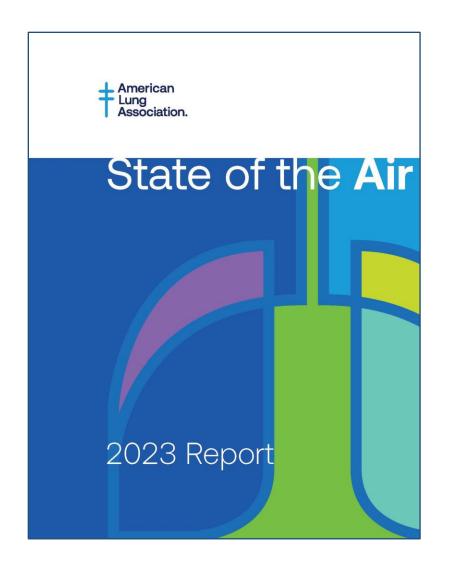




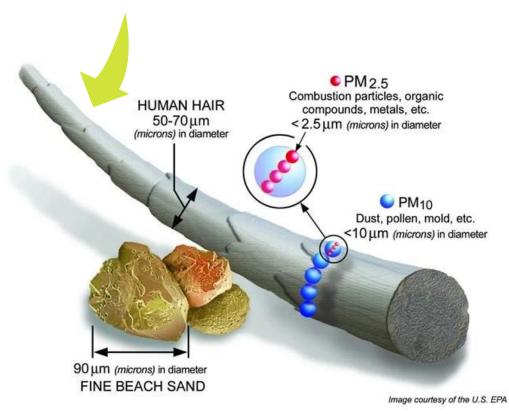
Our 24th annual report www.lung.org/SOTA



- Puts air pollution into everyday language
- Gives the public local information
- Focuses attention on particle pollution and ozone
- Gives grades to 922 counties
 with monitors (out of 3,221 counties)
- Ranks 25 metro areas with worst pollution (& cleanest) for 3 pollutants

Particle pollution is a mixture of tiny solid and liquid particles, sometimes called "soot."

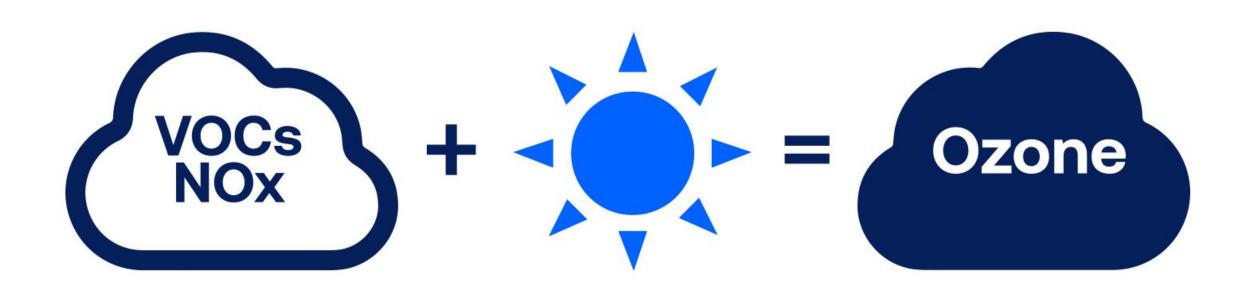
looks like







Ozone pollution is an odorless, colorless gas that forms most on hot, sunny days, sometimes called "smog."





Air pollution can harm children and adults in many ways.



Premature death





Susceptibility to infections





Heart attacks and strokes





Impaired cognitive functioning





Metabolic disorders



Lung cancer



Preterm birth and low birth weight



More than

3 in 10 Americans

live in places with unhealthy levels of air pollution.





People of color are 3.7x more likely than white people to live in a county with 3 failing grades.



Top 10 most polluted cities for ozone (227)

- 1 Los Angeles-Long Beach, CA
- Visalia, CA
- 3 Bakersfield, CA
- 4 Fresno-Madera-Hanford, CA
- 5 Phoenix-Mesa, AZ
- 6 Denver-Aurora, CO
- 7 Sacramento-Roseville, CA
- 8 San Diego-Chula Vista-Carlsbad, CA
- 9 Houston-The Woodlands, TX
- 10 Salt Lake City-Provo-Orem, UT

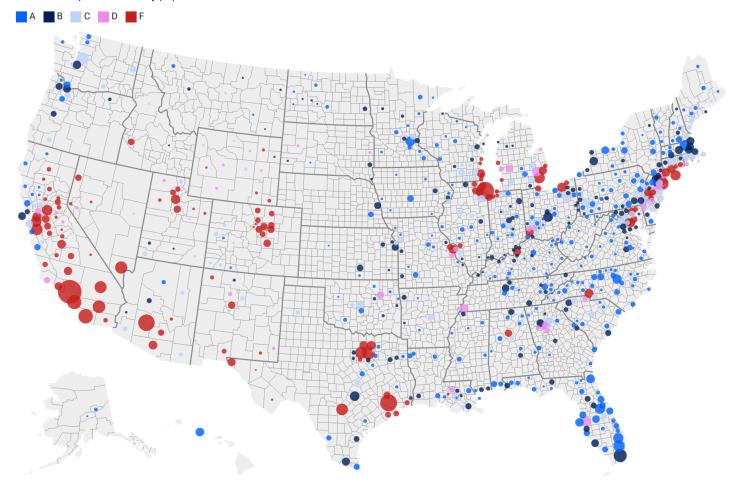
More than 100 million Americans live in counties with F grades for ozone smog.



Ozone Pollution Nationwide

Population by County and Ozone Grade 2023

Circle size represents county population



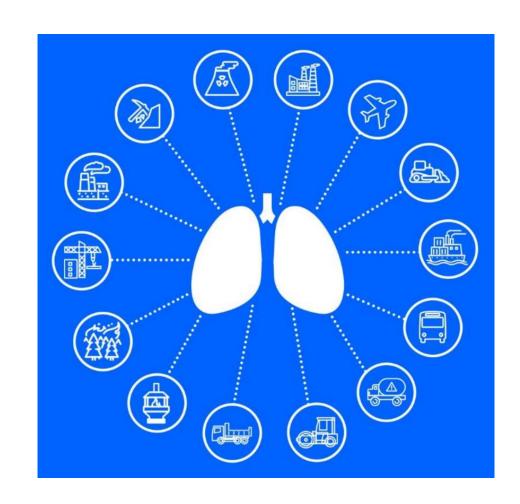


Source: American Lung Association State of the Air 2023 • Created with Datawrapper



Top 10 most polluted cities for annual particle pollution (200)

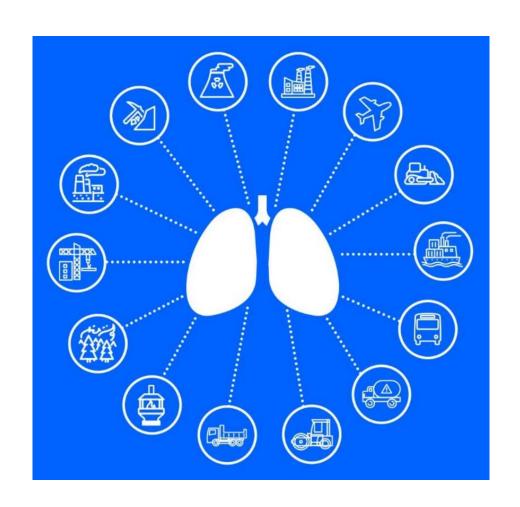
- Bakersfield, CA
- 1 Visalia, CA
- 3 Fresno-Madera-Hanford, CA
- 4 Los Angeles-Long Beach, CA
- 5 Fairbanks, AK
- 6 Sacramento-Roseville, CA
- 7 Medford-Grants Pass, OR
- 7 Phoenix-Mesa, AZ
- 7 San Jose-San Francisco-Oakland, CA
- 10 Indianapolis-Carmel-Muncie, IN





Top 10 most polluted short-term particle pollution (223)

- Bakersfield, CA
- Fresno-Madera-Hanford, CA
- Fairbanks, AK
- 4 Visalia, CA
- 5 Reno-Carson City, NV
- 6 San Jose-San Francisco-Oakland, CA
- 7 Redding-Red Bluff, CA
- 8 Sacramento-Roseville, CA
- 9 Chico, CA
- 9 Los Angeles-Long Beach, CA

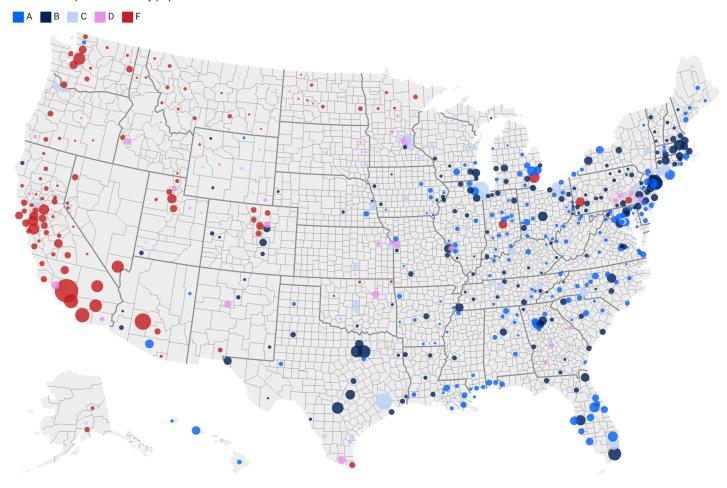


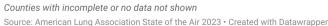


Particle Pollution Nationwide

Population by County and Short-Term PM Grade 2023

Circle size represents county population







State of the Air 2023 **Key Texas Findings**

56%

of Texans live in a county with at least one failing grade

Houston-Woodlands Rankings

9th (5)



15th (i)



59th 💥



in most unhealthy ozone days.

in unhealthy annual levels of particle pollution.

in unhealthy particle pollution days.

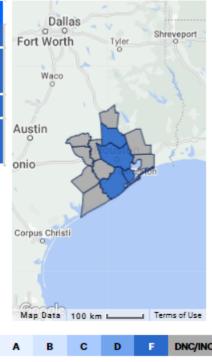
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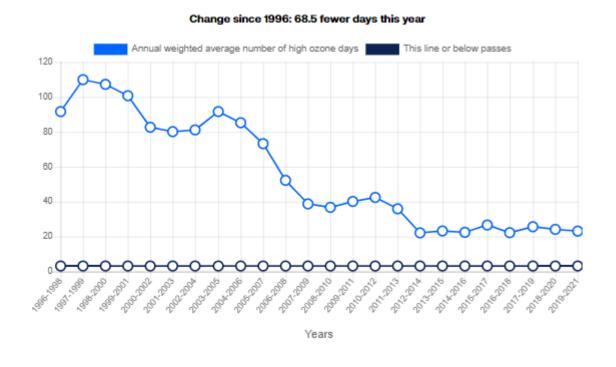
State of the Air 2023 Houston Metro Grades

High Ozone Days

Houston reports data on 4 out of 13 counties, Texas reports data on 35 out of 254 counties

County	Grade	Wgt. Avg.
Brazoria	F	7.8
Galveston	F	4
<u>Harris</u>	F	23.2
Montgomery	F	4.8





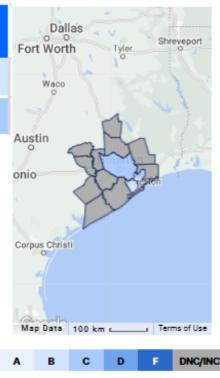


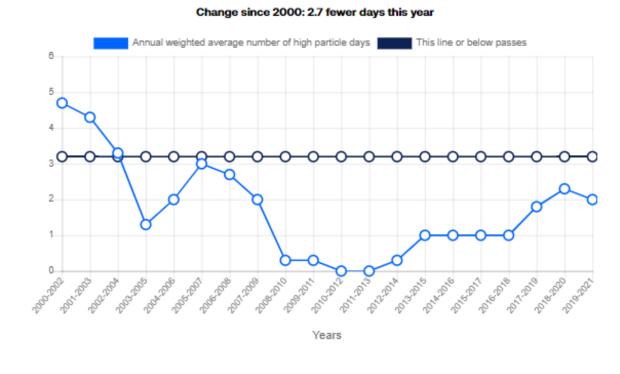
State of the Air 2023 Houston Metro Grades

Particle Pollution Days

Houston reports data on 2 out of 13 counties, Texas reports data on 24 out of 254 counties

County	Grade	Wgt. Avg.
Galveston	В	0.3
<u>Harris</u>	С	2







Populations at Risk

County	Total Pop	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	Cardio- vascular Disease	Pregnancy	Poverty Estimate	Non White
<u>Austin</u>	30,380	7,111	6,304	452	2,004	1,644	14	2,133	309	3,122	12,047
<u>Brazoria</u>	379,689	98,396	47,141	6,252	23,742	16,994	173	20,197	4,620	33,053	215,814
<u>Chambers</u>	48,865	13,755	5,734	874	2,951	2,083	22	2,465	598	5,034	18,074
Fort Bend	858,527	231,643	103,703	14,718	53,161	38,381	390	45,488	10,741	61,654	599,619
Galveston	355,062	84,994	54,033	5,400	23,003	17,332	161	21,248	4,209	42,174	157,503
<u>Harris</u>	4,728,030	1,240,902	537,117	78,846	292,122	202,685	2,152	237,486	61,038	767,505	3,419,691
Liberty	97,621	28,107	11,981	1,786	5,866	4,216	44	5,036	1,186	14,473	43,982
<u>Matagorda</u>	36,344	9,523	6,319	605	2,288	1,786	17	2,259	384	8,267	21,138
Montgomery	648,886	168,407	88,311	10,700	40,816	30,111	295	36,356	7,728	67,809	245,536
<u>Walker</u>	77,977	11,518	11,010	732	5,540	3,845	36	4,567	911	14,402	34,495
<u>Waller</u>	59,781	14,419	7,223	916	3,767	2,573	27	3,035	814	7,505	34,751
Washington	35,891	7,652	8,170	486	2,423	2,004	16	2,640	378	4,719	13,097
Wharton	41,721	10,781	7,394	685	2,634	2,055	19	2,608	457	6,575	23,929
TOTAL:	7,398,774	1,927,208	894,440	122,452	460,317	325,709	3,366	385,518	93,373	1,036,292	4,839,676



Traffic Pollution and Health

With a high level of confidence, the Health Effects Institute found strong connections exist between traffic-related air pollution and early death due to cardiovascular diseases.

They also found strong links with:

lung cancer mortality
asthma onset in children & adults

acute lower respiratory infections in children



Health Effects Institute

75 Federal Street Suite 1400 Boston MA 02110 USA +1-617-488-2300 www.healtheffects.org

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NEW DETAILED REVIEW FINDS STRONGER LINKS BETWEEN ADVERSE HEALTH EFFECTS AND TRAFFIC POLLUTION

Expert Panel Reviewed More Than 350 Traffic Studies Spanning Forty Years.

BOSTON, MASSACHUSETTS, JUNE 22, 2022 – A comprehensive new scientific review released today by the Health Effects Institute (HEI) found growing confidence in the links between several adverse health effects and traffic related air pollution (TRAP). The review, the largest of its type to date, was conducted by a panel of thirteen renowned experts who evaluated 353 published scientific reports on traffic pollution and related health effects between 1980 and 2019.

Following HEI's widely cited 2010 TRAP report, HEI appointed a new panel in 2018 to evaluate evidence of long-term exposure to TRAP and selected adverse health outcomes. The panel found a high level of confidence that strong connections exist between TRAP and early death due to cardiovascular diseases. A strong link was also found between TRAP and lung cancer mortality, asthma onset in children and adults, and acute lower respiratory infections in children. Of the studies reviewed, 118 examined respiratory effects in children and included populations residing in a wide range of countries, with a majority based in Europe and North America.

"Traffic pollution clearly remains an important public health concern across the globe," said Hanna Boogaard, HEI Consulting Principal Scientist and member of the review panel. "This report provides the evidence to inform policymaker actions to mitigate the consequences of traffic pollution."



Transportation and Environmental Justice

President Biden has directed the entire federal government and the Environmental Protection Agency (EPA) to prioritize protecting and investing in overburdened and underserved communities across America. EPA plays a leading role in delivering environmental and public benefits for communities with environmental justice (EJ) concerns through our policies, programs, and activities.

Pollution from the transportation sector has been a long-standing obstacle to advancing environmental justice, as many communities of color and low-income families live near areas where pollution from vehicles and engines is abundant, and therefore experience disproportionate exposures to this pollution.

nnouncement

egulatory

EPA has a number of efforts underway to address pollution from the transportation sector.

EPA's Comprehensive Approach to New Criteria and Greenhouse Gas Standards for Medium- and Heavy-Duty Trucks

As identified in President Biden's Executive Order 14037, Strengthening American Leadership in Clean Cars and Trucks, over the next three years EPA plans to issue a series of regulations to reduce pollution from trucks and buses and to harness improvements in vehicle technologies. EPA's "Clean Trucks Plan" would result in significant emissions reductions from new medium- and heavy-duty vehicles and will be a major step towards improving air quality and addressing the climate crisis.

The regulatory actions that make up the Clean Trucks Plan are as follows:

Office of Transportation and Air Quality

US EPA reports 72 million Americans live near truck freight routes.

Communities near high-traffic roadways experience higher rates of numerous adverse health effects.

Residents of these communities are more likely to be people of color and have lower incomes.



Zeroing In on Healthy Air



Health Benefits of Zero-Emission Trucks and Electricity



100% noncombustion electricity generation in the national power grid 100% full emission passenger vehicle sales

2040

2020 2035

100% zeroemission mediumand heavy-duty
vehicle sales in the
United States

2050



\$1.2 Trillion in public health benefits.

How?





110,000 premature deaths avoided



2.7 Million asthma attacks avoided



13.4 Million lost work days avoided



In Texas, \$104 billion in public health benefits

By 2050:

9,320 premature deaths avoided

346,000 asthma attacks avoided

1.5 million lost work days avoided

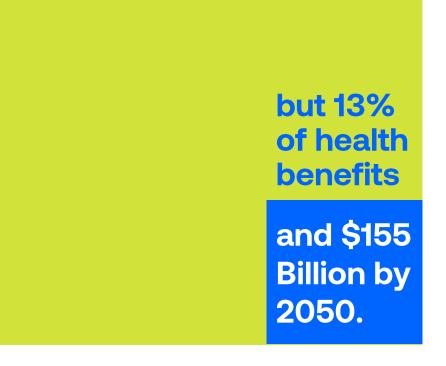
		Cumulative Public Health Benefits 2020-2050					
Top 25 Metro Areas, Public Health Benefits		Health Benefits (Billions)	Premature Deaths Avoided	Asthma Attacks Avoided	Lost Work Days Avoided		
1.	Los Angeles-Long Beach, CA	\$95.5	8,680	241,000	1,210,000		
2.	New York-Newark, NY-NJ-CT-PA	\$84.2	7,660	206,000	1,070,000		
3.	Chicago-Naperville, IL-IN-WI	\$46.5	4,230	113,000	552,000		
4.	San Jose-San Francisco-Oakland, CA	\$42.5	3,850	113,000	561,000		
5.	Philadelphia-Reading-Camden, PA-NJ-DE-MD	\$41.1	3,760	86,600	424,000		
6.	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA	\$38.9	3,540	104,000	516,000		
7.	Miami-Port St. Lucie-Fort Lauderdale, FL	\$36.5	3,320	62,300	342,000		
8.	Houston-The Woodlands, TX	\$33.4	3,000	130,000	568,000		
9.	Detroit-Warren-Ann Arbor, MI	\$29.2	2,690	55,100	268,000		
10.	Dallas-Fort Worth, TX-OK	\$28.0	2,530	88,300	405,000		



Equity matters.

The 100 counties with the highest % people of color represent...

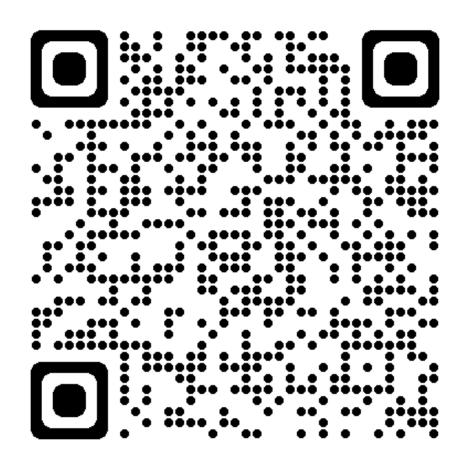






Get Involved: Advocacy Opportunity

Call on Biden Administration to Set Stronger Standards







Questions? Ask now or anytime



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