What Americans 'Know' about Air Pollution Is False

By Joel Schwartz

"Smog is out of control in almost all of our major cities." The Sierra Club penned these words in November 2001 after the nation had achieved its two lowest smog years ever.

In 2002, near the end of a fourth consecutive record-low year for soot pollution, the Public Interest Research Group published *Darkening Skies*, which claimed soot pollution was increasing.

Writing in November 2002, *New York Times* columnist and Princeton economist Paul Krugman predicted large increases in air pollution and warned Americans, "it might be a good idea to breathe now, while you still can." Air pollution has since reached new record lows.

In April 2004, when exceedances of the federal 1-hour ozone standard had declined 95 percent since the 1970s, the *Washington Post* lamented, "Ozone pollution has declined *slightly* over the past 30 years" (emphasis added).

Misinformation Effective

Unfortunately, misinformation has been the standard in public portrayals of air quality in the past few decades. It is therefore no surprise that Americans respond pessimistically when polled about air pollution.

For example, 38 percent of respondents to a 2004 Wirthlin poll said air pollution had gotten worse during the previous decade, while 31 percent thought it had stayed the same.

Most Americans also believe air quality will worsen in the future. A 1999 *Washington Post* poll reported 51 percent of Americans believed air pollution would greatly increase, up from 44 percent in 1996. Nothing could be further from the truth.

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Trend Preceded Fed Regs

The nation's spectacular progress on air pollution began long before the 1970 Clean Air Act federalized air quality policy. Pittsburgh, once America's smokiest city, reduced airborne soot levels 75 percent between the early 1900s and the late 1960s.

In the late 1940s, Los Angeles became the first city to experience an ozone smog problem, fueled by rapid increases in population and driving. But ozone was on the decline by the early 1950s and has been dropping ever since.

Air quality has continued to improve since 1970. Virtually the entire nation now attains federal standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead, and levels of these pollutants continue to decline.

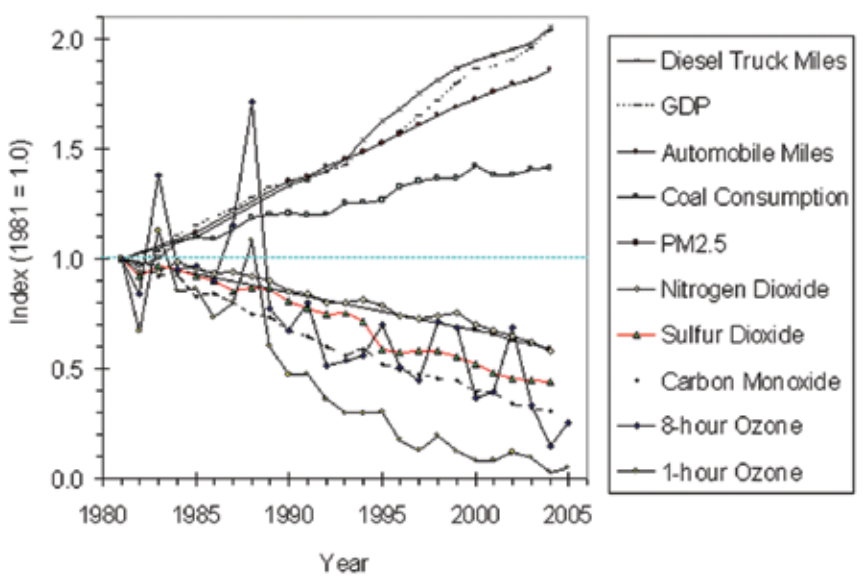
Some areas still violate federal standards for ozone and fine particulate matter (PM2.5), but these pollutants also have been dropping. Average PM2.5 levels are down more than 40 percent since the early 1980s, when the first nationally representative data were collected. Days per year exceeding the 8-hour ozone standard are down 80 percent since 1975.

Economy Up, Pollution Down

What makes these air quality improvements so extraordinary is that they occurred during a period of rapid increases in pollution-generating activities. The accompanying figure compares trends in driving, energy use, and economic activity with air pollution levels. All variables are indexed to a common value of 1.0 in 1981 (the first year with nationally representative PM2.5 data), while later years show the percentage change over time compared to the 1981 baseline. Values below 1.0 represent decreases, while values above 1.0 represent increases.

As the graph shows, despite large increases in driving and energy use, air pollution of all kinds sharply declined. Motor vehicles, power plants, factories, and consumer products became cleaner much faster than driving, energy use, and economic activity increased.

National Trends in Transportation, Energy, and Economic Activity vs. Trends in Air Pollution Levels, 1981-2005



Data sources: Environmental Protection Agency, Federal Department of Transportation, Bureau of Economic Analysis, and Energy Information Administration.

Nitrogen dioxide and sulfur dioxide levels are based on annual averages. Carbon monoxide is based on the second highest 8-hour average each year. Ozone is based on the annual number of exceedances each year. GDP = gross domestic product; PM2.5 = fine particulate matter.

Emissions will continue to decline. Federal regulations already adopted will reduce emissions of the average automobile, diesel truck, and off-road diesel engine by about 90 percent during the next two decades, while power plant emission caps will be lowered by more than 70 percent. Dozens of additional regulations will eliminate most remaining pollution from other sources.

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Facts Suppressed

Rather than highlight these successes, activists, regulators, and journalists have worked hard to hide them. This essay opened with several examples. Here's one more.

As the pollution trend graph shows, based on the 8-hour ozone standard the past three years have been the three lowest-ozone years on record. EPA determines ozone compliance based on the most recent three years of monitoring data. As a result of these three record-low ozone years, the national 8-hour ozone attainment rate skyrocketed from 57 percent of monitoring sites in 2003 up to 88 percent by the end of 2005.

You might think this stunning improvement in Clean Air Act compliance would shake loose a few accolades from opinion leaders. But just the opposite happened. Late in 2005 the environmental group Clean Air Watch proclaimed "Smog Problems Nearly Double in 2005." A Pennsylvania Department of Environmental Protection news release warned, "Number of Ozone Action Days Up from Last Year." And EPA's New England regional office noted, "New England Experienced More Smog Days during Recent Summer." Writing on 2005 ozone levels in Connecticut, a *New York Times* headline declared, "A Hot Summer Meant More Smog."

As the graph shows, although 2005 had the second-lowest 8-hour ozone levels on record, 2005 was indeed worse than 2004. Ozone can vary quite a bit from year to year, mainly due to weather. All else equal, hotter, drier, less-windy years will have higher ozone levels than cool, wet, windy years. Ozone levels were so improbably low in 2004 that it would have been astounding if ozone hadn't been higher in 2005.

The real news was that 2005 was one of the hottest years on record, yet ozone levels remained at historic lows for the third year in a row. The result was an unprecedented increase in compliance with federal clean air standards. Environmental fear-mongers turned a story of success into a fabricated tale of failure.

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Skepticism Needed

Uncovering misleading information on air pollution makes for good sport, but the ubiquitous exaggeration of air pollution levels and manufacturing of fake pollution increases has disturbing implications. Activists and regulators depend on public fear and outrage over air pollution to maintain and enhance their power and budgets. As the polls show, their phony gloom and doom stories have been all too successful in misleading Americans to overestimate the risks we face. The exaggerations and fabrications have now been repeated so often that they have become "common knowledge."

Journalists should be acting as a check on these distortions, but they are not. Journalists, like much of the public, consider environmentalists and regulators to be virtuous guardians of the public good. According to journalistic ethics, however, they should be treated with the same skepticism as any other interested parties in regulatory debates.

Perhaps more skepticism. As Adam Smith is said to have observed, "Virtue is more to be feared than vice, because its excesses are not subject to the regulation of conscience."

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