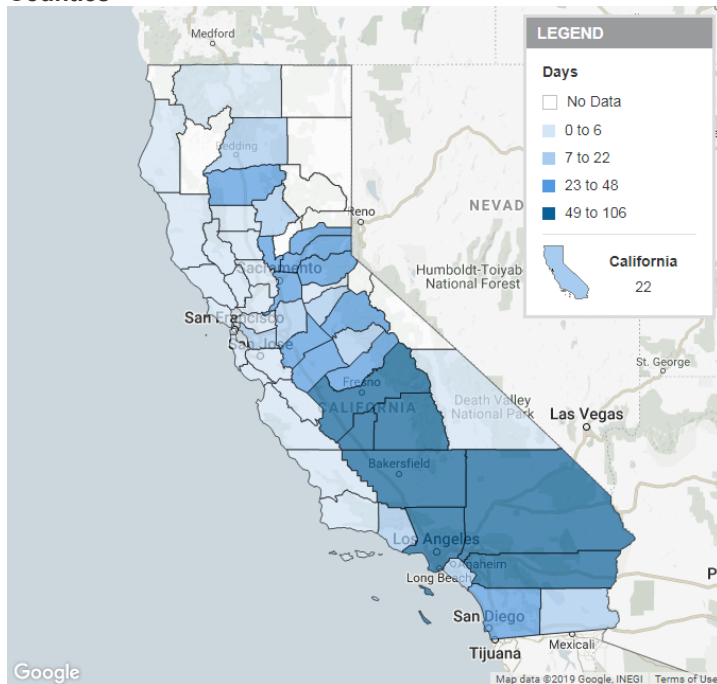


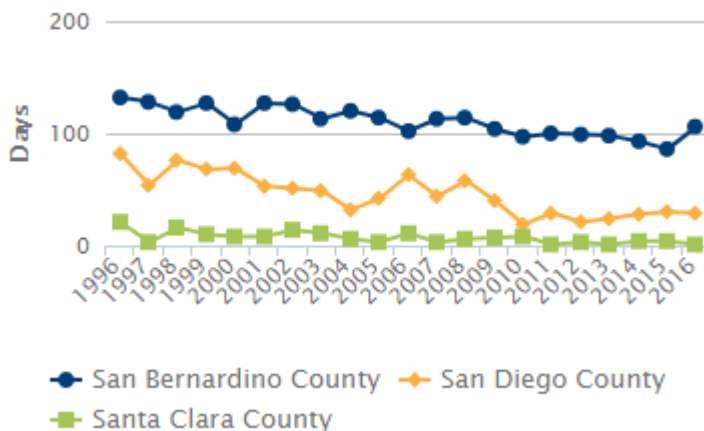
Air Quality in California

Days with Ozone Levels Above Regulatory Standard: 2016; Showing Counties



Definition: Number of days with ground-level ozone concentrations above the U.S. standard of 0.070 parts per million (e.g., in 2016, ozone concentrations above the U.S. standard were recorded on 60 days in Los Angeles County). For counties, data from monitoring sites recording the most days above the standard are shown. State-level data are averaged from county-level data and should be treated with caution.
Data Source: California Environmental Protection Agency, Air Resource Board: (iADAM) Air Quality Data Statistics (Aug. 2017).

Days with Ozone Levels Above Regulatory Standard



What It Is

Kidsdata.org offers the following measures of air quality:

- Number of Days with Ozone Levels Above Regulatory Standards
- Annual Average Particulate Matter Concentration

Why This Topic Is Important

Air pollution is a serious environmental threat to children's health (1). Recent research has shown that environmental contaminants can put children at risk of developing serious illnesses (2). Exposure to air pollution, especially at high concentrations and durations, is related to increased risk of respiratory problems, heart disease, cancer, and adverse reproductive or pregnancy outcomes, among other health problems (1, 2, 3). Children are more vulnerable to pollutants because, compared to adults, they breathe more air relative to their size, and thus experience greater proportionate exposure to chemicals (2). In addition, children are at greater risk of harm from contaminants because their bodies and organs are not fully developed (2).

Air pollution can occur outdoors or indoors. Examples of outdoor pollutants include fine particles in the air (from motor vehicles, industrial sources, etc.), ground-level ozone (a primary component of smog), noxious gases, and tobacco smoke (3). Examples of indoor air pollution include carbon monoxide, household chemicals, building materials, allergens (e.g., cockroaches, animals, dust, etc.), mold, and tobacco smoke (3). Among common outdoor air pollutants, fine particulate matter and ground-level ozone are considered the most widespread threats to human health, according to the U.S. Environmental Protection Agency (4).

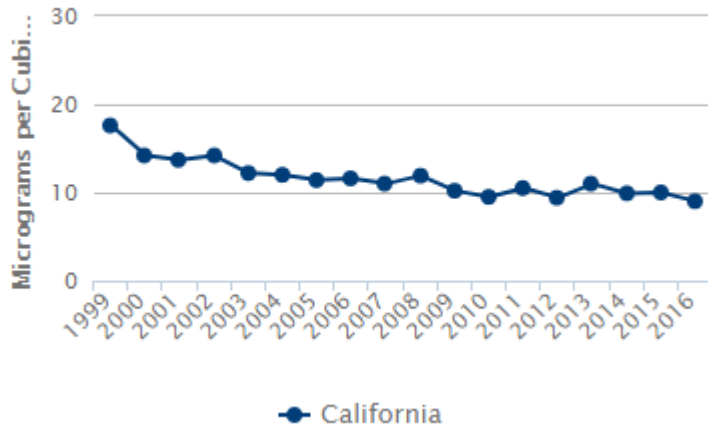
How Children Are Faring

Ground-level ozone—a primary component of smog which is formed from pollutants emitted by cars, power plants, and other sources—poses considerable health risks. In 2016, California counties averaged 22 days with ozone concentrations above the U.S. regulatory standard, down from 44 days in 1980. Of the 49 California counties with data in 2016, 13 did not record any days when ozone levels exceeded regulatory standards. However, six counties, all in Southern California and the Central Valley, recorded 60 or more such days.

Despite year-to-year fluctuations, California's

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Data Source: California Environmental Protection Agency, Air Resource Board: ([iADAM](#)) Air Quality Data Statistics (Aug. 2017).

Annual Average Particulate Matter Concentration in California



Definition: Annual average concentration of fine particulate matter in the air (e.g., in 2016, the average concentration of fine particulate matter in the air in Los Angeles County was 12.0 micrograms per cubic meter). State-level data are averaged from county-level data and should be treated with caution.
Data Source: California Environmental Protection Agency, Air Resource Board: ([iADAM](#)) Air Quality Data Statistics; U.S. Environmental Protection Agency, Particulate Matter (PM 2.5) Trends (Jul. 2017).

annual average concentration of fine particulate matter (PM 2.5) in the air has declined overall, from 17.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in 1999 to 9 $\mu\text{g}/\text{m}^3$ in 2016, echoing national trends. PM 2.5 levels also vary widely among counties for which data are available; in 2016, the annual average concentration of PM 2.5 ranged from 2.9 $\mu\text{g}/\text{m}^3$ in Lake County—well below the federally recommended limit of 12 $\mu\text{g}/\text{m}^3$ —to 15.9 $\mu\text{g}/\text{m}^3$ in Kern County.

View references for this text and additional research on this topic:
<https://www.kidsdata.org/topic/80/air-quality/summary>



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