

Does Regulation Kill Jobs?

Edited by

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Chapter 1

The Jobs and Regulation Debate

Cary Coglianese and Christopher Carrigan

The Great Recession wreaked havoc on employment in the United States. Even as the overall economy officially began to pick up by the middle of 2009, the American labor force still struggled to rebound. Month after month, millions of workers lost their jobs and millions more continued to look for new full-time work. Politicians responded to this great economic crisis by, among other things, blaming regulation (Coglianese 2012a). Some blamed the lack of adequate regulation for triggering the economic collapse in the first place, while others blamed regulation and its attendant burdens for hampering the pace of recovery. For those in the latter group, the phrase “job-killing regulations” became a common rallying cry for a regulatory reform agenda. Still other politicians argued that strong regulations not only could prevent future economic, environmental, and public health disasters but would actually stimulate new jobs, forcing companies to innovate and creating so-called green jobs.

Although ideological differences account for much of the polarized political debate over jobs and regulation in the United States, this debate fundamentally centers on an empirical question—namely, what impact regulation has on employment. This question can and should be approached with rigorous economic and policy analysis, and fortunately some important research has already addressed the empirical question. Nevertheless, uncertainty remains about how generalizable existing research findings are to today’s economy as well as exactly how to incorporate what is known about jobs and regulation into decision making about specific new regulations. Given the importance to society of having both effective regulation and available employment opportunities, we have assembled this volume to advance the search for a better understanding of how regulation affects jobs.

In this opening chapter, we begin by showing in greater detail how the political debate over the economy has in recent years also turned into a debate over regulation, with partisans claiming that regulation either kills or creates jobs. Notwithstanding this political rhetoric, the existing empirical research suggests that regulation does relatively little to reduce or increase overall jobs in the United States. We consider here why, given that the published economics research does not provide a strong basis for believing that regulation affects overall employment levels, the political debate has nevertheless focused so much on regulation's impact on jobs. We offer an account of the political economy of the jobs and regulation debate that emphasizes the distribution of job impacts and the greater responsiveness of the political system to relatively more certain, identifiable job losses than to less certain, unspecified job gains, even if in the aggregate the latter fully offset the former. Our aim is not merely to understand better the puzzling disconnect between politics and economics on this issue, but also to explain why both regulators and researchers ought to be more attentive to the kinds of analytic and empirical issues raised throughout this book. Only by developing better estimates of the real effects of regulation on employment can policy debate in the United States even hope to rise above the current polarized predicament where regulation's effects on jobs are too often either superficially treated or overblown by officials on both ends of the ideological spectrum.

Jobs and Regulation on the Political Agenda

The United States' worst recession since the 1930s ushered in a deep and sustained period of job losses. Before the recession started in 2007, the national unemployment rate hovered at around 4.5 percent, but it quickly rose to over 7 percent by the end of 2008 and peaked at 10 percent in October 2009 (Bureau of Labor Statistics 2013a). Once the recession officially ended, unemployment took longer to rebound than in any previous recession, remaining at levels above 8 percent for more than three additional years (Bureau of Labor Statistics 2013a). As of February 2013, the United States still had 12 million persons out of work (Bureau of Labor Statistics 2013b). In addition, a substantial proportion of unemployed individuals had been out of work for up to a year or more. Prior to the recession, about 645,000 individuals could be counted as having been unemployed for a year or more, but by 2010 this number had risen to 4.5 million, the largest share of the U.S. labor force facing such long-term unemployment on record (Bureau of Labor Statistics 2010).¹

The unemployment crisis prompted a heated political response. Republicans seized on the costs that regulations necessarily impose on

business and began repeatedly referring to regulations as “job-killers” (Coglianese 2011), developing what one columnist referred to as “a seemingly immutable law of . . . rhetoric that the word ‘regulation’ can never appear unadorned by the essential adjective ‘job-killing’” (Marcus 2012). In a Republican presidential primary debate in June 2011, Representative Michele Bachmann opined that the U.S. Environmental Protection Agency (EPA) “should really be renamed the job-killing organization of America” (CNN 2011). Another candidate for the Republican presidential nomination, former Utah Governor Jon Huntsman, called for “ending the EPA’s regulatory reign of terror” (Malcolm 2011), while yet another, Texas Governor Rick Perry, referred to a “cemetery for jobs at the EPA” (Broder and Galbraith 2011). The eventual Republican presidential nominee in 2012, former Massachusetts Governor Mitt Romney, made regulatory reform one of the key parts of his plan for restoring economic growth, lambasting what he saw as the government’s destruction of the American dream of economic prosperity “day by day, job-killing regulation by job-killing regulation” (Romney 2012). Even after President Obama’s reelection, Republicans continued to press their argument. In giving the Republican response to President Obama’s 2013 State of the Union address, for example, Senator Marco Rubio (R-Florida) disparaged the passage of “job-killing laws” (Rubio 2013).

Democrats, of course, had their own rhetorical playbook. Although President Obama (2011b) acknowledged that some regulations can be burdensome and even have a “chilling effect” on the economy, he also repeatedly defended the importance of regulation in protecting the public from economic and environmental disasters. Democrats used the words “common sense” instead of “job-killing” in connection with regulation, defending the need for sensible rules to protect the public from the undesirable by-products of economic activity (Obama 2013a; Reid 2011). Democrats also continued to blame the lack of effective regulation for the economic crisis that triggered the recession (Coglianese 2012a; Obama 2012a), attacking the Republicans’ job-killing argument as a “myth” designed only to help them in “peddling a cure-all tonic of deregulation” (Reid 2011).

Responding to the charges leveled specifically against environmental regulation, advocates of more stringent regulation adopted a countervailing rhetoric about “green jobs” (Middle Class Task Force 2009). The basic idea is that the imposition of regulations that call for the adoption of pollution control technology or techniques will support the development of new jobs in firms that produce the required technologies or the know-how to deploy the required techniques. Moreover, such regulations may create jobs within the affected firms, as when companies subject to new requirements need to hire additional staff to monitor

compliance or when mandates induce changes to business operations that simply make those operations more labor intensive. Former EPA administrator Carol Browner defended the federal environmental agency by declaring that “the EPA creates opportunities [and] creates jobs” (Browner 2011). At the 2012 Democratic National Convention, former President William Clinton claimed that new federal fuel economy standards adopted by the Obama Administration would generate over 500,000 “good new jobs” over the next two decades (Clinton 2012). In defending his own first-term record, President Obama applauded his administration’s energy regulations for creating “tens of thousands of good American jobs” (Obama 2013b).

Clearly, regulation and employment have become firmly linked in contemporary public discourse. That connection actually dates back decades. When Ronald Reagan ran for president in 1980, the United States had been experiencing a short recession—the first dip in a double-dip recession—that brought unemployment levels up from 5.7 percent in July 1979 to 7.8 percent by July 1980 (Bureau of Labor Statistics 2013a). On the campaign trail, Reagan vociferously criticized the Carter Administration for its economic policies, including its “continuing devotion to job-killing regulation” (Cannon 1980). By the 1990s, other politicians could be heard using the job-killing rhetoric—many of them California Republicans, like Reagan. In his first term as California’s governor, for example, Republican Pete Wilson blamed regulation for imposing “job-killing burdens” on his state’s businesses (*Sacramento Bee*, 19 December 1991; *San Jose Mercury News*, 14 November 1991). Wilson appointed former baseball commissioner Peter Ueberroth to chair a commission designed to develop recommendations to improve California’s economic competitiveness. Ueberroth had regulation in mind when he proclaimed in 1992 that “California has developed the most highly tuned, finely honed job-killing machine that this country has ever seen” (Stevenson 1992).² Over the years, the “job-killing” adjective has been used by others as well, such as when Senator Don Nickles (R-Oklahoma) called the ergonomics rule issued by the Clinton Administration’s Occupational Safety and Health Administration “the most intrusive, expensive and job-killing regulation ever handed down” by the agency (*Salt Lake City Deseret News*, 7 March 2001).

Although claims about job killing are hardly new, Figure 1.1 clearly demonstrates how the intensity and frequency of these claims reached new heights during the most recent economic downturn. Not only did the specific phrase “job-killing regulation” skyrocket in the media (Livermore and Schwartz this volume), but the general connection between jobs and regulation in the media followed a trend that closely tracked the increasing levels of unemployment. Figure 1.1 shows how

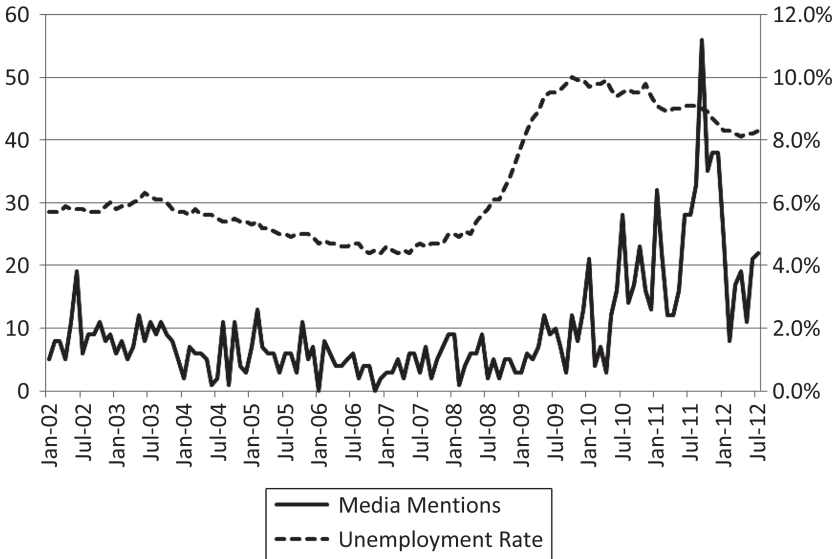


Figure 1.1. “Jobs” and “Regulation” in the Media, 2002–2012.

Note: Media mentions were compiled through a LexisNexis database search of five newspapers, the *Chicago Tribune*, *Los Angeles Times*, *New York Times*, *Wall Street Journal*, and *Washington Post*, using the following search: regulation w/5 [jobs or employment or unemployment]. Unemployment rate data were collected from the Bureau of Labor Statistics web site.

the word “regulation” came to be increasingly accompanied by “jobs” or “employment” in national newspapers over a five-year period ending in mid-2012—a trend indicative of the tight linkage between jobs and regulation in political debate.

At the same time, the jobs and regulation debate has also manifested itself in some changes in regulatory policy. Perhaps the most striking change occurred at the state level when, on his first day in office in January 2013, Indiana’s new governor, Mike Pence, fulfilled a campaign promise and issued an executive order imposing a statewide moratorium on new regulations in order to “promot[e] job creation, economic development, and freedom” (Pence 2013). At the federal level, President Obama issued an executive order in 2011 expressly affirming that regulation needs to solve policy problems while also “promoting economic growth . . . and job creation” (Obama 2011a). In announcing the order, Obama called on agencies to review their existing regulations and change or repeal those that “stifle job creation and make our economy

less competitive” (Obama 2011b). The President’s Council on Jobs and Competitiveness also issued a series of policy recommendations in early 2012 directed at accelerating employment growth—with regulatory reform being among its major proposals (Jobs Council 2012). Subsequently, President Obama issued another executive order on “reducing regulatory burdens” that directed agencies to “be especially careful not to impose unjustified regulatory requirements” (Obama 2012b).

Congress also took steps to reduce perceived regulatory barriers to job growth. In the 112th Congress, the House of Representatives approved the Red Tape Reduction and Small Business Job Creation Act, a bill that would have operated at the federal level much like the Indiana governor’s executive order, imposing an across-the-board moratorium on federal regulations until the unemployment rate fell to 6 percent or lower. The House also passed another bill that would have required all major rules to be approved by Congress before they could take legal effect (Regulations From the Executive in Need of Scrutiny Act of 2011). Yet another bill passed that would have imposed on regulatory agencies a requirement to consider “estimated impacts on jobs” before issuing new regulations (Regulatory Accountability Act of 2011). Although the Democratically controlled Senate never approved any of these bills in the 112th Congress, regulatory reform legislation continued to be debated in the 113th Congress, again with job creation as the key stated objective (e.g., Regulations From the Executive in Need of Scrutiny Act of 2013; Regulatory Sunset and Review Act of 2013; Small Business Freedom of Commerce Act of 2013).

Jobs and Regulation in Economic Research

Politicians’ heightened attention to regulation’s contribution to weak labor markets has intuitive appeal. Regulation imposes additional costs on firms, and these costs can in turn affect how many workers firms employ or how much they pay those workers. Basic microeconomic theory holds that when the cost of producing a product increases, the amount of that product that a firm will supply to the market at the existing price will decline. If the firm opts to charge more for its product, the price increases will in turn reduce sales, assuming demand is not completely inelastic (Hall 2013; Mankiw 2012). When output declines, so too does the need for the factors of production—including labor. Even if regulations require only fixed capital investments that do not directly affect marginal costs, such mandated investments can still force financially struggling firms to close their doors, leaving their workers faced with the prospect of finding new employment.

Yet theory also predicts that regulations could increase employment. After all, regulation forces firms to incur increased costs in capital or labor (or both) (Berman and Bui 2001; Morgenstern et al. 2002). Any regulation-induced increases in labor costs mean that existing workers are getting paid more, that more workers are being employed, or that these two effects are occurring in tandem. For example, a regulation that requires automobile manufacturers to install catalytic converters or other pollution control devices on cars increases the demand for labor in producing the pollution control technology and installing the mandated devices.³

Predictions that regulation will have significant employment effects—positive or negative—would seem plausible given the size of the overall regulatory burden in the United States. The Office of Management and Budget (OMB) has reported that the estimated annual costs imposed by major regulations adopted from October 2002 through September 2012 totaled between \$57 and \$84 billion in 2001 dollars—hardly a trivial number in absolute terms (Office of Management and Budget 2013:12). In fiscal year 2012, just 14 rules together generated between \$15 and \$20 billion in estimated annual costs (Office of Management and Budget 2013:19). OMB estimates that the corresponding benefits of these regulations amply outweigh the costs, but the sheer magnitude of the costs at least reinforces the plausibility of the theoretical expectation that regulation discernibly affects employment.

Despite this plausibility, it still remains an empirical question, given the alternative theoretical possibilities, as to whether regulatory mandates do cause employment to rise or fall. Researchers have yet to provide substantial support for either of the possible employment impacts that economic theory predicts, whether increases or decreases in jobs. The number of published studies rigorously examining the question is certainly not large, but to date the empirical work suggests that regulation plays relatively little role in affecting the aggregate number of jobs in the United States (Coglianese 2013; Morgenstern this volume). Studies generally find either no strong relationship at all or relatively modest effects of regulation on employment.

Most of the research has focused on the employment effects of environmental regulation.⁴ In one of the earliest studies, Berman and Bui (2001) analyzed the impact on manufacturing jobs of local air pollution regulations adopted in Southern California. Comparing employment in firms located in that region over time as well as in comparable firms outside of Southern California, they found no substantive or statistically significant effects of local air pollution regulations on employment. Similarly, Morgenstern et al. (2002) evaluated whether reported

spending by firms on environmental regulatory compliance correlated with changes in employment levels across those firms, finding no statistically significant changes in employment averaged across four industrial sectors from 1979 through 1991. Moreover, when analyzed separately, two of the four sectors actually showed small, statistically significant increases in jobs in the face of increased regulatory compliance spending.

Using other data and a different study design, Greenstone (2002) found a decrease of an average of about 40,000 jobs per year in facilities located in “nonattainment areas,” that is, parts of the country declared to have “dirty” air and therefore subject to more stringent air pollution requirements under the Clean Air Act. However, because the observed employment changes were relative ones—derived from a comparison with areas in the country lacking more stringent controls—it is not known how much of Greenstone’s observed decrease reflects true job losses in the aggregate rather than a shift in jobs from dirtier areas of the country to cleaner ones. Greenstone (2002:1211) also observed that although the changes he found were “substantial,” they still amounted to a “modest 3.4 percent of total manufacturing sector employment.”

More recent work has followed Greenstone’s approach of exploiting variation in the Clean Air Act’s air quality designations, comparing wages over time in cleaner (less regulated) versus dirtier (more regulated) air quality regions throughout the country. Walker (2011, forthcoming) found that overall employment in the more regulated sectors fell by about 15 percent—again relative to areas with less regulation—following the imposition of new clean air designations. The workers in these industries also reportedly saw on average a 20 percent reduction in the present value of their wages following new regulatory controls, with much of this decrease attributable to older, higher-paid workers who were laid off (Walker forthcoming). Although such an earnings effect is certainly nontrivial, Walker has characterized the loss as “relatively small” given that it was “two orders of magnitude below most estimates of the health benefits” of the law (Walker forthcoming). In other words, adding the estimated earnings loss to the computation of costs would make no difference in a benefit–cost assessment of existing air pollution regulation. Walker also did not include in his analysis any offsetting positive effects accruing to workers that gain jobs because of the imposition of new regulation.

These major studies indicate that the relationship between regulation and jobs is far less pronounced than typically portrayed in political debate. The research has generated at most only tepid or mixed support for the proposition that regulation kills or creates jobs. Although the

results vary between positive and negative, statistically significant and insignificant, the studies do fairly consistently demonstrate that any effects of regulation are at most modest relative to the overall size of the labor market.⁵ That basic conclusion also finds support in additional research studying specific rules (Gray et al. 2011), using international data (Cole and Elliott 2007), employing alternative statistical techniques (Kahn and Mansur 2010), and considering policies for mitigating climate change (Deschenes 2012). In their chapter in this book, Gray and Shadbegian similarly find statistically significant but only “very small” job losses associated with regulation in certain manufacturing sectors. Aldy and Pizer, also in this book, estimate the downstream effects on employment in manufacturing firms caused by a substantial increase in electricity prices, an increase that itself might plausibly be caused by environmental regulation, finding a decline of only 0.2 percent in the level of employment.

Data on “green jobs”—those generated by environmental regulation—tend to paint a similar picture of, at most, modest effects from regulation. Porter (2008) has argued that stringent environmental regulations force firms to innovate, thereby inducing gains in firms’ efficiency and competitiveness that offset, or even more than offset, the costs of regulatory compliance (see also Porter and van der Linde 1995). In addition to relying on a controversial assumption that without regulation firms are passing up profitable opportunities for innovation, Porter’s evidence for a regulatory “win-win” consisted primarily of case examples and did not systematically estimate employment effects. Palmer et al. (1995) challenged Porter’s hypothesis by referring to Census Bureau data showing that the cost savings firms reap from complying with environmental regulations amount to no more than 2 percent of firms’ overall regulatory compliance costs.⁶ Separately, the Bureau of Labor Statistics (2013c) has reported that the percentage of total employment in industries associated with the production of green goods and services accounted for just 2.6 percent of total public and private sector employment.

These findings from the literature on environmental regulation’s impact on jobs are generally borne out by the more extensive literature on how minimum wage laws affect employment. Minimum wage requirements directly regulate a key feature of labor markets, so if any kind of regulation affects employment, it should presumably be these laws. For some time now, scholars have assumed that “minimum wage legislation reduces employment” (Sunstein 1993:56). A survey of over 100 studies beginning in the early 1990s concluded that the weight of the evidence supports the view that increasing the minimum wage reduces employment of low wage workers—but the authors of that same

survey also noted that the research results on this question have “by no means always [been] statistically significant” (Neumark and Wascher 2007:121). By contrast, other more recent analyses and surveys of the literature on the effects of minimum wage laws have concluded that such laws have little impact on levels of employment (Dube et al. 2010; Schmitt 2013).

Overall, what we know about the relationship between regulation and employment contrasts strikingly with the grandiose claims found in contemporary political debate about either dramatic job-killing or job-creating effects of regulation. The empirical evidence actually provides little reason to expect that U.S. economic woes can be solved by reforming the regulatory process. Of course, this is not to deny that regulation does sometimes lead to some workers being laid off because of plant closures or slowdowns nor to deny that workers are sometimes hired to install and run new technologies or processes needed to comply with new regulations. But the picture that emerges is far removed from politicians’ emphatic rhetoric about both the job-killing nature of regulation as well as its ability to create lots of green jobs.

Why Politicians Link Regulation and Jobs

A mismatch between political rhetoric and academic research should hardly be surprising. Political scientists and pundits often assume that politicians are motivated primarily by the drive to remain elected and that they favor taking symbolic gestures that allow them to claim credit and shift blame (Edelman 1967; Mayhew 1974). Targeting regulation as the source of either economic distress or salvation can certainly be a politically expedient gesture, even if not grounded in evidence (Carrigan and Coglianese 2012). After all, most politicians have few, if any, levers to control the fundamentals of the economy, especially in a period of sharp economic disequilibrium; however, they do have the power to issue, modify, and repeal regulations, thereby presenting an image to their constituents that something is actually being done.

But one need not question entirely the sincerity of the politician who focuses on regulation’s impact on jobs. After all, the belief that regulation affects employment does have a basis in economic theory, and the empirical research that tests this belief is far from exhaustive. The data analyzed in the existing literature draw mainly from the 1980s and 1990s, and it is possible that regulation’s effects are different today, whether because firms can more easily outsource overseas, because the cumulative regulatory burden imposed on firms is quantitatively or qualitatively different today, or because regulation’s impacts on employment differ in periods of sustained economic downturns like the one the

United States recently experienced. In addition, existing research has also been limited to a few types of regulation, mostly labor and environmental policy. Gray and Shadbegian (this volume) report that regulation's impact on jobs appears to be related to industry structure, suggesting the possibility that regulatory efforts in banking, health care, and other sectors could affect employment in ways that environmental regulation might not.⁷

We note these limitations in the existing literature not merely to present academic caveats but to suggest why it might appear reasonable for politicians to persist in their belief in regulation's connection to jobs. The phenomenon at issue is, after all, complex; the research challenges in investigating it are daunting. Consider that during the five-year period leading up to the 2008 recession an average of 1.9 million workers were laid off or fired every month in the United States.⁸ With this much "normal" churning within labor markets, is it any wonder that it is difficult to determine with confidence how many layoffs a regulation, or a set of regulations, might cause? Researchers have a lot of statistical noise to penetrate. And even when they work through the noise, they cannot simply assume that jobs "lost" following the adoption of a regulation would have always been there in the absence of the regulation.

Of course, the existing literature does not deny that regulation can affect employment, even if the overall net effects are insignificant or modest. As noted earlier, Morgenstern et al. (2002) found employment higher in two sectors in the face of increased spending on environmental regulation. Conversely, Greenstone (2002) and Walker (2011, forthcoming) showed relative declines in overall employment in areas with heightened levels of environmental controls. In other words, even if job losses in some areas of the country are cancelled out by gains in other areas (as the Morgenstern et al. [2002] results would appear to imply), regulation still can have tangible impacts in terms of job shifts. Some workers lose their jobs while others gain them. Even for the same workers, job shifts can occur when they 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—jobs that may not necessarily pay as much as their former jobs. For workers and their families, job shifts caused by regulation have real consequences.

Politicians care about these consequences. At a recent conference on regulatory reform, Senator Angus King (I-Maine) stated that "the driving issue for all politicians is jobs."⁹ Even if Senator King's statement is an exaggeration, it may not be much of one. Politicians often treat jobs as possessing intrinsic value, defining—not just contributing to—individuals' psychological, physical, and social well-being (Kalleberg

2011). President William Clinton (2011:ix) has written: “Work is about more than making a living, as vital as that is. It’s fundamental to human dignity, to our sense of self-worth as useful, independent, free people.” Many years earlier, President Franklin D. Roosevelt declared that “the right to a useful and remunerative job” should be enshrined in a second, economic Bill of Rights (Roosevelt 1944). Political leaders from around the world have forged a Declaration of Human Rights (United Nations General Assembly 1948:Art. 23) that formally pronounces that “everyone has the right to work . . . and to protection against unemployment.”

Politicians’ utmost concern for employment is not surprising, given how much their constituents value productive employment. Over the years, the Gallup organization has repeatedly asked survey respondents to assess what they believe is “the most important problem facing this country today” (see, e.g., Saad 2013). In polls asking this question from 1970 to 2013, the economy ranked as one of the top three problems 88 percent of the time (Figure 1.2), greatly outpacing even national defense, which ranked as a distant second and reached at least one of the top three spots in only 43 percent of the polls conducted. The priority the public gives to economic issues in Gallup’s national poll correlates closely with the unemployment rate at the time a poll is taken. As Figure 1.2 shows, economic issues rank as the top problem when unemployment is at its highest. Similarly, Davis and von Wachter (2011) have shown that as the unemployment rate increases nationally, workers’ perceived likelihood of losing their own jobs also increases. The level of public dissatisfaction with regulation also appears to increase with unemployment. As unemployment increased after the last financial crisis, the proportion of respondents reporting that government regulated business “too much” rose from 38 percent in 2007 to 50 percent in 2011 (Newport 2012)—the highest level of disaffection with regulation ever recorded (Carrigan and Coglianese 2012).

Public attitudes obviously influence politicians’ incentives. Although economic conditions do not entirely determine politicians’ electoral fortunes (Bartels 2008; Fair 1978; Fiorina 1981; Healy and Malhotra 2013; Niemi et al. 1995; Tufte 1978), few politicians find it desirable to run for reelection in an economic climate of high unemployment. If nothing else, high unemployment leads politicians to create and foster a political narrative that either shifts blame or makes it look like they are taking action to reduce unemployment. Railing against regulators and their failings satisfies these political needs well (Carrigan and Coglianese 2012; Shapiro and Borie-Holtz forthcoming). Regulation also makes an advantageous target because it can be “fixed” without any major budgetary outlays on the part of the government, something that is

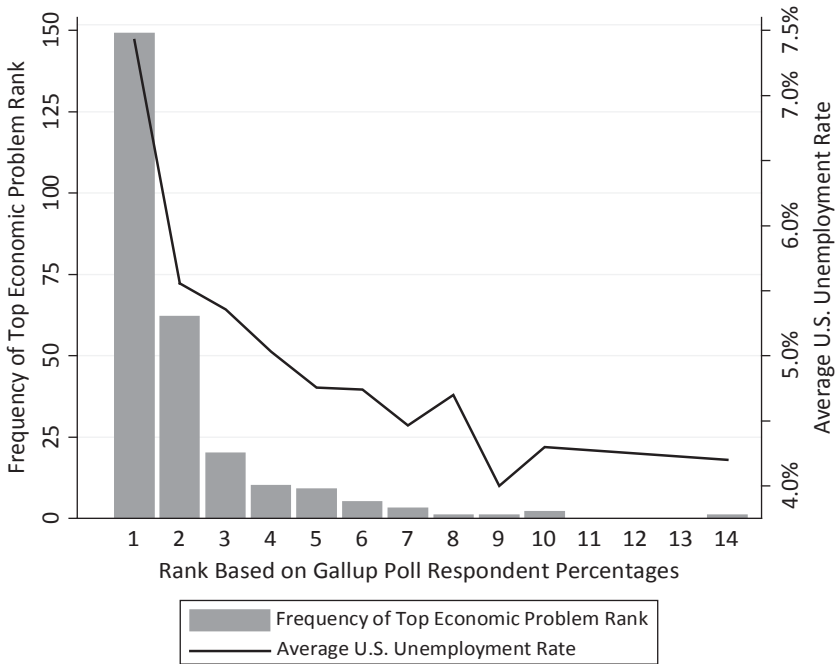


Figure 1.2. Public Ranking of Economic Problems, 1970–2013.

Note: Using a database available from the Roper Center at the University of Connecticut, data were compiled from 263 Gallup polls from January 1970 through February 2013 asking respondents, “What do you think is the most important problem facing this country today?” Unemployment rate data were collected from the Bureau of Labor Statistics. For each Gallup poll, responses—economic and noneconomic—were ranked according to the percentage of respondents that named that problem, with the problem receiving the largest percentage being ranked one. Problems categorized as economic included “economy in general,” “unemployment,” “inflation,” “debt,” “recession,” and “wages,” as well as related terms. The top-ranked economic problem in each poll was used to compile the frequency of ranking across all polls. The average unemployment rate for each ranking was based on the months in which the top economic problem received that ranking.

especially helpful when periods of high unemployment combine with concerns about budget deficits and the size of the national debt.

Most important, regulation really does affect some workers’ jobs—and politicians respond acutely to how these and other policy impacts are distributed. They care if factories in their districts lay workers off, even though factories in other politicians’ districts might hire more

workers. “All politics is local,” the late House speaker Tip O’Neill famously opined (O’Neill and Hymel 1994). We have long known that impacts of public policy on employment can vary regionally and locally (Haveman and Krutilla 1968). Politicians are sensitive to these local employment effects, even if on net the aggregate impacts on employment across the country as a whole prove benign. Politicians, like most people, care more deeply about impacts that occur close to home. As President Harry S. Truman once stated, “It’s a recession when your neighbor loses his job; it’s a depression when you lose yours” (*The Observer*, 13 April 1958). By this measure, the Great Recession of 2008 spawned millions of depressions—but not ones distributed equally across every state or political district. After the national recession officially ended in 2009, 10 states still went on to suffer their highest rates of unemployment since the Bureau of Labor Statistics began tracking local unemployment in 1976 (Bureau of Labor Statistics 2013a). It is understandable that politicians in states like these will blame regulation for local labor market conditions, notwithstanding evidence showing that regulation has little to no net effect on job levels across the entire country.¹⁰

Politicians are also more likely to become activated about regulation’s “job-killing” effects than about its job-generating potential. Unlike economists, who dispassionately count job losses the same as job gains when trying to tally the overall impacts of regulation in their empirical research, politicians at least implicitly treat job losses as weightier than job gains, even if the jobs pay the same. This is because job losses will often be more predictable and certain than job gains.¹¹ The firms bearing the costs of new regulations already exist—as do jobs in those firms—and these impacted firms and their workers can be expected to mobilize politically. By contrast, job gains will often be more speculative, lacking identifiable firms and workers who could mobilize. When former President Clinton proclaimed that new fuel economy regulations would generate 500,000 new jobs over the next 20 years, no one could really say who specifically would land those jobs (nor even if these jobs would ever truly materialize). By contrast, when regulators propose placing new standards on coal-powered electricity plants, metal finishing plants, or trucking companies, the specific firms in the targeted sector can be assured that their costs of doing business will be affected. And the specific employees in these firms may reasonably wonder whether their own livelihoods will be threatened as well. Many politicians can identify with what Representative Jim Jordan (R-Ohio) once reported about regulation of the trucking industry: “I have heard from truck drivers who . . . tell me that the DOT [Department of Transportation] and the EPA are putting them out of business with their

multiple mandates” (U.S. House of Representatives, Committee on Oversight and Government Reform 2012:5). He and other legislators have undoubtedly heard from far fewer workers who will find new jobs in the future because of a DOT or EPA rule.

In the end, politicians and social scientists are rather like the proverbial blind persons attentive to different parts of the elephant, looking at the connection between jobs and regulation in different ways. Regulation writ large may well have little or no *net impact* on aggregate employment. That is, job gains from regulation overall may well offset job losses across the entire economy. But this does not mean that individual regulations have no demonstrable or adverse effects on employment within specific regions, industries, and firms. Especially in democracies divided into smaller electoral districts, political leaders respond to individual and local impacts, and they respond to tangible losses more than they do to speculative gains, even when in the aggregate the negative and positive impacts of regulatory policies balance out across the entire nation. What might seem to many economists to be “mere” transfers of jobs can still palpably change real people’s lives by affecting their wage earnings, physical health, and psychological well-being (e.g., Moyle and Parkes 1999). These discrete effects, and the ways that they are distributed, matter to people and to their elected politicians. Politics, after all, is fundamentally about who gets what, when, and how—as well as about who loses what, when, and how (Lasswell 1958).

Implications for Regulatory Analysis

Just as regulation’s impacts on jobs matter to citizens and their elected politicians, they should also presumably matter to appointed officials and their analysts within regulatory agencies. For many years, though, agency analysts have tended to ignore any job impacts of proposed regulations in their benefit–cost analyses (Shapiro this volume). Despite being instructed by executive order to consider “adverse effects” of proposed regulations on “productivity, employment, and competitiveness” (Clinton 1993), analysts have simply assumed either that employment effects are already implicitly accounted for in their benefit–cost analyses or that any separate employment effects are too transitory or small to change the outcome of these analyses (Masur and Posner this volume; Hall 2013). Analysts have often adopted a simplifying assumption of full employment (perhaps reasonably so), according to which any worker losing a job because of regulation could readily find another, comparable one elsewhere in the economy (Mannix this volume). With such an assumption, analysts in regulatory agencies have found it easier to focus on the most direct costs and benefits of regulation when

calculating a proposed rule's net benefits. They have acted as if their role is limited to determining whether the winners under a proposed regulation could in principle pay off the losers, not to worrying much about who the winners or losers might be.

The failure to include employment explicitly in benefit–cost analyses of regulation does not derive from any overarching lack of concern about employment on the part of economists and policy analysts. On the contrary, agencies have sometimes tried to estimate the job effects of regulation separately, without incorporating them into their benefit–cost analyses (Ferris and McGartland this volume). Furthermore, in other policy realms, economists have actually undertaken extensive efforts to understand the macroeconomic factors that affect the level of employment in the economy as well as to analyze various policy options for lowering unemployment to its “natural” or “acceptable” rate. In any basic macroeconomics textbook, for example, controlling unemployment occupies a prominent place alongside managing inflation (Mankiw 2010). In practice, economists throughout the executive branch of government pay careful attention to unemployment and policy options to combat it. These economists just tend to work outside the traditional regulatory agencies and instead within other governmental entities such as the White House National Economic Council, the Council of Economic Advisors, and the Federal Reserve.

Undoubtedly part of the reason analysts have neglected to itemize job effects in their regulatory benefit–cost analyses is that, as we have discussed, the empirical literature suggests that regulation in the aggregate does not seem to affect overall employment levels. The costs that regulations impose on firms may be sizable, but they are still quite small relative to the overall cost of doing business and do not appear to be the major driver affecting the competitiveness of U.S. industry (Jaffe et al. 1995). Yet the findings from the existing empirical research probably only partly explain why agencies do not incorporate job effects into their benefit–cost analyses of new regulations. After all, the principles of benefit–cost analysis do not say to exclude a specific kind of benefit or cost simply because it might be relatively small. A potentially more important reason for not including job effects in benefit–cost analysis is that doing so has been just too difficult—conceptually, analytically, and empirically (Bartik 2012). If it were easy to estimate and value job impacts reliably, far fewer agencies would hesitate to incorporate such effects into their analyses, especially given politicians' interest in the connection between regulation and jobs.

Still, when it is clear that a proposed regulation will kill or create an estimated number of jobs, particularly if the estimated number of jobs affected is substantial (Elliott this volume), it does make sense for the

promulgating agency to ensure these job losses are fully factored into its benefit–cost analysis. Unemployment brings with it not just a gain of “leisure” time for workers and a lowering of costs to employers; it can also impose negative consequences in terms of reduced future earnings potential, job search costs, social stigma, and negative physical and mental health effects (Davis and von Wachter 2011; Dooley et al. 1996; Frey and Stutzer 2002; Helliwell and Huang 2011; Sullivan and von Wachter 2009).¹² Especially during a severe economic downturn, a regulation that results in layoffs can produce long spells of unemployment, which may cause disproportionate effects on income potential. Those out of work for extended periods can experience significant cuts in their preemployment earnings upon reentering the workforce (Congressional Budget Office 2004, 2007; von Wachter 2010).

In effect, job losses caused by a regulation constitute a negative externality of that governmental action. At the same time that a regulation can serve to correct a market externality, thereby delivering benefits to society, the costs that the regulation imposes on firms can create their own externalities, over and above the opportunity costs associated with the resources devoted to complying with the regulation. The Bureau of Labor Statistics (2009:1) puts it this way: “When workers are unemployed, they, their families, and the country as a whole lose. Workers and their families lose wages, and the country loses the goods or services that could have been produced. In addition, the purchasing power of these workers is lost, which can lead to unemployment for yet other workers.” To be complete, benefit–cost analyses of proposed regulations would need to take all of the indirect effects of job losses into account.

When incorporating job effects into a benefit–cost analysis, the analyst must confront two questions. First, what will be the impact of the proposed regulation on jobs? That impact could be measured simply by the number of jobs, as it has been in much of the empirical research to date. But employment impacts could also be measured in terms of wages, job quality, or job fit. A job, after all, is not a (fungible) job. Job quality is at least partially determined by whether it is high paying or low paying (Acemoglu 2001); however, a “good” job also provides stability, security, and, to some extent, flexibility to its holder—not to mention it should also match well the skills and interests of the job holder (Kalleberg 2011; Tilly 1997). A given regulation may well make no difference in terms of the number of jobs, but it could still affect job pay, quality, or fit. The analyst needs to forecast how an individual regulation will affect the selected employment metric—a task that will seldom be easy. Predicting a regulation’s effects will often require making difficult long-term employment forecasts because regulations last for years and many important rules do not even take legal effect for a year or more after

they are adopted (Robinson this volume). As the effects of regulation on employment are likely to be indirect, if not highly attenuated, regulatory officials may need to abandon their reliance on more tractable partial equilibrium models and work to develop dynamic general equilibrium models, an approach recently explored in industry-sponsored research (Smith et al. 2013). Of course, however they are estimated, employment forecasts need to include both negative effects (losses) and positive ones (gains).

After the employment impact of a regulation has been determined, the second question for the benefit–cost analyst is: What is the monetary value of that impact? Actual earnings might initially seem to provide a basis, but when a firm lays off workers or reduces what it pays them, what the workers lose the employer reaps as a corresponding cost savings.¹³ What matters is valuing the real welfare effects to workers as they are forced to transition to new jobs (Arrow et al. 1996). Presumably that value should be less than current earnings (Bartik 2013). Separate from wages, the analyst could seek to estimate the impact on workers' welfare by monetizing the ancillary effects of unemployment, such as adverse impacts on health (Adler this volume). Monetizing health effects sometimes generates moral objections (Ackerman and Heinzerling 2004), but well-accepted valuation practices that have been applied to quantify benefits in various policy realms, such as environmental or public health regulation, could be used to value the health effects of unemployment (Finkel this volume).

Already, some have suggested that the full stream of ancillary effects from the loss of a single job should be valued around, or even somewhat more than, \$100,000 per job in present value terms (Bartik 2013; Masur and Posner 2012). Bartik (2013) suggests that the welfare costs from regulation-induced job losses could amount to 10 percent to 20 percent of the other costs of the regulation conventionally included in a benefit–cost analysis. Of course, to the extent that a regulation also induces job gains, whether in other sectors or in other parts of the country, those positive effects would need to be included when making any complete valuation of job impacts. Still, if the labor impacts expected from a specific proposed regulation were indeed to add even 10 percent to its overall costs, knowing that might sometimes make a difference when public officials have to decide whether to proceed with that regulation—or whether to pursue other options, such as the use of market-based instruments that might potentially have both lower compliance costs and fewer detrimental employment effects (Färe et al. this volume).

In the end, that is the purpose of regulatory analysis: to aid in decision making. Given the great concern elected lawmakers have expressed about regulation's impacts on employment, regulatory analyses can

better advance public deliberation and decision making if they are more attentive to both the extent and value of regulation's effects on employment (Elliott this volume; Livermore and Schwartz this volume). Politicians' sensitivity about local effects also means that benefit-cost analysis of regulation would be more useful if it explicates how both the positive and negative employment effects will be distributed.¹⁴ Without more explicit inclusion of job effects into regulatory analysis, officials within agencies could very well be overly influenced by a political process that at times seems to place a nearly infinite value on jobs. Treating employment concerns as a trump card that blocks otherwise welfare-enhancing regulation would be a mistake—but so too would it be a mistake to ignore the real employment-related externalities that are not accounted for in the typical benefit-cost analysis. If nothing else, the salience of the political debate over jobs and regulation makes it important to try to get the best possible estimates of both the impacts and value of employment effects.

About This Book

The late economist Edward Gramlich once noted, in his leading textbook on benefit-cost analysis, that “the whole jobs issue is a potential alibi for large-scale fudging of numbers” (Gramlich 1990:227). For this reason, respectable economists and analysts have for years concluded that it is often better to make simplifying assumptions that in effect ignore public policy's ancillary effects on jobs. Such an approach at least advances consistency, and it is certainly better than succumbing to political pressures by fudging numbers. But as Gramlich (1990:227) also noted, the analyst can play an important role in informing decision makers, not simply accepting or ignoring what might merely be politically expedient rationalizations: “Politicians are wont to try to obtain programs, and others to defend them, because they create jobs. At this point the benefit-cost analyst can ask some hard questions—are these temporary or permanent jobs, will the job gains here result in overall employment gains, or will other employment just go down, in which case using labor here is a real cost?” What Gramlich said in the context of government programs aiming to create jobs can also be said with respect to regulations that might either create or destroy jobs. The role of the regulatory analyst is to “ask some hard questions”—and to provide answers that can help decision makers.

This vision of the analyst's role explains the genesis of this book. We believe that the relationship between jobs and regulation deserves both better analysis by regulatory agencies in advance of their decisions as well as more retrospective research that can inform that analysis by

identifying how regulations have affected employment after they have been implemented, how those effects have been distributed, and the conditions under which they have arisen (Coglianese 2012a; Coglianese and Bennear 2005; Greenstone 2009). Along with our coeditor, Adam Finkel, we have assembled an interdisciplinary group of regulatory scholars and analysts to give sustained attention to three vital questions raised by the jobs and regulation debate: Does regulation kill or create jobs? How should regulatory analysts investigate the job effects of regulation? How, if at all, should the regulatory process be reformed to give proper consideration to regulation's impacts on employment to yield better policy results? The remainder of this book is divided into three parts, each corresponding to one of these three questions.

The first part offers the reader a careful presentation of empirical evidence about regulation's employment effects. In Chapter 2, Richard Morgenstern provides a foundation for the rest of the book by reviewing the existing research on regulation's employment impacts as well as the welfare effects of unemployment gleaned from labor economists' studies of mass layoffs. In Chapter 3, Wayne Gray and Ronald Shadbeian offer new data analysis on the relationship between employment and regulation and address a gap in the existing literature by investigating how differences in the competitiveness of different industrial sectors either accentuates or attenuates regulation's employment effects. Joseph Aldy and William Pizer, in Chapter 4, focus on the relationship between upstream regulation and downstream employment by estimating the spillover effects on manufacturing from regulation-induced price increases in electricity. In Chapter 5, Rolf Färe, Shawna Grosskopf, Carl Pasurka, and Ronald Shadbeian model employment impacts under different regulatory approaches, comparing more rigid, traditional regulation with more flexible, market-based instruments.

The second part of the book offers an in-depth treatment of many of the core conceptual and methodological issues that regulatory analysts will need to confront in seeking to improve their analyses of the employment effects of regulation. In Chapter 6, Lisa Robinson outlines nine important principles—or “best practices”—for agencies to follow when seeking to incorporate job impacts into their regulatory impact analyses. In Chapter 7, Adam Finkel translates and applies the lessons learned over the last 30 years in the scientific assessment of public health risks, concluding that analysts investigating employment effects would do well to replicate how health risk assessors have responded to challenges related to uncertainty, bias, and the estimation of second-order effects. Matthew Adler, in Chapter 8, offers a model for incorporating into agency decision making the effects on individual psychological and physical well-being that can result from unemploy-

ment as well as some strategies for empirically measuring these impacts. Ann Ferris and Al McGartland, in Chapter 9, explore issues that the EPA has encountered in studying employment effects and then advocate keeping jobs analyses separate from benefit–cost analyses, at least until economic theory and empirical research develop further. Finally, Brian Mannix maintains in Chapter 10 that, while the observable employment impacts of regulation may be important, they cannot simply be grafted onto the standard framework for benefit–cost analysis because, he further argues, such effects are already captured—albeit implicitly—in the standard computation of compliance costs.

The third and final part entertains the possibility that the current regulatory process in the United States could be reformed in ways that would better ensure that federal agencies appropriately factored job impacts into their regulatory decision making. In Chapter 11, Jonathan Masur and Eric Posner defend and expand the argument that agencies should incorporate jobs impacts into their benefit–cost analyses (Masur and Posner 2012), recommending that agencies account for more than just first-order effects when making regulatory decisions. Stuart Shapiro, in Chapter 12, reviews how well regulatory agencies are currently doing in analyzing job impacts, concluding that the track record is abysmal and that a new, outside government entity should be charged with evaluating regulation’s effects on jobs. In Chapter 13, Michael Livermore and Jason Schwartz make the democratic case for agencies to conduct better assessments of employment impacts, arguing that such jobs analyses can usefully inform public deliberation regardless of whether they actually alter the outcomes of particular benefit–cost analyses. Finally, in Chapter 14, E. Donald Elliott argues that at the end of the day, the government needs to factor job effects into regulatory analysis when they may be significant either to decisions or to public debate and that experience with similar assessments in the United States and European Union provides a fruitful model for reforming regulatory practice.

Conclusion

The impacts of regulation on employment—whether real or just alleged—will continue to matter to public policy decision makers, particularly in times of high unemployment. Although economists may persist in finding little or no aggregate net effect of regulation on jobs, politicians will continue to respond to localized and individual impacts as well as to the distribution of gains and losses. As long as some regulations affect some jobs, politicians will still either criticize or praise regulations for what they do to employment in their districts and states. The

challenge for researchers and analysts is not merely to continue to test claims about how regulation writ large affects aggregate levels of jobs, but also to understand better which regulations have which specific effects on jobs and what are the conditions under which these effects occur. We hope this book can help move forward efforts to meet that challenge.

Employment in the United States may have rebounded by the time many readers will encounter the pages of this book; we certainly hope it will have. With time, phrases like “job-killing regulations” may even fade from the national political discourse. Yet even if economic renewal leads the debate over jobs and regulation to fall dormant for a time in Washington, D.C., it will undoubtedly persist in regulatory disputes at the state and local level and can be counted on to return to the national stage the next time the nation’s economy stalls and unemployment spikes for any sustained period. To ensure that policy analysis can better inform deliberation by the public and their leaders, researchers and analysts should seek to contribute by continuing to engage in the kind of work presented and addressed in the chapters of this book.

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Notes

1. By “on record,” we mean since 1967, when the Bureau of Labor Statistics began tracking unemployment of one year or more in duration. Although record-high, the number of long-term unemployed individuals only hints at the disproportionate burdens that the Great Recession has imposed on specific segments of U.S. society, including younger Americans, minorities, and the poor (Seefeldt and Graham 2013).

2. Other California Republican officials echoed these sentiments at the time (see, e.g., Carbone 1992; Fuentes 1992).

3. Morgenstern et al. (2002) further distinguish between “cost effects” and “factor-shift effects” that arise from regulation-induced increases in produc-

tion costs. Cost effects arise when, keeping the firm's ratio of capital to labor the same, regulation increases costs for all factors of production, including capital and labor. Factor-shift effects occur when regulation is more or less labor intensive to implement. If a regulation leads to more labor-intensive operations (decreasing the capital–labor ratio), then wage increases or job gains result (or both). An increase in the capital–labor ratio would have the opposite effect. Any job effects resulting from either cost or factor-shift effects are, of course, distinct from job losses as well as wage cuts associated with the reduced demand for the more costly product.

4. The studies of environmental regulation we discuss in this section are ones that have the most direct measures of regulatory stringency, relying either on variation in actual rules or on firm-reported data on private sector spending on regulatory compliance. Other studies have attempted to discern various economic effects of regulation at the macro level by deploying proxies such as the size of government budgets, the number of pages of rules, or indices of regulatory burdens and then correlating these with overall macroeconomic indicators (e.g., Beard et al. 2011; Dawson and Seater 2013; Feldmann 2009; Jacobzone et al. 2010). Some of these studies report correlations between the deployed proxies and employment, but other studies using similar measures have found no effects (e.g., Sinclair and Vesey 2012). For a discussion of the use of proxies in regulatory research, see Coglianesi (2012b).

5. This view is consistent with responses to a variety of surveys. From 1995 to 2013, for example, the Bureau of Labor Statistics (BLS) surveyed each business that incurred a “mass layoff”—that is, over 50 state unemployment insurance claims within five weeks. Since 2007, BLS has specifically asked these firms whether government regulations caused the layoffs—but only a small percentage of businesses has reported that regulation was a factor (Bureau of Labor Statistics 2012). Separately, randomized surveys have found that at most only about a quarter of small business owners view excessive government regulation as a pressing concern (American Sustainable Business Council et al. 2012; Dunkelberg and Wade 2011, 2013; Hall 2011). Similarly, only about a quarter of the respondents in a *Wall Street Journal* survey of about 50 economists pointed to “uncertainty about government policy” as a factor for the economy's slow return of employment (Izzo 2011).

6. More recent empirical studies appear to show some support for the Porter hypothesis, suggesting that innovation spurred by regulation may take time to result in productivity gains (Ambec et al. 2013). We thank Adam Finkel for reminding us that even if the Porter hypothesis is true in some situations, employment could still go down because the cost-saving innovations induced by regulation might take the form of new technologies that eliminated some of the need for labor.

7. These results accord with others who have likewise found that the economic effects of regulations vary across sectors (e.g., Jorgenson and Wilcoxon 1990).

8. We used Bureau of Labor Statistics Job Openings and Labor Turnover Survey data at <http://data.bls.gov/cgi-bin/dsrv> as the source for the number of workers laid off or fired monthly. The average was computed from monthly total U.S. nonfarm layoffs and discharges, seasonally adjusted, over the 60-month period from 2003 through 2007.

9. Senator King made his comment while giving the luncheon address at the Progressive Policy Institute's conference on “Regulating in the Digital Age,” held in Washington, D.C., on 9 May 2013.

10. Invoking a hypothetical that will surely resonate with our academic readers, a legislative staff member expressed to one of us the reasonableness of politicians' distributional concerns by imagining a university facing a tough decision that would affect the number of faculty positions. "Wouldn't the provost want to know how different departments would fare under different options?" the staffer asked rhetorically. Even if the imaginary university's decision resulted in no change in faculty appointments overall, university officials would presumably still find it relevant to know if the decision meant that the archeology department gained positions while the biology department lost positions (or vice versa).

11. Another possible explanation, from behavioral economics, might be that people feel the hurt of losing something more than the gain associated with getting that thing in the first place (Kahneman 2011).

12. On the other hand, Ruhm (2000) contends that overall mortality actually declines during periods of high unemployment, although the rate of suicide increases.

13. It is possible, of course, that the utility of the lost wages to the worker will not be counterbalanced perfectly by the utility connected to cost savings to the firm. However, the utility from the worker's so-called leisure time would need to be factored in as well. Economists often use the reservation wage, or the earnings level at which a worker is indifferent between working and not working, to focus on the welfare or utility effects of policies that affect labor choices (Bartik 2012; Haveman and Farrow 2011). Another approach to valuation would be to multiply jobs lost times average unemployment benefits provided by the government. This would not represent a value in terms of economic welfare, but it might still be deemed relevant to public officials who must monitor the public fisc.

14. As Arrow et al. (1996:6) have noted, "While benefit-cost analysis should focus primarily on the overall relationship between benefits and costs, a good benefit-cost analysis will identify important distributional consequences of a policy."

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