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Contacts:

Richard Wiles (202) 667-6982

Bill Walker (415) 561-6598

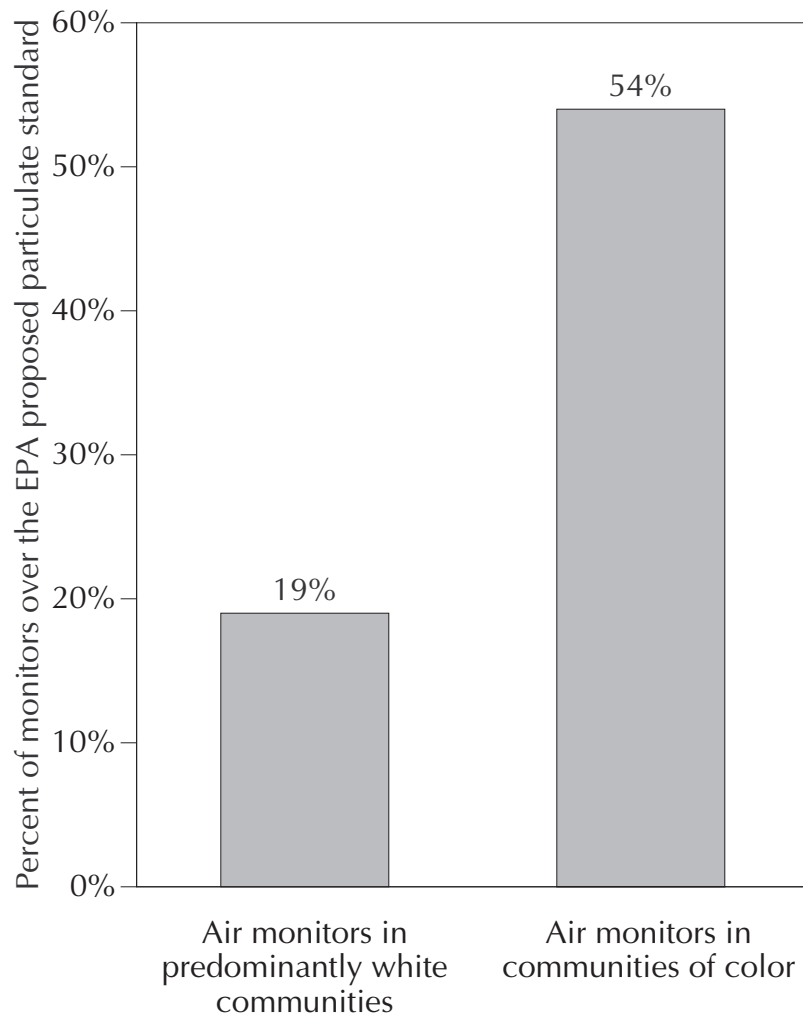
People of Color in California Breathe the Most Heavily Polluted Air

Summary

Residents of communities of color in California will be among the prime beneficiaries of an embattled EPA proposal to cut toxic airborne particle pollution by half. An Environmental Working Group (EWG) analysis of air pollution data from 161 locations across the state shows that residents of communities of color are nearly three times more likely to breathe dangerous levels of air pollution than Californians living in predominantly white communities (Figure 1).

Major polluters, under the guise of various front groups led by Citizens for Sound Economy, are waging a major misinformation campaign to undermine the EPA proposal (EWG 1997, Washington Post 1996). One strategy being employed is to target communities of color with a message that EPA's proposed health standard will place undue financial burdens on black and minority small business owners. To the contrary, control strategies for particle pollution have been, and will continue to be directed at large industrial polluters and electric utilities who account for the vast majority of all deadly particle pollution. None of the top airborne particle polluters is a minority-owned small business.

Figure 1. Residents of California communities of color are nearly three times more likely to breathe heavily polluted air than residents of predominantly white communities.



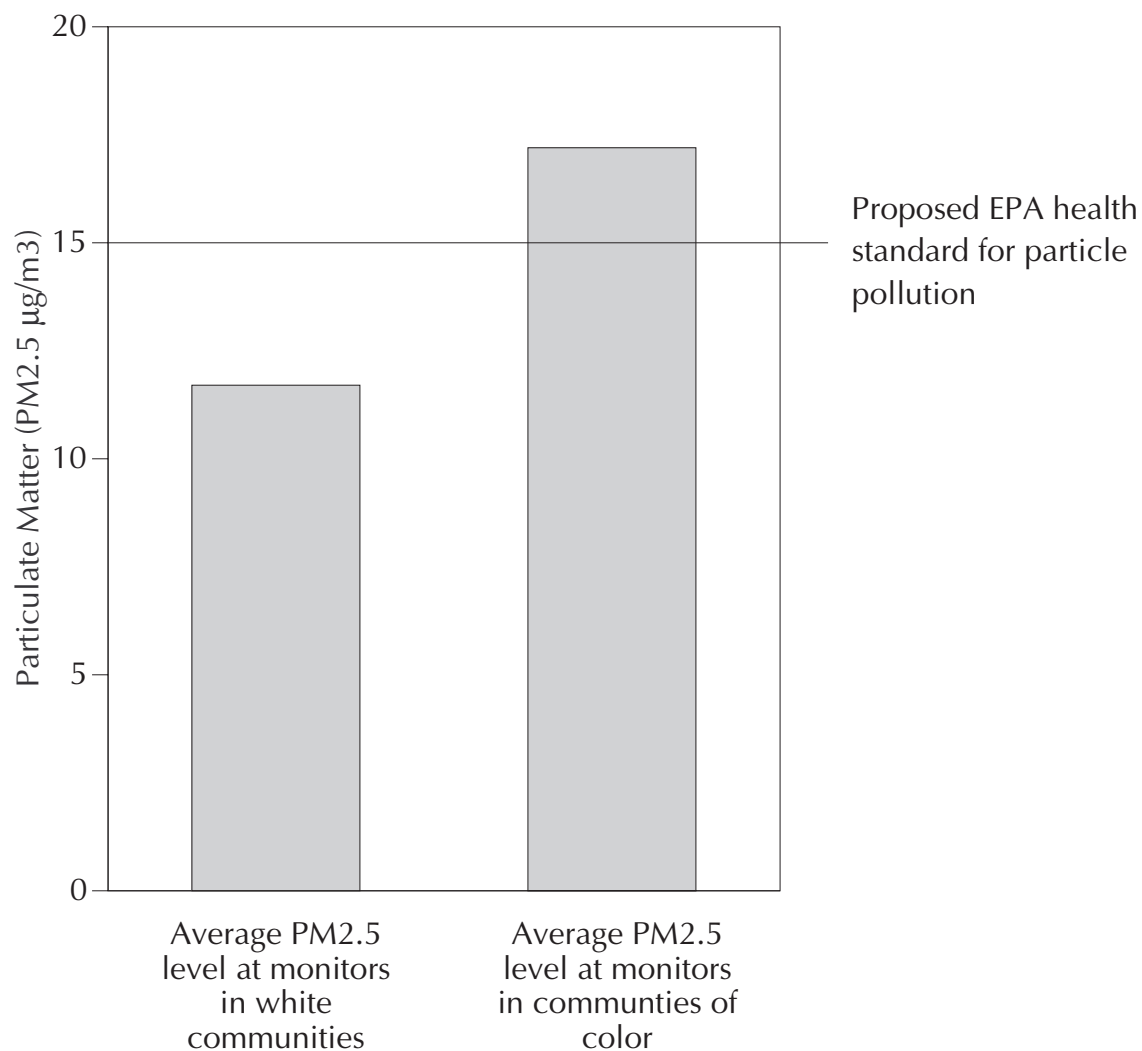
Public relations campaigns designed to raise fears of economic devastation within the black and minority owned business community are largely unsubstantiated. Worse, these campaigns shift attention from the serious health threat that airborne particles pose to the people who live where many of these businesses are located.

Results

EWG's analysis of air pollution data from 161 air quality monitors in California show that residents of communities of color have a 54 percent chance of breathing unsafe levels of airborne toxic particles, compared to a 19 percent chance in predominantly white communities

The average annual level of airborne toxic particles in communities of color was 17.2 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$), compared to an average yearly level of 11.7 $\mu\text{g}/\text{m}^3$ in predominantly white communities (Figure 2). The EPA proposed standard for this microscopic soot is 15 $\mu\text{g}/\text{m}^3$.

Figure 2. Airborne toxic particle levels in communities of color in California exceed the EPA's proposed health standard



These data are the result of a computer-assisted analysis of air pollution levels in California that examined the racial composition of the population within a 2-mile radius of all air pollution monitors in the state. Data from 161 air pollution monitors were used for the analysis, 52 from communities of color, 109 from predominantly white communities. Air monitors are maintained by the California Air Resources Board, a division of the California EPA. Measurements from the monitors are used to determine compliance with federal and state air quality standards.

The results of this study are based on calculated levels of PM_{2.5}, which is comprised of particles that are 2.5 microns or smaller. A micron is one-millionth of a meter, or about one-seventieth the size of a human hair. PM_{2.5} levels are calculated based on ambient PM₁₀ measurements using EPA's median 24 hour PM_{2.5}/PM₁₀ mass concentration ratios, which take geographic variability into account (EPA 1996a). Data on PM₁₀ are from the EPA's Aerometric Information Retrieval System (AIRS) database.

According to the 1990 census, 42 percent of the population of California was classified as Hispanic, black, Asian, native American or another non-white race. Hispanic is not considered a racial classification by the census. For purposes of this analysis all Hispanics were classified as non-whites. Using this assumption, 58 percent of the California population was classified as white in the 1990 census. A community was considered a community of color if the population in all of census tracts with center points within 1.8 miles of an air pollution monitor had a non-white population greater than 42 percent.

Airborne Toxic Particles Cause Thousands of Premature Deaths in California Each Year

Peer reviewed studies consistently show that air pollution particles less than 2.5 microns (μm) in diameter present a serious risk to human health (EPA 1996c). A micron (μg) is roughly 1/70th the width of a human hair. This highly hazardous class of air pollutants includes elemental carbon (soot from industrial smokestacks), diesel exhaust, various toxic metals such as lead, copper, nickel, zinc and cadmium, and fine aerosols formed from sulfur and nitrogen oxides and organic compounds such as phenols (EPA 1996a, EPA 1996c). These tiny toxic particles penetrate into the deepest regions of the lungs and cause the premature death of 35,000 people each year (EPA 1996c, EPA 1997). In California, more than 2,600 people die prematurely each year from microscopic particle air pollution.

There are two basic types of fine particulate pollution. Direct emissions of fine particles, which include elemental carbon and metals, or soot, typically released by coal-fired power plants, steel mills, diesel engines, and other coal and oil burning industrial processes. And secondary particles, which are formed after a series of chemical reactions in the atmosphere transform "particulate precursors", sulfur dioxide, nitrogen oxides, and volatile organic compounds into fine (extremely small) aerosols. Fine aerosol precursors are

spewed into the atmosphere from power plants, oil refineries, steel mills, cars and trucks, and other manufacturing and industrial facilities.

The Clinton Proposal Would Cut Airborne Particle Pollution in Half

In November 1996, the EPA proposed a new health standard for particle pollution which for the first time proposed to regulate particles less than 2.5 microns in diameter, or so-called PM_{2.5}. The EPA proposal would allow 15 µg of PM_{2.5} in a cubic meter of air, reducing by half the levels of these particles currently allowed in the air. In combination with other ongoing efforts to control sulfur dioxide emissions at electric utilities, EPA's new health standard would save 35,000 lives per year (EPA 1996, EPA 1997).

The California Air Resources Board, at public hearings held in Sacramento in January of this year, recommended an even tougher standard for particulates of 12 µg/m³. The benefits of this added level of protection would accrue primarily to residents of communities of color across the state.

Big Polluters, Not Small Minority Owned Businesses Will Have To Pay For Clean Air

Major polluters, under the guise of various front groups, are waging a major misinformation campaign to undermine the EPA proposal (EWG 1997, Washington Post 1996). One strategy being employed is to target communities of color with a message that EPA's proposed health standard will place undue financial burdens on black and minority small business owners. In fact, the opposite is true.

Large industrial "smokestack" polluters contribute 96 percent of the sulfur dioxide, 56 percent of the traditionally inventoried direct particulates, and 48 percent of the nitrogen oxides that ultimately comprise fine particles in the air we breathe. Regulations to control particle pollution will first regulate these huge industrial polluters. Indeed, that is why these corporations have funneled millions of dollars into a campaign to block EPA's new health standard. Few of these major polluting industries are owned by people of color. None of them could be classified as minority-owned small businesses (EWG 1997).

Conclusions

Air pollution with extremely small airborne particles causes the premature death of thousands of Californians each year (EWG 1997, NRDC 1996). According to EWG's analysis of air pollution monitors from all across the state, the burden of breathing this polluted air falls disproportionately on communities of color.

To address this serious public health problem, the EPA has proposed to reduce fine particle air pollution by half. If implemented, the EPA's proposal will provide dramatic health benefits to communities of color in California. If instead, these rules are compromised and the proposed levels of protection are reduced, people living in communities of color in California will disproportionately suffer the potentially fatal consequences of high levels of particle pollution in the air they breathe.

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