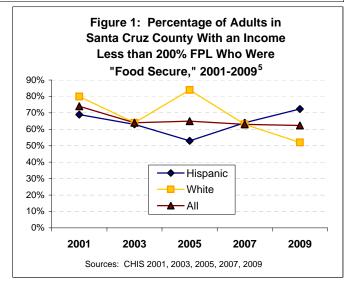
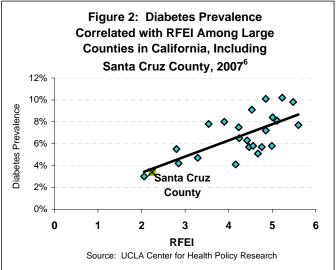
Importance	The environment in which we live often shapes the choices we make. If our built environment offers mainly fast food restaurants and liquor stores and we have limited transportation, our ability to make healthy choices is limited. Transportation is also a factor in a person's ability to access healthcare and employment.
	* Retail Food Environment Index (RFEI): The number of fast-food restaurants and convenience stores, divided by the number of supermarkets, produce stores, and farmers' markets. A community with twice as many fast-food restaurants and convenience stores will have an RFEI of 2.0. A low RFEI shows good access to healthy food. In California, county RFEI scores range from 2.06-5.60.1
Definitions	<u>Food Security</u> : Access, at all times, to enough nutritious food for an active, healthy life. <sup>2</sup> <u>Alcohol Outlet</u> : An establishment where alcohol is sold for consumption off premises, called an "off-sale establishment" (supermarkets, liquor stores, etc.), or where alcohol is consumed on the premises (bars, restaurants, etc.). <sup>3</sup>
Healthy People 2020 Objectives	Decrease the proportion of households that are food insecure (thereby reducing hunger) to 6%

#### **ACCESS TO HEALTHY FOODS**

Food security, or being able to afford a complete and balanced diet, is a very important measure of health. The Healthy People 2020 goal is to decrease the proportion of food insecure households to 6%. Nationally, the proportion of food insecure households in 2008 was 14.6%. The California Health Interview Survey (CHIS) asked persons with incomes below 200% of the Federal Poverty Level (FPL) about their food security. From 2001 to 2009, the percentage of all Santa Cruz adults with incomes below 200% FPL who were food secure ranged between 62% and 74% (Figure 1). In 2009, 52% of low-income White adults reported being food secure, compared to 72% of Latino adults. However, due to the small number of low-income people surveyed, the differences in the data are not reliable or statistically significant.

The availability of nutritious food affects the food decisions that children, teens, and adults make. If healthy options are not available, then healthy options cannot be selected. Based on data from the 2005 CHIS and the 2005 InfoUSA Business File, the Retail Food Environment Index (RFEI) was calculated for each adult CHIS respondent by dividing the total number of fast-food restaurants and convenience stores by the total number of grocery stores and produce vendors within a given radius around the respondent's home address (a half-mile in urban areas, one mile in smaller cities and suburban areas, and five miles in rural areas). These individual RFEI's were then averaged for the entire county.





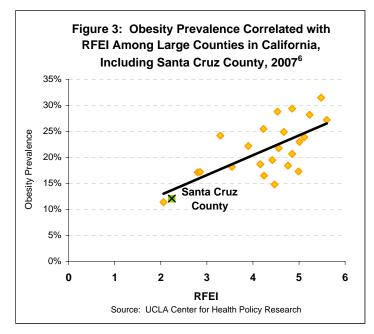
As can be seen in Figures 2 and 3, higher RFEIs are positively correlated with the prevalence of diabetes and obesity within a county.<sup>6</sup>

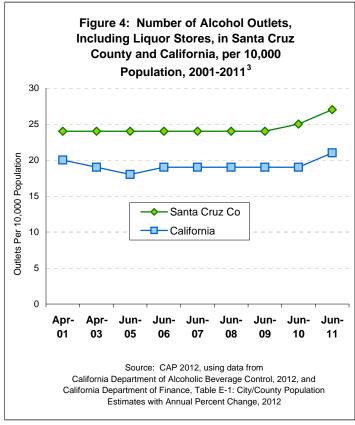
Santa Cruz County had an RFEI of 2.2 (Figures 2 and 3), which means 2.2 fast food or convenience stores for each grocery store, produce stand, or farmer's market. That was the second best RFEI out of the 24 California counties with populations greater than 250,000.

As part of a recent nutrition program, the County Public Health Department utilized the CX<sup>3</sup> mapping program to assess the ratio of healthy food sources, such as supermarkets, large grocery stores, and famers markets, to unhealthy food sources, such as fast-food outlets and convenience stores, in three Santa Cruz County neighborhoods. Only 19%-35% of the food sources available in these neighborhoods were considered healthy food sources.<sup>7</sup>

#### LIQUOR STORE DENSITY

The presence of liquor outlets, including liquor stores, restaurants, and supermarkets, is associated with increased underage drinking, binge drinking, violence, and poor health outcomes such as high mortality rates due to liver cirrhosis. 8,9,10 In Santa Cruz County and in California, alcohol outlet density has changed very little recently; the county's rate rose from 24 to 27 outlets per 10,000 population in 2011, while California's rate stayed between 18 and 21 outlets per 10,000 population from 2001-2011 (Figure 4).<sup>3</sup> Nationally, in 2006 37.5% of 18-20 year olds who reported drinking alcohol in the past 30 days also reported purchasing alcohol themselves or obtaining alcohol that was purchased by another underage person. 11 Locally, law enforcement officials work to decrease alcohol sales to minors by conducting "minor decoy operations" where minors, working with law enforcement officials, attempt to purchase alcohol from local businesses.





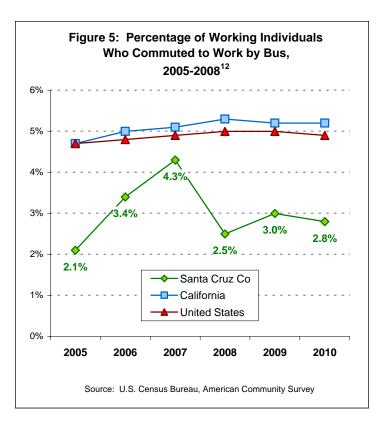
#### **TRANSPORTATION**

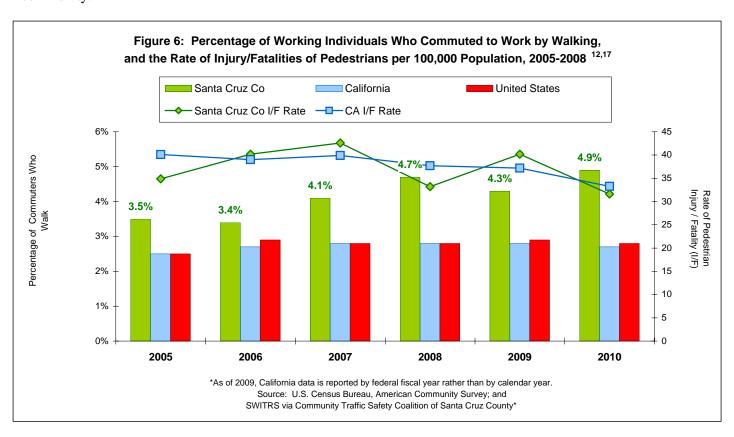
Santa Cruz County residents use alternative modes of transportation to work more often than residents of California and the United States. In 2010, 2.6% of working individuals in Santa Cruz County rode their bikes to work, which is a much higher rate than either California or the United States (Figure 7). Local, state, and national biking rates all appear to have increased slightly from 2005 to 2010. Notably, the City of Santa Cruz was designated a Silver Level Bicycle-Friendly Community by the League of American Bicyclists in early 2008. 13

The percentage of working individuals who walked to work in Santa Cruz County increased from 3.5% in 2005 to 4.9% in 2010; state and national rates (2.7% statewide and 2.8% nationwide in 2010) didn't rise much (Figure 6). 12

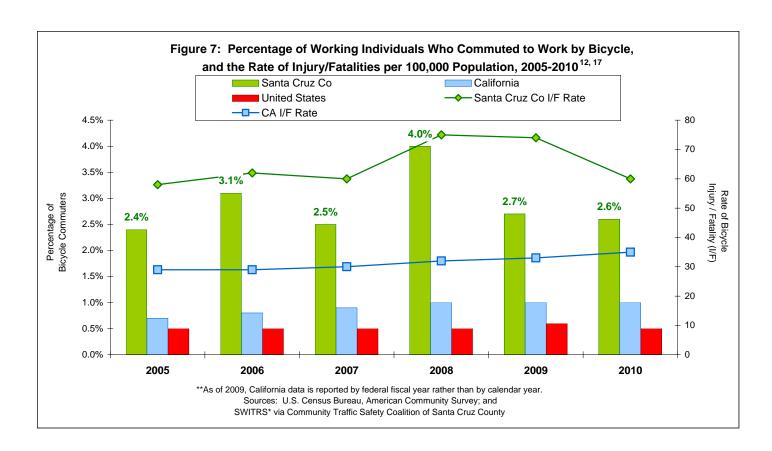
Although the proportion of working individuals who walk or bike to work is significantly higher in Santa Cruz County than in California or the United States, the proportion of county commuters who use the bus is lower than in the United States and California (Figure 5). Bus ridership statewide and nationwide increased slightly from 2005 to 2010; county rates varied considerably and showed no clear trend. 12

Pedestrian facilities in Santa Cruz County range from large sidewalks in city centers with conveniently located businesses to rural roads without sidewalks. Unfortunately, poor driving behaviors and poorly maintained or absent sidewalks often affect community walkability in Santa Cruz County. Programs such as Pace Car and Ride 'n' Stride Bicycle and Pedestrian Safety Program have been initiated to improve transportation conditions for all members of the community. 16





While walking and bicycling to commute to work are considered health-conscious modes of transportation, a pedestrian or bicyclist faces a different set of dangers and requires a different set of safety precautions than a driver does. In the United States, 32,885 people were killed in traffic accidents in 2010; of those, 4,280 (13%) were pedestrians and 618 (2%) were pedalcyclists (includes bicycles, tricycles, etc.). The national *pedestrian injury/fatality* rate for 2008 was 21.4 per 100,000 population. In California the 2008 *pedestrian fatalities* rate was 1.7 fatality per 100,000 population, while Santa Cruz County's was 1.1 fatality per 100,000 population. The injury/fatality rate for *bicyclists* in Santa Cruz was 60 per 100,000 population, almost twice that of California (35 per 100,000 population) (Figure 7). The number of bicyclists injured and killed in Santa Cruz County dropped from 189 in 2009 to 158 in 2010; the number increased in Capitola while decreasing in all other jurisdictions throughout the county. There were no bicyclist fatalities in 2010 in Santa Cruz County. The combined pedestrian injury/fatality rate fluctuates in Santa Cruz County due to small numbers, but the 2010 rate was lower than the 2005 rate, even though commuting to work by walking has continued to increase (Figure 7). The combined pedestrian injury/fatality rate fluctuates in Santa Cruz County due to increase (Figure 7).



Prevention	<ul> <li>To improve safe bicycling practices in the county, the Community Traffic Safety Coalition (CTSC) developed a <u>Bicycle Traffic Safety School</u> in 2008 for bicycle traffic offenders. <sup>16</sup></li> <li>Programs such as <u>Pace Car</u> and <u>Ride 'n' Stride</u> Bicycle and Pedestrian Safety Program have been initiated to improve transportation conditions for all members of the community. <sup>16</sup></li> </ul>		
Helpful Websites	Community Traffic Safety Coalition of Santa Cruz County	http://www.sctrafficsafety.org/index.html	

- (1) California Center for Public Health Advocacy. "Searching for Healthy Food: The Food Landscape in California Cities and Counties." January 2007. http://www.publichealthadvocacy.org/searchingforhealthyfood.html.
- (2) United States Department of Agriculture. "Food Security Resources." United States Food and Agriculture Food and Nutrition Service. 

  Jul 2008. http://www.fns.usda.gov/fsec/.
- (3) Applied Survey Research. Community Assessment Project Report. Year 17. 2011. http://www.santacruzcountycap.org/CAP-17.htm.
- (4) U.S. Census Bureau. Food Security Supplement to the Current Population Survey (CPS). U.S. Department of Commerce, Bureau of the Census.
- (5) California Health Interview Survey 2001, 2003, 2005, 2007, 2009. http://www.chis.ucla.edu/.
- (6) UCLA Center for Health Policy Research. "Designed For Disease: The Link Between Local Food Environments and Obesity and Diabetes (County RFEI Tables)." 29 Apr 2008. http://www.publichealthadvocacy.org/PDFs/RFEI\_countycharts.pdf.
- (7) County of Santa Cruz, Health Services Agency. Unpublished data utilizing CX and GIS. 2012.
- (8) Task Force on Community Preventive Services. "Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density." *Am J Prev Med* 2009;37(6):570-1. http://www.thecommunityguide.org/alcohol/RRoutletdensity.html.
- (9) Alcohol and Public Health, CDC. June 2010. Accessed October 2012. http://www.cdc.gov/alcohol/ardi.htm.

#### **Sources**

- (10) "Alcohol-Attributable Deaths and Years of Potential Life Lost United States, 2001." *MMWR* September 24, 2004, 53(37):866-870. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5337a2.htm.
- (11) Pemberton, M. R., Colliver, J. D., Robbins, T. M., & Gfroerer, J. C. (2008). *Underage alcohol use: Findings from the 2002-2006 National Surveys on Drug Use and Health* (DHHS Publication No. SMA 08-4333, Analytic Series A-30). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. http://www.oas.samhsa.gov/underage2k8/underage.pdf.
- (12) U.S. Census Bureau. American Community Survey: Economic Characteristics, 2005-2010 Estimates. Accessed October 2012. http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.
- (13) League of American Bicyclists. Bike Friendly Community Designation, 2007. 01 May 2008. http://www.bikeleague.org/media/press/.
- (14) The Nutrition and Fitness Collaborative of the Central Coast. Taking a Step in the Right Direction! Placing a Premium on Health by Promoting More Walkable Central Coast Communities. August 2004. http://ftc.gov/os/comments/FoodMarketingtoKids/516960-00025.pdf.
- (15) The Nutrition and Fitness Collaborative of the Central Coast. 1999 Santa Cruz County Walk-ability Survey.
- (16) Community Traffic Safety Coalition of Santa Cruz County. CTSC Projects. http://www.sctrafficsafety.org/projects.html. Accessed October 2012.
- (17) Community Traffic Safety Coalition of Santa Cruz. 2010 Bicycle (Pedestrian) State of the County Report. Accessed 15 Sep 2010. http://www.sctrafficsafety.org/safe\_info.html.
- (18) National Highway Traffic Safety Administration's National Center for Statistics and Analysis. Traffic Safety Facts 2010 Data: Pedestrians and Overview. http://www-nrd.nhtsa.dot.gov/CATS/. Accessed October 2012.