### A QUICK GUIDE TO EPI'S RESEARCH ON THE COSTS AND BENEFITS OF REGULATIONS

#### ISAAC SHAPIRO

In 2011, the Economic Policy Institute conducted extensive research on the economic effects of regulations. This policy memorandum synthesizes our research on the costs and benefits of regulations. The research examines federal government cost-benefit data for major regulations, data focusing on the costs and benefits of Environmental Protection Agency regulations, and high-profile estimates that misleadingly inflate the costs of regulations. (See the companion paper, *A quick guide to the evidence on regulations and jobs*, released by EPI in October and updated in November.)

## Government data show that the benefits of regulations over time have significantly and consistently exceeded their costs

Estimating the costs and benefits of regulations is not a precise exercise. These estimates typically are based on a series of difficult and controversial assumptions and valuations and are unable to quantify all the effects of regulations. Still, federal government calculations typical-

ly provide a general sense of the consequences of most regulations, with the Office of Management and Budget's annual regulatory report to Congress providing the most comprehensive information available (though it only covers the major regulations that OMB reviews).

My analysis in March, *An unmistakable pattern*, went through the OMB data, which indicate that the benefits of government regulations have consistently and significantly exceeded their costs. The earliest OMB data reflect the agency's estimate of the combined effect of social regulations issued prior to 1999. (Social regulations include the rules issued by executive agencies such as the EPA; the nature of rules covered corresponds to the rules covered in the data cited below for 2000 onwards). The midpoint of the estimated range of benefits from these regulations was five times the mid-point of the range of estimated costs.

The general pattern has continued, covering regulations issued during Republican and Democratic administrations alike, according to OMB's year-by-year estimates

since 2000. In every year the benefits of newly issued regulations exceeded their costs. In fiscal 2010, for instance, the major regulations had combined benefits of \$18.8 billion to \$86.1 billion a year, significantly higher than the estimated costs of \$6.5 billion to \$12.5 billion a year. (OMB's calculations are in 2001 dollars; the figures here are slightly different from the figures used in my March analysis, reflecting OMB revisions).

The OMB reports emphasize the combined estimate of the costs and benefits over the past 10 years. OMB's latest such estimate, provided in the 2011 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities, finds that the combined benefits of the major regulations reviewed by OMB between fiscal 2001 and fiscal 2010 amounted to \$132 billion to \$655 billion a year, far exceeding their estimated costs of \$44 billion to \$62 billion a year.

# Obama EPA rules have small compliance costs as a share of GDP, and the rules' costs are neutralized by their economic benefits and dwarfed by their health benefits

Perhaps no set of regulations has received more criticism this year than those rules advanced by the Environmental Protection Agency. This criticism is unfounded.

Through September, the combined compliance costs of all the major EPA regulations that have been finalized or proposed by the Obama administration will amount to just 0.1 percent of gross national product—or one-tenth of one percent of the economy—several years from now. (See EPI's September briefing paper, *The combined effect of the Obama EPA rules*, and, on EPI's *Working Economics* blog in September, "EPA and the economy: Much ado about 0.1 percent.") That is an amount that the overall economy can absorb, especially given the offsetting economic benefits of the rules, such as less spending on gaso-

line (due to more efficient cars) or more hours of work (due to healthier workers).

Indeed, as noted in my November blog post, "Economic benefits from two fuel standard rules alone offset much of modest compliance cost of all Obama EPA rules," the economic benefits of just two of the major rules finalized by the Obama administration's EPA exceed the compliance costs of all the final rules issued by the administration so far, and much of the potential compliance costs from the proposed rules. The two rules regulate greenhouse gas emissions from, and establish fuel standards for, various-sized vehicles. Specifically, the post noted:

In 2010 dollars, a conservative estimate...of the economic benefits from these two rules amounts to \$6 billion to \$20.6 billion a year. This range is above the range of estimated compliance costs for all 11 major rules finalized so far by the Obama EPA; that range is \$5.9 billion to \$12 billion a year. Even if the four major proposed rules are also taken into account, the economic benefits from the fuel standard rules alone offset much of the combined costs of the final and proposed rules (\$19.7 billion to \$27 billion a year).

These calculations exclude the costs and benefits of the just-released greenhouse gas and fuel standards for light duty vehicles, model years 2017–2025, since the new standards would not have effects over the next few years. Of note, however, in 2010 dollars the expected annual benefits from this final rule amount to \$26 billion to \$33 billion a year, well in excess of the annual compliance costs of \$6.5 billion to \$10.7 billion a year. The large majority of the benefits from the rule are economic (primarily reflecting savings to automobile owners who will spend less on gasoline), so the economic benefits of this rule exceed the economic compliance costs.

The miniscule compliance costs of the Obama EPA rules relative to the size of the economy, and the potential that these costs will be substantially or fully offset by the eco-

nomic benefits of the rules, indicate that it is appropriate to judge the rules based on their primary purpose: to improve public health by reducing pollution. On an annual basis, the EPA rules advanced by the Obama administration would save tens of thousands of lives, prevent tens of thousands of non-fatal heart attacks, and reduce the number of respiratory illnesses by hundreds of thousands of cases. As also discussed in the September EPI report, *The combined effect of the Obama EPA rules*, when monetized, the value of the health and other benefits from the Obama rules dwarfs any compliance costs, ultimately producing net benefits that could amount to hundreds of billions of dollars a year.

Of further interest, any bias in the government cost estimates is likely to be that of overstating the costs of environment regulations. As discussed in our April report, Regulation, employment, and the economy: Fears of job loss are overblown, a series of studies have found that government estimates of the costs of major EPA regulations tend to be overstated. Among the reasons why is that the cost estimates fail to account for how innovation may lead to lower compliance costs; once rules are established, companies perform well at conforming to them in an efficient manner.

### Scary cost estimates are erroneous

A favorite talking point of regulatory opponents this year has been that the total cost of federal regulations amounts to \$1.75 trillion a year. This figure comes from *The Impact of Regulatory Costs on Small Firms*, a September 2010 study for the Small Business Administration by Nicole V. Crain and W. Mark Crain. But the estimate is a gross exaggeration. It has been debunked by multiple sources, including the Congressional Research Service in its April 2011 report, *Analysis of an Estimate of the Total Costs of Federal Regulations;* Austan Goolsbee, former chairman of the president's Council of Economic Advisers, in his White House blog post, "A 21<sup>st</sup> Century Regulatory System" and the Center for Progressive Reform in its Fe-

bruary 2011 white paper, Setting the Record Straight: The Crain and Crain Report on Regulatory Costs.

A July 2011 study by EPI's John Irons and Andrew Green is especially telling. The study, Flaws call for rejecting Crain and Crain model: Cited \$1.75 trillion cost of regulations is not worth repeating, examines Crain and Crain's estimate of the costs of economic regulation, an estimate accounting for 70 percent of the overall estimate. According to Irons and Green, the economic regression model used to determine these costs contains a series of fundamental flaws, including a reliance on an international data set rife with holes (spotty data typically produces spotty findings), as well as a mis-specified regression that confuses regulatory stringency with regulatory quality. The flaws in the model likely explain why the Crain and Crain regression also produces the counterintuitive finding that increased education in a country leads to less economic growth—that the model produces such a result is reason alone to be skeptical of the overall cost estimate.

Irons and Green correct for just one of the problems with the regression—they fill in the spotty data set—and find no statistically significant relationship between Crain and Crain's measure of regulation and economic outcomes. This implies that the net costs of economic regulations cannot be distinguished from zero, an unsurprising result when one considers that certain regulations, such as financial regulations, can stabilize the economy, thereby promoting economic growth.

In our August issue brief, *Deconstructing Crain and Crain: Estimated cost of OSHA regulations is way off base*, Ross Eisenbrey and I dig into another component of the Crain and Crain study: its estimate of the cost of occupational safety and health regulations. According to our analysis, this estimate is also unsupportable and vastly overstated: The combined costs of OSHA regulations adopted over the past 10 years amount to about a half billion dollars a year (cost estimates for rules issued beyond a decade

ago become increasingly irrelevant; changing technologies and practices lead to different compliance cost estimates over time). But Crain and Crain add in \$64 billion in costs from regulations issued prior to 2001. Among other flaws, we find that this particular Crain and Crain estimate is based "in great part on a 2005 study that uses unreliable, methodologically inconsistent estimates of major regulations adopted two to four decades ago—estimates which do not adequately account for changes in production practices or adaptations made to adjust to the regulations." We note that:

The 2005 study that serves as the major basis of the estimate also double counts fines and vastly overestimates the costs of minor regulations pre-2000 by using a multiplier pulled from a 1996 study based on a 1974 National Association of Manufacturers' survey of unknown and unknowable quality. This faulty multiplier assumes that in combination minor regulations cost far more than major regulations when in fact they cost less.

Crain and Crain also do not consider any benefits from regulations. The use of one-dimensional estimates of the effects of regulations leads to a distorted discussion, a lesson demonstrated many times over the past year, including during a late-August exchange between Speaker of the House John Boehner and President Obama over proposed "billion-dollar" rules. Speaker Boehner requested

that the administration provide him with a list of all proposed rules with compliance estimated to cost over one billion dollars, which the administration did, without describing the benefits. This led to much coverage about upcoming costly rules.

The discussion might have been different if Speaker Boehner had requested, or President Obama had provided, estimates of the benefits of the rules. The same government reports that contain the costs of these rules also list their benefits. In 2010 dollars, the benefits from the six extant rules on the president's list would amount to \$83 billion to \$218 billion a year, well in excess of their estimated costs of \$19 billion to \$20 billion a year (see my September blog post, "Obama's 'billion-dollar' rules could provide annual benefits approaching \$200 billion"). Combining the effects of the two rules with the largest benefits, each year from 9,300 to 23,500 lives would be saved; 15,000 fewer heart attacks would occur; 303,000 fewer cases of respiratory illnesses would arise; and individuals would work 1.16 million more days (because they are not too sick to go to work).

In the midst of the heated, often rhetorical discussions about the effects of government regulations, it is important to consider, with appropriate qualifications, the available cost and benefit data. EPI research this year suggests that regulations past, and regulations forthcoming, perform well on these grounds.