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REGULATION AND UNEMPLOYMENT

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Over the last four years, the United States has endured one of the most sustained periods of high unemployment in the nation's history.

As millions of Americans continue to search for work, many political leaders have identified regulation as a substantial impediment to economic recovery. Each year, federal regulatory agencies issue approximately 4,000 rules that collectively impose tens of billions of dollars in costs on industry.¹ In addition, the recently adopted Affordable Care Act and Dodd-Frank Act call upon federal agencies to adopt hundreds of additional regulations which will impose new burdens on the economy.

Although Republican politicians have been the most strident in characterizing regulations as “job-killers” and in urging the relaxation of certain regulatory controls on industry, even Democratic President Obama has spoken of the economic “chilling effect” of regulations and has taken steps to encourage regulators to consider effects on employment when making decisions.² Yet despite how clearly regulation and employment have become linked in the minds of many political leaders, what we know

empirically about the relationship between jobs and regulation provides much less reason to expect that the United States' economic woes can be solved by simply reforming the regulatory process. To shed light on the contemporary debate over regulatory reform, this policy brief highlights findings from empirical research on the connection between regulation and jobs while considering possible avenues for future analysis of the employment effects of new regulations.

THE JOBS-REGULATIONS DEBATE

The connection that politicians have drawn between regulation and employment extends back at least several decades. When Ronald Reagan was running for President in 1980, for example, he criticized the Carter Administration for its “continuing devotion to job-killing regulation” of the struggling U.S. auto industry.³ Since 2009, use of the phrase “job-killing regulation” by politicians has skyrocketed and the linkage between jobs and regulation has forged itself

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more deeply in political discourse. Figure 1 shows how the word “regulation” has been increasingly accompanied by “jobs” or “employment” in national newspapers over the last ten years, following a trend that appears closely related to increasing rates of unemployment.

Responding to the recent economic downturn, policymakers in the White House and halls of Congress have urged policy action to address the effects of regulation on employment. In January 2011, President Obama issued an executive order expressly affirming that regulation needs to deliver benefits while at the same time “promoting economic growth...and job creation.” That order also calls on agencies to review their existing regulations and change or repeal those that have become “excessively burdensome.”⁴ A year later, the President’s Council on Jobs and Competitiveness issued a series of policy recommendations to accelerate employment, with regulatory process and analysis reforms included among the Council’s major proposals.⁵ In May 2012, President Obama issued yet another executive order that directed agencies to “be especially careful not to impose unjustified regulatory requirements.”⁶

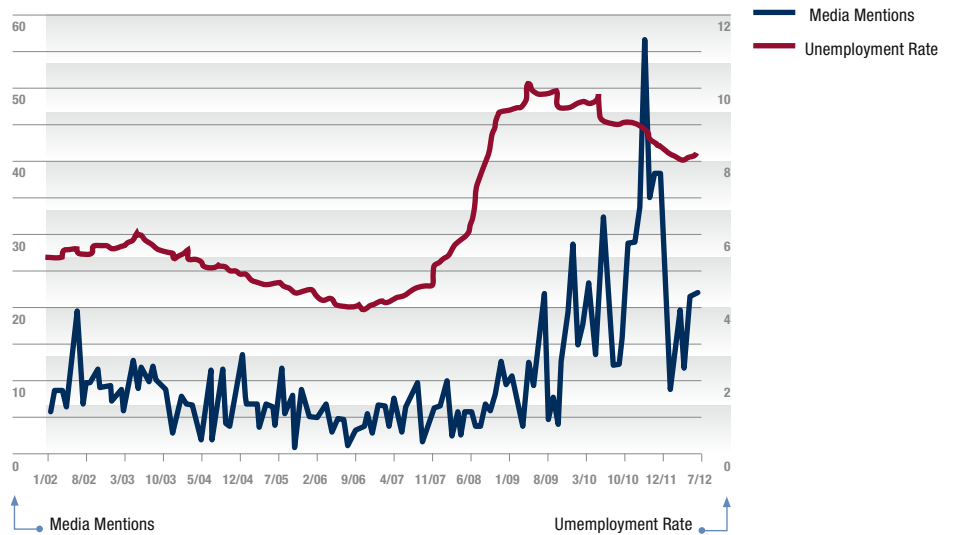
In Congress, numerous bills have been introduced that would reform the regulatory process in the name of job creation.⁷ The House approved one bill in December 2011 that would have imposed on regulatory agencies a requirement to consider “estimated impacts on jobs (including an estimate of the net gain or loss in domestic jobs)” in advance of issuing new regulations.⁸ In August 2012, the House adopted another bill that would have affirmatively barred agencies from adopting any costly new regulations until the national unemployment rate dropped to below six percent.⁹

Most of these recent regulatory reform proposals have been based on an assumption that regulation hampers job growth. Yet at the same time, it remains widely accepted

that at least some regulations help foster conditions that promote economic growth. Even the recent Republican Presidential candidate, Mitt Romney, noted that “regulation is essential [and] you can’t have a free market work if you don’t have regulation.”¹⁰ Many defenders of stringent regulation go

it remains comparatively limited. Since 1993, federal agencies have been required by executive order to predict how major new regulations would adversely impact the economy, including specifically making assessments of potential effects on employment.¹² However, in few instances have

FIGURE 1: “JOBS” AND “REGULATION” IN THE MEDIA, 2002-2012



Source: LexisNexis database for Chicago Tribune, Los Angeles Times, New York Times, Wall Street Journal, and Washington Post (search: regulation w/5 [jobs or employment or unemployment]); Bureau of Labor Statistics

still further to claim that the imposition of additional regulatory controls would, far from killing jobs, actually promote job expansion. Environmental advocates point to “green jobs” created by stringent environmental regulation, namely increased employment at firms in the alternative energy or pollution control sectors. Speaking at the 2012 Democratic National Convention, former President Bill Clinton claimed that new federal fuel economy standards would generate over 500,000 “good new jobs” over the next two decades.¹¹

WHAT THE RESEARCH SHOWS

Is regulation a job creator or a job killer? Although this question has garnered heightened political salience, the empirical research evidence needed to answer

agencies monetized the value of job impacts for inclusion in their prospective economic analyses of regulations. Agencies have made even fewer attempts, after adopting and implementing rules, to evaluate employment effects retrospectively.

For decades, economists tended to ignore job impacts when analyzing regulations, due to an assumption that any such effects would be transitory and relatively minor. After all, economically efficient regulation seeks to correct market failures and maximize net benefits—not maximize jobs. However, in recent years, research has documented demonstrable negative effects to individuals and families from unemployment. Especially when workers lose jobs in mass layoffs or in periods of high unemployment, they can expect to re-enter the labor

1 Office of Information and Regulatory Affairs, Draft 2012 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities, http://www.whitehouse.gov/sites/default/files/omb/oira/draft_2012_cost_benefit_report.pdf (2012).
 2 Barack Obama, “Toward a 21st-Century Regulatory System,” *Wall Street Journal*, Jan. 18, 2011, p. A17.
 3 Lou Cannon, “Reagan, Ignoring Bush, Assails Carter’s Policies,” *Washington Post*, May 19, 1980, p. A8.
 4 Exec. Order No. 13,563, <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf> (2011).
 5 President’s Council on Jobs and Competitiveness, Road Map to Renewal, http://files.jobs-council.com/files/2012/01/Jobscouncil_2011YearEndReport1.pdf (2011).
 6 Exec. Order No. 13,610, <http://www.gpo.gov/fdsys/pkg/FR-2012-05-14/pdf/2012-11798.pdf> (2012).
 7 Brian Hunt, “Regulatory Reform in Congress,” *RegBlog*, Jan. 17, 2012, <https://www.law.upenn.edu/blogs/regblog/2012/01/regulatory-reform-in-congress-part-i.html> (2012).
 8 Regulatory Accountability Act of 2011, H.R.

TABLE 1: SUMMARY OF PRINCIPAL STUDIES ON REGULATION AND EMPLOYMENT

| STUDY | REGULATION | UNIT OF ANALYSIS | TIME PERIOD | FINDINGS |
|---|---|--|-------------|---|
| Berman & Bui (2001) | Local air quality regulations in Southern California | Manufacturing firms | 1979-1992 | No statistically significant changes in jobs |
| Morgenstern, Pizer & Shih (2002) | All environmental regulations (as measured by industry-reported spending on environmental compliance) | Firms in pulp and paper, plastics, petroleum refining and iron and steel | 1979-1991 | No statistically significant changes in jobs on average across all four sectors, but small, statistically significant increases in jobs in plastics and petroleum sectors |
| Greenstone (2002) | Federal and state air pollution requirements imposed due to nonattainment status under Clean Air Act | Manufacturing firms | 1972-1987 | Average decrease in 40,000 jobs per year in nonattainment areas relative to attainment areas |
| Walker (2012) | Federal and state air pollution requirements imposed due to nonattainment status under Clean Air Act | Workers in polluting sectors | 1990-2002 | At most a 0.7 percent decrease in employment and a 23 percent reduction in present value of workers' wages |

market having lost substantial earnings power.¹³ Job losses have also been found to be associated with an increase in psychological stress, morbidity, and mortality.¹⁴ These consequential effects of unemployment help explain why jobs have figured centrally in the political debate over regulation, and why they should garner more attention from economists and other policy analysts.

Just as reflected in the political debate over regulations as job-creators versus job-killers, economic theory predicts that regulation could affect employment in different ways.¹⁵ First, regulation could increase the overall costs of all the inputs associated with a regulated activity, including labor, such that to continue producing at the same level, firms would need both more capital and more workers, thus encouraging employment. Second, regulation could increase the costs of regulated goods or services, leading to higher prices and correspondingly reduced sales—and thereby leading firms to need fewer workers. Finally, regulation might change the mix of labor and capital through the introduction of new technologies, and that change could either increase or decrease the amount of labor required for

a given unit of output.

With no compelling theoretical reason to expect regulation will result in overall job losses or gains, the issue becomes an empirical one. It is possible, after all, for any given regulation to have a positive or negative net impact on job levels within a particular regulated sector, and possible too for regulation overall to stimulate jobs just as it reduces them.

What does the empirical evidence show? Only a few published studies have rigorously examined whether regulation overall leads to systemic changes in employment, mainly in the context of environmental regulation (Table 1). In one of the earliest studies, economists Eli Berman and Linda Bui analyzed manufacturing job effects associated with local air pollution regulations adopted in Southern California.¹⁶ Comparing employment in that region over time as well as in comparable firms outside of Southern California, Berman and Bui found no substantive or statistically significant effects of local air pollution regulations on employment.

Richard Morgenstern and his colleagues also evaluated whether reported spending

by businesses to comply with all natural environmental regulations correlated with changes in employment levels across those firms, again finding no substantively or statistically significant changes in the four industrial sectors examined in the period 1979-1991. However, when analyzed separately, two of these four sectors actually showed small, statistically significant increases in jobs in the face of increased regulatory compliance spending.¹⁷

By contrast, economist Michael Greenstone found a decrease of an average of about 40,000 jobs per year in facilities located in areas of the country declared to have “dirty” air and made subject to more stringent air pollution requirements under the Clean Air Act.¹⁸ However, because the differences in Greenstone’s study were relative ones—that is, derived from a comparison with areas in the country lacking the more stringent controls—it is not known how much of the decrease reflected true job “losses” rather than a shift in jobs from dirtier areas of the country to cleaner ones. Such a shift may even occur across facilities owned by the same firm but located in different parts of the country.

3010, <http://www.gpo.gov/fdsys/pkg/BILLS-112hr3010eh/pdf/BILLS-112hr3010eh.pdf>.

⁹ Red Tape Reduction and Small Business Job Creation Act, H.R. 4078, <http://www.gpo.gov/fdsys/pkg/BILLS-112hr4078eh/pdf/BILLS-112hr4078eh.pdf>.

¹⁰ David Lauter, “Mitt Romney Makes Smooth

Shift to Center in Debate with Obama,” *Los Angeles Times*, October 4, 2012, <http://articles.latimes.com/2012/oct/04/nation/la-na-debate-analysis-20121004>.

¹¹ “Transcript of Bill Clinton’s Speech to the Democratic National Convention,” *New York Times*, Sept. 5, 2012, <http://www.nytimes.com/2012/09/05/us/politics/transcript-of-bill-clintons-speech-to-the-democratic-national-convention.html>.

¹² Exec. Order No. 12,866, http://www.whitehouse.gov/sites/default/files/omb/inforeg/eo12866/eo12866_10041993.pdf (1993).

¹³ Steven J. Davis and Till Von Wachter, “Reces-

sions and the Costs of Job Loss,” *Brookings Pap. Econ. Act.*, Fall 2011.

¹⁴ Daniel Sullivan and Till von Wachter, “Job Displacement and Mortality: An Analysis Using Administrative Data,” *Q. J. Econ.* 124 (2009): 1265.

¹⁵ Richard D. Morgenstern, William A. Pizer and

A more recent, unpublished paper also reports changes in employment arising with regulatory differences associated with the Clean Air Act's air quality designations. Reed Walker tracked workers over time and compared wage differences in cleaner (less regulated) versus dirtier (more regulated) areas of the country. He found that, in the five years following the imposition of new regulatory standards, overall employment in the more stringently regulated areas fell by at most about 0.7 percent and workers in polluting sectors saw on average a 23 percent reduction in the present value of their wages following new regulatory controls.¹⁹

Considered today, the mixed findings across the existing studies appear difficult to reconcile, but at a minimum they suggest that the relationship between regulation and jobs is more complex than portrayed by either of the polar extremes expressed in political discourse. Undoubtedly, regulation does sometimes lead to some workers being laid off due to plant closures or slowdowns, but also it is certainly true that workers are sometimes hired to install and run new technologies or processes needed to comply with new regulations. More importantly, the research reveals that even if these losses and gains sometimes cancel themselves out when tallying aggregate impacts, regulation still can create consequences associated with job shifts. Job shifts can occur as workers move to new facilities or assume new responsibilities within the same firms, as well as when they take on new jobs in altogether different firms. The transitional and permanent wage effects associated with job *shifts*, as well as losses and gains, cannot be ignored if researchers and regulators are to assess fully how regulation affects employment.

DIRECTIONS FOR FUTURE ANALYSIS

Although more research is needed, it is clear that the empirical research to date fails to support any strong view that regulation is

either a major job killer or a significant job creator. It may be that the heterogeneous nature of regulations (e.g., in what they require, who they burden), as well as the varied market conditions they affect, will make it difficult ever to generalize broadly about the job impacts of regulation *per se*. A better approach may be to improve the analysis of discrete regulations rather than regulation writ large. The effect of any individual new regulation on employment, after all, could vary substantially depending on the net costs the regulation imposes on firms, the degree to which compliance with the regulation will require new labor inputs, the competitiveness of the affected industry, the extent to which all or only some firms in the relevant market are regulated, and the price elasticity of consumer demand for the affected products or services.

The relationship between regulation and jobs is more complex than portrayed in political discourse.

The fact that some individual regulations may have meaningful localized effects—and that some regulations will have greater job-related impacts than others—reinforces the importance of agencies developing better estimates of job impacts before adopting new regulations. Few would disagree that, all other things being equal, it would be better to adopt those regulations with fewer negative employment effects. Of course, in many cases, taking better account of job impacts may have no bearing on the ultimate regulatory decision. For example, Reed Walker found that even adding his estimates of workers' decreased wages to the costs of air pollution regulation did not substantially affect the positive net benefits attributable

to these rules. Nevertheless, on some occasions, adding wage or welfare effects from unemployment might affect agency decision making about whether or how to regulate.²⁰

If agencies are to incorporate job impacts more fully into their future regulatory impact analyses, they will need to be able to make more reliable predictions of changes in employment likely to be affected by a proposed regulation, and then place a monetary value on those changes to put them on the same plane as other predicted effects of the rule. To meet these analytic challenges, agencies will need to go beyond the existing empirical literature, gathering new data and conducting additional analyses. Not only are the results from existing studies mixed, but these studies are limited in the number of sectors and fields of regulation analyzed. Furthermore, the data used in most of these studies are now more than a decade old, before what has arguably become a new era of global economic competition—and certainly well before the major economic meltdown of the last few years. Both of these factors potentially could affect some of regulation's impacts on jobs.

Of course, recent changes in economic conditions—whether due to globalization or the economic crisis—suggest a further difficulty that agencies must overcome when trying to predict reliably the employment effects of proposed regulations in a dynamic economy. Agencies sometimes adopt rules that take legal effect up to a year or more later, and perhaps up to several years after the agency would have started to develop its internal regulatory impact analysis, a period of time that probably stretches the limits of macroeconomic forecasting. To the extent that negative employment impacts from a regulation matter most in sustained periods of high unemployment, it will be difficult for regulators in advance to identify any of those periods when they are contemplating adoption of a rule intended to endure for years if not decades.

Jih-Shyang Shih, "Jobs Versus the Environment: An Industry-Level Perspective," *J. Environ. Econ. Manag.* 43 (2002): 412.

¹⁶ Eli Berman and Linda T. M. Bui, "Environmental Regulation and Labor Demand: Evidence from the South Coast Air Basin," *J. Public Econ.* 79 (2001): 265.

¹⁷ Morgenstern, Richard D., William A. Pizer & Jih-Shyang Shih, "Jobs Versus the Environment: An Industry-Level Perspective," *J. Environ. Econ. Manag.* 43 (2002): 412.

¹⁸ Michael Greenstone, "The Impacts of Environmental Regulations on Industrial Activity: Evidence from the 1970 and 1977 Clean Air

Act Amendments and the Census of Manufactures," *J. Polit. Econ.* 110 (2002): 1175.

¹⁹ W. Reed Walker, "The Transitional Costs of Sectoral Reallocation: Evidence from the Clean Air Act and the Workforce," US Census Bureau Center for Economic Studies Paper No. CES-WP 12-02, January 2012.

²⁰ Jonathan S. Masur and Eric A. Posner, "Regulation, Unemployment, and Cost-Benefit Analysis," *Va. L. Rev.* 98 (2012): 579.

CONCLUSION

The current period of high unemployment in the United States has focused the policy spotlight on the relationship between regulation and jobs. A number of administrative and legislative reform proposals have been premised on the view that regulation hinders job creation, although some advocates claim that stringent regulation can actually stimulate new jobs. This policy brief has reviewed the limited research to date on the connection between regulation and employment, finding that it does not support any strong claim that regulation in general has much of an impact on overall levels of employment, in one direction or the other.

However, some regulations may still have localized effects on employment, some positive and some negative. These localized effects will continue to concern elected politicians who naturally respond to the needs and concerns of their local constituents. As a result, to help inform regulatory decision making about potential localized employment effects, government agencies should expand and improve their analysis of the relationship between rules and jobs. Based on the existing empirical evidence, however, neither regulators nor politicians should expect that economic recovery for the nation as a whole can be secured simply by writing—or re-writing—rules.

BRIEF IN BRIEF

- Increasingly, and particularly in response to the recent economic downturn, policy makers have pointed to regulation as a “job killer” and have called for regulatory reform to promote job creation and economic recovery.
- The empirical research, although limited, reveals a more complex relationship between regulation and jobs, and fails to support the notion that regulation is either a major job killer or a significant job creator.
- To better understand the effects of regulation on jobs, government agencies need to gather new and more current data, looking at a wider variety of industry sectors.
- Based on the existing empirical evidence, U.S. policy makers should not expect that the nation’s economic woes can be solved by reforming the regulatory process.

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