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JOINT COMMITTEE PRINT

THE COSTS OF  
GOVERNMENT REGULATION OF BUSINESS

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A STUDY

PREPARED FOR THE USE OF THE  
SUBCOMMITTEE ON ECONOMIC GROWTH  
AND STABILIZATION

OF THE

JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES



APRIL 10, 1978

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## LETTERS OF TRANSMITTAL

APRIL 6, 1978.

*To the Members of the Joint Economic Committee:*

Transmitted herewith for the use of the members of the Joint Economic Committee and other Members of Congress is the study entitled "The Costs of Government Regulation of Business." This study will be a useful aid for evaluation of the impact of Federal rules and regulations on the American private sector.

I would like to express my thanks to the author of the study, Mr. Murray L. Weidenbaum. Mr. Weidenbaum is director, Center for the Study of American Business at Washington University, St. Louis, Mo. The views expressed in the study are those of the author and do not necessarily reflect the views of the Joint Economic Committee, individual members thereof, or members of the committee staff.

Sincerely,

RICHARD BOLLING,  
*Chairman, Joint Economic Committee.*

APRIL 4, 1978.

HON. RICHARD BOLLING,  
*Chairman, Joint Economic Committee,  
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a study entitled "The Costs of Government Regulation of Business" by Mr. Murray L. Weidenbaum. The study draws on original analyses prepared by Mr. Weidenbaum and the staff of the Center for the Study of American Business at Washington University, St. Louis, Mo.

The analysis presented here estimates the Federal administrative cost and related private sector cost of Federal regulation. It reveals that taxpayers, consumers, homeowners, investors, and entrepreneurs bear sizable burdens as a consequence of these regulations. Mr. Weidenbaum has developed estimates of the burdens and found these to be significantly larger than heretofore projected. In 1976, for example, the aggregate impact on the private sector of government rules and regulations was some 20 times larger than Federal expenditures for such activities that year. Such information is essential to an informed judgment as to what is an appropriate level of government regulation.

Many current regulations have been enacted in a vacuum, with little or no credible information available on their ultimate economic impact. The study by Mr. Weidenbaum is an attempt to use a new and comprehensive technique to calculate this impact. I hope this study, which draws on earlier work by the author as well, will stimulate further exploration of this technique and of this important and timely subject.

I would like to thank Mr. Weidenbaum for preparing this study. Views expressed in it are those of the author and do not necessarily represent the views of the members of the Joint Economic Committee, the Subcommittee on Economic Growth and Stabilization, or the committee staff.

Sincerely,

LLOYD BENTSEN,  
*Chairman, Subcommittee on Economic  
Growth and Stabilization.*

# CONTENTS

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	Page
Letters of transmittal.....	III
<b>THE COSTS OF GOVERNMENT REGULATION OF BUSINESS</b>	
Summary.....	1
The new wave of government regulation.....	7
The impacts of government regulation.....	12
Regulation and inflation.....	13
Regulation and innovation.....	17
Regulation and capital formation.....	18
Regulation and employment.....	19
Regulation and small business.....	19
Regulation and entrepreneurial functions.....	20
Approaches to regulatory reform.....	22
Benefit-cost analysis.....	22
Budgeting as a management tool.....	23
Changing attitudes toward regulation.....	24
Alternatives to regulation.....	25
Appendix. Federal expenditures for regulation of business.....	27

# THE COSTS OF GOVERNMENT REGULATION OF BUSINESS

By Murray L. Weidenbaum\*

The process of regulation of business activity via governmental rules and regulations generates a variety of impacts, direct and indirect, intended and unintended, desirable and undesirable. Proponents of governmental intervention stress the benefits that are expected to flow or the social problems to be solved. The costs which are involved tend to be discounted or even ignored ("If we can put a man on the moon, why can't we clean up the Mississippi?").

The purpose of this report is to examine the various costs that are incurred in the process of government regulation.<sup>1</sup> No judgments are expressed on the value of the many regulatory efforts. By raising the public information level, it is hoped that governmental decisionmaking in this important area can become a more balanced process, giving equal weight to the costs and other disadvantages as well as the benefits and other advantages of proposed actions. The result, hopefully, will be the attainment of important national objectives with greater effectiveness than characterizes the present situation.

## SUMMARY

The impacts of government regulation of business are being felt in every part of the economy:

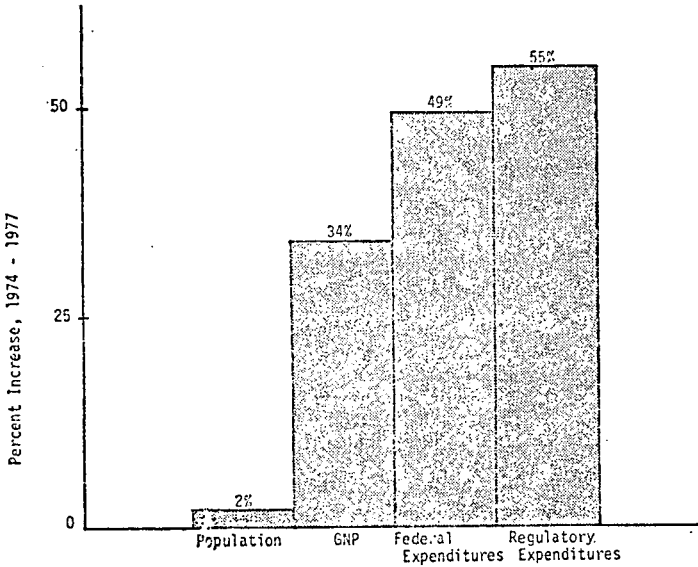
1. *The taxpayer feels the effect.*—Government regulation literally has become a major growth industry, an industry supported by the taxpayer. The cost of operating Federal regulatory agencies is rising more rapidly than the budget as a whole, the population, or the gross national product. (See fig. 1.) Outlays of 41 regulatory agencies are estimated to increase from \$2.2 billion in the fiscal year 1974 to \$4.8 billion in fiscal 1979, a growth of 115 percent over the 5-year period.

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\*Director, Center for the Study of American Business, Washington University, St. Louis, Mo.

<sup>1</sup> This paper draws on a variety of previous work by the author, including "Business, Government, and the Public," Englewood Cliffs, New Jersey, Prentice-Hall, 1977; "Government-Mandated Price Increases," Washington, American Enterprise Institute, 1975; "Business and Government: The Changing Relationship," in Frank J. Bonello and Thomas R. Swartz, editors, "Alternative Directions in Economic Policy," Notre Dame, University of Notre Dame Press, 1978; "Reducing Inflationary Pressures by Reforming Government Regulation," in William Fellner, editor, "Contemporary Economic Problems," Washington, American Enterprise Institute, 1976.

FIGURE 1.—Growth of Federal regulatory expenditures and other economic indicators, 1974-77.

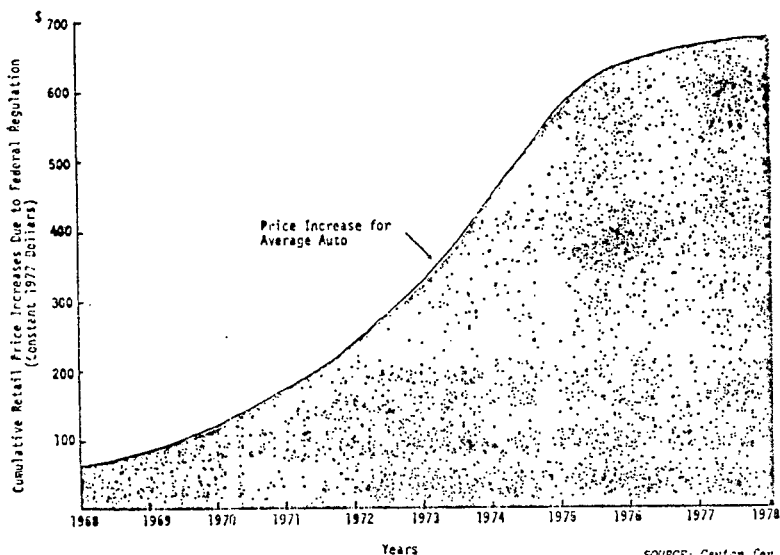


SOURCE: Center for the Study of American Business

2. *The motorist feels the effect.*—Federally mandated safety and environmental features increase the price of the average passenger car by \$666 in 1978. (See fig. 2.) Compliance with those regulations thus costs American consumers \$7 billion a year in the form of higher priced cars. In addition, the added weight of the cars is increasing fuel consumption perhaps by as much as \$3 billion annually. Thus, the American motorist may be paying in the neighborhood of \$10 billion a year to meet Federal regulatory requirements in the two areas of environment and safety.

FIGURE 2.—Automobile price increases due to Federal safety and emissions control regulation.

(Retail Prices, Per Auto)



SOURCE: Center for the Study of American Business

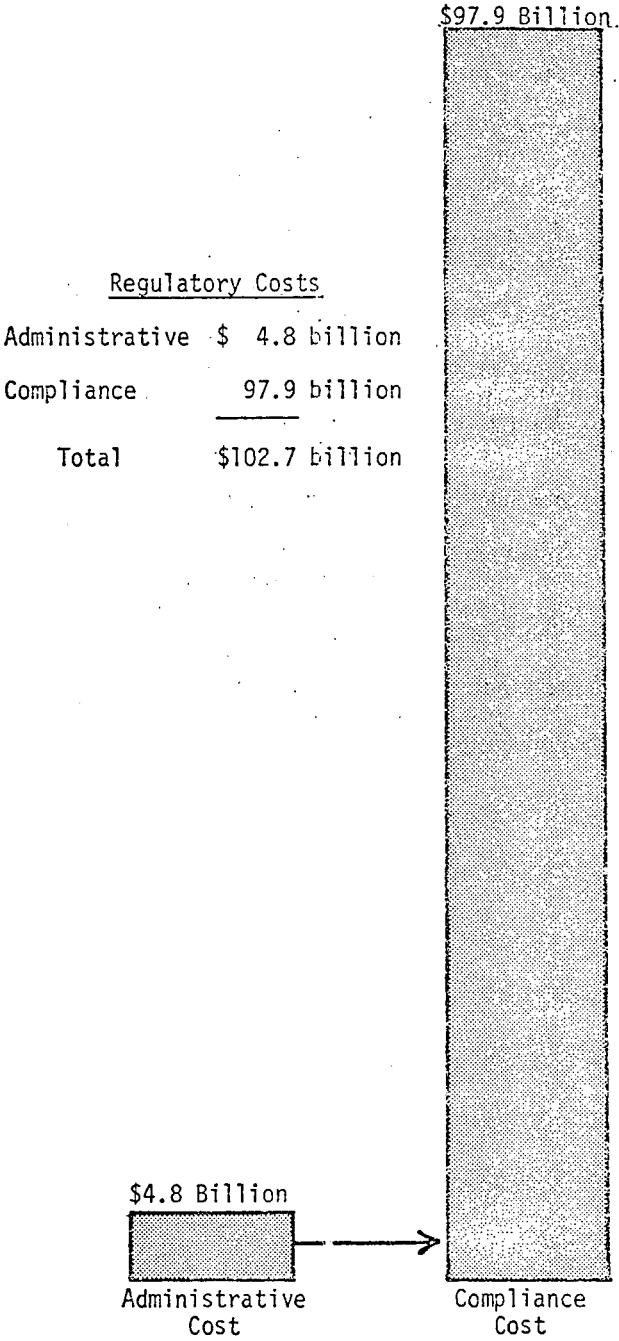
3. *The businessman feels the effect.*—There are over 4,400 different Federal forms that the private sector must fill out each year. That takes over 143 million man-hours, the economic equivalent of a small army. The Federal Paperwork Commission estimated that the total cost of Federal paperwork imposed on private industry ranges from \$25 billion to \$32 billion a year and that “a substantial portion of this cost is unnecessary.” The smaller business is hit disproportionately hard by paperwork, as well as other types of government regulation.

4. *The homeowner feels the effect.*—Regulatory requirements imposed by Federal, State, and local governments are adding between \$1,500 and \$2,500 to the cost of a typical new house. Using the midpoint of that range of cost estimates (\$2,000) and applying it to the 2 million new homes built in 1977 results in an added cost to the homeowner of \$4 billion last year.



5. *The consumer feels the effect.*—The costs of complying with government regulations are inevitably passed on by business to the consumer in the form of higher prices. The aggregate cost of complying with Federal regulation came to \$62.9 billion in 1976, or over \$300 for each man, woman, and child in the United States. The estimated \$62.9 billion of costs imposed on the private sector is 20 times the \$3.1 billion spent to operate the regulatory agencies in the same year. (See fig. 3.) If we apply the same multiplier of 20 to the amounts budgeted for regulatory activities for more recent years, we can come up with approximations of the private sector's cost of compliance and thus with the total dollar impact of government regulation. On that basis, it can be estimated that the costs arising from government regulation of business (both the expenses of the regulatory agencies themselves as well as the costs they induce in the private sector) totalled \$79.1 billion in the fiscal year 1977 and may reach \$967 billion in the current fiscal year. On the basis of the budget estimate for the fiscal year 1979 the aggregate cost of government regulation may come to \$102.7 billion, consisting of \$4.8 billion of direct expenses by the Federal regulatory agencies and \$97.9 billion of costs of compliance on the part of the private sector. Although there is no assurance that larger budgets for Federal regulatory agencies generate a constant multiplier effect on the private sector, the analysis in the body of this report tends to show that the data used here for private sector regulatory costs are substantially underestimated.

FIGURE 3.—The multiplier effect: The cost of compliance with Federal regulation in fiscal 1979.



SOURCE: *Center for the Study of American Business*

6. *The worker feels the effect.*—Government regulation, albeit unintentionally, can have strongly adverse effects on employment. The minimum wage law has priced hundreds of thousands of people out of labor markets. One increase alone has been shown, on the basis of careful research, to have reduced teenage employment by 225,000, with a disproportionately large impact on nonwhite youngsters. Many industry facilities and entire factories have been closed down—with substantial but unmeasurable effects on employment—because of the high costs of meeting environmental, safety and other regulatory requirements.

7. *The investor feels the effect.*—Approximately \$10 billion of new private capital spending is devoted each year to meeting governmentally mandated environmental, safety, and similar regulations rather than being invested in profitmaking projects. Edward Denison of the Brookings Institution has estimated that in recent years these deflections of private investment from productive uses have resulted in a loss of approximately one-fourth of the potential annual increase in productivity. Although not directly calculable, the result is to exacerbate the already strong inflationary pressures in the American economy.

8. *The Nation as a whole feels the effect of government regulation in many ways.*—The adverse consequences range from a slowdown in the availability of new pharmaceutical products to the cancellation of numerous small pension plans. In total, the aggregate response to the proliferation of government regulation is a basic bureaucratization of American business. These undramatic but fundamental effects occur because of the diversion of management attention from traditional product development, production and marketing efforts designed to provide new and better products and services, to meeting governmentally imposed social requirements.

## THE NEW WAVE OF GOVERNMENT REGULATION

It is hard to overestimate the current rapid expansion of Government involvement in business in the United States. Certainly the majority of public policy changes affecting business-government relations in recent years has been in the direction of greater governmental intervention—environmental controls, job safety inspections, equal employment opportunity enforcement, consumer product safety regulations, energy restrictions, and recording and reporting of items ranging from illnesses to foreign currency transactions. Indeed, when we attempt to look at the emerging business-government relationship from the business executive's viewpoint, a very considerable public presence is evident in what ostensibly, or at least historically, have been private affairs.

No one who operates a business today, neither the head of a large company nor the corner grocer, can do so without considering a multitude of governmental restrictions and regulations. His or her costs and profits can be affected as much by a bill passed in Washington as by a management decision in the front office or a customer's decision at the checkout counter. Management decisions fundamental to the business enterprise are increasingly becoming subject to governmental influence, review, or control, decisions such as: What lines of business to go into? What products can be produced? Which investments can be financed? Under what conditions can products be produced? Where can they be made? How can they be marketed? What prices can be charged? What profit can be made?

Virtually every major department of the typical industrial corporation in the United States has one or more counterparts in a Federal agency that controls or strongly influences its internal decisionmaking. The scientists in corporate research laboratories now receive much of their guidance from lawyers in Federal, State, and local regulatory agencies. The engineers in manufacturing departments must abide by standards promulgated by Labor Department authorities. Marketing divisions must follow procedures established by government administrators in product safety agencies. The location of facilities must be in conformance with a variety of environmental statutes. The activities of personnel staffs are increasingly restricted by the various executive agencies concerned with employment conditions. Finance departments often bear the brunt of the rising paperwork burden being imposed on business by government agencies who seem to assume that information is a free good—or in any event that more is always better than less.

The newer types of governmental regulation of business are not limited to the traditional regulatory agencies, such as the Interstate Commerce Commission, the Civil Aeronautics Board, and the Federal

Communications Commission. Rather, the line operating departments and bureaus of government—the Departments of Agriculture; Commerce; Health, Education, and Welfare; Interior; Justice; Labor; Transportation; and Treasury—are now involved in actions that affect virtually every firm.

Impetus for this expanded government participation in economic activity is being provided by a variety of consumer groups, environmental organizations, civil rights advocates, labor unions, and other citizens' institutions. In many cases, the increasing regulation reflects public and congressional concern that traditional Federal and State-local programs have not been effective. The new wave of regulation is also reinforced by the belief that the private sector itself is responsible for many of the problems facing society—pollution, discrimination in employment, unsafe products, unhealthy working environments, misleading financial reporting, and so forth. The present trends in Federal Government regulation in the United States do not represent an abrupt departure from an idealized free market economy, but rather the rapid intensification of the long-term expansion of government influence over the private sector.

Government regulation at times can be justified as a logical response to imperfections in the private economy or what economists call "failures" in the normal market system. Examples of such situations are pollution of the environment, inadequate industrial safety practices, and long-term health hazards. Voluntary action to deal with such problems may place a firm under a competitive disadvantage. The specific company attempting to correct the situation would tend to bear the full costs, while the benefits of the improvement would be widely dispersed in the society. "Free riders" who do not make the expensive changes may nevertheless share in the benefits (those "externalities" that economists write about).

An example of this situation is provided by the regulation of pollution standards in the motor vehicle area. The basic justification for government setting standards for automobiles—particularly in the pollution area where so much of the benefit goes to society as a whole—was clearly stated by John J. Riccardo, president of Chrysler:

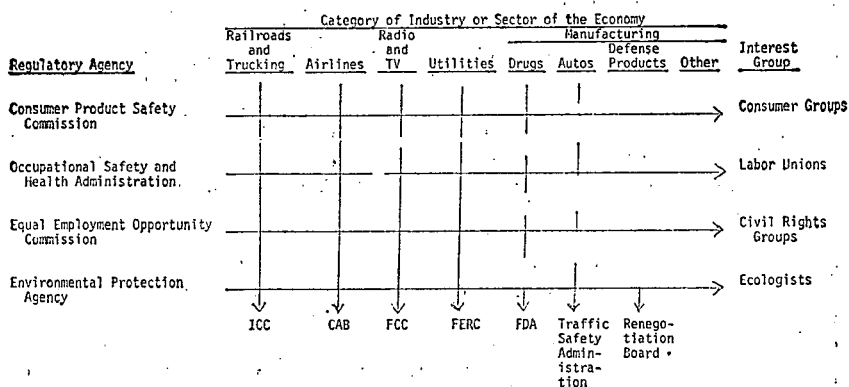
\* \* \* a large part of the public will not voluntarily spend extra money to install emission control systems which will help clean the air. Any manufacturer who installs and charges for such equipment while his competition doesn't soon finds he is losing sales and customers. In cases like this, a government standard requiring everyone to have such equipment is the only way to protect both the public and the manufacturer.

The current wave of government regulation is not merely an intensification of traditional activities. In good measure, it is a new departure and requires a new way of thinking. The standard theory of government regulation of business, which is still in general use and has dominated professional and public thinking on the subject, is based on the model of the Interstate Commerce Commission. Under this approach, a Federal commission is established to regulate a specific industry, with the related concern of promoting the well-being of that industry. Often the public or consumer interest is viewed as subordinate, or even ignored, as the agency focuses on the needs and concerns of the industry that it is regulating.

In some cases—because of the unique expertise possessed by the members of the industry or its job enticements for regulators who leave government employment—the regulatory commission may become a captive of the industry which it is supposed to regulate. At least, this is a popularly held view of the development of the regulatory process. Actual practice of course varies by agency and jurisdiction and over time. In addition to the ICC, other examples of this development which have been cited from time to time include the Civil Aeronautics Board, the Federal Communications Commission, the Federal Power Commission (now the Federal Energy Regulatory Commission), and the Federal Maritime Commission.<sup>1</sup>

Although the traditional type of Federal regulation of business surely continues, the new regulatory efforts established by the Congress in recent years follow, in the main, a fundamentally different pattern. Evaluating the activities of these newer regulatory efforts with the ICC type of model is inappropriate and can lead to undesirable public policy. The new Federal regulatory agencies are simultaneously broader in the scope of their jurisdiction than the ICC-CAB-FCC model, yet in important aspects are far more restricted. This anomaly lies at the heart of the problem of relating their efforts to national interests. (See fig. 4.)

FIGURE 4.—Variations in Federal regulation of business.



In the cases of the Environmental Protection Agency, the Equal Employment Opportunity Commission, the Consumer Product Safety Commission, the Occupational Safety and Health Administration, and the Federal Energy Administration, the regulatory agency is so limited to a single industry. For each of these relative newcomers to the Federal bureaucracy, its jurisdiction extends to the bulk of the private sector and at times to productive activities in the public sector itself. It is this far-ranging characteristic that makes it impractical

<sup>1</sup> See Marver Bernstein, "Regulating Business by Independent Commission," Princeton, Princeton University Press, 1955; George J. Stigler and Claire Friedland, "What Can Regulators Regulate? The Case of Electricity," "Journal of Law and Economics", 1962, No. 1; George J. Stigler, "The Theory of Economic Regulation," "Bell Journal of Economics and Management Science," Autumn, 1971; Richard A. Posner, "Theories of Economic Regulation," "Bell Journal of Economics and Management Science," Autumn 1974; James Q. Wilson, "The Dead Hand of Regulation," "Public Interest," Fall 1972.

for any single industry to dominate these regulatory activities in the manner of the traditional model. What specific industry is going to capture the EEOC or OSHA? Or would have the incentive to do so?

Yet in comparison to the older agencies oriented to specific industries, in many important ways the newer Federal regulators operate in a far narrower sphere. That is, they are not concerned with the totality of a company or industry, but only with the limited segment of operations which falls under their jurisdiction. The ICC, for example, must pay attention to the basic mission of the trucking industry, to provide transportation services to the public, as part of its supervision of rates and entry into the trucking business. The EPA's interest in the trucking industry, on the other hand, is almost exclusively in the effect of trucking operations on the environment. This restriction prevents the agency from developing too close a concern with the overall well-being of any company or industry. Rather, it can result in a total lack of concern over the effects of its specific actions on a company or industry.

If there is any special interest that may come to dominate such a functionally oriented agency, it is the one that is preoccupied with its specific task—ecologists, unions, civil rights groups, and consumerists. Thus, little if any attention may be given to the basic mission of the industry to provide goods and services to the public. Also ignored are crosscutting concerns or matters broader than the specific charter of the regulating agency, such as productivity, economic growth, employment, cost to the consumer, effects on overall living standards and inflationary impacts. While the traditional regulatory agencies may be said to be overly concerned at times with economic growth and productive efficiency, the newer programs move to a different beat. Their impetus comes from such social considerations as improving the quality of life, both on and off the job, and changing the distribution of income so as to achieve greater equity among the various groups in the society.

To be sure, there are important cases which combine a blend of the old and new forms of regulation. The Securities and Exchange Commission is a good example. In one aspect of its activities, it regulates a specific branch of the economy, the securities industry. Yet, many of its rules also influence the way in which a great many companies prepare their financial statements and reports to shareholders. Economywide regulatory agencies are not a recent creation. The Federal Trade Commission has existed for six decades. Moreover, a few one-industry agencies continue to be created, notably the Commodity Futures Trading Commission, which regulates the financial markets dealing with products of agriculture and other extractive industries.

Varying alliances arise in promoting a given type of regulatory activity—or in pushing for reform. The business firms and labor unions in a given regulated industry often become strong supporters of the traditional industry-oriented commission which they have learned to live with, if not to dominate. They may join ranks to oppose efforts by consumer groups and economists to cut back on the extent of the "protective" regulation. This has been most apparent in the railroad and trucking industries.

In contrast, consumer groups advocate expanding the newer types of crosscutting or functional regulation. In this effort, they often are

joined by labor groups, particularly in the occupational health area. Here, reform efforts may be led by coalitions of business groups and economists, who are concerned with the excessive costs and other consequences of the specialized regulatory activities. These alliances may shift from time to time. Specific safety regulations for automobiles may be opposed by unions and companies in the motor vehicle industry—although the two groups may differ strongly on job safety standards. Labor, management, and local governments may present a united opposition against specific environmental efforts which are viewed as hurting the economies of their community, although some of these groups may advocate general ecological advances. The older consumer organizations may become more concerned with the ultimate cost to the consumer of expanding governmental activities than the newer and more militant groups that emphasize public control over private sector activities.

Although the precise changes that will occur in the years ahead are basically a matter for conjecture, the overall trend seems to be fairly clear: On balance there is likely to be more and not less government intervention in internal business decisionmaking. Despite differences in philosophy and outlook changes both in control of the executive branch and in the composition of the Congress and the Judiciary seem to have little effect in altering that trend.

Government regulation, however, is a phenomenon still in the process of development, rather than having attained a "steady state." The basic factors causing the changes are diverse, ranging from the concern by some with the quality of life to the desire by others to increase the social responsiveness of business enterprise. Yet, proposals for changes in public policy affecting business are virtually all variations on a single predictable theme: To increase the scope and degree of governmental involvement while shifting costs from the Federal Treasury to the products and services that consumers buy.

No balanced evaluation of the overall practice of government regulation comfortably fits the notion of benign and wise officials always making sensible decisions in the society's greater interests. Numerous adverse side-effects and other costs are evident, as well as substantial benefits to society.



## THE IMPACTS OF GOVERNMENT REGULATION

The initial and direct effects of government regulation can be measured by the budgets of the regulatory agencies themselves. These governmental outlays indicate the costs of regulation which are borne by the taxpayers. Preliminary figures for the fiscal year 1979 show a total of \$4.8 billion in Federal expenditures to operate 41 agencies which regulate business. That dollar figure is more than double the amount budgeted as recently as fiscal 1974. Clearly, the cost of operating Federal regulatory agencies is rising more rapidly than the Federal budget as a whole, the population of the country, the gross national product, or any other applicable basis for comparison.

As shown in table 1, the bulk of the regulatory budgets is devoted to the newer areas of social regulation, such as job safety, energy and the environment, and consumer safety and health. Examples of agencies involved in this newer type of regulation are the Environmental Protection Agency, the Occupational Safety and Health Administration, the Consumer Product Safety Commission, and the Department of Energy. Unlike the traditional regulating commissions which generally have jurisdiction over individual industries, these agencies cover virtually all companies, including many sectors of economic activity which are not generally thought of as being regulated by government.

TABLE 1.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES  
[Fiscal years; dollar amounts in millions]

Area of regulation	1974	1975	1976	1977	1978	1979	Increase 1974-79 (percent)
Consumer safety and health.....	\$1,302	\$1,463	\$1,613	\$1,985	\$2,582	\$2,671	105
Job safety and other working conditions.....	310	379	446	492	562	626	102
Environment and energy.....	347	527	682	870	989	1,116	222
Financial reporting, and other financial.....	36	45	53	58	70	69	92
Industry-specific regulation.....	245	269	270	309	340	341	39
<b>Total.....</b>	<b>2,240</b>	<b>2,683</b>	<b>3,064</b>	<b>3,714</b>	<b>4,543</b>	<b>4,823</b>	<b>115</b>
<b>Note: Percent distribution of Federal regulatory expenditures, fiscal year 1979:</b>							
Consumer safety and health.....							56
Job safety and other working conditions.....							13
Environment and energy.....							23
Financial reporting and other financial.....							1
Industry-specific regulation.....							7
<b>Total.....</b>							<b>100</b>

Source: Center for the Study of American Business. See appendix for supporting detail.

The figures displayed in table 1 reflect the fact that there has been, and continues to be, a steady growth in the pace of regulatory activities. From a total of \$2.2 billion in the fiscal year 1974, expenditures on Federal regulatory activities have risen in each subsequent year, with the largest increases occurring in the fiscal years 1977 and 1978. The costs to the taxpayer are obviously not trivial, but the key effects of government regulation are in terms of the compliance by the private sector.

## REGULATION AND INFLATION

Of the many ways in which government can affect the rate of inflation, perhaps the least understood method is to require actions in the private sector which increase the cost of production and hence the prices of products and services sold to the public. Attention needs to be focused on these regulatory policy instruments because their use is becoming more widespread and neither the public nor government decisionmakers realize their full inflationary effects.

In theory, the Federal Reserve System could offset the inflationary effects of regulation by maintaining a lower rate of growth of the money supply than it otherwise would. In practice, however, public policymakers, insofar as they see the options clearly, tend to prefer the higher rate of inflation to the additional monetary restraint and the resulting decreases in employment and output. Also, to the extent that regulation results in real resources being devoted to low-payoff activities, economic welfare is reduced.

At first blush, government imposition of socially desirable requirements on business through the regulatory process appears to be an inexpensive way of achieving national objectives. This practice apparently costs the Government little and represents no significant direct burden on the taxpayer. But the public does not escape paying the cost. Every time, for example, the Environmental Protection Agency imposes a more costly (albeit less polluting) method of production on any firm the cost of the firm's product to the consumer will tend to rise. Similar effects flow from the other regulatory efforts, including those involving product safety, job health, and hiring and promotion policies.

These higher prices, however, represent the "hidden tax" of regulation which is shifted from the taxpayer to the consumer. The regulatory "tax" would not be shifted in this manner if the mandated effort—for example, environmental cleanup—were conducted or at least financed by the government itself. Moreover, to the extent that government-mandated requirements impose similar costs on all price categories of a given product (such as passenger automobiles), this hidden tax tends to be more regressive than the Federal income tax or State sales taxes. That is, the costs may be a relatively higher burden on lower income groups than on higher income groups. It is not inevitable that every regulatory activity increase inflationary pressures. In those instances where regulation generates social benefits (such as a healthier and thus more productive work force) in excess of the social costs it imposes, inflationary pressures should be reduced.

At times the impact of regulation on the prices that consumers pay is direct and visible. For example, in the case of the passenger automobile the Federal Government has required the producers to incorporate a wide array of specified safety and environmental features. The Bureau of Labor Statistics each year costs out the effect on the price of the average car. Through 1976, the cumulative cost increase per vehicle of these mandated features came to \$557, or \$3.7 billion for all the vehicles sold in that year.<sup>1</sup> (See table 2.)

<sup>1</sup> Robert DeFina, "Public and Private Expenditures for Federal Regulation of Business," St. Louis, Mo., Washington University Center for the Study of American Business, Working Paper No. 22, November 1977.

TABLE 2.—INCREASE IN RETAIL PRICE OF AUTOMOBILES DUE TO FEDERAL REQUIREMENTS, 1968-78

Model year and action	Initial retail price	Year total	Total adjusted for inflation <sup>1</sup>
1968:			
Seat and shoulder belt installations.....	\$11.51		
HEW standards for exhaust emissions systems.....	16.00	\$27.51	\$47.84
1968-69:			
Windshield defrosting and defogging systems.....	.70		
Windshield wiping and washing systems.....	1.25		
Door latches and hinge systems.....	.55		
Lamps, reflective devices and associated equipment.....	6.30	8.80	14.53
1969: Head restraints.....	16.65	16.65	27.48
1970:			
Lamps, reflective devices, and associated equipment.....	4.00		
Standards for exhaust emission systems.....	5.50	9.50	14.77
1968-70:			
Theft protection (steering, transmission and ignition locking and buzzing system).....	7.85		
Occupant protection in interior impact (glove box door remains closed on impact).....	.35	8.20	12.75
1971: Fuel evaporative systems.....	19.00	19.00	28.33
1972:			
Improved exhaust emissions standards required by Clean Air Act.....	6.00		
Warranty changes resulting from Federal requirement that all exhaust emissions systems be warranted for 5 yr or 50,000 mi.....	1.00		
Voluntarily added safety features in anticipation of future safety requirements.....	2.00		
Seat belt warning system and locking device on retractors.....	20.25	29.25	42.37
1972-73: Exterior protection (standard No. 215).....	69.90	69.90	95.29
1973:			
Location, identification, and illumination of controls improvements.....	.60		
Reduced flammability of interior materials.....	5.80	6.40	8.72
1969-73: Improved side door strength.....	15.30	15.30	20.85
1974:			
Interlock system and other changes to meet Federal safety requirements.....	107.60		
Improved exhaust emissions systems to comply with the Federal Clean Air Act.....	1.40	109.00	133.50
1975:			
Additional safety features associated with Federal motor vehicle safety standards Nos. 105, 208, and 216.....	10.70		
Installation of catalytic converter.....	119.20	129.90	146.66
1975-76: Removal of interlock system (quality decrease) and additional installation of catalytic converters net effects (October 1976).....	18.00		
1976:			
FMVSS No. 105 hydraulic brake system.....	6.50		
FMVSS No. 215 improved bumpers.....	4.80		
FMVSS No. 301 leak resistant fuel system.....	2.10		
Improved emissions control system.....	7.60	39.00	41.54
1977:			
FMVSS No. 215 improved bumpers.....	1.30		
FMVSS No. 219 structural changes.....	.95		
FMVSS No. 301 leak resistant fuel system.....	4.70		
Improved emissions control system.....	14.30	21.25	21.25
1978: Redesign of emissions control systems to meet HEW air quality standards.....	9.99	9.99	9.99
Total.....	519.65	519.65	665.87

<sup>1</sup> Yearly totals are expressed in 1977 dollars by use of the consumer price index.

Source: Compiled from data supplied by the U.S. Department of Labor, Bureau of Labor Statistics.

Government regulation increases the overhead cost of producing goods and services by imposing a rising burden of paperwork. As of November 30, 1976, there were 4,418 different types of approved Federal forms, excluding tax and banking forms. Individuals and business firms spend over 143 million man-hours a year filling them out, according to the U.S. Office of Management and Budget. As shown in table 3, regulatory reports have been the fastest growing portion of the paperwork burden which the Federal Government imposes on the private sector.

TABLE 3.—REPETITIVE PUBLIC-USE REPORTS APPROVED FOR USE BY OFFICE OF MANAGEMENT AND BUDGET, DECEMBER 1966 TO JUNE 1973—NUMBER OF FORMS AND MAN-HOURS REQUIRED TO COMPLETE, BY TYPE OF FORM

(Man-hours in millions)

As of Date	Applications		Administrative reports		Statistical reports		Regulation reports		Total	
	Num-ber	Man-hours	Num-ber	Man-hours	Num-ber	Man-hours	Num-ber	Man-hours	Num-ber	Man-hours
December 1966.....	1,065	38.3	2,213	49.9	1,243	11.8	259	3.3	4,780	103.3
June 1967.....	1,091	37.4	2,320	49.6	1,278	12.2	245	3.1	4,934	102.4
December 1976.....	1,110	43.8	2,369	51.1	1,273	12.3	239	3.0	4,991	110.3
June 1968.....	1,107	45.6	2,448	51.7	1,278	12.2	247	3.1	5,080	112.6
December 1968.....	1,123	41.3	2,480	52.0	1,267	14.0	249	2.8	5,119	110.1
June 1969.....	1,145	41.5	2,520	52.5	1,265	14.2	246	3.2	5,176	111.4
December 1969.....	1,138	41.0	2,544	52.1	1,268	14.7	252	3.3	5,202	110.6
June 1971.....	1,187	44.6	2,705	57.1	1,339	14.4	268	6.0	5,499	122.5
December 1971.....	1,152	46.8	2,570	57.5	1,318	11.4	258	14.8	5,298	130.5
June 1972.....	1,207	41.6	2,613	66.0	1,314	13.3	271	15.1	5,405	136.0
December 1972.....	1,258	41.0	2,623	75.4	1,332	16.1	328	8.0	5,541	140.4
June 1973.....	1,308	48.4	2,616	72.0	1,306	16.1	337	8.7	5,567	145.3
Percent change.....	22.8	26.4	18.2	44.3	5.1	36.4	30.1	63.6	16.5	40.7

Source: U.S. Senate, Committee on Government Operations, "Improving the Coordination of Federal Reporting Services," hearings on S. 200 and S. 1812, Washington, Government Printing Office, 1973.

The paperwork and ancillary requirements of Federal agencies inevitably produce a "regulatory lag," a delay that can run into years and can be a costly drain on the time and budgets of private managers as well as public officials. The Federal Trade Commission averages nearly 5 years to complete a restraint-of-trade case. It took the Federal Power Commission 11 years to determine how to regulate the price of natural gas all the way back to the wellhead. The regulatory lag appears to be lengthening. Ten years ago, the director of planning of the Irvine Co. obtained in 90 days what was then called zoning for a typical residential development. In 1975, a decade later, the company received what is now called entitlement to build for one of its developments, following 2 years of intensive work by a specialized group within the company's planning department aided by the public affairs staff. The preparation of environmental impact statements has become a major source of paperwork. The report for one offshore oil field in the Santa Barbara Channel, for example, required nearly 1,300 pages and took 2 years to prepare.<sup>2</sup>

Other aspects of government regulatory activities also can be costly. Several research efforts examining building regulations have documented repeated instances of increases in the price of housing as a result of local building codes. Rutgers University reported that overly stringent or outdated codes increase housing costs by somewhere between 5 and 10 percent of total unit costs.<sup>3</sup>

A study in Colorado found that changing regulatory requirements and practices had added \$1,500 to \$2,000 to the cost of the typical new house built between 1970 and 1975. The added cost consisted of higher water and sewer tap fees, increased permit fees, greater school and park

<sup>2</sup> Richard M. Geiler, "Development Regulations Must Be Reasonable," *Urban Land*, October 1976; Don Dederer, "What on Earth Is an EEE-EYE-ESS?," "Exxon USA", 1st Quarter 1976.

<sup>3</sup> George Sternlieb and David Listokin, "Building Codes, State of the Art, Strategies for the Future," Report submitted to the HUD Housing Review Task Force, June 1973.

land dedication requirements, and new mandates for wider and thicker streets, fences, underground storm sewers, and environmental impact studies.

In St. Louis County, Mo., the increase in lot development and homebuilding costs due to meeting government requirements during 1970-75 came to \$1,600 to \$2,500 for a typical 1,600 square foot house on a 10,000 square foot lot. The new governmentally imposed requirements included street lighting, greater collector street widths, higher permit and inspection fees, added features to electrical systems, and smoke detectors.

A study covering 21 residential development projects in the New Jersey Coastal Zone estimated the direct regulatory expenses for a single family house at \$1,600 during the period 1972-75. The costs covered some 38 separately required permits, including preliminary plat, performance improvement bond, sewer plan, tree removal permit, final plans review, road drainage permit, and coastal area facilities permit.<sup>4</sup>

Government inspectors are increasingly frequent, albeit unwelcomed, visitors to business premises. Milk plants also experience an extraordinary variety of inspections. More than 20,000 State, county, local, and municipal milk jurisdictions exist in the United States. A USDA study reveals that milk plants are inspected about 24 times annually, even though the Public Health Service recommends only two a year. In one State, each milk plant averaged 95 inspections during a year. One milk plant, licensed by 250 local governments, 3 States and 20 other agencies reported that it was inspected 47 times in 1 month in 1964.

In the more traditional areas, many regulations deal with natural monopolies, such as in the case of utilities. In some of these one-industry regulatory efforts, however, the government actions may be anticompetitive and thus ultimately costly to the consumer. Interstate trucking furnishes a cogent example, where Federal regulation is in large degree a barrier to entry protecting existing firms against possible new entrants.

A recent report prepared at the Center for the Study of American Business at Washington University estimates that the aggregate cost of complying with Federal regulation came to \$62.3 billion in 1976 or 20 times the direct cost to the taxpayer of supporting the major regulatory agencies.<sup>5</sup> (See Table 4.)

TABLE 4.—ANNUAL COST OF FEDERAL REGULATION, BY AREA, 1976

[In millions of dollars]

Area	Administrative cost	Compliance cost	Total
Consumer safety and health.....	1,516	5,094	6,610
Job safety and working conditions.....	483	4,015	4,498
Energy and the environment.....	612	7,760	8,372
Financial regulation.....	104	1,118	1,222
Industry specific.....	474	26,322	26,796
Paperwork.....	(1)	18,000	18,000
Total.....	3,189	62,309	65,498

<sup>1</sup> Included in other categories.

Source: Center for the Study of American Business.

<sup>4</sup> Cited in Murray L. Weidenbaum, "Government Regulation and the Cost of Housing," *Urban Land*, February 1978.

<sup>5</sup> DeFina, op. cit.

The basic approach followed in the study was to cull from the available literature the more reliable estimates of the costs of specific regulatory programs, to put those estimates on a consistent and reliable basis, and to aggregate the results for 1976. Where a range of costs was available for a given regulatory program, the lower end of the range was generally used. In many other cases no cost estimates were available. Thus, the numbers in the study are low and underestimate the actual costs of Federal regulation in the United States.

The estimates of regulatory costs include costs incurred by the Federal Government and costs incurred by economic units in response to regulation. In the first category, administrative costs are the expenditures arising from the operation of a regulatory activity by the Federal Government. These include salaries of government workers, office supplies, etc. They are the outlays for regulatory purposes which are reported in the Federal budget. The second category, compliance costs, are those costs incurred mainly by the private sector (and also by State and local governments) in the process of complying with the Federal regulatory mandates. These expenditures do not show up in the Federal budget and were estimated.

#### REGULATION AND INNOVATION

As William D. Carey of the American Association for the Advancement of Science has stated, "Government may imagine that it is neutral toward the rate and quality of technological risk-taking, but it is not \* \* \* regulatory policies aimed at the public interest rarely consider impacts on innovation."<sup>6</sup> The adverse effect of regulation on innovation is likely to be felt more strongly by smaller firms and thus have an anticompetitive impact. According to Dr. Mitchell Zavon, president of the American Association of Poison Control Centers—

"We've got to the point in regulatory action where it's become so costly and risky to bring out products that only the very largest firms can afford to engage in these risky ventures. To bring out a new pesticide you have to figure a cost of \$7 million and 7 years of time."<sup>7</sup>

One hidden cost of government regulation is a reduced rate of introduction of new products. The longer it takes for a new product to be approved by a government agency—or the more costly the approval process—the less likely that the new product will be created. In any event, innovation will be delayed.

Professor Sam Peltzman of the University of Chicago has estimated, for example, that the 1962 amendments to the Food and Drug Act are delaying the introduction of effective drugs by about 4 years, as well as leading to higher prices for pharmaceutical products.<sup>8</sup> As a result in large part of the more stringent drug regulations, the United States was the 30th country to approve the antiasthma drug metaproterenol, the 32d country to approve the anticancer drug adriamycin, the 51st to approve the antituberculosis drug rifampin, the 64th to

<sup>6</sup> William D. Carey, "Muddling Through: Government and Technology," *Science*, April 4, 1975.

<sup>7</sup> Quoted in Sheila Rule, "Pesticide Regulations Called 'Too Stringent,'" *St. Louis Post-Dispatch*, September 18, 1974.

<sup>8</sup> Sam Peltzman, "An Evaluation of Consumer Protection Legislation: The 1972 Drug Amendments," *Journal of Political Economy*, September-October 1973.

approve the antiallergenic drug cromolyn, and the 106th to approve the antibacterial drug co-trimoxazole.<sup>9</sup>

According to Thomas G. Moore of the Hoover Institution at Stanford University, regulation by the Interstate Commerce Commission delayed the introduction of unit trains by at least 5 years and delayed full use by the Southern Railroad of the "Big John" cars used to carry grain.<sup>10</sup> Ann Friedlander has estimated the loss in the railroad industry due to retarded innovation at between \$12 million and \$41 million a year.<sup>11</sup>

### REGULATION AND CAPITAL FORMATION

Federal regulation also affects the prospects for economic growth and productivity by levying a claim on a rising share of new capital formation. This effect of regulation is most evident in the environmental and safety areas. According to the U.S. Council on Environmental Quality, private capital outlays for pollution control in 1975 were \$3.8 billion higher than would have been the case in the absence of Federal environmental requirements.<sup>12</sup> Similarly, the McGraw-Hill Department of Economics estimates the cost to American industry of meeting the occupational health and safety regulations at about \$3 billion a year. Thus these two programs alone account for 6 percent of total capital spending in the private sector of the American economy, which came to \$113 billion in 1975.

Edward Denison of the Brookings Institution has estimated the loss of productivity experienced in the United States in recent years in meeting government pollution and job safety standards. The loss in productivity results both from diversion of capital investment as well as from current expenses in meeting these regulatory requirements. By 1975, output per unit of input in the nonresidential business sector of the economy was 1.4 percent smaller than it would have been if business had operated under the regulatory conditions of 1967. Of this amount, Denison ascribes 1 percent to pollution abatement and 0.4 percent to employee safety and health programs.<sup>13</sup>

The reductions had been small in 1968-1970, but were rising rapidly in the 1970's. The increase in the amount of such lost productivity cut the annual change in output per unit of input by 0.2 percent in 1973, 0.4 percent in 1974, and 0.5 percent in 1975. The recent reduction in growth rates is equivalent to a large portion of the recent rises in economic growth.<sup>14</sup>

Capital formation and productivity may also be adversely affected by the uncertainty about the future of regulations governing the introduction of new processes and products. An example is furnished in the report of a task force of the U.S. Energy Resources Council

<sup>9</sup> Testimony by Dr. William Wardell, University of Rochester School of Medicine and Dentistry, before the Senate Committee on Labor and Public Welfare, Subcommittee on Health, Washington, D.C., Sept. 27, 1974.

<sup>10</sup> Thomas G. Moore, statement before the Senate Subcommittee on Transportation and Aeronautics, 92d Congress, Serial No. 92-79.

<sup>11</sup> Ann Friedlander, "The Social Costs of Regulating the Railroads," *American Economic Review*, May 1971.

<sup>12</sup> U.S. Council on Environmental Quality, *Fifth Annual Report*, Washington, Government Printing Office, 1975.

<sup>13</sup> Edward F. Denison, "Effects of Selected Changes in the Institutional and Human Environment Upon Output Per Unit of Input," *Survey of Current Business*, January 1978.

<sup>14</sup> *Ibid.*

dealing with the possibility of developing a new synthetic fuel industry. In evaluating the impact of the Federal Water Pollution Control Act Amendments of 1972, the task force reported, "It would be next to impossible at this time to predict the impact of these requirements on synthetic fuels production."<sup>15</sup>

In considering the National Environmental Policy Act of 1969, the task force stated that the major uncertainty was not whether a project would be allowed to proceed, but rather the length of time that it would be delayed pending the issuance of an environmental impact statement that would stand up in court. In assessing the overall impact of government regulatory activity on the establishment of a new energy industry, the task force concluded: "In summary, some of these requirements could easily hold up or permanently postpone any attempt to build and operate a synthetic fuels plant."<sup>16</sup>

### REGULATION AND EMPLOYMENT

Government regulations, albeit unintentionally, can have strongly adverse effects on employment. The minimum wage law, for example, has priced many teenagers out of labor markets. One recent study has shown that the 1966 increase in the statutory minimum wage reduced teenage employment in the United States by 225,000 below what it otherwise would have been in 1972. Thus, as a result of that one change in government regulation, the youth unemployment rate in 1972 was 3.8 percentage points higher than it would otherwise have been.<sup>17</sup>

In construction labor—where unemployment rates are substantially above the national average—government regulation also acts to price some segments of the work force out of competitive labor markets. Under the Davis-Bacon legislation, the Secretary of Labor promulgates "prevailing" wages to be paid on Federal and federally supported construction projects. A variety of studies has shown that these federally mandated wage rates are often above those that actually prevail in the labor market where the work is to be done.<sup>18</sup>

### REGULATION AND SMALL BUSINESS

Government regulation, often unwittingly, tends to hit small business disproportionately hard.<sup>19</sup> Most of this impact is unintentional, in that the regulations typically do not distinguish among companies of different sizes. But in practice, forcing a very small firm to fill out the same specialized forms as a large company with highly trained technical staffs at its disposal places a significantly greater burden on that smaller enterprise. This general point is supported by data and examples for such different governmental regulatory activities as the Environmental Protection Agency, the Employee Retirement

<sup>15</sup> Synfuels Interagency Task Force, "Recommendations for a Synthetic Fuels Commercialization Program," report submitted to the President's Energy Resources Council, Vol. 1, Washington, D.C., Government Printing Office, 1975.

<sup>16</sup> *Ibid.*

<sup>17</sup> James F. Ragan, Jr., "Minimum Wages and the Youth Labor Market," Publication No. 14, St. Louis, Center for the Study of American Business, Washington University, August 1977.

<sup>18</sup> John P. Gould, Davis-Bacon Act, Washington, D.C., American Enterprise Institute, 1971; Armand J. Thieblot, Jr., The Davis-Bacon Act, Philadelphia, University of Pennsylvania, The Wharton School, 1975.

<sup>19</sup> This section draws heavily from Kenneth W. Chilton, "The Impact of Federal Regulation on American Small Business," St. Louis, Washington University Center for the Study of American Business, March 1978.



Income Security Act, National Labor Relations Board, Occupational Safety and Health Administration, and the Securities and Exchange Commission.

A current example of government regulation affecting small business disproportionately is the proposed standards for air-lead exposure levels promulgated by the Occupational Safety and Health Administration. The impact of these standards has been examined in a recent study by Charles River Associates. In the battery industry, which is made up of 143 firms, OSHA lead regulations are estimated to result in much larger per unit production costs for smaller plants than for larger plants. Because of large differential costs and the fact that battery prices would only rise to cover the unit costs of the larger firms, smaller plant operators would be forced to absorb the differential in costs. In many cases the amount absorbed would eliminate entirely the plant's profitability. According to the Charles River Associates study, about 113 single plant battery firms would be forced to close, eliminating half of the productive capacity not operated by the five major battery companies.

It is much more difficult to assess the impact of regulations that are merely burdensome to small business, such as filling out government forms and responding to information requests by regulatory agencies. The Commission on Federal Paperwork reports that 5 million small businesses spend \$15-\$20 billion, or an average of over \$3,000 each on Federal paperwork. Not all examples of the heavier burden of regulation on small business have to do with the newer regulatory agencies. A National Labor Relations Board election is a good example. Table 5 shows the total estimated cost per employee of an NLRB election by size of the company work force. Clearly the unit cost of meeting this regulatory requirement is smaller for the large firm (\$101.60 for companies with over 1,000 employees) and larger for the small firm (\$134.60 for firms with fewer than 100 workers).<sup>20</sup>

TABLE 5.—NLRB ELECTION COSTS PER EMPLOYEE

Cost category	Number of employees eligible to vote					
	50 to 99	100 to 149	150 to 299	300 to 599	600 to 1,000	1,000 plus
Legal.....	\$26.00	\$19.00	\$15.50	\$12.00	\$8.00	\$8.00
Employee time.....	27.00	27.00	27.00	27.00	27.00	27.00
Loss in productivity.....	57.60	57.60	57.60	57.60	57.60	57.60
Executive time.....	24.00	20.00	18.00	12.00	9.60	9.00
Total cost per employee.....	134.60	123.60	118.10	108.60	102.20	101.60

Source: Michigan State University Business Topics.

## REGULATION AND ENTREPRENEURIAL FUNCTIONS

One of the unmeasurable effects of government regulation is what it does to the basic entrepreneurial nature of the private enterprise system. To the extent that management's attention is diverted from traditional product development, production, and marketing concerns to meeting governmentally imposed social requirements, a significant bureaucratization of corporate activity results.

<sup>20</sup> Woodruff Imberman, "How Expensive Is an NLRB Election?", Michigan State University Business Topics, Summer 1975.

In employee pension fund management, for example, the recently enacted pension regulation has shifted much of the concern of fund managers from maximizing the return on the contributions to a more cautious approach of minimizing the likelihood that the managers will be criticized for their investment decisions. It thus becomes safer—although not necessarily more desirable for the employees covered—for the pension managers to keep more detailed records of their deliberations, to hire more outside experts (so that the responsibility can be diluted), and to avoid innovative investments.<sup>21</sup>

In the occupational safety and health area, professional safety staffs are often diverted from their basic function of training workers in safer operating procedures to filling out forms, posting notices, and meeting other essentially bureaucratic requirements. OSHA directives, for example, contain very specific requirements for virtually every piece of equipment used in the production of steel. These requirements range from such major items as coke ovens all the way down to such minutiae as the ladders used in plants and the mandatory 42-inch height from the floor for portable fire extinguishers.

The results measured by any improvement in safety are almost invariably disappointing. Two major studies of the occupational safety and health (OSHA) program to date have yielded negative findings. Nicholas A. Ashford concluded that "The OSHA Act has failed thus far to live up to its potential for reducing job injury and disease \* \* \* OSHA has had little measurable impact in reducing injuries and deaths."<sup>22</sup>

In a more detailed statistical analysis, Robert S. Smith reported similar findings, " \* \* \* the estimated effects [of OSHA] on injuries are so small that they cannot be distinguished from zero."<sup>23</sup> Apparently, the original concern of the public and the Congress to reduce accidents has been converted to obeying rules and regulations. The disappointing results lead to a predictable reaction: Redouble the existing effort—more rules, more forms, more inspection, and thus higher costs to the taxpayer and higher prices to the consumer.

More recent statistics on occupational injuries and illnesses are hardly reassuring. The reported overall accident and illness rate have been declining, from 10.4 per 100 workers in 1974 to 9.1 in 1975. However, the number of workdays lost to injuries and illnesses per 100 workers actually rose, to 54.4 in 1975 from 53.1 in 1974. On the average the affected workers took more time off than in the previous year. This could indicate that the injuries and illnesses that did occur in 1975 were typically more severe. Apparently the impact of OSHA occurred primarily in reducing the number of minor accidents and illnesses.

<sup>21</sup> Shoya Zichy, "How Small Funds Are Coping With the New Pension Law," *Institutional Investor*, September 1975.

<sup>22</sup> Nicholas A. Ashford, "Crisis in the Workplace: Occupational Disease and Injury," Cambridge, MIT Press, 1976.

<sup>23</sup> Robert S. Smith, "The Occupational Safety and Health Act," Washington, American Enterprise Institute, 1976.

## APPROACHES TO REGULATORY REFORM

A new way of looking at the microeconomic effects of regulatory programs may be helpful to public policymaking. A parallel can be drawn to macroeconomic matters, where important and at times conflicting objectives are recognized and attempts at reconciliation or trade-off are made (for example, as among economic growth, employment, income distribution, and price stability). At the microeconomic level, it may likewise be appropriate to reconcile the goals of specific government programs with national objectives.

Healthy working conditions, for example, are an important national objective, but not the only important national objective. Society supposedly should avoid selecting the most costly and disruptive methods of achieving a higher degree of job safety. Similarly, environmental protection, product safety, and other regulatory efforts should be related to costs to the consumer, availability of new products, and the employment of the work force. In part, this reconciliation can be made at the initial stages of the governmental process, when the President proposes and the Congress enacts a new regulatory program.

### BENEFIT-COST ANALYSIS

One device for broadening the horizons of government policymakers and administrators is the economic impact statement. Policymakers could be required to consider the costs (and other adverse effects) of their actions as well as the benefits.

This is not a novel idea. In November 1974, then President Gerald Ford instructed the Federal agencies under his jurisdiction to examine the effects of the major regulatory actions on costs, productivity, employment, and other economic factors. This first step was subject to several shortcomings. Many of the key regulatory agencies—ranging from the Consumer Product Safety Commission to the Federal Trade Commission—are so-called independent agencies, which are beyond the President's jurisdiction in these matters.

Second, even in the case of the regulatory activities that come within presidential jurisdiction, the existing policy is limited to the regulations that, in the issuing agency's own estimation, are "major." Third, the agencies covered by the Executive order are only required to examine the economic aspects of their actions; the weight they give to economic factors remains in their discretion—to the extent that congressional statutes permit them to give any consideration to economic influences at all.

Within these constraints, the Council on Wage and Price Stability has intervened in many cases of proposed regulation to offer its analyses of the benefits and the costs of the proposed action. The agencies have rarely welcomed this advice, but the publicity given some of the Council's analyses may have at times provided a deterrent to the more traditionally minded personnel of regulatory agencies, as well as serving a larger public educational purpose.

A broader approach may be warranted, one with a strong legislative mandate. In the fashion of the environmental impact statements (but hopefully without as much of the trivia), Congress could require each regulatory agency to assess the impact of its proposed actions on the society as a whole, and particularly on the economy. Much would depend on the "teeth" put into any required economic impact statement. Merely legislating the performance of some economic analysis by an unsympathetic regulator would serve little purpose beyond delaying the regulatory process and making it more costly. But limiting government regulation to those instances where the total benefits to society exceed the costs would be a major departure from current practice.

To an eclectic economist, government regulation should be carried to the point where the incremental costs equal the incremental benefits, and no further. Indeed, this is the basic criterion that is generally used to screen government investments in physical resources. Over-regulation—which can be defined as regulation for which the costs exceed the benefits—would be avoided under this approach.

Many of the proposals to reform government regulation involve the "sunset" mechanism—the compulsory periodic review of each major regulatory program to determine whether it is worthwhile to continue it in the light of changing circumstances. A benefit-cost analysis would provide a quantitative mechanism to aid in making those value judgments.

#### BUDGETING AS A MANAGEMENT TOOL

Attention should be given to the role of the budget process in managing regulation. In those cases where an agency's regulations generate more costs than benefits, the agency's budget for the coming year might be reduced. Budget reviewers, be they examiners in the executive branch or committee staffs in the legislature, face the perennial question of how to measure the effectiveness of an agency that does not provide marketable outputs. The traditional response is to concentrate on the inputs utilized (as, for example, workload statistics). Benefit-cost analysis, cost-effectiveness analysis (which is in effect the search for least-cost solutions) or other quantitative forms of program evaluation may provide useful alternatives in such cases.

Because the requested appropriations for the regulatory agencies are relatively small portions of the government's budget, limited attention has been given to these activities in the budget process. In view of the large costs that they often impose on the society as a whole (those "hidden taxes" shifted to the private sector), greater attention than now given is warranted to the reviews of the appropriation requests for regulatory programs.

The wide dissemination of data on the economic impacts of government regulation also may serve to alter the balance of forces now exerted by interest groups on the decisionmaking process. At present, interest groups are most often well aware of the benefits they would receive from a proposed regulation, and thus they mobilize their forces to promote that regulation. But information on the adverse consequences of the regulation, if widely distributed, might generate countervailing pressures from other groups.<sup>1</sup>

<sup>1</sup> Roland McKean, "Property Rights Within Government, and Devices To Increase Efficiency in Government," *Southern Economic Journal*, October 1972.

## CHANGING ATTITUDES TOWARD REGULATION

Basically, however, it is attitudes that may need to be changed. Experience with the job safety program provides a cogent example. Although the government's safety rules have resulted in billions of dollars in public and private outlays, the basic goal of a safer work environment has not been achieved.

A more satisfying answer to improving the effectiveness of government regulation of private activities requires a basic change in the approach to regulation, and one not limited to the job safety program. Indeed, that program is used here merely as an illustration. If the objective of public policy is to reduce accidents, then public policy should focus directly on the reduction of accidents. Excessively detailed regulations are often merely a substitute—the normal bureaucratic substitute—for hard policy decisions.

Rather than emphasis being placed on issuing citations to employers who fail to fill forms out correctly or who do not post the required notices, it should be placed on the regulation of those employers with high and rising accident rates. Perhaps fines should be levied on those establishments with the worst safety records. As the accident rates decline toward some sensible average standard, the fines could be reduced or eliminated.

But the Government should not be much concerned with the way a specific organization achieves a safer working environment. Some companies may find it more efficient to change work rules, others to buy new equipment, and still others to retrain workers. The making of this choice is precisely the kind of operational business decisionmaking that government should avoid, but that now dominates many regulatory programs. Without diminishing the responsibility of the employers, the sanctions under the Federal occupational safety and health law should be extended to employees, especially those whose negligence endangers other employees. The purpose here is not to be harsh, but to set up effective incentives to achieve society's objectives. This can be a preferred alternative to government specifying the details of what it considers to be "acceptable" private action.

A recent case in point is provided by the proposed job safety standards for exposure to lead in the workplace. OSHA would require smelters, battery manufacturers and other firms to install engineering controls that reduce the maximum exposure level from its present 200 micrograms of lead per cubic meter of air to 100 micrograms.

The U.S. Council on Wage and Price Stability has estimated that meeting the proposed standards could cost the industries affected and ultimately consumers over \$300 million a year. The Council urges that OSHA allow each company to use the most efficient way of achieving the new standard, whether that requires costly engineering controls or some other method.<sup>2</sup> Intensive employee training might be one of those alternate methods, if a study in the United Kingdom can serve as a guide. According to a report in the "British Journal of Industrial Medicine," the lead exposures of employees doing almost identical jobs differed by ratios of up to four to one. This was totally attributed to personal differences in working habits.<sup>3</sup>

<sup>2</sup> U.S. Council on Wage and Price Stability, "Council Comments on OSHA's Proposed Standard on Lead," Washington, The Council, March 15, 1977.

<sup>3</sup> M. K. Williams, E. King, and John Walford, "An Investigation of Lead Absorption in an Electric Accumulator Factory With the Use of Personal Samples," "British Journal of Industrial Medicine," 1969, No. 26.

With reference to consumer protection regulation, an information strategy may often provide a sensible alternative. For the many visible hazards that consumers voluntarily subject themselves to, perhaps the most important consideration of public policy is to improve the individual's knowledge of the risks involved rather than limit personal discretion. In their daily lives, citizens rarely opt for zero risk alternatives. For example, many pedestrians voluntarily race across a busy intersection rather than wait for the traffic light to change.

#### ALTERNATIVES TO REGULATION

The promulgation by government of rules and regulations restricting or prescribing private activity of course is not the only means of accomplishing public objectives. Codes of behavior adhered to on a voluntary basis may often be effective.<sup>4</sup> Trade associates on occasion have served such a socially useful function in upgrading the level of business performance.

Government itself has available to it various powers other than the regulatory mechanism. Through its taxing authority, the Government can provide strong signals to the market. Rather than promulgating detailed regulations governing allowable discharges into the Nation's waterways, the Government could levy substantial taxes on those discharges. Such sumptuary taxation could be "progressive," to the extent that the tax rates would rise faster than the amount of pollution emitted by an individual polluter. Thus, there would be an incentive for firms to concentrate on removing or at least reducing the more serious instances of pollution.

The use of taxation would neither be meant to punish polluters nor to give them a "license" to pollute. Rather it would be using the price system to encourage producers and consumers to shift to less polluting ways of producing and consuming goods and services. The cost of removal of pollution for each organization, compared to the size of the tax, would determine the level of environmental cleanup that it pursues. Those that can control pollution more cheaply will clean up more (and thus pay less tax). Those with higher control costs will clean up less (and pay more pollution taxes). This approach attempts to achieve a given level of environmental quality with minimum resource use by equalizing the marginal cost of pollution control.<sup>5</sup>

In the case of the traditional one-industry type of government regulation (as of airlines, trucking, and railroads) a greater role should be given to the competitive process and to market forces. Unlike the newer forms of regulation on which this paper concentrates, the older forms of regulation are often mainly barriers to entry into a given industry, protecting existing firms from competition by potential new entrants. It is in this limited sense that deregulation is a viable option. The elimination of regulation in the safety, ecology, and related areas does not appear to be a realistic alternative in view of the Nation's long-term social concerns.

Indeed, any realistic appraisal of government regulation must acknowledge that important and positive benefits have resulted from many of these activities—less pollution, fewer product hazards,

<sup>4</sup> See Roland McKean, "Economics of Ethical and Behavioral Codes", Working Paper No. 11, St. Louis, Center for the Study of American Business, Washington University, 1976.

<sup>5</sup> Marc J. Roberts and Richard B. Stewart, "Energy and the Environment," in Henry Owen and Charles L. Schultze, editors, "Setting National Priorities: The Next Ten Years," Washington, the Brookings Institution, 1976.

reducing job discrimination, and other socially desirable goals of our society. But the "externalities" generated by Federal regulation cannot justify government attempting to regulate every facet of private behavior. As Henry Owen and Charles Schultze have pointed out, a reasonable approach to this problem requires great discrimination in sorting out the hazards that it is important to regulate from the kinds of lesser hazards that can best be dealt with by "the normal prudence of consumers, workers, and business firms."<sup>6</sup>

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<sup>6</sup> Henry Owen and Charles L. Schultze, "Introduction," in *ibid.*

## Appendix. FEDERAL EXPENDITURES FOR REGULATION OF BUSINESS

APPENDIX TABLE 1.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, CONSUMER SAFETY AND HEALTH  
[Fiscal years; in millions of dollars]

Agency	1974	1975	1976	1977	1978	1979
<b>Department of Agriculture:</b>						
Animal and Plant Health Inspection Service.....	314	345	377	337	220	219
Federal Grain Inspection Service.....				9	23	23
Food Safety and Quality Service.....				138	619	588
Subtotal.....	314	345	377	484	862	830
<b>Department of Health, Education, and Welfare: Food and Drug Administration.....</b>						
	165	201	218	245	283	298
<b>Department of Housing and Urban Development: Interstate land sales and other regulatory functions.....</b>						
	1	2	( <sup>1</sup> )	2	1	( <sup>1</sup> )
<b>Department of Justice:</b>						
Antitrust Division.....	14	18	21	26	35	45
Drug Enforcement Administration <sup>2</sup> .....	98	132	146	167	190	194
Subtotal.....	112	150	167	193	225	239
<b>Department of Transportation:</b>						
National Highway Traffic Safety Administration.....	157	150	151	169	206	246
Federal Railroad Administration <sup>3</sup> .....	7	9	15	17	21	25
Coast Guard.....	210	162	192	261	281	294
Federal Aviation Administration.....	2	1	( <sup>1</sup> )	1	1	( <sup>1</sup> )
Federal Highway Administration.....		6	7	7	8	13
Subtotal.....	376	328	365	455	517	578
<b>Department of the Treasury:</b>						
Bureau of Alcohol, Tobacco, and Firearms.....	79	95	103	117	127	134
Customs Service.....	228	299	334	436	510	534
Subtotal.....	307	394	437	553	637	668
Consumer Product Safety Commission.....	19	34	38	40	42	40
National Transportation Safety Board.....	8	9	11	13	15	15
Consumer protection activities.....						43
Total.....	1,302	1,463	1,613	1,985	2,582	2,671

<sup>1</sup> Less than \$1,000,000.

<sup>2</sup> Activities extend beyond business regulation (breakdown not available).

<sup>3</sup> Railroad safety only.

<sup>4</sup> Costs of proposed consumer representation less saving from consolidating consumer protection activities.

Source: Computed from details in the "Budget of the United States Government, Fiscal Year 1979," Washington, Government Printing Office, 1978.

APPENDIX TABLE 2.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, JOB SAFETY AND OTHER WORKING CONDITIONS  
[Fiscal years; in millions of dollars]

Agency	1974	1975	1976	1977	1978	1979
<b>Department of the Interior:</b>						
Office of Surface Mining, Reclamation and Enforcement <sup>1</sup> .....					16	1
Mining Enforcement and Safety Administration.....	59	68	84	98	53	( <sup>2</sup> )
Subtotal.....	59	68	84	98	69	1

See footnotes at end of table.



APPENDIX TABLE 2.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, JOB SAFETY AND OTHER WORKING CONDITIONS—Continued

[Fiscal years; in millions of dollars]

	1974	1975	1976	1977	1978	1979
Department of Labor:						
Employment Standards Administration.....	56	72	84	60	67	77
Labor-Management Services Administration.....	24	27	37	47	55	58
Occupational Safety and Health Administration.....	69	90	109	127	129	150
Mine Safety and Health Administration.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	55	124
Subtotal.....	149	189	230	234	306	409
Equal Employment Opportunity Commission.....	42	56	59	72	88	108
National Labor Relations Board.....	55	61	67	81	92	100
Occupational Safety and Health Review Commission.....	5	5	6	7	7	8
Total.....	310	379	446	492	562	626

<sup>1</sup> Regulation and technology only.<sup>2</sup> During fiscal year 1978, MESA functions were transferred to the Mine Safety and Health Administration under the Department of Labor.

Source: Computed from details in the "Budget of the United States Government, Fiscal Year 1979," Washington, Government Printing Office, 1978.

APPENDIX TABLE 3.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, ENVIRONMENT AND ENERGY

[Fiscal years; in millions of dollars]

Agency	1974	1975	1976	1977	1978	1979
Department of Energy <sup>1</sup> .....	33	121	136	199	238	284
Council on Environmental Quality.....	2	3	3	4	3	3
Environmental Protection Agency.....	232	317	363	436	473	522
Nuclear Regulatory Commission.....	80	86	180	231	275	307
Total.....	347	527	682	870	989	1,116

<sup>1</sup> Energy information, policy, and regulation.

Source: Computed from details in the "Budget of the United States Government, Fiscal Year 1979," Washington, Government Printing Office, 1978.

APPENDIX TABLE 4.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, FINANCIAL REPORTING, AND OTHER FINANCIAL

[Fiscal years; in millions of dollars]

Agency	1974	1975	1976	1977	1978	1979
Cost Accounting Standards Board.....	1	1	1	2	2	2
Council on Wage and Price Stability.....		( <sup>1</sup> )	1	2	2	2
Securities and Exchange Commission.....	35	44	51	54	66	65
Total.....	36	45	53	58	70	69 <sup>a</sup>

<sup>1</sup> Less than \$1,000,000.

Source: Computed from details in the "Budget of the United States Government, Fiscal Year 1979," Washington, Government Printing Office, 1978.

APPENDIX TABLE 5.—EXPENDITURES ON FEDERAL REGULATORY ACTIVITIES, INDUSTRY-SPECIFIC REGULATION  
 [Fiscal years; in millions of dollars]

Agency	1974	1975	1976	1977	1978	1979
Civil Aeronautics Board.....	89	81	91	103	101	96
Commodity Futures Trading Commission.....	13	13	11	14	15	16
Federal Communications Commission.....	38	48	53	56	70	66
Federal Maritime Commission.....	6	7	8	8	10	10
Federal Power Commission.....	27	34	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Federal Trade Commission.....	32	39	44	52	62	64
International Trade Commission.....	7	8	10	11	12	13
Interstate Commerce Commission.....	38	44	47	59	64	69
Renegotiation Board.....	5	5	6	6	6	7
<b>Total.....</b>	<b>245</b>	<b>269</b>	<b>270</b>	<b>309</b>	<b>340</b>	<b>341</b>

<sup>1</sup> Expenditures for Commodity Exchange Authority.

<sup>2</sup> Federal Power Commission functions have been transferred to the Department of Energy.

Source: Computed from details in the "Budget of the United States Government, Fiscal Year 1979," Washington, Government Printing Office, 1978.