



***Small Business, the Economy and Regulatory Realities in Light of
EPA's Proposed Ozone Standards***

**Testimony by
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**Before the
Committee on Science, Space, and Technology
U.S. House of Representatives**

**The Honorable Lamar S. Smith, Chairman
The Honorable Eddie Bernice Johnson, Ranking Member**

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Protecting Small Business, Promoting Entrepreneurship

Chairman Smith, thank you for hosting this important hearing today on the Environmental Protection Agency's (EPA) proposed ozone standards.

The Small Business & Entrepreneurship Council (SBE Council), along with its Center for Regulatory Solutions, is pleased to submit this testimony.

My name is Raymond Keating, and I am the chief economist for SBE Council, as well as serving as an adjunct professor in the Townsend Business School at Dowling College where I teach a variety of courses in the MBA program; a weekly newspaper columnist for *Long Island Business News*; and author of several books, with the latest being *Unleashing Small Business Through IP: Protecting Intellectual Property, Driving Entrepreneurship*.

SBE Council is a nonpartisan, nonprofit advocacy, research and training organization dedicated to protecting small business and promoting entrepreneurship. With nearly 100,000 members and 250,000 small business activists nationwide, SBE Council is engaged at the local, state, federal and international levels where we collaborate with elected officials, policy experts and business leaders on initiatives and policies that enhance competitiveness and improve the environment for business start-up and growth. The Center for Regulatory Solutions is a project of SBE Council.

On November 25, 2014, the EPA proposed to tighten the National Ambient Air Quality Standards (NAAQS) pertaining to ozone. The new regulation would reduce the standard from the 75 parts per billion (ppb) – which was set in 2008, down from 84 ppb – to a range of 65 to 70 ppb, with the agency seeking comments on a regulation as low as 60 ppb.

We at SBE Council are concerned about the considerable costs involved with these new regulations, including the resulting impact for entrepreneurship, small business and the economy. This testimony touches on three important points: 1) the realities of regulation, 2) economic costs and nonattainment under the EPA proposed ozone regulations, and 3) the proposed ozone regulations disproportionate impact on small business and new business formation.

The Realities of Regulation

As we look at the EPA's proposal to tighten the NAAQS pertaining to ozone, it must be made clear that the costs of regulations are real and significant facts of economic life about which small businesses are too often painfully aware.

Despite real and significant costs, some policymakers seem unconcerned or dismissive about regulatory costs. Indeed, some who call for increased regulation actually claim that such government mandates and rules spur innovation and related job gains. This view of regulation is troubling.

Economics 101 makes clear what to expect from increased regulation – that is, higher costs for businesses and consumers, reduced market exchanges and expanded political control, resources allocated based on political dictates and influences (such as rent seeking) rather than via competition and consumer sovereignty, and therefore, diminished economic growth.

The tremendous amounts of resources funneled into dealing with government regulatory dictates are not about innovation and new jobs. Rather, they are about massive opportunity costs, that is, effectively what is lost because resources must be used for complying with government regulations.

Again, some pro-regulation advocates will actually claim that regulations imposed in the past have cost the U.S. economy little or nothing. They not only ignore what would have happened absent those regulations, but also the simple economic fact that increased regulations on

businesses mean that business costs increase, that is, as taught in Economics 101, the firm's cost curve shifts upward.

Economists John Dawson at Appalachian State University and John Seater at North Carolina State University recently looked at the impact of federal regulation on economic growth ("Federal Regulation and Aggregate Economic Growth," January 2013). The authors point to a dozen previous studies performed looking at the impact of regulation on the macroeconomy, noting, "Almost all these studies conclude that regulation has deleterious effects on economic activity." Dawson and Seater's findings certainly were striking. They reported: "We find that regulation has statistically and economically significant effects on aggregate output and the factors that produce it—total factor productivity (TFP), physical capital, and labor. Regulation has caused substantial reductions in the growth rates of both output and TFP and has had effects on the trends in capital and labor that vary over time in both sign and magnitude."

Specifically:

"Regulation's overall effect on output's growth rate is negative and substantial. Federal regulations added over the past fifty years have reduced real output growth by about two percentage points on average over the period 1949-2005. That reduction in the growth rate has led to an accumulated reduction in GDP of about \$38.8 trillion as of the end of 2011. That is, GDP at the end of 2011 would have been \$53.9 trillion instead of \$15.1 trillion if regulation had remained at its 1949 level."

The authors added:

"Our results are qualitatively consistent with those obtained from studies using the various cross-country and panel data sets on regulation. Quantitatively, our estimated impact of regulation on aggregate output, large as it is, is similar to or lower than the micro-level impacts estimated in the cross-country and panel data studies. The cross-country and panel data are constructed very differently from our data, covering a subset of total regulations but over an array of countries. It thus seems that regulation has strong and robust negative effects on aggregate output."

Of course, there is much more on the costs of regulation beyond the Dawson and Seater study, and the dozen studies they note. For example, in "Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State, 2014 Edition," Clyde Wayne Crews Jr. reported: "The estimated cost of regulation exceeds half the level of the federal budget itself. Regulatory costs of \$1.863 trillion amount to 11.1 percent of the U.S. gross domestic product (GDP), which was estimated at \$16.797 trillion in 2013 by the Bureau of Economic Analysis." That's a serious drain and drag on the private sector. To put this in perspective, Crews noted: "U.S. households 'pay' \$14,974 annually in regulatory hidden tax, thereby 'absorbing' 23 percent of the average income of \$65,596, and 'pay' 29 percent of the expenditure budget of \$51,442. The 'tax' exceeds every item in the budget except housing. More is 'spent' on embedded regulation than on health care, food, transportation, entertainment, apparel and services, and savings."

For good measure, the Small Business Administration's Office of Advocacy periodically estimates regulatory costs, obviously with an eye towards the burdens imposed on smaller businesses. In September 2010, the Office of Advocacy published an updated study estimating the costs of complying with federal regulations. The study – "The Impact of Regulatory Costs on Small Firms" by Nicole V. Crain and W. Mark Crain from Lafayette College – provided details regarding the burdens of federal regulatory costs. For example:

- The annual cost of federal regulations registered \$1.75 trillion in 2008.
- For firms with less 20 employees, the per-employee cost registered \$10,585, which was 42% higher than the \$7,454 per employee cost for firms with 20-499 employees, and 36% higher than the \$7,755 for firms with 500 or more employees.
- On the environmental front, per employee regulatory costs for firms with less than 20 employees came in at \$4,101, which topped the \$1,294 cost for firms with 20-499 employees by 217% and the \$883 cost for businesses with 500 or more workers by 364%.
- Small manufacturers get hit particularly hard. Per employee regulatory costs for manufacturers with fewer than 20 employees came in at \$28,316, which was 110% higher than the \$13,504 for manufacturers with 20-499 employees and 125% more than the \$12,586 burden on companies with 500 or more employees. Again, serious cost differentials came in the area of environmental regulation, where per employee costs for manufacturers with fewer than 20 employees came in at \$22,594, which topped the \$7,131 for firms with 20-499 employees by 217% and exceeded the \$4,865 for firms with 500 or more workers by 364%.

Of course, it needs to be pointed out that small and mid-size businesses – that is, those with less than 500 workers – are central to economic growth and job creation. As the SBA’s Office of Advocacy has summed up (“Frequently Asked Questions About Small Business,” March 2014), small businesses account for 46 percent of private-sector output, and 98 percent of firms exporting goods. As for jobs: “Small firms accounted for 63 percent of the net new jobs created between 1993 and mid-2013 (or 14.3 million of the 22.9 million net new jobs). Since the end of the recession (from mid-2009 to mid-2013), small firms accounted for 60 percent of the net new jobs. Small firms in the 20-499 employee category led job creation.”

So, it is imperative to keep our thinking clear on the effects of regulation. Those effects certainly are not about being a spur to innovation and job creation, but in reality, just the opposite, as resources are drained away from market, private-sector inventions, innovation, and investments, and redirected according to political preferences.

Economic Costs and Nonattainment Under Proposed EPA Ozone Regulations

The EPA’s proposed ozone regulations promise to be no different in terms of imposing costs, except for the fact that these have been identified as being potentially the most costly federal regulations ever imposed.

In late February, NERA Economic Consulting updated a comprehensive study (“Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone”) of these EPA ozone regulations for the National Association of Manufacturers, assessing the economic impact of a 65 ppb NAAQS for ozone. Again, and unsurprisingly, the costs would be significant. Consider (with all dollar costs noted in real 2014 dollars) seven key findings from the study:

- 1. Lost Output and Jobs.** “Employing our integrated energy-economic macroeconomic model (NewERA), we estimate that the potential emissions control costs could reduce U.S. Gross Domestic Product (GDP) by about \$140 billion per year on average over the period from 2017 through 2040 and by about \$1.7 trillion over that period in present value terms. The potential labor market impacts represent an average annual loss employment income equivalent to 1.4 million jobs (i.e., job-equivalents).”

2. Reduced Household Consumption. “Average annual household consumption over those same years could be reduced by an average of about \$830 per household per year.”

3. The Full Labor Picture. “A loss of one job-equivalent does not necessarily mean one less employed person—it may be manifested as a combination of fewer people working and less income per worker. However, this measure allows us to express employment-related impacts in terms of an equivalent number of employees earning the average prevailing wage. These are the net effects on labor and include the positive benefits of increased labor demand in sectors providing pollution control equipment and technologies.”

4. Higher Energy Prices. “Emissions reduction costs of a 65 ppb ozone standard also is likely to have impacts on U.S. energy sectors, largely because the more stringent ozone standard is projected to lead to the premature retirement of many additional coal-fired power plants... The average delivered residential electricity price is projected to increase by an average of 1.7% over the period from 2017 through 2040 relative to what they could otherwise be in each year (which is projected to be rising even without a tighter ozone NAAQS). Henry Hub natural gas prices are projected to increase by an average of 3.7% in the same time period (again, relative to what they could otherwise be in each future year), while delivered residential natural gas prices could increase by an average of 3.7%. Part of the increase in delivered natural gas prices reflects the increase in pipeline costs due to control costs for reductions in NOX emissions in the pipeline system that could be recovered through tariff rates.”

5. Not the Complete Cost Story. It also must be noted that this latest analysis is not as complete as the study NERA published in July 2014. Time constraints did not allow for an updated analysis of how energy production could be affected in rural areas. As noted in the February 2015 report summary: “A tightened ozone standard has the potential to cause nonattainment areas to expand into relatively rural areas, where there are few or no existing emissions sources that could be controlled to offset increased emissions from new activity. If nonattainment expands into rural areas that are active in U.S. oil and gas extraction, a shortage of potential offsets may translate into a significant barrier to obtaining permits for the new wells and pipelines needed to expand (or even maintain) our domestic oil and gas production levels. The sensitivity analysis in our July 2014 report resulted in much larger natural gas price effects, and raised macroeconomic impacts of our base case by about 30 to 50%. Limitations of time have prevented us from conducting a similar sensitivity analysis for this update.”

Nonetheless, it is noted in the most recent NERA findings: “In total, the costs of complying with the rule from 2017–2040 could top \$1 trillion, making it the most expensive regulation ever issued by the U.S. government.” It also must be pointed out, as noted in the report, “All sectors of the economy would be affected by a 65 ppb ozone standard, both directly through increased emissions control costs and indirectly through impacts on affected entities’ customers and/or suppliers.”

6. NERA vs. EPA Costs. As opposed to the EPA’s essential guesswork on costs, the NERA study attempts to get at the real potential costs based on the realities of the marketplace. As noted, “As in the July 2014 analysis, emission reductions from ‘known’ controls were not sufficient to achieve attainment, in this case with a 65 ppb ozone standard. EPA has filled the gap with a rough estimate of costs of

‘unknown’ controls, i.e., controls for which no cost information was developed. In contrast to the two cost estimation methodologies presented in its 2008 and 2010 RIAs, this time EPA used a single simplistic assumption that annualized control costs for these ‘unknown’ controls would be equal to \$15,000 per ton, regardless of the state, the sector, or the amount of emission reduction required. This estimate was not based upon any evidence-based analyses of the nature of the emissions that remain after ‘known’ controls are in place, or of the costs of potential additional controls for these sources. Our compliance cost estimates are based upon a synthesis of EPA estimates of emission reduction, our modifications of EPA’s assumptions regarding baseline reductions, EPA’s estimates of the costs of ‘known’ controls, and our more detailed estimates of the costs of ‘unknown’ controls. As in our July 2014 report, our ‘unknown’ cost estimates are more evidence-based than EPA’s, as we use detailed information on the types of sources that account for the remaining emissions (EGUs, other point sources, on-road sources, off-road mobile sources, and area sources) as well as estimates of the potential costs of reducing emissions by scrapping existing emission sources prematurely.”

And later in the report: “We estimate that the potential costs of achieving a 65 ppb ozone standard could have a present value of almost \$1.1 trillion as of 2014 (based upon costs incurred from 2017 through 2040), not including any costs for forcing a massive cutback in generation from coal-fired EGUs to reduce NOX emissions from the power sector (whose costs are endogenously determined in the economic impact model)... As a rough point of comparison, we estimate that EPA’s annualized cost estimate implies a present value of about \$167 billion. The primary difference in our methodologies is the extrapolation method used to estimate the cost of ‘unknown’ controls; we attempted to assess the kinds of controls that would be required after “known” controls and based our method on the estimated costs per ton of one such control (vehicle scrappage), whereas EPA relied on an arbitrary constant value.”

7. Implications for Economy-Wide Nonattainment. As explained in the initial comprehensive economic study from NERA published in July 2014 (“Assessing Economic Impacts of a Stricter National Ambient Air Quality Standard for Ozone”), the problems that come with nonattainment are considerable: “Unlike regulations that target specific sectors, an ozone standard would directly affect virtually every sector of the economy, because ozone precursors (oxides of nitrogen, or NOX, and many types of volatile organic compounds, or VOCs) are emitted by a wide range of stationary, mobile, and area sources. Moreover, a tightened standard might result in other effects, notably potential constraints on domestic natural gas and crude oil development activity if nonattainment regions introduce permitting barriers or require emissions offsets to develop new wells and processing facilities.”

The July 2014 report also explained what “non-attainment” means in practical terms, that is, new businesses must obtain air permits to operate. As NERA stated: “Finally, being in nonattainment of a NAAQS triggers more regulatory burdens than just reducing emissions to achieve attainment. A number of regulatory programs are also imposed on nonattainment areas. Significant among these is a requirement that any economic entity that wishes to obtain a permit to establish a new facility that will emit the pollutant(s) of concern in a nonattainment area must first find an offsetting reduction of those same emissions from another facility that is exiting the area, or has voluntarily reduced its own emissions below its permitted level. Markets for these ‘offsets’ often develop, but offsets can be

exceedingly costly or difficult to find if there are few existing emitting facilities in the area to create a supply. A tightened ozone standard has the potential to cause nonattainment areas to expand into relatively rural areas, where there are few or no existing manufacturing facilities to generate a supply of offsets. If nonattainment expands into rural areas that are active in U.S. oil and gas extraction, a shortage of offsets may translate into a significant barrier to obtaining permits for the new wells and pipelines needed to expand (or even maintain) our domestic oil and gas production levels.”

Much of the nation would be in nonattainment areas under the EPA’s new regulatory standards. For example, the Business Roundtable has reported (“EPA Current and Proposed Ozone Standards” on their website at <http://businessroundtable.org/ozone-map>): “155 U.S. counties violate the current ground-level ozone standard of 75 parts per billion (PPB). EPA is considering a new standard in the range of 70 ppb to 60 ppb... Approximately one-third of the U.S. population currently lives in areas that violate the current standard of 75 ppb.” At 70 ppb, based on the Business Roundtable’s analysis, 48 percent of the population would live in counties at risk of violating the ozone standard, and 45 percent of manufacturing jobs would be located in such counties. At 65 ppb, it would be 59 percent of the population living in counties risking violation, and 58 percent of manufacturing jobs.

The American Chemistry Council also looked at nonattainment and costs (see “EPA’s ozone standard: A defining moment for U.S. manufacturing,” March 9, 2015, at <http://blog.americanchemistry.com/2015/03/epas-ozone-standard-a-defining-moment-for-u-s-manufacturing/#sthash.BfHzy2Uu.dpuf>). According to the ACC, investment in new and expanded facilities will suffer in nonattainment areas: “In nonattainment areas, total emissions are capped. Business growth becomes a zero-sum game: In order to expand, companies must shut down other parts of their production, wait for others to close, or buy emissions ‘offsets’ that are difficult to find and extremely expensive. All these factors create uncertainty in investment projects that can ultimately make new investment not worth the trouble... For factories and power plants, a lower ozone standard means new facilities, expansions, and restarts could be delayed or scrapped. Facilities that do expand will have to pay millions for offsets even though their new production is cleaner and state of the art.” That effectively is a cap on new business formation and business and economic growth.

The ACC highlighted chemistry industry investments happening in the state of Louisiana thanks to lower costs via the shale natural gas revolution. But these investments are at risk: “So far, 51 projects representing \$35 billion in new investment are planned for the state. The projects would generate \$21.5 billion in additional chemical industry output and 37,200 permanent new jobs (direct + indirect). Most of Louisiana would be in nonattainment at 65 ppb. By lowering the NAAQS, EPA could limit the vast economic potential of these historic investments.”

As for how extensive nonattainment would be, the ACC noted: “At 65 ppb, which is at the lower end of the range EPA proposed, 2000 counties in 45 states covering a population of 255 million would be in nonattainment, based on EPA’s most recent complete air quality data. At 70 ppb, 1300 counties in 40 states covering a population of 210 million would be in nonattainment.”

Finally, the ACC also highlighted the impact on small business: “Small businesses such as gas stations, bakeries, printing operations, dry cleaners, auto body shops and small manufacturers will be affected.”

Disproportionate Impact on Small Businesses

In the end, all sectors of the economy would be negatively affected by the EPA’s new, stringent NAAQS ozone regulations. That means, of course, that small businesses will be hit hardest, as is

the case with nearly all regulations and given that small businesses account for the overwhelmingly majority of firms across nearly all sectors of our economy.

The NERA study highlighted potential lost output in non-energy and energy sectors. Consider the major role small business plays in the overall economy and in some of these key sectors affected by these new regulations (latest Census Bureau employer data from 2012):

- Among all industries, 89.6% of employer firms have less than 20 workers, and 99.7% less than 500 employees.
- Among agriculture, forestry, fishing and hunting businesses, 93.5% of employer firms have less than 20 workers, and 99.6% less than 500 workers.
- Among all manufacturing firms, 75.3% have less than 20 workers, and 98.6% less than 500 employees.
- Among key energy industries:
 - 90.7% of employer firms among oil and gas extraction businesses have less than 20 workers, and 98.5% less than 500 workers;
 - 78.1% of firms among drilling oil and gas wells businesses have less than 20 workers, and 97.2% less than 500 workers;
 - 81.5% of firms among support activities for oil and gas operations businesses have less than 20 workers, and 98.6% less than 500 workers;
 - 60.5% of firms among oil and gas pipeline and related structures construction businesses have fewer than 20 workers, and 95.5% less than 500 workers;
 - 54.7% of firms among oil and gas field machinery and equipment manufacturing businesses have less than 20 workers, and 91.4% less than 500 workers;
 - 58.5% of firms among coal mining firms have less than 20 workers, and 93.7% less than 500 workers;
 - and 64.6% among support activities for coal mining businesses have fewer than 20 employees, and 96.4% less than 500 workers.

And what about chemical industries, given their concerns, as noted above?

- As for chemical manufacturing, 62.4% of employer firms have less than 20 workers, and 94% have less than 500 employees.
- Among chemical and allied products merchant wholesalers, 83.3 percent of employer firms have fewer than 20 employees, and 97.4% less than 500 workers.

Again, this very much is about small business.

The costs of the proposed EPA ozone regulations promise to be enormous for small businesses, and for the overall economy. It's also worth highlighting that energy – which has been a rare bright spot in an otherwise dismal economy over the past eight years – and manufacturing – which is in the midst of a revitalization – would both suffer significantly under the new EPA regulations. Again, these are small-business sectors.

Conclusion

Small businesses in non-attainment areas will have a difficult time starting up, expanding and competing for “offsets,” as those offsets will be expensive, or perhaps not exist when needed. Compliance will be complex and costly. Economic opportunity and job creation will suffer. The expense and red tape will be a barrier to new startups and business formation. These regulations would hamper local efforts to spur new business creation, and could, in effect, serve as a cap on entrepreneurship and small business growth.

Indeed, the proposed ozone rule not only has the potential to be the “most expensive regulation” ever enacted by the federal government in U.S. history, it will be one that severely impinges on entrepreneurship and economic freedom.

The ACC, along with many others, by the way, have made the important point that the “current ozone standard of 75 ppb is the most stringent ever and hasn’t been fully implemented across the country,” as “parts of 26 states covering a population of 120 million still don’t meet the current standard.” And to put all of this in broader perspective, “Between 1980 and 2013, total emissions of the six principal air pollutants dropped by 62 percent, even as U.S. gross domestic product grew 145 percent. Voluntary and regulatory programs will continue to reduce ozone concentrations through 2030.”

Given what’s already been achieved, what has not yet been implemented, and the significant costs, including for small business, that would come with stricter ozone mandates, one is left bewildered as to why the EPA is going down this path.

Thank you for the opportunity to testify today.