



Office of Health Equity

Healthy Communities Data and Indicators Project

Short Title: Educational Attainment.

Full Title: Percent of population age 25 and up with a four-year college degree or higher.

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. Key factors as they relate to health and mental health disparities and inequities

(California Health and Safety Code Section 131019.5):

Child development, education, and literacy rates.

4. Why is this important to health?

a. 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.



b. 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.

c. 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).

5. What is the indicator?

a. Detailed definition.

Percent of population age 25 and up with a four-year college degree or higher.

b. Stratification.

Eight race/ethnicity groups (African American, American Indian/Alaska Native, Asian, Latino, Multiple, Native Hawaiian/Other Pacific Islander, Other and White),

Four place of birth groups (Born in state of residence; Born in other state in the United States; Native, born outside the United States; Foreign born). To read more about the Census place of birth groups go here:

https://www.census.gov/topics/population/foreign-born/about.html#par_textimage



c. Data Description.

- i. Data Source: Educational Attainment Data from U.S. Decennial Census 2000 (SF3): Table DP2. American Community Survey Selected Population Tables (2006 through 2010, 2011 through 2015): Table DP02 and Table B15002 (Census tracts only 2011 through 2015). All data downloaded from American Factfinder at <http://factfinder2.census.gov>.
- ii. Years available: 2000, 2006 through 2010, 2011 through 2015.
- iii. Updated: annually and in moving 5-year intervals.
- iv. Geographies available: census tracts, cities/towns, county subdivisions, counties, regions, and state.

d. Methodology.

Five-year data for this indicator and its margin of error were downloaded from the American Factfinder 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 (2006-2010 and 2011-2015). Standard errors, relative standard errors, and 95% upper and lower confidence intervals were calculated where margins of error were reported. Currently, there is no DP02 data available for census tracts for the 2011-2015 period. Table B15002 was used instead; data was aggregated across sex (male, female) and educational attainment strata (bachelor's degree, master's degree, and doctorate degree). 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).

6. 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 groups with relatively small numbers, generally American Indian/Alaska Native, Hawaiian Native and Other Pacific Islander, Other Race, and Multiple Races. Adult educational attainment data by place of birth can help inform local jurisdictions about the contributions of foreign and native migrant populations to their local educational attainment estimates. However, people born in other states or countries could have migrated at a very young age and that information is not captured in the data.



7. Projects using this indicator.

- a. Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2015). Vital Signs 13. www.bnijfi.org/vital_signs. Accessed on 8/8/17.