diverse population. Learn more at:

www.chis.ucla.edu

#### **Author Information**

M. Pia Chaparro, MS, and Brent Langellier, MA, are doctoral students at the UCLA Fielding School of Public Health, Department of Community Health Sciences. Kerry Birnbach, MPAff, is a nutrition policy advocate at California Food Policy Advocates (CFPA). Matthew Sharp is a senior advocate at CFPA. Gail Harrison is a professor at the UCLA Fielding School of Public Health, Department of Community Health Sciences.

### Acknowledgments

The authors wish to acknowledge November McGarvey, George Manalo-LeClair and Dr. Sue Babey for their assistance while writing this brief. Also, we acknowledge the substantive contributions of the late Dr. E. Richard Brown, Dr. Marilyn Townsend and Dr. Mark Nord.

### **Funding Information**

Development of this policy brief was supported by the California Food Policy Advocates in collaboration with A Jewish Response to Hunger.

### **Suggested Citation**

Chaparro MP, Langellier B, Birnbach K, Sharp M and Harrison G. *Nearly Four Million Californians Are Food Insecure.* Los Angeles, CA: UCLA Center for Health Policy Research, 2012.

#### **Endnotes**

- 1 For an explanation on how food insecurity is measured in the California Health Interview Survey, please go to <a href="http://www.healthpolicy.ucla.edu/pubs/Publication.aspx?pubID=555">http://www.healthpolicy.ucla.edu/pubs/Publication.aspx?pubID=555</a>
- Nord M, Andrews M, Carlson S. Household Food Security in the United States, 2001. Washington, DC: USDA Economic Research Service; 2002.
- Nord M, Coleman-Jensen A, Andrews M, Carlson S. Household Food Security in the United States, 2009. Washington, D. C.: USDA, Economic Research Service; 2010.
- 4 In 2009, 200% of the Federal Poverty Level was \$21,912 for a single-person household; \$28,732 for a household of two people under age 65; \$34,196 for a three-person household; and \$43,908 for four persons. http://www.census.gov/hbes/www/poverty/data/historical/index.html
- 5 Stuff JE, Casey PH, Szeto KL, et al. Household food insecurity is associated with adult health status. *Journal of Nutrition* 2004;134:2330-5.
- Tarasuk VS. Household food insecurity with hunger is associated with women's food intakes, health and household circumstances. *Journal of Nutrition* 2001;131:2670-6.
- 7 Casey P, Goolsby S, Berkowitz C, et al. Maternal depression, changing public assistance, food security and child health status. *Pediatrics* 2004;113:298-304.
- Whitaker RC, Phillips SM, Orzol SM. Food insecurity and the risks of depression and anxiety in mothers and behavior problems in their preschool-aged children. *Pediatrics* 2006;118:e859-68.

- 9 Seligman HK, Laraia BA, Kushel MB. Food insecurity is associated with chronic disease among lowincome NHANES participants. *Journal of Nutrition* 2010;140:304-10.
- Fitzgerald N, Hromi-Fiedler A, Segura-Pérez S, Pérez-Escamilla R. Food insecurity is related to increased risk of type 2 diabetes among Latinas. *Ethnicity & Disease* 2011;21:328-34.
- Adams EJ, Grummer-Strawn L, Chavez G. Food insecurity is associated with increased risk of obesity in California women. *Journal of Nutrition* 2003;133:1070-4.
- 12 Larson NI, Story MT. Food Insecurity and weight status among U.S. children and families: A review of the literature. American Journal of Preventive Medicine 2011;40:166-73.
- Winicki J, Jemison K. Food insecurity and hunger in the kindergarten classroom: Its effects on learning and growth. *Contemporary Economic Policy* 2003;21:145-57.
- Jyoti DF, Frongillo EAJ, Jones SJ. Food insecurity affects school children's academic performance, weight gain and social skills. *Journal of Nutrition* 2005;135:2831-9.
- 15 State of California, Employment Development
  Department. Historical Data for Unemployment Rate
  and Labor Force (Not Seasonally Adjusted) in California.
  Accessed Jan 15, 2012, at http://www.labormarketinfo.edd.
  ca.gov/cgi/databrowsing/localAreaProfileQSMoreResult.asp?me
  nuChoice=localAreaPro&criteria=Unemployment+Rate&catego
  ryType=employment&geogArea=060100000&area=Californ
  ia&timeseries=Unemployment+RateTimeSeries
- California Budget Project. New data show that more than 6 million Californians over one-third of them children lived in poverty in 2010, 2011. Accessed Feb 28, 2012, at <a href="http://www.cbp.org/pdfs/2011/110913\_Income\_Poverty\_Health.pdf">http://www.cbp.org/pdfs/2011/110913\_Income\_Poverty\_Health.pdf</a>
- Bohn S, Public Policy Institute of California. Just the Facts. Poverty in California, 2011. Accessed Mar 1, 2012, at http://www.ppic.org/main/publication\_show.asp?i=261
- USDA Economic Research Service. County-Level Unemployment and Median Household Income for California, 2011. Accessed Jan 30, 2012, at http://www. ers.usda.gov/data/unemployment/RDList2.asp?ST=CA
- 19 Nord M, Prell M. Food security improved following the 2009 ARRA increase in SNAP benefits. Washington, DC: USDA Economic Research Service; 2011.
- 20 Center on Budget Policy and Priorities. Child tax credit expansion, 2009. Accessed Mar 1, 2012, at http://www. cbpp.org/files/1-22-09bud-ctc.pdf
- Sherman A. Stimulus keeping 6 million Americans out of poverty in 2009, estimates show. Washington, DC: Center on Budget and Policy Priorities; 2009.
- California Budget Project. What Has the American Recovery and Reinvestment Act of 2009 Meant for California?, 2010. Accessed Mar 1, 2012, at http://www. cbp.org/pdfs/2010/100304\_ARRA\_Impact.pdf
- 23 Sherman A. Poverty and financial distress would have been substantially worse in 2010 without government action, new census data show. Washington, DC: Center on Budget and Policy Priorities; 2011.
- Shimada T. California Food Policy Advocates, Breakfast First. Statewide school meal statistics (2009-10), 2011. Accessed Mar 1, 2012, at http://www.breakfastfirst.org/pdfs/ SchoolMeals\_2009-10\_DataHighlights.pdf

10960 Wilshire Blvd., Suite 1550 Los Angeles, California 90024



The UCLA Center for Health Policy Research is affiliated with the UCLA School of Public Health and the UCLA School of Public Affairs.

The views expressed in this policy brief are those of the authors and do not necessarily represent the UCLA Center for Health Policy Research, the Regents of the University of California, or collaborating organizations or funders.

### PB2012-2

Copyright © 2012 by the Regents of the University of California. All Rights Reserved.

Editor-in-Chief: Gerald F. Kominski, PhD

Phone: 310-794-0909 Fax: 310-794-2686 Email: chpr@ucla.edu www.healthpolicy.ucla.edu



Read this publication online