

## WRI FACT SHEET

# For EPA Regulations, Cost Predictions Are Overstated

**Environmental regulations generally end up costing far less than predictions from industry and the EPA.**

**W**hen EPA promulgates regulations, industry often expresses concern that the regulations will cause extreme economic hardship. Now this argument is being made regarding EPA regulation of carbon pollution using existing legal authorities like the Clean Air Act.<sup>1</sup>

In fact, there is extensive literature showing that the costs of environmental regulations are more than offset by a broad range of economic, public health and jobs-related benefits. Additionally, initial cost estimates are consistently found to be overstated. Economists and researchers who have compared actual costs with initial projections report that regulations generally end up costing far less than the predictions from industry and even below cost projections by the Environmental Protection Agency.<sup>2</sup>

The latest effort to challenge EPA regulations<sup>3</sup> is being led by the U.S. Chamber of Commerce. Industry claims extend well beyond regulation of greenhouse gases: two recent industry-backed studies<sup>4</sup> attempt to show that tougher EPA emissions rules for boilers and a more stringent nationwide ozone standard could put millions of U.S. workers out of their jobs and shrink the nation's economy by upward of \$1 trillion.<sup>5</sup>

## HOW DO THE BENEFITS OF ENVIRONMENTAL REGULATIONS STACK UP TO THE COSTS?

Though costs have always been highlighted by industry — and many policymakers — the fact is that public benefits associated with environmental regulations consistently outweigh the costs. For example, the White House Office of Management and Budget (OMB) recently released its thirteenth annual Report to Congress,<sup>6</sup> detailing the estimated benefits and costs of federal regulations, finding that:

*“The estimated annual benefits of major Federal regulations reviewed by OMB from October 1, 1999, to September 30, 2009, for which agencies estimated and monetized both benefits and costs, are in the aggregate between \$128 billion and \$616 billion, while the estimated annual costs are in the aggregate between \$43 billion and \$55 billion.”<sup>7</sup>*

For clean air and water regulations promulgated by the U.S. Environmental Protection Agency over the same time period, the estimated aggregate annual costs range from \$26 to \$29 billion, while benefits range from \$82 to \$533 billion.<sup>8</sup>

## DOES ENVIRONMENTAL REGULATION FORCE U.S. FIRMS TO RELOCATE ELSEWHERE?

Few firms flee the United States to “pollution havens” in poor countries. Economics for Equity and the Environment Network<sup>9</sup> points out that:

*“Environmental costs are generally below 2 percent of total business costs. Firms that do leave the U.S. generally do so in pursuit of lower labor and health-coverage costs, expenditures that form a much higher percentage of their total costs. Economists searching for evidence supporting widespread flight of polluting industries have not found significant effects.”*

## IS ENVIRONMENTAL REGULATION A JOB KILLER?

Independent researchers who have examined this question say no.

Looking only at job losses inevitably ignores a larger truth: environmental spending creates jobs that offset losses. Compared to overall spending in the economy, on a per dollar basis, spending on environmental protection and clean-up employs more than twice as many workers in construction<sup>10</sup> (11 percent versus 4 percent) and 25 percent more in manufacturing<sup>11</sup> (20 percent versus 16 percent). Plant closings and layoffs in response to environmental regulation are very rare, affecting only 1/10th of 1 percent of all layoffs nationwide. Over that same 1990-1997 period, 10 million U.S. workers were laid off for non-environmental reasons.<sup>12</sup>

In a study of four heavily regulated industries (steel, petroleum, plastics, and pulp and paper) the data did not support claims that environmental spending significantly reduces employment in heavily polluting industries.<sup>13</sup>

## MOST STUDIES EXAMINE MACRO LEVEL (I.E., ECONOMY-WIDE) IMPACTS. BUT, WHAT ABOUT LOCAL IMPACTS?

Berman and Bui<sup>14</sup> tested whether regulation of air pollution in manufacturing plants in the South Coast Los Angeles region reduced employment. Among their conclusions:

- The data clearly ruled out conclusions that these regulations caused large job losses. Admittedly, the regulations did impose costs on regulated plants, but they had little effect on employment. Some contemporary critics misleadingly discuss job losses that resulted from declining military spending, but this was unrelated to environmental regulations.
- No plants were shut down by environmental regulations, nor were new startups dissuaded by environmental regulations, as measured in the Census of Manufactures.
- The oil industry in the South Coast did not shed any more or less jobs relative to similar facilities in Texas and Louisiana that were not subject to the same level of regulation.

- Regulated plants actually increased their energy productivity through technological changes, including cogeneration of electricity using waste gases.

Berman and Bui concluded: “This study carefully documents an important case in which [industry cost] projections grossly exaggerated the costs of regulation.”

## ARE THE GOVERNMENT’S OWN ESTIMATES OF JOB LOSSES RELIABLE?

For decades, OMB has required EPA to estimate the costs and benefits of proposed regulation (Executive Order 12291). Experts<sup>15</sup> compared EPA’s pre-regulatory cost estimates of the economic burden with what actually happened (including reduced productivity and lost jobs) when the regulations went into effect.

Their conclusion? Even EPA’s (and other agencies’) own pre-regulatory estimates of economic burden are overly pessimistic of the total costs. Often, this is because they underestimate the potential that technological change, including innovation and commercialization, minimizes pollution abatement costs.

## WHY DO EVEN EPA’S NUMBERS OVERESTIMATE THE COSTS OF REGULATION?

There are many reasons why EPA overestimates costs.<sup>16</sup> Here are a few:

- Economists do not own crystal balls to project technological innovation. In the acid rain (SO<sub>2</sub>) program (the model for climate change cap-and-trade proposals), scrubbing turned out to be more efficient and more reliable than expected. Pre-regulation, analysts assumed that scrubbers operate at 85 percent reliability and remove 80 to 85 percent of the sulfur. In fact, scrubbers typically run in excess of 95 percent reliability, removing 95 percent. The original estimate of opportunities to blend low and high sulfur coal in older boilers was a 5/95 mixture. In fact, industry was able to achieve a much more efficient 40/60 mixture.
- Industry often finds creative ways to meet standards at lower compliance costs, that aren’t anticipated in EPA’s pre-regulation estimates. For example, about two million tons of SO<sub>2</sub> reductions came from railroad deregulation that allowed industry access to low-sulfur, western coal. Government estimates sometimes calculate the maximum cost to industry rather than the mean — in other words, the worst rather than the average impact. Why? One reason is that the agency’s inventory of installed pollution control equipment may be out-of-date. It may not include the most recent pollution control investments, thereby overestimating the quantity of emissions reductions required to meet a particular goal.

- Industry is frequently the source of EPA's cost estimates because industry has direct access to the most relevant cost information. Agency officials must either refute or accept their estimates at face value; skepticism or mere suspicion of industry numbers is not a legally defensible reason to disregard them during the rulemaking process. Asked "what will it cost?" a firm's analyst may provide an "off-the shelf" compliance technology, when in fact a more considered approach would reveal that substantial cost savings can be achieved through innovation, for example.

The Office of Technology Assessment reached similar conclusions in a 1995 study<sup>17</sup> (one of the last they issued before being eliminated) of occupational health and safety regulation. OTA found that pre-regulatory cost estimates systemically under-predicted innovative responses and over-predicted impacts.

In conclusion, independent experts have demonstrated why initial claims about costs and job losses related to EPA action under the Clean Air Act should not be taken at face value.

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## ABOUT WRI

The World Resources Institute is an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people's lives. Our mission is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations.

## ENDNOTES

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3. <http://www.uschamber.com/press/releases/2010/august/us-chamber-challenges-wisdom-regulating-climate-change-under-clean-air-ac>
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7. The OMB report goes on to note that "These ranges reflect uncertainty in the benefits and costs of each rule at the time that it was evaluated."
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Links for all sources listed above are available at <http://www.wri.org/stories/2010/11/epa-regulations-cost-predictions-are-overstated>