

## Healthy Community Indicators Project: Pilot Indicators

**Short Title:** Educational Attainment

**Full Title:** High School or Greater Educational Attainment in the Population Aged 25 Years and Older

1. **Healthy Community Framework:** Adequate levels of economic and social development
2. **What is our aspirational goal:** Opportunities for high quality and accessible education
3. **Why is this important to health?**

### Description of significance and health connection

Education has broad impacts on standards of living and social interactions, with consequences for the health of individuals and communities. Through three inter-related pathways, education influences health: health knowledge and behaviors; employment and income; and social and psychological factors. Completion of formal education (e.g., high school) is a key pathway to employment and access to healthier and higher paying jobs that can provide food, housing, transportation, health insurance, and other basic necessities for a healthy life. Education is linked with social and psychological factors, including sense of control, social standing and social support. These factors can improve health through reducing stress, influencing health-related behaviors and providing practical and emotional support.

It is estimated that approximately 245,000 (10%) of the 2.4 million U.S. deaths in 2000 were attributable to low education. Low education is also associated with poorer self-rated health status, higher infant mortality rates, lower cancer screening rates, and many other health outcomes and health behaviors. It is estimated that raising the health of all Americans to that of college educated Americans would result in annual gains of over 1 trillion dollars of increased health value. Health burdens due to low educational attainment disproportionately impact African Americans and other race/ethnicities whose share of high school graduates is lower than Whites.

### Summary of evidence

There is an extensive body of research based on epidemiologic studies using national vital statistics (births and deaths) and health surveys, including the California Health Interview Survey, that establish the relationship between education and health. A recent study synthesized 24 population-based studies of mortality and education in the United States. Several of these studies were longitudinal studies following healthy populations over time. Greater educational attainment has been associated with health-promoting behaviors including consumption of fruits and vegetables and other aspects of healthy eating, engaging in regular physical activity, and refraining from excessive consumption of alcohol and from smoking.

### References

1. Egarter S, Braveman P, Sadegh-Nobari T, Grossman-Kahn R, Dekker M. Issue Brief 6: Education and Health. Robert Wood Johnson Foundation Commission to Build a Healthier America. September 2009.
2. Galea S, Tracy M, Hoggatt KJ, DiMaggio C, Karpati A. Estimated deaths attributable to social factors in the United States. Am J Public Health 2011;101(8):1456-1465.

3. Dow W, Schoeni R. *Economic Value of Improving the Health of Disadvantaged Americans. Technical Report for Overcoming Obstacles to Health: Report from the Robert Wood Johnson Foundation to the Commission to Build a Healthier America*: Robert Wood Johnson Foundation 2008.
4. California Health Interview Survey. Public Use Datafiles. Los Angeles, CA: UCLA Center for Health Policy Research (<http://healthpolicy.ucla.edu/contact/Pages/default.aspx>, Accessed on February 4, 2013).

#### 4. What is the indicator?

Detailed definition: Percentage of population 25 years and older completing high school or associate, bachelors, or a more advanced degree

- Stratification: Race/Ethnicity (8 Census groups)

#### Data Description

- Data Source: Educational Attainment Data from U.S. Census 2000 (SF3): Table QT-P20; Educational Attainment Data from 2005-2007 and 2008-2010 American Community Survey: Table S1501 and DP02 for 2006-2010. All data downloaded from American Factfinder at <http://factfinder2.census.gov>
- Years available: 2000, 2005-2007, 2008-2010, 2006-2010
- Updated: annually in moving 3-year and 5-year intervals
- Geographies available: census tracts, cities/towns, counties, regions, and state

Five-year data (2006-2010) at census tract and city/town geographies for this indicator and its margin of error were downloaded from the American Community Survey (ACS) website. To create a 3-point time series of California places and counties, data were downloaded from the U.S. Census (2000) and from the ACS (2005-2007 and 2008-2010). Standard errors, relative standard errors, and 95% upper and lower confidence intervals were calculated where margins of error were reported in ASC files. Regional estimates were based on county groupings associated with California metropolitan planning organizations as reported in the *2010 California Regional Progress Report* ([http://www.dot.ca.gov/hq/tpp/offices/orip/Collaborative%20Planning/Files/CARegionalProgress\\_2-1-2011.pdf](http://www.dot.ca.gov/hq/tpp/offices/orip/Collaborative%20Planning/Files/CARegionalProgress_2-1-2011.pdf)).

#### 5. Limitations

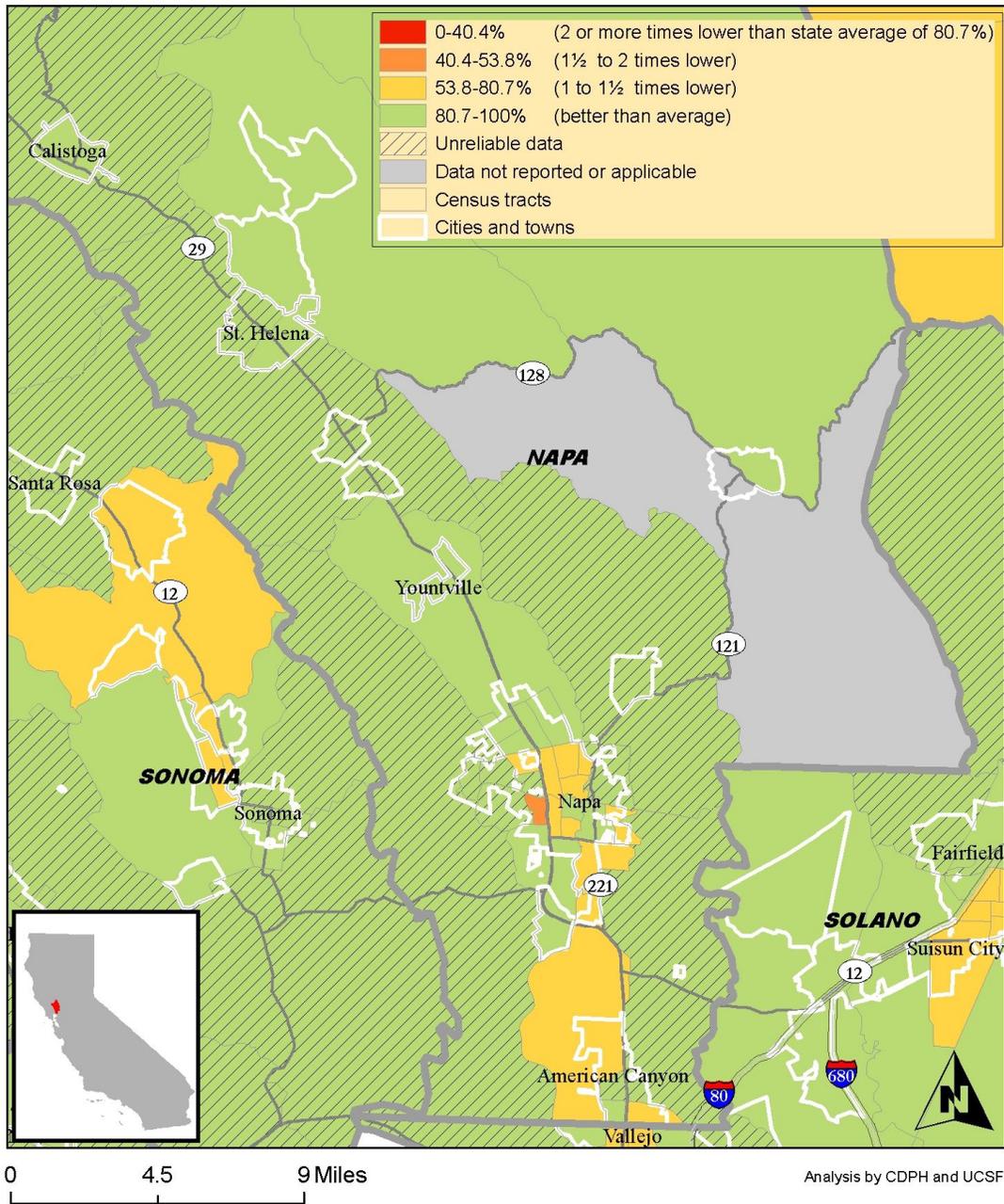
The American Community Survey does not publish data when there are fewer than 100 individuals in a geographic reporting area and when there are fewer than 50 respondents to survey questions. Data are not available for many small California cities and census tracts for race/ethnicity groups with relatively small numbers, generally American Indian/Alaska Native, Hawaiian Native and Other Pacific Islander, Other Race, and Multiple Races.

#### 6. Projects using this indicator

1. National Center for Education Statistics. *National Center for Education Statistics*. Alexandria, VA: U.S. Department of Education; 2010. <http://nces.ed.gov/ccd/bat/>. Accessed on 7/6/12.
2. Baltimore Neighborhood Indicators Alliance. *Vital Signs 10*. Baltimore, MD: Jacob France Institute: Baltimore Neighborhood Indicators Alliance; 2012. <http://www.bnaijfi.org/>. Accessed on 7/17/12.

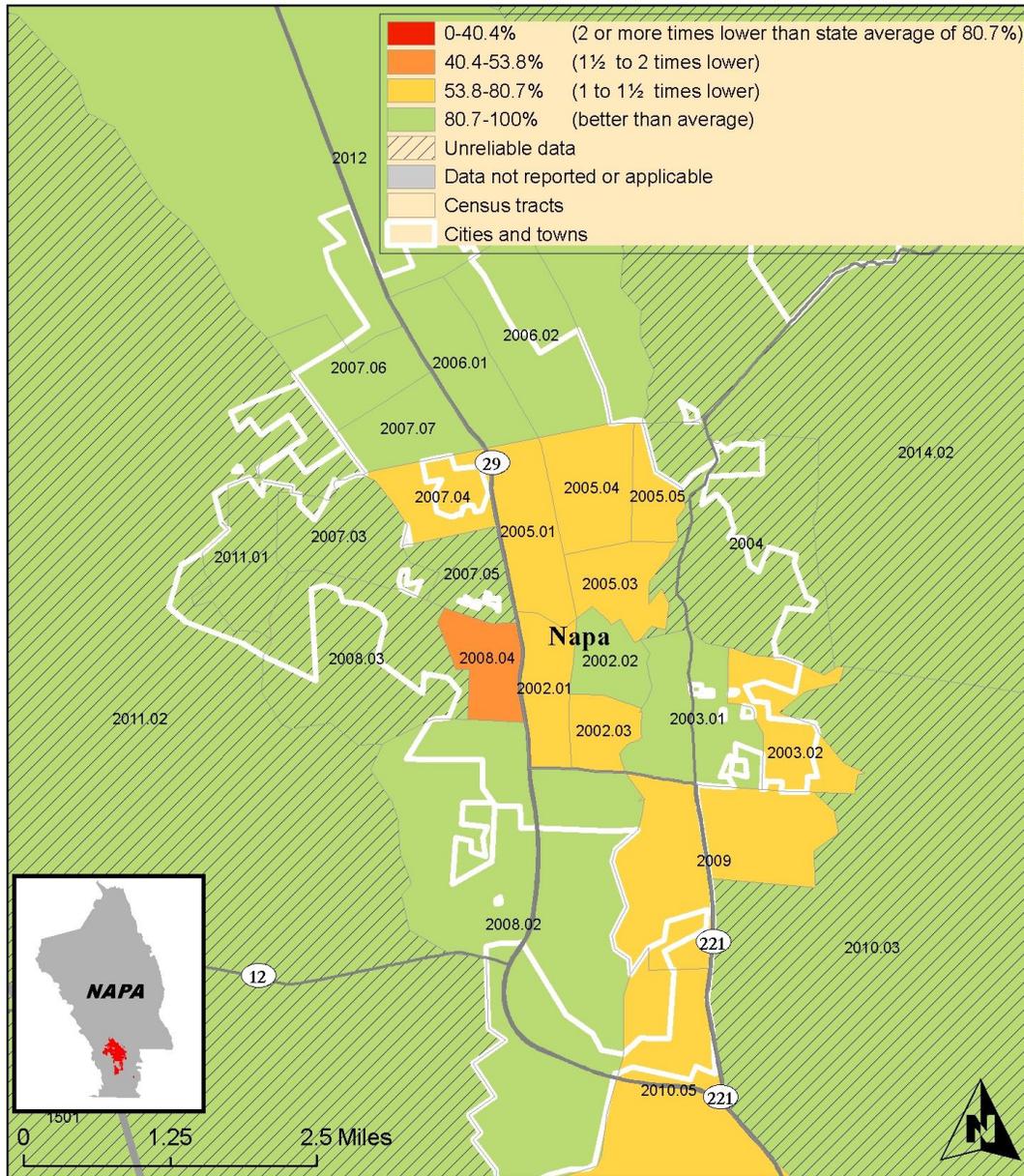
## Examples of Maps, Figures, and Tables

**Map 1: High School or Greater Educational Attainment in the Population Aged 25 Years and Older, by Census Tract, Napa County, 2006-2010**



Source: U.S. Census Bureau, 2006-2010 American Community Survey

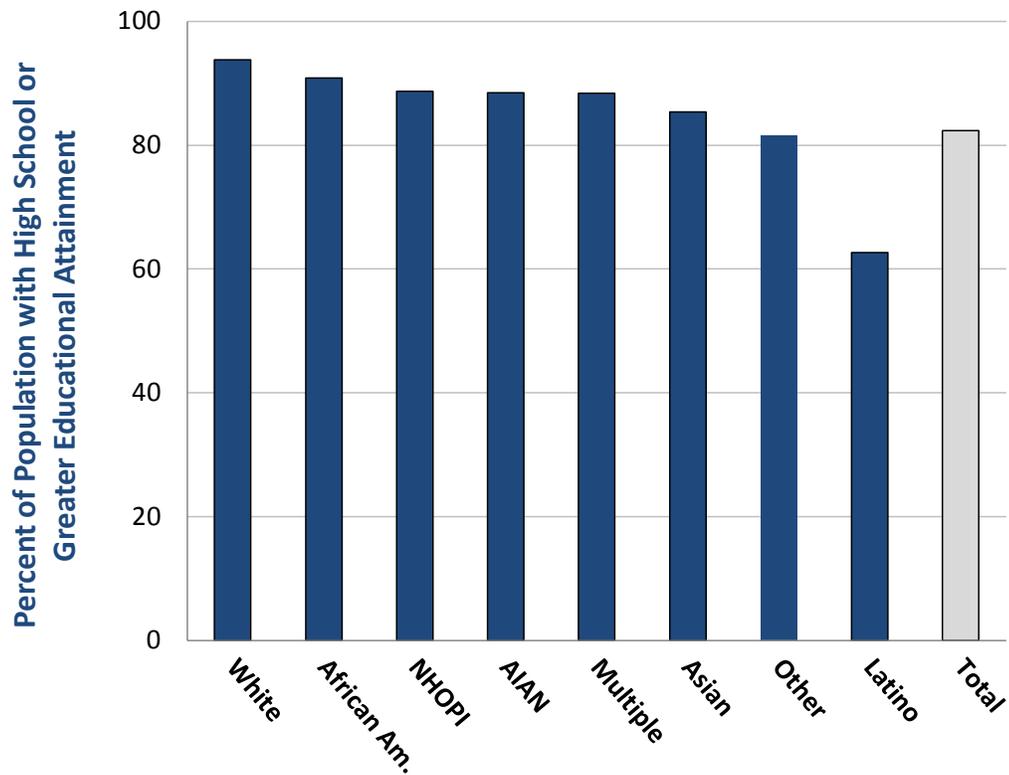
**Map 2: High School or Greater Educational Attainment  
in the Population Aged 25 Years and Older,  
by Census Tract, Napa (City), 2006-2010**



Source: U.S. Census Bureau, 2006-2010 American Community Survey

Analysis by CDPH and UCSF

## Educational Attainment in the Population Aged 25 Years and Older by Race/Ethnicity, San Jose, 2006-2010



Data Source: American Community Survey, 2006-2010

\* NHOPI, Native Hawaiian/Other Pacific Islander; AIAN, American Indian/Alaskan Native

**Table 1. High School or Greater Educational Attainment in the Population Aged 25 Years and Older by City/Town, Napa County, 2006-2010**

City/Town	Number	Pop.	Percent
American Canyon	9022	10,857	83.1
Angwin	1504	1629	92.3
Calistoga	3031	3549	85.4
Deer Park	823	873	94.3*
Moskowite Corner	---	---	---
Napa	39,920	50,983	78.3
Oakville	---	---	---
Rutherford	---	---	---
Silverado Resort	1070	1070	100.0
St. Helena	3706	4164	89.0
Yountville	2117	2252	94.0
Napa County	74,633	90,794	82.2
Bay Area Region	4,329,296	4,999,908	86.6
California	18,962,842	23,497,945	80.7

Data Source: U.S. Census Bureau, American Community Survey (2006-2010)

--- Not Reported

\* Not statistically reliable (Relative Standard Error > 30%)

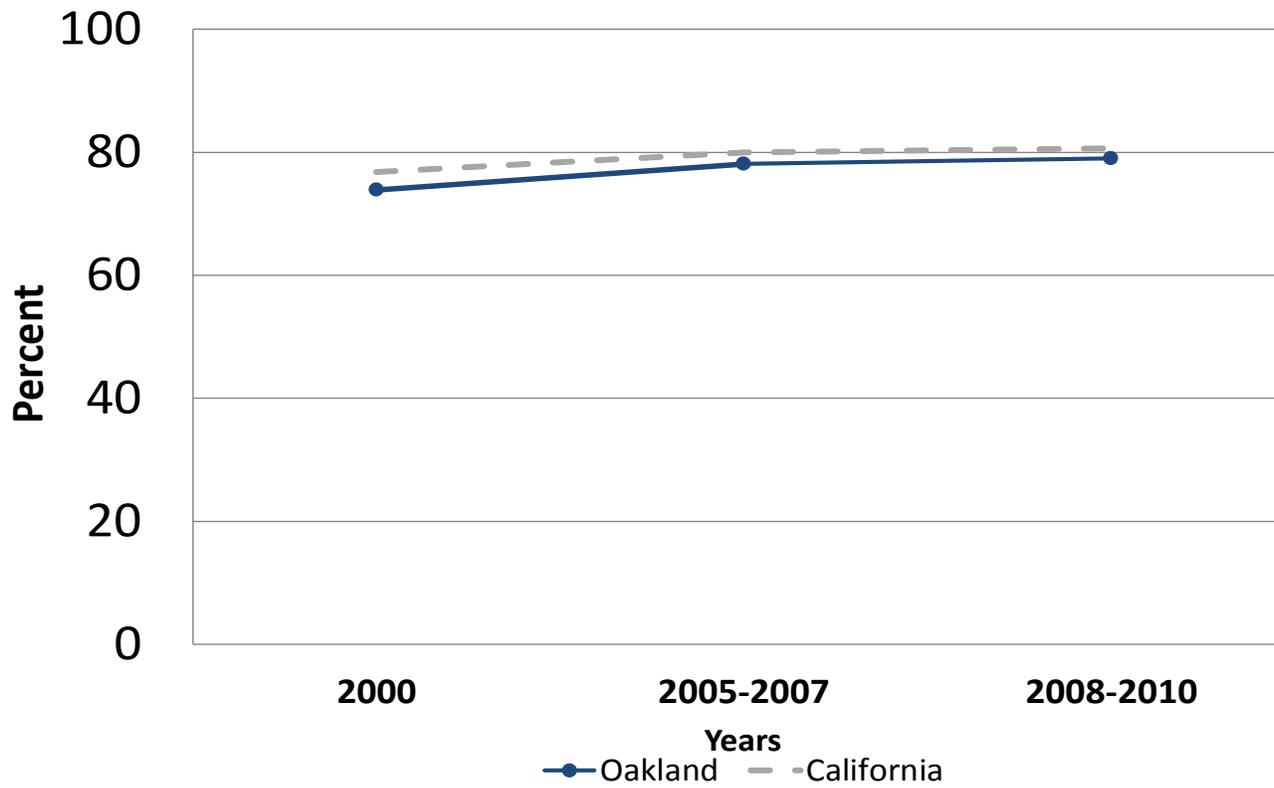
**Table 2. High School or Greater Educational Attainment in the Population Aged 25 Years and Older by City/Town, Napa County, 2000-2010**

City/Town	2000			2005-2007			2008-2010		
	Number	Pop.	Percent	Number	Pop.	Percent	Number	Pop.	Percent
American Canyon	4,903	6,207	79.0	---	---	---	---	---	---
Angwin	1,367	1,487	91.9	---	---	---	---	---	---
Calistoga	2,491	3,518	70.8	---	---	---	---	---	---
Deer Park	1,026	1,086	94.5	---	---	---	---	---	---
Moskowite Corner	---	---	---	---	---	---	---	---	---
Napa	38,016	48,000	79.2	39,271	50,027	78.5	40,433	50,987	79.3
Oakville	---	---	---	---	---	---	---	---	---
Rutherford	---	---	---	---	---	---	---	---	---
Silverado Resort	---	---	---	---	---	---	---	---	---
St. Helena	3,286	4,032	81.5	---	---	---	---	---	---
Yountville	2,076	2,516	82.5	---	---	---	---	---	---
Napa County	67,486	83,938	80.4	72,763	88,198	82.5	75,764	91,835	82.5
Bay Area (percent)			83.9			86.1			86.5
California (percent)			76.8			80.0			80.6

Data Source: U.S. Census Bureau, Decennial Census (2000) and the American Community Survey (2005-2007 and 2008-2010)

--- Data not available

**Figure 1. High School or Greater Educational Attainment in the Population Aged 25 Years and Older, Oakland, CA, 2000-2010**



Data Source: U.S. Census Bureau, Decennial Census (2000) and the American Community Survey (2005-2007 and 2008-2010)