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Summary

Many people believe that air pollution, especially in cities, is getting worse. However, empirical data clearly shows that air quality has been steadily improving for the past 30 years. The primary reason is that technological innovation allows us to switch to cleaner-burning fuels, and to more effectively control the pollution generated by those fuels.

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Clean Air: An Environmental Success Story

By John A. Charles

Headline writers know that bad news sells, thus few people are aware of the improvements that have been made in air quality since 1970. The fact is, our nation's air is probably healthier now than at any time in the last 200 years.

Convincing people of this is difficult because the clean-up has come in small increments over a long period. Thus, many tend to have out-of-date perceptions. For example, in a poll conducted in January 2002 by Wirthlin Worldwide for the Foundation for Clean Air Progress, 66 percent of Americans surveyed believed that air quality has gotten worse in the last 10 years, while only 28 percent believed that air quality has improved.

Yet, according to the Environmental Protection Agency, aggregate emissions of the six major pollutants regulated under the Clean Air Act have declined 29 percent since 1970. This occurred even though the U.S. economy grew 150 percent, auto travel increased by 143 percent, and total U.S. energy consumption (the primary source of emissions) increased 45 percent during that period.

Ambient levels of lead have dropped so dramatically — 97 percent since 1976 — that for all practical purposes, it has been eliminated as an airborne health risk.

The trends in Oregon have mirrored those at the national level. In 1988, there were eight Oregon cities that were in violation of federal clean air standards. Today there are none.

The air pollution monitors that the Oregon Department of Environmental Quality maintains throughout the state provide dramatic evidence for this success. For example, a monitor in Bend for fine particulate (known as PM-10, or “particulate matter less than 10 microns in size”), shows that in 1993, the average level of exposure during an 8-hour period was 36.1 micrograms per cubic meter of air. By 2000, it had dropped to 25.2, a decline of nearly 33 percent. The federal standard is 50, which means Bend residents are being exposed to levels of pollution far below that which is deemed unhealthy.

At the Peterson School monitoring site in Klamath Falls, PM-10 levels in 1990 were 46.2; in 2000 they were only 17.7. A monitor at the Central Fire station in Portland showed 8-hour averages of 27.3 in 1990, and 23.7 in 1999.

Automobiles are the largest source of air pollution, and because we all drive so much, many environmentalists predict an increase in pollution during the next decade. However, improvements in automotive technology are outpacing our driving habits, which means we can continue to expect improving air quality in the future.

This was made impressively clear in the modeling that was recently done by the I-5 Trade Partnership, a bi-state group that spent more than a year developing plans to improve traffic conditions in the I-5 corridor between Portland's Fremont Bridge and Vancouver, Washington. According to the Partnership analysis, "In the future air quality is expected to be considerably better than it is today for carbon monoxide (CO), volatile organic compounds (VOC), and nitrogen oxides. This is primarily due to cleaner burning fuels and lower emission vehicles."

Comparing existing conditions to the 2020 forecast, the report predicts a 30 percent reduction for CO, a 73 percent reduction in VOC, and an 85 percent reduction in nitrogen oxides, despite significantly increased levels of driving.

We still face air pollution challenges at certain locations or on certain days when meteorological conditions are bad, but chronic urban smog has disappeared from the American landscape. This is one of the great environmental success stories of the 20th century.

John A. Charles is environmental policy director at Cascade Policy Institute, a Portland, Oregon think tank. Information on air pollution levels can be found at www.cleanairprogress.org/your_state_air/index.asp, or www.epa.gov/air/data/index.html.

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