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A Review and Synthesis of the Cost of Workplace Regulations

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A Review and Synthesis of the Cost of Workplace Regulations

ABSTRACT

Little is known about the effects many workplace regulations have on U.S. consumers, employers, workers and taxpayers. This paper offers a synthesis and evaluation of available estimates of the cost of regulations directed at the workplace, and from these different studies, generates an estimate of the total cost of workplace regulation.

Though the focus of this paper is on the costs of regulations, regulations also provide benefits to American citizens. Indeed, the desired benefits of regulation are the force behind legislative initiatives that create them, and the benefits of regulation are often better understood, qualitatively, at least, than the costs. However, like the federal budget, which tracks government expenditures without their corresponding benefits, an understanding of regulatory costs is important for reasoned decision-making.

Workplace regulations impose significant costs on the U.S. economy, businesses, workers and consumers. Based on a careful review of available literature on the costs associated with 25 major statutory and executive provisions, I estimate that workplace regulations cost at least \$91 billion per year in 2000 dollars. While contributing just over 10% of the generally accepted estimates of the total costs of regulation, this estimate is larger than has previously been assumed for workplace regulations.

A Review and Synthesis of the Cost of Workplace Regulations

I. Introduction

While the literature on regulatory costs has been growing in recent years, there is still relatively little knowledge about the effects many government regulations have on U.S. consumers, employers, and taxpayers. Researchers have applied various different research methods to estimate the social benefits and costs generated by individual regulations, as well as regulations generally. This paper offers a synthesis and evaluation of available estimates of the cost of regulations directed at the workplace, and from these different studies, generates an estimate of the total cost of workplace regulation.

The federal government has two principal mechanisms by which it diverts resources from private sector use to meeting government-mandated goals: regulation and taxation. While tax revenues are measured precisely, tracked through the federal budget, and subject to Congressional oversight and public scrutiny, there is no corresponding mechanism for keeping track of the total cost of regulation. Yet, this burden on businesses and consumers can be considerable and promises to grow as policy makers move costs from the more visible fiscal budget to the less visible regulatory cost ledger.

The number and scope of regulations has grown dramatically over the last three decades, increasing the cost of goods and services, and limiting consumer choices. However, since the costs of regulations are not paid directly, Americans don't know how much this hidden tax actually costs each year.

Much of the work done on regulatory issues focused on analyzing individual regulations and their costs, benefits, and effects on the economy. This kind of incremental analysis is essential for understanding the costs and benefits of a new regulatory action, and determining whether it will make Americans better off. However, it does not inform Americans of the total impact regulations have on the economy and our way of life.

A few studies have attempted to assess the costs and benefits of all regulations.¹ Examining regulatory costs for broad categories of regulation allows us to summarize total costs or total benefits for easy comparison to other important benchmarks, for instance GDP. This more easily portrays the total size and scope of the government's regulatory intervention into the economy, and the effect on the lives of ordinary people.²

¹ OMB, for example, is directed to present an annual report outlining the total costs and benefits of all regulations.

² See, for instance, Crain and Hopkins (forthcoming), "The Impact of Regulatory Costs on Small Firms", (SBAHQ-00-R-0027) which updates earlier work by Hopkins (1995).

Some of these broader studies rely on proxy measures to estimate the size and growth of the federal regulatory burden. These measures have included counting the number of pages printed annually in the Federal Register or the number of pages comprised by the Code of Federal Regulations, or summing the total regulatory budgets of federal agencies. Though inexact, these proxies suggest that the federal regulatory burden grew dramatically through the 1970s and, after a period of stability in the 1980s, is increasing again. The Federal Register printed only 20,000 pages in 1970, but in 2000 this had grown to over 83,000 pages. The magnitude of the regulatory burden is also evident through the growth in the Code of Federal Regulations, the official listing of Executive Branch agency regulations in effect in any year. It climbed from 71,000 pages in 1975 to 135,000 pages in 1998, and comprising 210 volumes and occupying 19 feet of shelf space. While the size of the Federal Register demonstrates the increase in the rate of rulemaking in recent decades, the increase in the CFR represents an increase in the total magnitude of rules on the books.

In addition to these proxy measures of the overall costs of regulations, a number of researchers have attempted to estimate the total cost (and benefit in some cases) of federal regulations. Hahn and Hird surveyed the literature on regulatory costs and benefits to arrive at an aggregate total.³ Their estimate, however, omitted many important regulations, and indeed many new rules have been issued since. Hopkins also aggregates information on regulatory costs from a number of sources, including many economic analyses performed by government agencies.⁴ Recently this work has been updated and extended by Crain and Hopkins.⁵

The costs (and benefits) of compliance with environmental regulations tend to dominate the estimates in these studies. More estimates are available regarding the costs and benefits of individual environmental regulations, and the Bureau of Economic Analysis's surveys of pollution abatement cost and expenditures also provide a basis for estimating these costs. The costs (and benefits) of workplace regulation have been the focus of much less scrutiny over the years. This report attempts to fill some of the holes in our knowledge of regulatory costs by examining the cost of workplace regulations in more detail than has previously been done.

The focus of this paper is on the costs, and not the benefits, of workplace regulations.⁶ This is not meant to suggest that regulations do not have benefits, as well as costs, for American citizens. Indeed, the desired benefits of regulation are the force

³ Hahn, Robert W., and Hird, John A. (1990) "The Costs and Benefits of Regulation: Review and Synthesis," *Yale Journal on Regulation*, 8:233-278.

⁴ Hopkins, Thomas D. (1995) *Profiles of Regulatory Costs. Report to the US Small Business Administration*, US Department of Commerce, National Technical Information Service #PB96 128038, November 1995.

⁵ *Supra* note 3.

⁶ As Hopkins notes, tracking only the cost side follows the lead of the federal fiscal process, which does not measure benefits. Thomas D. Hopkins, "Regulatory Costs in Profile," Policy Study No. 132, Center for the Study of American Business, (August 1996); Murray Weidenbaum and Robert DeFina, "The Cost of Federal Regulation of Economic Activity," American Enterprise Institute, (May 1978).

behind legislative initiatives that create them, and the benefits of regulation are often better understood, qualitatively, at least, than the costs.

As private sector managers have long recognized, however, that which goes unmeasured, goes unheeded. This is why companies maintain internal cost accounting systems to track expenditures for different purposes. It is also why the federal government tracks on-budget expenditures for its various purposes. Although the benefits that correspond to these expenditures are recognized by decision-makers and are considered when determining whether a particular project is worth the cost, an overall understanding of expenditures or budgetary costs is essential for reasoned decision-making.

There are considerable gains from understanding the cost side alone. First, any reasonable estimate of the macro costs to the economy can make a valuable contribution to the education of citizens, taxpayers, businesses, and policy makers. Second, a comparison of the cost of regulations that address diverse needs can provide policy makers and voters with an understanding of the relative burdens imposed on the limited resources of the economy in tackling economic and social problems. As in the realm of the fiscal budget, such comparative data will be useful in allocating these limited resources. This is especially true where some qualitative if not quantitative sense of the benefits of various regulatory initiatives already exists, so cost information would further help policy makers in choosing how resources should be allocated. Third, a better understanding of the costs of specific types of regulatory procedures will assist in the evaluation of one regulatory approach against another, which in itself may lead to a more efficient regulatory process. All three of these goals benefit from a process that provides a systematic approach to estimating costs.

Workplace regulations are defined for the purpose of this report as those rules issued primarily by the Department of Labor that govern the relationships between either employers and employees or, in some limited cases, employers and the public. This covers a wide array of different regulations dealing with wages, benefits, safety and health, and civil rights among other things. They cover such topics as the benefits an employer must provide an employee, the safety precautions he or she must undertake, and the procedures he or she must follow in certain situations. Importantly, many of the workplace regulations examined here are very general and cover most, if not all, industries as well as most firms down to the smallest employers.

Taken as a group these regulations represent the second largest category of social regulations, trailing only environmental regulations. Yet, with the exception of those workplace regulations dealing with safety and health, the costs of workplace regulations have not been studied in detail. By all accounts, over the past two decades social regulation has been expanding significantly, while economic regulations, those that regulate price or quantity in certain industries, have been declining.⁷ Workplace regulations have contributed to this increase. Recent benefits mandates (the Family and

⁷ Hopkins, *supra* note 4.

Medical Leave Act and various Health Insurance Portability requirements), safety and health (ever-increasing numbers of OSHA regulations), and civil rights regulations (new rules based on the Americans with Disabilities Act and the Civil Rights Act of 1991) have all contributed to the growth in workplace regulations.

This paper seeks to address the totality of workplace regulatory costs. It evaluates, summarizes and compiles available estimates of the costs of different regulations and categories of regulation. Using this approach, I estimate the total cost of workplace regulations to be at least \$91 billion annually. “At least” modifies the cost estimate simply because reliable estimates are not available for several workplace regulations. Tables 2-7 list regulations by category, whether or not estimates exist.

The results, and their lack of completeness due to “holes” in existing research, serve to highlight important facts. First, as noted above, workplace regulations are important and costly social regulations that have been overlooked when considered as a group. Second, as with all regulatory cost analysis, there is an overall lack of good quality data on the costs and benefits of many of these regulations. While the second may indeed contribute to the first, it is hoped that by compiling and exposing the *status quo* in this area, academics and others will be stimulated to conduct the research necessary to fill the gaps in our knowledge of workplace regulations.

The remainder of the paper is organized as follows: In Section Two, various types of regulatory costs and how they have been estimated in the past are briefly discussed. Section Three begins a discussion of workplace regulations, outlines the methodology for surveying the costs, and describes the statutes covered by this analysis. In addition, the analysis of the various estimates of workplace regulatory costs are laid out and critiqued. Section Four aggregates the costs to determine a total cost of workplace regulations based on the data available. Section Five identifies the gaps that remain to be filled and provides some concluding remarks.

II. A Note About “Costs”

There are different ways to measure costs as well as many different types of costs to measure,⁸ as discussed in the economics, law, and policy literature. Much important research has focused on the cost of specific regulations or specific regulatory agencies and utilized original methodologies for providing estimates. Other studies have undertaken broader estimates of the total costs of regulation and employ primarily aggregations or surveys of existing literature.⁹ Still other researchers have estimated

⁸ For an explanation and categorization of cost concepts, see “A Taxonomy of Regulatory Costs” by Jay Cochran (Mercatus Center Working Paper), www.mercatus.org.

⁹ See, for example, Hahn, Robert W. and John A. Hird. (1990) “The Costs and Benefits of Regulation: Review and Synthesis,” *Yale Journal on Regulation* 8:233-78; Hopkins, Thomas D. (1995) *Profiles of Regulatory Costs. Report to the US Small Business Administration*, US Department of Commerce, National Technical Information Service #PB96 128038, November 1995; Litan, R. and W. Nordhaus. *Reforming Federal Regulation*, New Haven: Yale University Press, (1983); Weidenbaum, Murray and

economy-wide, macroeconomic effects using large-scale multi-sector general equilibrium models, a more top-down approach.¹⁰ The approach taken here is simply to aggregate costs within a particular subset of regulation, that of the workplace. This bottom-up approach aggregates careful, focused studies of each individual regulation, but misses important costs where no estimate exists for certain regulations and more importantly, misses the secondary effects, or indirect costs.

Beyond the issue of methodology used in determining regulatory costs is the issue of what type of “costs” to consider. Cost studies usually focus on direct costs, which can be called alternatively engineering costs or compliance costs, when discussing social regulation. While not exactly economic costs, which can alternatively be called opportunity cost or efficiency costs, they are a very good approximation of the “true” economic cost. Additionally, because researchers have found it exceedingly difficult, if not impossible, to uncover the totality of real economic costs involved with even a small subset of all regulations, direct costs seem a reasonable proxy. Furthermore, direct costs have the virtue of being very transparent and easily agreed upon.

Indirect costs are more difficult to measure than direct costs. They include the second-order effects of regulation, which spread from the regulated industry to other industries through price and quantity changes instigated by the regulation. These involve real economic losses to society as a whole from regulatory distortions in markets and decision-making; in essence, lost GDP or consumer and producer surplus from the promulgation of regulations.¹¹ It cannot be stated strongly enough how difficult it is to measure indirect costs, for the most part because isolating the effect of regulations is very sensitive to other modeling assumptions.

Because many of the cost estimates for individual regulations included in this study come from the government agencies that propose the rules, they are biased heavily towards direct costs. The nature of the costs in each estimate is described carefully in order to avoid the “apples and oranges” fallacy wherever possible. When confronted with a choice of possible costs to include, I have attempted to err on the side of underestimating, rather than overestimating costs, and thus my total estimate is not an exhaustive classification of workplace regulations. Instead, it represents the best of what is available. Because they are more straightforward, the costs included are essentially a

Robert DeFina, “The Cost of Federal Regulation of Economic Activity,” American Enterprise Institute, (May 1978).

¹⁰ The primary examples of this approach are Hazilla, Michael and Kopp, Raymond. (1990) “The Social Cost of Environmental Quality Restrictions: A General Equilibrium Analysis,” *Journal of Political Economy* 98(4):853-73; and Jorgensen, Dale W. and Wilcoxon, Peter J. (1990) “Environmental Regulation and U.S. Economic Growth,” *Rand Journal of Economics* 21(2)314-40.

¹¹ Note that this is exactly what is attempting to be measured by the approaches of Jorgensen and Wilcoxon (1990) and Hazilla and Kopp (1990). These estimation techniques utilize complex general equilibrium models of the economy, which are often proprietary due to the immense costs of developing and implementing them. The benefit they provide is the ability to measure the total effect of a regulation, that is the first order direct costs and the second order indirect costs.

catalog of direct costs, and I will henceforth simply refer to them as “the” costs of the particular regulations.

Some of the studies on which I rely report the dollar amounts transferred by a particular regulation or group of regulations. “Transfer payments” are cash flows paid by one group to another. Since the losses of one group are offset by benefits to the other, transfers themselves impose no net cost on society as a whole. However, most economists acknowledge that some fraction of transfers are indeed social costs because of the distortions they cause in markets, or the rent-seeking behavior they initiate. For example, a minimum wage law that increased a workers’ hourly wage by one dollar would cost the employer one dollar (a transfer), however, if that transfer payment also served to increase total labor costs and reduce the number of jobs available (costing another worker a job) it also has real social costs. To capture the social costs associated with transfer payments, I use the method applied by Hahn and Hird in their widely-cited analysis of the literature on a wide variety of regulations.¹² They indicate that estimates for the relationship of deadweight losses to transfers span a wide range in the literature. The number they use as the most plausible is a ratio of 3:1. That is, for every three dollars transferred one dollar of real economic loss is incurred in deadweight losses, or possibly rent-seeking losses undertaken to attain transfers. I use Hahn and Hird’s 3:1 ratio to estimate efficiency costs from transfers.

III. Workplace Regulations

As stated previously, workplace regulations are federal government rules affecting the relationship between employers and employees, or employers and the public in some cases. Generally speaking, they emerge from the Department of Labor and its various agencies. Literally hundreds of regulations affect the workplace. Of these, I have chosen to concentrate on 25 enabling statutes and Executive Orders that have provided the legal authority for the majority of important rules promulgated by the various executive branch agencies that regulate the workplace. These regulations, and the statutes that enable them, are organized according to a GAO report on workplace regulations that lists and categorizes the major rules in this area.¹³ GAO organizes workplace regulations into six categories that I have adopted here.

- **Labor Standards** regulations encompass traditional legal requirements for minimum pay, overtime pay, and pay standards for government contracts.
- **Employee Benefits** regulations include rules governing health and pension benefits packages.
- **Labor-Management Relations** regulations concern the interaction of employers and unions.

¹² *Supra* note 3.

¹³ See GAO/HEHS-94-138 for the General Accounting Office (GAO) classification of workplace regulations.

- **Occupational Safety and Health regulations** deal with safety and health regulations for the workplace.
- **Civil Rights** regulations include legal statutes that govern the relationship of employers and minority workers.
- **Employment Decision Laws** is a catchall category for rules dealing with hiring and firing practices.

Table 1 lists the twenty-five statutes and executive orders that GAO has identified as enabling the significant regulations affecting the workplace. The Occupational Safety and Health Act, for example, establishes the Occupational Safety and Health Agency (OSHA), which produces numerous regulations each year. In the sections below, I briefly describe each these twenty-five acts and executive orders and summarize available estimates of the costs of complying with them. Tables 2-7 present the resulting cost estimates. They are all in annual 2000 dollars (converted using the CPI deflator). There are some gaps in these estimates, which I explain below.

Table 1. Statutes and Executive Orders Governing Workplace Regulations

Labor Standards:

- Fair Labor Standards Act (FLSA)
- Davis-Bacon Act
- Service Contract Act
- Walsh-Healey Act
- Contract Work Hours and Safety Standards Act
- Migrant and Seasonal Agricultural Worker Protection Act

Employee Benefits:

- Consolidated Omnibus Budget Reconciliation Act of 19 (COBRA)
- Family and Medical Leave Act (FMLA)
- Employee Retirement Income Security Act (ERISA)
- Unemployment Compensation Act

Labor-Management Relations:

- National Labor Relations Act (NLRA)
- Labor-Management Reporting and Disclosure Act (LMRDA)

Occupational Safety and Health

- Occupational Safety and Health Act (OSHA)
- Federal Mine Safety and Health Act (MSHA)
- Drug Free Workplace Act
- Omnibus Transportation Employee Testing Act (OTETA)

Civil Rights:

- Equal Pay Act
- Title VII of the Civil Rights Act of 1964
- Age Discrimination in Employment Act (ADEA)
- Americans with Disabilities Act (ADA)
- Executive Order 11246
- Rehabilitation Act of 1973

Employment Decision Laws:

- Polygraph Protection Act
- Immigration Reform and Control Act (IRCA)
- Worker Adjustment and Retraining Notification Act (WARN)

A. Labor Standards

Table 2 lists the six statutes included in this category and the costs of each. The first four statutes in this category are targeted wage controls, or price floors for labor. The Fair Labor Standards Act (FLSA), the Davis-Bacon Act, the Service Contract Act, and the Walsh-Healey Act all establish minimum pay scales for certain sub-categories of labor. The measured effects of these rules, generally the percentage or amount of wage inflation over market rates, are essentially transfers. However, the costs related to these rules are quite identifiable, at least theoretically, using basic economic analysis. There is a distortion caused by forcing the price of labor above the market-determined level, thereby reducing demand for labor relative to capital, and increasing unemployment. The extent of this displacement and its costs depend upon the salient elasticities of demand and supply for both inputs (labor and capital) and the final products.

Table 2. Labor Standards: Regulatory Costs

Regulation	Cost ^a (millions)		
	Low	Best	High
Fair Labor Standards Act	NA	NA	NA
Davis-Bacon Act	\$567	\$950	\$950
Service Contract Act	\$243	\$291	\$291
Walsh-Healey Act	\$0	\$0	\$0
Contract Work Hours and Safety Standards Act	(included above)	(included above)	(included above)
Migrant and Seasonal Agricultural Workers Protection Act	\$4.3	\$4.3	\$4.3
Total	\$814	\$1,245	\$1,245

^a All figures presented in 2000 dollars.

For the three federal contractor standards the distortion may be aggravated because the government is a monopsony purchaser of the firms' output. However, unlike a normal monopsony the government does not optimize according to profit and loss, but rather may use government contracts to aid in redistribution through deliberately inefficient programs and projects that benefit particular special interests. Not only may wages be inflated above the market level by these rules, causing inefficient production choices, but there may also be an inefficient level of production from the firms governed by these standards because the government purchasers may choose to use these projects for further wealth redistribution.

The Contract Work Hours and Safety Standards Act and the Migrant and Seasonal Agricultural Worker Protection Act apply certain rules to the employment relationship with specific covered groups of employees. Their costs are the costs of complying with the application of the procedural rules imposed.

1. Fair Labor Standards Act

The Fair Labor Standards Act (FLSA), dates to 1938 and has been amended numerous times. Administered by the Department of Labor's Wage and Hour Division (WHD), it provides the statutory authority for Congress to set minimum wage and overtime compensation laws that are enforced by the WHD. Despite numerous studies of the effects of minimum wage regulations on the economy, I have not assigned a cost to these. The last time the minimum wage was increased was 1996. At that time, it was estimated that employers in the private sector would pay an additional \$4 billion per year in compensation and that public sector labor costs would be an additional \$338 million greater.¹⁴

While these figures may have been accurate in 1996, at present they probably overstate costs significantly. Because economic conditions are constantly changing while the minimum wage, denoted in nominal rather than constant dollar terms, changes only periodically and in discrete steps, the costs of a minimum wage are ever changing. In many areas, particularly metropolitan ones, the minimum wage is probably well below market wages. However, in most non-metropolitan areas the minimum wage is probably binding, especially for the teenage labor force, which is generally the hardest hit by minimum wage laws. Teenagers are the marginal employees in many establishments that pay minimum wage, and because they are more transient in employment and usually the least experienced of even the minimum wage workforce, they are the first fired when the minimum wage is increased and the workforce is reduced due to the higher labor costs.

The FLSA also sets standards for overtime pay. Trejo presents the argument that overtime pay standards have no aggregate effect on pay because workers and employers understand that job compensation is a package of benefits.¹⁵ Therefore, it makes no difference how the fixed compensation package is distributed. This argument, although not universally accepted, has a lot in its favor. In the absence of impediments to adjustment of compensation, overtime pay would likely have no effect because alternative compensation mechanisms would simply be marginally adjusted. However, there are significant impediments to the adjustment of alternative compensation, some of which are documented below. Nevertheless, I include no estimate of the costs of overtime compensation laws.

¹⁴ These estimates are from the Heritage Foundation (www.heritage.org) and from the Congressional Budget Office (Congressional Budget Office. *Reducing the Deficit: Spending and Revenue Options*, August 1996) as reported by the Heritage Foundation. I do not include these estimates in any cost totals reported herein.

¹⁵ Trejo, Stephen J. (1991). "The Effects of Overtime Pay Regulation on Worker Compensation," *American Economic Review* 81: 719-40.

Minimum wage laws have effects on the labor market, particularly for teenagers, and therefore do carry costs. However, I include no estimate for the overall costs of the minimum wage and overtime pay provisions of the FLSA in my aggregate estimate of workplace regulatory costs because any estimate of the direct costs of wage inflation made even as recently as five years ago likely overstates the costs. And without good estimates of where and how the standards bind the wages paid by employers, efficiency losses emanating from the transfer through higher wages are impossible to estimate.

2. Davis-Bacon Act

The second labor standard regulation in Table 2 is the Davis-Bacon Act. Dating to 1931, Davis-Bacon requires government contractors to pay the local prevailing wages to labor in public works projects. “Prevailing wages” are set by the Department of Labor’s Wage and Hour Division and are generally significantly higher than market wages.¹⁶ Because of this, Davis-Bacon imposes costs on contractors in the form of higher wages than they would pay on a non-government contract job. The costs of the Davis-Bacon Act as measured by a number of studies are the transfers to labor from taxpayers in the form of higher wages paid on government contracts.

Thieblot estimates the costs of Davis-Bacon at \$1.62 billion per year in wage inflation with the number climbing to \$1.85 billion per year when administrative costs are included.¹⁷ Previous studies by the Government Accounting Office and Goldfarber and Morrall find similar annual costs ranging from \$1.23 billion to \$1.95 billion¹⁸ and \$1.17 billion to \$2.16 billion respectively.¹⁹ Again, these studies include wage inflation, essentially a pure transfer, and administrative costs. The Congressional Budget Office reported costs of between \$1.53 billion and \$2.85 billion.²⁰ Because the data are readily available and of high quality, Davis-Bacon is one of the most studied regulations.

In Table 1 I report an upper and lower bound estimate of the costs of Davis-Bacon. As noted previously in Section II, I estimate the social cost by taking 1/3 of the total transfer amount. The lower bound transfer above is \$1.17 billion, which implies a social cost of \$567 million. Likewise the upper bound of \$2.85 billion implies a social cost of \$950 million. My best estimates for the Davis-Bacon Act is the upper bound cost of \$950 million (also reported in Table 1) because the distortions are probably greater than those from a typical transfer. Service Contract Act

¹⁶ Rather than allowing the market to simply determine a wage, WHD sets “prevailing wages” that must be paid by employers contracting with the government. The prevailing wage tables are issued by WHD and are not based on market wages, but rather on various features of location and conditions in the market. While the factors used to establish prevailing wages would likely affect market wages, the adjustments made by WHD are arbitrary.

¹⁷ Thieblot, A.J. (1996) "A New Evaluation of Impacts of Prevailing Wage Law Repeal," *Journal of Labor Research* 17(2):297-322.

¹⁸ U.S. General Accounting Office, *The Davis-Bacon Act Should be Repealed*, 1979.

¹⁹ Goldfarber, R.S. and Morrall, III, J.F. (1977) "Cost Estimates of Changing Davis-Bacon Administration," *Policy Analysis* 4(4):439-53.

²⁰ Congressional Budget Office. *Reducing the Deficit: Spending and Revenue Options*, August 1996.

3. Service Contract Act

The Service Contract Act is the analog to Davis-Bacon for contractors providing services to the government. The Congressional Budget Office estimates the costs of wage inflation generated by the Service Contract Act to be \$727 million annually.²¹ The Department of Labor has generated similar estimates of \$873 million per year.²² The Department of Labor estimate includes additional contracts for contractors working in research and development, which probably makes it a more complete and ideal total estimate. These two estimates are used to form upper and lower bound cost estimates in Table 1 of \$243 million and \$291 million respectively. Because the Department of Labor estimate (\$291 million annually) is more complete, I use it as the best estimate.

4. Walsh-Healey Act

The Walsh-Healey Act mandates that prevailing wages be paid to employees of companies who supply government with goods and supplies. However, due to the 1965 Supreme Court decision *Wirtz vs. Baldor Electric Co.*, the Act is not applied and causes no wage inflation. The court ruled that applying Walsh-Healey was akin to price-fixing, which is illegal under U.S. antitrust law. Therefore, the rule carries no cost.

5. Contract Work Hours and Safety Standards Act

The Contract Work Hours and Safety Standards Act establishes standards for hours, overtime pay, and safety for all workers covered under the Davis-Bacon Act, Service Contract Act, and Walsh-Healey Act. For the most part, the studies reviewed above include the costs of this act within the estimates presented for Davis-Bacon and the Service Contract Act.

6. Migrant and Seasonal Agricultural Worker Protection Act

The Migrant and Seasonal Agricultural Worker Protection Act was enacted in 1983 to provide protections and standards for migrant agricultural workers. Employers are required to post and ensure that workers understand information about wages, the kind of work to be performed, period of employment, benefits, and other terms of employment. The Department of Labor estimates the costs to employers of migrant workers to be \$4.3 million annually.²³ While this is seemingly rather small in magnitude compared to many of the other costs reviewed, it is important to keep in mind that the bearers of the cost are concentrated among relatively few industries and producers. Because it is the only estimate available, I use \$4.3 million per year as both the upper and lower bound, as well as the best estimate.

²¹ *Ibid.*

²² Department of Labor Regulatory Impact Analysis included in publication of final rule amending the Service Contract Act in 61 FR 68647.

²³ Regulatory Impact Analysis from final rule printed in 62 FR 11733.

B. Employee Benefits

The second major category of regulations deals with Employee Benefits. The rules are relatively straightforward; they all either set standards for the implementation of employee benefits or mandate certain benefits that must be provided by private and public sector employers. The costs are the direct costs to employers for providing the mandated benefits, or following the government rules for benefits provision, but there are also transfers in some cases (indicated below). Clearly there are deadweight losses associated with forcing employers to provide one-size-fits-all benefits packages rather than allowing the employee to choose levels of coverage.

Table 3 presents the cost estimates for these four regulatory acts.

Table 3. Employee Benefits: Regulatory Costs

Regulation	Cost ^a (millions)		
	Low	Best	High
COBRA (Continuing Coverage)	\$12,300	\$12,300	\$12,300
FMLA	\$825	\$3,900	\$3,900
ERISA	\$1,136	\$1,136	\$1,136
Unemployment Insurance	\$1,152	\$1,152	\$1,152
Total	\$15,413	\$18,488	\$18,488

^a All figures presented in 2000 dollars.

1. Continuation of Coverage under Group Health Plans in COBRA

The Continuation of Coverage under Group Health Plans provision of the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) requires covered employers to allow employees who retire or who are terminated “without cause” to continue to participate in the same health insurance plans (covering themselves, their spouse and dependents) that were available to them as employees. Although former employees who choose to continue coverage must pay the entire monthly premium, they benefit from having access to the significantly lower premiums available to members of large group coverage plans. Employers must not only allow participation in insurance plans at rates lower than would be available outside of group coverage, but also must administer plan participation for these former employees. Madrian uses cost figures from

Charles D. Spencer & Associates, a benefits publishing firm, to estimate the costs to employers of providing continued coverage at \$12.3 billion annually.²⁴

Because employees still pay premiums, these additional costs are not simply transfers. They are, indeed, real economic costs that result from inefficiencies caused by this rule. For instance, there is the cost imposed by the adverse selection problem wherein the employees most in need of health care are the ones who continue coverage.²⁵ In general, the costs of a health plan will be greater if participants are older or are more likely to need health care. Simply put, if more of the members of the insurance pool take advantage of the insured services, the average cost to the insurer increases, unless premiums are increased. Since ex-employees pay essentially the same rates, the only way to cover the increased costs is to raise rates for all employees.²⁶

I adopt Madrian's estimate of \$12.3 billion annually. While it is likely that there are some transfers included in this number, the ratio of costs to transfers is unknown. Consider, however, that this figure does not include the second-order economic costs of lost productivity due to early retirement caused by COBRA coverage. Gruber and Madrian find significant impacts of COBRA coverage on the decision to retire early, which reduces annual US GDP by a significant amount.²⁷

2. Family and Medical Leave Act

The Family and Medical Leave Act took effect in 1993. It requires employers to provide up to 12 weeks of unpaid leave to any employee with a medical condition, or who needs to provide care to a family member with a medical condition. The overwhelming majority of employees taking advantage of FMLA benefits are pregnant women taking maternity leave. The Department of Labor and the Government Accounting Office estimate the annual costs to employers at \$825 million.²⁸ Walker quotes a Chamber of Commerce estimate of \$3.9 billion to \$24 billion per year.²⁹ I use the lower range of the Walker estimate as the upper range and best estimate in Table 3. I have not included in my range the upper bound on the Chamber of Commerce estimate reported by Walker because (1) it assumes an unrealistically high rate of leave-taking by employees and (2) it diverges from the government estimate by such a significant margin.

²⁴ Madrian, B. C. "Health Insurance Portability: The Consequences of COBRA," *Regulation*, Winter 1998, 27-33.

²⁵ COBRA participants cost insurance plan providers 150% of what the average employee costs, Madrian *Ibid.*

²⁶ COBRA coverage actually allows employers to charge up to 102% of the premium they would pay as active employees.

²⁷ Gruber, Jonathan, and Madrian, Brigitte C. (1995) "Health Insurance Availability and the Retirement Decision," *American Economic Review* 85:938-48.

²⁸ GAO/HRD-93-14R.

²⁹ Walker, Deborah. "Mandatory Family-Leave Legislation: The Hidden Costs," *Policy Analysis*, No. 108, June 8, 1988.

3. Employee Retirement Income Security Act

The Employee Retirement Income Security Act (ERISA) was passed in 1974 to establish uniform rules for employee pension and welfare benefit plans. It dictates, among other things, participation and vesting requirements. In addition, the act authorized the Pension Benefit Guarantee Corporation (PBGC) to establish a federal pension insurance plan. The Pension Welfare Benefits Administration, also established by ERISA, estimates the costs of complying with reporting and disclosure requirements at \$829 to \$847 million annually.³⁰ The primary cost component is for the filing of Form 5500.

This estimate does not include costs to firms or for consultants in ERISA compliance. Additionally, it does not count the distortions caused by the rules that dictate conditions for vesting. Because ERISA establishes vesting rules, employees become vested sooner than they would without the rule, increasing the payout required of pension funds having a greater number of vested employees.

Further, the true costs of the pension insurance program under ERISA arise from moral hazard which leads to inefficient fund management decisions, especially since the PBGC premiums and insurance coverage are government guaranteed. The ERISA Industry Committee estimates that annual excess premiums collected by the PBGC range from \$377 million to \$868 million.³¹ These excess collections may actually be considered transfers, as they are simply a movement of money from firms to the PBGC. I take one-third of \$868 million to arrive at an annual efficiency cost of \$289 million to effect these transfer payments. I do not include the entire amount of pension insurance premiums collections by the PBGC, only the excess collections.

Thus, the total cost of ERISA paperwork and efficiency losses is just under \$1.2 billion annually. I adopt this as the upper and lower bound, as well as best estimate. While this likely understates the costs of government pension insurance, it is the only one available.

4. Federal Unemployment Insurance

Federal Unemployment Insurance authorizes federal grants to state unemployment insurance administrations. The primary responsibility for administering unemployment insurance programs falls upon the individual states, which determine the length and level of coverage, as well as qualifications for receiving benefits. Leef estimates the costs of federal unemployment insurance at \$2.7 billion per year.³² Of that amount, \$385 million is paperwork costs while about \$2.3 billion is the overrun of federal collections to outlays by states, which are essentially transfers. While the latter amount

³⁰ 65 FR 21067 and 62 FR 16979.

³¹ Erisa Industry Committee (ERIC) (www.eric.org).

³² Leef, G.C. "Unemployment Compensation: The Case for a Free Market Alternative," *Regulation*, Winter 1998, 19-26.

clearly varies from year to year, and has a strong counter-cyclical component, the \$385 million is more stable. Anderson and Meyer provide a direct estimate of the deadweight losses of unemployment insurance. They offer a wide range from about \$85 million to \$1.3 billion.³³

\$2.3 billion in transfers implies a cost of \$767 million applying the 3:1 ratio. The sum of these efficiency losses and administrative costs yields an estimate of \$1.152 billion per year for federal unemployment insurance. This does not include any state unemployment insurance costs, which will likely be significantly higher due to the greater amount of money being transferred. I choose not to include the Anderson and Meyer estimate above due to the extremely wide variance.

C. Labor-Management Relations

These laws govern the interaction of employers and labor unions in certain industries. The National Labor Relations Act (NLRA) established the National Labor Relations Board as the single government entity responsible for establishing and enforcing rules regarding dealings with unions. While union activity has been declining over recent decades, there are still a number of active unions in certain U.S. industries. The survival of these unions, and their ability to demand supranormal wages when compared to similarly qualified, non-union workers, depends, at least in part, upon government enforcement of union monopoly power. The cost of labor-management relations laws have been estimated by determining the level of distortion, or deadweight loss, caused by the monopoly supply of labor through unions. The deadweight losses of labor union monopolization are the efficiency losses while the higher than market wages paid are a transfer from employers, and ultimately consumers as well, to unionized workers.

Table 4 presents an estimate of the costs of the National Labor Relations Act and Labor-Management Reporting and Disclosure Act. Both acts were intended to protect the rights of workers to unionize. Laband and Sophocleus estimate the lost productivity from union strikes alone at \$3.95 billion annually.³⁴ This does not include other distortions that may be caused by unionized industries. Johnson and Mieszkowski estimated that unionization caused a deadweight loss on the economy of one-third of one percent.³⁵ Applying this to 2000 GDP yields an estimate of approximately \$30 billion. This likely overstates the deadweight losses, since Johnson and Mieszkowski's estimate was done thirty years ago and unionization trends today are quite different. Given that higher wages to the union labor monopoly are facilitated by government protection of union bargaining power, the rent-seeking losses are likely to be large as unions expend

³³ Anderson, P.M. and Meyer, B.D. (1997) "The Effects of Firm Specific Taxes and Government Mandates with an Application to the U.S. Unemployment Insurance Program," *Journal of Public Economics* 65:119-45.

³⁴ Laband, D.N. and Sophocleus, J.P. (1992) "An Estimate of Resource Expenditures on Transfer Activity in the United States," *Quarterly Journal of Economics* 107(3):959-83.

³⁵ Johnson, H.G. and Mieszkowski, P. (1970) "The Effects of Unionization on the Distribution of Income: A General Equilibrium Approach," *Quarterly Journal of Economics* 84(4):539-71.

resources to protect their position. Witness the yearly lobbying efforts and campaign contributions of labor unions and pro-labor organizations.

Table 4. Labor-Management Relations: Regulatory Costs

Regulation	Cost ^a (millions)		
	Low	Best	High
National Labor Relations Act	\$3,950	\$3,950	\$30,000
Labor-Management Reporting and Disclosure Act	(included in above)	(included in above)	(included in above)
Total	\$3,950	\$3,950	\$30,000

^a All figures presented in 2000 dollars.

Both of the estimates presented are deadweight (or productivity) loss estimates, and thus real economic costs, of unionization. While they are somewhat unsatisfactory, I adopt them as lower and upper bounds, presented in Table 4. For the best estimate, I err on the conservative side and employ the Laband and Sophocleus estimate of \$3.95 billion per year. This estimate does not include the efficiency losses caused by the transfers to union employees via higher than market wage rates. Additionally it does not include rent-seeking losses from union efforts to maintain their monopoly status. These figures, if included, would most likely overshadow even the \$30 billion upper bound estimate.

D. Occupational Safety and Health

The Occupational Safety and Health Administration (OSHA) issues numerous rules, many of which are aimed at specific industries, and nearly all of which dictate direct expenditures by employers to introduce safety and health enhancing equipment or procedures into the workplace. While these compliance costs do not capture the full social costs of OSHA requirements, they are often estimated by OSHA in its regulatory impact analyses, and by other researchers and used as a proxy for the cost of government safety and health programs. As with other regulatory actions, the real efficiency costs are significantly more difficult to estimate.

Table 5 displays cost estimates for occupational safety and health regulations issued under the Occupational Safety and Health Act, Mine Safety and Health Act, Drug Free Workplace Act, and Omnibus Transportation Employee Testing Act.

Table 5. Occupational Safety and Health: Regulatory Costs

Regulation	Cost ^a (millions)		
	Low	Best	High
OSHA	\$7,415	\$41,000	\$57,000
MSHA	\$7,400	\$7,400	\$7,400
Drug Free Workplace Act	\$12	\$12	\$12
Omnibus Transportation Employee Testing Act	\$176	\$224	\$224
Total	\$15,003	\$48,636	\$64,636

a All figures presented in 2000 dollars.

1. Occupational Safety and Health Act

By far the largest component in this category is the large number of regulations sanctioned under the Occupational Safety and Health Act (OSH Act). The act directs a federal agency, OSHA, to promulgate and enforce safety and health regulations aimed at protecting workers. Overall, OSH Act regulations contribute the largest component of workplace regulatory cost making up nearly one-half of the total direct cost of workplace regulations in my best estimate. Because of the number of regulations OSHA issues as well as the technical nature of these regulations, OSHA is among the best of all government agencies in producing cost/benefit estimates of their rules. Thus, the logical place to begin estimating the OSH Act regulatory burden is with the economic analyses conducted by the agency when issuing new rules.

Table 10 breaks down the costs of OSH Act regulatory activity into individual significant regulations and offers cost estimates of each as well as a total. Note that the regulations listed are those for which OSHA offers regulatory analysis, in general those considered “major rules.”³⁶ The 31 rules listed in Table 10 total to a cost of just over \$7.4 billion annually. This number is an extreme lower bound estimate of OSH Act regulatory costs as it ignores numerous smaller regulations and includes only the direct costs of meeting program requirements as measured and estimated by OSHA before the rule actually goes into effect.

James estimates that the total costs of OSH Act regulations are somewhere between 5.55 and 7.75 times the direct costs OSHA estimates in its impact analyses for

³⁶ The Office of Management and Budget defines a “major rule” as one that (1) is designated as “economically significant” under section 3(f)(1) of Executive Order 12866, (2) is “major” under 5 U.S.C. 804(2) (Congressional Review Act), or (3) met the threshold under Title II of the Unfunded Mandates Reform Act (2 U.S.C. 1531 - 1538). See OMB, *Draft Report to Congress on the Costs and Benefits of Federal Regulations*, FR 66 22044 for the latest statement of these criteria.

major rules.³⁷ His multiplier includes fines for violations and the costs of the many non-major regulations for which no cost estimates exist. Applying this multiplier to the \$7.4 billion I derive in Table 10³⁸ yields total cost estimates of \$41 billion to \$57 billion per year. James cites the lower number as a lower bound of total OSH Act regulatory costs and uses it as his conservative best estimate. I adopt the same number as a best estimate.

2. Federal Mine Safety and Health Act

The Federal Mine Safety and Health Act (MSHA) is a sibling of the OSH Act that applies only to the mining industry. In the case of OSH Act, summing up the cost estimates from major rules provides a reasonable starting point for determining the total regulatory burden. However, MSHA regulates a single industry and none of the rules would classify as major rules.³⁹ Therefore, it is more difficult to track all MSHA regulations and determine an exhaustive total cost estimate by summing the stated economic costs presented in the cost-benefit analysis sections of the MSHA final rule documentations.

Denison estimated the costs of mine safety and health regulation in the 1970s using measured changes in post-regulatory productivity.⁴⁰ This methodology differs slightly from estimating changes in economic efficiency in that it measures productivity after regulation and compares it to the counterfactual case of estimated productivity were no regulation issued. Updating Denison's estimate to 2000 yields an annual productivity loss of \$7.4 billion.

Denison's estimate is slightly out of date in as far as the mining industry and regulatory environment have changed. Indeed, there are many mining regulations not included in this cost estimate, including a number with available cost estimates currently on the MSHA website. Summing the cost estimates of these recent regulations yields additional costs of \$89 million,⁴¹ And this is certainly only a small portion of the regulations promulgated by MSHA since Denison's study, indicating that the current total costs are likely greater than \$7.4 billion per year. Nevertheless, Denison's estimate is the best available, and as such I include it in my best estimate of total workplace regulatory cost.

³⁷ James, Jr., Harvey S. "Estimating OSHA Compliance Costs," Center for the Study of American Business, Policy Study Number 135, October 1996.

³⁸ My list of major regulations includes the 25 cited by James as well as another 6 OSHA has added to its listed significant regulations on the OSHA website (http://www.osha-slc.gov/Preamble/toc_preambles.html) since James did his study in 1993.

³⁹ *Supra* note 36 for the official definition of "major" and "significant" rules.

⁴⁰ Denison, E.F. *Accounting for Slower Economic Growth: The United States in the 1970s*, Washington: The Brookings Institution (1979).

⁴¹ MSHA RIAs from MSHA website www.msha.gov

3. Drug-Free Workplace Act

The Drug-Free Workplace Act requires federal government contractors and grantees to maintain a drug-testing program, and take other steps, to ensure a drug-free workplace. While cost estimates for federal contractors and grantees were not available, the General Accounting Office estimates that federal agencies spend \$12 million per year to comply with federal drug-testing requirements for government employees.⁴² It is likely that the costs per employee to contractors are not significantly different from this figure. I include the estimate for federal employees, but overall the magnitude of these costs is significantly less than the rounding errors and estimate ranges on larger regulations.

4. Omnibus Transportation Employees Testing Act

The Department of Transportation is tasked with enforcing the Omnibus Transportation Employees Testing Act (OTETA). This regulation requires drug and alcohol testing programs for workers in transportation industries. Although OTETA is the governing statute, the Federal Aviation Administration, Federal Railway Administration, Federal Highway Administration, and Federal Transit Administration each issued rules specific to the industries they regulate. Only the Federal Transit Administration (FTA) published an economic analysis of its rule when it appeared in the Federal Register, estimating the total costs of drug and alcohol testing at \$44 to \$56 million annually.⁴³ While the remaining three agencies vary in size with FTA being among the smallest with fewer than 500 full-time-equivalent employees, I conservatively assume here that total costs of this regulation are four times the costs of the FTA. Therefore, total costs should be in the range of \$176 to \$224 million, and this is the range reported in Table 6.⁴⁴ \$224 million is used as the best estimate cost .

E. Civil Rights

Table 6 exhibits the costs of federal civil rights legislation as applied to the workplace. These laws are perhaps more appropriately considered employment discrimination statutes, but I have retained the civil rights title to remain consistent with the GAO classification. Taken as a group, these regulations generally set standards for both private and public employers concerning who they can hire and fire, issues of pay equity, and what accommodations must be made for certain employees.

⁴² GAO/GGD-93-13.

⁴³ 59 FR 7532 and 59 FR 7572.

⁴⁴ In the FY 2001 budget, the Federal Aviation Administration has over 40,000 full-time equivalent employees (FTEs) compared to 750 for the Federal Railroad Administration, and less than 500 each for the FTA and Federal Highway Administration.

Table 6. Civil Rights: Regulatory Costs

Regulation	Cost ^a (millions)		
	Low	Best	High
Equal Pay Act	NA	NA	NA
Title VII of Civil Rights Act	\$1,760	\$2,080	\$2,080
Age Discrimination in Employment Act	\$13	\$13	\$13
Americans with Disabilities Act	\$2,757	\$4,483	\$4,483
E.O. 11246	NA	NA	NA
Section 503 of the Rehabilitation Act of 1973	\$10	\$10	\$10
Total	\$4,540	\$6,586	\$6,586

^a All figures presented in 2000 dollars.

Most of these employment discrimination statutes contain wording that makes it illegal to discriminate based on several specific non-job-related attributes enumerated in the statutes, including race, color, sex, religion, and national origin. Some of the statutes, although only formally prohibiting discrimination, are interpreted or implied to permit some sort of preference on the part of employers. In still others, the statute and amendments to it provide legal recourse through civil jury trials where punitive damages may be awarded.

There are a couple different types of costs associated with these seemingly similar rules. First, and easiest to identify, are the direct costs imposed on employers for providing access to disabled users. This generally involves an engineered change in facilities' structures to allow handicapped employees access. Another group of costs across many of these regulations is the perceived necessity to take affirmative action in hiring based on some attribute, *e.g.* race, sex, etc. While the language of the laws that enable these rules is generally negative, prohibiting discrimination rather than requiring some action, the application of these rules is often positive, forcing employers to have a certain representative mix.

Finally, this group of regulations carries an additional cost not as prevalent among other workplace regulations—litigation risk. By granting legal authority for employees to file lawsuits and be granted compensatory and punitive damages in a broad array of cases, the government has imposed costs on firms that now must protect themselves from these lawsuits. Because legal action is potentially costly, firms will look to avoid it if possible. This may mean taking costly actions up to the expected cost of the lawsuit in order to avoid lawsuit. These actions include changing hiring practices to assure conformity to statute, the hiring of additional specialized legal counsel, or the hiring of employees with skills less suited to employers' needs in order to avoid the appearance of discrimination.

In addition, employees bear some costs due to employment discrimination rules. For instance, qualified employees may not be hired because their group is over-represented in an organization, or an employee within one of the protected groups may not be hired because the employers fears a lawsuit over termination or failure to promote. This appears to be a very real phenomenon for handicapped workers since the inception of the Americans with Disabilities Act and its amendment via the Civil Rights Act of 1991 to allow punitive damages in civil cases. There is evidence that the rate of employment of the most handicapped portion of the workforce has actually declined since these statutes were introduced to protect them and ensure their employment.⁴⁵

Estimating the costs of civil rights regulations is difficult because they are generally worded to provide protection from certain actions rather than as positive requirements on employers to undertake prescribed actions. As shown in Table 6, and discussed below I provide no cost estimate for two of the six regulations in this group.

1. Equal Pay Act

The Equal Pay Act requires that men and women be paid equally for the same job. Other than paperwork costs required to document compliance, this law is unlikely to be binding in a competitive labor market, and I have assigned no costs to it.

2. Title VII of the Civil Rights Act of 1964

Title VII of the Civil Rights Act of 1964 is a well-known civil rights law that, among other things, prohibits discrimination based on minority status measured across numerous dimensions, including race, sex, color, or religion. While partly responsible for affirmative action programs, until recently the only costs related to this law were those of ensuring the correct employee representation across minority dimensions to avoid legal action. With passage of the Civil Rights Act of 1991, this, as well as The Americans with Disabilities Act and the Age Discrimination in Employment Act, discussed below, were amended to allow jury trials for charges of discrimination with the possibility of punitive, as well as compensatory, damages. While difficult to measure, the possibility of large damage awards in civil trials makes these laws potentially very costly.

Potter and Reesman estimate the costs of moving from a system of compensatory damages to one that also allows punitive damages at \$2.2 billion to \$2.6 billion annually.⁴⁶ This estimate includes the additional costs of legal services in addition to the value of damages paid by employers. The damages paid as a result of these additional lawsuits equal approximately 30% of the \$2.2 to \$2.6 billion annually, or \$660 to \$780

⁴⁵ See Acemoglu, Daron and Angrist, Joshu. (1998) "Consequences of Employment Protection? The Case of the Americans with Disabilities Act," *NBER Working Paper Series* Working Paper 6670 (www.nber.org/papers/w6670).

⁴⁶ Potter, E. E. and Reesman, A.E. "An Assessment of Remedies: The Impact of Compensatory and Punitive Damages on Title VII," Policy Paper, Employment Policy Foundation, 1990.

million. One-third of these transfers will be real costs that, when added back to the other 70% of the total lawsuit expenditures equals anywhere from \$1.76 to \$2.08 billion annually. I utilize \$2.08 billion as the best estimate due to the fact that according to the Bureau of Legal Statistics, civil rights cases in district courts dealing with employment have been growing dramatically since the introduction of the Civil Rights Act of 1991.⁴⁷

3. Age Discrimination in Employment Act

The Age Discrimination in Employment Act (ADEA) prohibits discrimination against employees over the age of 40. Like other rules in this section, this act provides legal recourse for employees who are terminated or denied benefits based on age. I have found no reliable cost estimate for ADEA. The EEOC does, however, keep statistics on federally adjudicated resolutions of discrimination complaints. Although the total varies year-to-year depending upon the number of cases, \$40 million, the total in 1999, is roughly the average over recent years.⁴⁸ Because it does not include settlements through litigation, this number represents an extreme lower bound. Furthermore, because this number represents only the amount of the settlement award and not the costs of arbitration, it is a pure transfer. One-third of \$40 million is about \$13 million, which I adopt as my cost estimate for ADEA.

4. Americans with Disabilities Act

The Americans with Disabilities Act (ADA) prohibits employment discrimination against people with disabilities. The law mandates programs for making places of business handicapped accessible. Furthermore, it requires accessibility modifications for customers as well employees. The ADA also includes mandates for making public transportation and telecommunications handicapped accessible. I consider the costs of making a place of business handicapped accessible for customers a workplace regulation, but not those for making public transportation and telecom services accessible. This may blur the lines between categories of regulatory action, but it is not clear in what other category this rule would fit either.

As with Title VII, the Civil Rights Act of 1991 established the right of individuals to a jury trial in civil cases dealing with the ADA in which punitive damages as well as compensatory awards are possible. While it is difficult to measure the total effects of the ADA, some of the costs dealing with the workplace are easier to establish.

The government performed regulatory analyses of the various parts of the ADA when the rule was established. The costs of Title I, Title III, and part of Title II deal with the provision of handicapped accessible work environments and customer access in private and public places of employment. The total annualized costs estimated by the government are between \$277 and \$403 million per year. Similarly to Title VII above,

⁴⁷ See Litras, Marika F.X. (2000) "Civil Rights Complaints in U.S. District Courts, 1990-98," *Bureau of Justice Statistics Special Report*, NCJ 173427.

⁴⁸ Charge statistics available at www.eeoc.gov.

Potter and Reesman estimate the legal costs of allowing punitive damage suits at \$3.1 billion to \$5.1 billion.⁴⁹ In 1989 the Council of Economic Advisors estimated total costs at \$3.6 to \$8.7 billion.⁵⁰ However, the basis for these estimates was not explained in detail and the assumptions used in their calculation are not clear. I relied on them only as a check on the other estimates. If these numbers are even close to being accurate, ADA is one of the most costly regulatory acts in history.

To arrive at an estimate of lower and upper bounds, as well as a best estimate, for the ADA I again netted out the transfer payments of legal damages in the \$3.1 to \$5.1 billion per year estimate above. Damage payments are 30% of the total (\$930 million and \$1.53 billion respectively), of which one-third is costs (\$310 and \$510 million), making the total costs from \$2.8 to \$4.5 billion per year once the direct compliance costs of making work environments handicapped accessible is added back. For the reasons outlined above under Title VII, I use the upper bound, \$4.5 billion per year, as the best estimate.

5. Executive Order 11246

Executive Order 11246 prohibits federal contractors from discriminating on the basis of race, color, religion, sex, or national origin in their hiring and employment practices. Federal contractors or grantees must document their hiring practices assiduously, and take affirmative action to ensure that employees and applicants are treated without regard to race, color, sex, religion, or national origin. A separate estimate of costs does not exist.

6. Section 503 of the Rehabilitation Act of 1973

Section 503 of the Rehabilitation Act of 1973 prohibits discrimination and requires affirmative action in the hiring of persons with disabilities among federal contractors. Arthur Andersen & Co. completed a study of the costs of regulation for the Business Roundtable in the late 1970s.⁵¹ Their estimate of the costs of Section 503 at that time was about \$10 million annually. This estimate, therefore, provides another extreme lower bound estimate for this regulation. This cost is likely to be higher today because of the increased number of government contracts today as compared with two decades ago.

⁴⁹ *Supra* note 35.

⁵⁰ This estimate by the CEA in 1989 was taken from the Regulatory Impact Analyses done by the Department of Justice on the economic impacts of the ADA. Unfortunately the cost and benefit estimate never appeared with the text of the rules in the Federal Register, despite claims that the RIAs were forthcoming. They are, however, available at the DoJ docket.

⁵¹ "Cost of Government Regulation Study for the Business Roundtable," Arthur Andersen, & Co. for the Business Roundtable, March, 1979.

F. Employment Decision Laws

This category contains some workplace regulations that do not generally fit into the other categories. For the most part, these rules establish procedures for hiring and firing certain types of employees under certain situations.

Table 7 presents estimates for the three statutes in this final category of workplace regulations.

Table 7. Employment Decision Laws: Regulatory Costs

Regulation	Direct Cost ^a (millions)		
	Low	Best	High
Employee Polygraph Protection Act	\$0	\$0	\$0
Immigration Reform and Control Act	\$10,900	\$10,900	\$10,900
WARN	\$1,300	\$1,300	\$2,600
Total	\$12,200	\$12,200	\$13,500

^a All figures presented in 2000 dollars.

1. Polygraph Protection Act

The Polygraph Protection Act prohibits employers from using lie-detector tests in employment decisions. While this rule may impose some deadweight losses by not allowing employers to terminate or not hire undesirable employees, it does not impose significant direct costs on employers. In fact, even the number paperwork compliance hours reported by OMB is quite small and probably translates to a total cost much smaller than the estimation and rounding errors on even the least costly regulations for which I report estimates.⁵² I do not include any cost for the Polygraph Protection Act.

2. Immigration Reform and Control Act

The Immigration Reform and Control Act (IRCA) prohibits employers from hiring illegal aliens and requires employers to check the legal status of job candidates. Reynolds and McCleery estimate the deadweight losses of IRCA at \$10.9 billion annually stemming from lost opportunities of hiring immigrant labor in certain industries.⁵³ This estimate for a little-discussed regulation provides an excellent example

⁵² According to OMB information collection statistics (www.whitehouse.gov/omb/), the total burden hours for the Polygraph Protection Act is “only” 82,406 in the current information collection budget account.

⁵³ Reynolds, C.W. and McCleery, R.K. (1988) "The Political Economy of Immigration Law: Impact of Simpson-Rodino on the United States and Mexico," *Journal of Economic Perspectives* 2(3):117-31.

of the shortcomings of regulatory cost estimates. For this particular rule, the deadweight losses overwhelm the nearly insignificant compliance costs imposed on employers. For the majority of regulations included in this study there is no estimate of the indirect, deadweight losses. This particular example helps to demonstrate how inadequate the current state of knowledge is, and foreshadows the extent to which current estimates may underestimate the true, efficiency costs of regulation.

3. Worker Adjustment and Retraining Notification Act

The final regulation is the Worker Adjustment and Retraining Notification Act (WARN), which requires employers of more than 100 employees to provide advanced notice of plant closings or mass layoffs. Estimates of the costs of providing advanced notice range from \$1.3 to \$2.6 billion annually.⁵⁴ Clearly, however, the costs will be counter-cyclical as plant closings will be higher during recessions.

IV. Total Cost of Workplace Regulations

Table 8 displays the range of total costs for each of the six regulatory categories as well as the sum of these categories. The total costs of workplace regulations lie between about \$52 billion and just over \$134 billion per year. The range between the lower bound and upper bound estimates is significant, driven in large part by the wide range in estimates for the Occupational Safety and Health category.

Table 8. Total Costs of Workplace Regulations

Regulatory Category	Direct Cost ^a (billions)	
	Low	High
Labor Standards	\$0.8	\$1.2
Employee Benefits	\$15.4	\$18.5
Labor-Management Relations	\$4.0	\$30.0
Occupational Safety and Health	\$15.0	\$64.6
Civil Rights	\$4.5	\$6.6
Employment Decision Laws	\$12.2	\$13.5
Total	\$51.9	\$134.4

^a All figures presented in 2000 dollars.

⁵⁴ GAO/HRD-88-71. The government commissioned report (the Nathan Report) included with the rule proposal estimated costs at \$2.6 billion, which the government later re-estimated at \$1.3 billion.

The most widely recognized study of total regulatory costs was done by Hopkins,⁵⁵ who estimates the total cost of regulation at over \$808 billion per year.⁵⁶ He divides regulatory costs into five categories: economic regulation, environmental regulation, other social regulation, transfers, and paperwork costs. For the “other social regulation” category, which comprises workplace regulations as well as those related to food and pharmaceuticals, transportation, etc, he estimates costs of \$76 billion per year. This falls within my estimated range for the total direct costs of workplace regulations. However, at the upper bound workplace regulations alone are almost twice his estimate for other social regulations. My best estimate, of \$91 billion per year also exceeds Hopkins’ cost estimate for all other social regulation.

Table 9 shows what I consider to be best estimates for workplace regulatory costs by category. When an estimate was in question, when the range of estimates was quite large, or when two different estimates from different sources differed significantly, I chose the more conservative figure of the two. The total direct cost obtained by summing these best estimates across categories is \$91 billion annually.

Table 9. Total Costs of Workplace Regulations: Best Estimate

Regulatory Category	Direct Cost^a (billions)
Labor Standards	\$1.2
Employee Benefits	\$18.5
Labor-Management Relations	\$4.0
Occupational Safety and Health	\$48.6
Civil Rights	\$6.6
Employment Decision Laws	\$12.2
Total	\$91.1

^a All figures presented in 2000 dollars.

V. Conclusion

Workplace regulations impose significant costs on the U.S. economy, businesses, workers and consumers. Based on my review of the literature and analysis, these costs appear to be larger than has previously been recognized. Researchers have tended to focus on the incremental costs of individual statutes or regulations, or on total costs of all types of regulation. Authors concentrating on total regulatory costs often overlook

⁵⁵ *Supra* note 3.

⁵⁶ This is Hopkins’ estimate of total costs in 2000 converted to 2000 dollars (his study used 1995 as the base year), Hopkins, *supra* note 4.

detailed information about certain, smaller subcategories of regulations, since the costs of environmental, occupational safety and health, and economic regulation are so much larger. As cost studies have advanced and become more precise over recent years, however, the “filling in of gaps” becomes more important.

I find that a conservative estimate of the cost of complying with workplace regulations is about \$91 billion annually in 2000 dollars. While contributing just over 10% of the generally accepted estimates of the total costs of regulation, this estimate is larger than has previously been assumed for workplace regulations. It is based on a careful review of available literature on the costs associated with the 25 major statutory and executive provisions applying to the workplace.

While probably the most comprehensive review of available information on the costs of workplace regulations to date, there are still a number of deficiencies in the estimate I provide. For some statutes and regulations I found no cost information on which to base even a rough estimate of regulatory cost. In many cases this is for good reason, for example, because the regulation may impose insignificant costs relative to the total. In others, however, it is simply that no reliable estimates are available. Additionally, some of the estimates I use ignore key effects of a regulation, and must be considered a lower bound on true costs. For instance, ERISA is an extensive law regulating employee benefits across all industries. While the burden of filing forms and providing information is ponderous, it does not account fully for the legal and consulting costs of complying with the law and implementing regulations. The paperwork costs I report here include labor costs but exclude important capital costs, such as computers and buildings, that are required to complete the paperwork and record-keeping requirements.

The deficiency in the available data suggest the need for more in depth analysis of large and potentially costly regulations, particularly for rules like ERISA that pre-date modern regulatory reform requirements for filing cost-benefit and economic impact analyses. It is hoped that this study will stimulate additional research in these areas.

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Table 10. Major OSHA Regulations

Regulatory Category	Direct Cost^a (millions)
Air Contaminants (54 FR 2332)	\$986
Asbestos (60 FR 33973)	\$427
Benzene (52 FR 34460)	\$45
Bloodborne Pathogens (56 FR 64004)	\$980
Cadmium (57 FR 42389)	\$225
Lockout/Tagout (54 FR 36644)	\$169
Cotton Dust (50 FR 51120)	\$226
Electric Power Generation (59 FR 4320)	\$25
Electrical Safety-Related Work (55 FR 1984)	\$25
Excavations (54 FR 45894)	\$383
Fall Protection (59 FR 40672)	\$47
Fire Protection (45 FR 60656)	\$33
Formaldehyde (57 FR 22290)	\$42
Grain Handling (52 FR 49592)	\$75
Hazard Communication (59 FR 6126)	\$1,100
Hazardous Waste Operations (54 FR 9311)	\$197
Lead in Construction (58 FR 26590)	\$478
Logging (59 FR 51672)	\$14
Longshoring (62 FR 40142)	\$3.5
Methylenedianiline (MDA) (57 FR 35630)	\$12
Methyl Chloride (62 FR 1493)	\$124
Noise (48 FR 9738)	\$291
Occupational Exposure to Lead (54 FR 29142)	\$224
Permit-required Confined Spaces (58 FR 4462)	\$239
Personal Protective Equipment (59 FR 16334)	\$61
Process Safety Management (57 FR 6356)	\$814
Reporting (59 FR 15594)	\$2
Respiratory Protection (63 FR 1152)	\$132
Scaffolds (61 FR 46026)	\$14
Truck Training (63 FR 66237)	\$18
1,3-Butadiene	\$3
Total	\$7,415

^a All figures presented in 2000 dollars.