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THE COSTS OF FEDERAL REGULATION

by Thomas D. Hopkins

POLICY ANALYSIS



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by Thomas D. Hopkins

Regulation is an essential but costly tool of government policy. Complying with federal regulatory requirements, however well-designed they may be, creates costs that mostly do not show up in the federal budget. Instead, consumers ultimately pay these costs, mainly in the form of higher prices for products and services. For example, in November 1991, the government proposed new labeling requirements for food products that, according to the Food and Drug Administration, "will cost manufacturers \$1.7 billion over the next 20 years."¹ Doubtless these costs will be passed along to consumers.

This paper explores the emerging pattern of such federal regulatory costs, both over time and across governmental programs. The numbers are large by any reckoning, and the pattern sharply etched. While it is not possible to provide definitive cost estimates at this point, available evidence suggests that federal regulation probably is costing American consumers roughly \$400 billion dollars annually over and above those costs of government that show up in the budget. This works out to an average of over \$4,000 per household. Figures 1 and 2 (see pages 2 and 3) portray the overall regulatory cost pattern (their derivation is explained later).

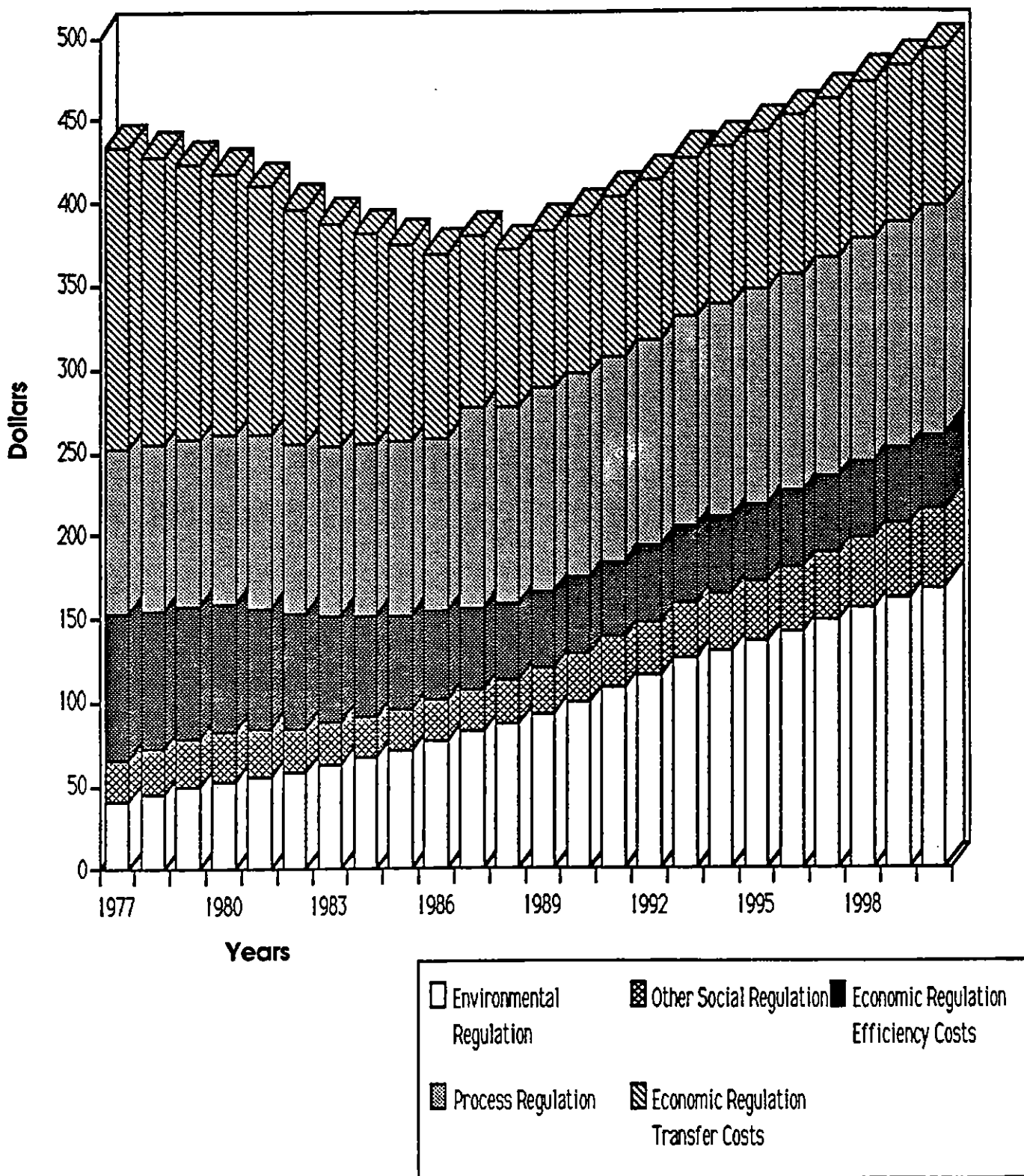
These charts suggest that regulatory costs behave much like a slowly swinging pendulum. A ten-year period of gradually declining regulatory costs that began with the regulatory reform efforts of the Carter Administration seems to have ended about 1988, as new regulations, mostly in the environmental area, have swamped the cost reductions stemming from the earlier reforms. Indicative of the pendulum reversal since that time are the substantial new regulatory authority embodied in the 1990 Clean Air Act legislation and a sharp increase in the number of pending regulatory actions government-wide.² In October 1991, the government reported that 59 agencies were then at work on 4,863 regulations, of which 919 were new to the government's agenda.³

The regulatory cost picture presented here is that of a patchwork quilt of studies and estimates with some important patches missing and others of only partial coverage. Available sources of cost information are diverse in their objectives and

Thomas D. Hopkins is the Gosnell Professor of Economics at Rochester Institute of Technology, Rochester, New York. Previously, he was Deputy Administrator of the Office of Management and Budget's Office of Information and Regulatory Affairs. He has written extensively on benefit-cost analysis and regulatory policy.

FIGURE 1

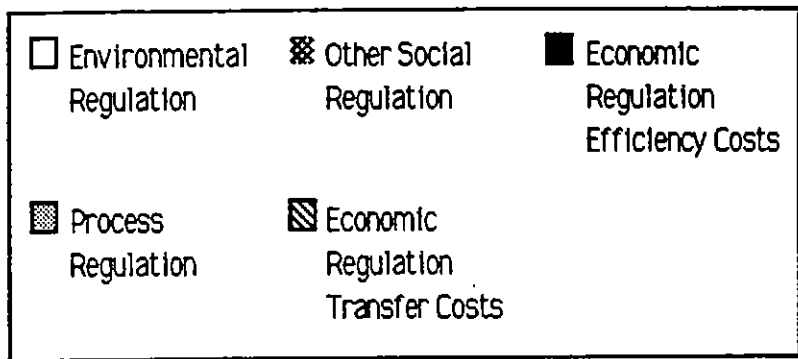
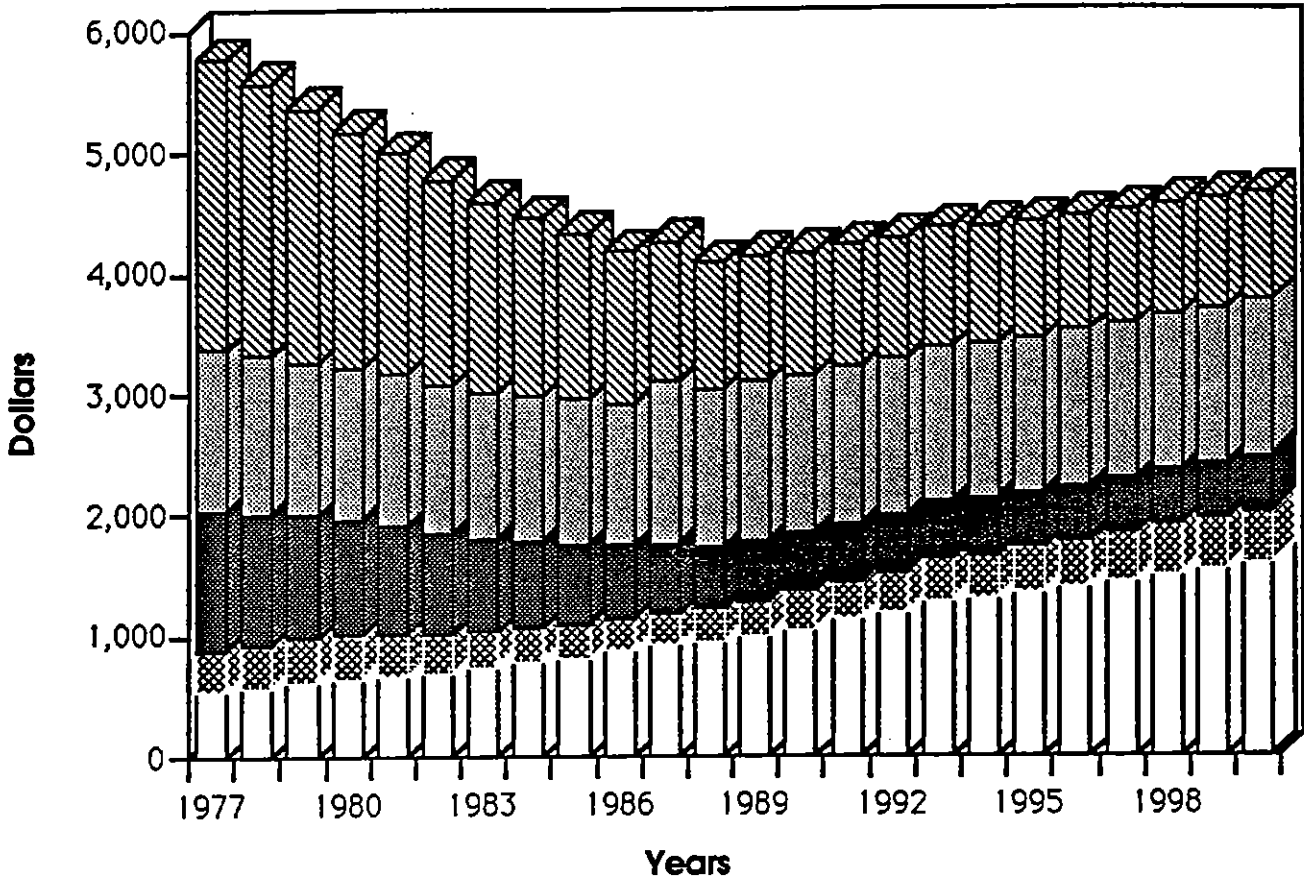
COMPOSITE ANNUALIZED REGULATORY COST IN BILLIONS OF 1988 DOLLARS



Source: See text.

FIGURE 2

COMPOSITE ANNUALIZED REGULATORY COSTS PER HOUSEHOLD IN 1988 DOLLARS



Source: Figure 1 and U.S. Statistical Abstract.

inconsistent in a host of ways, including definitions, methodology and data adequacy. Existing studies do not utilize the same cost concepts, and at an even more basic level, they do not share a common view of what the term "regulation" encompasses.

Most studies categorize regulation as either economic (controls imposed on private sector entry and prices or rates, such as those governing milk prices) or social (protecting people and the environment from hazards, such as pollution controls and auto safety regulation), while varying on precisely which government actions they assign to each category. This paper attempts to improve on this traditional dichotomy by offering a five-part breakdown of regulatory costs. First, environmental regulation is shown separately from all other social regulation because of its dominating size. This leaves workplace and product safety controls and a variety of other hazard reduction rules as a second category, "other social regulation." In the area of economic regulation, the paper distinguishes two different types of costs—efficiency costs and transfer costs, a distinction the next section discusses. Finally, it includes a fifth category, termed "process regulation," to cover requirements associated with government paperwork burdens not directly linked to a social or economic regulatory objective.⁴

Relative to longer-standing regulatory programs, the cost picture with respect to regulations adopted over the past decade should be considerably less ambiguous than it actually is for three reasons: (a) Executive Order 12291, issued in 1981, directs regulators to produce a Regulatory Impact Analysis containing cost information for every major new regulation; (b) Executive Order 12498 issued in 1985 calls for regulators annually to provide the Office of Management and Budget (OMB) with information about all their new significant regulatory actions (and in 1990 OMB issued Bulletin No. 91-04 clarifying the requirement that this information includes cost estimates, among other things, and explaining how these estimates are to be presented); and (c) as required by both Executive Order 12291 and the Regulatory Flexibility Act, the Regulatory Information Service Center (RISC) gathers summary information semi-annually about virtually every new federal regulatory activity, encouraging regulators to include cost estimates (and providing guidance on how to report cost information).

In practice, however, the requisite analyses and cost estimates are not always produced, and even when they do exist, there is no easy and systematic way to cumulate their costs to attain an estimate of the overall cost burden of regulation. The two government documents that offer the broadest perspective on regulatory changes are OMB's annual *Regulatory Program of the United States Government* and RISC's semi-annual *Unified Agenda of Federal Regulations*. While regulatory agency

entries in these documents contain much useful information about pending actions, they do not routinely include cost estimates even in those cases for which agency cost analyses exist. The October 1991 *Unified Agenda* identifies only 102 of its 4,863 regulatory entries as having Regulatory Impact Analyses either in process or completed. The 1991-92 *Regulatory Program* makes a promising start at including some cost estimates but acknowledges that "in many cases it was not possible" to get the data.⁵ Thus the search for regulatory cost estimates is challenging as to both newer and older regulation.

This paper's focus on the costs of regulation represents a policy concern of rather obvious relevance in a society struggling with fiscal problems at every level of organization. Nonetheless, there is another aspect of the regulatory story that is of equal importance: many regulations generate substantial benefits for society, and these benefits must be assessed before a complete picture of regulation can be produced. Here only costs receive attention. In general, regulations aimed at societal problems such as environmental pollution create benefits that may warrant the associated regulatory costs. That such regulatory costs are rising is not necessarily troublesome and may indeed be laudable if those regulations are well-designed and lead to incremental benefits whose value is at least equal to the incremental costs. Yet, the proliferation of regulatory programs and costs does raise the stakes in public policy decisionmaking. The imposing magnitude of the costs presented here underscores the need for more intensive scrutiny of regulatory design, benefits, and priorities.

CONCEPTS OF REGULATORY COST

Most empirical research on regulatory costs falls into two general groups—program or industry specific studies, and summative studies piecing them together. The most extensive analysis of environmental regulatory costs now available is contained in a 1990 report of the U.S. Environmental Protection Agency.⁶ That EPA report forms the heart of this paper's estimates. Three landmark summative studies are used here to supplement the EPA report. Hahn and Hird (1991), Litan and Nordhaus (1983) and Weidenbaum and DeFina (1978) provide useful snapshots of aggregate regulatory cost levels as they existed in the years 1988, 1977 and 1976, respectively.⁷

The more narrowly focused studies that serve as the basis for the three summative papers just mentioned are numerous and diverse, but each tends to focus on one of three dimensions of regulatory burden: compliance expenditures (what firms must spend to bring their operations into conformance with new regulation), productivity costs (the toll on innovation and cost control as a result of mandated expenditures) and consumer welfare reduction (higher consumer prices and limitations

placed on consumer choices). Each of the three dimensions warrants attention in its own right. Regulation that is costly in one dimension may or may not also be costly in another; a product ban, for example, may entail negligible compliance cost while reducing user welfare appreciably by forcing reliance on more expensive substitutes.⁸

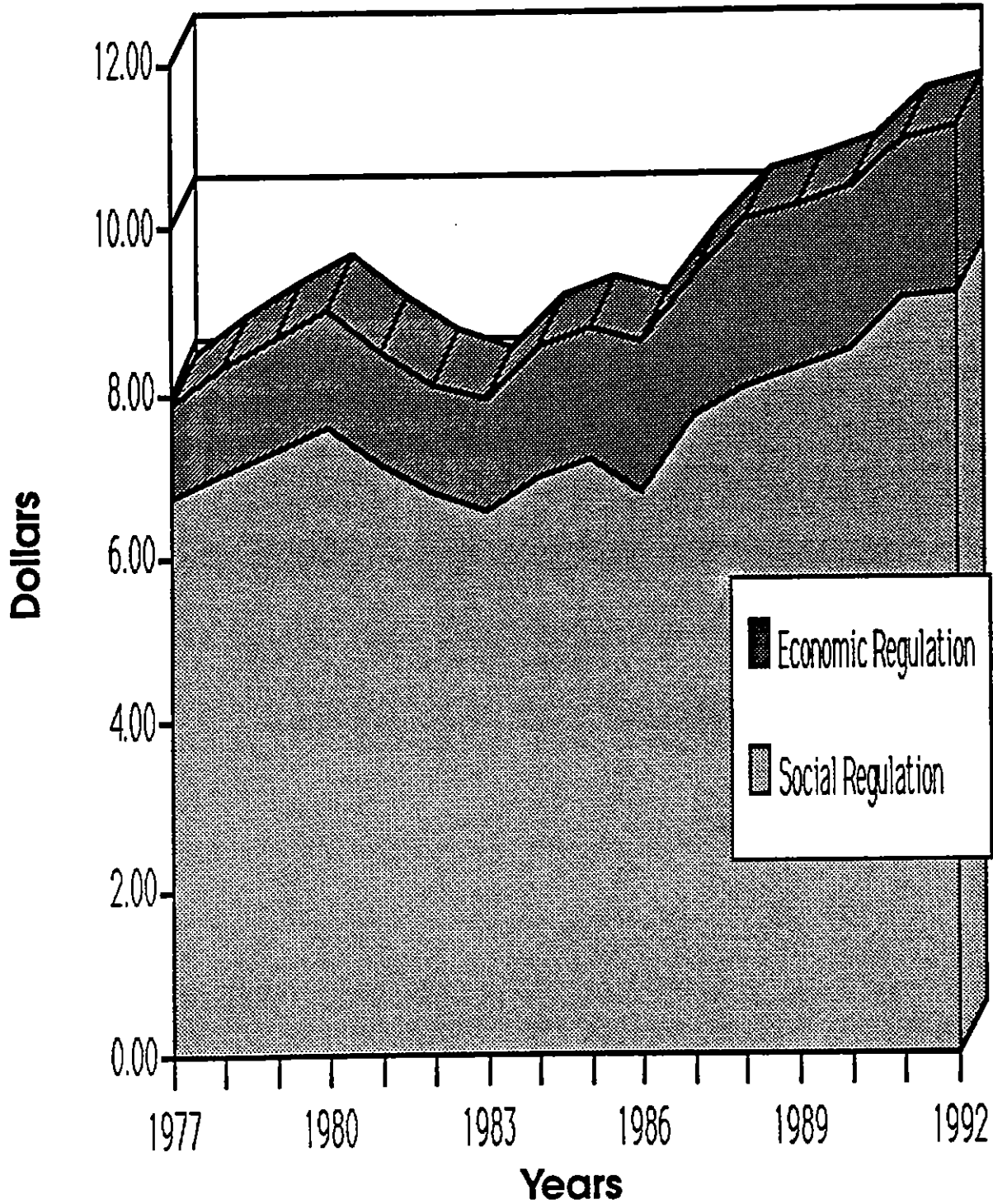
Studies of compliance expenditures are broadly of two types. One set are *ex ante* analyses based on hypothesized responses of regulated entities to regulatory changes, often relying on engineering assumptions about how firms will implement new regulation (this typically forms the basis of the Regulatory Impact Analyses required for major regulatory changes). This is a particularly important source of information about regulatory changes, one that as noted above sometimes is and always should be accessible to the public through the semiannual *Unified Agenda of Federal Regulations* and the annual *Regulatory Program of the United States*.

The second set are *ex post* analyses, some of which are based upon surveys of outlays reported by those regulated (*Survey of Current Business*, e.g.), while others are econometric explorations that infer costs from indications of how relationships between inputs and outputs in particular industries may have been altered by regulation.⁹ One form of compliance cost, paperwork burden, often is singled out for separate treatment (OMB provides reports on the paperwork burden from both the Office of Federal Procurement Policy and the Office of Information and Regulatory Affairs, e.g.).

Another element of compliance cost that attracts much attention is the budgetary cost of regulatory agencies, as distinct from regulation-generated private sector (non-budget) burdens. The Center for the Study of American Business at Washington University annually estimates the portion of the federal budget (and staff) allocated to our 50-plus regulatory agencies. Their total budget outlays estimated for fiscal year 1992 are \$11 billion, and the historical pattern is shown in Figure 3 (see page 7), based on data in the Center's 1991 report.¹⁰ (Since only non-budget costs of regulation are being tallied in this paper, the agency outlays shown in Figure 3 are excluded from all of the paper's other tables and charts.)

Studies of productivity effects tend to be more aggregative in nature than those of compliance expenditures, examining possible linkages between economic growth and broader classes of regulation (notably, environmental and safety). The most prominent early effort here, that of Denison, found rather modest regulatory costs, but some later studies in this tradition find more substantial costs.¹¹ Gray in particular concludes that some 30 percent of the U.S. decline in manufacturing productivity that began in the 1970s was due to EPA and OSHA regulation.¹² As a more specific example, Joskow and Rose find that mandated scrubbers and cooling towers

FIGURE 3
Trends in Regulatory Spending
 (Billions of 1988 dollars)



Source: M. Warren, "Regulation on the Rise," Washington University, Center for the Study of American Business, 1991.

"...added at least 20% to the real construction costs..." of coal-fired electric generators,¹³ while less expensive means to cut air pollution were not allowed.¹⁴

Recent efforts to produce more comprehensive assessments that take into account a variety of direct and indirect consequences—termed general equilibrium studies—hold considerable promise, but their complexity is daunting and their applicability at this stage is still limited.¹⁵ Jorgenson and Wilcoxon find that environmental regulation depressed GNP growth during the period 1973-85, holding it to 2.5 percent annually instead of the 2.7 percent annual rate it would have achieved in the absence of such regulation; this shortfall incidentally would have covered the cost of over 10 percent of all government purchases.¹⁶

The indirect effects of regulation that such studies try to reach include dampened innovation and skewed plant location and plant retirement decisions. Some conclude that such indirect effects are more serious than the direct expenditures needed to comply with regulation.¹⁷ One striking aspect of regulation's indirect effects can be seen in the trucking industry. Deregulation of trucking brought greater savings than many initially expected, in part because of unforeseen indirect benefits—Delaney concludes that deregulation facilitated better inventory management and just-in-time deliveries.¹⁸ It does seem likely that indirect cost effects are an important and perhaps rising burden of regulation, but due to data limitations this paper does not venture beyond direct effects in its estimates.¹⁹

Studies that address regulation-induced reductions in consumer welfare sometimes emphasize resource costs that entail losers with no (or only relatively small) winners, the net effect being termed *deadweight efficiency losses*. Such losses are an important result of much agricultural and trade restriction regulation. By 1984, for example, U.S.-Japanese negotiated "voluntary" export restrictions were creating annual U.S. deadweight losses of \$5 billion, reflecting \$14 billion costs to U.S. consumers only partially offset by \$9 billion in higher U.S. automaker profits.²⁰ As another example, Gardner finds that U.S. agricultural programs as of 1987 were creating annual deadweight losses of \$6 billion.²¹

In other such studies, the emphasis is on cost effects that penalize some so that others may gain, termed *transfer costs*. Milk regulation redistributes about \$500 million annually (in the form of artificially higher prices) from consumers to producers.²² The Davis-Bacon Act and minimum wage laws transfer income to targeted workers from the rest of society. Such cost estimates as do exist normally are estimates of initial, direct effects and do not attempt to reckon with indirect or delayed consequences. Hahn-Hird characterize the distinction between efficiency and transfer costs as follows: "Efficiency costs are real economic losses that one group suffers, yet another group

cannot reclaim as benefits. Transfer payments are a redistribution of benefits from one group to another that has no impact on total economic output.²³ The effect of milk pricing regulation noted above may be just such a case, in that the associated efficiency costs are quite small, according to Gardner (although others find more sizeable efficiency costs).²⁴ Hahn-Hird find that, in the case of most economic regulation, there are "three dollars of transfers for every dollar of efficiency costs."²⁵

From an economist's perspective, the most appealing concept of regulatory cost for most purposes is the loss in resource efficiency that compliance entails. If compliance involves actions that are costly to some without corresponding benefit to others, it is easy to see why a regulation should be singled out for criticism. Regulatory constraints on airport landing fees in 1988 were estimated as creating annual costs of nearly \$4 billion in time and fuel wasted due to congestion, for example.²⁶ While economists rightly place most focus on efficiency costs in evaluating public programs, this paper gives equal attention to the transfer (or distributional) costs of regulation. When a taxpayer/consumer is advised that a product's price will rise by 20 percent, s/he will not likely be mollified by learning that most of the increase represents merely transfers rather than efficiency costs.

There is ample reason to single out for close review any regulation that creates sizeable cost impacts of either type. Subsequent analysis may conclude that the regulation is quite sensible, either because (a) it passes a benefit-cost test on efficiency grounds, or (b) the mix and scale of transfer winners-losers represent an acceptable political outcome. Making all such effects more transparent seems a useful step toward better economic and regulatory policy.

Moreover, one additional reason for including transfer costs comes from a recognition that "rent-seeking" behavior is commonplace. When one group derives substantial gains due to transfers, its members likely will be willing to expend substantial resources protecting those gains. For example, U.S. quotas on sugar imports raise the domestic price of sugar creating large gains for domestic sugar producers, who in turn actively lobby for the continuation of those quotas. This regulatory transfer cost from sugar consumers to domestic sugar producers exceeds \$1 billion annually.²⁷ Not surprisingly, frequent reports appear of substantial lobbying costs incurred by the sugar industry to protect these transfers.²⁸ To exclude all transfer costs from assessments such as this one would severely understate the size of our regulatory burden. Hence, this paper includes both transfers and efficiency costs.

Nonetheless, when transfer costs are included along with efficiency costs, it is important to be cautious about characterizing any policy actions that change the total. When the Reagan Administration reported in 1983 that its regulatory reforms

were generating quite substantial regulatory cost savings, some were quite critical of the Administration's counting reduced transfers as cost savings, on the grounds that by definition they created no net real resource savings to society.²⁹ On the other hand, U.S. competitiveness suffers whether it is regulation-induced transfer costs or efficiency costs that contribute to higher prices on our export products. Whether transfers should be included in any accounting of costs then depends on the purpose of the inquiry. Certainly rent-seeking is so pervasively associated with government activity that ruling transfers out-of-bounds in all regulatory cost accounting efforts lacks merit; on the other hand, care should be taken to differentiate among types of costs.

THE PATTERN OF REGULATORY COSTS, 1977-2000

Regulatory cost data are relatively complete for only two years, 1977 and 1988. The one exception is the environmental area, for which Environmental Protection Agency data are available annually. Thus the two-decade portrayal of regulatory costs shown in this paper's charts necessarily reflects a variety of assumptions and guestimates to supplement the studies discussed earlier.³⁰

Moreover, the observable pattern in costs represents a mix of causes. In part, it reflects the activity level of regulators and swings between deregulation and re-regulation. But in addition, both the level of economic activity (since some regulatory costs are directly related to GNP) and the composition of economic activity (since some sectors are more regulation-intensive than others) affect costs. Furthermore, lower costs do not necessarily mean less effective regulation, if innovative regulation (such as performance standards and marketable permits) produces the intended regulatory benefits through less costly means; Yandle persuasively demonstrates this point in the context of air pollution control.³¹

The overall pattern shown earlier (Figure 1, see page 2) is a composite of this paper's five categories of regulatory costs (shown separately in Figures 4 and 5, see pages 11 and 12). Each warrants some comment.

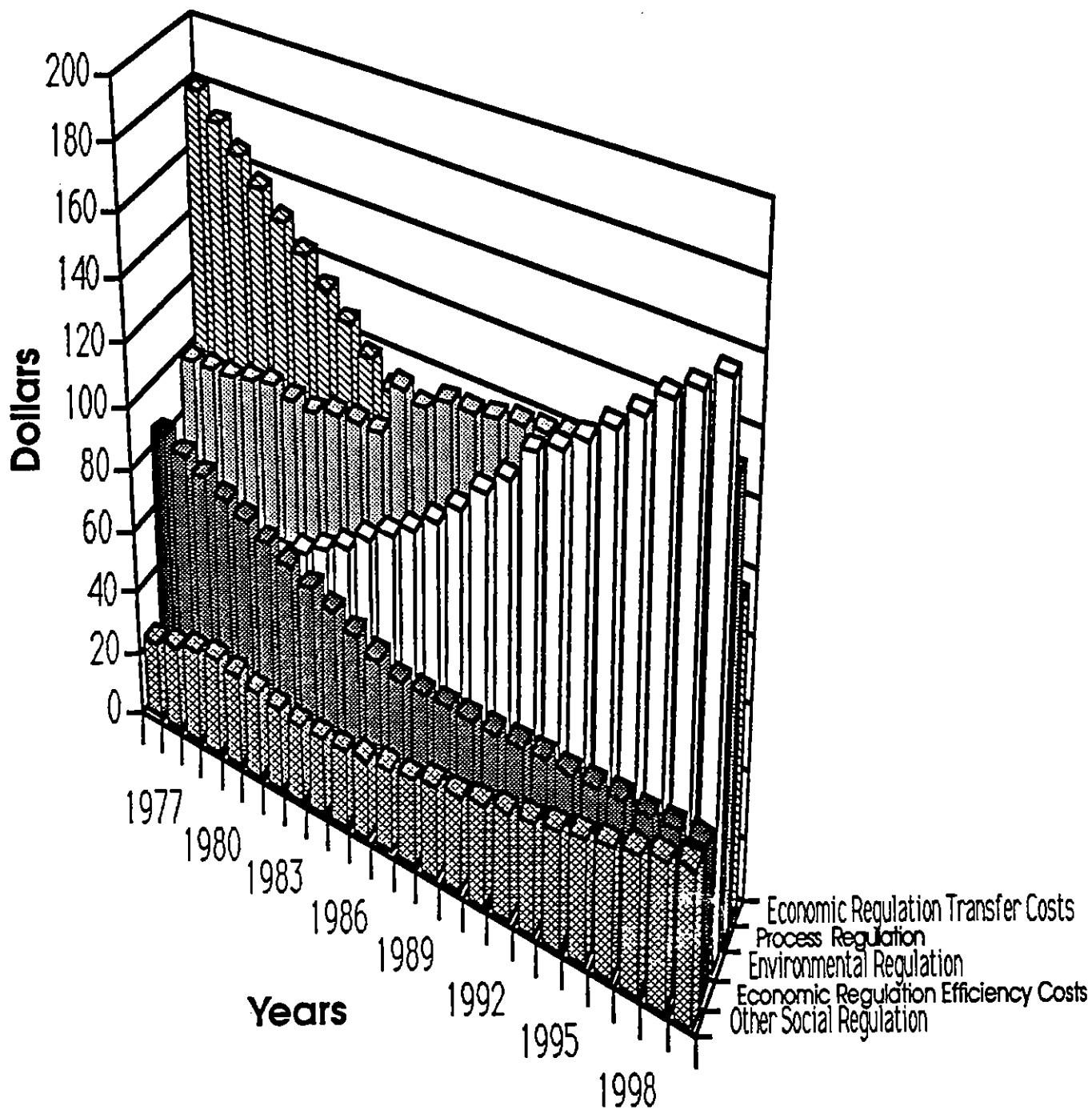
Environmental regulation

Estimated Cost: \$99 billion in 1990

The large and growing environmental regulatory cost area itself is better documented than most others. EPA estimates indicate that in 1990 regulatory compliance expenditures amounted to some \$99 billion, and that sharp increases lie ahead.³² Since EPA completed its estimates prior to passage of the 1990 Clean Air Amendments, the projections do not include all costs of complying with this legislation, which some estimates put in the range of an additional \$25-30 billion annually.³³ Thus

FIGURE 4

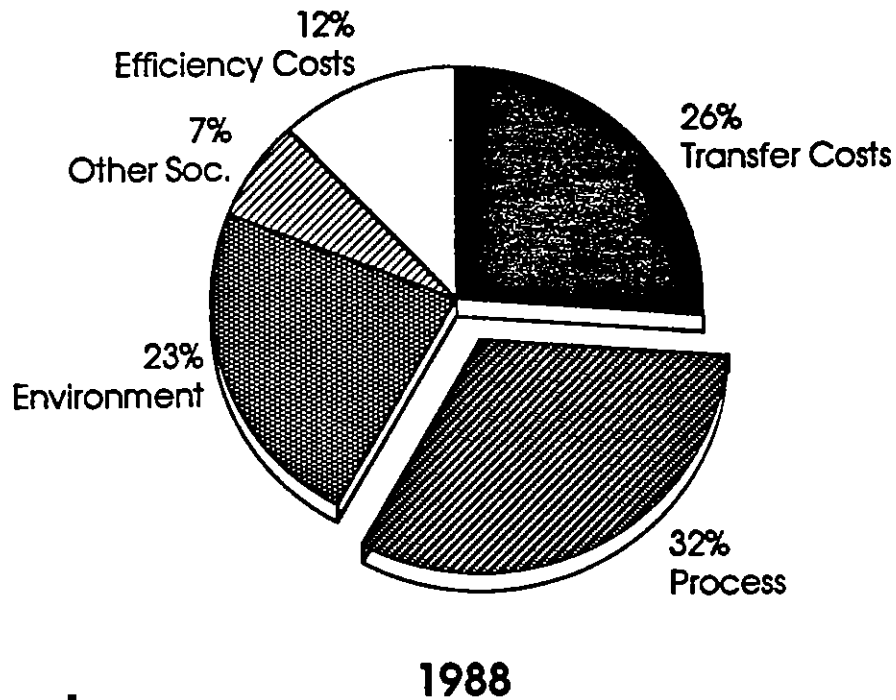
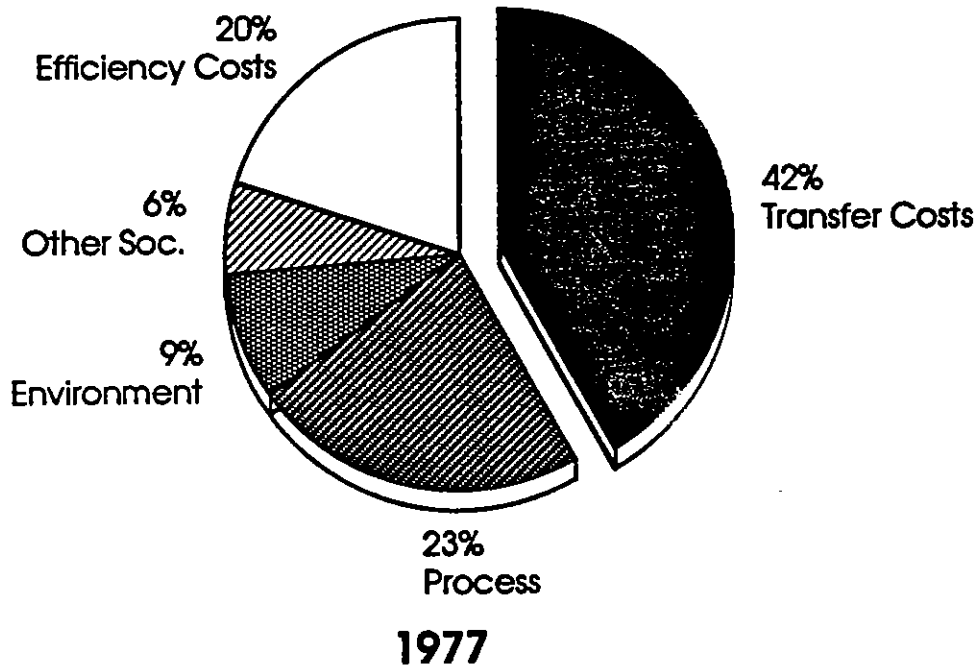
Annualized Regulatory Costs in Billions of 1988 Dollars, 1977-2000 by Category



Source: Figure 1.

FIGURE 5

Percentage Distribution of Regulatory Costs



Source: Figure 1.

environmental costs shown for years after about 1992 are understated.

The largest environmental costs have been in the water pollution area, regulated chiefly under the Clean Water Act and the Safe Drinking Water Act. Water pollution control spending accounted for half of all federally-mandated environmental compliance costs in 1990.³⁴ Air pollution control (auto emissions, smokestack controls, etc.) is the second largest spending area, representing just over a third of all federally-mandated environmental costs. A variety of land pollution control mandates account for the rest of environmental costs, including mainly solid waste, hazardous waste, RCRA and Superfund. This mix will be changing in the 1990s, since recent land pollution regulation calls for substantially more extensive control measures, while the relative size of water pollution spending will decline.³⁵

Quite apart from the environmental costs that are included in this paper's estimates, which only cover spending due to federal regulation, substantial additional spending occurs to control pollution. If all such voluntary spending by local governments and by businesses (on solid waste collection, e.g.) were added, the total reported cost for environmental protection would jump by nearly 25 percent, according to EPA data.³⁶ All sectors share in paying for pollution control, but the two largest funding sources are the private sector (over 60 percent) and local governments (just over 20 percent).³⁷

Other social regulation

Estimated Cost: \$29 billion in 1990

A host of other regulatory programs exist that are intended to lessen risks to people in the workplace and as consumers. This includes regulations from agencies such as the Occupational Safety and Health Administration, the National Highway Traffic Safety Administration, the Nuclear Regulatory Commission, the Consumer Product Safety Commission, and the Food and Drug Administration. For 1977, Litan-Nordhaus put these regulatory costs at \$25 billion annually (restated in 1988 dollars).³⁸ For 1988, Hahn-Hird reported such costs in the area of \$26 billion annually.³⁹ Because both studies could find no cost estimates for some important regulatory programs in this category, these numbers understate total costs.

The impression conveyed by a review of available research suggests that "other social regulation" costs gradually rose from 1977 to 1980, declined through 1984, and resumed rising about 1987. This paper incorporates such a guestimate, while recognizing that its data support is thin indeed. After 1988, these costs are assumed to increase annually at a 5 percent real rate. Table 1 (see page 14) provides a partial listing of costs being added in recent years in this category, suggesting actual costs

TABLE 1**Annual Costs of Selected New Social Regulation (other than EPA)
millions of dollars**

Years	1987	1988	1989	1990	Total Costs
Final Rules	374	158	1967	1041	3540
Proposed Rules	280	1285	1480	7912	10957

Source: Regulatory Program of the U.S. Government, 1991-92, p. 5.

are rising faster than here assumed. Important recent regulatory initiatives in areas such as worker protection, accessibility, food labeling and transportation safety also signal renewed growth.

Economic regulation—efficiency costs**Estimated Cost: \$46 billion in 1990**

Important reductions in regulatory burden have occurred since 1977 as a result of deregulatory policies in the transportation (particularly in trucking, railroads and airlines), energy (natural gas and oil), and communications industries. Most of these changes (except in communications) were substantially completed by the time of the 1982 Bus Regulatory Reform Act (which Crandall termed "...the only important deregulatory legislation of the Reagan era").⁴⁰

Some studies of economic deregulation provide estimates of both the cost reductions achieved and the residual regulatory costs.⁴¹ Based on such studies, Hahn-Hird conclude that the deregulation accomplished between 1977 and 1982 is generating annual cost reductions in the range of \$34-43 billion.⁴² In the absence of economic deregulation, that is, we would be facing regulatory costs this much higher per year. Deregulatory measures adopted since that time (removing the last vestiges of natural gas price control in 1990 and reforms in the financial and securities regulatory areas) probably have not created substantial further cost savings; however, telecommunications services experienced further, although only partial, deregulation after 1982.

For 1977, the Litan-Nordhaus cost estimates, used here with some adjustment, are \$87 billion.⁴³ For 1988, Hahn-Hird's \$46 billion estimate is relied upon.⁴⁴ Estimates

for the intervening years are calculated by simple extrapolation; probably the decline was in fact concentrated more heavily in the first four years of the period. Beyond 1988, economic regulatory costs are assumed to remain constant in real terms.

Economic regulation—transfer costs

Estimated Cost: \$95 billion in 1990

Hahn-Hird found that transfer costs stemming from economic regulation amounted to \$191 billion for 1988, but for reasons mentioned below, a considerably lower estimate is used here.⁴⁵ Such transfer costs are especially important in the international trade area; textile trade restrictions, for example, artificially boost profits and wages in the domestic textile industry.⁴⁶ Hahn-Hird conclude that the ratio of transfers to efficiency costs is fairly constant across most economic regulations.⁴⁷ That ratio works out to be 4.2, which then can be used to generate an estimate for transfer costs in 1977 (for which year only an efficiency cost estimate exists). Data for the other years are calculated in the same manner (explained in the efficiency costs discussion above). In keeping with the intent to present conservative estimates of regulatory costs (and its inevitability in the case of social regulation, due to the lack of data for newer programs), this paper shows as transfer costs of economic regulation only half the amount found defensible by Hahn-Hird.

Process regulation costs

Estimated Cost: \$122 billion in 1990

One large area of regulatory activity that Hahn-Hird's paper does not address is the "paperwork burden" that cannot readily be construed as either economic or social. The federal government has established a myriad of administrative control mechanisms that commonly are excluded from studies of the regulatory burden. Yet these requirements governing taxes, grants and reimbursement in scores of transfer payment programs can hardly be termed costless. Paperwork and reporting obligations often have little relationship to conventional economic and social regulatory activities, so it is easy to overlook them in studies of this nature. One further reason for their neglect is the paucity of cost information available. Here three such process regulatory burdens are considered, two of which yield cost estimates.

Paperwork burden—OMB reports that over five billion hours were needed by the private sector to comply with government paperwork requirements in 1988, and tax compliance accounted for more than four billion of those hours.⁴⁸ A multi-year pattern is not easy to establish due to frequent and substantial revisions in the

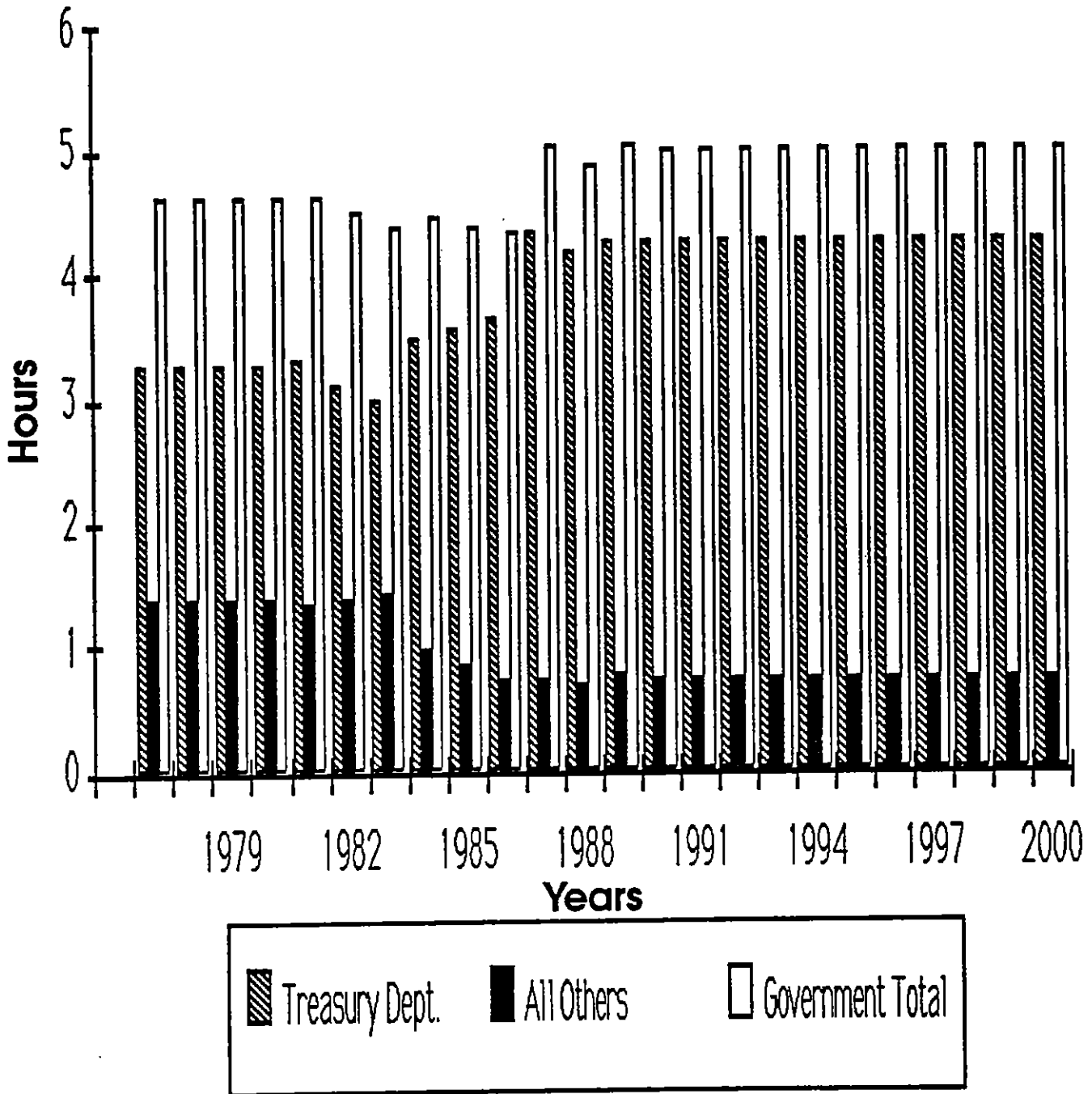
government's method of calculating paperwork, although OMB's annual "Information Collection Budgets" provide strong clues. The pattern shown in Figure 6 (see page 17) assumes a constant total burden for 1977-81, because economic deregulation and rising social regulation probably had roughly offsetting effects on paperwork. Burdens apparently declined during 1981-86 due to administrative reform efforts that were offset to a degree by tax code changes, and the latter are assumed to dominate the picture in later years.⁴⁹ While it is not obvious how to value this paperwork time commitment, a review of available research suggests that \$20 per hour is a plausible average.⁵⁰ This yields a 1990 total paperwork burden of \$100 billion, which is by far the largest portion of all process regulation costs.

Mandates to State-local governments—Only sketchy and anecdotal information on these costs is now available. The October 1991 *Unified Agenda of Federal Regulation* indicates that 707 pending regulatory actions might affect state governments, and another 486 might affect local governments. In addition, the National Conference of State Legislatures started a project in 1990 that tracks new mandates, issuing reports 10 to 12 times annually identifying dozens of significant new requirements.⁵¹ Neither source is able to provide adequate information on how costly these mandates may prove to be, however.⁵² Some of the non-budget costs are caught separately in the estimates for environmental, other social and economic regulation. For example, the compliance costs of environmental regulation as estimated by the Environmental Protection Agency encompass costs to state-local governments; to include them also in the mandates category would entail double-counting. But these costs take many forms: "...new federal rules...mean most of the 6,500 community dumps across the country will be forced to close within the next few years, the Environmental Protection Agency has said."⁵³

Mandates also create important costs not found elsewhere in the regulatory cost accounts (*Mandate Watch List* reports, e.g., that the state-local corrections system, an area not usually even mentioned in regulatory cost discussions, was one of 1991's top three areas of federal mandates⁵⁴), and there is, in any event, understandable interest among state-local governments in identifying these costs separately. Such costs are particularly likely to show up as service cutbacks rather than higher prices, thus setting them apart from much business regulation. When a fiscally-pressed local government faces an unexpected mandate to remove asbestos from schools at its expense, other local public services may well have to be cut. Passing along the mandate's costs in the form of higher fees or taxes in the local jurisdiction may not be feasible. At present, however, insufficient information exists to estimate costs of mandates.

FIGURE 6

Paperwork Burden (in billions of hours)



Source: See text.

Health care process costs—The huge and rapidly growing expenditure on health care provision brings with it continuing efforts to ensure accountability and avoid wasteful outlays. But inevitably, such efforts are themselves burdensome, as news accounts frequently point out in reporting complaints of health care providers and state governments.⁵⁵ Certainly, the data suggest that “administrative costs associated with health care spending account for a high proportion of the costs of health care in the U.S.”⁵⁶ While not all administrative costs can be attributed to regulation, and the private health insurance industry plays an important role in managing the process, the federal government bears ultimate responsibility for much of the health care system that has evolved. Every change in our pervasive federal requirements and reimbursement procedures sets off waves of responses from private health care providers and insurers.

One way to get some indication of the extent of regulatory burden in this area is to look at how much administrative costs in the U.S. might be affected were we to adopt an alternative system such as that now used in Canada.⁵⁷ Woolhandler and Himmelstein found that in 1987 some \$70-80 billion in administrative costs would have been avoided by adopting a Canadian-style system in the U.S., relative to actual US administrative costs of \$100-120 billion (out of the \$500 billion spent on U.S. health care).⁵⁸ This can be taken as a crude indicator of the magnitude of our health care system’s administrative burden. Not all of this burden can be attributed to federal regulation, since private health care providers and insurers create administrative burdens as well. Moreover, state regulation also appears to increase such costs.⁵⁹ On the other hand, the Woolhandler-Himmelstein estimate only gets at the portion of burden that serves no useful purpose,⁶⁰ and thus the cost of essential health care regulation is excluded. This paper attempts to give a conservative indication of health care regulatory costs by assuming that federal regulation is responsible for one-fourth of the “excessive administrative cost” in the Woolhandler-Himmelstein sense.⁶¹ The resulting estimate, for 1990, of health care regulatory process costs is \$22 billion, which constitutes the rest of this paper’s “process regulation” costs. This cost is estimated to have risen in real terms from \$8 billion in 1977; it is projected to continue rising to \$37 billion by 2000.

SUMMARY AND CONCLUSIONS

Taxpayers are made acutely aware of the costs of government that show up in the federal budget, but they seem less sensitive to the non-budgetary costs associated with federal regulation. For example, the Tax Foundation, with much media attention, identified May 8 as the 1991 “Tax Freedom Day,” dramatizing how much of the

workyear passes before the average taxpayer has earned enough to cover the year's taxes.⁶² Yet, if the generally accepted concept of government burden included both budgetary and regulatory costs, this "Freedom Day" would be considerably delayed. For while budgetary costs of government certainly exceed regulatory costs, the difference very likely is not huge. Figure 7 (see page 20) contrasts these two dimensions of the cost of government.

When expressed on a per household basis and in constant 1988 dollars, federal receipts amount to roughly \$10,000 per household, an amount that has been slowly but steadily rising since 1983. Similarly expressed, regulatory costs identified in this paper appear never to have fallen below \$4,100 per household between 1977 and the present, although the exact amounts are subject to considerable uncertainty for reasons discussed earlier.

Unlike the budgetary cost pattern, regulatory costs had been steadily declining for a decade until a reversal occurred about 1988. Indeed, the effect of existing legislative guidance to federal agencies is very likely to be a continuing increase in regulatory costs over the next decade. Table 2 (see page 21) summarizes the estimates presented earlier.

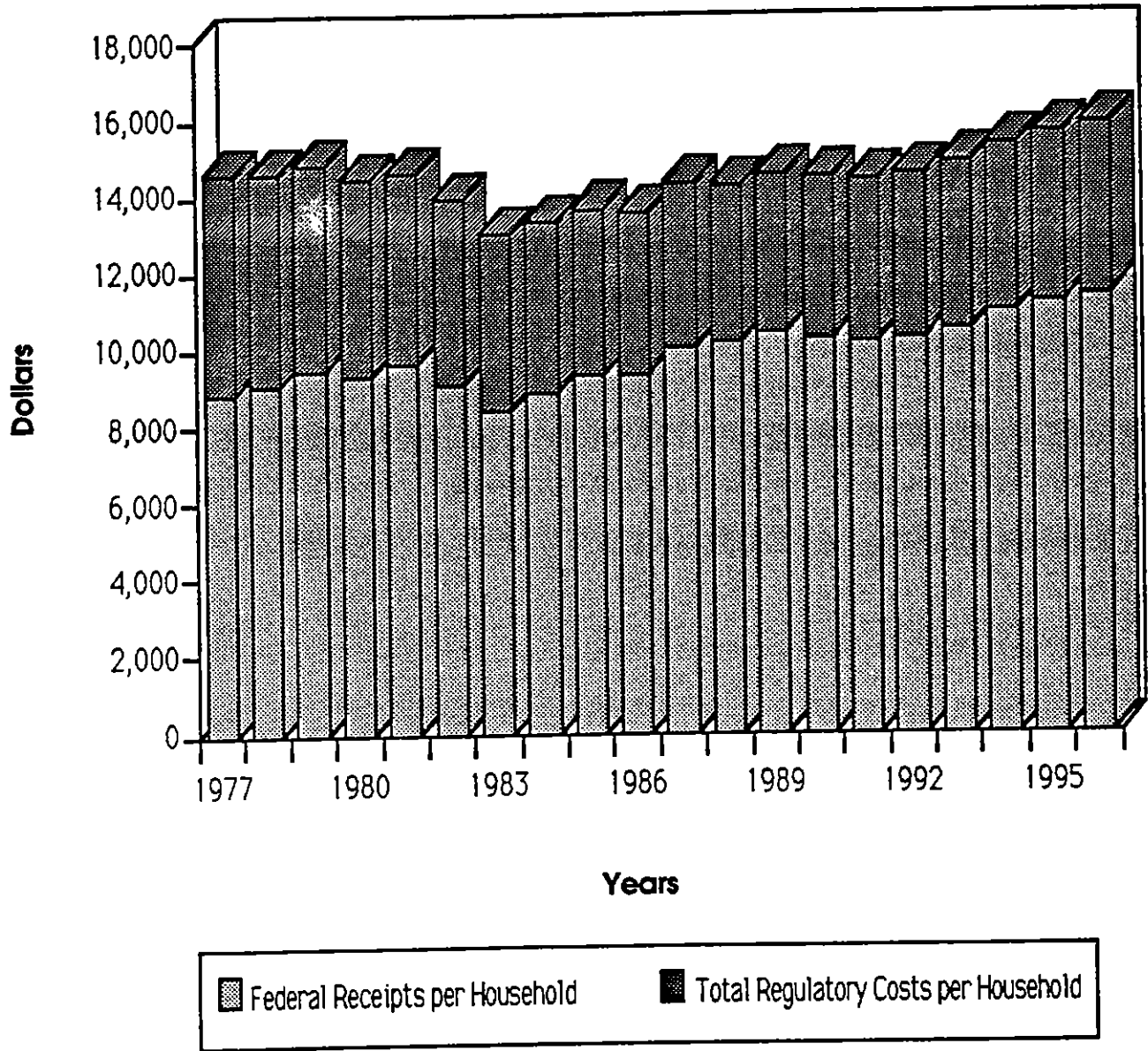
To recap some of the key features found in the pattern of regulatory costs:

- total regulatory costs declined during 1977-88 but rise steadily thereafter
- total regulatory costs per household declined from \$5,800 in 1977 to a low of \$4,100 in 1988; they then rise slowly to \$4,500 by 1996 (all in constant 1988 dollars)
- fastest growing regulatory costs are in the environmental protection area
- the costs of economic regulation probably declined steadily and sharply during 1977-88

Whether the U.S. regulatory burden is excessive is not answerable from the findings of this paper, for much the same reason that knowing the amount of taxes paid says nothing about whether we have too many or too few government services. Such conclusions about either regulation or government spending require a parallel examination of the benefits created by these government activities. The point here is simply that enough evidence exists, however incomplete it may be, to suggest that regulatory costs are substantial and growing. The magnitudes are large enough to warrant a more vigorous effort to firm up these cost estimates and to examine regulatory benefits with greater care in the interests of more rational public policy.

FIGURE 7

Federal Receipts and Regulatory Costs per Household in 1988 Dollars



Source: Figure 2 and 1992 U.S. Budget.

TABLE 2**Annual Costs of Federal Regulation (in billions of 1988 dollars)**

	1977	1990	2000
Environmental Regulatory Costs	41	99	167
Costs of Other Social Regulation	25	29	47
Efficiency Costs of Economic Regulation	87	46	46
Costs of Process Regulation	<u>100</u>	<u>122</u>	<u>137</u>
Subtotal of Costs	252	296	397
Transfer Costs of Economic Regulation	181	95	95
TOTAL COSTS	433	392	492

Source: See text.

ENDNOTES¹*The New York Times*, November 6, 1991.²See *The New York Times*, April 28, 1991, "In Bush Presidency, the Regulators Ride Again."³For a complete listing, see the semi-annual *Unified Agenda of Federal Regulations*.⁴Such a category also was used in the *Regulatory Program of the United States Government*, 1988-89 edition.⁵Op.cit., 1991-92 edition, p. 4.⁶U.S. Environmental Protection Agency, "Environmental Investments: The Cost of a Clean Environment," EPA-230-12-90-084, December 1990.⁷Robert W. Hahn and John A. Hird, "The Costs and Benefits of Regulation: Review and Synthesis," *Yale Journal on Regulation* (Vol. 8, No. 1, Winter 1991), pp. 233-78; Robert E. Litan and William D. Nordhaus, *Reforming Federal Regulation* (New Haven, CT: Yale University Press, 1983); Murray L. Weidenbaum and Robert DeFina, "The Cost of Federal Regulation of Economic Activity," American Enterprise Institute, Washington, DC, May 1978.

- ⁸See, e.g., Erik Lichtenberg, "Marginal Analysis of Welfare Costs of Environmental Policies: The Case of Pesticide Regulation," *American Journal of Agricultural Economics*, November 1, 1988, Vol. 70 No. 4, pp. 867-74.
- ⁹Robert W. Crandall, et al., *Regulating the Automobile* (Washington, DC: Brookings Institution, 1986).
- ¹⁰Melinda Warren, "Regulation on the Rise: Analysis of the Federal Budget for 1982," Occasional Paper No. 89, July 1991 (St. Louis: Center for the Study of American Business, Washington University).
- ¹¹Edward F. Denison, *Trends in American Economics Growth, 1929-1982* (Washington: Brookings Institution, 1985); Wayne B. Gray, "The Impact of OSHA and EPA Regulation on Productivity Growth," *Journal of Regulation and Social Costs*, Vol. 1, No. 3, June 1991, pp. 25-47.
- ¹²Wayne B. Gray, "The Cost of Regulation: OSHA, EPA and the Productivity Slowdown," *American Economic Review*, December 1987, 77(5), pp. 998-1006.
- ¹³P.L. Joskow and N.L. Rose, "The Effects of Technological Change, Experience and Environmental Regulation on the Construction Cost of Coal-Burning Generating Units," *Rand Journal of Economics*, Spring 1985, 16(1), pp. 1-27.
- ¹⁴See Bruce Yandle, "A Primer on Marketable Pollution Permits," *Journal of Regulation and Social Costs*, Vol. 1, No. 4, November 1991, for discussion of more productivity-sensitive approaches that are on the horizon.
- ¹⁵See Michael Hazilla and Raymond J. Kopp, "Social Cost of Environmental Quality Regulations: A General Equilibrium Analysis," *Journal of Political Economy*, 1990, Vol. 98, No. 4, pp. 853-73; Dale W. Jorgenson and Daniel T. Slesnick, "General Equilibrium Analysis of Natural Gas Price Regulation," in Elizabeth E. Bailey (ed), *Public Regulation: New Perspectives on Institutions and Policies* (Cambridge: MIT Press, 1987), pp. 153-90; Dale W. Jorgenson and Peter J. Wilcoxon, "Environmental Regulation and U.S., Economic Growth," *RAND Journal of Economics*, Vol. 21, No. 2, Summer 1990.
- ¹⁶Jorgenson and Wilcoxon, *op.cit.*
- ¹⁷See Ann P. Bartel and L. G. Thomas, "Predation Through Regulation: The Wage and Profit Effects on the Occupational Safety and Health Administration and the Environmental Protection Agency," *Journal of Law and Economics*, October 1987, 30(2), pp. 239-64.

- ¹⁸Robert V. Delaney, "Managerial and Financial Challenges Facing Transport Leaders," *Transportation Quarterly*, January 1986, pp. 29-54.
- ¹⁹Paul R. Portney, "Air Pollution Policy," In Portney (editor), *Public Policies for Environmental Protection* (Washington: Resources for the Future, 1990), esp. p. 67, stresses the superiority of using general equilibrium studies for cost estimates; as to regulations' adverse effects on innovation, see Peter Huber, "Exorcists vs. Gatekeepers in Risk Regulation," *Regulation*, November/December 1983, pp. 23-32.
- ²⁰Clifford Winston et al., *Blind Intersection? Policy and the Automobile Industry* (Washington: Brookings, 1987), pp. 65-66.
- ²¹Bruce L. Gardner, "The United States," in F. Sanderson (ed), *Agricultural Protectionism in the Industrialized World* (Washington: Resources for the Future, 1990), p. 52.
- ²²Gardner, p. 50.
- ²³Hahn and Hird, p. 247, fnnt . 51.
- ²⁴Op.cit., p. 265.
- ²⁵Op.cit., p. 249
- ²⁶Steven A. Morrison and C. Winston, "Enhancing the Performance of the Deregulated Air Transportation System," *Brookings Papers on Economic Activity: Microeconomics*, 1989.
- ²⁷See Bruce L. Gardner, "The United States," in Fred H. Sanderson (editor), *Agricultural Protectionism in the Industrialized World* (Washington: Resources for the Future, 1990), p. 47.
- ²⁸For example, "Sweet Life," *The Wall Street Journal*, July 29, 1991, p. A1.
- ²⁹See, e.g., George C. Eads and Michael Fix, *Relief of Reform? Reagan's Regulatory Dilemma* (Washington, DC: The Urban Institute Press, 1984) p.241.
- ³⁰All data are presented in 1988 dollars, using the Consumer Price Index to make the adjustments.
- ³¹Yandle, p. 35.
- ³²EPA, op.cit. Tables 8.9D and 8.9E are relied upon here, adjusted to 1988 dollars; this represents total federally-mandated environmental protection costs, assuming full

implementation of regulatory requirements, annualized at 10 percent. Data also are available for less than full implementation of requirements, for costs in addition to those federally mandated, and for annualization rates of 3 and 7 percent.

³³Rose Guffeld and Barbara Rosewicz, "Clean-Air Accord is Reached..." *The Wall Street Journal*, October 23, 1990, p. 2.

³⁴EPA, Table 8-9E.

³⁵Op.cit., p. vi.

³⁶Op.cit., pp. 1-7, 8-3 and 8-4.

³⁷Op cit., p. Tables 8-12 and 8-12A. This breakdown refers to all pollution spending, mandated and other, since funding data for the former are not separately available.

³⁸About 60 percent of the Litan-Nordhaus cost total represented non-environmental regulation. Roughly two-thirds of that non-environmental cost was economic regulation, leaving one-third as the cost of other social regulation.

³⁹Hahn and Hird, p. 256.

⁴⁰Robert W. Crandall, "What Ever Happened to Deregulation?" in David Boaz (editor), *Assessing the Reagan Years* (Washington, DC: Cato Institute, 1988), p. 271.

⁴¹Steven A. Morrison and Clifford Winston, *The Economic Effects of Airline Deregulation* (Washington: Brookings Institution, 1986); also their "Enhancing the Performance" article cited above, and Clifford Winston et. al., *The Economic Effects of Surface Freight Deregulation* (Washington: Brookings Institution, 1990).

⁴²Hahn and Hird, p. 250.

⁴³Using the breakdown from endnote 38, the economic efficiency cost for Litan-Nordhaus is calculated as $(2/3)(.6)$ of their published total, adjusted to 1988 dollars, and augmented by the \$38 billion in economic costs that Hahn-Hird (pp. 250-251) believe they excluded.

⁴⁴Hahn and Hird, p. 251.

⁴⁵ibid., p. 251

⁴⁶Gary C. Hufbauer et. al., *Trade Protection in the United States* (Washington: Institute for International Economics, 1986), Table 1.2.

⁴⁷Hahn and Hird, p. 249.

- ⁴⁸U.S. Office of Management and Budget, *Information Collection Budget of the United States Government, Fiscal Year 1990*. As to the burden that is unrelated to tax compliance, procurement requirements take up some thirty percent of this residual, according to "Federal Procurement Paperwork Burden," a January 1990 Report to the Congress by OMB's Office of Federal Procurement Policy, p. 3. Because procurement paperwork generally gets paid for through the federal budget, along with the other costs to the government of purchasing a product or service, the procurement component of paperwork burden is excluded here.
- ⁴⁹For a fuller discussion of the evidence, see Hopkins, "Cost of Regulation," RIT Public Policy Working Paper, December 1991, p. 15.
- ⁵⁰Op.cit., p. 14. Evidence on hourly costs ranges from \$13 for individuals working on their own taxes to \$40 in business transactions.
- ⁵¹*Hall of the States Mandate Monitor and Mandate Watch List*, both issued by the Washington, DC office of the National Conference of State Legislatures.
- ⁵²Some of these costs show up in the federal budget as receipts (e.g., in the health care reimbursement area), which removes them from this paper's coverage just as in the case of procurement paperwork.
- ⁵³*New York Times*, p. 1, January 6, 1992.
- ⁵⁴*Mandate Watch List*, December 1991, p. 1.
- ⁵⁵*New York Times*, Editorial, March 27, 1991: "...the American Medical Association estimates that the average doctor's office devotes 80 hours a month to pushing paper" due to health care paperwork requirements; "Medical groups say every visit to the doctor generates at least 10 pieces of paper."
- ⁵⁶U.S. Congress, Congressional Budget Office, *Rising Health Care Costs: Causes, Implications, and Strategies* (Washington, DC: U.S. Government Printing Office, April 1991), pp. xii-xix.
- ⁵⁷Relying on the Canadian approach to establish the regulatory cost base case has major drawbacks, not least of which is that a Canadian-style system would not offer the same services and that there are differing problems with both systems. Nonetheless, it does offer a benchmark with some credibility.
- ⁵⁸Steffie Woolhandler and David U. Himmelstein, "The Deteriorating Administrative Efficiency of the U.S. Health Care System," *The New England Journal of Medicine*,