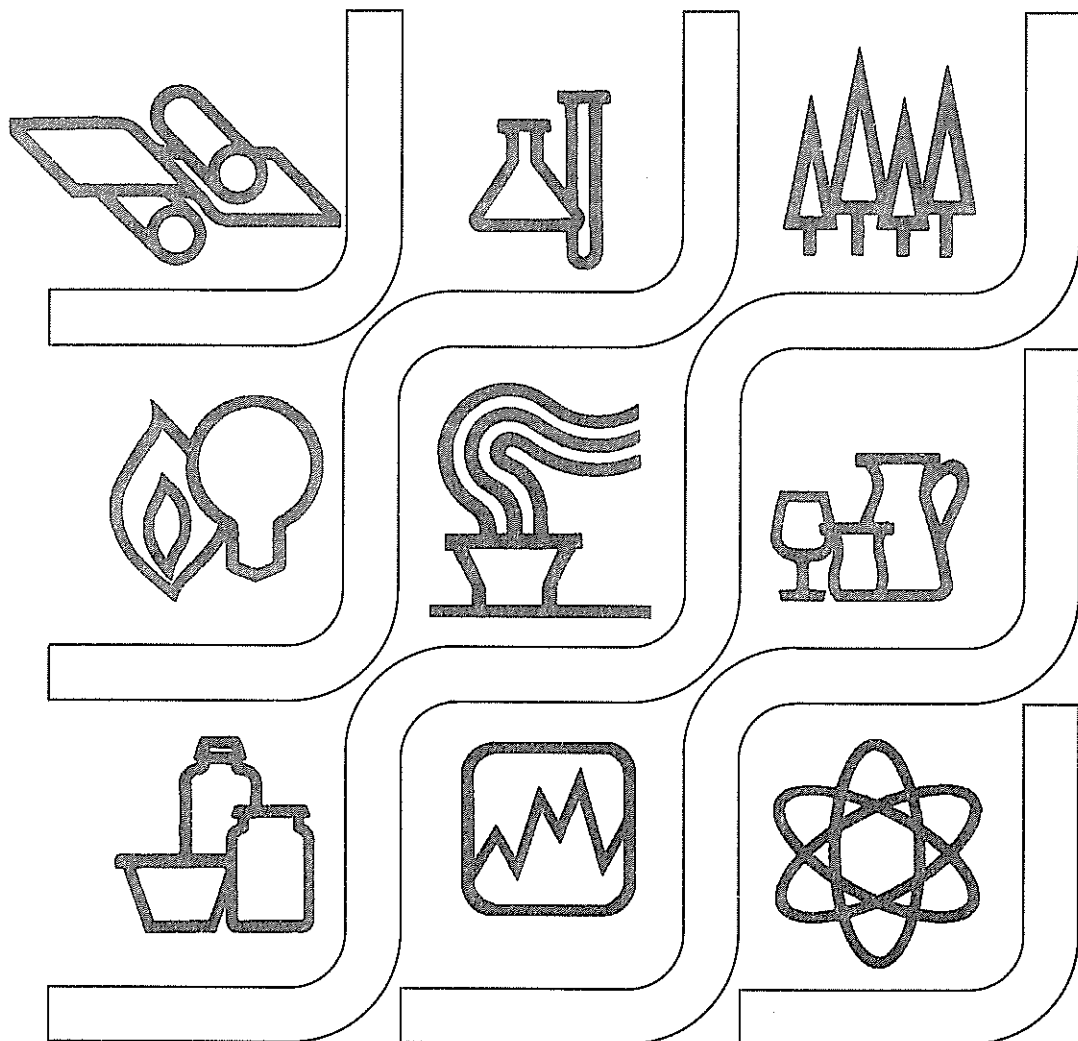


CURRENT INDUSTRIAL REPORTS
Pollution Abatement
Costs and Expenditures, 1993

MA200(93)-1



U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

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Introduction

MANUFACTURING

Tables 1 through 13b present manufacturing pollution abatement costs and expenditures data. These data are collected on the Form MA-200, Survey of Pollution Abatement Costs and Expenditures. The survey has been conducted annually by the Bureau of the Census since 1973, except for 1987.

Summary of Survey Results

Pollution abatement capital expenditures by manufacturing establishments with 20 employees or more amounted to \$7,568 million in 1993. Of this total, \$7,178 million was attributable to a particular media: \$4,122 million for air, \$2,295 million for water, and \$761 million for solid/contained waste. Spending for the nonmedia and other was \$390 million.

Approximately 79 percent of the \$7,568 million new capital expenditures for pollution abatement was made by establishments classified in four major industry groups: Chemicals and Allied Products (Major Group 28), Petroleum and Coal Products (Major Group 29), Paper and Allied Products (Major Group 26), and Primary Metal Industries (Major Group 33).

In 1993, three States (Texas, California, and Louisiana) accounted for approximately 40 percent of total new pollution abatement capital expenditures. Texas comprised 14 percent of the total.

Operating costs related to pollution abatement activities totaled \$18,799. Of this amount, \$17,555 was attributable to a particular media: \$5,575 million for air, \$6,632 million for water, and \$5,349 million for solid/contained waste. Spending for the nonmedia and other was \$1,244 million.

The pollution abatement totals for the media for 1993 can be compared with the following in 1992: \$7,867 million in pollution abatement capital expenditures and \$17,466 million in pollution abatement operating costs. Total pollution abatement media capital expenditures decreased 9 percent. Air, water, and solid/contained waste capital expenditures decreased 6, 9, and 20 percent, respectively. Total pollution abatement media operating costs showed an overall increase of 1 percent. Air operating costs increased 3 percent. Water operating costs increased 1 percent. Solid/contained waste operating costs decreased 3 percent.

Information in the Tables

Historic Tables. Tables 1 and 2 show historic and summary data. Table 1 shows the data by major groups (two-digit industries), and table 2 shows the data by State.

Detail Tables. Pollution abatement capital expenditures (PACE) and pollution abatement operating costs (PAOC) are shown for the media air, water, and solid/contained waste and for the nonmedia and other. These data are shown for industries and States.

PACE data for the media air, water, and solid/contained waste are shown in tables 3 through 6c. PACE for the media totals are shown in table 3 at the two-, three-, and four-digit industry level. PACE media totals for States by major groups (two-digit industries) are shown in table 5. Detail for table 3 is shown in tables 4a through 4c at the major group level. Tables 6a through 6c show detail for table 5 at the State level.

Within the PACE detail tables 4a through 4c and 6a through 6c, the media capital expenditures are separated on the basis of abatement technique. The tables distinguish between plant and equipment designed to abate pollutants through end-of-line (EOL) techniques and those designed to reduce or eliminate the generation of pollutants through production process enhancements (PPE). Separate expenditure data also are shown in the detail tables for expenditures to abate hazardous and nonhazardous pollutants.

For air expenditures, tables 4a (industry data) and 6a (State data) show data for the major types of air pollutants (particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead) as a group. If an air expenditure is not for one of the major types of air pollutants and is not hazardous, it is classified as other. Analysis of these data should take into account that, where expenditures occur for a single device that has the ability to abate more than one pollutant, the classification of the device is guided by the primary purpose for which the device was installed.

Pollution abatement operating costs (PAOC) data for the media air, water, and solid/contained waste are shown in tables 7 through 11b. PAOC for the media totals are shown in table 7 at the two-, three-, and four-digit industry level. PAOC media totals for States by major groups

(two-digit industries) are shown in table 9. Detail for table 7 is shown in tables 8a, 8b, and 8c at the major group level. Tables 10a, 10b, and 10c show detail for table 9 at the State level.

Within the PAOC detail tables, data are shown for expenditures to abate hazardous and nonhazardous pollutants. Within nonhazardous water and nonhazardous solid/contained waste, costs are shown as payments to industry and payments to government.

Tables 11a and 11b tabulate the pollution abatement operating cost data for the media by kind of cost instead of by media. Tables 11a and 11b show data for all media by kind of cost: depreciation; salaries and wages; fuel and electricity; contract work/ services; and materials, leasing, and other costs. Table 11a shows two-, three-, and four-digit industry data; and table 11b shows State by major group data.

Nonmedia and other expenditures are shown in tables 12a, 12b, 13a, and 13b. Pollution abatement nonmedia and other capital expenditures are shown in tables 12a and 12b. Table 12a shows data by major group (two-digit industry level). Table 12b shows data by State. Pollution abatement nonmedia and other operating costs are shown in tables 13a and 13b. Table 13a shows data by major group (two-digit industry level). Table 13b shows data by State. The nonmedia pollution abatement expenditures are for underground storage tanks and site cleanup. Other expenditures include noise abatement, radiation abatement, multimedia, and not elsewhere classified (n.e.c.). Multimedia expenditures are for the abatement of pollutants that cross media.

Changes in Data Collection Affecting Historic Comparisons

The 1992 and 1993 MA-200 survey forms differ from previous years. These changes may affect the year-to-year comparisons of some of the results.

Some of the general terminology and definitions are changed or new:

Pollution abatement is redefined as "... for the purpose of reducing, eliminating, or disposing of unwanted emissions or wastes that are created by the production process and harmful to the environment or the removal of pollution created by prior-years production. For this survey, only expenditures with the primary purpose of protecting the environment are included." The revised pollution abatement definition replaces a reference to "pollutants" in prior definitions with "unwanted emissions or wastes." It expands the prior definition by adding the qualification "harmful to the environment" to the qualification "created by the production process." The definition then goes a step further and specifies

that expenditures qualify for reporting only if the *primary purpose* is environmental protection. It adds the reporting of expenditures to remove pollution created by production in prior years.

The techniques for pollution abatement are clarified. "Prevention" is changed to "source reduction" and "waste minimization." Definitions for these two new terms are provided on the 1992 and 1993 MA-200 survey forms. "Collection/ disposal" and "recycling" are now defined.

Instructions and the type of data collected for capital expenditures for the media are changed:

Capital expenditures now include a measure of "end of line" and "production process enhancements" (formerly changes-in-production process) for solid/ contained waste as well as for air and water. New "special instructions" explain how to report production process enhancement expenditures if it is not feasible to report only the portion intended for environmental protection.

"Percent hazardous" is now collected for water pollution abatement capital expenditures as well as for air and solid/ contained waste.

The seven types of pollutants data collected for air pollution capital expenditures are combined into three categories:

1. Hazardous
2. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead
3. Other nonhazardous air pollutants

The instructions for capital expenditures clarify that "construction in progress intended for environmental protection" is reportable.

The instructions also clarify that "recycling equipment if your primary product is recycling" is *not* reportable.

The instructions and items for the pollution abatement operating costs for the media are also revised:

The operating cost categories are changed for 1992 and 1993. Costs for "fuel and electricity" are separate from "materials and supplies." "Services," now termed "contract work/ services," is separate from "equipment leasing and other costs." "Materials and supplies" and "equipment leasing and other costs" are combined into "materials, leasing, and miscellaneous." "Labor" was renamed "salaries and wages" to emphasize that dollars spent on environmental administration are now reported in this category.

"Percent hazardous" is now collected for air and water as well as for solid/contained waste.

Form instructions clarify that the following expenses are reportable for 1992 and 1993:

- Incremental costs for consumption of environmentally preferable materials and fuels
- Conducting environmental studies for development or expansion
- Compliance and environmental auditing
- Developing pollution abatement operating procedures

Additional instructions explain that "taxes, fines, legal fees, and superfund taxes and contributions" are *not* reportable.

Though not specified in the prior-year instructions, testing and monitoring procedures and equipment were excluded from surveys prior to 1992. These costs and expenditures are reportable for 1992 and 1993.

"Cost recovered" is now termed "cost offsets." These offsets are pollution abatement operating expenses recovered as a result of pollution abatement techniques. The definition is clarified for 1992 and 1993 to specify that cost offsets must be related to production and for environmental protection.

The 1992 report showed pollution abatement expenditures for "nonmedia" and "other" for the first time. "Non-media" includes data for underground storage tanks and site cleanup. "Other" expenditures are for noise abatement, radiation abatement, multimedia, and not elsewhere classified (n.e.c). "Multimedia" expenditures are for the abatement of pollutants that cross media. Capital for the "nonmedia" and "other" were collected for all categories in 1992. Operating expenses were collected for all categories in 1992 except underground storage tanks. Operating expenses for underground storage tanks were collected for the first time in 1993.

Scope

The survey covers plants classified in manufacturing industries¹ by the annual survey of manufactures (ASM) with the following specific differences:

1. Establishments in Major Group 23, Apparel and Other Textile Products, are excluded from the pollution abatement survey. These establishments operate primarily in rented quarters where the abatement of pollution is generally arranged by the landlord.

2. The sample does not include establishments with fewer than 20 employees. Early surveys showed that establishments with fewer than 20 employees contributed only about 2 percent to the pollution estimates while constituting more than 10 percent of the sample size. No adjustment is made to account for these establishments.

Methodology

The 1993 survey results are based upon a probability sample panel of approximately 17,000 establishments selected as a subsample of the 1989 ASM. The ASM is, in turn, a probability sample selected from the 1987 Census of Manufactures, which is supplemented annually by new establishments identified by the Social Security Administration. A subsample of these new establishments is added annually to the pollution abatement survey sample.

The sample selection of the pollution abatement survey panel is a two-stage operation. The selection of the ASM panel represents the first stage, and the selection of the pollution abatement survey panel from the ASM is the second stage. Probabilities of selection were assigned proportionate to the ASM weighted value of shipments which satisfied predetermined reliability constraints. These reliability constraints were subject to the limitation that the overall sample size not exceed 17,000 establishments. Selection is within four-digit industries. When selected, an establishment's subsampling weight is the inverse of its probability of selection. The product of this weight and its ASM weight represents the final survey weight for the establishment. Subsampling probabilities were adjusted prior to sampling if this composite weight exceeded 500.

Revisions

Statistics for previous years may be revised, primarily as the result of corrected data from respondents.

Limitations of the Data

Sampling Variation. The particular sample selected for this survey is one of a large number of similar probability samples of the same size that could have been selected by chance using the same sample design.

Each of the possible samples would yield somewhat different sets of results. The sampling errors—the differences between the estimate obtained and the results theoretically obtainable from a comparable complete canvass of the same target universe—are unknown. Guides to the potential size of the sampling errors are provided by the estimated relative standard errors of the average. Relative standard errors tend to be somewhat higher for detailed figures than for larger aggregates.

¹Establishments are classified in industries by industry definitions described in the 1987 edition of the *Standard Industrial Classification (SIC) Manual* published by the Office of Management and Budget. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.)

In conjunction with its associated estimates, the relative standard error (computed as the estimated standard error of estimate divided by the value of the estimate) may be used to define confidence interval ranges that could be expected to include comparable complete coverage value for specified percentages of all possible samples. The complete coverage value would be included in the range:

1. From one standard error below to one standard error above the derived estimate for about two-thirds of all samples.
2. From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
3. From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable complete coverage results would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates shown would differ from complete coverage results by as much as one, two, or three standard errors, respectively.

For example, if an estimated total is shown as \$20.0 million with an associated relative standard error of 2 percent, the standard error is \$.4 million (2 percent of \$20.0 million). Then there is approximately 67 percent confidence that the interval \$19.6 to \$20.4 million includes the complete coverage total, about 95 percent confidence that the interval \$19.2 to \$20.8 million includes the complete coverage total, and almost certain confidence that the interval \$18.8 to \$21.2 million includes the complete coverage total.

The estimated absolute standard errors of the ratio of year-to-year change are also presented for these same key items. These estimated errors are derived from the variances of the individual yearly estimates, and thus are overestimates since the correlations from year-to-year estimates are not accounted for. Since this year-to-year change is itself a percentage measure, the absolute standard error of this measure is displayed rather than the relative standard error to avoid confusion.

For example, if an estimated total for 1993 is \$22.0 million with an associated relative standard error of 2 percent, and if an estimated total for 1992 is \$20.0 million with an associated relative standard error of 3 percent, the implied change is 10 percent, and the absolute standard error of year-to-year change is 3 percent on the 10 percent.

Stratum Variation. To maintain a minimal sample, the universe is divided into three strata. Stratum 1 contains four-digit industries with historically high pollution abatement expenditures. The sample selected to represent stratum 1 is designed to yield estimates for each four-digit industry in the stratum with a specified level of expected reliability.

Stratum 3 contains four-digit industries with little or no historic pollution expenditures. A small sample represents this stratum. Because of the minimal expenditures, estimates for the four-digit industries are not published at that level. The estimates are included in the two- and three-digit level data.

Stratum 2 contains all four-digit industries not in stratum 1 or 3. The sample selected to represent stratum 2 is designed to yield estimates for all three-digit manufacturing industries with a specified level of expected reliability.

Plants in stratum 2 and especially stratum 3 tend to have high weights resulting from their lower probabilities of selection. Thus, more data variability is seen in industries with historically low pollution abatement. The confidence interval ranges reflect this observation. For example, in table 11, for industry 2013, the pollution abatement operating cost is \$34.1 million with a relative standard error of 22 percent. The standard error is \$7.5 million. There is 67 percent confidence that the interval \$26.6 to \$41.6 million includes the complete coverage total; about 95 percent confidence that the interval \$19.1 to \$49.1 million includes the complete coverage total; and almost certain confidence that the interval \$11.6 to \$56.6 million includes the complete coverage total.

Data variability decreases at higher tabulations of the data. The three-digit industry group 201 consists of the four-digit industry 2013, used in the example above, and industries 2011 and 2015. Continuing with the example, the relative standard error for the four-digit industry 2013 is 22 percent. At the three-digit level, the relative standard error drops to 6 percent.

Response Limitations. There are limitations resulting from the accuracy of survey respondents' reporting and constraints on surveying capabilities. Specific response limitations are:

1. **Production process enhancements (PPE) capital expenditures.** The survey respondent is instructed to report "the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built in)." Telephone conversations and interviews with survey respondents indicate that estimating such an incremental cost is difficult in many instances. The net effect of this reporting problem is not known; thus, the data user should consider this limitation when interpreting the PPE data.
2. **Cost offsets.** This item attempts to measure how much of pollution abatement costs are recovered through reuse or sale of recovered materials and energy. Part of the instructions state: "Cost offsets must be related to production and for environmental

protection." This qualification makes it imperative that the data preparer be aware of the original motivation of the decision to minimize waste or recover energy in order to adequately complete the form. The Bureau of the Census believes that this information is not always known.

3. **Operating costs for pollution abatement.** The survey respondent is asked to provide the following data separately: depreciation; salaries and wages; fuel and electricity; contract work/services; and materials, leasing, and other costs. In many cases, interviews with survey respondents have revealed that, with the exception of depreciation, book records are not kept for each category. Thus, these data must be estimated from other information.
4. **Nonmedia costs and expenditures.** Caution should be used in interpreting site cleanup data. Much of media, nonmedia, and other pollution abatement expenditures can be linked to laws and regulations. The expenditures are predictable, and industry estimates are reliable within the standard errors. Many site cleanup expenditures are related to laws and, therefore, are predictable by industry. However, some site cleanup incidents are the result of accidents. This makes the data more volatile than the media, underground storage tanks, and other pollution abatement expenditures data which are generally relatable to existing and pending legislation. Note that standard errors are given only for key measures, not for specific types of pollution abatement. In addition, there are abandoned sites under site cleanup, but since no plants are located on or specifically associated with the sites, the expenses are not covered by this survey.
5. **Air capital expenditures for major group 29.** The air capital expenditures for Major Group 29, Petroleum and Coal Products, include expenditures to meet the clean fuel requirements of the Clean Air Act. Expenditures for equipment and structures yielding cleaner fuel generally also achieve pollution abatement in the production process. Thus, it is generally not possible to separate clean fuel expenditures from pollution abatement expenditures for the production process.
6. **Capital expenditures by small companies.** Small companies, generally those with 50 employees or fewer, tend to report capital expenditure projects at the project's completion. Instead of reporting costs over time as the costs were incurred, a project total appears in 1 year. Since small companies tend to have high weights, the weighted project total sometimes appears as a notable increase in the data for 1 year. No attempt is made to adjust the data.

Operational Errors. In addition to the response limitations, the estimates are subject to various operational errors; e.g., errors of collection, reporting, and transcription. The operational errors would also occur if a complete

canvass were conducted under the same conditions used for this survey. Explicit measures of the effects of the operational errors generally are not available. However, it is believed that most of the important operational errors were detected and corrected in the course of the Census Bureau's review of the data for reasonability and consistency.

NONMANUFACTURING

Table 14 and tables 15a through 15d present nonmanufacturing pollution abatement capital expenditures data. The data are collected on the Form PA-2, Plant and Equipment Survey: Supplement for Pollution Abatement. The Bureau of the Census has conducted the survey annually since 1988. Prior to 1988, the Bureau of Economic Analysis conducted the survey.

Summary of Survey Results

In 1993, pollution abatement capital expenditures for the media, nonmedia, and other by nonmanufacturing companies amounted to \$504 million for mining, \$4,445 million for petroleum, and \$4,200 million for electric utilities. Pollution abatement capital expenditures for the media air, water, and solid/contained waste amounted to \$389 million for mining, \$3,964 million for petroleum, and \$4,032 million for electric utilities. This represented a 22 percent increase, a 2 percent increase, and a 40 percent increase, respectively, compared with the prior year. Air capital expenditures showed gains of 7 percent for petroleum, 23 percent for electric utilities, and 50 percent for mining. Water capital expenditures showed increases of 11 percent for mining and 9 percent for electric utilities, and a decrease of 19 percent for petroleum. Solid/contained waste capital expenditures rose 71 percent for mining and 30 percent for electric utilities and decreased 16 percent for petroleum. Nonmedia and other capital expenditures rose 31 percent for mining and 11 percent for electric utilities and decreased 2 percent for petroleum.

Information in the Tables

Historic Table. Table 14 shows pollution abatement capital expenditures for the media air, water, and solid/contained waste totals and for total nonmedia and other by industry. Table 14 also shows new plant and equipment data by industry.

Detail Tables. Detail for table 14 is shown in tables 15a through 15d. Within tables 15a through 15c, the media capital expenditures are separated on the basis of abatement technique and by hazardous and nonhazardous expenditures. For air expenditures (table 15a), data also are shown as a group for the major types of air pollutants:

particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead. If an air expenditure is not for one of the major types of air pollutants and is not hazardous, it is classified as other. In table 15d, nonmedia and other abatement expenditures are shown for underground storage tanks, site cleanup, noise pollution, radiation, multimedia, or n.e.c. types of pollutants.

Changes in Data Collection Affecting Historic Comparisons

The 1992 and 1993 PA-2 survey forms differ from previous years. These changes may affect the year-to-year comparisons of some of the results.

Some of the general terminology and definitions are changed or new:

Pollution abatement is redefined as “. . . for the purpose of reducing, eliminating, or disposing of unwanted emissions or wastes that are created by the production process and harmful to the environment or the removal of pollution created by prior-years production. For this survey, only expenditures with the primary purpose of protecting the environment are included.” The revised pollution abatement definition replaces a reference to “pollutants” in prior definitions with “unwanted emissions or wastes.” It expands the prior definition by adding the qualification “harmful to the environment” to the qualification “created by the production process.” The definition then goes a step further and specifies that expenditures qualify for reporting only if the *primary purpose* is environmental protection. It adds the reporting of expenditures to remove pollution created by production in prior years.

The techniques for pollution abatement are clarified. “Prevention” is changed to “source reduction” and “waste minimization.” Definitions are provided on the form for these. “Collection/disposal” and “recycling” are now defined.

Instructions and the type of data collected for capital expenditures for the media are changed:

Capital expenditures now include a measure of “end of line” and “production process enhancements” (formerly changes-in-production process) for solid/contained waste as well as for air and water. New “special instructions” explain how to report production process enhancement expenditures if it is not feasible to report only the portion intended for environmental protection.

“Percent hazardous” is now collected for air and water pollution abatement capital expenditures as well as for solid/contained waste.

Type-of-pollutants data are now collected for air pollution capital expenditures. Air pollutants are collected by three categories:

1. Hazardous
2. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead
3. Other nonhazardous air pollutants

The instructions clarify that “research and development” is *not* reportable.

Though not specified in the prior-year instructions, expenditures for testing and monitoring equipment were excluded from surveys prior to 1992. These expenditures are reportable for 1992 and 1993.

The 1992 report showed pollution abatement expenditures for “nonmedia” and “other” for the first time. The “nonmedia” include data for underground storage tanks and site cleanup. “Other” expenditures are for noise abatement, radiation abatement, multimedia, and not elsewhere classified. “Multimedia” expenditures are for the abatement of pollutants that cross media.

Scope

The survey covers companies classified in mining, petroleum, and electric utility industries and includes all operations of the company. A company's capital expenditures are assigned to a single industry in accordance with the standard industrial classification (SIC) of the company's principal product or service. For mining, the survey covers the four SIC Major Groups: 10, Metal Mining; 12, Coal Mining; 13, Oil and Gas Extraction; and 14, Nonmetallic Minerals, Except Fuels. For petroleum, the survey covers SIC Major Group 29, Petroleum and Coal Products. The survey of pollution abatement expenditures in nonmanufacturing also covers SIC major group 29 used in the manufacturing survey, but the data differ. The manufacturing survey (MA-200) collects data at the plant level while the nonmanufacturing survey (PA-2) collects data at the company level. The manufacturing data presented for petroleum in tables 1 and 13b represent only the refining operations of the petroleum companies. The nonmanufacturing data presented in tables 14 through 15d also may include the extraction and distribution network of a company. For electric utilities, the survey covers SIC Industry Groups 491, Electric Services; and 493, Combination Utility Services, with the exception of Rural Electric Administration utilities.

Methodology

The total new plant and equipment expenditures shown in table 14 are estimates from the Plant and Equipment Expenditures Survey (P&E) conducted by the Bureau of

the Census. See the U.S. Department of Commerce News, Wednesday, April 10, 1991, CB91-125, PESVY(90)-4 for a description of the P&E's coverage and methodology. The same mail panel is used for the P&E and its pollution abatement supplement, the PA-2. Spending ratios derived from the data collected on the PA-2 are applied to the P&E estimates to yield the total new pollution abatement capital expenditures estimates.

Limitations of the Data

The data are subject to various response and operational errors; e.g., errors of collection, reporting, and transcription. However, it is believed that most of the important operational errors were detected and corrected in the course of the Census Bureau's review of the data for reasonability and consistency.

SELECTED INDUSTRIAL AIR POLLUTION CONTROL EQUIPMENT

Table 16 presents Selected Industrial Air Pollution Control Equipment: 1989 to 1993. These data are collected by the Bureau of the Census annually on the Current Industrial Reports Form MA35J. This information is provided for reference. For more detail, see the MA35J annual publication.

Scope

This survey covers firms engaged in the manufacture of selected industrial air pollution control equipment.

Methodology

The statistics in table 16 were collected by mail on Form MA35J. The survey panel includes all known manufacturers of the selected products specifically designed for use in air pollution control, approximately 100 companies.

Revisions

Statistics for previous years may be revised, primarily as the result of corrected data from respondents.

Limitations of the Data

The data are subject to various response and operational errors; e.g., errors of collection, reporting, and transcription. However, it is believed that most of the significant errors are identified by the computer edit and corrected in the course of the Census Bureau's review of the data for reasonableness and consistency.

QUESTIONS CONCERNING THIS REPORT

Please direct questions concerning data in this report to the Bureau of the Census, Manufacturing and Construction Division, Federal Office Building 4, Room 2105, Washington, DC 20233, or call the Environment, Technology, and Innovation Branch on 301-763-1755.

TERMINOLOGY AND ABBREVIATIONS

For an explanation of the terms used in this report, see the appendix for reproductions of the report forms MA-200 and PA-2, including instructions.

The following abbreviations and symbols appear frequently in the tables:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies.
(Z)	Less than half the unit shown.
(X)	Not applicable.
(NA)	Not available.
EOL	End of line.
n.e.c.	Not elsewhere classified.
PACE	Pollution abatement capital expenditures.
PAOC	Pollution abatement operating costs.
PPE	Production process enhancements.
r	Revised by 5 percent or more from previously published figures.

Figure 1.
**Pollution Abatement Capital Expenditures by Manufacturing
 Major Group and Media: 1989 to 1993**

Air
 Water
 Solid/contained waste

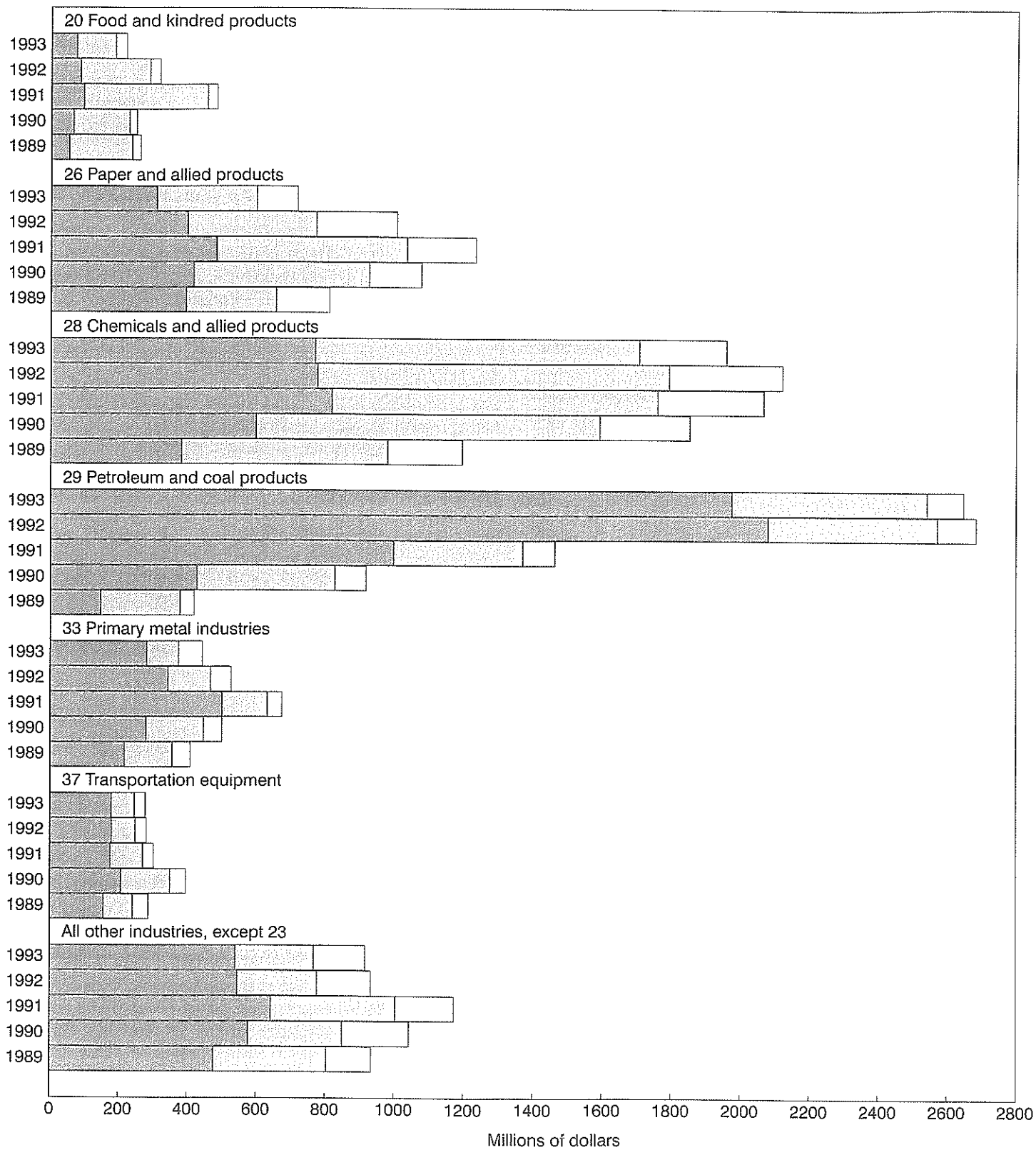


Figure 2.
Pollution Abatement Capital Expenditures for Manufacturing by State: 1993

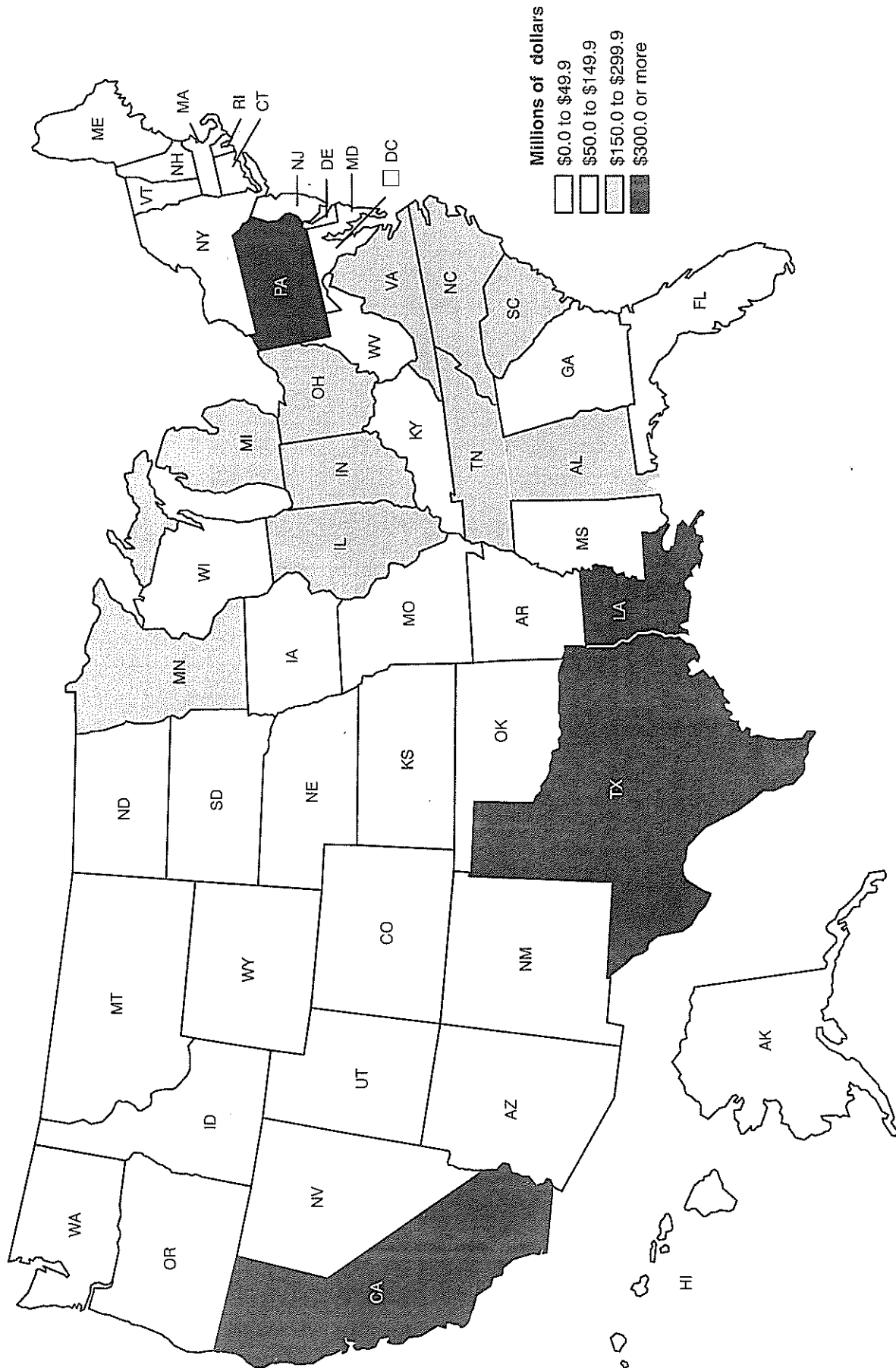


Figure 3.
Pollution Abatement Capital Expenditures (PACE) and Operating Costs (PAOC) by Manufacturing Major Group and Media: 1993

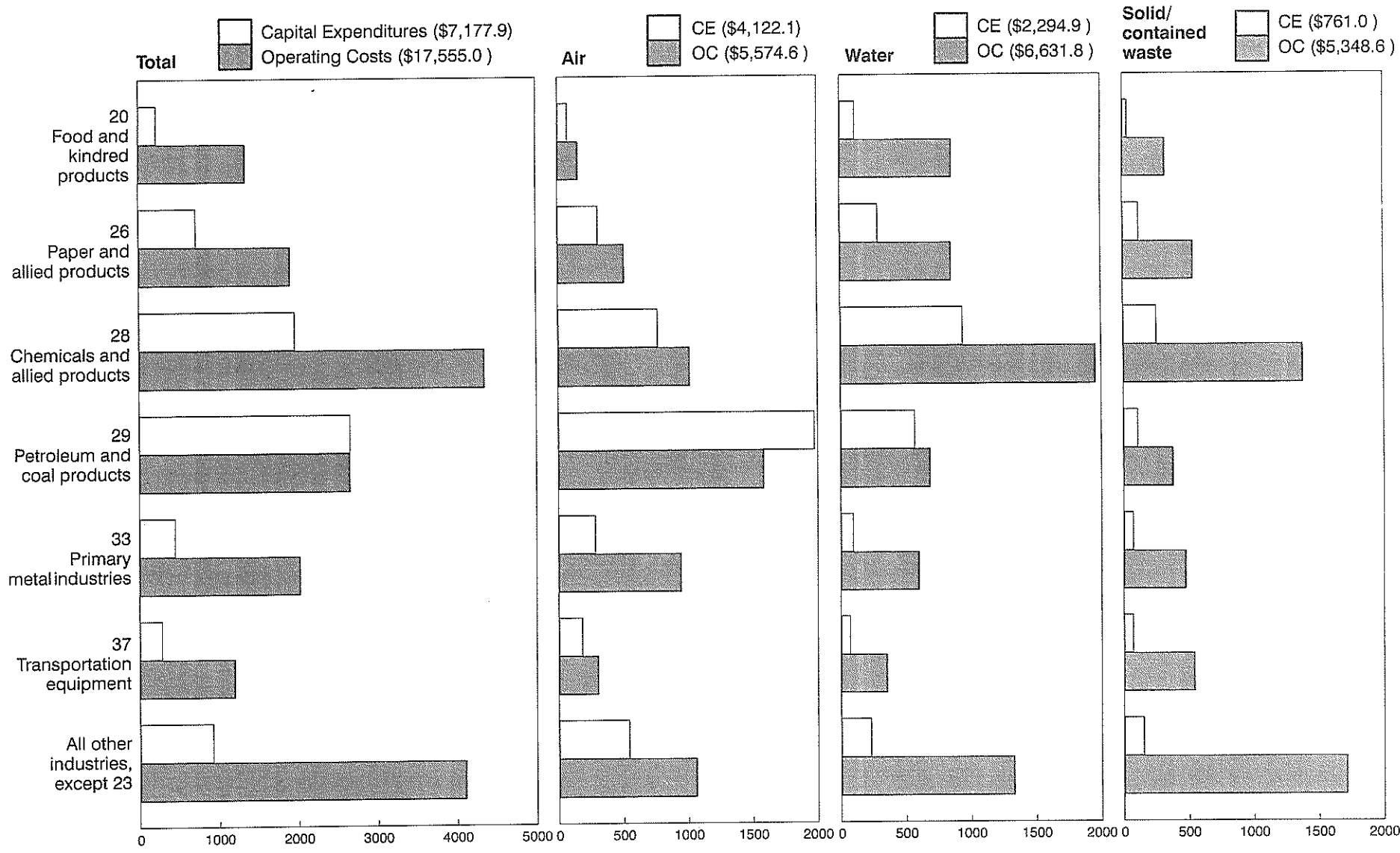


Figure 4.
**Pollution Abatement Operating Costs by Kinds of Cost
for All Manufacturing: 1993**

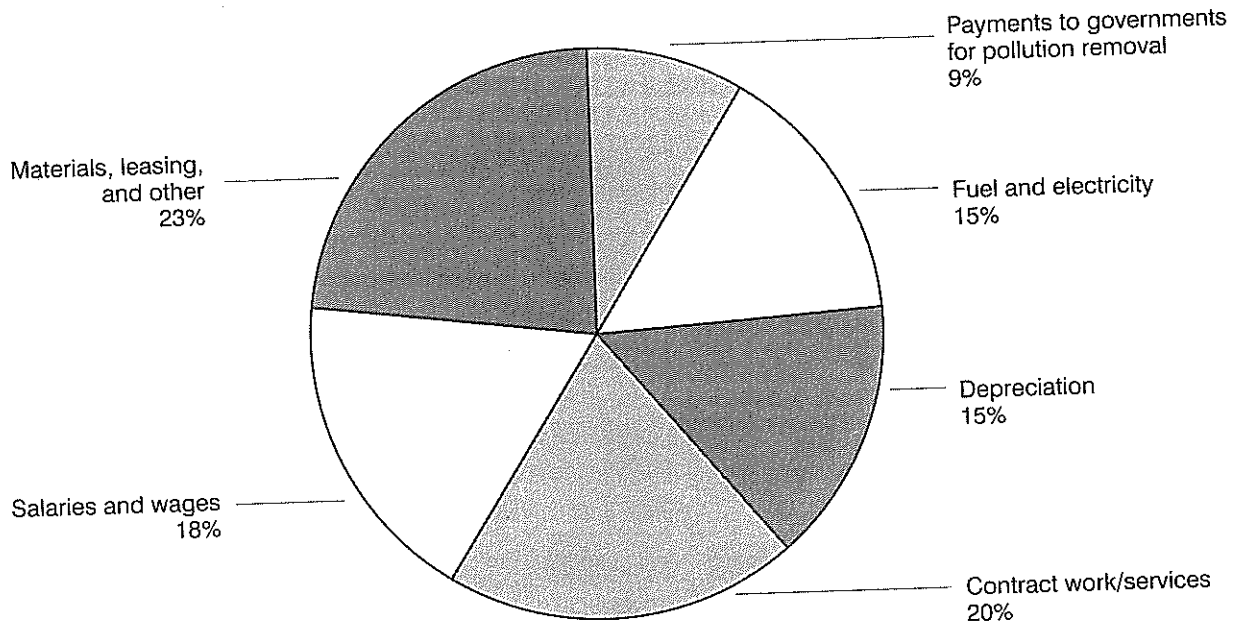


Figure 5.
Pollution Abatement Capital Expenditures (PACE) and Operating Costs (PAOC) by Manufacturing Major Group and Abatement Technique: 1993

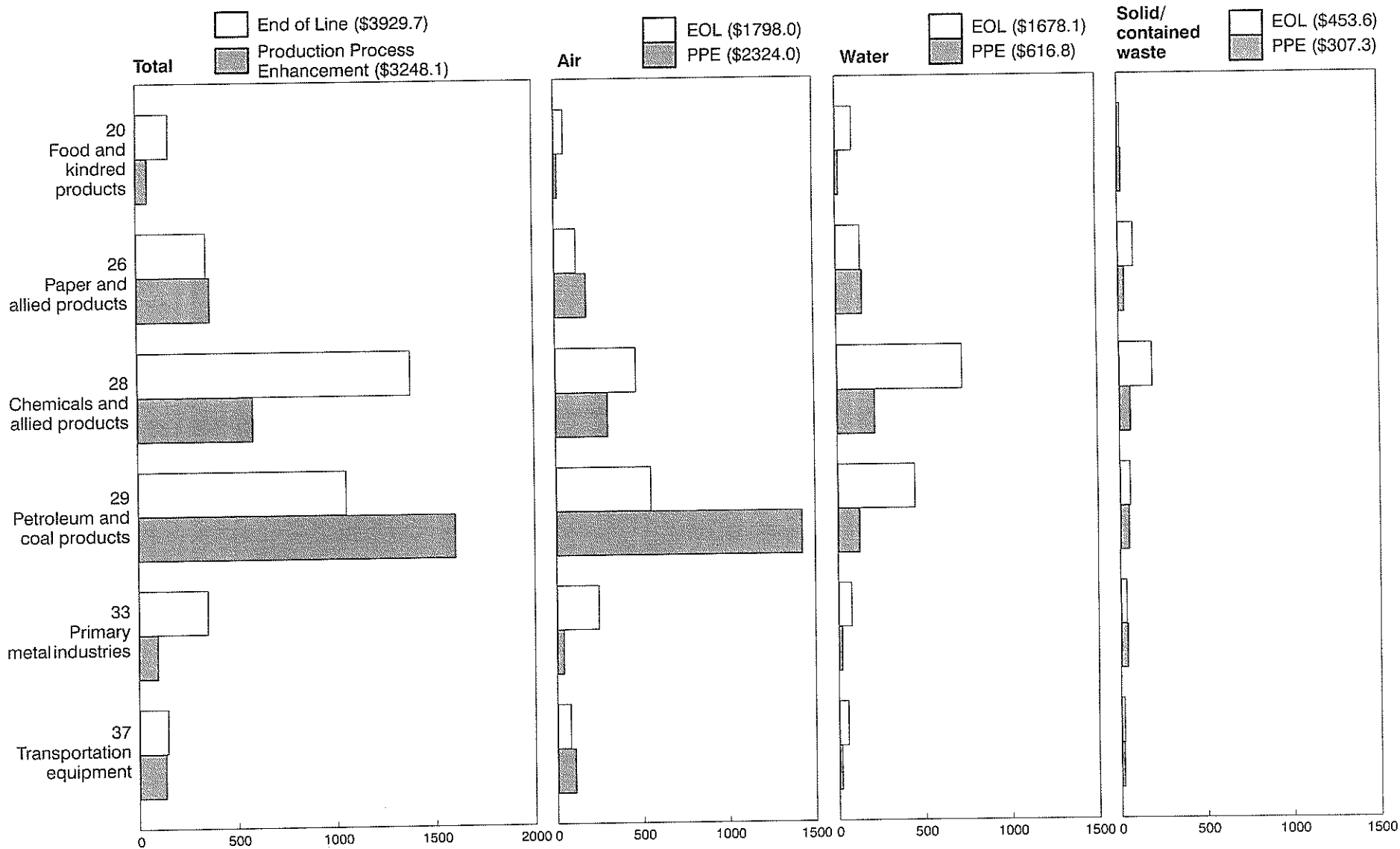


Figure 6.
Pollution Abatement Capital Expenditures by Nonmanufacturing Industry: 1989 to 1993

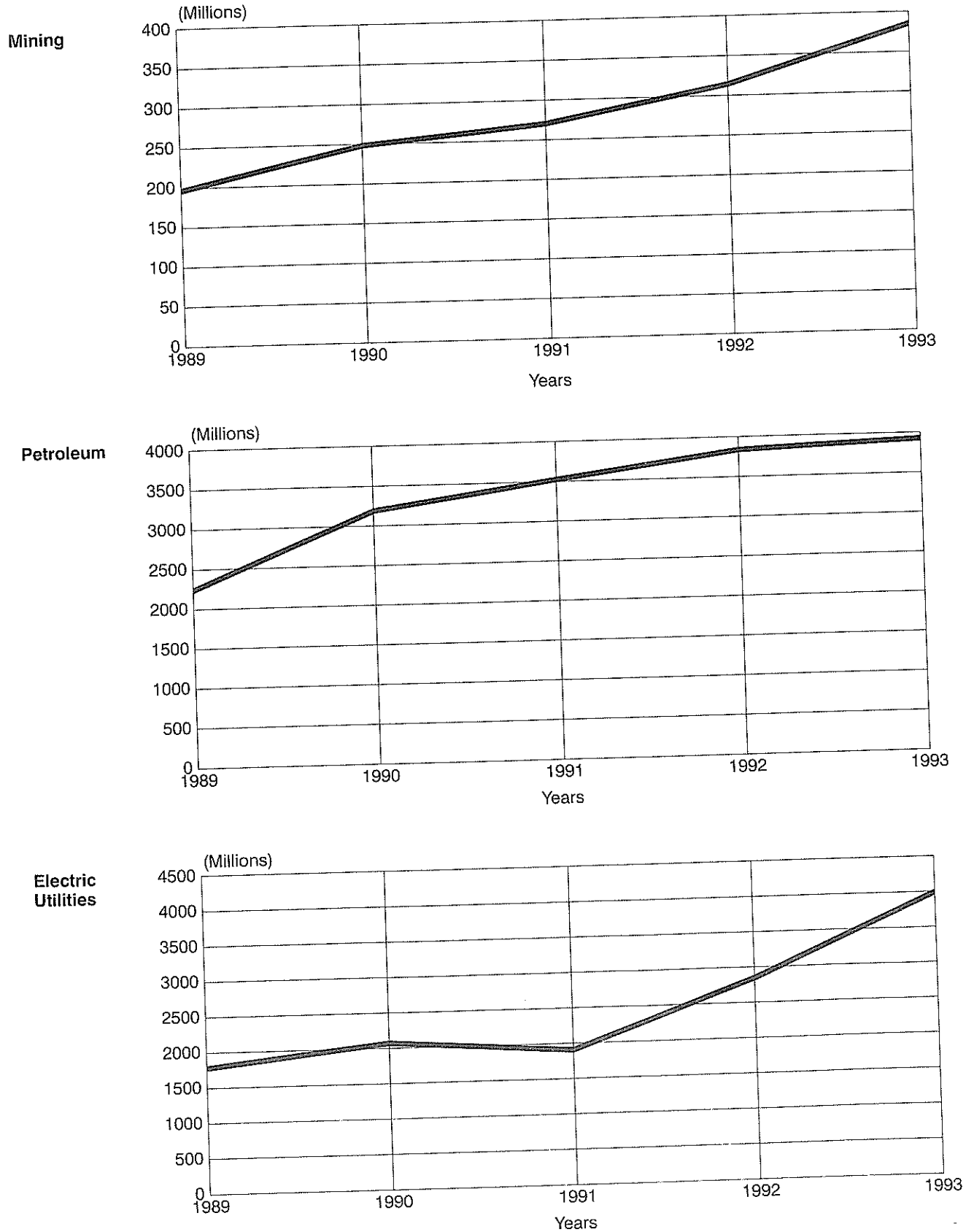


Table 1. Summary Capital Expenditures and Operating Costs by Major Groups: 1989 to 1993

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1989, see MA200(89)-1. Statistics in other than the first two columns in

SIC code	Major group	Annual survey of manufacturers (ASM) ¹			Pollution abatement capital expenditures (PACE) ²					
		Value of shipments	New capital expenditures	Total PACENM ³	Media				Nonmedia and other	
					Total	Air	Water	Solid/contained waste		
	All industries -----	1993.. (NA)	(NA)	7 568.2	7 177.9	4 122.0	2 294.9	761.0	390.3	
	1992.. (NA)	(NA)	(NA)	8 393.0	7 866.9	4 403.1	2 509.8	954.0	526.1	
	1991.. 2 826 207.3	98 916.4	7 390.1	7 390.1	3 706.3	2 814.6	869.2	(NA)	(NA)	
	1990.. 2 873 501.6	101 953.1	(NA)	6 030.8	2 562.0	2 651.4	817.5	(NA)	(NA)	
	1989.. 2 793 014.5	97 186.7	(NA)	4 309.0	1 819.0	1 824.5	665.5	(NA)	(NA)	
20	Food and kindred products -----	1993.. (NA)	(NA)	240.2	219.9	73.9	113.6	32.4	20.3	
	1992.. (NA)	(NA)	(NA)	352.1	316.8	85.1	202.6	29.1	35.2	
	1991.. 387 600.9	9 361.9	(NA)	481.8	94.6	359.5	27.7	(NA)	(NA)	
	1990.. 384 009.0	8 858.4	(NA)	249.0	64.6	163.3	21.1	(NA)	(NA)	
	1989.. 364 403.7	8 329.3	(NA)	260.6	51.7	183.6	25.2	(NA)	(NA)	
21	Tobacco products -----	1993.. (NA)	(NA)	18.1	17.8	16.7	(D)	(D)	.3	
	1992.. (NA)	(NA)	(NA)	15.1	14.5	12.9	(D)	(D)	.6	
	1991.. 32 031.7	405.3	(NA)	5.9	3.8	.5	1.6	(NA)	(NA)	
	1990.. 29 922.4	277.8	(NA)	5.9	4.0	.8	1.1	(NA)	(NA)	
	1989.. 25 803.1	399.2	(NA)	10.6	5.6	1.2	3.9	(NA)	(NA)	
22	Textile mill products -----	1993.. (NA)	(NA)	43.8	39.9	15.6	15.6	8.6	3.9	
	1992.. (NA)	(NA)	(NA)	43.0	34.3	11.8	18.7	3.9	8.7	
	1991.. 65 705.9	2 109.4	(NA)	56.8	27.8	21.4	7.6	(NA)	(NA)	
	1990.. 65 951.4	2 316.5	(NA)	45.9	18.7	24.8	2.4	(NA)	(NA)	
	1989.. 67 321.5	2 276.8	(NA)	29.5	9.7	16.5	3.3	(NA)	(NA)	
24	Lumber and wood products -----	1993.. (NA)	(NA)	91.1	74.0	51.5	13.0	9.5	17.2	
	1992.. (NA)	(NA)	(NA)	102.6	94.5	50.7	18.9	24.9	8.1	
	1991.. 70 588.9	1 573.2	(NA)	141.2	102.0	13.8	25.4	(NA)	(NA)	
	1990.. 74 287.2	1 874.9	(NA)	105.1	57.8	10.4	36.9	(NA)	(NA)	
	1989.. 74 328.4	1 954.0	(NA)	60.0	45.9	6.6	7.5	(NA)	(NA)	
25	Furniture and fixtures -----	1993.. (NA)	(NA)	45.1	39.7	17.4	1.9	20.3	5.4	
	1992.. (NA)	(NA)	(NA)	25.6	17.9	14.3	.8	2.8	7.7	
	1991.. 40 027.3	728.8	(NA)	23.7	16.2	2.8	4.7	(NA)	(NA)	
	1990.. 41 682.0	916.4	(NA)	23.6	19.0	2.3	2.3	(NA)	(NA)	
	1989.. 41 152.3	986.2	(NA)	14.3	10.8	1.3	2.1	(NA)	(NA)	
26	Paper and allied products -----	1993.. (NA)	(NA)	737.7	715.6	307.3	289.2	119.2	22.1	
	1992.. (NA)	(NA)	1 022.6	1 004.6	396.7	373.4	234.5	18.0	18.0	
	1991.. 128 824.1	9 008.7	(NA)	1 232.6	480.8	552.7	199.0	(NA)	(NA)	
	1990.. 131 444.6	10 809.2	(NA)	1 075.2	414.0	509.6	151.7	(NA)	(NA)	
	1989.. 131 366.3	10 067.1	(NA)	808.2	392.4	261.0	154.9	(NA)	(NA)	
27	Printing and publishing -----	1993.. (NA)	(NA)	42.4	38.4	28.3	3.9	6.2	3.9	
	1992.. (NA)	(NA)	(NA)	47.9	41.8	32.9	4.5	4.4	6.1	
	1991.. 156 684.6	5 041.4	(NA)	37.2	26.8	6.2	4.2	(NA)	(NA)	
	1990.. 157 059.5	5 812.3	(NA)	67.8	56.4	4.4	7.0	(NA)	(NA)	
	1989.. 149 911.8	5 761.1	(NA)	35.1	25.6	2.6	6.9	(NA)	(NA)	
28	Chemicals and allied products -----	1993.. (NA)	(NA)	2 088.8	1 957.9	767.5	937.9	252.5	130.9	
	1992.. (NA)	(NA)	2 315.8	2 120.9	774.5	1 017.3	329.1	194.9	194.9	
	1991.. 292 325.8	16 008.7	(NA)	2 086.1	816.4	942.3	307.5	(NA)	(NA)	
	1990.. 288 183.7	15 202.1	(NA)	1 852.1	596.2	995.0	260.9	(NA)	(NA)	
	1989.. 278 084.9	13 480.0	(NA)	1 194.8	380.3	598.6	215.9	(NA)	(NA)	
29	Petroleum and coal products -----	1993.. (NA)	(NA)	2 672.0	2 648.5	1 974.7	567.2	106.6	23.5	
	1992.. (NA)	(NA)	2 702.8	2 685.0	2 079.8	492.6	112.6	17.8	17.8	
	1991.. 158 076.4	5 895.9	(NA)	1 462.5	996.7	373.3	92.5	(NA)	(NA)	
	1990.. 172 588.6	4 158.1	(NA)	916.8	425.7	400.8	90.3	(NA)	(NA)	
	1989.. 143 702.1	3 331.2	(NA)	417.6	146.5	230.4	40.7	(NA)	(NA)	
30	Rubber and miscellaneous plastics products -----	1993.. (NA)	(NA)	76.2	63.3	44.0	11.6	7.6	12.9	
	1992.. (NA)	(NA)	(NA)	108.2	96.7	71.1	18.2	7.3	11.5	
	1991.. 100 667.9	4 214.7	(NA)	81.7	50.8	18.8	12.2	(NA)	(NA)	
	1990.. 101 398.2	4 344.8	(NA)	93.8	68.9	11.0	13.9	(NA)	(NA)	
	1989.. 98 416.8	4 573.0	(NA)	78.2	50.3	16.0	12.0	(NA)	(NA)	
31	Leather and leather products -----	1993.. (NA)	(NA)	18.3	18.1	1.6	15.7	.8	.1	
	1992.. (NA)	(NA)	(NA)	9.6	8.5	.9	6.7	.9	1.1	
	1991.. 9 142.2	99.5	(NA)	15.0	1.1	9.6	4.3	(NA)	(NA)	
	1990.. 9 887.3	114.4	(NA)	8.3	.7	6.5	1.1	(NA)	(NA)	
	1989.. 9 852.1	121.9	(NA)	3.6	.6	2.9	.1	(NA)	(NA)	
32	Stone, clay and glass products -----	1993.. (NA)	(NA)	131.4	118.1	83.2	16.1	18.7	13.3	
	1992.. (NA)	(NA)	(NA)	154.6	138.8	93.4	20.2	25.3	15.7	
	1991.. 59 610.6	2 381.3	(NA)	154.4	119.9	22.2	12.3	(NA)	(NA)	
	1990.. 63 468.0	2 729.2	(NA)	127.5	94.1	19.8	13.6	(NA)	(NA)	
	1989.. 63 555.9	2 874.7	(NA)	97.3	73.2	17.1	7.0	(NA)	(NA)	
33	Primary metal industries -----	1993.. (NA)	(NA)	481.2	442.2	280.7	92.0	69.5	39.0	
	1992.. (NA)	(NA)	560.6	525.7	342.6	123.5	59.5	34.9	34.9	
	1991.. 132 836.6	5 878.7	(NA)	673.4	499.2	131.9	42.2	(NA)	(NA)	
	1990.. 146 052.0	5 788.6	(NA)	499.1	276.6	166.8	53.7	(NA)	(NA)	
	1989.. 152 967.5	5 656.9	(NA)	407.0	216.3	138.7	52.1	(NA)	(NA)	
34	Fabricated metal products -----	1993.. (NA)	(NA)	117.6	102.9	44.8	39.3	18.9	14.6	
	1992.. (NA)	(NA)	(NA)	145.4	103.3	42.4	42.4	18.5	42.1	
	1991.. 157 077.3	4 071.6	(NA)	176.9	80.7	66.4	29.8	(NA)	(NA)	
	1990.. 163 052.8	4 744.8	(NA)	171.0	52.9	61.1	57.0	(NA)	(NA)	
	1989.. 162 181.1	4 612.7	(NA)	151.0	50.5	71.3	29.2	(NA)	(NA)	
35	Industrial machinery and equipment -----	1993.. (NA)	(NA)	122.9	105.0	65.7	20.2	19.1	18.0	
	1992.. (NA)	(NA)	(NA)	174.2	150.3	88.8	31.7	29.8	23.9	
	1991.. 243 479.4	7 334.3	(NA)	128.4	88.7	27.6	12.1	(NA)	(NA)	
	1990.. 256 344.7	8 293.8	(NA)	107.8	46.7	41.3	19.8	(NA)	(NA)	
	1989.. 253 642.1	8 051.5	(NA)	169.5	99.8	54.8	14.9	(NA)	(NA)	
36	Electronic and other electric equipment -----	1993.. (NA)	(NA)	197.2	176.7	92.7	67.9	16.2	20.5	
	1992.. (NA)	(NA)	(NA)	149.8	126.6	63.0	45.6	17.9	23.2	
	1991.. 197 879.5	8 121.2	(NA)	233.7	90.7	122.7	20.3	(NA)	(NA)	
	1990.. 194 847.9	9 237.1	(NA)	177.5	92.8	58.4	26.3	(NA)	(NA)	
	1989.. 192 617.7	8 664.1	(NA)	188.7	66.6	94.3	27.8	(NA)	(NA)	

See footnotes at end of table.

this table cover manufacturing establishments with 20 or more employees. See introductory text for a detailed description of survey coverage and for the meaning of abbreviations and symbols)

Pollution abatement operating costs (PAOC) ²						Standard error of change (percent)		Standard error of estimate (percent)		SIC code
Total PAOCNM ⁴	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
18 798.8	17 555.0	5 574.6	6 631.8	5 348.6	1 243.8	2	1	2	2	1993
19 228.0	17 466.4	5 395.0	6 576.9	5 494.4	1 761.6	5	2	3	2	1992
(NA)	17 308.9	4 955.6	6 345.0	6 008.3	(NA)	4	2	4	2	1991
(NA)	17 070.7	5 010.9	6 416.4	5 643.4	(NA)	4	2	2	2	1990
(NA)	15 625.6	4 694.2	5 853.4	5 078.0	(NA)	6	2	3	2	1989
1 368.0	1 339.3	156.1	857.8	325.4	28.7	6	2	7	3	1993 20
1 340.1	1 312.0	162.7	835.7	313.6	28.1	28	5	7	3	1992
(NA)	1 254.2	149.6	788.5	316.1	(NA)	53	4	42	5	1991
(NA)	1 108.8	145.9	692.4	270.4	(NA)	12	3	11	4	1990
(NA)	1 056.2	137.4	663.5	255.3	(NA)	27	6	12	4	1989
(D)	32.8	12.8	10.2	9.8	(D)	14	1	26	6	1993 21
(D)	33.5	11.2	10.8	11.5	(D)	94	13	15	6	1992
(NA)	48.4	16.4	13.7	18.3	(NA)	11	2	36	18	1991
(NA)	44.8	15.9	13.3	15.6	(NA)	8	4	30	17	1990
(NA)	42.4	14.1	13.5	14.9	(NA)	53	17	40	15	1989
279.8	272.8	42.3	165.1	65.4	7.0	12	3	9	4	1993 22
264.2	256.2	38.1	152.5	65.7	7.9	20	11	10	4	1992
(NA)	213.7	36.1	123.5	54.1	(NA)	47	7	32	9	1991
(NA)	198.3	26.2	114.7	57.5	(NA)	38	5	25	8	1990
(NA)	185.9	25.3	109.4	51.3	(NA)	32	10	18	7	1989
279.3	253.1	90.5	51.9	110.6	26.3	14	4	14	5	1993 24
268.0	243.0	89.3	49.5	104.2	25.0	29	12	12	5	1992
(NA)	298.4	91.1	34.8	172.6	(NA)	64	10	42	13	1991
(NA)	259.3	86.2	37.1	136.0	(NA)	82	8	25	12	1990
(NA)	270.0	88.4	38.6	143.0	(NA)	62	15	44	10	1989
136.7	124.2	42.6	18.2	63.4	12.5	34	4	6	6	1993 25
126.0	118.5	43.0	14.3	61.2	7.5	20	14	15	6	1992
(NA)	136.2	45.9	24.3	66.0	(NA)	37	5	23	16	1991
(NA)	140.8	50.5	23.4	66.9	(NA)	68	8	35	16	1990
(NA)	132.6	50.4	25.8	56.4	(NA)	21	28	26	16	1989
1 948.3	1 901.5	511.2	852.7	537.5	46.8	4	2	5	4	1993 26
1 896.2	1 860.7	535.6	822.7	502.4	35.5	5	6	6	4	1992
(NA)	1 635.0	400.8	790.7	443.5	(NA)	4	2	3	4	1991
(NA)	1 606.8	397.5	788.3	421.0	(NA)	4	3	3	4	1990
(NA)	1 449.0	388.1	686.8	374.2	(NA)	6	5	2	4	1989
266.0	258.4	95.3	33.0	190.1	7.6	19	3	19	4	1993 27
260.0	239.0	85.6	36.5	117.0	21.0	18	11	13	4	1992
(NA)	228.1	87.7	30.3	110.2	(NA)	13	14	12	11	1991
(NA)	240.7	70.5	30.6	139.6	(NA)	45	10	23	10	1990
(NA)	281.6	67.3	36.2	178.1	(NA)	10	18	7	11	1989
4 801.8	4 348.2	1 013.6	1 957.0	1 377.6	453.6	3	1	3	3	1993 28
4 862.2	4 425.1	1 026.9	1 946.8	1 451.3	437.1	3	4	3	3	1992
(NA)	4 046.9	879.6	1 786.9	1 380.5	(NA)	5	3	3	3	1991
(NA)	3 943.4	841.9	1 799.0	1 302.5	(NA)	5	2	4	2	1990
(NA)	3 509.2	794.0	1 613.8	1 101.4	(NA)	9	3	2	2	1989
2 792.5	2 647.9	1 585.3	685.2	377.4	144.7	5	1	5	4	1993 29
3 190.8	2 585.4	1 428.9	742.8	413.7	605.4	11	4	6	4	1992
(NA)	2 849.0	1 464.7	793.9	590.4	(NA)	3	2	2	3	1991
(NA)	2 704.9	1 472.2	701.9	530.8	(NA)	7	4	3	4	1990
(NA)	2 170.0	1 258.2	578.7	333.0	(NA)	3	2	3	2	1989
408.8	385.2	104.6	83.5	197.1	23.5	19	3	12	5	1993 30
403.9	379.6	105.7	73.3	200.5	24.3	39	9	27	5	1992
(NA)	440.8	121.0	76.9	243.0	(NA)	22	14	20	9	1991
(NA)	427.6	96.6	113.4	217.6	(NA)	17	4	15	10	1990
(NA)	403.3	85.3	99.6	218.4	(NA)	29	15	12	9	1989
51.5	50.9	3.6	29.6	17.7	.6	76	5	13	14	1993 31
53.9	53.5	3.7	30.6	19.2	.4	40	37	43	13	1992
(NA)	45.9	2.1	28.2	15.6	(NA)	90	8	55	29	1991
(NA)	48.9	7.0	26.1	15.7	(NA)	70	7	25	25	1990
(NA)	41.6	2.8	23.2	15.6	(NA)	50	57	38	27	1989
543.8	521.1	269.0	102.4	149.7	22.8	13	2	6	4	1993 32
521.6	491.2	248.5	94.6	148.1	30.3	19	5	15	4	1992
(NA)	464.9	220.5	85.1	159.2	(NA)	21	3	16	4	1991
(NA)	497.3	247.8	93.1	156.7	(NA)	14	8	10	5	1990
(NA)	591.7	328.4	85.0	178.3	(NA)	26	15	13	10	1989
2 144.0	2 017.2	944.5	598.2	474.6	126.8	7	1	7	3	1993 33
2 101.1	1 993.4	933.1	575.0	485.3	107.7	5	4	5	3	1992
(NA)	2 002.6	911.7	564.0	526.9	(NA)	6	3	5	3	1991
(NA)	2 025.5	943.7	565.4	516.4	(NA)	5	2	4	4	1990
(NA)	1 931.1	883.1	574.3	473.7	(NA)	7	4	5	4	1989
741.9	679.4	126.6	267.3	285.4	62.5	9	3	7	4	1993 34
869.3	761.2	130.4	284.3	346.6	108.0	8	6	7	4	1992
(NA)	842.6	133.8	301.1	407.6	(NA)	12	8	11	5	1991
(NA)	813.8	114.2	343.5	356.1	(NA)	12	5	9	8	1990
(NA)	895.7	123.8	389.4	382.4	(NA)	19	15	9	8	1989
488.1	445.1	71.9	157.2	216.0	43.0	6	2	8	4	1993 35
524.6	463.7	65.4	160.5	237.9	60.9	22	7	7	4	1992
(NA)	573.9	70.0	165.1	338.8	(NA)	23	5	18	8	1991
(NA)	557.7	77.9	159.5	320.3	(NA)	25	7	10	7	1990
(NA)	571.9	80.6	170.5	320.8	(NA)	83	14	38	9	1989
716.1	662.4	121.8	297.5	243.1	53.8	19	2	13	5	1993 36
722.1	657.1	117.9	288.8	250.4	65.0	18	10	6	5	1992
(NA)	833.0	22.1	323.6	409.5	(NA)	44	10	33	12	1991
(NA)	787.8	113.1	370.3	304.4	(NA)	18	7	12	14	1990
(NA)	729.1	100.9	308.9	319.3	(NA)	47	14	21	12	1989

Table 1. Summary Capital Expenditures and Operating Costs by Major Groups: 1989 to 1993

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1989, see MA200(89)-1. Statistics in other than the first two columns in

SIC code	Major group	Annual survey of manufactures (ASM) ¹		Pollution abatement capital expenditures (PACE) ²						
		Value of shipments	New capital expenditures	Total PACENM ³	Media				Nonmedia and other	
					Total	Air	Water	Solid/contained waste		
37	Transportation equipment	1993..	(NA)	(NA)	297.2	277.6	178.7	67.1	31.8	19.6
		1992..	(NA)	(NA)	321.0	281.0	179.4	69.2	32.5	40.0
		1991..	364 032.1	10 646.9	(NA)	301.4	175.8	94.7	30.8	(NA)
		1990..	367 926.7	10 578.7	(NA)	395.3	206.6	142.6	46.1	(NA)
		1989..	365 980.7	9 966.7	(NA)	286.8	156.0	84.6	46.2	(NA)
38	Instruments and related products	1993..	(NA)	(NA)	127.7	105.0	65.1	19.2	20.7	22.7
		1992..	(NA)	(NA)	123.2	89.1	52.7	18.8	17.5	34.1
		1991..	127 159.7	4 489.5	(NA)	104.4	27.1	44.3	33.0	(NA)
		1990..	123 776.7	4 292.0	(NA)	91.5	57.7	25.5	8.2	(NA)
		1989..	118 486.1	4 427.3	(NA)	86.1	33.9	37.8	14.4	(NA)
39	Miscellaneous manufacturing industries	1993..	(NA)	(NA)	19.3	17.2	12.4	(D)	(D)	2.1
		1992..	(NA)	(NA)	19.1	16.6	10.2	(D)	(D)	2.5
		1991..	37 131.4	822.1	(NA)	13.1	7.3	3.8	2.0	(NA)
		1990..	37 205.2	805.5	(NA)	17.7	6.6	7.0	4.1	(NA)
		1989..	35 641.8	824.5	(NA)	10.0	3.3	5.2	1.5	(NA)

¹Includes Major Group 23, Apparel and Other Textile Products.²Excludes Major Group 23, Apparel and Other Textile Products.³PACENM denotes pollution abatement capital expenditures, including the nonmedia and other.⁴PACONM denotes pollution abatement operating costs, including the nonmedia and other.

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this table cover manufacturing establishments with 20 or more employees. See introductory text for a detailed description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ²						Standard error of change (percent)		Standard error of estimate (percent)		SIC code
Total PAOCNM ⁴	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/ contained waste						
1 326.5	1 194.4	302.4	350.9	541.2	132.1	9	2	7	4	1993 37
1 298.5	1 171.7	298.5	347.0	526.2	126.8	10	5	10	4	1992
(NA)	1 118.3	254.7	319.6	544.0	(NA)	1	1	6	3	1991
(NA)	1 232.0	247.3	373.1	611.6	(NA)	12	4	10	4	1990
(NA)	1 000.3	212.2	318.1	470.1	(NA)	6	4	5	3	1989
			94.1	183.2	46.3	18	2	20	4	1993 38
382.9	336.6	59.3	89.4	194.5	61.5	18	8	11	4	1992
393.3	331.9	48.0	77.9	168.7	(NA)	1	1	20	6	1991
(NA)	280.0	33.3	68.5	141.7	(NA)	12	4	10	7	1990
(NA)	247.7	37.4	70.9	132.8	(NA)	33	9	12	7	1989
(NA)	239.9	36.2								
(D)	84.5	21.2	20.0	43.3	(D)	9	3	7	5	1993 39
(D)	89.7	22.7	21.7	45.3	(D)	23	11	7	5	1992
(NA)	74.9	14.5	17.0	43.4	(NA)	1	1	17	8	1991
(NA)	114.7	19.2	32.7	62.7	(NA)	33	24	19	59	1990
(NA)	124.0	17.7	47.3	58.9	(NA)	19	72	16	44	1989

Table 2. Summary Capital Expenditures and Operating Costs by States: 1989 to 1993

(Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1989, see MA200(89)-1. Statistics in this table cover manufacturing

State and year		Pollution abatement capital expenditures (PACE) ¹					
		Total PACENM ²	Media				Nonmedia and other
			Total	Air	Water	Solid/contained waste	
United States	1993...	7 568.2	7 177.9	4 122.0	2 294.9	761.0	390.3
	1992...	8 393.0	7 866.9	4 403.1	2 509.8	954.0	526.1
	1991...	(NA)	7 390.1	3 706.3	2 814.6	869.2	(NA)
	1990...	(NA)	6 030.8	2 562.0	2 651.4	817.5	(NA)
	1989...	(NA)	4 309.0	1 819.0	1 824.5	665.5	(NA)
Alabama	1993...	156.8	150.6	61.8	75.7	13.1	6.2
	1992...	126.8	119.4	54.3	48.2	16.9	7.4
	1991...	(NA)	316.6	143.0	133.7	39.9	(NA)
	1990...	(NA)	195.7	70.6	97.1	26.0	(NA)
	1989...	(NA)	104.6	39.8	49.5	15.3	(NA)
Alaska	1993...	10.2	10.2	.9	8.4	.9	(Z)
	1992...	15.3	15.3	2.1	11.4	1.8	-
	1991...	(NA)	9.3	6.0	(D)	(D)	(NA)
	1990...	(NA)	11.1	8.5	(D)	(D)	(NA)
	1989...	(NA)	(D)	6.3	(D)	.2	(NA)
Arizona	1993...	24.3	24.2	15.2	7.9	1.2	.1
	1992...	32.0	30.8	13.6	16.2	1.1	1.2
	1991...	(NA)	24.4	15.6	5.3	3.4	(NA)
	1990...	(NA)	18.3	9.7	5.5	3.1	(NA)
	1989...	(NA)	48.3	30.9	7.5	10.0	(NA)
Arkansas	1993...	69.4	59.4	16.9	33.8	8.6	9.1
	1992...	81.9	75.6	28.3	41.2	6.0	6.4
	1991...	(NA)	57.1	17.6	28.4	11.2	(NA)
	1990...	(NA)	80.0	34.4	37.8	7.7	(NA)
	1989...	(NA)	74.5	54.3	16.8	3.3	(NA)
California	1993...	985.1	955.2	802.4	114.6	38.2	29.9
	1992...	589.8	547.9	418.7	88.5	40.7	41.9
	1991...	(NA)	696.6	443.7	226.4	26.5	(NA)
	1990...	(NA)	503.0	286.6	176.1	40.3	(NA)
	1989...	(NA)	367.9	141.0	186.9	40.0	(NA)
Colorado	1993...	9.2	7.9	3.2	4.3	.5	1.3
	1992...	15.1	13.7	6.5	5.9	1.2	1.4
	1991...	(NA)	30.0	7.9	11.0	11.1	(NA)
	1990...	(NA)	26.0	9.4	13.0	3.6	(NA)
	1989...	(NA)	49.3	8.6	38.5	2.2	(NA)
Connecticut	1993...	32.7	23.1	4.3	14.4	4.4	9.6
	1992...	34.9	29.3	7.9	13.2	8.2	5.5
	1991...	(NA)	70.8	14.4	51.2	5.1	(NA)
	1990...	(NA)	41.3	10.9	26.6	3.8	(NA)
	1989...	(NA)	51.9	10.0	30.8	11.1	(NA)
Delaware	1993...	95.1	94.8	84.8	3.3	6.7	.3
	1992...	61.1	59.8	43.9	(D)	(D)	1.3
	1991...	(NA)	60.0	33.0	(D)	(D)	(NA)
	1990...	(NA)	25.7	23.0	2.1	.5	(NA)
	1989...	(NA)	22.5	16.0	4.1	2.4	(NA)
District of Columbia	1993...	.2	-	-	-	-	.2
	1992...	(Z)	(Z)	(Z)	(Z)	-	-
	1991...	(NA)	(D)	-	(D)	-	(NA)
	1990...	(NA)	(D)	(D)	(D)	(D)	(NA)
	1989...	(NA)	(D)	(D)	(D)	(D)	(NA)
Florida	1993...	70.9	64.3	14.0	46.0	4.3	6.6
	1992...	110.8	105.9	24.5	74.0	7.4	4.9
	1991...	(NA)	90.1	18.6	63.1	8.4	(NA)
	1990...	(NA)	130.5	64.3	59.3	6.9	(NA)
	1989...	(NA)	82.9	53.0	19.8	10.2	(NA)
Georgia	1993...	136.0	123.5	80.0	23.1	20.3	12.5
	1992...	186.0	173.3	146.9	15.8	10.6	12.7
	1991...	(NA)	271.0	170.0	86.6	14.4	(NA)
	1990...	(NA)	238.3	124.8	98.8	14.7	(NA)
	1989...	(NA)	145.4	78.1	51.5	15.7	(NA)
Hawaii	1993...	37.3	37.2	1.8	35.3	-	.2
	1992...	2.8	2.8	.5	2.3	-	(Z)
	1991...	(NA)	4.0	1.8	(D)	(D)	(NA)
	1990...	(NA)	23.2	12.6	(D)	(D)	(NA)
	1989...	(NA)	(D)	(D)	(D)	(D)	(NA)
Idaho	1993...	37.3	37.2	15.1	19.3	2.8	.1
	1992...	25.8	25.0	14.3	10.3	.4	.8
	1991...	(NA)	38.5	26.2	9.4	.9	(NA)
	1990...	(NA)	32.2	4.1	26.1	2.1	(NA)
	1989...	(NA)	17.3	5.3	6.5	5.5	(NA)
Illinois	1993...	307.7	295.7	221.1	53.9	20.7	12.0
	1992...	366.8	350.5	250.1	81.3	19.1	16.2
	1991...	(NA)	207.0	129.8	63.0	14.2	(NA)
	1990...	(NA)	273.2	81.0	158.3	33.8	(NA)
	1989...	(NA)	179.3	78.4	78.0	22.9	(NA)
Indiana	1993...	292.0	286.7	209.2	55.5	22.0	5.3
	1992...	363.4	330.9	220.6	94.3	16.0	32.5
	1991...	(NA)	364.4	204.5	139.4	20.5	(NA)
	1990...	(NA)	246.7	94.2	131.7	20.7	(NA)
	1989...	(NA)	175.7	72.3	86.1	17.2	(NA)
Iowa	1993...	43.4	39.6	26.1	8.8	4.8	3.8
	1992...	52.2	46.9	27.0	14.2	5.7	5.3
	1991...	(NA)	39.3	22.1	12.3	4.9	(NA)
	1990...	(NA)	30.5	17.6	9.7	3.2	(NA)
	1989...	(NA)	35.6	11.5	19.6	4.5	(NA)
Kansas	1993...	96.0	93.8	61.0	24.7	8.0	2.2
	1992...	193.9	186.1	153.7	23.5	8.9	7.8
	1991...	(NA)	85.0	68.9	9.7	6.4	(NA)
	1990...	(NA)	35.6	12.8	20.1	2.7	(NA)
	1989...	(NA)	24.7	7.9	15.0	1.8	(NA)

See footnotes at end of table.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ¹						Standard error of change (percent)		Standard error of estimate (percent)		State and year
Total PAOCNM ²	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
18 798.8	17 555.0	5 574.6	6 631.8	5 348.6	1 243.8	2	1	2	2	1993 U.S.
19 228.0	17 466.4	5 395.0	6 576.9	5 494.4	1 761.6	5	2	3	3	1992
(NA)	17 308.9	4 955.6	6 345.0	6 008.3	(NA)	4	2	4	2	1991
(NA)	17 070.7	5 010.9	6 416.4	5 643.4	(NA)	4	2	4	2	1990
(NA)	15 625.6	4 694.2	5 853.4	5 078.0	(NA)	6	2	3	2	1989
412.2	393.4	140.6	157.2	95.6	18.8	15	3	12	6	1993 AL
401.6	380.0	136.2	146.7	97.1	21.6	4	11	7	6	1992
(NA)	358.5	96.8	156.4	135.3	(NA)	12	9	8	11	1991
(NA)	338.8	93.5	138.8	106.5	(NA)	20	8	6	6	1990
(NA)	294.0	93.6	125.7	74.7	(NA)	21	10	12	8	1989
29.3	28.9	6.9	12.8	9.2	.3	48	4	40	23	1993 AK
31.5	31.4	8.2	14.7	8.5	.1	112	16	67	21	1992
(NA)	45.6	12.8	21.8	11.0	(NA)	9	4	11	9	1991
(NA)	32.7	9.8	15.9	7.0	(NA)	2	15	1	8	1990
(NA)	21.6	6.9	9.6	5.1	(NA)	(X)	19	(X)	16	1989
124.9	119.9	65.2	32.7	22.0	5.0	16	7	20	8	1993 AZ
143.4	129.4	66.4	36.0	27.1	14.0	21	17	14	10	1992
(NA)	104.8	61.5	22.0	21.2	(NA)	15	6	11	9	1991
(NA)	115.9	68.1	25.1	22.7	(NA)	8	7	9	8	1990
(NA)	101.9	59.1	22.9	19.9	(NA)	(X)	7	(X)	9	1989
247.8	226.3	63.9	99.6	62.8	21.5	11	4	22	10	1993 AR
224.6	208.1	56.2	92.3	59.5	16.5	23	14	16	11	1992
(NA)	174.2	46.7	79.0	48.5	(NA)	10	5	8	6	1991
(NA)	161.0	46.2	75.9	39.0	(NA)	14	7	13	6	1990
(NA)	179.8	48.3	88.3	43.3	(NA)	6	12	5	9	1989
1 567.4	1 426.2	546.0	484.9	395.4	141.2	5	2	7	5	1993 CA
1 637.6	1 492.6	490.3	584.1	418.2	145.0	11	6	8	4	1992
(NA)	1 717.0	616.4	549.7	550.9	(NA)	18	7	12	5	1991
(NA)	1 818.5	673.7	558.2	585.6	(NA)	10	6	6	6	1990
(NA)	1 526.6	543.3	463.3	520.0	(NA)	13	6	6	4	1989
93.7	85.5	14.0	45.7	25.7	8.2	11	4	16	10	1993 CO
95.5	83.5	11.3	44.5	27.7	12.0	7	10	13	12	1992
(NA)	251.7	28.5	107.3	115.9	(NA)	28	39	7	28	1991
(NA)	267.3	22.1	188.2	57.0	(NA)	34	19	24	48	1990
(NA)	191.5	20.3	109.3	61.9	(NA)	279	108	62	39	1989
185.1	160.8	19.9	53.4	87.5	24.3	7	7	7	8	1993 CT
197.6	168.5	23.6	52.8	92.1	29.1	6	11	9	5	1992
(NA)	213.9	22.8	82.9	108.2	(NA)	17	9	10	14	1991
(NA)	249.5	27.8	118.3	103.4	(NA)	11	14	8	21	1990
(NA)	219.2	29.4	81.6	108.2	(NA)	26	19	13	12	1989
145.1	143.3	79.0	44.4	19.9	1.8	11	3	22	17	1993 DE
153.3	145.5	67.9	54.1	23.5	7.9	17	16	16	15	1992
(NA)	155.2	64.3	65.1	25.8	(NA)	23	2	5	10	1991
(NA)	145.2	58.4	60.9	25.9	(NA)	11	2	11	9	1990
(NA)	180.5	88.1	70.3	22.2	(NA)	28	8	6	7	1989
4.4	4.4	(D)	.5	(D)	-	-	91	-	12	1993 DC
13.3	1.4	.3	.4	.7	11.9	1	86	46	40	1992
(NA)	1.1	(Z)	.4	.7	(NA)	(X)	60	(X)	57	1991
(NA)	1.4	(Z)	.6	.8	(NA)	(X)	17	(X)	59	1990
(NA)	1.6	(D)	.2	.8	(NA)	(X)	48	(X)	50	1989
322.8	297.0	79.8	118.5	98.6	25.8	10	4	16	6	1993 FL
336.7	304.3	81.6	125.4	97.3	32.4	6	8	5	5	1992
(NA)	291.5	88.0	114.5	89.0	(NA)	4	6	3	6	1991
(NA)	322.4	97.5	128.8	96.1	(NA)	9	6	5	8	1990
(NA)	347.4	100.6	133.0	113.9	(NA)	12	12	5	9	1989
428.6	415.9	119.0	182.2	114.7	12.8	13	3	10	6	1993 GA
396.6	375.7	118.4	152.3	105.0	21.1	17	8	16	6	1992
(NA)	422.3	120.1	191.3	110.8	(NA)	26	10	21	7	1991
(NA)	407.8	104.4	187.5	116.0	(NA)	10	10	8	7	1990
(NA)	433.6	144.0	163.3	126.3	(NA)	47	17	8	11	1989
15.2	12.3	(D)	4.4	(D)	2.8	98	3	60	33	1993 HI
16.2	12.8	3.3	4.6	4.9	3.4	43	31	53	33	1992
(NA)	15.8	(D)	9.0	(D)	(NA)	3	8	33	18	1991
(NA)	12.0	3.5	(D)	(D)	(NA)	62	16	23	13	1990
(NA)	7.0	3.2	2.5	1.3	(NA)	(X)	9	(X)	15	1989
(D)	63.9	23.7	24.6	15.6	(D)	9	8	21	12	1993 ID
68.0	60.4	21.3	23.9	15.2	7.7	19	24	23	13	1992
(NA)	37.7	11.1	15.6	11.1	(NA)	15	6	15	8	1991
(NA)	44.5	14.1	19.4	10.9	(NA)	25	3	4	10	1990
(NA)	41.6	13.7	18.5	9.4	(NA)	23	11	15	9	1989
920.3	879.5	332.0	289.1	258.4	40.8	3	2	3	6	1993 IL
932.0	896.1	322.5	297.0	276.7	35.9	10	7	3	6	1992
(NA)	783.4	261.9	263.7	257.8	(NA)	4	4	6	4	1991
(NA)	842.4	287.8	276.7	277.9	(NA)	22	5	7	5	1990
(NA)	753.5	273.9	252.4	227.2	(NA)	37	6	16	5	1989
736.8	690.4	241.2	253.1	196.1	46.4	6	2	5	4	1993 IN
752.4	706.6	255.2	253.2	198.2	45.7	6	5	3	3	1992
(NA)	667.5	197.2	240.1	230.2	(NA)	11	2	4	4	1991
(NA)	628.5	183.2	257.5	187.9	(NA)	14	4	10	3	1990
(NA)	671.3	207.2	276.1	188.1	(NA)	14	7	5	5	1989
190.1	173.4	51.8	66.4	55.1	16.7	5	2	6	7	1993 IA
178.9	166.9	53.3	60.0	53.6	12.0	15	12	9	7	1992
(NA)	149.1	46.4	56.7	46.0	(NA)	13	3	10	9	1991
(NA)	140.6	44.3	51.0	45.3	(NA)	8	11	8	9	1990
(NA)	147.6	43.1	53.3	51.2	(NA)	17	14	7	10	1989
136.2	125.0	34.6	45.6	44.8	11.2	13	6	43	13	1993 KS
113.1	107.3	29.0	37.0	41.3	5.7	78	13	35	11	1992
(NA)	139.7	47.8	42.2	49.7	(NA)	31	11	9	13	1991
(NA)	142.4	41.0	49.5	52.0	(NA)	15	6	10	8	1990
(NA)	116.8	33.1	48.1	35.6	(NA)	18	19	4	11	1989

Table 2. Summary Capital Expenditures and Operating Costs by States: 1989 to 1993—Con.

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1989, see MA200(89)-1. Statistics in this table cover manufacturing.]

State and year	Pollution abatement capital expenditures (PACE) ¹					
	Total PACENM ²	Media				Nonmedia and other
		Total	Air	Water	Solid/contained waste	
Kentucky	1993... 117.1	104.0	64.3	15.0	24.8	13.1
	1992... 197.5	180.9	132.4	25.7	22.8	16.6
	1991... (NA)	152.0	86.4	50.6	15.1	(NA)
	1990... (NA)	135.5	60.3	68.4	6.9	(NA)
	1989... (NA)	53.5	30.7	17.5	5.3	(NA)
Louisiana	1993... 931.0	905.2	367.1	449.5	88.5	25.9
	1992... 1 091.0	1 057.2	477.6	430.8	148.8	33.8
	1991... (NA)	564.2	315.6	184.0	64.5	(NA)
	1990... (NA)	301.9	85.4	144.9	71.6	(NA)
	1989... (NA)	191.3	61.0	100.1	30.2	(NA)
Maine	1993... 46.1	45.2	19.2	19.8	6.2	.8
	1992... 67.2	62.2	23.8	26.8	11.6	5.0
	1991... (NA)	95.4	21.0	(D)	(D)	(NA)
	1990... (NA)	104.1	25.6	25.1	53.4	(NA)
	1989... (NA)	82.4	26.5	21.0	34.9	(NA)
Maryland	1993... 42.6	40.8	23.6	11.9	5.9	1.8
	1992... 45.2	38.1	16.4	16.2	5.5	7.1
	1991... (NA)	94.6	67.6	21.9	5.2	(NA)
	1990... (NA)	133.1	80.6	45.2	7.3	(NA)
	1989... (NA)	72.9	26.6	41.0	5.3	(NA)
Massachusetts	1993... 88.5	82.8	42.6	31.7	8.4	5.7
	1992... 65.0	59.5	18.4	35.6	5.5	5.5
	1991... (NA)	55.6	17.5	26.3	11.8	(NA)
	1990... (NA)	69.9	14.5	44.2	11.1	(NA)
	1989... (NA)	44.2	14.8	25.2	4.2	(NA)
Michigan	1993... 194.1	176.4	128.3	33.1	15.0	17.7
	1992... 193.9	159.3	99.4	37.9	22.0	24.6
	1991... (NA)	172.9	90.0	49.7	33.1	(NA)
	1990... (NA)	178.9	97.2	52.7	29.1	(NA)
	1989... (NA)	289.0	180.6	80.6	27.9	(NA)
Minnesota	1993... 195.7	193.8	166.0	13.0	14.8	1.9
	1992... 137.2	133.1	91.8	29.7	11.6	4.1
	1991... (NA)	64.4	43.9	13.8	6.7	(NA)
	1990... (NA)	92.6	54.6	30.4	7.6	(NA)
	1989... (NA)	46.6	11.3	23.0	12.3	(NA)
Mississippi	1993... 80.3	78.8	38.2	35.3	5.4	1.4
	1992... 115.8	112.8	88.3	15.8	8.8	3.0
	1991... (NA)	68.2	43.2	19.0	6.0	(NA)
	1990... (NA)	68.7	27.2	35.1	6.5	(NA)
	1989... (NA)	67.1	32.0	29.8	5.2	(NA)
Missouri	1993... 56.5	45.9	24.6	13.3	8.1	10.7
	1992... 69.8	65.2	28.5	25.5	11.2	4.5
	1991... (NA)	61.4	39.4	16.6	5.3	(NA)
	1990... (NA)	72.4	22.3	43.8	6.3	(NA)
	1989... (NA)	38.0	13.4	16.3	8.3	(NA)
Montana	1993... 18.4	18.3	(D)	(D)	(D)	.1
	1992... 7.6	7.1	2.2	(D)	(D)	.5
	1991... (NA)	18.3	14.7	(D)	(D)	(NA)
	1990... (NA)	9.5	6.0	(D)	(D)	(NA)
	1989... (NA)	4.2	2.4	1.6	.2	(NA)
Nebraska	1993... 9.9	9.7	1.8	5.3	2.7	.2
	1992... 12.4	8.0	3.7	2.6	1.7	4.4
	1991... (NA)	5.6	2.7	2.2	.7	(NA)
	1990... (NA)	5.8	3.4	1.9	.4	(NA)
	1989... (NA)	4.3	1.2	2.6	.5	(NA)
Nevada	1993... 4.5	3.4	1.8	1.0	.6	1.1
	1992... 5.4	5.3	2.1	2.5	.8	.1
	1991... (NA)	2.2	1.0	1.2	(Z)	(NA)
	1990... (NA)	4.1	(D)	(D)	3.1	(NA)
	1989... (NA)	1.3	(D)	.9	(D)	(NA)
New Hampshire	1993... 53.7	53.4	(D)	7.1	(D)	.2
	1992... 17.6	(D)	(D)	2.2	(D)	(D)
	1991... (NA)	8.5	2.5	3.6	2.4	(NA)
	1990... (NA)	9.7	3.8	2.9	3.0	(NA)
	1989... (NA)	7.7	2.2	1.4	4.1	(NA)
New Jersey	1993... 155.8	137.0	37.0	72.2	27.8	18.9
	1992... 192.7	154.0	65.6	70.3	18.0	38.8
	1991... (NA)	245.5	100.3	124.0	21.3	(NA)
	1990... (NA)	152.3	60.3	74.3	17.6	(NA)
	1989... (NA)	121.4	44.8	55.6	20.0	(NA)
New Mexico	1993... 79.2	78.7	68.2	(D)	(D)	.5
	1992... 44.3	44.3	36.2	(D)	(D)	-
	1991... (NA)	26.0	9.5	(D)	(D)	(NA)
	1990... (NA)	67.3	34.0	32.7	.7	(NA)
	1989... (NA)	9.9	9.3	.4	.1	(NA)
New York	1993... 152.4	129.8	72.1	32.0	25.7	22.6
	1992... 184.5	128.8	72.9	29.0	26.8	55.7
	1991... (NA)	200.5	88.8	55.4	56.3	(NA)
	1990... (NA)	249.3	121.8	78.9	48.7	(NA)
	1989... (NA)	209.5	96.7	74.0	38.8	(NA)
North Carolina	1993... 254.4	226.3	99.6	91.2	35.5	28.1
	1992... 281.0	259.8	97.3	132.2	30.3	21.2
	1991... (NA)	276.3	68.8	181.0	26.5	(NA)
	1990... (NA)	212.3	81.3	116.6	20.4	(NA)
	1989... (NA)	114.7	44.4	46.3	24.0	(NA)
North Dakota	1993... 10.0	10.0	8.8	.1	1.0	(Z)
	1992... 3.7	3.7	1.1	2.2	.3	-
	1991... (NA)	(D)	(D)	-	-	(NA)
	1990... (NA)	(D)	(D)	(D)	(D)	(NA)
	1989... (NA)	3.3	1.8	(D)	(D)	(NA)

See footnotes at end of table.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

Total PAOC/NM ³	Pollution abatement operating costs (PAOC) ¹					Standard error of change (percent)		Standard error of estimate (percent)		State and year
	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/ contained waste						
346.2	331.3	144.7	102.4	84.2	14.9	5	2	9	5	1993 KY
339.1	324.8	138.4	102.2	84.1	14.3	11	7	6	5	1992
(NA)	331.3	121.4	107.8	102.1	(NA)	17	8	8	6	1991
(NA)	327.7	131.2	103.8	92.7	(NA)	30	4	13	5	1990
(NA)	295.5	118.1	94.2	83.2	(NA)	10	8	7	5	1989
989.1	922.7	325.8	362.5	234.4	66.4	3	2	4	5	1993 LA
969.2	920.0	317.3	347.6	255.1	49.3	5	5	2	5	1992
(NA)	892.4	282.3	366.7	243.4	(NA)	7	5	2	3	1991
(NA)	827.0	261.3	328.9	236.7	(NA)	8	2	4	3	1990
(NA)	682.9	240.8	278.5	163.7	(NA)	11	5	4	3	1989
129.6	124.7	25.8	58.2	40.7	4.9	5	2	8	10	1993 ME
129.7	123.5	21.2	60.7	41.5	6.2	6	12	8	10	1992
(NA)	127.3	18.8	59.6	48.9	(NA)	12	3	2	7	1991
(NA)	113.5	16.0	56.2	41.2	(NA)	16	4	13	7	1990
(NA)	117.8	21.1	63.0	33.6	(NA)	5	12	3	5	1989
227.5	222.0	54.6	98.3	69.1	5.4	18	7	12	9	1993 MD
210.0	205.6	55.4	80.5	69.7	4.4	8	7	19	6	1992
(NA)	212.4	47.6	77.7	87.1	(NA)	8	8	4	4	1991
(NA)	194.2	47.6	77.8	68.8	(NA)	11	3	10	6	1990
(NA)	192.4	49.9	83.4	59.1	(NA)	38	7	15	6	1989
258.9	249.0	35.4	120.2	93.4	9.8	40	5	28	8	1993 MA
251.0	246.2	34.3	106.9	105.1	14.8	20	11	11	7	1992
(NA)	247.8	39.1	99.2	109.5	(NA)	19	16	16	9	1991
(NA)	249.2	33.7	88.8	126.8	(NA)	29	11	18	13	1990
(NA)	268.9	51.3	84.6	13.3	(NA)	23	22	12	16	1989
823.9	768.5	226.3	291.0	251.2	55.4	8	2	5	3	1993 MI
796.1	763.0	220.2	290.8	252.0	33.1	8	7	7	3	1992
(NA)	692.6	186.1	266.0	240.5	(NA)	6	4	6	3	1991
(NA)	739.5	195.9	273.6	270.0	(NA)	14	5	7	5	1990
(NA)	703.8	180.0	274.6	249.2	(NA)	42	8	23	4	1989
286.0	277.4	93.3	100.3	83.7	8.6	10	3	2	5	1993 MN
261.4	254.5	72.2	102.5	79.8	7.0	24	15	7	6	1992
(NA)	247.3	58.7	87.3	101.3	(NA)	7	18	10	14	1991
(NA)	211.9	61.2	77.4	73.3	(NA)	26	4	3	7	1990
(NA)	204.2	54.8	73.9	75.5	(NA)	17	10	14	7	1989
261.6	258.7	108.0	79.4	71.3	2.9	5	2	6	9	1993 MS
271.9	259.1	120.9	86.1	62.1	2.8	32	10	6	7	1992
(NA)	216.0	101.0	62.6	52.3	(NA)	19	3	19	5	1991
(NA)	201.0	92.4	65.0	43.6	(NA)	7	7	6	5	1990
(NA)	160.6	62.5	62.2	36.0	(NA)	29	9	5	6	1989
308.3	297.7	79.1	123.4	95.2	10.6	5	3	11	5	1993 MO
299.1	287.6	79.2	111.6	96.8	11.6	11	8	8	4	1992
(NA)	268.4	59.8	115.2	93.4	(NA)	13	15	8	7	1991
(NA)	344.2	72.9	160.1	111.2	(NA)	17	5	13	17	1990
(NA)	319.6	66.4	137.4	115.8	(NA)	16	25	18	18	1989
23.4	22.5	15.7	4.3	2.6	1.0	88	2	43	12	1993 MT
(D)	25.5	17.3	4.8	3.4	(D)	17	7	9	12	1992
(NA)	44.5	25.2	11.9	7.4	(NA)	82	17	43	5	1991
(NA)	39.9	21.9	11.7	6.4	(NA)	67	5	7	16	1990
(NA)	39.6	21.8	12.5	5.3	(NA)	(X)	18	(X)	14	1989
56.1	53.5	14.0	19.2	20.4	2.6	14	10	8	11	1993 NE
62.7	60.0	12.8	23.6	23.5	2.7	26	28	11	12	1992
(NA)	41.1	8.7	14.8	17.6	(NA)	14	10	15	16	1991
(NA)	37.9	9.3	14.6	14.0	(NA)	29	12	18	15	1990
(NA)	32.9	9.4	12.1	11.4	(NA)	18	11	15	11	1989
10.9	10.3	4.8	2.5	3.0	.6	25	9	29	21	1993 NV
12.7	11.0	3.4	4.6	3.0	1.8	128	65	45	20	1992
(NA)	9.0	3.1	2.6	3.3	(NA)	41	61	29	50	1991
(NA)	7.8	1.4	2.9	3.4	(NA)	273	12	69	38	1990
(NA)	9.5	2.1	5.3	2.2	(NA)	2	53	52	53	1989
48.7	46.4	6.9	21.1	18.3	2.3	28	5	10	15	1993 NH
47.4	44.1	5.8	20.6	17.7	3.4	(X)	17	(X)	15	1992
(NA)	49.7	5.2	22.6	21.9	(NA)	23	5	13	13	1991
(NA)	51.3	6.3	21.5	23.5	(NA)	28	8	26	14	1990
(NA)	51.9	7.3	19.7	24.9	(NA)	17	22	23	14	1989
721.0	694.8	143.8	298.4	192.6	86.3	11	6	10	11	1993 NJ
784.8	673.8	146.6	285.7	241.5	111.0	8	16	12	13	1992
(NA)	669.5	188.7	244.4	236.4	(NA)	8	4	4	9	1991
(NA)	668.9	169.9	273.8	225.3	(NA)	10	5	6	6	1990
(NA)	615.5	147.2	231.3	237.0	(NA)	14	9	8	7	1989
79.3	75.7	42.1	13.2	20.4	3.6	18	3	60	41	1993 NM
65.2	63.4	34.2	11.4	17.8	1.8	127	52	70	42	1992
(NA)	54.7	29.1	11.5	14.1	(NA)	16	4	26	15	1991
(NA)	51.8	31.9	7.3	12.6	(NA)	438	5	64	17	1990
(NA)	45.0	26.0	8.0	11.1	(NA)	(X)	15	(X)	18	1989
717.9	647.6	122.3	235.7	289.6	70.3	10	2	14	5	1993 NY
718.5	650.6	115.5	235.6	299.4	67.9	7	7	8	5	1992
(NA)	665.5	106.0	248.2	311.3	(NA)	12	9	8	6	1991
(NA)	619.5	109.6	239.9	270.0	(NA)	14	3	12	6	1990
(NA)	624.6	111.5	241.9	271.2	(NA)	23	10	10	6	1989
549.5	512.1	130.8	218.1	163.3	37.4	6	2	7	4	1993 NC
580.8	554.4	185.5	213.2	155.6	26.5	8	9	4	3	1992
(NA)	433.4	113.5	182.6	137.2	(NA)	15	9	8	7	1991
(NA)	431.4	117.7	172.1	141.7	(NA)	16	5	9	7	1990
(NA)	411.1	110.2	168.7	132.2	(NA)	12	11	8	8	1989
18.0	17.2	5.0	6.8	5.4	.7	92	5	48	49	1993 ND
(D)	19.3	4.4	6.8	8.1	(D)	29	117	32	52	1992
(NA)	8.7	(D)	3.3	(D)	(NA)	(X)	4	(X)	12	1991
(NA)	8.0	1.7	2.8	3.5	(NA)	(X)	10	(X)	13	1990
(NA)	5.3	1.3	2.2	1.8	(NA)	23	13	27	18	1989

2. Summary Capital Expenditures and Operating Costs by States: 1989 to 1993—Con.

dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1989, see MA200(89)-1. Statistics in this table cover manufacturing

State and year	Pollution abatement capital expenditures (PACE) ¹						
	Total PACENM ²	Media					Nonmedia and other
		Total	Air	Water	Solid/contained waste		
Ohio	1993..	267.3	238.0	118.0	84.9	35.0	29.4
	1992..	335.6	309.1	142.7	127.4	39.0	28.4
	1991..	(NA)	290.0	130.9	93.8	65.3	(NA)
	1990..	(NA)	298.9	130.8	128.5	39.5	(NA)
	1989..	(NA)	240.4	107.0	99.5	33.9	(NA)
Oklahoma	1993..	41.5	40.6	16.8	20.7	3.0	1.0
	1992..	42.6	41.1	13.9	10.8	16.4	1.5
	1991..	(NA)	63.4	28.8	30.4	4.2	(NA)
	1990..	(NA)	38.3	18.2	17.3	2.7	(NA)
	1989..	(NA)	34.5	19.8	12.1	2.6	(NA)
Oregon	1993..	48.5	46.8	25.7	15.2	5.9	1.8
	1992..	109.5	105.8	37.0	63.2	5.6	3.7
	1991..	(NA)	74.3	12.9	47.4	14.0	(NA)
	1990..	(NA)	51.5	23.2	21.8	6.5	(NA)
	1989..	(NA)	39.3	16.5	16.7	6.1	(NA)
Pennsylvania	1993..	346.8	322.8	174.7	116.7	31.5	24.0
	1992..	305.7	272.4	140.5	69.0	68.9	33.4
	1991..	(NA)	340.4	185.9	124.3	30.2	(NA)
	1990..	(NA)	206.1	94.1	81.5	30.6	(NA)
	1989..	(NA)	166.2	71.5	71.7	23.0	(NA)
Rhode Island	1993..	6.5	2.9	1.5	1.3	.2	3.5
	1992..	5.4	2.2	.8	1.3	.2	3.2
	1991..	(NA)	5.9	1.4	4.2	.2	(NA)
	1990..	(NA)	13.6	4.2	5.7	3.7	(NA)
	1989..	(NA)	12.1	3.3	5.3	3.6	(NA)
South Carolina	1993..	161.3	157.9	65.4	57.5	35.0	3.4
	1992..	126.0	119.9	44.1	64.7	11.1	6.1
	1991..	(NA)	99.3	42.8	44.5	12.0	(NA)
	1990..	(NA)	127.4	53.6	57.0	16.8	(NA)
	1989..	(NA)	100.8	43.6	46.8	10.4	(NA)
South Dakota	1993..	1.4	1.0	.6	.4	(Z)	.4
	1992..	4.3	(D)	(D)	1.1	.5	(D)
	1991..	(NA)	3.0	2.2	.2	.6	(NA)
	1990..	(NA)	(D)	(D)	(D)	(D)	(NA)
	1989..	(NA)	(D)	(D)	(D)	(D)	(NA)
Tennessee	1993..	133.5	127.9	83.1	30.2	14.6	5.6
	1992..	222.2	218.3	163.9	33.5	21.0	3.9
	1991..	(NA)	139.2	95.1	28.4	15.7	(NA)
	1990..	(NA)	136.3	84.4	39.2	12.7	(NA)
	1989..	(NA)	86.1	38.4	32.8	14.9	(NA)
Texas	1993..	1 036.3	1 002.6	501.2	376.5	125.0	33.7
	1992..	1 491.8	1 446.0	777.2	483.5	185.3	45.8
	1991..	(NA)	1 055.7	511.4	390.1	154.2	(NA)
	1990..	(NA)	895.3	328.7	417.8	148.8	(NA)
	1989..	(NA)	481.0	150.1	214.9	116.0	(NA)
Utah	1993..	36.0	35.3	30.5	2.6	2.3	.6
	1992..	86.9	86.4	74.8	10.0	1.6	.5
	1991..	(NA)	61.9	51.7	8.8	1.4	(NA)
	1990..	(NA)	32.2	5.8	21.6	4.7	(NA)
	1989..	(NA)	17.9	5.7	11.0	1.3	(NA)
Vermont	1993..	(D)	8.4	1.1	6.7	.6	(D)
	1992..	(D)	13.7	1.5	9.0	3.2	(D)
	1991..	(NA)	3.0	(D)	.3	(D)	(NA)
	1990..	(NA)	(D)	1.4	5.0	(D)	(NA)
	1989..	(NA)	6.2	(D)	4.5	(D)	(NA)
Virginia	1993..	182.9	180.7	79.7	80.6	20.4	2.2
	1992..	222.8	217.6	128.0	65.1	24.4	5.2
	1991..	(NA)	119.0	60.9	39.3	18.8	(NA)
	1990..	(NA)	75.5	24.3	36.6	14.6	(NA)
	1989..	(NA)	79.2	36.4	37.1	5.7	(NA)
Washington	1993..	126.0	109.7	58.1	34.2	17.4	16.3
	1992..	195.3	186.7	101.5	41.5	43.7	8.5
	1991..	(NA)	389.0	86.2	283.5	19.3	(NA)
	1990..	(NA)	127.4	30.7	61.4	35.2	(NA)
	1989..	(NA)	104.9	30.9	45.4	28.6	(NA)
West Virginia	1993..	77.1	69.1	26.1	34.8	8.3	8.0
	1992..	90.4	85.1	21.5	33.6	30.0	5.3
	1991..	(NA)	51.3	27.4	18.8	5.1	(NA)
	1990..	(NA)	51.5	20.8	27.0	3.7	(NA)
	1989..	(NA)	40.4	11.2	22.3	6.9	(NA)
Wisconsin	1993..	133.2	128.1	45.0	53.2	29.9	5.1
	1992..	147.3	136.9	63.2	52.2	21.5	10.4
	1991..	(NA)	201.1	120.2	50.2	30.7	(NA)
	1990..	(NA)	164.2	97.2	40.0	27.0	(NA)
	1989..	(NA)	119.2	62.6	28.5	28.1	(NA)
Wyoming	1993..	(D)	63.4	58.6	3.5	1.2	(D)
	1992..	(D)	11.8	(D)	6.3	(D)	(D)
	1991..	(NA)	13.9	8.7	2.8	2.4	(NA)
	1990..	(NA)	13.9	(D)	(D)	(D)	(NA)
	1989..	(NA)	5.0	(D)	3.0	(D)	(NA)

¹Excludes Major Group 23, Apparel and Other Textile Products.

²PACENM denotes pollution abatement capital expenditures, including the nonmedia and other.

³PACONM denotes pollution abatement operating costs, including the nonmedia and other.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

Pollution abatement operating costs (PAOC) ¹						Standard error of change (percent)		Standard error of estimate (percent)		State and year
Total PAOCNM ²	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
1 117.4	1 016.3	266.6	373.5	376.2	101.1	3	2	5	4	1993 OH
1 170.0	1 030.8	271.6	365.8	393.4	139.2	10	4	5	4	1992
(NA)	1 031.9	271.0	373.3	387.6	(NA)	11	5	9	3	1991
(NA)	1 115.4	283.8	415.0	416.6	(NA)	9	4	7	5	1990
(NA)	984.0	280.0	362.3	341.7	(NA)	11	8	5	4	1989
123.5	118.1	40.1	38.4	39.6	5.4	10	3	15	10	1993 OK
122.6	117.0	37.5	42.8	36.7	5.7	18	11	15	9	1992
(NA)	110.0	31.8	40.6	37.6	(NA)	38	7	23	6	1991
(NA)	84.8	22.8	33.0	29.0	(NA)	11	5	7	7	1990
(NA)	82.7	18.6	30.0	34.1	(NA)	40	11	9	9	1989
192.7	177.7	52.5	74.3	50.9	15.0	6	4	17	7	1993 OR
182.9	170.3	48.3	76.8	45.2	12.6	40	17	14	8	1992
(NA)	200.4	53.5	70.4	76.5	(NA)	38	21	26	19	1991
(NA)	159.4	47.5	55.1	56.8	(NA)	17	5	10	11	1990
(NA)	141.9	49.5	47.3	45.1	(NA)	26	20	12	10	1989
916.6	864.3	252.7	290.6	320.9	52.3	9	2	5	5	1993 PA
952.1	890.9	256.3	295.4	338.6	61.3	9	6	8	5	1992
(NA)	867.6	175.8	275.5	416.2	(NA)	19	6	8	5	1991
(NA)	880.3	268.8	271.5	340.0	(NA)	11	4	8	4	1990
(NA)	833.4	264.6	268.5	310.2	(NA)	13	6	8	5	1989
(D)	29.3	5.5	12.0	11.8	(D)	30	4	5	11	1993 RI
33.7	31.0	5.9	12.1	13.0	2.8	12	17	23	13	1992
(NA)	34.4	3.9	14.3	16.1	(NA)	15	5	21	15	1991
(NA)	62.4	8.9	25.6	27.9	(NA)	35	11	28	14	1990
(NA)	63.1	8.5	22.4	32.1	(NA)	19	18	17	15	1989
405.8	392.4	116.5	157.9	118.0	13.5	24	2	15	7	1993 SC
379.2	360.1	104.1	140.7	115.3	19.1	18	12	14	7	1992
(NA)	344.4	65.0	141.7	137.7	(NA)	7	16	5	9	1991
(NA)	346.2	85.1	146.5	114.5	(NA)	19	3	8	16	1990
(NA)	329.1	81.2	133.7	114.2	(NA)	38	22	16	15	1989
13.1	13.1	3.5	5.9	3.7	(Z)	7	20	28	26	1993 SD
16.6	16.5	2.9	6.3	7.3	(Z)	(D)	80	(D)	33	1992
(NA)	9.0	1.0	4.8	3.1	(NA)	629	17	60	29	1991
(NA)	6.4	.1	3.5	2.8	(NA)	(X)	25	(X)	25	1990
(NA)	4.9	.2	2.3	2.5	(NA)	(X)	21	(X)	22	1989
525.3	468.1	104.9	205.5	157.6	57.2	5	3	7	5	1993 TN
474.7	441.0	99.0	189.8	152.2	33.7	20	8	12	6	1992
(NA)	420.8	92.1	183.5	145.2	(NA)	12	8	9	6	1991
(NA)	398.6	91.4	179.9	127.4	(NA)	18	3	8	6	1990
(NA)	353.0	82.6	153.5	116.9	(NA)	5	7	8	6	1989
2 286.6	2 167.6	865.9	777.5	524.2	119.1	6	2	4	3	1993 TX
2 700.2	2 092.2	791.7	753.7	546.8	608.0	11	4	8	2	1992
(NA)	2 054.6	739.5	695.3	619.8	(NA)	5	4	4	3	1991
(NA)	1 886.0	709.7	606.4	571.9	(NA)	4	3	3	2	1990
(NA)	1 584.7	603.3	553.6	427.8	(NA)	3	3	2	3	1989
136.4	129.8	56.7	39.5	39.6	6.6	3	10	49	18	1993 UT
129.7	123.4	52.4	31.8	39.1	6.3	73	38	49	22	1992
(NA)	90.7	45.4	18.1	27.1	(NA)	92	20	27	18	1991
(NA)	94.7	29.0	17.8	48.0	(NA)	28	11	46	31	1990
(NA)	82.7	29.6	20.7	32.4	(NA)	38	48	34	27	1989
(D)	15.0	2.2	4.7	8.0	(D)	13	10	27	28	1993 VT
19.6	17.5	2.9	5.9	8.8	2.2	170	37	38	24	1992
(NA)	14.7	1.5	6.0	7.2	(NA)	28	15	5	20	1991
(NA)	16.6	5.2	4.8	6.7	(NA)	(X)	10	(X)	27	1990
(NA)	13.8	5.3	3.8	4.7	(NA)	97	29	58	31	1989
383.9	351.2	102.1	139.6	109.5	32.7	16	3	9	7	1993 VA
361.9	334.4	93.5	139.3	101.6	27.4	58	11	26	8	1992
(NA)	271.1	69.3	115.0	86.7	(NA)	29	3	19	5	1991
(NA)	271.9	68.8	119.3	83.7	(NA)	6	6	4	5	1990
(NA)	259.8	59.4	119.2	81.2	(NA)	11	8	8	8	1989
397.2	366.5	115.6	131.2	119.7	30.8	8	3	14	6	1993 WA
394.3	368.2	124.1	132.2	111.9	26.1	26	8	14	6	1992
(NA)	387.0	113.4	136.0	137.6	(NA)	134	8	52	6	1991
(NA)	374.4	102.8	150.2	121.4	(NA)	21	5	6	6	1990
(NA)	328.3	106.2	134.1	88.0	(NA)	33	9	17	7	1989
287.7	273.4	84.5	121.1	67.9	14.3	16	5	28	17	1993 WV
306.6	283.6	75.9	124.1	83.5	23.1	21	24	12	17	1992
(NA)	328.0	78.6	118.7	130.7	(NA)	3	3	5	2	1991
(NA)	208.9	49.7	94.1	65.1	(NA)	7	2	5	3	1990
(NA)	190.6	41.1	89.3	60.3	(NA)	6	9	6	4	1989
448.5	432.7	94.8	188.5	149.4	15.8	11	3	21	10	1993 WI
404.3	394.1	83.1	176.1	134.9	10.2	16	10	22	10	1992
(NA)	354.0	84.7	142.8	126.5	(NA)	14	10	8	7	1991
(NA)	348.4	75.9	150.0	122.5	(NA)	10	9	9	7	1990
(NA)	343.8	68.9	146.3	128.5	(NA)	23	12	7	10	1989
23.5	21.3	10.0	7.5	3.8	2.2	360	5	76	18	1993 WY
28.8	28.7	15.5	9.8	3.3	.1	48	38	29	17	1992
(NA)	19.9	6.2	7.0	6.7	(NA)	27	1	48	21	1991
(NA)	18.5	4.3	(D)	(D)	(NA)	78	16	31	20	1990
(NA)	12.9	5.5	4.2	3.2	(NA)	(X)	25	(X)	28	1989

Table 3. Capital Expenditures by Industries for All Media: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	All Industries¹	7 177.9	4 122.0	2 294.9	761.0	2
20	Food and kindred products	219.9	73.9	113.6	32.4	7
201	Meat products	26.7	3.1	21.8	1.8	14
2011	Meat packing plants	12.1	.7	10.8	.2	22
2013	Sausages and other prepared meats	3.0	.1	2.7	1.1	59
2015	Poultry slaughtering and processing	11.7	2.4	8.2		13
202	Dairy products	22.6	1.0	17.8	3.8	23
2022	Cheese, natural and processed	6.4	(Z)	5.4	.9	51
2023	Dry, condensed, and evaporated dairy products	9.3	(D)	7.1	(D)	27
2026	Fluid milk	6.0	(D)	4.5	(D)	48
203	Preserved fruits and vegetables	29.0	2.0	22.4	4.6	6
2032	Canned specialties	1.9	(D)	1.3	(D)	16
2033	Canned fruits and vegetables	4.3	.2	2.8	1.3	21
2035	Pickles, sauces, and salad dressings	2.8	(D)	2.2	(D)	43
2037	Frozen fruits and vegetables	17.3	.7	14.0	2.5	4
2038	Frozen specialties, n.e.c.	2.7	.3	2.0	.4	15
204	Grain mill products	56.6	38.3	14.5	3.8	5
2041	Flour and other grain mill products	3.6	3.2	.4		66
2043	Cereal breakfast foods	(D)	10.4	(D)	.6	(X)
2046	Wet corn milling	31.0	22.9	(D)	(D)	2
2047	Dog and cat food	(D)	.7	1.3	.2	(X)
2048	Prepared feeds, n.e.c.	2.1	.9	1.0		48
205	Bakery products	11.0	7.9	2.8	.3	33
2051	Bread, cake, and related products	6.5	5.5	.9	(Z)	50
2052	Cookies and crackers	3.9	2.4	1.2	.3	35
206	Sugar and confectionery products	17.6	5.8	10.2	1.5	18
2061	Raw cane sugar	1.0	1.0	.1	(Z)	61
2063	Beet sugar	6.8	(D)	4.7	(D)	31
2064	Candy and other confectionery products	4.6	(D)	4.0	(D)	32
2066	Chocolate and cocoa products	1.0	(D)	(D)	(Z)	21
2068	Salted and roasted nuts and seeds	2.6	(D)	(D)	(Z)	69
207	Fats and oils	12.9	10.5	1.6	.8	27
2074	Cottonseed oil mills	2.9	2.8	.1	.7	91
2075	Soybean oil mills	6.7	5.0	1.0		21
2077	Animal and marine fats and oils	1.6	1.6			98
2079	Edible fats and oils, n.e.c.	1.6	1.1	.4	.1	25
208	Beverages	24.5	2.8	9.4	12.3	31
2082	Malt beverages	10.0	(D)	6.2	(D)	6
2084	Wines, brandy, and brandy spirits	9.7	(D)	.1	(D)	78
2086	Bottled and canned soft drinks	4.7	.1	2.9	1.7	28
209	Miscellaneous food and kindred products	19.1	2.5	13.2	3.4	40
2092	Fresh or frozen prepared fish	1.5	.2	1.3	.1	45
2095	Roasted coffee	(D)	(D)	(D)	(D)	(X)
2096	Potato chips and similar snacks	(D)	(D)	(D)	(D)	(X)
2099	Food preparations, n.e.c.	11.5	1.1	7.5	2.9	66
21	Tobacco products	17.8	16.7	(D)	(D)	26
211	Cigarettes	16.7	16.4	(D)	(D)	28
2111	Cigarettes	16.7	16.4	(D)	(D)	28
22	Textile mill products	39.9	15.6	15.6	8.6	9
221	Broadwoven fabrics mills, cotton	7.6	4.4	2.9	.3	27
2211	Broadwoven fabrics mills, cotton	7.6	4.4	2.9	.3	27
222	Broadwoven fabrics mills, manmade fiber and silk	6.9	.9	4.3	1.7	23
2221	Broadwoven fabrics mills, manmade fiber and silk	6.9	.9	4.3	1.7	23
225	Knitting mills	5.6	3.6	1.1	.9	33
2257	Welf knit fabrics mills	3.1	1.9	.4	.8	58
2258	Lace and warp knit fabrics mills	2.1	1.7	.3	.1	21
226	Textile finishing, except wool	8.6	5.1	(D)	(D)	19
2261	Finishing plants, cotton	4.7	2.5	1.9	.3	29
2262	Finishing plants, manmade	3.9	2.6	(D)	(D)	23
227	Carpets and rugs	1.6	.2	.4	1.0	15
2273	Carpets and rugs	1.6	.2	.4	1.0	15
228	Yarn and thread mills	4.0	.4	(D)	(D)	12
2281	Yarn spinning mills	3.7	.4	(D)	(D)	13
229	Miscellaneous textile goods	4.7	.8	.7	3.2	12
2297	Nonwoven fabrics	3.9	.4	.5	3.0	12
24	Lumber and wood products	74.0	51.5	13.0	9.5	14
241	Logging	(D)	(Z)	(D)	(D)	(X)
2411	Logging	(D)	(Z)	(D)	(D)	(X)
242	Sawmills and planing mills	14.9	8.7	3.0	3.1	4
2421	Sawmills and planing mills, general	13.7	8.2	3.0	2.5	4
2426	Hardwood dimension and flooring mills	1.2	.6	(Z)	.6	21
243	Millwork, plywood, and structural members	20.0	15.5	1.7	2.9	19
2431	Millwork	7.4	7.2	(D)	(D)	35
2434	Wood kitchen cabinets	2.8	1.7	(Z)	(D)	57
2436	Softwood veneer and plywood	7.0	5.2	(D)	(D)	26
2439	Structural wood members, n.e.c.	2.6	1.3		1.3	59
249	Miscellaneous wood products	(D)	26.8	(D)	(D)	(X)
2491	Wood preserving	5.9	.7	4.4	.8	36
2493	Reconstituted wood products	21.0	16.7	2.8	1.5	1
2499	Wood products, n.e.c.	(D)	9.4	(D)	(D)	(X)

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
25	Furniture and fixtures	39.7	17.4	1.9	20.3	6
251	Household furniture	25.3	8.5	(D)	(D)	6
2511	Wood household furniture	24.6	8.2	(D)	(D)	6
252	Office furniture	8.9	(D)	(D)	3.5	16
2522	Office furniture, except wood	8.5	(D)	(D)	3.4	17
254	Partitions and fixtures	4.2	(D)	(D)	(D)	28
2541	Wood partitions and fixtures	1.9	1.8	(Z)	.1	62
2542	Partitions and fixtures, except wood	2.3	(D)	(D)	(D)	5
26	Paper and allied products	715.6	307.3	289.2	119.2	5
261	Pulp mills	117.8	71.2	34.3	12.2	8
2611	Pulp mills	117.8	71.2	34.3	12.2	8
262	Paper mills	387.3	143.8	170.0	73.5	8
2621	Paper mills	387.3	143.8	170.0	73.5	8
263	Paperboard mills	161.7	74.7	69.3	17.7	7
2631	Paperboard mills	161.7	74.7	69.3	17.7	7
265	Paperboard containers and boxes	16.2	3.5	5.0	7.6	35
2653	Corrugated and solid fiber boxes	10.8	-	4.0	6.8	49
2655	Fiber cans, drums, and similar products	1.2	1.0	-	.2	97
2657	Folding paperboard boxes	3.5	2.1	1.0	.4	32
267	Miscellaneous converted paper products	32.7	14.1	10.5	8.1	15
2671	Paper coated and laminated, packaging	5.5	4.9	.3	.3	67
2672	Paper coated and laminated, n.e.c.	4.2	(D)	(D)	.5	10
2673	Bags, plastics, laminated, and coated	6.0	1.0	-	3.4	28
2674	Bags, uncoated paper and multiwall	2.5	-	1.2	1.4	81
2676	Sanitary paper products	11.5	(D)	(D)	1.0	5
2679	Converted paper products, n.e.c.	2.7	1.1	.4	1.3	47
27	Printing and publishing	38.4	28.3	3.9	6.2	19
271	Newspapers	1.7	(Z)	1.5	.2	49
2711	Newspapers	1.7	(Z)	1.5	.2	49
272	Periodicals	1.6	1.6	-	-	88
2721	Periodicals	1.6	1.6	-	-	88
273	Books	1.4	(D)	(Z)	(D)	4
2732	Book printing	1.4	(D)	(Z)	(D)	4
275	Commercial printing	31.0	24.9	1.3	4.8	23
2752	Commercial printing, lithographic	22.1	17.8	.8	3.6	25
2754	Commercial printing, gravure	2.3	1.4	.2	.7	35
2759	Commercial printing, n.e.c.	6.6	5.8	.3	.5	65
279	Printing trade services	1.0	(D)	.8	(D)	35
2796	Platemaking services	1.0	(D)	.8	(D)	35
28	Chemicals and allied products	1 957.9	767.5	937.9	252.5	3
281	Industrial inorganic chemicals	199.1	80.3	72.4	46.4	6
2812	Alkalies and chlorine	38.3	18.9	(D)	(D)	7
2813	Industrial gases	1.2	(D)	(D)	(Z)	-
2816	Inorganic pigments	38.0	(D)	(D)	(D)	2
2819	Industrial inorganic chemicals, n.e.c.	121.6	55.4	30.1	36.0	10
282	Plastics materials and synthetics	352.4	192.3	128.9	31.2	7
2821	Plastics materials and resins	179.7	88.4	74.6	16.6	13
2822	Synthetic rubber	44.4	22.4	10.8	11.2	4
2823	Cellulosic manmade fibers	(D)	(D)	(D)	(D)	(X)
2824	Organic fibers, noncellulosic	(D)	(D)	(D)	(D)	(X)
283	Drugs	181.9	96.3	64.0	21.6	3
2833	Medicinals and botanicals	(D)	(D)	(D)	(D)	(X)
2834	Pharmaceutical preparations	104.2	64.7	34.0	5.6	5
2836	Biological products, except diagnostic	(D)	(D)	(D)	(D)	(X)
284	Soaps, cleaners, and toilet goods	47.0	15.0	26.4	5.6	8
2841	Soap and other detergents	19.8	4.4	14.9	.5	5
2842	Polishes and sanitation goods	4.7	.3	1.5	2.9	60
2843	Surface active agents	17.1	9.4	6.6	1.1	8
2844	Toilet preparations	5.4	.9	3.4	1.0	17
285	Paints and allied products	26.4	12.9	8.1	5.4	28
2851	Paints and allied products	26.4	12.9	8.1	5.4	28
286	Industrial organic chemicals	995.8	336.5	545.3	114.0	4
2861	Gum and wood chemicals	11.5	1.5	(D)	(D)	3
2865	Cyclic crudes and intermediates	111.2	56.0	(D)	(D)	12
2869	Industrial organic chemicals, n.e.c.	873.1	279.0	487.6	106.4	5
287	Agricultural chemicals	112.0	16.1	75.3	20.5	1
2873	Nitrogenous fertilizers	7.6	(D)	2.9	(D)	9
2874	Phosphatic fertilizers	45.5	6.6	33.4	5.6	1
2875	Fertilizers, mixing only	1.0	.6	.4	-	19
2879	Agricultural chemicals, n.e.c.	57.8	(D)	38.7	(D)	2
289	Miscellaneous chemical products	43.5	18.1	17.5	7.9	13
2891	Adhesives and sealants	16.9	5.2	7.8	3.8	33
2892	Explosives	4.3	2.8	.9	.6	13
2899	Chemical preparations, n.e.c.	21.1	9.3	8.4	3.4	3
29	Petroleum and coal products	2 648.5	1 974.7	567.2	106.6	5
291	Petroleum refining	2 637.4	1 969.6	562.1	105.8	5
2911	Petroleum refining	2 637.4	1 969.6	562.1	105.8	5
295	Asphalt paving and roofing materials	4.8	3.6	.6	.6	14
2952	Asphalt felts and coatings	3.8	2.8	.5	.5	9
299	Miscellaneous petroleum and coal products	6.3	1.6	4.5	.2	14
2992	Lubricating oils and greases	4.5	.4	3.8	.2	19
2999	Petroleum and coal products, n.e.c.	1.9	1.1	.7	(Z)	9

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
30	Rubber and miscellaneous plastics products	63.3	44.0	11.6	7.6	12
301	Tires and inner tubes	3.4	2.2	.8	.4	9
3011	Tires and inner tubes	3.4	2.2	.8	.4	9
305	Hose and belting and gaskets and packing	3.6	2.2	(D)	(D)	20
3052	Rubber and plastics hose and belting	2.7	1.6	(D)	(D)	25
306	Fabricated rubber products, n.e.c.	12.0	7.8	(D)	(D)	38
3061	Mechanical rubber goods	2.6	1.7	.4	.4	8
3069	Fabricated rubber products, n.e.c.	9.4	6.1	(D)	(D)	49
308	Miscellaneous plastics products, n.e.c.	44.1	31.7	7.1	5.3	14
3081	Unsupported plastics film and sheet	11.6	7.9	2.7	1.0	7
3083	Laminated plastics plate, sheet, and profile shapes	7.0	6.9	.1	(Z)	68
3086	Plastics foam products	5.4	4.8	.5	.1	26
3087	Custom compounding of purchased plastics resins	5.7	3.7	1.2	.9	26
3089	Plastics products, n.e.c.	13.4	8.1	2.3	3.0	21
31	Leather and leather products	18.1	1.6	15.7	.8	13
311	Leather tanning and finishing	17.1	1.2	15.5	.4	13
3111	Leather tanning and finishing	17.1	1.2	15.5	.4	13
32	Stone, clay, and glass products	118.1	83.2	16.1	18.7	6
321	Flat glass	(D)	1.0	(Z)	(D)	(X)
3211	Flat glass	(D)	1.0	(Z)	(D)	(X)
322	Glass and glassware, pressed or blown	39.1	29.3	(D)	(D)	5
3221	Glass containers	19.5	(D)	2.2	(D)	3
3229	Pressed and blown glass, n.e.c.	19.6	(D)	(D)	(D)	10
323	Products of purchased glass	2.4	1.3	(D)	(D)	8
3231	Products of purchased glass	2.4	1.3	(D)	(D)	8
324	Cement, hydraulic	26.0	22.4	1.2	2.4	8
3241	Cement, hydraulic	26.0	22.4	1.2	2.4	8
325	Structural clay products	5.7	4.6	.8	.3	21
3251	Brick and structural clay tile	2.3	1.8	.5	(Z)	13
3253	Ceramic wall and floor tile	1.9	1.5	.3	.2	32
3259	Structural clay products, n.e.c.	1.2	1.2	-	-	82
326	Pottery and related products	(D)	.9	2.6	(D)	(X)
3261	Vitreous plumbing fixtures	(D)	.1	(D)	(Z)	(X)
3264	Porcelain electrical supplies	1.6	.6	(D)	(D)	10
327	Concrete, gypsum, and plaster products	7.7	2.6	1.7	3.4	22
3272	Concrete products, n.e.c.	1.3	.1	1.0	.2	59
3273	Ready-mixed concrete	.9	.2	.2	2.0	44
3275	Gypsum products	2.8	1.4	.3	1.1	18
329	Miscellaneous nonmetallic mineral products	27.0	21.1	2.6	3.3	20
3291	Abrasive products	7.2	5.9	(D)	(D)	28
3295	Minerals, ground or treated	5.5	4.8	.7	-	73
3296	Mineral wool	12.1	8.8	1.0	2.3	23
3297	Nonclay refractories	1.3	.9	(D)	(D)	35
33	Primary metal industries	442.2	280.7	92.0	69.5	7
331	Blast furnace and basic steel products	231.2	148.0	37.3	45.9	13
3312	Blast furnaces and steel mills	211.3	138.9	30.2	42.3	14
3313	Electrometallurgical products	9.6	7.2	.8	1.6	38
3315	Steel wire and related products	3.2	.7	1.7	.7	37
3316	Cold finishing of steel shapes	1.5	.3	1.1	.1	7
3317	Steel pipe and tubes	5.6	.9	3.5	1.2	24
332	Iron and steel foundries	50.9	37.8	6.2	6.9	12
3321	Gray and ductile iron foundries	41.3	33.3	4.8	3.2	13
3324	Steel investment foundries	1.7	1.0	.5	.2	16
3325	Steel foundries, n.e.c.	7.6	3.2	.9	3.5	36
333	Primary nonferrous metals	82.5	53.4	19.7	9.3	2
3331	Primary copper	(D)	(D)	(D)	(D)	(X)
3334	Primary aluminum	32.1	18.6	7.8	5.7	2
3339	Primary nonferrous metals, n.e.c.	(D)	(D)	(D)	(D)	(X)
334	Secondary nonferrous metals	18.1	15.4	2.3	.4	30
3341	Secondary nonferrous metals	18.1	15.4	2.3	.4	30
335	Nonferrous rolling and drawing	47.7	20.8	21.7	5.1	11
3351	Copper rolling and drawing	5.0	2.3	2.4	.2	12
3353	Aluminum sheet, plate, and foil	31.5	14.9	14.8	1.7	14
3354	Aluminum extruded products	4.1	.3	2.6	1.2	40
3355	Aluminum rolling and drawing, n.e.c.	(D)	(D)	(D)	-	(X)
3356	Nonferrous rolling and drawing, n.e.c.	(D)	(D)	(D)	.3	(X)
3357	Nonferrous wire drawing and insulating	3.7	1.1	.9	1.7	26
336	Nonferrous foundries (castings)	5.9	1.6	2.5	1.7	12
3363	Aluminum die-castings	3.1	(D)	1.4	(D)	9
3364	Nonferrous die-castings, except aluminum	1.8	(D)	1.0	(D)	34
339	Miscellaneous primary metal products	5.9	3.6	2.1	.2	2
3398	Metal heat treating	1.0	.5	(D)	(D)	10
3399	Primary metal products, n.e.c.	4.9	3.1	(D)	(D)	1
34	Fabricated metal products	102.9	44.8	39.3	18.9	7
341	Metal cans and shipping containers	11.7	9.2	(D)	(D)	12
3411	Metal cans	8.6	6.4	(D)	(D)	9
3412	Metal barrels, drums, and pails	3.1	2.8	(D)	(D)	37
342	Cutlery, handtools, and hardware	14.7	3.8	4.1	6.7	10
3421	Cutlery	4.7	1.0	(D)	(D)	17
3423	Hand and edge tools, n.e.c.	3.1	2.0	.6	.6	33
3429	Hardware, n.e.c.	6.6	.9	(D)	(D)	7

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
34	Fabricated metal products—Con.	3.1	.8	1.2	1.1	28
343	Plumbing and heating, except electric	1.3	.3	.9	.1	67
3431	Metal sanitary ware	1.3	.3	.3	.7	5
3432	Plumbing fixture fittings and trim	4.6	1.9	1.9	.8	31
344	Fabricated structural metal products	1.7	.4	.7	.6	47
3443	Fabricated plate work (boiler shops)	1.6	1.0	1.1	(Z)	60
3444	Sheet metal work	1.1	1.0	(Z)	.1	59
3449	Miscellaneous metal work	6.4	3.1	1.8	1.5	24
345	Screw machine products, bolts, etc.	1.7	.3	.4	1.0	54
3451	Screw machine products	4.7	2.8	1.4	.5	25
3452	Bolts, nuts, rivets, and washers	13.8	3.2	(D)	(D)	29
346	Metal forgings and stampings	6.7	1.4	5.3	(D)	51
3462	Iron and steel forgings	1.0	.4	(D)	(D)	28
3463	Nonferrous forgings	3.2	.5	2.1	.6	50
3465	Automotive stampings	2.8	1.0	1.7	.2	49
3469	Metal stampings, n.e.c.	26.1	13.3	11.1	1.7	15
347	Metal services, n.e.c.	10.9	5.1	4.6	1.2	19
3471	Plating and polishing	15.2	8.2	6.5	.5	22
3479	Metal coating and allied services	9.2	1.7	5.6	2.0	10
348	Ordnance and accessories, n.e.c.	1.5	(D)	(D)	(D)	37
3482	Small arms ammunition	3.2	.6	2.2	.4	18
3483	Ammunition, except for small arms, n.e.c.	1.4	.2	.7	(D)	36
3484	Small arms	3.2	(D)	(D)	(D)	-
3489	Ordnance and accessories, n.e.c.	13.3	7.7	3.5	2.1	19
349	Miscellaneous fabricated metal products	2.0	1.3	.3	.5	26
3491	Industrial valves	2.6	1.7	.3	-	45
3494	Valves and pipe fittings, n.e.c.	2.2	1.1	1.1	-	66
3495	Wire springs	2.7	2.7	-	-	42
3497	Metal foil and leaf	1.1	.1	1.1	(Z)	70
3498	Fabricated pipe and fittings	1.7	.5	-	(Z)	55
3499	Fabricated metal products, n.e.c.	105.0	65.7	20.2	19.1	8
35	Industrial machinery and equipment	8.3	1.9	4.3	2.1	15
351	Engines and turbines	5.0	1.1	(D)	(D)	11
3511	Turbines and turbine generator sets	3.3	.8	(D)	(D)	34
3519	Internal combustion engines, n.e.c.	9.0	3.2	2.0	3.9	12
352	Farm and garden machinery	3.8	.4	(D)	(D)	5
3523	Farm machinery and equipment	5.2	2.8	(D)	(D)	19
3524	Lawn and garden equipment	10.0	6.7	2.0	1.3	12
353	Construction and related machinery	8.1	5.5	2.0	.6	13
3531	Construction machinery	7.5	2.9	2.3	2.2	34
354	Metalworking machinery	1.5	1.0	-	.5	90
3544	Special dies, tools, jigs, and fixtures	2.9	.5	2.1	.3	58
3546	Power-driven handtools	1.8	.5	.1	1.2	65
3549	Welding apparatus	2.8	1.5	.6	.7	22
355	Special industry machinery	1.0	.8	.3	(Z)	23
3559	Special industry machinery, n.e.c.	4.6	1.3	2.1	1.2	18
356	General industrial machinery	1.8	.3	1.2	.4	39
3562	Ball and roller bearings	12.1	7.1	1.3	3.8	43
357	Computer and office equipment	1.5	(D)	(D)	(Z)	41
3571	Electronic computers	2.9	(D)	(D)	2.3	11
3572	Computer storage devices	1.8	(D)	.3	(D)	49
3577	Computer peripheral equipment, n.e.c.	5.9	5.1	(D)	(D)	85
3579	Office machines, n.e.c.	37.8	32.7	3.5	1.6	7
358	Refrigeration and service machinery	36.7	32.1	3.1	1.5	7
3585	Refrigeration and heating equipment	13.0	8.4	2.2	2.3	38
359	Industrial machinery, n.e.c.	3.3	1.2	.9	1.1	77
3593	Fluid power cylinders and actuators	8.6	6.3	1.2	1.1	48
3599	Industrial machinery, n.e.c.	176.7	92.7	67.9	16.2	13
36	Electronic and other electric equipment	3.4	.8	1.6	1.0	17
361	Electric distribution equipment	2.5	.4	1.1	1.0	23
3613	Switchgear and switchboard apparatus	4.6	2.1	1.7	.9	14
362	Electrical industrial apparatus	2.0	1.2	.4	.5	17
3621	Motors and generators	2.0	.7	1.1	.2	22
3625	Relays and industrial controls	7.7	2.9	3.0	1.9	10
363	Household appliances	2.7	(D)	(D)	.3	5
3632	Household refrigerators and freezers	1.9	(D)	(D)	.7	8
3633	Household laundry equipment	1.1	.9	.2	(Z)	42
3639	Household appliances, n.e.c.	8.2	3.0	4.7	.4	21
364	Electric lighting and wiring equipment	2.8	1.2	1.6	(Z)	37
3643	Current-carrying wiring devices	2.8	.2	2.6	(Z)	28
3644	Noncurrent-carrying wiring devices	1.4	1.1	.5	.3	65
3646	Commercial lighting fixtures	1.0	.4	.5	.1	68
3648	Lighting equipment, n.e.c.	(D)	(D)	(D)	(D)	(X)
365	Household audio and video equipment	(D)	(D)	(D)	(D)	(X)
3651	Household audio and video equipment	11.9	4.9	6.6	.4	11
366	Communications equipment	1.9	(D)	(D)	(Z)	35
3661	Telephone and telegraph apparatus	10.0	(D)	(D)	.4	11
3663	Radio and television communications equipment	122.1	71.1	42.2	8.7	19
367	Electronic components and accessories	(D)	(D)	(D)	(D)	(X)
3671	Electron tubes	11.8	9.9	9.1	1.8	17
3672	Printed circuit boards	86.2	50.7	31.2	4.3	22
3674	Semiconductors and related devices	1.1	(D)	(D)	.6	45
3675	Electronic capacitors	(D)	(D)	(D)	(D)	(X)
3676	Electronic resistors	17.6	15.2	(D)	(D)	66
3679	Electronic components, n.e.c.					

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
36	Electronic and other electric equipment— Con.				(D)	(X)
369	Miscellaneous electrical equipment and supplies	(D) 10.7	(D) 4.2	(D) 6.4	(D) .1	33 (X)
3691	Storage batteries	(D)	(D)	(D)	(D)	22
3692	Primary batteries, dry and wet	3.4	2.6	.1		
3695	Magnetic and optical recording media				31.8	7
		277.6	178.7	67.1		
37	Transportation equipment					
		178.8	133.7	27.6	17.5	10
371	Motor vehicles and equipment	125.0	114.5	3.6	6.8	9
3711	Motor vehicles and car bodies	(D)	4.3	(D)	1.3	(X)
3713	Truck and bus bodies	46.1	(D)	(Z)	9.3	27
3714	Motor vehicle parts and accessories	(D)	(D)	(D)	-	(X)
3715	Truck trailers					
		44.2	14.1	21.9	8.2	13
372	Aircraft and parts	16.4	(D)	5.8	(D)	5
3721	Aircraft	18.1	2.6	11.6	3.9	29
3724	Aircraft engines and engine parts	9.7	(D)	4.5	(D)	12
3728	Aircraft parts and equipment, n.e.c.					
		6.5	.8	5.1	.6	48
373	Ship and boat building and repairing	5.9	.6	4.8	.5	53
3731	Ship building and repairing					
		(D)	(D)	.3	(D)	(X)
374	Railroad equipment	(D)	(D)	(D)	.2	(X)
3743	Railroad equipment	(D)	(D)	(D)	.2	(X)
375	Motorcycles, bicycles, and parts	(D)	(D)	(D)		
3751	Motorcycles, bicycles, and parts				.7	16
		22.3	14.4	7.1	.4	4
376	Guided missiles, space vehicles, parts	12.7	7.5	4.9	.3	20
3761	Guided missiles and space vehicles	4.1	3.1	.7	(Z)	62
3764	Space propulsion units and parts	5.5	3.8	1.6		
3769	Space vehicle equipment, n.e.c.					
		(D)	(D)	(D)	(D)	(X)
379	Miscellaneous transportation equipment	(D)	(D)	(D)	(D)	(X)
3799	Transportation equipment, n.e.c.					
		105.0	65.1	19.2	20.7	20
38	Instruments and related products					
		10.0	7.0	1.9	1.2	16
381	Search and navigation equipment	10.0	7.0	1.9	1.2	20
3812	Search and navigation equipment					
		12.7	7.4	3.3	2.1	44
382	Measuring and controlling devices	2.1	1.1	.5	.6	19
3823	Process control instruments	1.7	.7	.9	(Z)	30
3824	Fluid meters and counting devices	1.4	.8	.4	.2	80
3825	Instruments to measure electricity	2.0	1.7	.3	(Z)	43
3826	Analytical instruments	3.5	1.8	1.2	.6	
3829	Measuring and controlling devices, n.e.c.					
		12.4	7.9	3.0	1.5	31
384	Medical instruments and supplies	(D)	(D)	1.9	(D)	(X)
3841	Surgical and medical instruments	7.6	6.1	.3	1.2	45
3842	Surgical appliances and supplies	1.4	.6	.8	(Z)	46
3844	X-ray apparatus and tubes	(D)	(D)	(Z)	(D)	(X)
3845	Electromedical equipment					
		2.8	2.4	.2	.1	4
385	Ophthalmic goods	2.8	2.4	.2	.1	4
3851	Ophthalmic goods					
		67.0	40.5	10.7	15.8	31
386	Photographic equipment and supplies	67.0	40.5	10.7	15.8	31
3861	Photographic equipment and supplies					
		17.2	12.4	(D)	(D)	7
39	Miscellaneous manufacturing industries					
		1.2	.6	.6	(Z)	22
391	Jewelry, silverware, and plated ware					
		3.5	2.0	.7	.8	30
394	Toys and sporting goods	2.5	1.5	.6	.4	38
3949	Sporting and athletic goods, n.e.c.					
		1.3	1.0	.2	.1	11
395	Pens, pencils, office, and art supplies					
		10.3	8.6	(D)	(D)	3
399	Miscellaneous manufactures	(D)	(D)	(D)	(D)	(X)
3995	Burial caskets	(D)	(D)	(D)	(D)	(X)
3996	Hard surface floor coverings, n.e.c.					

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 4a. Capital Expenditures by Major Groups for the Media Air: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Major group	Air								Standard error of estimate (PACE) (percent)
		Total PACE	Type of pollutant abated					Abatement technique		
			Total	Hazardous	Nonhazardous			End of line	Production process enhancements	
					Total	Particulates, etc. ¹	Other			
	All industries²	7 177.9	4 122.0	1 068.8	3 053.2	2 691.1	382.9	1 798.0	2 324.0	2
20	Food and kindred products	219.9	73.9	6.8	67.1	54.1	13.0	54.7	19.2	7
21	Tobacco products	17.8	16.7	-	16.7	(D)	(D)	3.9	12.8	26
22	Textile mill products	39.9	15.6	1.0	14.6	10.8	3.9	11.4	4.2	9
24	Lumber and wood products	74.0	51.5	2.9	48.5	27.7	20.8	40.6	10.8	14
25	Furniture and fixtures	39.7	17.4	1.2	16.2	10.4	5.8	9.8	7.7	6
26	Paper and allied products	715.6	307.3	62.7	244.6	175.0	70.0	124.2	183.1	5
27	Printing and publishing	38.4	28.3	6.8	21.5	15.3	6.2	21.0	7.3	19
28	Chemicals and allied products	1 957.9	767.5	336.7	430.8	333.9	97.1	465.9	301.6	3
29	Petroleum and coal products	2 648.5	1 974.7	431.6	1 543.1	1 515.4	27.7	548.3	1 426.5	5
30	Rubber and miscellaneous plastics products	63.3	44.0	13.2	30.9	24.6	6.2	24.7	19.3	12
31	Leather and leather products	18.1	1.6	.1	1.5	1.2	.3	.6	1.0	13
32	Stone, clay, and glass products	118.1	83.2	11.5	71.8	62.8	9.0	38.6	44.6	6
33	Primary metal industries	442.2	280.7	62.2	218.5	197.1	21.8	241.9	38.9	7
34	Fabricated metal products	102.9	44.8	11.1	33.7	28.0	5.7	20.9	23.8	7
35	Industrial machinery and equipment	105.0	65.7	10.8	54.9	28.0	26.9	11.5	54.1	8
36	Electronic and other electric equipment	176.7	92.7	47.1	45.6	34.8	10.8	66.3	26.4	13
37	Transportation equipment	277.6	178.7	32.2	146.5	129.6	17.0	74.8	103.9	7
38	Instruments and related products	105.0	65.1	30.0	35.2	28.1	7.1	28.7	36.4	20
39	Miscellaneous manufacturing industries	17.2	12.4	.9	11.5	(D)	(D)	10.1	2.3	7

¹Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead.

²Excludes Major Group 23, Apparel and Other Textile Products.

Table 4b. Capital Expenditures by Major Groups for the Media Water: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Major group	Water						Standard error of estimate (PACE) (percent)	
		Total PACE	Type of pollutant abated				Abatement technique		
			Total	Hazardous	Nonhazardous		End of line		Production process enhancements
					Total	Particulates, etc. ¹				Other
	All industries¹	7 177.9	2 294.9	902.2	1 397.8	1 678.1	616.8	2	
20	Food and kindred products	219.9	113.6	14.6	99.0	95.2	18.4	7	
21	Tobacco products	17.8	(D)	-	(D)	(D)	(D)	26	
22	Textile mill products	39.9	15.6	1.0	14.6	10.8	4.8	9	
24	Lumber and wood products	74.0	13.0	3.5	9.4	9.1	3.8	14	
25	Furniture and fixtures	39.7	1.9	.9	1.1	1.4	.5	6	
26	Paper and allied products	715.6	289.2	26.8	262.4	138.6	150.5	5	
27	Printing and publishing	38.4	3.9	2.5	1.3	2.9	1.0	19	
28	Chemicals and allied products	1 957.9	937.9	443.6	499.4	721.6	216.3	3	
29	Petroleum and coal products	2 648.5	567.2	276.5	290.7	443.2	124.0	5	
30	Rubber and miscellaneous plastics products	63.3	11.6	4.1	7.5	7.2	4.4	12	
31	Leather and leather products	18.1	15.7	.2	15.5	15.1	.6	13	
32	Stone, clay, and glass products	118.1	16.1	2.0	14.1	9.6	6.5	6	
33	Primary metal industries	442.2	92.0	28.5	63.4	73.6	18.3	7	
34	Fabricated metal products	102.9	39.3	15.1	24.2	17.8	21.5	7	
35	Industrial machinery and equipment	105.0	20.2	5.5	14.7	14.6	5.6	8	
36	Electronic and other electric equipment	176.7	67.9	36.0	31.9	49.0	18.9	13	
37	Transportation equipment	277.6	67.1	29.1	38.0	51.7	15.4	7	
38	Instruments and related products	105.0	19.2	11.0	8.2	14.0	5.2	20	
39	Miscellaneous manufacturing industries	17.2	(D)	1.4	(D)	(D)	(D)	7	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 4c. Capital Expenditures by Major Groups for the Media Solid/Contained Waste: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Major group	Total PACE	Solid/contained waste					Standard error of estimate (PACE) (percent)
			Total	Type of pollutant abated		Abatement technique		
				Hazardous	Nonhazardous	End of line	Production process enhancements	
	All Industries¹	7 177.9	761.0	278.8	482.1	453.6	307.3	2
20	Food and kindred products	219.9	32.4	.8	31.6	12.6	19.8	7
21	Tobacco products	17.8	(D)	-	(D)	(D)	-	26
22	Textile mill products	39.9	8.6	.5	8.1	4.5	4.1	9
24	Lumber and wood products	74.0	9.5	1.2	8.3	6.4	3.1	14
25	Furniture and fixtures	39.7	20.3	1.6	18.7	2.2	18.2	6
26	Paper and allied products	715.6	119.2	10.5	108.7	85.3	33.9	5
27	Printing and publishing	38.4	6.2	1.3	4.9	4.3	1.9	19
28	Chemicals and allied products	1 957.9	252.5	105.2	147.3	189.2	63.3	3
29	Petroleum and coal products	2 648.5	106.6	80.8	25.8	56.5	50.1	5
30	Rubber and miscellaneous plastics products	63.3	7.6	2.1	5.6	3.5	4.1	12
31	Leather and leather products	18.1	.8	.1	.7	.5	.4	13
32	Stone, clay, and glass products	118.1	18.7	5.8	12.9	4.1	14.6	6
33	Primary metal industries	442.2	69.5	15.2	54.3	31.6	37.9	7
34	Fabricated metal products	102.9	18.9	8.0	10.9	9.0	9.9	7
35	Industrial machinery and equipment	105.0	19.1	7.3	11.8	9.4	9.7	8
36	Electronic and other electric equipment	176.7	16.2	10.6	5.6	9.0	7.2	13
37	Transportation equipment	277.6	31.8	14.1	17.7	17.0	14.7	7
38	Instruments and related products	105.0	20.7	13.6	7.1	6.7	14.0	20
39	Miscellaneous manufacturing industries	17.2	(D)	.2	(D)	(D)	.6	7

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	United States¹	7 177.9	4 122.0	2 294.9	761.0	2
20	Food and kindred products	219.9	73.9	113.6	32.4	7
21	Tobacco products	17.8	16.7	(D)	(D)	26
22	Textile mill products	39.9	15.6	15.6	8.6	9
24	Lumber and wood products	74.0	51.5	13.0	9.5	14
25	Furniture and fixtures	39.7	17.4	1.9	20.3	6
26	Paper and allied products	715.6	307.3	289.2	119.2	5
27	Printing and publishing	38.4	28.3	3.9	6.2	19
28	Chemicals and allied products	1 957.9	767.5	937.9	252.5	3
29	Petroleum and coal products	2 648.5	1 974.7	567.2	106.6	5
30	Rubber and miscellaneous plastics products	63.3	44.0	11.6	7.6	12
31	Leather and leather products	18.1	1.6	15.7	.8	13
32	Stone, clay, and glass products	118.1	83.2	16.1	18.7	6
33	Primary metal industries	442.2	280.7	92.0	69.5	7
34	Fabricated metal products	102.9	44.8	39.3	18.9	7
35	Industrial machinery and equipment	105.0	65.7	20.2	19.1	8
36	Electronic and other electric equipment	176.7	92.7	67.9	16.2	13
37	Transportation equipment	277.6	178.7	67.1	31.8	7
38	Instruments and related products	105.0	65.1	19.2	20.7	20
39	Miscellaneous manufacturing industries	17.2	12.4	(D)	(D)	7
	Alabama	150.6	61.8	75.7	13.1	12
20	Food and kindred products	5.6	2.3	2.9	.4	50
22	Textile mill products	4.6	(Z)	3.3	1.3	24
24	Lumber and wood products	1.6	1.0	.4	.2	12
25	Furniture and fixtures	1.6	1.4	.1	.1	29
26	Paper and allied products	50.8	21.8	20.5	8.4	2
28	Chemicals and allied products	29.9	8.1	20.4	1.4	9
29	Petroleum and coal products	14.0	-	14.0	-	98
30	Rubber and miscellaneous plastics products	1.6	1.2	(D)	(D)	12
32	Stone, clay, and glass products	2.2	2.2	(Z)	-	54
33	Primary metal industries	32.9	21.0	(D)	(D)	31
34	Fabricated metal products	2.2	.6	1.5	.1	40
35	Industrial machinery and equipment	2.8	2.1	.1	.7	46
	Alaska	10.2	.9	8.4	.9	40
26	Paper and allied products	9.3	.6	7.8	.9	43
	Arizona	24.2	15.2	7.9	1.2	20
20	Food and kindred products	3.5	3.1	.2	.2	86
26	Paper and allied products	4.2	.7	3.5	-	45
27	Printing and publishing	1.6	1.5	.2	-	61
28	Chemicals and allied products	1.1	.1	1.0	-	44
33	Primary metal industries	(D)	1.2	(D)	-	(X)
34	Fabricated metal products	1.0	-	.9	(Z)	93
35	Industrial machinery and equipment	2.4	1.5	.9	-	91
36	Electronic and other electric equipment	2.6	(D)	(D)	(Z)	56
37	Transportation equipment	(D)	(D)	-	-	(X)
38	Instruments and related products	4.5	2.9	.8	.7	34

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	Arkansas	59.4	16.9	33.8	8.6	22
20	Food and kindred products	3.4	.7	2.5	.2	17
24	Lumber and wood products	(D)	2.2	(D)	.6	(X)
25	Furniture and fixtures	2.1	(D)	(D)	1.6	66
26	Paper and allied products	17.2	6.9	9.4	.8	36
27	Printing and publishing	(D)	(D)	(Z)	(Z)	(X)
28	Chemicals and allied products	27.1	3.8	18.6	4.7	41
29	Petroleum and coal products	1.1	.9	-	.2	83
33	Primary metal industries	1.5	.3	1.2	-	49
	California	955.2	802.4	114.6	38.2	7
20	Food and kindred products	24.5	5.6	7.2	11.7	34
24	Lumber and wood products	2.8	(D)	(D)	1.1	5
26	Paper and allied products	26.9	11.7	12.8	2.5	31
27	Printing and publishing	3.1	2.3	.5	.3	25
28	Chemicals and allied products	23.2	11.7	10.4	1.1	28
29	Petroleum and coal products	773.4	700.2	63.4	9.8	9
30	Rubber and miscellaneous plastics products	2.0	1.0	.3	.7	32
32	Stone, clay, and glass products	19.7	(D)	(D)	.5	4
33	Primary metal industries	5.1	2.0	2.3	.7	15
34	Fabricated metal products	14.2	9.5	3.3	1.3	15
35	Industrial machinery and equipment	4.6	1.0	.4	3.2	22
36	Electronic and other electric equipment	33.3	21.8	8.8	2.6	37
37	Transportation equipment	14.1	9.5	3.2	1.4	7
38	Instruments and related products	6.0	4.7	.7	.6	27
39	Miscellaneous manufacturing industries	1.1	.9	(Z)	.1	53
	Colorado	7.9	3.2	4.3	.5	16
20	Food and kindred products	(D)	(D)	(D)	(Z)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(Z)	(X)
35	Industrial machinery and equipment	1.0	.9	(Z)	.1	55
	Connecticut	23.1	4.3	14.4	4.4	7
26	Paper and allied products	(D)	(D)	1.3	-	(X)
28	Chemicals and allied products	9.3	1.3	(D)	(D)	6
34	Fabricated metal products	2.8	(D)	.7	(D)	(X)
35	Industrial machinery and equipment	(D)	(D)	(D)	(Z)	(X)
36	Electronic and other electric equipment	2.2	1.3	.8	1.8	36
37	Transportation equipment	2.7	(D)	(D)	1.8	10
	Delaware	94.8	84.8	3.3	6.7	22
28	Chemicals and allied products	12.0	4.8	1.7	5.6	32
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	1.3	.5	.9	-	84
37	Transportation equipment	(D)	(D)	(D)	(D)	(X)
	Florida	64.3	14.0	46.0	4.3	16
20	Food and kindred products	5.2	1.9	(D)	(D)	13
24	Lumber and wood products	(D)	(D)	-	(Z)	(X)
26	Paper and allied products	18.6	4.9	13.3	.4	4
28	Chemicals and allied products	29.7	1.9	26.5	1.3	34
32	Stone, clay, and glass products	1.1	.6	.3	.1	42
33	Primary metal industries	1.2	(Z)	.6	.6	69
36	Electronic and other electric equipment	1.5	.7	.6	.3	23
37	Transportation equipment	(D)	(D)	1.0	(D)	(X)
38	Instruments and related products	1.9	1.4	(D)	(D)	17
	Georgia	123.5	80.0	23.1	20.3	10
20	Food and kindred products	6.1	3.2	2.5	.4	22
22	Textile mill products	3.9	.9	.8	2.2	9
24	Lumber and wood products	5.1	3.7	.7	.7	11
26	Paper and allied products	56.3	40.4	2.7	13.3	19
27	Printing and publishing	7.1	7.0	-	.1	83
28	Chemicals and allied products	19.5	11.3	6.6	1.6	12
30	Rubber and miscellaneous plastics products	1.4	.2	1.2	(Z)	74
32	Stone, clay, and glass products	1.5	1.1	.1	.2	13
33	Primary metal industries	4.3	1.7	2.6	(Z)	35
34	Fabricated metal products	2.5	.8	1.4	.3	51
35	Industrial machinery and equipment	(D)	(D)	(D)	(Z)	(X)
37	Transportation equipment	(D)	(D)	(D)	1.2	(X)
	Hawaii	37.2	1.8	35.3	-	60
29	Petroleum and coal products	(D)	(D)	35.3	-	(X)
32	Stone, clay, and glass products	(D)	(D)	(Z)	-	(X)
	Idaho	37.2	15.1	19.3	2.0	21
20	Food and kindred products	13.4	.9	9.9	2.6	56
24	Lumber and wood products	(D)	(D)	(D)	.1	(X)
28	Chemicals and allied products	14.6	12.7	1.9	(Z)	-
36	Electronic and other electric equipment	(D)	(D)	(D)	-	(X)
	Illinois	295.7	221.1	53.9	20.7	3
20	Food and kindred products	12.9	4.7	5.9	2.3	5
26	Paper and allied products	4.4	2.0	(D)	(D)	19
27	Printing and publishing	2.6	1.8	.2	.5	27
28	Chemicals and allied products	36.7	16.2	17.5	3.0	7
29	Petroleum and coal products	173.9	150.5	22.0	1.4	3

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
Illinois—Con.						
30	Rubber and miscellaneous plastics products ----	3.3	2.9	.3	.1	57
32	Stone, clay, and glass products ----	(D)	(D)	.2	(D)	(X)
33	Primary metal industries ----	14.5	10.3	1.9	2.3	14
34	Fabricated metal products ----	6.9	3.2	(D)	(D)	19
35	Industrial machinery and equipment ----	8.9	7.0	.9	1.1	26
36	Electronic and other electric equipment ----	3.8	1.1	1.6	1.1	35
37	Transportation equipment ----	(D)	(D)	(D)	(D)	(X)
Indiana		286.7	209.2	55.5	22.0	5
20	Food and kindred products ----	5.0	2.3	(D)	(D)	6
24	Lumber and wood products ----	2.3	(D)	(D)	(Z)	88
26	Paper and allied products ----	2.3	.5	1.0	.8	72
28	Chemicals and allied products ----	(D)	13.1	(D)	3.2	(X)
29	Petroleum and coal products ----	(D)	(D)	1.8	(D)	(X)
30	Rubber and miscellaneous plastics products ----	2.8	1.6	.3	.9	30
32	Stone, clay, and glass products ----	6.4	(D)	.3	(D)	16
33	Primary metal industries ----	74.1	55.1	12.0	7.0	1
34	Fabricated metal products ----	7.7	3.1	3.9	.8	43
35	Industrial machinery and equipment ----	3.2	1.7	.6	1.0	78
36	Electronic and other electric equipment ----	4.8	3.3	.4	1.1	13
37	Transportation equipment ----	24.6	5.3	14.9	4.4	46
38	Instruments and related products ----	5.1	4.3	(Z)	.9	52
Iowa		39.6	26.1	8.8	4.8	6
20	Food and kindred products ----	22.9	(D)	4.4	(D)	4
28	Chemicals and allied products ----	2.6	1.8	.6	.2	9
32	Stone, clay, and glass products ----	1.3	.6	(Z)	.7	28
33	Primary metal industries ----	6.1	3.8	(D)	(D)	35
35	Industrial machinery and equipment ----	1.6	.4	.8	.3	6
36	Electronic and other electric equipment ----	2.1	(D)	(D)	.4	11
Kansas		93.8	61.0	24.7	8.0	43
28	Chemicals and allied products ----	6.9	4.6	1.1	1.2	11
29	Petroleum and coal products ----	76.4	51.5	19.3	5.6	52
32	Stone, clay, and glass products ----	1.4	(D)	(D)	.1	12
35	Industrial machinery and equipment ----	1.3	1.0	.1	.1	40
36	Electronic and other electric equipment ----	3.8	1.8	2.0	(Z)	60
37	Transportation equipment ----	1.5	(D)	(D)	.1	9
Kentucky		104.0	64.3	15.0	24.8	9
21	Tobacco products ----	(D)	(D)	-	-	(X)
26	Paper and allied products ----	2.6	(D)	1.6	(D)	23
28	Chemicals and allied products ----	45.5	18.5	7.2	19.8	17
29	Petroleum and coal products ----	(D)	(D)	(D)	-	(X)
30	Rubber and miscellaneous plastics products ----	(D)	(D)	.1	-	(X)
33	Primary metal industries ----	15.2	8.1	3.7	3.4	29
37	Transportation equipment ----	2.3	2.2	(Z)	(Z)	20
39	Miscellaneous manufacturing industries ----	1.2	.8	(D)	(D)	52
Louisiana		905.2	367.1	449.5	98.5	4
24	Lumber and wood products ----	3.3	1.0	1.8	.5	50
26	Paper and allied products ----	10.0	3.2	3.0	3.8	4
28	Chemicals and allied products ----	597.3	195.6	320.7	81.0	5
29	Petroleum and coal products ----	280.3	160.0	(D)	(D)	2
30	Rubber and miscellaneous plastics products ----	1.5	1.4	.1	-	61
32	Stone, clay, and glass products ----	1.5	-	.2	1.4	83
37	Transportation equipment ----	10.3	5.5	(D)	(D)	45
Maine		45.2	19.2	19.8	6.2	8
26	Paper and allied products ----	36.5	16.5	14.5	5.4	6
28	Chemicals and allied products ----	2.8	.1	2.7	-	87
34	Fabricated metal products ----	1.0	(Z)	.9	(Z)	83
35	Industrial machinery and equipment ----	.6	.6	-	-	82
36	Electronic and other electric equipment ----	(D)	(D)	(D)	(D)	(X)
37	Transportation equipment ----	(D)	(D)	(D)	(D)	(X)
Maryland		40.8	23.6	11.3	5.9	12
20	Food and kindred products ----	6.5	.9	5.4	.1	47
26	Paper and allied products ----	(D)	(D)	(D)	(D)	(X)
28	Chemicals and allied products ----	13.7	6.0	3.5	4.2	22
32	Stone, clay, and glass products ----	(D)	2.3	(D)	-	(X)
33	Primary metal industries ----	5.7	(D)	(D)	(D)	19
37	Transportation equipment ----	1.1	.6	.3	.3	67
Massachusetts		82.8	42.6	31.7	8.4	28
20	Food and kindred products ----	2.0	-	1.9	.1	62
22	Textile mill products ----	2.3	1.8	.5	.1	41
26	Paper and allied products ----	1.8	-	1.8	-	66
28	Chemicals and allied products ----	3.0	.8	2.1	.1	26
30	Rubber and miscellaneous plastics products ----	3.9	3.0	.4	.5	36
34	Fabricated metal products ----	7.8	1.3	6.5	(Z)	43
36	Electronic and other electric equipment ----	27.8	19.8	7.8	.2	65
38	Instruments and related products ----	30.8	14.7	9.1	7.1	42
Michigan		176.4	128.3	33.1	15.0	5
20	Food and kindred products ----	5.8	2.6	2.7	.4	16
24	Lumber and wood products ----	2.6	2.2	(D)	(D)	36
25	Furniture and fixtures ----	(D)	(D)	(Z)	(D)	(X)
26	Paper and allied products ----	3.3	1.7	1.4	.2	30
27	Printing and publishing ----	1.0	.7	-	.3	62

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
Michigan—Con.						
28	Chemicals and allied products	78.3	(D)	13.9	(D)	5
30	Rubber and miscellaneous plastics products	5.5	5.2	(Z)	.3	81
31	Leather and leather products	(D)	(Z)	(D)	(D)	(X)
32	Stone, clay, and glass products	1.3	1.1	(Z)	.2	25
33	Primary metal industries	15.3	11.0	3.7	.5	28
34	Fabricated metal products	10.9	3.8	1.3	5.2	18
35	Industrial machinery and equipment	2.4	(D)	.2	(D)	48
37	Transportation equipment	38.0	(D)	3.0	(D)	10
38	Instruments and related products	(D)	(D)	(D)	-	(X)
Minnesota		193.8	166.0	13.0	14.8	2
20	Food and kindred products	5.2	.4	3.5	1.3	30
24	Lumber and wood products	2.3	(D)	(D)	(D)	-
26	Paper and allied products	13.0	(D)	3.9	(D)	9
27	Printing and publishing	4.3	2.9	(Z)	1.3	53
28	Chemicals and allied products	(D)	(D)	.4	(D)	(X)
29	Petroleum and coal products	(D)	(D)	(D)	(Z)	(X)
32	Stone, clay, and glass products	(D)	.5	(Z)	.1	(X)
34	Fabricated metal products	1.2	.2	.2	.5	29
35	Industrial machinery and equipment	1.4	1.2	.2	(Z)	44
36	Electronic and other electric equipment	1.4	(D)	(D)	(Z)	20
37	Transportation equipment	(D)	(D)	(D)	(D)	(X)
38	Instruments and related products	1.3	(D)	-	(D)	8
Mississippi		78.8	38.2	35.3	5.4	6
20	Food and kindred products	(D)	(D)	(D)	(D)	(X)
24	Lumber and wood products	2.9	2.0	.7	.2	33
26	Paper and allied products	(D)	(D)	4.2	(D)	(X)
28	Chemicals and allied products	(D)	3.8	(D)	1.4	(X)
29	Petroleum and coal products	18.0	(D)	(D)	-	22
34	Fabricated metal products	(D)	(D)	-	-	(X)
35	Industrial machinery and equipment	2.0	(D)	(D)	(Z)	33
Missouri		45.9	24.6	13.3	8.1	11
20	Food and kindred products	3.9	(D)	(D)	.5	10
26	Paper and allied products	1.2	(D)	-	(D)	21
28	Chemicals and allied products	15.8	2.9	7.3	5.6	18
30	Rubber and miscellaneous plastics products	1.1	.8	-	.3	18
32	Stone, clay, and glass products	1.7	1.3	.1	.2	28
33	Primary metal industries	11.8	8.8	2.4	.6	24
34	Fabricated metal products	2.6	1.8	.6	.3	8
36	Electronic and other electric equipment	4.6	3.4	(D)	(D)	35
37	Transportation equipment	1.5	1.4	-	.1	77
Montana		18.3	(D)	(D)	(D)	43
28	Chemicals and allied products	(D)	(D)	.2	(D)	(X)
33	Primary metal industries	(D)	(D)	(D)	-	(X)
Nebraska		9.7	1.8	5.3	2.7	8
20	Food and kindred products	1.3	(D)	.7	(D)	4
28	Chemicals and allied products	(D)	(D)	(D)	-	(X)
31	Leather and leather products	(D)	-	(D)	-	(X)
35	Industrial machinery and equipment	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	1.0	.1	.9	-	52
Nevada		3.4	1.8	1.0	.6	29
32	Stone, clay, and glass products	1.7	1.6	.1	-	35
New Hampshire		53.4	(D)	7.1	(D)	10
26	Paper and allied products	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	1.6	.6	1.1	.7	63
37	Transportation equipment	(D)	.2	(D)	-	(X)
New Jersey		137.0	37.0	72.2	27.8	10
20	Food and kindred products	3.4	.1	(D)	(D)	11
26	Paper and allied products	5.3	1.8	1.2	2.3	49
28	Chemicals and allied products	98.0	17.5	57.4	23.0	14
29	Petroleum and coal products	12.7	3.4	(D)	(D)	20
30	Rubber and miscellaneous plastics products	1.7	1.3	.3	.1	30
32	Stone, clay, and glass products	2.6	1.7	(D)	(D)	46
33	Primary metal industries	4.3	4.2	.1	(Z)	1
34	Fabricated metal products	1.5	1.2	.2	.1	36
36	Electronic and other electric equipment	(D)	(D)	1.0	.2	(X)
39	Miscellaneous manufacturing industries	(D)	(D)	-	(Z)	(X)
New Mexico		78.7	68.2	(D)	(D)	60
29	Petroleum and coal products	52.5	52.5	-	-	90
33	Primary metal industries	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(X)
New York		129.8	72.1	32.0	25.7	14
20	Food and kindred products	5.2	.6	4.4	.2	23
26	Paper and allied products	24.1	5.2	11.0	7.9	30
28	Chemicals and allied products	19.8	(D)	6.5	(D)	16
30	Rubber and miscellaneous plastics products	1.2	.8	(D)	(D)	26
32	Stone, clay, and glass products	5.8	5.0	.5	.3	36
33	Primary metal industries	13.4	9.9	2.4	1.1	21
34	Fabricated metal products	3.0	1.3	.9	.9	34
35	Industrial machinery and equipment	21.5	(D)	(D)	1.0	2
36	Electronic and other electric equipment	3.5	1.2	2.0	.3	27
38	Instruments and related products	29.5	19.5	2.4	7.5	52
39	Miscellaneous manufacturing industries	1.7	(D)	.3	(D)	15

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	North Carolina	226.3	99.6	91.2	35.5	7
20	Food and kindred products	8.3	1.0	6.4	.8	22
21	Tobacco products	14.3	14.1	.2	(Z)	32
22	Textile mill products	12.1	8.0	2.5	1.6	22
24	Lumber and wood products	17.3	16.3	.5	.4	52
25	Furniture and fixtures	2.7	2.5	.2	.1	33
26	Paper and allied products	(D)	(D)	(D)	11.1	(X)
27	Printing and publishing	1.0	.5	(Z)	.5	66
28	Chemicals and allied products	55.2	20.7	22.2	12.3	9
30	Rubber and miscellaneous plastics products	7.8	6.8	.9	.1	61
32	Stone, clay, and glass products	(D)	.9	2.0	(D)	(X)
33	Primary metal industries	1.6	.5	.6	.5	32
34	Fabricated metal products	2.0	1.1	.6	.2	46
35	Industrial machinery and equipment	6.3	5.4	.8	.1	80
36	Electronic and other electric equipment	3.3	(D)	.3	(D)	15
37	Transportation equipment	3.9	1.1	2.2	.6	34
38	Instruments and related products	2.0	.3	(D)	(D)	11
	North Dakota	10.0	8.8	.1	1.0	48
20	Food and kindred products	3.0	2.9	.1	(Z)	77
29	Petroleum and coal products	5.3	5.3	-	-	78
36	Electronic and other electric equipment	1.1	.7	-	.4	66
	Ohio	238.0	118.0	84.9	35.0	5
20	Food and kindred products	7.1	5.9	.9	.3	31
24	Lumber and wood products	1.6	1.5	-	.1	81
25	Furniture and fixtures	(D)	3.4	-	(D)	(X)
28	Paper and allied products	9.1	(D)	(D)	4.0	16
28	Chemicals and allied products	50.1	16.6	30.5	3.0	13
29	Petroleum and coal products	(D)	(D)	(D)	6.5	(X)
30	Rubber and miscellaneous plastics products	5.5	2.8	2.2	.5	26
32	Stone, clay, and glass products	7.1	5.1	1.1	.9	16
33	Primary metal industries	23.6	15.3	6.8	1.5	8
34	Fabricated metal products	9.6	5.7	3.6	.3	22
35	Industrial machinery and equipment	14.1	10.9	2.4	.8	13
36	Electronic and other electric equipment	3.9	(D)	2.6	(D)	21
37	Transportation equipment	37.1	(D)	5.9	(D)	2
	Oklahoma	40.6	16.8	20.7	3.0	15
26	Paper and allied products	1.0	.4	.3	.3	58
29	Petroleum and coal products	27.8	(D)	17.5	(D)	20
32	Stone, clay, and glass products	1.7	(D)	(Z)	(D)	33
33	Primary metal industries	4.5	3.6	.1	.9	49
34	Fabricated metal products .....	.8	.1	.4	.3	44
35	Industrial machinery and equipment	1.5	-	1.3	.2	61
	Oregon	46.8	25.7	15.2	5.9	17
20	Food and kindred products	7.1	-	5.1	2.0	45
24	Lumber and wood products	3.7	2.5	.6	.6	12
26	Paper and allied products	10.7	4.1	6.0	.6	30
28	Chemicals and allied products	4.9	3.4	1.4	.2	40
33	Primary metal industries	(D)	2.6	.4	(D)	(X)
35	Industrial machinery and equipment	3.7	3.0	.6	.1	89
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(X)
38	Instruments and related products	5.9	(D)	(D)	.2	78
	Pennsylvania	322.8	174.7	116.7	31.5	5
20	Food and kindred products	20.1	(D)	10.3	(D)	12
22	Textile mill products	1.7	(D)	1.5	(D)	51
26	Paper and allied products	55.6	(D)	12.1	(D)	15
28	Chemicals and allied products	59.9	26.0	26.3	7.6	16
29	Petroleum and coal products	86.4	35.4	(D)	(D)	1
30	Rubber and miscellaneous plastics products	2.3	1.1	.9	.3	38
31	Leather and leather products	(D)	1.2	3.2	(D)	(X)
32	Stone, clay, and glass products	10.4	7.8	1.9	.7	16
33	Primary metal industries	42.3	33.7	4.4	4.3	15
34	Fabricated metal products	5.3	2.4	1.3	1.5	24
35	Industrial machinery and equipment	1.6	.5	.2	1.0	24
36	Electronic and other electric equipment	10.0	4.1	(D)	(D)	16
37	Transportation equipment	9.0	2.1	3.3	3.6	7
38	Instruments and related products	6.1	5.1	.3	-	12
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	.8	(X)
	Rhode Island	2.9	1.5	1.3	.2	5
28	Chemicals and allied products	(D)	(D)	(D)	-	(X)
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(Z)	8
	South Carolina	157.9	65.4	57.5	35.0	15
20	Food and kindred products	1.4	(Z)	1.3	(Z)	20
22	Textile mill products	9.8	2.9	6.0	.8	17
24	Lumber and wood products	1.9	.7	(D)	(D)	13
25	Furniture and fixtures	1.4	(D)	(Z)	(D)	62
26	Paper and allied products	20.5	7.6	12.4	.5	1
28	Chemicals and allied products	73.4	41.2	29.2	3.1	6
30	Rubber and miscellaneous plastics products	1.8	.9	.7	.1	16
32	Stone, clay, and glass products	3.9	3.7	.2	.1	8
33	Primary metal industries	34.5	4.8	1.2	28.5	66
34	Fabricated metal products	1.0	.7	(Z)	.3	29
35	Industrial machinery and equipment	2.3	(D)	(D)	(D)	19
36	Electronic and other electric equipment	4.6	.4	3.8	.4	50
37	Transportation equipment	1.3	1.0	.2	(Z)	40

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	South Dakota	1.0	.6	.4	(Z)	28
	Tennessee	127.9	83.1	30.2	14.6	7
20	Food and kindred products	3.6	1.2	2.1	.3	8
26	Paper and allied products	4.7	1.6	(D)	(D)	14
28	Chemicals and allied products	70.0	43.5	18.1	8.4	4
29	Petroleum and coal products	5.3	4.9	.5	(Z)	53
30	Rubber and miscellaneous plastics products	3.2	1.0	(D)	(D)	3
32	Stone, clay, and glass products	6.0	5.7	.2	-	67
33	Primary metal industries	16.8	14.0	1.9	1.0	12
34	Fabricated metal products	2.9	.2	2.5	.2	31
35	Industrial machinery and equipment	3.7	2.2	.4	1.2	28
36	Electronic and other electric equipment	1.2	.1	1.0	.1	39
37	Transportation equipment	8.5	8.2	(Z)	.3	67
	Texas	1 002.6	501.2	376.5	125.0	4
20	Food and kindred products	9.1	4.0	4.7	.5	31
24	Lumber and wood products	2.2	.6	(D)	(D)	10
26	Paper and allied products	17.7	6.2	6.7	4.8	14
27	Printing and publishing	1.4	.5	(D)	(D)	17
28	Chemicals and allied products	358.3	147.6	174.6	36.2	7
29	Petroleum and coal products	540.5	296.3	174.7	69.5	6
30	Rubber and miscellaneous plastics products	4.6	3.9	.3	.4	10
32	Stone, clay, and glass products	15.0	7.5	(D)	(D)	12
33	Primary metal industries	36.4	28.8	4.0	3.6	3
34	Fabricated metal products	6.6	1.8	4.2	.5	18
36	Electronic and other electric equipment	3.7	1.4	(D)	(D)	22
37	Transportation equipment	2.0	.5	.7	.8	22
38	Instruments and related products	2.8	.6	1.8	.4	56
	Utah	35.3	30.5	2.6	2.3	49
29	Petroleum and coal products	19.9	19.6	.3	-	86
33	Primary metal industries	9.4	(D)	.1	(D)	8
36	Electronic and other electric equipment	1.8	1.8	-	-	92
37	Transportation equipment	3.0	(D)	1.8	(D)	15
	Vermont	8.4	1.1	6.7	.6	27
36	Electronic and other electric equipment	(D)	(D)	(D)	-	(X)
37	Transportation equipment	2.6	.4	2.2	-	75
38	Instruments and related products	(D)	(D)	(D)	.6	(X)
	Virginia	180.7	79.7	80.6	20.4	9
20	Food and kindred products	3.2	.7	2.5	(Z)	7
21	Tobacco products	(D)	(D)	(D)	-	(X)
24	Lumber and wood products	4.9	1.6	1.9	1.3	43
25	Furniture and fixtures	2.3	1.3	.3	.7	27
26	Paper and allied products	52.3	9.2	(D)	(D)	3
27	Printing and publishing	1.5	(D)	(Z)	(D)	19
28	Chemicals and allied products	60.9	30.5	26.1	4.3	4
29	Petroleum and coal products	14.0	5.0	7.8	.5	82
30	Rubber and miscellaneous plastics products	3.1	2.4	.3	.3	38
32	Stone, clay, and glass products	(D)	(D)	.2	.4	(X)
33	Primary metal industries	(D)	(D)	.5	.2	(X)
34	Fabricated metal products .....	.2	.1	.2	.2	55
35	Industrial machinery and equipment	2.5	1.0	.6	.9	58
36	Electronic and other electric equipment	1.2	.2	.8	.2	7
37	Transportation equipment	28.9	22.5	(D)	(D)	28
	Washington	109.7	58.1	34.2	17.4	14
20	Food and kindred products	8.9	(Z)	(D)	(D)	7
22	Textile mill products	(D)	(D)	-	(D)	(X)
24	Lumber and wood products	5.1	3.3	(D)	(D)	33
26	Paper and allied products	22.0	13.5	5.1	3.3	26
28	Chemicals and allied products .....	.6	.3	.2	.1	25
29	Petroleum and coal products	36.6	28.2	4.3	4.1	37
32	Stone, clay, and glass products	2.2	.5	1.6	.1	38
33	Primary metal industries	10.2	(D)	5.2	(D)	5
35	Industrial machinery and equipment	1.4	-	-	1.4	65
36	Electronic and other electric equipment	4.9	1.7	2.2	1.0	62
37	Transportation equipment	(D)	(D)	(D)	1.1	(X)
	West Virginia	69.1	26.1	34.8	8.3	28
28	Chemicals and allied products	47.7	15.8	(D)	(D)	31
33	Primary metal industries	19.9	9.3	(D)	(D)	63
	Wisconsin	128.1	45.0	53.2	29.9	21
20	Food and kindred products	3.2	.3	2.4	.6	32
24	Lumber and wood products	1.5	1.3	(D)	(D)	55
26	Paper and allied products	80.5	17.5	40.1	23.0	32
27	Printing and publishing	5.9	5.0	(Z)	.8	83
28	Chemicals and allied products	1.8	1.4	(D)	(D)	42
31	Leather and leather products	3.8	(Z)	3.8	-	37
32	Stone, clay, and glass products	4.9	1.5	(D)	(D)	43
33	Primary metal industries	13.1	10.2	.8	2.1	22
34	Fabricated metal products	1.7	.8	.8	.2	60
35	Industrial machinery and equipment	2.9	.5	(D)	(D)	7
36	Electronic and other electric equipment	1.8	1.1	.5	.3	25
37	Transportation equipment	5.0	3.9	(D)	(D)	5

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	Wyoming	63.4	58.6	3.5	1.2	76
20	Food and kindred products	(D)	-	(D)	(D)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	-	(X)
29	Petroleum and coal products	61.0	(D)	(D)	-	79

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 6a. Capital Expenditures by States for the Media Air: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Total PACE	Air						Standard error of estimate (PACE) (percent)	
		Total	Type of pollutant abated			Abatement technique			
			Hazardous	Nonhazardous		End of line	Production process enhancements		
				Total	Particulates, etc. ¹				Other
United States ²	7 177.9	4 122.0	1 068.8	3 053.2	2 691.1	362.9	1 798.0	2 324.0	2
Alabama	150.6	61.8	32.4	29.4	20.7	8.7	35.3	26.5	12
Alaska	10.2	.9	(D)	(D)	(Z)	(Z)	(D)	(D)	40
Arizona	24.2	15.2	4.6	10.6	8.8	1.8	7.7	7.4	20
Arkansas	59.4	16.9	1.1	15.8	8.5	7.3	10.4	6.5	22
California	955.2	802.4	201.5	600.9	580.4	20.5	173.8	628.5	7
Colorado	7.9	3.2	1.8	1.3	1.2	.1	.9	2.3	16
Connecticut	23.1	4.3	1.9	2.4	1.5	.9	2.0	2.3	7
Delaware	94.8	84.8	(D)	(D)	(D)	1.1	(D)	(D)	22
Florida	64.3	14.0	1.0	13.1	12.1	1.0	8.2	5.8	16
Georgia	123.5	80.0	22.4	57.6	50.7	6.9	30.0	50.0	10
Hawaii	37.2	1.8	-	1.8	(D)	(D)	-	1.8	60
Idaho	37.2	15.1	4.0	11.1	10.1	1.1	(D)	(D)	21
Illinois	295.7	221.1	51.3	169.7	163.6	6.3	91.4	129.6	3
Indiana	286.7	209.2	30.4	178.8	167.3	11.5	81.4	127.8	5
Iowa	39.6	26.1	1.6	24.4	19.9	4.5	20.4	5.7	6
Kansas	93.8	61.0	14.1	47.0	44.6	2.4	24.7	36.4	43
Kentucky	104.0	64.3	12.8	51.5	47.7	3.8	22.8	41.5	9
Louisiana	905.2	367.1	137.1	230.0	195.4	34.6	214.7	152.5	4
Maine	45.2	19.2	8.1	11.1	9.5	1.6	3.7	15.6	8
Maryland	40.8	23.6	6.4	17.2	16.1	1.1	16.9	6.6	12
Massachusetts	82.8	42.6	21.6	21.0	15.6	5.4	30.9	11.7	28
Michigan	176.4	128.3	45.0	83.2	72.1	11.5	36.6	91.6	5
Minnesota	193.8	166.0	(D)	(D)	(D)	2.8	(D)	(D)	2
Mississippi	78.8	38.2	5.5	32.7	29.8	2.9	21.2	17.0	6
Missouri	45.8	24.6	4.8	19.8	17.4	2.4	18.4	6.2	11
Montana	18.3	(D)	(D)	10.8	9.2	1.6	9.9	1.2	43
Nebraska	9.7	1.8	.2	1.5	1.4	.2	1.0	.8	8
Nevada	3.4	1.8	.1	1.7	1.7	(Z)	.4	1.4	29
New Hampshire	53.4	(D)	1.9	(D)	2.6	(D)	(D)	(D)	10
New Jersey	137.0	37.0	16.1	20.9	15.2	5.8	20.9	16.1	10
New Mexico	78.7	68.2	(D)	(D)	52.5	(D)	33.0	35.2	60
New York	129.8	72.1	30.9	41.2	21.5	19.7	28.4	43.7	14
North Carolina	226.3	99.6	22.8	76.8	48.7	28.1	65.7	33.9	7
North Dakota	10.0	8.8	3.9	4.9	.7	4.2	3.0	5.8	48
Ohio	238.0	118.0	18.7	99.3	83.7	15.6	61.6	56.4	5
Oklahoma	40.6	16.8	2.7	14.1	9.7	4.4	10.0	6.8	15
Oregon	46.8	25.7	9.3	16.4	10.6	5.7	15.2	10.5	17
Pennsylvania	322.8	174.7	38.5	136.2	124.1	12.1	100.1	74.6	5
Rhode Island	2.9	1.5	.2	1.3	1.0	.3	(D)	(D)	5
South Carolina	157.9	65.4	7.2	58.2	22.2	36.1	29.6	35.8	15
South Dakota	1.0	.6	(Z)	.6	.3	.2	.5	.1	28
Tennessee	127.9	83.1	21.2	62.0	58.5	3.8	64.3	18.8	7
Texas	1 002.6	501.2	186.1	315.0	288.6	26.4	288.1	215.0	4
Utah	35.3	30.5	(D)	(D)	29.8	(D)	10.4	20.0	49
Vermont	8.4	1.1	(D)	(D)	(D)	(D)	.8	.3	27
Virginia	180.7	79.7	33.7	46.1	41.8	4.3	36.0	43.8	9
Washington	109.7	58.1	10.3	47.8	45.0	2.8	30.3	27.8	14
West Virginia	69.1	25.1	10.0	16.0	15.2	.8	23.6	2.5	28
Wisconsin	128.1	45.0	17.3	27.7	20.5	7.3	23.8	21.2	21
Wyoming	63.4	58.6	3.0	55.6	55.6	-	12.8	45.8	76

¹Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 6b. Capital Expenditures by States for the Media Water: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Total PACE	Water					Standard error of estimate (PACE) (percent)
		Total	Type of pollutant abated		Abatement technique		
			Hazardous	Nonhazardous	End of line	Production process enhancements	
United States ¹	7 177.9	2 294.9	902.2	1 397.8	1 678.1	616.8	2
Alabama	150.6	75.7	14.3	61.4	60.8	14.9	12
Alaska	10.2	8.4	(D)	(D)	(D)	(D)	40
Arizona	24.2	7.9	.9	6.9	5.9	2.0	20
Arkansas	59.4	33.8	2.8	31.0	31.2	2.7	22
California	955.2	114.6	57.4	57.2	73.4	41.3	7
Colorado	7.9	4.3	1.1	3.1	2.8	1.5	16
Connecticut	23.1	14.4	10.6	3.8	12.5	1.9	7
Delaware	94.8	3.3	.9	2.4	2.9	.4	22
Florida	64.3	46.0	4.9	41.1	18.1	27.9	16
Georgia	123.5	23.1	5.8	17.3	19.0	4.1	10
Hawaii	37.2	35.3	35.3	(Z)	35.0	3	60
Idaho	37.2	19.3	1.0	18.3	18.6	.7	21
Illinois	295.7	53.9	16.1	37.9	37.2	16.7	3
Indiana	286.7	55.5	21.4	34.1	46.4	9.1	5
Iowa	39.6	8.8	.5	8.2	4.8	3.9	6
Kansas	93.8	24.7	7.3	17.4	11.9	12.8	43
Kentucky	104.0	15.0	1.4	13.5	11.5	3.5	9
Louisiana	905.2	449.5	224.5	230.1	361.8	87.7	4
Maine	45.2	19.8	4.1	15.8	14.4	5.4	8
Maryland	40.8	11.3	5.3	6.0	7.8	3.5	12
Massachusetts	82.8	31.7	18.0	13.7	21.0	10.7	28
Michigan	176.4	33.1	12.1	21.0	27.4	5.8	5
Minnesota	193.8	13.0	1.2	11.8	7.1	5.9	2
Mississippi	78.8	35.3	(D)	(D)	28.6	6.7	6
Missouri	45.9	13.3	2.8	10.4	10.6	2.7	11
Montana	18.3	(D)	(D)	.3	(D)	.2	43
Nebraska	9.7	5.3	1.6	3.7	4.7	.6	8
Nevada	3.4	1.0	1.0	(Z)	(D)	(D)	29
New Hampshire	53.4	7.1	4.7	2.4	5.5	1.5	10
New Jersey	137.0	72.2	36.0	36.2	57.7	14.5	10
New Mexico	78.7	(D)	--	(D)	(D)	(D)	60
New York	129.8	32.0	12.4	19.6	23.7	8.3	14
North Carolina	226.3	91.2	5.5	85.7	36.2	55.0	7
North Dakota	10.0	.1	--	.1	.1	(Z)	48
Ohio	238.0	84.9	26.2	58.8	72.7	12.3	5
Oklahoma	40.6	20.7	13.7	7.0	17.0	3.8	15
Oregon	46.8	15.2	3.6	11.6	8.9	6.3	17
Pennsylvania	322.8	116.7	30.1	86.5	86.9	29.7	5
Rhode Island	2.9	1.3	.2	1.1	1.0	.2	5
South Carolina	157.9	57.5	7.5	50.0	48.4	9.1	15
South Dakota	1.0	.4	(Z)	.4	(Z)	.4	28
Tennessee	127.9	30.2	9.8	20.4	23.7	6.5	7
Texas	1 002.6	376.5	214.4	162.2	252.5	124.0	4
Utah	35.3	2.6	.6	2.0	2.3	.3	49
Vermont	8.4	6.7	(D)	(D)	6.4	.3	27
Virginia	180.7	80.6	24.3	56.3	37.4	43.2	9
Washington	109.7	34.2	18.9	15.2	25.3	8.9	14
West Virginia	69.1	34.8	4.7	30.1	33.3	1.5	28
Wisconsin	128.1	53.2	1.4	51.8	40.8	12.4	21
Wyoming	63.4	3.5	.1	3.4	(D)	(D)	21

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 6c. Capital Expenditures by States for the Media Solid/ Contained Waste: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Total PACE	Solid/ contained waste					Standard error estimate (PAC) (percent)
		Total	Type of pollutant abated		Abatement technique		
			Hazardous	Nonhazardous	End of line	Production process enhancements	
United States ¹	7 177.9	761.0	278.8	482.1	453.6	307.3	
Alabama	150.6	13.1	1.7	11.4	7.6	5.5	
Alaska	10.2	.9	.2	.7	.5	.4	
Arizona	24.2	1.2	.7	.5	.3	.8	
Arkansas	59.4	8.6	4.0	4.6	6.0	2.6	
California	955.2	38.2	18.2	20.0	10.6	27.6	
Colorado	7.9	.5	.3	.2	.3	.2	
Connecticut	23.1	4.4	3.5	9	(D)	(D)	
Delaware	94.8	6.7	1.2	5.5	2.1	4.6	
Florida	64.3	4.3	.8	3.5	2.0	2.3	
Georgia	123.5	20.3	1.8	18.5	10.0	10.3	
Hawaii	37.2	--	--	--	--	--	
Idaho	37.2	2.8	(Z)	2.8	.3	2.6	
Illinois	295.7	20.7	5.1	15.6	11.7	9.0	
Indiana	286.7	22.0	6.4	15.6	16.6	5.4	
Iowa	39.6	4.8	.5	4.3	3.3	1.4	

See footnotes at end of table.

Table 6c. Capital Expenditures by States for the Media Solid/Contained Waste: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Solid/contained waste							Standard error of estimate (PACE) (percent)
	Total PACE	Type of pollutant abated		Abatement technique		Production process enhancements		
		Total	Hazardous	Nonhazardous	End of line		End of line	
Kansas	99.8	8.0	5.6	2.4	1.8	6.2	43	
Kentucky	104.0	24.8	3.2	21.5	22.7	2.1	9	
Louisiana	905.2	88.5	18.2	70.2	71.0	17.5	4	
Maine	45.2	6.2	1.9	4.3	5.7	.5	8	
Maryland	40.8	5.9	3.7	2.3	4.6	1.4	12	
Massachusetts	82.8	8.4	4.6	3.8	3.2	5.3	28	
Michigan	176.4	15.0	6.8	8.2	9.2	5.8	5	
Minnesota	193.8	14.8	2.9	11.9	9.5	5.4	2	
Mississippi	78.8	5.4	.5	4.9	2.8	2.6	6	
Missouri	45.9	8.1	5.2	2.8	6.3	1.7	11	
Montana	18.3	(D)	(D)	.5	.3	(D)	43	
Nebraska	9.7	2.7	(Z)	2.7	(D)	(D)	8	
Nevada	3.4	.6	(D)	(D)	(D)	(D)	29	
New Hampshire	53.4	(D)	.9	(D)	(D)	.8	10	
New Jersey	137.0	27.8	14.7	13.1	24.2	3.5	10	
New Mexico	78.7	(D)	(D)	(D)	(D)	-	60	
New York	129.8	25.7	11.5	14.1	16.4	9.3	14	
North Carolina	228.3	35.5	11.1	24.4	13.1	22.4	7	
North Dakota	10.0	1.0	(Z)	.9	1.0	-	48	
Ohio	238.0	35.0	9.6	25.5	15.6	19.4	5	
Oklahoma	40.6	3.0	2.1	1.0	2.6	.4	15	
Oregon	46.8	5.9	2.2	3.6	3.5	2.4	17	
Pennsylvania	322.8	31.5	15.6	15.9	15.9	15.6	5	
Rhode Island	2.9	.2	(Z)	.2	(Z)	.2	5	
South Carolina	157.9	35.0	1.8	33.1	4.8	30.2	15	
South Dakota	1.0	(Z)	-	(Z)	(Z)	-	28	
Tennessee	127.9	14.6	5.5	9.1	8.6	5.9	7	
Texas	1 002.6	125.0	87.3	37.6	71.0	54.0	4	
Utah	35.3	2.3	(D)	(D)	2.3	(Z)	49	
Vermont	8.4	.6	.6	-	.5	.1	27	
Virginia	180.7	20.4	4.7	15.7	9.5	10.9	9	
Washington	109.7	17.4	7.1	10.3	16.4	1.0	14	
West Virginia	69.1	8.3	4.7	3.5	7.1	1.2	28	
Wisconsin	128.1	29.9	.3	29.6	23.7	6.2	21	
Wyoming	63.4	1.2	-	1.2	(D)	(D)	76	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	All industries ¹	17 555.0	5 574.6	6 631.8	5 348.6	1 570.0	767.8	273.6	528.6	2
20	Food and kindred products	1 339.3	156.1	857.8	325.4	65.1	13.9	19.5	31.7	3
201	Meat products	236.3	7.3	187.3	41.6	11.2	.3	6.3	4.6	6
2011	Meat packing plants	67.4	4.6	49.3	13.5	2.4	.1	1.7	.6	12
2013	Sausages and other prepared meats	34.1	.7	20.7	12.7	.8	-	.1	.7	22
2015	Poultry slaughtering and processing	134.8	2.0	117.4	15.4	8.0	.2	4.5	3.3	6
202	Dairy products	159.6	4.5	113.8	41.3	2.3	(D)	.1	(D)	12
2021	Creamery butter	3.7	-	2.3	1.4	(Z)	-	(Z)	-	53
2022	Cheese, natural and processed	47.6	.7	33.9	13.0	.9	(Z)	-	.9	18
2023	Dry, condensed, and evaporated dairy products	14.0	1.0	9.2	3.8	.4	(D)	-	(D)	17
2024	Ice cream and frozen desserts	22.0	.1	17.4	4.4	.3	-	-	.3	48
2026	Fluid milk	72.2	2.7	50.9	18.6	.7	-	(Z)	.6	16
203	Preserved fruits and vegetables	212.6	5.8	140.3	66.4	9.0	(D)	(D)	7.8	7
2032	Canned specialties	22.9	(D)	14.6	(D)	(D)	-	-	(D)	16
2033	Canned fruits and vegetables	69.4	1.2	45.0	23.2	4.8	(Z)	.1	4.7	15
2034	Dehydrated fruits, vegetables, and soups	7.8	(D)	3.4	(D)	.1	-	-	.1	36
2035	Pickles, sauces, and salad dressings	22.1	.6	15.5	5.9	(D)	-	(Z)	(D)	26
2037	Frozen fruits and vegetables	55.6	1.1	41.2	13.2	2.2	(D)	(D)	1.2	6
2038	Frozen specialties, n.e.c.	34.8	.4	20.5	13.9	.8	(Z)	(Z)	.7	15
204	Grain mill products	172.6	59.3	77.7	35.6	14.7	9.5	2.7	2.5	7
2041	Flour and other grain mill products	15.8	12.4	1.3	2.1	3.5	3.4	.1	.1	32
2043	Cereal breakfast foods	28.1	10.6	9.1	8.5	3.1	1.2	(D)	(D)	4
2044	Rice milling	2.7	2.3	.2	.1	.2	.2	.1	-	57
2045	Prepared flour mixes and doughs	6.5	.8	3.1	2.6	.4	.1	.1	.2	28
2046	Wet corn milling	73.9	20.2	46.2	7.5	6.8	4.3	(D)	(D)	7
2047	Dog and cat food	22.5	2.8	10.2	9.5	.1	(Z)	-	.1	19
2048	Prepared feeds, n.e.c.	23.1	10.1	7.6	5.3	.6	.4	.1	.1	28
205	Bakery products	53.2	5.6	22.4	25.3	1.5	(Z)	.1	1.4	10
2051	Bread, cake, and related products	27.0	3.5	19.7	10.7	.4	(Z)	.1	.4	13
2052	Cookies and crackers	21.3	2.0	5.9	13.4	1.0	(Z)	(Z)	.9	16
2053	Frozen bakery products, except bread	4.0	(Z)	2.9	1.1	.1	-	-	.1	42

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Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PACC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
20	Food and kindred products—Con.									
206	Sugar and confectionery products	75.3	17.2	38.3	19.9	1.1	.1	.3	.7	12
2061	Raw cane sugar	10.0	3.8	3.2	2.9	(D)	(D)	(D)	(D)	37
2062	Cane sugar refining	(D)	(D)	(D)	(D)	(Z)	(Z)	(D)	(D)	29
2063	Beet sugar	27.4	7.8	13.8	5.9	(D)	(Z)	(D)	(D)	12
2064	Candy and other confectionery products	17.6	1.0	12.0	4.6	(D)	(D)	(D)	(D)	14
2066	Chocolate and cocoa products	8.3	2.0	4.4	1.9	(D)	(D)	(D)	(D)	(X)
2067	Chewing gum	(D)	.9	1.7	1.5	(D)	(D)	(D)	(D)	(X)
2068	Salted and roasted nuts and seeds	(D)								
207	Fats and oils	62.9	27.5	25.2	10.2	4.5	2.5	1.6	.5	16
2074	Cottonseed oil mills	9.5	7.2	1.3	1.1	2.8	2.0	(D)	(D)	76
2075	Soybean oil mills	26.5	13.3	9.4	3.8	.1	(Z)	(D)	(D)	8
2077	Animal and marine fats and oils	6.4	2.2	4.0	.2	1.7	.5	(D)	(D)	83
2079	Edible fats and oils, n.e.c.	20.0	4.4	10.5	5.0					16
208	Beverages	241.5	14.2	187.4	39.8	10.8	(D)	(D)	(D)	5
2082	Malt beverages	166.8	10.3	137.8	18.8	(D)	(D)	(D)	(D)	22
2083	Malt	4.7	(D)	2.9	(D)	(Z)	(Z)	(D)	(D)	47
2084	Wines, brandy, and brandy spirits	3.9	.1	1.1	2.8	(Z)	(Z)	(D)	(D)	37
2085	Distilled and blended liquors	7.7	1.7	4.6	1.3	(Z)	(Z)	(D)	(D)	12
2086	Bottled and canned soft drinks	62.0	.5	35.9	15.6	(D)	(D)	(D)	(D)	39
2087	Flavoring extracts and syrups, n.e.c.	6.3	(D)	5.1	(D)					
209	Miscellaneous food and kindred products	123.6	13.4	64.8	45.3	9.9	1.1	2.9	5.9	15
2091	Canned and cured fish and seafoods	3.0	.2	1.5	1.3	.1	(Z)	(Z)	(D)	61
2092	Fresh or frozen prepared fish	20.9	.8	9.3	10.8	.9	(Z)	(Z)	(D)	23
2095	Roasted coffee	18.1	6.9	6.4	4.8	1.7	(Z)	(Z)	(D)	25
2096	Potato chips and similar snacks	27.3	2.3	18.4	6.6	3.5	(Z)	(Z)	(D)	10
2099	Food preparations, n.e.c.	53.3	3.0	28.8	21.5	3.7	(Z)	(Z)	(D)	32
21	Tobacco products	32.8	12.8	10.2	9.8	.3	(Z)	(D)	.3	6
211	Cigarettes	20.8	9.5	5.6	5.7	.1	(D)	(D)	.1	9
2111	Cigarettes	20.8	9.5	5.6	5.7	.1	(D)	(D)	.1	9
213	Chewing and smoking tobacco	1.1	.2	(D)	(D)	(Z)	(Z)	(D)	(Z)	30
2131	Chewing and smoking tobacco	1.1	.2	(D)	(D)	(Z)	(Z)	(D)	(Z)	30
214	Tobacco stemming and redrying	10.3	3.1	(D)	(D)	(Z)	(Z)	(D)	(Z)	9
2141	Tobacco stemming and redrying	10.3	3.1	(D)	(D)	(Z)	(Z)	(D)	(Z)	9
22	Textile mill products	272.8	42.3	165.1	65.4	15.3	1.6	3.2	10.5	4
221	Broadwoven fabrics mills, cotton	39.4	7.4	25.2	6.8	2.4	(Z)	(D)	(D)	6
2211	Broadwoven fabrics mills, cotton	39.4	7.4	25.2	6.8	2.4	(Z)	(D)	(D)	6
222	Broadwoven fabrics mills, manmade fiber and silk	20.4	3.5	10.4	6.5	1.2	(Z)	(D)	(D)	10
2221	Broadwoven fabrics mills, manmade fiber and silk	20.4	3.5	10.4	6.5	1.2	(Z)	(D)	(D)	10
223	Broadwoven fabrics mills, wool	10.1	.4	7.7	2.0	(D)	(D)	(D)	(D)	10
2231	Broadwoven fabrics mills, wool	10.1	.4	7.7	2.0	(D)	(D)	(D)	(D)	10
224	Narrow fabrics mills	3.3	.7	1.3	1.3	.1	(Z)	(Z)	(Z)	24
2241	Narrow fabrics mills	3.3	.7	1.3	1.3	.1	(Z)	(Z)	(Z)	24
225	Knitting mills	65.8	8.3	48.0	9.5	2.0	(Z)	(Z)	.9	11
2251	Women's hosiery, except socks	2.9	.6	1.8	.7	.2	(Z)	(Z)	.1	29
2252	Hosiery, n.e.c.	4.2	.3	3.0	.9	.2	(Z)	(Z)	.1	24
2253	Knit outerwear mills	9.9	.7	7.8	1.4	.9	(Z)	(Z)	.3	17
2254	Knit underwear mills	1.4	(Z)	.8	.5	(D)	(Z)	(D)	(D)	16
2255	Weft knit fabrics mills	32.0	3.8	24.7	3.5	4.4	(Z)	(Z)	(D)	18
2258	Lace and warp knit fabrics mills	15.0	2.8	9.9	2.3	(D)	(Z)	(D)	(D)	23
226	Textile finishing, except wool	54.3	8.2	38.8	7.2	(D)	(Z)	(D)	(Z)	11
2261	Finishing plants, cotton	20.6	1.9	16.5	2.1	(D)	(Z)	(D)	(Z)	18
2262	Finishing plants, manmade	22.9	5.4	13.6	3.9	1.1	(Z)	(Z)	(Z)	13
2269	Finishing plants, n.e.c.	10.8	.9	8.7	1.2	.1	(Z)	(Z)	.3	29
227	Carpets and rugs	17.9	1.0	10.6	6.3	.3	(Z)	(Z)	.3	17
2273	Carpets and rugs	17.9	1.0	10.6	6.3	.3	(Z)	(Z)	.3	17
228	Yarn and thread mills	21.0	3.0	11.5	6.6	3.4	(Z)	(Z)	3.2	9
2281	Yarn spinning mills	14.0	2.4	6.7	4.9	3.3	(Z)	(Z)	(D)	12
2282	Throwing and winding mills	4.3	.4	3.0	1.0	(D)	(D)	(D)	(D)	13
2284	Thread mills	2.7	.2	1.8	.7	.7	(D)	(D)	(D)	16
229	Miscellaneous textile goods	40.1	9.7	11.4	19.0	4.9	(D)	1.0	.2	9
2295	Coated fabrics, not rubberized	12.9	4.5	2.0	6.4	(D)	(D)	(D)	(D)	5
2296	Tire cord and fabrics	1.9	(D)	.5	7.7	3.5	(Z)	(Z)	(D)	8
2297	Nonwoven fabrics	18.0	3.1	7.3	7.7	.2	(Z)	(Z)	.1	28
2299	Textile goods, n.e.c.	6.8	(D)	1.4	(D)					5
24	Lumber and wood products	253.1	90.5	51.9	110.6	19.1	4.4	4.3	10.5	10
241	Logging	7.9	.3	3.5	4.1	(Z)	(Z)	(D)	(Z)	10
2411	Logging	7.9	.3	3.5	4.1	(Z)	(Z)	(D)	(Z)	10
242	Sawmills and planing mills	53.9	15.5	11.8	26.7	6.2	1.3	(D)	(D)	8
2421	Sawmills and planing mills, general	42.6	12.1	11.3	19.2	4.4	(D)	(D)	(D)	9
2426	Hardwood dimension and flooring mills	11.4	3.4	.5	7.5	1.8	(D)	(D)	(D)	22
243	Millwork, plywood, and structural members	76.7	32.8	8.6	35.2	3.2	1.6	.2	2.5	11
2431	Millwork	21.3	8.2	1.7	11.3	5.5	1.2	.1	3.0	15
2434	Wood kitchen cabinets	13.3	4.2	.4	8.7	(Z)	(Z)	(Z)	(Z)	29
2435	Hardwood veneer and plywood	7.5	2.5	.5	4.5	.1	(Z)	(Z)	.1	38
2436	Softwood veneer and plywood	29.1	16.0	5.2	7.9	.3	(Z)	(Z)	.1	31
2439	Structural wood members, n.e.c.	5.6	1.9	.8	2.8	.2	(Z)	(Z)	.1	25
244	Wood containers	5.6	1.9	.3	3.3	1.9	1.2	(D)	.7	16
2441	Nailed wood boxes and shooks	1.2	.8	(Z)	.4	1.5	1.1	(D)	.4	55
2448	Wood pallets and skids	3.7	.8	.3	2.6	.4	.1	(D)	.3	15
245	Wood buildings and mobile homes	15.3	.3	.4	14.6	(D)	(Z)	(D)	(D)	6
2451	Mobile homes	12.5	.1	.2	12.2	(Z)	(Z)	(D)	(Z)	6
2452	Prefabricated wood buildings	2.8	.2	.2	2.4	(Z)	(Z)	(D)	(Z)	18

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/ contained waste	Total	Air	Water	Solid/ contained waste	
24	Lumber and wood products—Con.									
249	Miscellaneous wood products	93.7	39.6	27.3	26.7	(D)	.3	(D)	3.4	6
2491	Wood preserving	19.0	.5	10.1	8.3	(Z)	.6	(D)	.2	21
2483	Reconstituted wood products	61.0	34.5	16.2	10.3	(D)	.2	(D)	2.5	5
2499	Wood products, n.e.c.	13.7	4.6	1.0	8.1	(Z)	.7	(Z)	.7	15
25	Furniture and fixtures	124.2	42.6	18.2	63.4	14.6	3.5	.2	10.9	6
251	Household furniture	61.0	24.9	5.4	30.7	9.8	2.5	(Z)	7.4	9
2511	Wood household furniture	43.2	21.9	2.1	19.2	8.2	2.4	(Z)	5.8	12
2512	Upholstered household furniture	6.7	1.1	.9	4.8	1.4	(Z)	-	1.4	18
2514	Metal household furniture	5.9	.5	1.7	3.6	.1	(Z)	(Z)	.1	25
2515	Mattresses and bedsprings	1.4	.3	.2	1.0	.1	(Z)	(Z)	.1	42
2517	Wood television and radio cabinets	2.0	(D)	(D)	1.2	(Z)	-	-	(Z)	38
2519	Household furniture, n.e.c.	1.7	(D)	(D)	1.0	(Z)	-	-	(Z)	8
252	Office furniture	31.3	11.4	5.5	14.4	2.8	(D)	.1	(D)	15
2521	Wood office furniture	10.9	5.7	.9	4.3	.6	.3	(Z)	.3	24
2522	Office furniture, except wood	20.4	5.8	4.6	10.0	2.2	(D)	.1	(D)	18
253	Public building and related furniture	7.3	1.2	1.2	5.0	.4	(Z)	-	.4	15
2531	Public building and related furniture	7.3	1.2	1.2	5.0	.4	(Z)	-	.4	15
254	Partitions and fixtures	18.2	3.1	4.6	10.5	1.3	(Z)	(Z)	1.3	9
2541	Wood partitions and fixtures	7.1	1.7	.7	4.7	.2	(Z)	(Z)	.2	18
2542	Partitions and fixtures, except wood	11.1	1.4	4.0	5.7	1.0	(Z)	(Z)	1.0	9
259	Miscellaneous furniture and fixtures	6.3	2.0	1.5	2.8	.3	(D)	-	(D)	15
2591	Drapery hardware and blinds and shades	2.7	.6	.8	1.2	(Z)	-	-	(Z)	8
2599	Furniture and fixtures, n.e.c.	3.6	1.3	.7	1.6	.3	(D)	-	(D)	24
26	Paper and allied products	1 901.5	511.2	852.7	537.5	234.0	110.2	35.8	88.0	4
261	Pulp mills	244.2	72.1	126.8	45.2	20.9	7.6	1.8	11.4	16
2611	Pulp mills	244.2	72.1	126.8	45.2	20.9	7.6	1.8	11.4	16
262	Paper mills	969.0	216.5	507.9	244.5	115.7	52.9	29.5	33.4	6
2621	Paper mills	969.0	216.5	507.9	244.5	115.7	52.9	29.5	33.4	6
263	Paperboard mills	406.9	144.9	159.7	102.4	47.5	37.7	3.8	6.0	5
2631	Paperboard mills	406.9	144.9	159.7	102.4	47.5	37.7	3.8	6.0	5
265	Paperboard containers and boxes	98.8	15.0	25.3	58.5	30.2	2.8	.5	26.9	10
2652	Setup paperboard boxes	1.0	.3	.1	.5	-	-	-	-	57
2653	Corrugated and solid fiber boxes	45.9	.3	15.1	30.4	16.5	-	(Z)	16.5	14
2655	Fiber cans, drums, and similar products	4.1	.3	1.0	2.8	.2	(Z)	(Z)	.1	37
2656	Sanitary food containers	4.4	.4	1.7	2.4	.7	-	-	.7	20
2657	Folding paperboard boxes	43.5	13.6	7.4	22.4	12.8	2.8	.5	9.6	16
267	Miscellaneous converted paper products	182.6	62.7	33.0	86.9	19.7	9.3	.2	10.2	10
2671	Paper coated and laminated, packaging	29.4	11.7	5.8	11.9	.9	.1	(Z)	.8	24
2672	Paper coated and laminated, n.e.c.	49.6	21.0	7.9	20.7	9.6	8.6	(Z)	1.0	14
2673	Bags: plastics, laminated, and coated	27.1	13.1	4.0	10.1	(D)	.2	.1	(D)	39
2674	Bags: uncoated paper and multiwall	4.5	.6	1.2	2.8	.2	-	-	.2	31
2675	Die-cut paper and board	6.9	1.0	1.0	4.9	.7	.2	(Z)	.5	36
2676	Sanitary paper products	42.8	12.6	8.3	21.8	(D)	-	-	(D)	24
2677	Envelopes	4.3	.3	.6	3.4	2.7	(Z)	(Z)	2.6	33
2678	Stationery products	3.4	.1	.4	2.9	-	-	-	-	35
2679	Converted paper products, n.e.c.	14.6	2.4	3.8	8.4	1.7	.2	(Z)	1.5	21
27	Printing and publishing	258.4	95.3	33.0	130.1	47.6	10.2	1.2	36.2	4
271	Newspapers	34.6	2.1	7.7	24.8	5.3	-	.2	5.1	11
2711	Newspapers	34.6	2.1	7.7	24.8	5.3	-	.2	5.1	11
272	Periodicals	1.1	.5	.1	.5	(D)	(Z)	(Z)	(D)	33
2721	Periodicals	1.1	.5	.1	.5	(D)	(Z)	(Z)	(D)	33
273	Books	15.6	3.8	2.2	9.6	(D)	.1	.2	(D)	6
2731	Book publishing	1.9	(D)	(D)	1.1	(D)	-	-	(D)	3
2732	Book printing	13.7	(D)	(D)	8.4	4.6	.1	.2	4.3	7
274	Miscellaneous publishing	1.6	.2	.4	1.0	.3	-	(Z)	.3	9
2741	Miscellaneous publishing	1.6	.2	.4	1.0	.3	-	(Z)	.3	9
275	Commercial printing	165.3	84.4	13.7	67.3	26.6	9.8	.4	16.5	5
2752	Commercial printing, lithographic	98.1	45.5	7.6	45.1	15.6	1.2	.3	14.0	6
2754	Commercial printing, gravure	41.3	29.6	3.1	8.5	10.1	(D)	(Z)	(D)	7
2759	Commercial printing, n.e.c.	25.9	9.3	2.9	13.7	1.0	(D)	(Z)	(D)	14
276	Manifold business forms	17.2	.9	3.3	13.0	6.2	(D)	(D)	6.0	9
2761	Manifold business forms	17.2	.9	3.3	13.0	6.2	(D)	(D)	6.0	9
277	Greeting cards	6.4	.5	.8	5.1	3.1	-	(Z)	3.1	15
2771	Greeting cards	6.4	.5	.8	5.1	3.1	-	(Z)	3.1	15
278	Blankbooks and bookbinding	6.2	1.2	.6	4.4	.3	-	-	.3	18
2782	Blankbooks and looseleaf binders	3.4	.2	.5	2.6	.3	-	-	.3	14
2789	Bookbinding and related work	2.8	.9	.1	1.8	(Z)	-	-	(Z)	36
279	Printing trade services	10.4	1.7	4.2	4.5	.6	(D)	(D)	.1	24
2796	Platemaking services	10.1	1.7	4.1	4.3	.6	(D)	(D)	.1	25
28	Chemicals and allied products	4 348.2	1 013.6	1 957.0	1 377.6	362.1	158.3	89.6	114.3	3
281	Industrial inorganic chemicals	652.1	162.6	261.1	228.4	72.0	23.0	36.2	12.9	5
2812	Alkalies and chlorine	72.8	16.3	33.9	22.6	20.9	(D)	7.1	(D)	3
2813	Industrial gases	18.7	8.7	7.7	2.3	.6	(D)	(Z)	(D)	4
2816	Inorganic pigments	110.4	27.9	45.2	37.4	16.1	1.8	11.4	2.9	3
2819	Industrial inorganic chemicals, n.e.c.	450.2	109.8	174.3	165.1	34.4	13.9	17.7	2.8	7
282	Plastics materials and synthetics	769.1	192.2	328.7	248.2	63.8	31.8	8.3	23.7	4
2821	Plastics materials and resins	518.9	135.7	209.9	173.2	48.9	24.0	5.8	19.1	5
2822	Synthetic rubber	103.5	25.3	46.3	31.9	(D)	(D)	(D)	(D)	6
2823	Cellulosic manmade fibers	60.4	(D)	31.3	(D)	(D)	(D)	(D)	(D)	3
2824	Organic fibers, noncellulosic	66.4	(D)	41.2	(D)	10.1	(D)	(D)	(D)	4

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
28	Chemicals and allied products—Con.									
283	Drugs	338.4	71.5	139.2	127.7	18.3	(D)	(D)	15.7	4
2833	Medicinals and botanicals	133.5	28.6	60.2	44.7	5.8	(D)	(D)	(D)	6
2834	Pharmaceutical preparations	186.9	40.3	73.2	73.5	12.1	(D)	(D)	(D)	6
2835	Diagnostic substances	8.2	1.4	1.8	5.0	(D)	(Z)	(D)	(D)	10
2836	Biological products, except diagnostic	9.7	1.2	4.0	4.5	(D)	(D)	(D)	(D)	11
284	Soaps, cleaners, and toilet goods	151.3	21.6	68.0	61.7	5.2	(D)	(D)	2.3	7
2841	Soap and other detergents	53.1	9.3	22.9	20.9	2.9	(D)	(D)	.9	12
2842	Foishes and sanitation goods	21.4	1.7	6.8	12.9	.2	(Z)	(Z)	.2	35
2843	Surface active agents	44.6	9.1	24.2	11.3	1.2	(Z)	(Z)	.4	7
2844	Toilet preparations	32.3	1.6	14.1	16.7	.9	(Z)	(Z)	.8	11
285	Paints and allied products	76.5	12.2	16.3	50.0	8.1	.7	.8	6.6	6
2851	Paints and allied products	76.5	12.2	16.3	50.0	8.1	.7	.8	6.6	6
286	Industrial organic chemicals	1 788.4	411.3	908.2	468.9	143.9	71.1	28.4	44.4	5
2861	Gum and wood chemicals	12.2	4.8	4.8	2.7	.5	(D)	(D)	(Z)	9
2865	Cyclic crudes and intermediates	338.3	78.5	173.9	85.9	40.8	(D)	(D)	10.4	5
2869	Industrial organic chemicals, n.e.c.	1 438.0	328.0	729.5	380.4	102.5	52.4	16.1	33.9	6
287	Agricultural chemicals	364.6	96.5	151.8	116.3	40.9	23.5	10.8	6.6	3
2873	Nitrogenous fertilizers	38.1	17.4	16.2	4.6	4.5	3.3	1.2	(Z)	11
2874	Phosphatic fertilizers	110.0	41.8	30.7	37.5	12.8	4.2	4.2	(D)	4
2875	Fertilizers, mixing only	2.3	1.7	.2	.4	(D)	(D)	(Z)	(Z)	10
2879	Agricultural chemicals, n.e.c.	214.1	35.6	104.6	73.9	18.6	(D)	5.3	(D)	4
289	Miscellaneous chemical products	205.6	45.8	83.7	76.3	9.9	(D)	(D)	2.0	6
2891	Adhesives and sealants	37.4	6.1	11.8	19.5	1.5	.5	.3	.7	11
2892	Explosives	21.4	2.5	10.2	8.8	.4	.1	.2	.1	8
2893	Printing ink	7.2	1.3	1.3	4.6	.4	.1	.1	.2	21
2895	Carbon black	20.3	16.3	2.1	2.0	2.8	2.2	.5	(Z)	31
2899	Chemical preparations, n.e.c.	119.4	19.6	58.4	41.4	4.9	(D)	(D)	1.0	6
29	Petroleum and coal products	2 647.9	1 585.3	685.2	377.4	419.4	310.6	72.2	36.6	4
291	Petroleum refining	2 579.0	1 554.4	669.9	354.6	413.6	306.0	71.3	36.2	4
2911	Petroleum refining	2 579.0	1 554.4	669.9	354.6	413.6	306.0	71.3	36.2	4
295	Asphalt paving and roofing materials	40.4	20.6	4.6	15.1	4.0	(D)	.1	(D)	9
2951	Asphalt paving mixtures and blocks	11.0	7.8	1.2	1.9	1.1	.9	(Z)	.2	28
2952	Asphalt felts and coatings	29.4	12.8	3.4	13.2	2.9	(D)	(Z)	(D)	6
299	Miscellaneous petroleum and coal products	28.5	10.2	10.7	7.6	1.9	(D)	.8	(D)	10
2992	Lubricating oils and greases	18.6	3.2	9.3	6.0	1.8	(D)	.8	(D)	12
2999	Petroleum and coal products, n.e.c.	9.9	7.0	1.3	1.6	(Z)	(Z)	(Z)	(Z)	16
30	Rubber and miscellaneous plastics products	385.2	104.6	83.5	197.1	24.9	6.3	2.0	16.6	5
301	Tires and inner tubes	40.4	11.0	7.1	22.2	6.1	1.9	.1	4.1	7
3011	Tires and inner tubes	40.4	11.0	7.1	22.2	6.1	1.9	.1	4.1	7
302	Rubber and plastics footwear	2.1	.3	.3	1.4	(Z)	(Z)	(Z)	(Z)	18
3021	Rubber and plastics footwear	2.1	.3	.3	1.4	(Z)	(Z)	(Z)	(Z)	18
305	Hose and belting and gaskets and packing	19.5	3.9	4.7	10.9	1.6	.5	(D)	(D)	6
3052	Rubber and plastics hose and belting	12.3	2.6	3.3	6.5	.8	(Z)	(D)	(D)	7
3053	Gaskets, packing, and sealing devices	7.1	1.3	1.4	4.4	.8	.5	-	.3	13
306	Fabricated rubber products, n.e.c.	62.4	13.7	21.2	27.4	2.0	.9	(D)	(D)	12
3061	Mechanical rubber goods	20.5	3.2	5.5	11.7	.7	(Z)	(D)	(D)	10
3069	Fabricated rubber products, n.e.c.	41.9	10.5	15.7	15.7	1.3	.9	(Z)	.4	17
308	Miscellaneous plastics products, n.e.c.	260.8	75.7	50.1	135.0	15.2	3.0	1.6	10.6	6
3081	Unsupported plastics film and sheet	62.7	23.6	16.0	23.2	5.1	(D)	(D)	3.7	10
3082	Unsupported plastics profile shapes	4.8	1.6	.4	2.8	.1	(Z)	(Z)	(Z)	34
3083	Laminated plastics plate, sheet, and profile shapes	16.9	6.9	2.6	7.4	(D)	(D)	(Z)	(D)	14
3084	Plastics pipe	6.0	1.5	1.3	3.3	(D)	.1	(D)	(D)	38
3086	Plastics bottles	3.3	-	.5	2.6	.2	-	-	.2	20
3086	Plastics foam products	38.4	16.2	4.3	17.9	.9	.3	-	.5	19
3087	Custom compounding of purchased plastics resins	18.0	3.9	4.0	10.1	1.3	(Z)	.4	.9	18
3088	Plastics plumbing fixtures	2.3	(Z)	.2	2.0	.1	-	-	.1	13
3089	Plastics products, n.e.c.	108.4	22.0	20.9	65.4	5.1	.2	.3	4.7	8
31	Leather and leather products	50.9	3.6	29.6	17.7	1.2	(Z)	1.0	.1	14
311	Leather tanning and finishing	43.3	2.7	28.3	12.4	1.1	(Z)	1.0	(Z)	16
3111	Leather tanning and finishing	43.3	2.7	28.3	12.4	1.1	(Z)	1.0	(Z)	16
313	Footwear cut stock	1.2	.2	.2	.9	-	-	-	-	85
3131	Footwear cut stock	1.2	.2	.2	.9	-	-	-	-	85
314	Footwear, except rubber	3.8	.3	.7	2.9	(Z)	-	(Z)	(Z)	20
3143	Men's footwear, except athletic	1.8	.1	.1	1.6	(Z)	-	(Z)	(Z)	27
3144	Women's footwear, except athletic	1.3	.2	.3	.9	(Z)	-	(Z)	(Z)	40
316	Luggage	1.1	-	.2	.9	.1	-	-	.1	20
3161	Luggage	1.1	-	.2	.9	.1	-	-	.1	20
32	Stone, clay, and glass products	521.1	269.0	102.4	149.7	45.4	25.7	3.3	16.4	4
321	Flat glass	16.9	6.1	2.8	8.0	(D)	(Z)	(Z)	(D)	10
3211	Flat glass	16.9	6.1	2.8	8.0	(D)	(Z)	(Z)	(D)	10
322	Glass and glassware, pressed or blown	76.1	25.9	21.5	28.7	7.1	.4	1.2	5.5	3
3221	Glass containers	24.8	9.2	5.4	10.1	.8	(D)	(D)	4.4	6
3229	Pressed and blown glass, n.e.c.	51.3	16.7	16.0	18.6	6.3	(D)	(D)	5.1	2
323	Products of purchased glass	39.5	9.6	15.4	14.5	1.1	(D)	(D)	.6	14
3231	Products of purchased glass	39.5	9.6	15.4	14.5	1.1	(D)	(D)	.6	14
324	Cement, hydraulic	127.2	108.3	5.5	13.4	21.7	20.1	.2	1.4	6
3241	Cement, hydraulic	127.2	108.3	5.5	13.4	21.7	20.1	.2	1.4	6
325	Structural clay products	18.3	8.0	3.2	7.1	.9	.3	(Z)	.6	8
3251	Brick and structural clay tile	4.7	2.6	.5	1.6	(D)	(Z)	(Z)	(D)	10
3253	Ceramic wall and floor tile	6.7	1.1	2.1	3.5	(Z)	(Z)	(Z)	(Z)	6
3255	Clay refractories	5.4	3.0	.5	1.9	(D)	.3	-	(D)	16
3259	Structural clay products, n.e.c.	1.4	1.2	.1	.1	-	-	-	-	68

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
32	Stone, clay, and glass products—Con.									
326	Pottery and related products	23.8	9.5	9.2	11.1	3.1	(D)	(D)	2.2	17
3261	Vitreous plumbing fixtures	6.8	.9	2.5	3.4	1.0	(D)	(D)	(D)	14
3262	Vitreous china table and kitchenware	4.3	.4	1.8	2.1	(Z)	-	(Z)	(Z)	14
3264	Porcelain electrical supplies	10.0	1.8	4.0	4.2	(D)	-	-	(D)	38
3269	Pottery products, n.e.c.	2.7	.4	1.0	1.3	(D)	(Z)	(Z)	(D)	16
327	Concrete, gypsum, and plaster products	77.1	35.6	14.1	27.5	4.0	.6	.3	3.2	9
3271	Concrete block and brick	1.7	.6	.4	.8	-	-	-	-	45
3272	Concrete products, n.e.c.	9.5	2.0	1.1	6.4	.1	-	-	.1	17
3273	Ready-mixed concrete	27.0	11.3	7.9	8.8	.8	.1	.1	.5	17
3274	Lime	19.1	13.7	2.3	3.1	.4	.1	-	.3	23
3275	Gypsum products	18.9	8.0	2.4	8.4	2.7	.3	.2	2.2	12
328	Cut stone and stone products	3.5	1.3	.9	1.3	(Z)	(Z)	-	(Z)	43
3281	Cut stone and stone products	3.5	1.3	.9	1.3	(Z)	(Z)	-	(Z)	43
329	Miscellaneous nonmetallic mineral products	138.7	70.7	30.0	38.0	(D)	(D)	.4	(D)	9
3291	Abrasive products	21.7	4.8	6.7	10.2	.3	(D)	-	(D)	9
3292	Asbestos products	1.4	.7	.1	.6	-	-	-	-	31
3295	Minerals, ground or treated	18.1	9.8	5.5	2.7	.6	.6	(Z)	(Z)	30
3296	Mineral wool	80.8	47.3	14.2	19.3	4.8	3.2	.2	1.5	12
3297	Nonclay refractories	12.7	6.0	2.2	4.4	(D)	(D)	.3	(D)	22
3299	Nonmetallic mineral products, n.e.c.	4.1	2.1	1.2	.8	.2	-	-	.2	58
33	Primary metal industries	2 017.2	944.5	598.2	474.6	136.4	96.1	11.6	28.7	3
331	Blast furnace and basic steel products	1 061.4	467.9	373.1	220.3	26.4	4.6	6.8	15.1	5
3312	Blast furnaces and steel mills	913.3	420.8	319.9	172.5	16.7	2.5	3.3	10.9	6
3313	Electrometallurgical products	52.8	38.8	6.7	7.3	2.0	2.0	-	-	27
3315	Steel wire and related products	22.4	2.2	8.9	11.3	1.0	.1	.3	.8	20
3316	Cold finishing of steel shapes	42.7	2.9	24.7	15.1	6.1	(Z)	(D)	(D)	7
3317	Steel pipe and tubes	30.2	3.3	12.9	14.0	.7	(Z)	(D)	(D)	17
332	Iron and steel foundries	257.4	115.9	49.1	92.5	5.3	1.2	1.7	2.3	5
3321	Gray and ductile iron foundries	204.6	97.1	39.6	67.9	3.3	(D)	(D)	.6	5
3322	Malleable iron foundries	10.9	(D)	(D)	3.7	-	-	-	-	32
3324	Steel investment foundries	11.7	(D)	(D)	5.1	.3	(D)	(D)	.1	7
3325	Steel foundries, n.e.c.	30.3	11.7	2.7	15.8	1.7	(Z)	(Z)	1.6	13
333	Primary nonferrous metals	368.5	256.6	56.0	55.9	92.7	86.8	(D)	(D)	4
3331	Primary copper	126.9	106.7	14.2	6.0	(D)	(D)	-	(Z)	1
3334	Primary aluminum	160.6	107.8	19.8	33.0	56.2	55.1	(D)	(D)	5
3339	Primary nonferrous metals, n.e.c.	81.0	42.1	22.1	16.8	(D)	(D)	(D)	(D)	16
334	Secondary nonferrous metals	79.3	48.0	19.0	12.2	1.2	.6	.6	.1	9
3341	Secondary nonferrous metals	79.3	48.0	19.0	12.2	1.2	.6	.6	.1	9
335	Nonferrous rolling and drawing	178.8	41.2	71.1	66.5	7.6	2.8	1.1	3.7	7
3351	Copper rolling and drawing	40.8	9.6	17.8	13.6	1.5	1.0	(Z)	.5	10
3353	Aluminum sheet, plate, and foil	59.2	18.1	21.7	19.3	3.1	.7	.9	1.5	8
3354	Aluminum extruded products	19.9	2.2	9.3	8.4	.3	(Z)	(Z)	(D)	25
3356	Nonferrous rolling and drawing, n.e.c.	30.9	6.4	15.6	8.8	1.1	(Z)	(Z)	(D)	21
3357	Nonferrous wire drawing and insulating	27.3	4.8	6.4	16.0	1.6	(D)	(Z)	(Z)	17
336	Nonferrous foundries (castings)	51.3	10.2	20.5	20.6	2.8	.1	.6	2.1	12
3363	Aluminum die-castings	18.0	3.6	8.5	5.9	.6	(Z)	(Z)	.1	3
3364	Nonferrous die-castings, except aluminum	7.1	(D)	(D)	(D)	.3	(Z)	(Z)	.2	21
3365	Aluminum foundries	11.9	3.0	4.0	4.9	1.4	(Z)	(Z)	1.3	12
3366	Copper foundries	9.5	2.5	.4	6.6	(D)	(Z)	(Z)	(D)	61
3369	Nonferrous foundries, n.e.c.	4.8	(D)	(D)	(D)	(D)	(Z)	(Z)	(D)	1
339	Miscellaneous primary metal products	19.8	3.9	9.3	6.5	.4	(Z)	(D)	(D)	7
3398	Metal heat treating	8.6	.6	4.7	3.4	.2	(Z)	.1	.1	14
3399	Primary metal products, n.e.c.	11.2	3.4	4.6	3.2	.2	(Z)	(D)	(D)	5
34	Fabricated metal products	679.4	126.6	267.3	285.4	32.2	6.2	7.1	18.9	4
341	Metal cans and shipping containers	70.2	23.0	27.2	20.0	2.5	1.5	.1	.9	6
3411	Metal cans	58.9	15.9	26.0	17.0	.9	(D)	(Z)	(D)	6
3412	Metal barrels, drums, and pails	11.2	7.2	1.1	3.0	1.5	(D)	.1	(D)	17
342	Cutlery, handtools, and hardware	58.0	10.3	24.9	22.8	2.6	.4	.6	1.6	9
3421	Cutlery	4.2	.4	1.1	2.7	.2	-	(Z)	.1	26
3423	Hand and edge tools, n.e.c.	14.1	2.3	5.6	6.1	.8	(Z)	.4	.4	23
3425	Saw blades and handsaws	3.3	1.0	1.0	1.3	.3	.2	.1	.1	40
3429	Hardware, n.e.c.	36.3	6.5	17.2	12.6	1.4	.2	.2	.9	10
343	Plumbing and heating, except electric	26.7	9.4	7.6	9.7	1.4	.1	.3	.9	5
3431	Metal sanitary ware	8.7	(D)	(D)	1.6	(D)	(D)	(Z)	(D)	6
3432	Plumbing fixture fittings and trim	13.9	(D)	(D)	5.8	(D)	(D)	.2	(D)	9
3433	Heating equipment, except electric	4.0	1.1	.6	2.3	.3	(Z)	(Z)	.3	10
344	Fabricated structural metal products	70.9	8.6	18.4	43.8	1.9	.2	.3	1.4	12
3441	Fabricated structural metal	8.6	.9	1.9	5.8	.4	(Z)	-	.4	26
3443	Metal doors, sash, and trim	13.2	.7	2.1	10.4	.3	-	(Z)	.3	33
3443	Fabricated plate work (boiler shops)	16.1	1.8	6.0	8.3	.3	(Z)	-	.3	22
3444	Sheet metal work	14.9	2.1	3.7	9.1	.1	(Z)	(Z)	.1	25
3446	Architectural metal work	4.7	1.4	1.5	1.8	.5	.2	.2	.2	61
3448	Prefabricated metal buildings	5.1	.6	.9	3.6	.2	-	(Z)	.2	35
3448	Miscellaneous metal work	8.1	1.3	2.1	4.7	.1	-	.1	(Z)	30
345	Screw machine products, bolts, etc.	30.3	2.7	13.4	14.3	3.2	.2	1.1	2.0	9
3451	Screw machine products	7.1	.5	2.1	4.5	1.6	(Z)	.2	1.4	21
3452	Bolts, nuts, rivets, and washers	23.3	2.3	11.2	9.7	1.6	.2	.8	.6	10
346	Metal forgings and stampings	76.7	11.0	29.4	36.2	1.3	.1	1.1	.2	10
3462	Iron and steel forgings	11.3	2.0	4.2	5.0	.5	(Z)	.4	(Z)	23
3463	Nonferrous forgings	5.0	1.8	1.6	1.6	-	-	-	-	28
3465	Automotive stampings	37.3	2.8	15.0	19.5	(D)	(Z)	(D)	.1	9
3466	Crowns and closures	2.0	1.4	.2	.4	-	-	-	-	71
3469	Metal stampings, n.e.c.	21.2	3.0	8.4	9.7	(D)	.1	(D)	(Z)	27
347	Metal services, n.e.c.	171.6	29.4	89.3	53.0	4.5	.6	2.6	1.4	7
3471	Plating and polishing	124.9	9.9	76.0	39.0	3.7	(D)	2.5	(D)	8
3479	Metal coating and allied services	46.7	19.5	13.3	14.0	.9	(D)	(Z)	(D)	12

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/ contained waste	Total	Air	Water	Solid/ contained waste	
34	Fabricated metal products—Con.									
348	Ordnance and accessories, n.e.c.	69.4	7.3	25.1	37.0	5.8	.1	.1	5.6	10
3482	Small arms ammunition	17.1	(D)	(D)	9.9	(D)	-	-	(D)	16
3483	Ammunition, except for small arms, n.e.c.	23.1	2.7	12.0	8.4	.5	(Z)	-.1	.4	25
3484	Small arms	8.0	(D)	(D)	4.4	.2	-	-	.2	19
3489	Ordnance and accessories, n.e.c.	21.2	2.4	4.6	14.3	(D)	(Z)	.1	(D)	2
349	Miscellaneous fabricated metal products	105.5	24.9	32.0	48.7	9.0	3.0	1.0	5.0	11
3491	Industrial valves	24.1	4.9	8.1	11.0	1.3	.2	.4	.7	20
3492	Fluid power valves and hose fittings	12.3	.9	5.8	5.6	3.6	.1	.1	3.4	26
3494	Valves and pipe fittings, n.e.c.	12.2	4.1	2.9	5.1	.4	(Z)	.1	.2	25
3495	Wire springs	5.3	1.1	.7	3.5	-	-	-	-	43
3496	Miscellaneous fabricated wire products	2.9	.2	1.1	1.6	(Z)	(Z)	(Z)	(Z)	32
3497	Metal foil and leaf	17.8	8.4	3.7	5.8	2.5	2.3	-	.2	32
3498	Fabricated pipe and fittings	9.9	1.2	2.6	6.1	.5	.2	.2	.2	43
3499	Fabricated metal products, n.e.c.	20.1	3.8	7.0	9.4	.8	.1	.2	.3	28
35	Industrial machinery and equipment	445.1	71.9	157.2	216.0	25.6	2.4	4.8	18.6	4
351	Engines and turbines	54.8	12.9	20.7	21.2	3.1	.3	1.1	1.7	6
3511	Turbines and turbine generator sets	14.7	1.7	5.3	7.7	(D)	-	-	(D)	7
3519	Internal combustion engines, n.e.c.	40.0	11.2	15.4	13.5	(D)	.3	1.1	(D)	8
352	Farm and garden machinery	31.4	4.7	12.4	14.3	3.2	.1	(Z)	3.1	9
3523	Farm machinery and equipment	20.9	3.8	8.6	8.5	(D)	(Z)	(Z)	(D)	11
3524	Lawn and garden equipment	10.5	.9	3.8	5.7	(D)	.1	(Z)	(D)	15
353	Construction and related machinery	51.1	12.6	14.0	24.5	3.0	.3	.1	2.5	9
3531	Construction machinery	33.5	9.3	10.1	14.0	2.0	.2	.1	1.7	8
3532	Mining machinery	3.9	.2	.8	2.9	.2	-	-	.2	33
3533	Oil and gas field machinery	2.4	.4	.8	1.2	(D)	-	-	(D)	16
3534	Elevators and moving stairways	1.5	(D)	.4	(D)	(Z)	-	-	(Z)	37
3535	Conveyors and conveying equipment	3.6	.9	.9	1.8	.1	-	(Z)	.1	37
3536	Holsts, cranes, and monorails	.8	(D)	.1	(D)	(D)	-	-	(D)	20
3537	Industrial trucks and tractors	5.5	1.3	.9	3.2	.5	.1	(Z)	.4	47
354	Metalworking machinery	43.6	7.8	15.2	20.7	1.3	.1	.5	.7	21
3541	Machine tools, metal cutting types	3.8	.4	1.4	2.0	.4	-	(Z)	.3	27
3542	Machine tools, metal forming types	1.6	.1	.7	.8	-	-	-	-	38
3543	Industrial patterns	8.4	1.0	2.3	5.0	-	-	-	-	96
3544	Special dies, tools, jigs, and fixtures	8.8	.2	3.4	5.2	(Z)	-	(Z)	(Z)	28
3545	Machine tool accessories	8.6	3.4	1.9	3.3	.3	.1	.2	.3	33
3546	Power-driven handtools	3.1	.4	1.0	1.7	.1	(Z)	(Z)	.1	20
3548	Welding apparatus	9.1	2.2	4.5	2.4	.4	(Z)	(Z)	.1	25
355	Special industry machinery	34.8	2.7	13.7	18.5	1.0	(Z)	.1	.9	15
3552	Textile machinery	2.4	.1	1.7	.7	-	-	-	-	39
3553	Woodworking machinery	3.7	.2	2.5	.9	.1	-	-	.1	57
3554	Paper industries machinery	4.6	.5	.8	3.3	(Z)	-	-	(Z)	22
3555	Printing trades machinery	7.6	(D)	5.0	(D)	.1	-	.1	(Z)	45
3556	Food products machinery	1.7	.3	.6	.8	.3	-	(Z)	.3	29
3559	Special industry machinery, n.e.c.	14.8	(D)	3.0	(D)	.4	(Z)	(Z)	.4	18
356	General industrial machinery	62.8	5.9	19.7	37.2	5.4	.9	1.6	2.9	10
3561	Pumps and pumping equipment	11.6	.9	3.2	7.5	.4	(Z)	.2	.2	18
3562	Ball and roller bearings	11.7	1.2	6.1	4.4	1.8	.7	.3	.9	16
3563	Air and gas compressors	6.1	.6	1.7	3.8	.5	.1	.1	.4	16
3564	Blowers and fans	4.5	.6	.6	3.3	(Z)	-	-	(Z)	39
3565	Packaging machinery	2.3	.1	1.1	1.1	.2	(Z)	(Z)	.1	44
3566	Speed changers, drives, and gears	8.3	.4	.9	7.0	.8	-	-	.8	43
3567	Industrial furnaces and ovens	3.0	.7	.7	1.6	(Z)	-	(Z)	(Z)	30
3568	Power transmission equipment, n.e.c.	3.4	.3	1.2	2.0	.1	-	(Z)	(Z)	37
3569	General industrial machinery, n.e.c.	11.8	1.2	4.1	6.6	1.5	.1	1.0	.4	24
357	Computer and office equipment	53.8	6.5	23.5	23.7	2.8	(D)	(Z)	(D)	12
3571	Electronic computers	26.8	3.1	12.8	10.9	.5	(Z)	(Z)	.4	21
3572	Computer storage devices	7.5	1.5	4.0	2.0	.5	(D)	(Z)	.5	12
3577	Computer peripheral equipment, n.e.c.	9.9	1.1	2.8	6.0	1.2	(Z)	(Z)	(D)	23
3578	Calculating and accounting equipment	2.0	(Z)	.5	1.5	(Z)	-	-	(Z)	68
3579	Office machines, n.e.c.	7.1	.9	3.4	2.8	.4	(Z)	(Z)	.4	29
358	Refrigeration and service machinery	74.7	14.9	27.3	32.5	4.1	.3	.3	3.5	6
3581	Automatic vending machines	1.1	.2	.2	.7	(Z)	-	(Z)	(Z)	16
3582	Commercial laundry equipment	2.2	.3	1.0	.9	(Z)	-	-	(Z)	30
3585	Refrigeration and heating equipment	66.2	13.6	24.9	27.7	3.9	.3	.2	3.4	6
3586	Measuring and dispensing pumps	.8	(Z)	.2	.5	.1	-	-	.1	21
3589	Service industry machinery, n.e.c.	4.5	.7	1.1	2.7	.1	-	-	.1	10
359	Industrial machinery, n.e.c.	38.1	4.0	10.7	23.4	1.8	(D)	.8	(D)	11
3592	Carburetors, pistons, rings, and valves	8.0	.9	4.0	3.0	.3	-	.3	(Z)	14
3593	Fluid power cylinders and actuators	4.8	1.3	1.3	2.3	(D)	(D)	.1	.1	41
3594	Fluid power pumps and motors	3.9	.4	1.0	2.5	(D)	-	-	(D)	17
3599	Industrial machinery, n.e.c.	20.7	1.3	4.3	15.1	.8	-	.4	.3	15
36	Electronic and other electric equipment	662.4	121.8	297.5	243.1	40.6	6.7	3.2	30.6	5
361	Electric distribution equipment	23.1	2.8	8.6	11.7	.6	(D)	(Z)	(D)	7
3612	Transformers, except electronic	11.1	1.3	3.3	6.5	.4	(D)	(Z)	(D)	8
3613	Switchgear and switchboard apparatus	12.0	1.5	5.3	5.2	.1	(Z)	(Z)	.1	11
362	Electrical industrial apparatus	47.6	11.4	18.2	18.0	1.6	.2	.2	1.2	18
3621	Motors and generators	16.4	2.5	4.7	9.2	1.0	.1	.1	.9	12
3624	Carbon and graphite products	20.1	7.6	8.0	4.5	.2	(Z)	(Z)	.1	38
3625	Relays and industrial controls	10.5	1.2	5.3	3.9	.4	(Z)	.1	.3	23
363	Household appliances	41.5	4.6	16.6	20.3	2.3	(D)	.2	(D)	9
3631	Household cooking equipment	7.2	.3	3.8	3.0	(D)	-	(Z)	(D)	21
3632	Household refrigerators and freezers	11.3	1.6	3.0	6.7	1.4	(Z)	(Z)	1.4	11
3633	Household laundry equipment	11.0	1.4	5.9	3.7	(D)	(Z)	(D)	.1	18
3634	Electric housewares and fans	3.4	.1	1.0	2.3	(Z)	-	(Z)	(Z)	30
3635	Household vacuum cleaners	2.8	.4	.6	1.8	.1	(Z)	(Z)	.1	35
3639	Household appliances, n.e.c.	5.7	.7	2.2	2.8	.3	(D)	(D)	.1	31

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
36	Electronic and other electric equipment—									
	Con.									
364	Electric lighting and wiring equipment	51.0	7.8	17.3	25.9	1.1	(Z)	.1	.9	13
3641	Electric lamp bulbs and tubes	8.8	.9	2.9	5.0	(D)	(Z)	-	(D)	23
3643	Current-carrying wiring devices	10.6	.9	5.7	4.0	.2	(Z)	.1	(Z)	19
3644	Noncurrent-carrying wiring devices	10.3	.8	3.1	6.4	.1	(Z)	(Z)	.1	29
3646	Commercial lighting fixtures	4.2	(D)	(D)	2.5	.3	(Z)	(Z)	.2	25
3647	Vehicular lighting equipment	9.4	(D)	(D)	5.4	(D)	-	-	(D)	7
3648	Lighting equipment, n.e.c.	7.0	2.3	2.4	2.2	(Z)	(Z)	(Z)	(Z)	65
365	Household audio and video equipment	17.9	1.6	5.4	10.9	.6	-	-	.6	18
3651	Household audio and video equipment	11.0	1.0	4.3	5.8	.3	-	-	.3	17
3652	Prerecorded records and tapes	6.9	.6	1.1	5.1	.3	-	-	.3	37
366	Communications equipment	62.4	6.7	29.2	26.5	1.8	.3	.1	1.4	31
3661	Telephone and telegraph apparatus	45.7	5.2	23.9	16.6	.9	(Z)	(Z)	.9	42
3663	Radio and television communications equipment	15.1	1.4	4.8	8.9	.8	.3	(Z)	.5	12
3669	Communications equipment, n.e.c.	1.6	.1	.4	1.0	.1	(Z)	(Z)	.1	49
367	Electronic components and accessories	331.4	61.6	168.7	101.2	25.8	.7	2.4	22.7	6
3671	Electron tubes	13.5	.8	5.8	6.9	(Z)	(Z)	-	(Z)	4
3672	Printed circuit boards	102.8	9.1	68.7	25.0	3.3	(Z)	.9	2.5	8
3674	Semiconductors and related devices	150.0	38.8	67.7	43.5	18.5	.3	.8	17.4	9
3675	Electronic capacitors	7.8	1.3	2.9	3.6	2.0	(Z)	(Z)	1.8	35
3676	Electronic resistors	3.1	.6	1.4	1.1	.2	(Z)	-	.1	53
3677	Electronic coils and transformers	2.4	.5	.7	1.1	.1	(Z)	-	.1	50
3678	Electronic connectors	7.0	.7	3.9	2.5	.1	-	-	.1	36
3679	Electronic components, n.e.c.	44.8	9.9	17.6	17.3	1.6	.1	.8	.7	17
369	Miscellaneous electrical equipment and supplies	87.4	25.3	33.5	28.6	6.8	5.2	.1	1.5	10
3691	Storage batteries	21.5	7.6	7.5	6.4	.1	.1	(Z)	-	22
3692	Primary batteries, dry and wet	12.9	1.5	8.2	3.1	(D)	(D)	-	.4	39
3694	Engine electrical equipment	19.2	2.6	8.2	8.3	.6	-	(Z)	.6	20
3695	Magnetic and optical recording media	26.1	12.9	6.7	6.5	(D)	(D)	-	.3	9
3699	Electrical equipment and supplies, n.e.c.	7.7	.6	2.8	4.3	.3	(Z)	.1	.3	22
37	Transportation equipment	1 194.4	302.4	350.9	541.2	64.1	8.3	11.7	44.1	4
371	Motor vehicles and equipment	684.0	220.4	213.9	249.7	45.8	6.1	9.8	30.0	5
3711	Motor vehicles and car bodies	403.2	160.5	109.4	133.3	21.8	(D)	(D)	12.5	7
3713	Truck and bus bodies	8.5	2.1	1.4	5.0	.6	(Z)	-	.6	13
3714	Motor vehicle parts and accessories	262.9	55.5	102.1	105.4	(D)	(D)	(D)	(D)	7
3715	Truck trailers	5.2	1.6	.7	2.9	.1	(Z)	-	.1	12
3716	Motor homes	4.2	.8	.4	3.0	(D)	-	-	(D)	14
372	Aircraft and parts	295.1	39.9	85.4	169.8	10.0	(D)	1.5	(D)	7
3721	Aircraft	193.4	18.4	32.8	82.2	5.4	(D)	(Z)	(D)	12
3724	Aircraft engines and engine parts	60.8	7.1	22.1	31.6	1.4	.2	.3	1.0	12
3728	Aircraft parts and equipment, n.e.c.	101.0	14.5	30.5	56.0	3.2	.9	1.2	1.0	8
373	Ship and boat building and repairing	61.5	9.2	11.9	40.4	3.9	.3	.1	3.5	9
3731	Ship building and repairing	48.4	7.3	10.1	31.0	3.5	(Z)	.1	3.4	11
3732	Boat building and repairing	13.1	1.9	1.8	9.5	.4	.3	-	.1	19
374	Railroad equipment	12.2	(D)	(D)	6.5	.1	(Z)	(Z)	.1	9
3743	Railroad equipment	12.2	(D)	(D)	6.5	.1	(Z)	(Z)	.1	9
375	Motorcycles, bicycles, and parts	5.0	(D)	(D)	2.0	(D)	(Z)	-	(D)	13
3751	Motorcycles, bicycles, and parts	5.0	(D)	(D)	2.0	(D)	(Z)	-	(D)	13
376	Guided missiles, space vehicles, parts	112.7	23.9	30.6	58.3	(D)	(D)	.3	2.6	15
3761	Guided missiles and space vehicles	62.0	7.1	19.2	35.8	(D)	(D)	.3	1.2	11
3764	Space propulsion units and parts	35.3	8.6	8.6	18.1	.4	(Z)	(Z)	.4	33
3769	Space vehicle equipment, n.e.c.	15.5	8.2	2.8	4.4	1.0	-	(Z)	1.0	62
379	Miscellaneous transportation equipment	23.9	5.5	3.9	14.5	(D)	.1	(Z)	(D)	11
3792	Travel trailers and campers	6.1	1.3	.1	4.7	.2	(Z)	-	.2	40
3795	Tanks and tank components	10.5	2.7	2.1	5.7	(D)	(Z)	(Z)	(D)	2
3799	Transportation equipment, n.e.c.	7.3	1.5	1.7	4.1	.2	(Z)	(Z)	.2	13
38	Instruments and related products	336.6	59.3	94.1	183.2	16.0	2.1	1.5	12.4	4
381	Search and navigation equipment	62.9	9.2	20.5	33.3	2.5	.5	(Z)	2.0	8
3812	Search and navigation equipment	62.9	9.2	20.5	33.3	2.5	.5	(Z)	2.0	8
382	Measuring and controlling devices	55.5	6.3	19.9	29.3	1.8	(D)	.7	(D)	9
3821	Laboratory apparatus and furniture	4.3	.3	1.2	2.8	.1	-	-	.1	35
3822	Environmental controls	5.0	.5	1.2	3.3	.1	(Z)	(Z)	.1	27
3823	Process control instruments	11.1	1.4	3.1	6.6	.3	(Z)	(Z)	.3	26
3824	Fluid meters and counting devices	7.5	1.3	3.1	3.2	(D)	(D)	(D)	(D)	23
3825	Instruments to measure electricity	13.9	1.5	7.3	5.1	(D)	(D)	(D)	(D)	12
3826	Analytical instruments	6.1	.2	1.6	4.3	(Z)	(Z)	(Z)	(Z)	22
3827	Optical instruments and lenses	3.9	.6	1.4	2.0	.2	(Z)	(Z)	(Z)	33
3829	Measuring and controlling devices, n.e.c.	3.6	.6	.9	2.1	(Z)	-	(Z)	(Z)	19
384	Medical instruments and supplies	43.0	6.8	10.6	25.5	3.6	(D)	.3	(D)	14
3841	Surgical and medical instruments	10.3	1.6	2.8	5.9	(D)	(Z)	(Z)	1.5	22
3842	Surgical appliances and supplies	21.7	4.6	5.0	12.0	1.7	(Z)	.3	1.4	20
3844	X-ray apparatus and tubes	4.2	.2	1.7	2.3	(D)	-	-	(D)	25
3845	Electromedical equipment	6.0	.3	.7	4.9	.1	(Z)	(Z)	.1	49
385	Ophthalmic goods	7.2	1.2	3.0	3.0	.1	(Z)	(Z)	(Z)	17
3851	Ophthalmic goods	7.2	1.2	3.0	3.0	.1	(Z)	(Z)	(Z)	17
386	Photographic equipment and supplies	166.6	35.5	39.5	91.6	7.9	1.2	.3	6.4	7
3861	Photographic equipment and supplies	166.6	35.5	39.5	91.6	7.9	1.2	.3	6.4	7
387	Watches, clocks, watchcases, and parts	1.4	.2	.6	.6	.1	(Z)	(Z)	(Z)	24
3873	Watches, clocks, watchcases, and parts	1.4	.2	.6	.6	.1	(Z)	(Z)	(Z)	24

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
39	Miscellaneous manufacturing industries	84.5	21.2	20.0	43.3	6.0	1.3	1.6	3.1	5
391	Jewelry, silverware, and plated ware	7.8	1.5	3.1	3.3	(D)	(Z)	.1	(D)	9
3911	Jewelry, precious metal	3.3	(D)	1.8	(D)	.1	(Z)	.1	(Z)	16
3914	Silverware and plated ware	3.4	(D)	.8	(D)	(D)	(Z)	(Z)	(Z)	7
3915	Jewelers' materials and lapidary work	1.2	.2	.5	.4	(Z)	(Z)	(Z)	(Z)	33
393	Musical instruments	3.6	1.1	1.1	1.4	.8	(D)	(D)	.4	20
3931	Musical instruments	3.6	1.1	1.1	1.4	.8	(D)	(D)	.4	20
394	Toys and sporting goods	20.8	5.1	5.0	10.7	2.8	(D)	1.2	(D)	15
3944	Games, toys, and children's vehicles	3.4	.5	.4	2.5	.3	(Z)	(Z)	.3	14
3949	Sporting and athletic goods, n.e.c.	16.9	4.6	4.6	7.7	2.4	(D)	1.2	(D)	18
395	Pens, pencils, office, and art supplies	7.0	.7	1.6	4.7	.1	(Z)	(Z)	.1	10
3951	Pens and mechanical pencils	3.8	.6	1.1	2.1	.1	(Z)	(Z)	(Z)	14
3952	Lead pencils and art goods	1.6	(Z)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	9
3955	Carbon paper and inked ribbons	1.5	.1	(D)	(D)	(Z)	(Z)	(Z)	(Z)	31
396	Costume jewelry and notions	10.6	1.9	5.1	3.6	.7	.1	.1	.5	14
3961	Costume jewelry	3.8	.7	2.0	1.1	.2	(Z)	(Z)	.1	21
3965	Fasteners, buttons, needles, and pins	6.8	1.2	3.1	2.5	.5	(Z)	(Z)	.5	18
399	Miscellaneous manufactures	34.6	10.9	4.1	19.6	(D)	.1	(D)	(D)	5
3991	Brooms and brushes	1.4	(Z)	.1	1.3	(Z)	(Z)	(Z)	(Z)	32
3993	Signs and advertising specialties	5.1	.5	.9	3.7	.1	(Z)	(Z)	.1	17
3995	Burial caskets	2.7	.8	.5	1.3	.1	(Z)	(D)	(D)	29
3996	Hard surface floor coverings, n.e.c.	19.5	8.6	1.1	9.8	(D)	(Z)	(Z)	(D)	3
3999	Manufacturing industries, n.e.c.	5.9	1.0	1.5	3.4	.4	(Z)	(Z)	.3	15

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8a. Operating Costs by Major Groups for the Media Air: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PAOC	Air			Standard error of estimate (PAOC) (percent)
			Total	Type of pollutant abated		
				Hazardous	Nonhazardous	
	All Industries ¹	17 555.0	5 574.6	1 533.1	4 041.5	2
20	Food and kindred products	1 339.3	156.1	10.7	145.4	3
21	Tobacco products	32.8	12.8	(Z)	12.8	6
22	Textile mill products	272.8	42.3	5.2	37.1	4
24	Lumber and wood products	253.1	90.5	16.8	73.7	5
25	Furniture and fixtures	124.2	42.6	14.2	28.4	6
26	Paper and allied products	1 901.5	511.2	67.3	444.0	4
27	Printing and publishing	258.4	95.3	40.2	55.1	4
28	Chemicals and allied products	4 348.2	1 013.6	396.4	617.2	3
29	Petroleum and coal products	2 647.9	1 585.3	359.1	1 226.1	4
30	Rubber and miscellaneous plastics products	385.2	104.6	37.0	67.6	5
31	Leather and leather products	50.9	3.6	1.4	2.2	14
32	Stone, clay, and glass products	521.1	269.0	39.2	229.7	4
33	Primary metal industries	2 017.2	944.5	248.1	696.4	3
34	Fabricated metal products	679.4	126.6	60.4	66.2	4
35	Industrial machinery and equipment	445.1	71.9	16.1	55.8	4
36	Electronic and other electric equipment	662.4	121.8	63.4	58.5	4
37	Transportation equipment	1 194.4	302.4	117.1	185.3	4
38	Instruments and related products	336.6	59.3	35.9	24.0	4
39	Miscellaneous manufacturing industries	84.5	21.2	5.2	16.0	5

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8b. Operating Costs by Major Groups for the Media Water: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PAOC	Water				Standard error of estimate (PAOC) (percent)	
			Total	Type of pollutant abated				
				Hazardous	Nonhazardous	Payments to industry		Sewage services payments to government
	All Industries ¹	17 555.0	6 631.8	1 689.9	4 942.1	3 633.3	1 308.8	2
20	Food and kindred products	1 339.3	857.8	23.2	834.6	387.5	447.1	3
21	Tobacco products	32.8	10.2	-	10.2	5.6	4.6	6
22	Textile mill products	272.8	165.1	5.3	159.8	57.0	102.8	4
24	Lumber and wood products	253.1	51.9	7.3	44.6	38.1	6.5	5
25	Furniture and fixtures	124.2	18.2	5.2	13.0	5.5	7.4	6

Table 8b. Operating Costs by Major Groups for the Media Water: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Water						Standard error of estimate (PAOC) (percent)
		Total PAOC	Total	Type of pollutant abated				
				Hazardous	Nonhazardous			
					Nonhazardous	Payments to industry	Sewage services payments to government	
26	Paper and allied products	1 901.5	852.7	22.7	830.0	659.3	170.7	4
27	Printing and publishing	258.4	33.0	7.4	25.6	10.3	15.3	4
28	Chemicals and allied products	4 348.2	1 957.0	742.1	1 214.8	1 043.8	171.0	3
29	Petroleum and coal products	2 647.9	685.2	235.2	450.3	429.0	21.3	4
30	Rubber and miscellaneous plastics products	385.2	83.5	9.0	74.5	39.8	34.8	5
31	Leather and leather products	50.9	29.6	.8	28.9	20.1	8.8	14
32	Stone, clay, and glass products	521.1	102.4	11.7	90.7	68.7	22.0	4
33	Primary metal industries	2 017.2	598.2	141.7	456.5	410.1	46.5	3
34	Fabricated metal products	679.4	257.3	114.7	152.6	95.4	57.2	4
35	Industrial machinery and equipment	445.1	157.2	43.7	113.5	74.5	39.1	4
36	Electronic and other electric equipment	682.4	287.5	127.5	170.0	110.2	59.8	5
37	Transportation equipment	1 194.4	350.9	135.9	215.0	147.4	67.6	4
38	Instruments and related products	336.6	94.1	50.0	44.1	22.6	21.5	4
39	Miscellaneous manufacturing industries	84.5	20.0	6.6	13.4	8.5	4.9	5

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8c. Operating Costs by Major Groups for the Media Solid/Contained Waste: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Solid/contained waste						Standard error of estimate (PAOC) (percent)
		Total PAOC	Total	Type of pollutant abated				
				Hazardous	Nonhazardous			
					Nonhazardous	Payments to industry	Solid/contained waste collection payments to government	
	All Industries¹	17 555.0	5 348.6	1 874.6	3 474.0	3 182.1	291.8	2
20	Food and kindred products	1 339.3	325.4	24.1	301.3	258.7	42.6	3
21	Tobacco products	32.8	9.8	4	9.4	8.8	.6	6
22	Textile mill products	272.8	65.4	5.0	60.4	50.5	9.9	4
24	Lumber and wood products	253.1	110.6	15.6	95.1	83.4	11.6	5
25	Furniture and fixtures	124.2	63.4	15.1	48.3	41.6	6.7	6
26	Paper and allied products	1 901.5	537.5	46.1	491.4	440.8	50.6	4
27	Printing and publishing	258.4	130.1	32.3	97.8	88.9	8.9	4
28	Chemicals and allied products	4 348.2	1 377.6	688.1	689.5	660.1	29.4	3
29	Petroleum and coal products	2 647.9	377.4	187.2	190.1	179.0	11.1	4
30	Rubber and miscellaneous plastics products	385.2	197.1	45.0	152.1	130.4	21.7	5
31	Leather and leather products	50.9	17.7	3.4	14.3	13.4	.9	14
32	Stone, clay, and glass products	521.1	149.7	24.7	125.0	111.0	14.0	4
33	Primary metal industries	2 017.2	474.6	175.4	299.1	287.5	11.6	3
34	Fabricated metal products	679.4	285.4	116.9	168.5	154.8	13.7	4
35	Industrial machinery and equipment	445.1	216.0	63.9	152.1	138.7	13.4	4
36	Electronic and other electric equipment	682.4	243.1	101.9	141.2	127.5	13.6	5
37	Transportation equipment	1 194.4	541.2	243.2	298.0	279.6	18.3	4
38	Instruments and related products	336.6	183.2	74.7	108.5	101.6	6.9	4
39	Miscellaneous manufacturing industries	84.5	43.3	11.4	31.8	25.7	6.2	5

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	United States¹	17 555.0	5 574.6	6 631.8	5 348.6	1 570.0	767.8	273.6	528.6	2
20	Food and kindred products	1 339.3	155.1	857.8	325.4	65.1	13.9	19.5	31.7	3
21	Tobacco products	32.8	12.8	10.2	9.8	.3	(Z)	—	.3	6
22	Textile mill products	272.8	42.3	165.1	65.4	15.3	1.6	3.2	10.5	4
24	Lumber and wood products	253.1	90.5	51.9	110.6	19.1	4.4	4.3	10.5	5
25	Furniture and fixtures	124.2	42.6	18.2	63.4	14.6	3.5	.2	10.9	6
26	Paper and allied products	1 901.5	511.2	852.7	537.5	234.0	110.2	35.8	88.0	4
27	Printing and publishing	258.4	95.3	33.0	130.1	47.6	10.2	1.2	36.2	4
28	Chemicals and allied products	4 348.2	1 019.6	1 957.0	1 377.6	362.1	158.3	89.6	114.3	3
29	Petroleum and coal products	2 647.9	1 585.3	685.2	377.4	419.4	310.6	72.2	36.6	4
30	Rubber and miscellaneous plastics products	385.2	104.6	83.5	197.1	24.9	6.3	2.0	16.6	5

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993
—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
31	Leather and leather products	50.9	3.6	29.6	17.7	1.2	(Z)	1.0	.1	14
32	Stone, clay, and glass products	521.1	269.0	102.4	149.7	45.4	25.7	3.3	16.4	4
33	Primary metal industries	2 017.2	944.5	598.2	474.6	136.4	96.1	11.6	28.7	3
34	Fabricated metal products	679.4	126.6	267.3	285.4	32.2	6.2	7.1	18.9	4
35	Industrial machinery and equipment	445.1	71.9	157.2	216.0	25.6	2.4	4.6	18.6	4
36	Electronic and other electric equipment	662.4	121.8	297.5	243.1	40.6	6.7	3.2	30.6	5
37	Transportation equipment	1 194.4	302.4	350.9	541.2	64.1	8.3	11.7	44.1	4
38	Instruments and related products	336.6	59.3	94.1	183.2	16.0	2.1	1.5	12.4	4
39	Miscellaneous manufacturing industries	84.5	21.2	20.0	43.3	6.0	1.3	1.6	3.1	5
	Alabama	393.4	140.6	157.2	95.6	27.2	15.5	4.6	7.1	6
20	Food and kindred products	19.8	2.0	15.4	2.4	.9	(Z)	.7	.1	19
22	Textile mill products	10.6	1.1	6.3	3.2	.7	(Z)	(Z)	.6	16
24	Lumber and wood products	6.1	2.3	.9	2.8	.1	(Z)	(Z)	.1	20
25	Furniture and fixtures	1.9	.6	.2	1.0	.3	(D)	(D)	.2	40
26	Paper and allied products	87.1	26.3	44.6	16.2	6.0	5.2	(D)	(D)	3
28	Chemicals and allied products	94.5	19.1	48.4	27.0	1.7	(Z)	(D)	(D)	11
29	Petroleum and coal products	8.6	3.6	2.2	2.8	(D)	(Z)	(Z)	(D)	88
30	Rubber and miscellaneous plastics products	8.1	1.0	2.1	5.0	(D)	(Z)	(Z)	(D)	13
32	Stone, clay, and glass products	13.8	11.6	1.2	1.0	3.4	3.3	(Z)	.1	23
33	Primary metal industries	96.4	55.5	25.9	15.0	2.2	.3	.3	1.6	20
34	Fabricated metal products	12.9	3.9	3.8	5.1	1.6	.3	(D)	1.2	21
35	Industrial machinery and equipment	7.6	2.5	1.8	3.3	(D)	(D)	(D)	(Z)	39
36	Electronic and other electric equipment	16.9	8.9	1.5	6.5	5.2	(D)	(D)	(D)	9
37	Transportation equipment	6.2	1.5	2.4	2.4	(D)	(Z)	(Z)	(Z)	24
39	Miscellaneous manufacturing industries	1.2	.3	.3	.6	(Z)	(Z)	(Z)	(Z)	31
	Alaska	28.9	6.9	12.8	9.2	3.1	(Z)	(D)	(D)	23
20	Food and kindred products	(D)	.1	.3	(D)	-	-	(D)	(D)	(X)
26	Paper and allied products	24.0	(D)	(D)	6.4	3.1	-	(D)	(D)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(D)	-	-	-	-	-
	Arizona	119.9	65.2	32.7	22.0	12.0	(D)	.2	(D)	8
20	Food and kindred products	1.3	.5	.6	.3	(Z)	(Z)	(Z)	(Z)	46
24	Lumber and wood products	2.2	(Z)	.1	2.1	(Z)	(Z)	(Z)	(Z)	74
26	Paper and allied products	6.5	.9	5.6	.1	.6	.6	(Z)	.8	45
27	Printing and publishing	2.4	1.3	.4	.7	.6	.1	(Z)	(Z)	22
28	Chemicals and allied products	3.1	.4	.6	2.1	.1	(Z)	(Z)	(Z)	23
30	Rubber and miscellaneous plastics products	1.4	.5	.3	.7	.1	(D)	(D)	(D)	41
32	Stone, clay, and glass products	12.4	11.5	.7	.2	(D)	(D)	(Z)	(D)	45
33	Primary metal industries	(D)	(D)	(D)	1.3	(D)	(D)	(Z)	(D)	(X)
34	Fabricated metal products	5.2	.9	3.0	1.3	(D)	(Z)	(Z)	(Z)	44
36	Electronic and other electric equipment	18.5	4.8	8.8	4.8	.1	(Z)	(Z)	(Z)	5
37	Transportation equipment	16.4	6.9	3.4	6.0	.5	(D)	(Z)	(D)	37
38	Instruments and related products	2.3	.3	.9	1.1	(Z)	(Z)	(Z)	(Z)	31
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	.7	.6	.3	.1	.2	(X)
	Arkansas	226.3	63.9	99.6	62.8	30.5	7.6	3.0	19.9	10
20	Food and kindred products	34.4	1.2	27.2	6.0	3.6	(D)	(D)	1.6	13
22	Textile mill products	1.1	(D)	.5	(D)	(D)	(Z)	(Z)	(Z)	14
24	Lumber and wood products	16.2	6.6	4.4	5.3	.2	(Z)	(Z)	.2	26
25	Furniture and fixtures	2.1	.1	1.0	1.0	(D)	(D)	(D)	(D)	10
26	Paper and allied products	58.1	28.4	17.9	11.8	(D)	(D)	(D)	(D)	11
27	Printing and publishing	4.2	.3	.6	3.3	(D)	(D)	(D)	2.6	51
28	Chemicals and allied products	65.7	16.0	33.7	16.0	8.2	5.7	(Z)	(Z)	30
29	Petroleum and coal products	5.1	1.4	3.5	.2	(Z)	(Z)	(Z)	(Z)	93
30	Rubber and miscellaneous plastics products	5.9	1.3	1.1	3.5	.1	(Z)	(Z)	(Z)	18
32	Stone, clay, and glass products	3.9	2.5	.2	1.1	-	-	-	-	52
33	Primary metal industries	11.4	3.8	3.5	4.1	(D)	(D)	(D)	(D)	42
34	Fabricated metal products	5.1	(D)	1.9	(D)	(Z)	(Z)	(Z)	(Z)	10
35	Industrial machinery and equipment	2.7	.2	.6	1.8	.7	-	-	.7	21
36	Electronic and other electric equipment	6.2	.3	2.0	3.9	.8	-	-	.8	33
37	Transportation equipment	1.4	.1	.5	.4	(D)	(Z)	(Z)	(D)	52
38	Instruments and related products	1.4	.5	.5	.4	(D)	(Z)	(Z)	(D)	31
	California	1 426.2	546.0	484.9	395.4	88.9	39.2	15.1	34.6	5
20	Food and kindred products	156.1	15.2	101.3	39.6	6.0	1.1	.9	4.0	11
22	Textile mill products	11.2	2.7	7.1	1.4	.3	.1	.1	1.2	25
24	Lumber and wood products	23.9	7.7	6.2	10.0	4.1	1.9	.9	.5	16
25	Furniture and fixtures	10.7	2.4	2.8	5.5	.5	(Z)	2.0	.5	34
26	Paper and allied products	56.2	19.9	20.3	15.9	5.2	2.1	2.0	1.1	19
27	Printing and publishing	24.1	8.2	3.4	12.5	4.5	.3	.1	4.1	14
28	Chemicals and allied products	115.8	29.5	52.4	33.9	4.7	3.8	.2	.7	12
29	Petroleum and coal products	523.2	318.2	136.4	68.6	42.7	22.6	8.0	12.2	11
30	Rubber and miscellaneous plastics products	31.0	11.3	3.5	16.3	.8	.3	.1	.4	16
31	Leather and leather products	1.0	(Z)	.7	.3	-	-	-	-	44
32	Stone, clay, and glass products	62.6	37.9	7.9	16.7	5.7	(D)	.1	(D)	7
33	Primary metal industries	54.7	16.3	21.2	17.2	4.4	(Z)	(D)	(D)	9
34	Fabricated metal products	61.7	11.9	24.3	25.6	1.9	.3	.3	1.4	11
35	Industrial machinery and equipment	20.4	3.3	5.8	11.3	.7	.1	.2	.5	13
36	Electronic and other electric equipment	118.0	27.7	52.6	37.7	2.2	.2	.9	1.0	11
37	Transportation equipment	110.3	24.7	27.2	58.4	3.7	(D)	(D)	2.7	7
38	Instruments and related products	39.8	7.0	10.6	22.2	1.4	.4	.5	.5	1
39	Miscellaneous manufacturing industries	5.6	2.0	1.2	2.4	.2	(Z)	(Z)	.1	28
	Colorado	85.5	14.0	45.7	25.7	3.5	(D)	(D)	2.2	10
20	Food and kindred products	27.8	(D)	21.3	(D)	.8	(Z)	(D)	(D)	7
27	Printing and publishing	1.3	.1	.1	1.1	.8	(Z)	(Z)	(Z)	33
28	Chemicals and allied products	12.7	3.4	5.1	4.3	(Z)	(Z)	(Z)	(Z)	51
32	Stone, clay, and glass products	2.2	.9	.4	.8	(D)	(D)	(Z)	(D)	17
34	Fabricated metal products	4.2	.5	2.2	1.4	(D)	(D)	(D)	(D)	18

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Colorado-Con.										
35	Industrial machinery and equipment	7.7	2.0	3.4	2.3	.7	(D)	(Z)	(D)	32
36	Electronic and other electric equipment	8.9	.7	5.8	2.4	.1	-	-	.1	51
37	Transportation equipment	(D)	.8	(D)	(D)	(D)	(D)	(Z)	-	(X)
38	Instruments and related products	(D)	(D)	(D)	2.8	.1	(Z)	(Z)	.1	(X)
Connecticut		160.8	19.9	53.4	87.5	6.5	1.7	1.2	3.6	8
20	Food and kindred products	1.5	(Z)	(D)	(D)	(D)	-	(D)	(Z)	5
22	Textile mill products	1.9	.8	.4	.7	-	-	-	-	48
26	Paper and allied products	10.9	3.8	3.6	3.5	1.7	-	-	1.7	38
27	Printing and publishing	2.8	1.1	.4	1.3	.2	.1	(Z)	.2	27
28	Chemicals and allied products	25.3	5.7	8.3	11.4	1.5	1.3	(D)	(D)	11
29	Petroleum and coal products	1.6	1.3	.1	.3	-	-	-	-	48
30	Rubber and miscellaneous plastics products	1.4	.1	.2	1.1	.2	-	(Z)	.1	44
32	Stone, clay, and glass products	2.4	.3	.9	1.2	-	-	-	-	53
33	Primary metal industries	10.1	.6	4.5	5.0	.1	(Z)	-	.1	40
34	Fabricated metal products	18.4	1.8	10.1	6.6	.7	(D)	(D)	(Z)	12
35	Industrial machinery and equipment	7.0	.7	3.4	2.9	(D)	-	-	(D)	9
36	Electronic and other electric equipment	7.7	.3	3.2	4.2	.1	(Z)	.1	(Z)	23
37	Transportation equipment	62.1	2.6	14.5	45.0	.6	(Z)	.1	.5	16
38	Instruments and related products	3.7	.3	1.3	2.1	(D)	(D)	(Z)	(Z)	38
39	Miscellaneous manufacturing industries	3.0	.5	(D)	(D)	.4	(Z)	(Z)	.3	35
Delaware		143.3	79.0	44.4	19.9	(D)	(D)	(D)	1.8	17
20	Food and kindred products	4.6	(D)	2.9	(D)	(D)	(Z)	-	(D)	29
28	Chemicals and allied products	35.5	10.1	16.3	9.1	(D)	(D)	(D)	(D)	17
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
30	Rubber and miscellaneous plastics products	1.9	(D)	(D)	1.2	-	-	-	-	36
36	Electronic and other electric equipment	2.3	.9	1.1	.4	-	-	-	-	84
37	Transportation equipment	(D)	(D)	(D)	3.0	.7	-	.1	.6	(X)
District of Columbia		4.4	(D)	.5	(D)	.8	-	(Z)	.8	12
27	Printing and publishing	4.1	(D)	.3	(D)	.8	-	(Z)	.8	11
Florida		297.0	79.8	118.5	98.6	31.0	17.3	6.9	6.8	6
20	Food and kindred products	50.8	5.4	27.2	18.3	5.5	(D)	(D)	(D)	10
24	Lumber and wood products	2.8	1.2	.5	1.1	.1	(Z)	(Z)	(Z)	35
25	Furniture and fixtures	1.3	1.0	(Z)	.3	-	-	-	-	50
26	Paper and allied products	70.4	27.8	27.5	15.1	6.7	6.6	-	.1	3
27	Printing and publishing	3.7	.4	1.5	1.8	.1	.1	(Z)	.1	24
28	Chemicals and allied products	79.2	28.9	26.9	23.3	15.7	10.1	5.3	.3	7
29	Petroleum and coal products	1.5	.5	.5	.5	(D)	(D)	-	-	37
30	Rubber and miscellaneous plastics products	6.3	1.4	1.4	3.5	(Z)	-	-	(Z)	40
32	Stone, clay, and glass products	11.0	5.1	2.7	3.2	.1	-	(Z)	.1	17
33	Primary metal industries	3.4	.2	.9	2.4	(Z)	-	(Z)	(Z)	42
34	Fabricated metal products	12.4	2.3	5.6	4.5	.6	.2	.2	.3	29
35	Industrial machinery and equipment	5.4	1.3	1.2	2.9	.2	(Z)	(Z)	.2	29
36	Electronic and other electric equipment	13.9	2.0	6.8	5.1	(D)	-	(D)	.3	11
37	Transportation equipment	28.1	1.4	13.4	13.2	.4	(Z)	.2	.2	48
38	Instruments and related products	4.5	.4	2.0	2.1	(D)	(Z)	(Z)	(D)	4
39	Miscellaneous manufacturing industries	1.7	.5	.2	1.1	.1	(Z)	-	(Z)	49
Georgia		415.9	119.0	182.2	114.7	41.0	23.8	3.0	14.9	6
20	Food and kindred products	99.1	3.9	26.5	8.7	.9	(D)	(D)	.4	10
21	Tobacco products	(D)	(D)	(D)	(D)	-	-	-	-	(X)
22	Textile mill products	35.2	2.8	24.0	8.3	1.1	(Z)	(D)	(D)	9
24	Lumber and wood products	10.8	4.8	1.3	4.6	.4	(Z)	(Z)	.4	14
25	Furniture and fixtures	(D)	(D)	(D)	(D)	.2	(Z)	(Z)	.1	(X)
26	Paper and allied products	123.4	43.2	51.0	29.2	26.6	(D)	(D)	6.9	10
27	Printing and publishing	7.8	4.6	.6	2.6	.7	.1	(Z)	.6	23
28	Chemicals and allied products	74.7	21.7	36.9	16.1	3.8	.7	1.0	2.0	16
29	Petroleum and coal products	2.8	.5	1.5	.7	(D)	(D)	-	-	34
30	Rubber and miscellaneous plastics products	18.4	5.7	9.2	3.4	.5	.1	(Z)	.3	42
32	Stone, clay, and glass products	14.6	7.3	3.1	4.2	2.4	1.7	(D)	(D)	5
33	Primary metal industries	11.3	2.8	3.7	4.8	(D)	(D)	.7	.2	24
34	Fabricated metal products	12.4	2.5	4.8	5.0	.2	(Z)	(Z)	.1	29
35	Industrial machinery and equipment	10.2	.6	1.6	8.0	1.8	(Z)	(Z)	1.7	36
36	Electronic and other electric equipment	5.4	1.1	2.0	2.3	.3	(Z)	(Z)	.3	11
37	Transportation equipment	40.3	15.0	12.5	12.8	.4	(Z)	(Z)	.3	19
38	Instruments and related products	1.4	.3	.7	.4	-	-	-	-	42
39	Miscellaneous manufacturing industries	(D)	(Z)	1.3	(D)	(Z)	(Z)	(Z)	(Z)	(X)
Hawaii		12.3	(D)	4.4	(D)	.4	.1	.1	.2	33
20	Food and kindred products	3.6	1.5	.9	1.2	-	-	-	-	46
29	Petroleum and coal products	5.8	.6	3.1	2.1	-	-	-	-	61
32	Stone, clay, and glass products	2.0	(D)	.2	(D)	-	-	-	-	23
Idaho		63.9	23.7	24.6	15.6	.6	(Z)	(Z)	.6	12
20	Food and kindred products	12.5	1.6	9.0	2.0	.1	-	-	.1	18
24	Lumber and wood products	3.6	2.0	.2	1.3	(D)	(Z)	(Z)	(D)	12
26	Paper and allied products	(D)	(D)	(D)	(D)	-	-	-	-	(X)
28	Chemicals and allied products	30.8	15.7	6.0	9.1	(Z)	-	(Z)	-	22
34	Fabricated metal products	2.7	-	2.1	.6	-	-	-	-	71
35	Industrial machinery and equipment	1.4	.2	.6	.6	(D)	-	-	(D)	23
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(Z)	-	-	(Z)	(X)
Illinois		879.5	332.0	289.1	258.4	88.7	51.9	19.6	17.2	6
20	Food and kindred products	67.1	13.5	31.8	21.8	2.2	.1	.8	1.3	10
22	Textile mill products	.9	-	.7	.2	-	-	-	-	63
24	Lumber and wood products	2.9	1.1	.3	1.5	.3	.2	(Z)	.1	32
25	Furniture and fixtures	4.4	1.0	.7	2.7	.2	.1	(Z)	.1	24
26	Paper and allied products	49.9	10.6	15.6	23.7	14.6	2.2	9.8	2.6	40

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

-Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Illinois—Con.										
27	Printing and publishing	26.6	11.6	2.1	12.9	3.1	.8	(Z)	2.4	14
28	Chemicals and allied products	169.7	30.2	80.5	59.0	17.5	9.3	6.3	1.9	10
29	Petroleum and coal products	212.0	151.7	41.9	18.4	38.2	36.5	.7	1.1	14
30	Rubber and miscellaneous plastics products	23.7	8.0	5.5	10.2	1.3	(Z)	(D)	(D)	13
31	Leather and leather products	1.8	(Z)	1.0	.8	-	-	-	-	45
32	Stone, clay, and glass products	16.2	5.9	4.8	5.5	(D)	(D)	(Z)	(D)	29
33	Primary metal industries	124.4	56.0	34.6	33.7	(D)	(D)	(D)	1.8	6
34	Fabricated metal products	49.0	10.3	21.1	17.6	2.3	.5	.7	1.1	10
35	Industrial machinery and equipment	42.0	12.6	13.4	15.9	2.7	.8	.3	1.6	7
36	Electronic and other electric equipment	44.1	4.5	25.9	13.7	.9	(Z)	(Z)	.8	44
37	Transportation equipment	32.9	19.2	4.6	15.2	1.1	(Z)	(Z)	1.0	34
38	Instruments and related products	7.4	.7	3.5	3.3	.7	(Z)	(Z)	.6	35
39	Miscellaneous manufacturing industries	4.3	1.1	.8	2.3	(D)	(Z)	(Z)	(D)	13
Indiana		690.4	241.2	253.1	196.1	39.5	20.9	4.0	14.6	4
20	Food and kindred products	34.2	5.9	21.8	6.4	(D)	(D)	(Z)	(Z)	11
24	Lumber and wood products	5.6	.7	.3	5.5	.1	.1	(Z)	(Z)	22
25	Furniture and fixtures	7.2	2.4	1.5	3.3	.7	.3	(Z)	.4	22
26	Paper and allied products	18.5	8.7	3.0	6.9	1.2	.8	(Z)	1.2	55
27	Printing and publishing	9.7	4.9	.7	4.0	.2	(Z)	-	.2	18
28	Chemicals and allied products	128.7	36.4	59.7	32.5	11.1	12.6	1.8	(D)	15
29	Petroleum and coal products	70.4	(D)	14.7	(D)	13.1	.2	.2	.4	16
30	Rubber and miscellaneous plastics products	19.8	4.3	4.3	11.2	1.8	.7	-	1.1	20
32	Stone, clay, and glass products	18.1	10.8	2.7	4.7	1.2	(D)	(Z)	(D)	6
33	Primary metal industries	226.4	95.2	87.5	43.6	2.2	(D)	(D)	1.6	6
34	Fabricated metal products	38.5	6.8	17.2	14.5	1.0	(Z)	.3	.6	13
35	Industrial machinery and equipment	23.9	2.9	8.9	12.1	.5	.1	.4	.5	16
36	Electronic and other electric equipment	27.4	4.2	8.9	14.3	.5	.1	(Z)	.7	7
37	Transportation equipment	53.3	10.5	19.8	23.0	2.5	.4	.7	1.4	7
38	Instruments and related products	4.4	.8	.8	2.8	(D)	-	(D)	(D)	16
39	Miscellaneous manufacturing industries	2.3	(D)	.6	(D)	.1	(Z)	(Z)	.1	16
Iowa		173.4	51.8	66.4	55.1	10.8	3.4	2.2	5.2	7
20	Food and kindred products	52.2	11.3	28.6	12.3	2.3	(D)	.9	(D)	6
24	Lumber and wood products	3.6	2.1	(Z)	1.5	1.1	-	-	1.1	33
26	Paper and allied products	4.3	1.8	.3	2.2	.7	-	-	.7	29
27	Printing and publishing	4.7	(D)	.7	2.7	.7	-	-	.7	33
28	Chemicals and allied products	26.1	5.0	13.8	7.3	2.2	(D)	(D)	.3	2
30	Rubber and miscellaneous plastics products	5.3	.8	1.1	3.4	(D)	(Z)	(Z)	(D)	20
32	Stone, clay, and glass products	6.2	4.8	.2	1.2	1.2	1.2	-	(Z)	24
33	Primary metal industries	26.7	16.8	5.9	4.0	(D)	-	(D)	(D)	35
34	Fabricated metal products	3.5	.4	.4	2.7	(D)	-	-	(D)	35
35	Industrial machinery and equipment	18.2	(D)	(D)	9.3	(D)	(Z)	-	(D)	5
36	Electronic and other electric equipment	12.5	1.6	7.2	3.7	1.0	(Z)	(D)	(D)	31
37	Transportation equipment	3.9	.8	.9	2.3	.2	(Z)	-	.2	37
38	Instruments and related products	4.5	1.2	1.4	1.9	(Z)	-	-	(Z)	60
Kansas		125.0	34.6	45.6	44.8	11.2	3.8	1.5	5.8	13
20	Food and kindred products	11.7	2.8	5.2	3.8	.7	(D)	.1	(D)	18
24	Lumber and wood products	1.6	(D)	.1	(D)	-	-	-	-	82
26	Paper and allied products	4.0	2.2	(D)	(D)	2.6	-	-	2.6	52
27	Printing and publishing	2.1	.4	.3	1.4	.4	-	-	.4	27
28	Chemicals and allied products	19.2	4.8	9.2	5.3	2.7	1.2	1.1	.4	9
29	Petroleum and coal products	36.6	15.6	12.0	8.9	2.2	2.0	.2	(Z)	37
30	Rubber and miscellaneous plastics products	4.1	1.2	.7	2.2	.3	(Z)	(Z)	.3	20
32	Stone, clay, and glass products	5.6	3.3	1.1	1.2	(D)	-	-	.1	11
33	Primary metal industries	2.0	1.3	.2	.5	-	-	-	-	52
34	Fabricated metal products	1.2	(Z)	.4	.9	-	-	-	-	51
35	Industrial machinery and equipment	3.8	.6	1.2	2.0	(D)	-	(Z)	(D)	25
36	Electronic and other electric equipment	4.0	1.4	1.8	.8	(Z)	-	(Z)	-	63
37	Transportation equipment	26.8	2.4	10.2	14.2	1.5	-	-	1.5	20
38	Instruments and related products	1.6	(Z)	.9	.7	-	-	-	-	83
Kentucky		331.3	144.7	102.4	84.2	11.1	2.8	1.6	6.6	5
20	Food and kindred products	9.9	1.7	6.4	1.9	.1	(Z)	(Z)	.1	29
21	Tobacco products	(D)	(D)	(D)	(D)	-	-	-	-	(X)
22	Textile mill products	1.8	(Z)	1.3	.4	(Z)	(Z)	(Z)	(Z)	31
24	Lumber and wood products	1.3	.5	.2	.6	.3	.1	-	.2	76
25	Furniture and fixtures	1.7	.1	.1	1.5	-	-	-	-	19
26	Paper and allied products	30.9	19.1	6.0	5.8	1.2	.2	(Z)	1.0	29
27	Printing and publishing	7.5	3.0	.9	3.6	3.5	(D)	(Z)	(D)	9
28	Chemicals and allied products	98.0	22.3	49.3	26.4	4.1	(D)	(Z)	2.0	12
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	-	(X)
30	Rubber and miscellaneous plastics products	7.0	2.6	1.4	2.9	(Z)	-	-	(Z)	22
32	Stone, clay, and glass products	7.3	3.0	1.3	2.9	(Z)	(Z)	(Z)	-	10
33	Primary metal industries	52.7	31.0	13.5	8.2	.1	.5	(D)	.1	10
34	Fabricated metal products	13.8	3.4	4.4	5.9	(D)	(D)	(Z)	(D)	32
35	Industrial machinery and equipment	7.9	1.4	1.6	4.8	(D)	(D)	(Z)	(D)	21
36	Electronic and other electric equipment	12.1	1.6	4.9	5.5	.1	.1	-	(Z)	25
37	Transportation equipment	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	.1	(X)
39	Miscellaneous manufacturing industries	1.9	.2	.6	1.2	.1	-	-	-	39
Louisiana		922.7	325.8	362.5	234.4	148.1	97.3	21.8	29.0	5
20	Food and kindred products	8.7	1.0	4.7	3.0	.1	(Z)	(Z)	.1	26
24	Lumber and wood products	6.0	1.9	2.0	2.2	.1	(Z)	.1	(Z)	18
26	Paper and allied products	45.8	15.6	17.2	13.0	(D)	(D)	(D)	.5	3
28	Chemicals and allied products	534.2	126.3	255.2	152.7	68.3	35.6	13.1	19.6	8
29	Petroleum and coal products	290.3	166.6	73.3	50.5	73.2	58.3	(D)	(D)	1

52 POLLUTION ABATEMENT COSTS AND EXPENDITURES, 1993

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	Louisiana--Con.									
30	Rubber and miscellaneous plastics products	1.8	(D)	.3	(D)					40
32	Stone, clay, and glass products	2.5	.9	2.5	1.1					39
33	Primary metal industries	5.4	1.5	.9	1.4	(D)	(D)			14
34	Fabricated metal products	2.3	.3	.5	1.1					19
35	Industrial machinery and equipment	1.1	(D)	.6	1.2	(D)		(Z)	1.3	26
36	Electronic and other electric equipment	3.1	1.3	4.7	6.8					46
37	Transportation equipment	20.8	9.4			1.3				
	Maine	124.7	25.8	58.2	40.7	25.6	23.2	4	2.0	10
22	Textile mill products	3.9	.1	3.0	.9	(Z)				35
24	Lumber and wood products	(D)	1.3	(D)	6	(D)	(D)			12
26	Paper and allied products	83.7	16.8	40.0	26.9	2.7				87
28	Chemicals and allied products	4.5	.6	2.2	1.7	.7	.5			38
30	Rubber and miscellaneous plastics products	4.4	.8	.8	2.8					62
31	Leather and leather products	(D)	(D)	(D)	.8	2.3	1.8			71
32	Stone, clay, and glass products	5.7	3.7	1.2	2.2					47
34	Fabricated metal products	5.1	.8	2.1	.7	(Z)		(Z)		(X)
36	Electronic and other electric equipment	4.5	.7	3.1	(D)	(Z)		(Z)		9
37	Transportation equipment	(D)	(D)	(D)					9.6	37
	Maryland	222.0	54.6	98.3	69.1	16.2	3.1	3.6	9.6	37
20	Food and kindred products	44.4	2.1	29.6	12.7	3.1	.2	(Z)	2.9	48
22	Textile mill products	1.1	.1	.8	.2	(Z)				53
25	Furniture and fixtures	1.1	.7		.3					8
26	Paper and allied products	12.1	(D)	(D)	3.0	3.0	.2	(Z)	2.7	27
27	Printing and publishing	6.7	2.2	.8	3.8					15
28	Chemicals and allied products	51.2	10.0	22.3	18.9	3.2	(D)	(D)	1.8	(X)
29	Petroleum and coal products	(D)	(D)	.8	1.0	2.8				(X)
30	Rubber and miscellaneous plastics products	(D)	(D)	.4	.9	1.2	(Z)			13
32	Stone, clay, and glass products	4.2	3.0	(D)	6.3	(D)				(X)
33	Primary metal industries	(D)	(D)							43
34	Fabricated metal products	4.3	1.4	1.2	1.6	.3	(Z)	(Z)	.1	31
35	Industrial machinery and equipment	4.6	.2	2.1	2.3	.4				38
36	Electronic and other electric equipment	2.2	.2	.7	1.3	(Z)		(Z)		42
37	Transportation equipment	17.2	2.8	6.0	8.4	(D)				15
38	Instruments and related products	6.1	.4	1.1	4.6					8
	Massachusetts	249.0	35.4	120.2	93.4	10.3	1.7	1.4	7.2	8
20	Food and kindred products	19.2	.2	11.9	7.1	.1	(Z)	(Z)	.1	30
22	Textile mill products	12.7	3.5	6.9	2.2	.5			.3	16
25	Furniture and fixtures	23.6	.2	17.0	6.5	.5			1.3	45
26	Paper and allied products	5.6	.2	1.0	4.4	1.3	.6	(Z)	4	20
27	Printing and publishing	34.7	3.9	21.1	9.6	1.1				23
28	Chemicals and allied products	3.0	1.4	.4	1.3	2.5	(Z)	(Z)	1.8	25
29	Petroleum and coal products	20.1	7.8	.8	5.2	7.0	(Z)	(Z)	3	19
30	Rubber and miscellaneous plastics products	3.7	1.3	.8	1.6	1				43
32	Stone, clay, and glass products	11.6	1.7	5.7	4.3	(D)				21
33	Primary metal industries	19.2	2.3	9.6	7.3					20
34	Fabricated metal products	19.2	2.3	9.6	7.3					35
35	Industrial machinery and equipment	9.8	.4	5.2	4.2	.1		(Z)	.1	17
36	Electronic and other electric equipment	28.0	3.4	15.5	9.0	.5				(X)
37	Transportation equipment	(D)	(D)	(D)	6.7	2.0	(Z)	(Z)	.1	16
38	Instruments and related products	40.8	8.0	14.0	18.8	(D)				(X)
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	2.3					3
	Michigan	768.5	226.3	291.0	93.4	251.2	74.5	17.4	17.6	39.4
20	Food and kindred products	49.0	5.3	28.7	15.1	2.2	(D)	(D)	1.3	14
24	Lumber and wood products	8.4	4.0	1.3	3.1	(D)				10
25	Furniture and fixtures	9.6	3.2	1.4	5.0	11.9	2.2	(Z)	1.8	9
26	Paper and allied products	61.8	8.0	35.5	18.3	1.1			1.0	15
27	Printing and publishing	3.8	.7	.5	2.6					25
28	Chemicals and allied products	151.8	42.8	60.0	49.0	21.8	7.8	4.8	9.2	27
29	Petroleum and coal products	1.0	.1	.7	.3	.5				26
30	Rubber and miscellaneous plastics products	23.9	10.6	3.2	10.1	(Z)	(D)	(D)		35
31	Leather and leather products	3.7	(D)	(D)	2.0	2.4				10
32	Stone, clay, and glass products	18.9	8.7	6.5	3.6					5
33	Primary metal industries	120.6	55.7	41.3	23.5	1.4	(D)	(D)		10
34	Fabricated metal products	49.7	6.5	20.0	23.2	1.6	(D)	(D)		15
35	Industrial machinery and equipment	22.0	7.1	7.9	7.1	1.0	(Z)	(Z)		40
36	Electronic and other electric equipment	6.9	.7	3.2	3.0					5
37	Transportation equipment	231.2	71.0	78.1	82.2	(D)	(Z)	(Z)		7
38	Instruments and related products	4.0	(D)	(D)	2.0					24
39	Miscellaneous manufacturing industries	1.5	(D)	(D)	.6					5
	Minnesota	277.4	93.3	100.3	83.7	25.9	5.6	4.2	16.1	17
20	Food and kindred products	59.6	8.9	35.8	15.0	.9	(D)	(D)		7
24	Lumber and wood products	10.8	6.1	1.5	3.2	(D)				(X)
25	Furniture and fixtures	(D)	(D)	(D)	9.7	2.7			2.4	16
26	Paper and allied products	39.1	5.3	24.0	5.9					25
27	Printing and publishing	10.3	3.2	1.1						(X)
28	Chemicals and allied products	20.1	(D)	3.6	(D)	.1	(Z)	(Z)		26
29	Petroleum and coal products	(D)	(D)	(D)	5.1					10
30	Rubber and miscellaneous plastics products	3.1	.7	.6	1.8					36
32	Stone, clay, and glass products	7.5	1.7	2.3	3.5	.6				12
33	Primary metal industries	5.5	2.1	1.4	2.0					37
34	Fabricated metal products	13.0	1.9	5.0	6.0	.8	(Z)	(Z)		15
35	Industrial machinery and equipment	14.1	1.2	7.4	5.5					30
36	Electronic and other electric equipment	8.7	.5	3.7	4.6					30
37	Transportation equipment	13.6	6.7	1.6	5.4					5
38	Instruments and related products	4.8	1.0	1.4	2.4	.5				5

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	Mississippi	258.7	108.0	79.4	71.3	29.2	15.4	6.5	7.4	9
20	Food and kindred products.....	10.1	.3	7.0	2.7	(D)	-	(Z)	(D)	16
22	Textile mill products.....	2.9	(D)	1.4	(D)	(D)	-	(D)	(D)	4
24	Lumber and wood products.....	8.5	3.3	2.2	3.1	(Z)	(Z)	(D)	(D)	10
25	Furniture and fixtures.....	4.8	.3	1.1	3.4	(Z)	-	-	(Z)	20
26	Paper and allied products.....	38.7	12.6	12.8	13.3	(D)	-	-	(D)	6
			(D)	.3	(D)	.1	(Z)	(Z)	(D)	18
27	Printing and publishing.....	2.7	(D)	.3	(D)	5.9	(Z)	(Z)	3.1	13
28	Chemicals and allied products.....	52.3	13.7	24.1	14.5	(D)	(D)	(D)	(D)	20
29	Petroleum and coal products.....	97.5	(D)	18.9	(D)	1.1	(D)	.1	.8	34
30	Rubber and miscellaneous plastics products.....	5.3	1.9	.9	3.1	(D)	(D)	.5	(D)	22
32	Stone, clay, and glass products.....	3.2	.8	1.0	1.4	(D)	-	-	-	
		9.7	4.6	3.1	1.9	.1	-	-	.1	53
33	Primary metal industries.....	3.3	(D)	.6	(D)	.1	-	-	.1	18
34	Fabricated metal products.....	4.7	.3	2.1	2.3	1.2	(Z)	1.0	.2	32
35	Industrial machinery and equipment.....	5.4	.4	2.1	2.9	.2	(Z)	(Z)	(Z)	14
36	Electronic and other electric equipment.....	8.2	(D)	1.4	(D)	(Z)	(D)	(Z)	(Z)	9
37	Transportation equipment.....	1.4	.5	.5	.4	(D)	(D)	(Z)	-	29
39	Miscellaneous manufacturing industries.....									
	Missouri	297.7	79.1	123.4	95.2	28.2	12.8	3.6	12.8	5
20	Food and kindred products.....	47.5	8.7	33.1	5.7	6.7	3.8	2.1	.6	12
24	Lumber and wood products.....	2.5	.1	1.3	1.0	(Z)	(Z)	(Z)	(Z)	11
25	Furniture and fixtures.....	3.1	.8	.3	2.0	(D)	-	(Z)	(D)	22
26	Paper and allied products.....	7.2	2.2	.7	4.3	1.1	(Z)	(Z)	1.1	14
27	Printing and publishing.....	8.1	3.3	1.1	3.7	3.7	2.5	(Z)	1.2	22
		80.7	14.4	41.8	24.5	5.0	1.8	.9	2.3	13
28	Chemicals and allied products.....	5.4	1.9	.6	2.9	.2	(D)	-	(D)	18
30	Rubber and miscellaneous plastics products.....	4.0	.1	3.3	.6	(D)	-	(D)	(D)	19
31	Leather and leather products.....	15.3	10.4	2.1	2.8	.8	(D)	(Z)	(Z)	8
32	Stone, clay, and glass products.....	38.4	21.3	7.3	9.9	(D)	(D)	(Z)	(Z)	14
33	Primary metal industries.....									
		25.3	3.7	10.1	11.6	(D)	(Z)	(Z)	(D)	9
34	Fabricated metal products.....	5.6	.4	1.9	3.3	1.0	(D)	(D)	(D)	32
35	Industrial machinery and equipment.....	18.4	3.9	8.3	6.2	1.1	(D)	-	(D)	21
36	Electronic and other electric equipment.....	33.5	7.1	11.5	14.8	.9	-	-	.7	8
37	Transportation equipment.....	1.3	.3	.1	.9	-	-	-	-	56
39	Miscellaneous manufacturing industries.....									
	Montana	22.5	15.7	4.3	2.6	1.8	1.3	.1	.4	12
24	Lumber and wood products.....	1.4	.6	.2	.6	(Z)	(Z)	(Z)	(Z)	19
26	Paper and allied products.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
28	Chemicals and allied products.....	3.9	2.6	.8	.4	(Z)	(Z)	(Z)	(Z)	58
32	Stone, clay, and glass products.....	1.2	.9	(D)	(D)	(D)	(D)	(D)	(D)	88
33	Primary metal industries.....	(D)	(D)	(Z)	.7	(D)	(D)	(D)	(D)	(X)
		53.5	14.0	19.2	20.4	5.8	.7	.4	4.7	11
	Nebraska	53.5	14.0	19.2	20.4	5.8	.7	.4	4.7	11
20	Food and kindred products.....	17.2	2.7	10.4	4.1	1.2	(D)	(D)	(D)	15
26	Paper and allied products.....	1.1	-	(Z)	1.0	.8	(Z)	(Z)	(Z)	48
27	Printing and publishing.....	1.6	.4	.2	1.0	(D)	(Z)	(Z)	(Z)	27
28	Chemicals and allied products.....	4.7	2.4	.6	1.7	(Z)	(Z)	(Z)	(Z)	43
30	Rubber and miscellaneous plastics products.....	2.8	(D)	.5	(D)	(D)	(Z)	(Z)	(Z)	7
		(D)	(D)	(Z)	(D)	.1	.1	.1	.1	(X)
32	Stone, clay, and glass products.....	(D)	(D)	.4	1.7	.1	(Z)	(Z)	(Z)	(X)
33	Primary metal industries.....	(D)	(D)	2.4	2.1	.3	(Z)	(Z)	(Z)	55
34	Fabricated metal products.....	6.4	1.8	2.4	3.1	(D)	(Z)	(Z)	(Z)	28
35	Industrial machinery and equipment.....	5.8	.4	2.4	3.1	(D)	(Z)	(Z)	(Z)	37
36	Electronic and other electric equipment.....	3.8	.7	1.5	1.7	(D)	(Z)	(Z)	(Z)	(X)
37	Transportation equipment.....	(D)	.2	.2	1.1	(D)	(Z)	(Z)	(Z)	36
38	Instruments and related products.....	1.0	.1	.3	.6	.1	-	-	-	
		10.3	4.8	2.5	3.0	1.5	1.4	.1	.1	21
	Nevada	10.3	4.8	2.5	3.0	1.5	1.4	.1	.1	21
26	Paper and allied products.....	2.0	(Z)	.6	1.4	(D)	(Z)	(Z)	(Z)	98
27	Printing and publishing.....	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
28	Chemicals and allied products.....	(D)	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	23
32	Stone, clay, and glass products.....	2.8	2.2	.4	.2	1.4	1.3	(Z)	(Z)	
		46.4	6.9	21.1	18.3	2.2	.2	.4	1.6	15
	New Hampshire	46.4	6.9	21.1	18.3	2.2	.2	.4	1.6	15
20	Food and kindred products.....	(D)	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(X)
22	Textile mill products.....	(D)	.1	(D)	.3	(Z)	(Z)	(Z)	(Z)	(X)
26	Paper and allied products.....	13.0	-	8.5	4.5	(D)	(Z)	(Z)	(Z)	30
27	Printing and publishing.....	1.2	-	.5	.7	(D)	(Z)	(Z)	(Z)	34
30	Rubber and miscellaneous plastics products.....	(D)	.4	(D)	.7	(D)	(Z)	(Z)	(Z)	(X)
		3.0	.2	.9	1.9	(D)	(Z)	(D)	(Z)	18
33	Primary metal industries.....	4.3	.5	.8	3.0	.3	(Z)	(Z)	(Z)	56
34	Fabricated metal products.....	2.8	.6	.6	1.7	(Z)	(Z)	(Z)	(Z)	29
35	Industrial machinery and equipment.....	4.5	.7	2.3	1.5	.4	(Z)	(Z)	(Z)	30
36	Electronic and other electric equipment.....	5.4	1.2	1.7	2.5	.6	(Z)	(Z)	(Z)	88
37	Transportation equipment.....	2.8	.3	.7	1.8	(Z)	(Z)	(Z)	(Z)	29
38	Instruments and related products.....									
	New Jersey	634.8	143.8	298.4	192.6	29.1	15.3	7.2	6.6	11
20	Food and kindred products.....	37.5	4.0	23.6	10.0	1.0	(Z)	(Z)	(Z)	12
22	Textile mill products.....	7.3	.8	4.2	2.4	.3	(Z)	(Z)	(Z)	37
25	Furniture and fixtures.....	1.0	.2	.1	.7	(Z)	(Z)	(Z)	(Z)	36
26	Paper and allied products.....	96.1	6.3	70.8	19.0	1.7	(Z)	(Z)	(Z)	45
27	Printing and publishing.....	10.3	3.3	1.4	5.6	.5	(Z)	(Z)	(Z)	19
		255.8	42.1	127.8	85.9	8.4	(D)	(D)	(D)	20
28	Chemicals and allied products.....	105.0	51.0	37.3	16.7	13.9	12.1	(D)	(D)	13
29	Petroleum and coal products.....	12.3	3.5	1.5	7.2	.1	(Z)	(Z)	(Z)	24
30	Rubber and miscellaneous plastics products.....	(D)	(Z)	(D)	.8	(Z)	(Z)	(Z)	(Z)	(X)
31	Leather and leather products.....	(D)	(Z)	7.4	6.6	.2	-	-	-	36
32	Stone, clay, and glass products.....	21.0	7.0							

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
New Jersey - Con.										
33	Primary metal industries	21.9	9.0	5.0	7.9	(D)	(D)	.1	(Z)	23
34	Fabricated metal products	28.2	10.7	8.1	9.4	2.0	1.7	-.1	(Z)	21
35	Industrial machinery and equipment	7.7	1.4	1.8	4.5	(Z)	(Z)	(Z)	(Z)	21
36	Electronic and other electric equipment	7.7	.5	3.6	3.6	(D)	(Z)	(Z)	(Z)	31
37	Transportation equipment	3.9	.3	.8	2.8	.1	(Z)	(Z)	.1	43
38	Instruments and related products	7.6	1.2	2.3	4.1	.2	(Z)	-.1	.1	12
39	Miscellaneous manufacturing industries	(D)	2.3	(D)	5.1	.1	(Z)	(Z)	.1	(X)
New Mexico										
24	Lumber and wood products	1.2	.3	.5	.4	(Z)	(Z)	(Z)	.1	23
29	Petroleum and coal products	33.8	11.8	8.5	13.5	-	-	-	-	90
32	Stone, clay, and glass products	1.2	1.2	-	(Z)	-	-	-	-	68
33	Primary metal industries	(D)	(D)	(D)	(D)	(D)	(D)	-	-	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(Z)	-	-	(Z)	(X)
New York										
20 Food and kindred products										
20	Food and kindred products	55.3	1.9	33.3	20.1	1.6	(Z)	(D)	(D)	15
22	Textile mill products	5.5	.3	3.7	1.5	.1	(Z)	(Z)	(Z)	38
24	Lumber and wood products	3.9	.5	1.1	2.7	(Z)	(Z)	(Z)	(Z)	58
25	Furniture and fixtures	3.1	.9	.5	1.8	.2	(Z)	(Z)	.2	33
26	Paper and allied products	74.3	6.6	41.6	26.2	2.2	.2	(Z)	2.0	22
27	Printing and publishing	10.3	1.7	1.1	7.5	2.0	(Z)	.1	1.9	11
28	Chemicals and allied products	93.3	14.9	39.6	38.8	5.6	1.0	1.8	2.8	15
29	Petroleum and coal products	2.7	2.4	(Z)	.3	-	-	-	-	95
30	Rubber and miscellaneous plastics products	16.4	2.7	1.9	11.8	(D)	(D)	(D)	.3	14
31	Leather and leather products	6.3	.7	3.2	2.4	(Z)	-	-	(Z)	49
32	Stone, clay, and glass products	27.3	11.8	5.0	10.4	2.4	.4	.1	1.9	8
33	Primary metal industries	69.0	29.8	18.0	21.2	8.8	7.1	.1	1.6	21
34	Fabricated metal products	29.6	3.2	13.2	13.3	1.1	(Z)	.4	.6	16
35	Industrial machinery and equipment	43.8	8.1	18.2	17.5	.8	.1	.1	.6	6
36	Electronic and other electric equipment	38.7	6.3	17.4	15.0	(D)	(Z)	.4	(D)	7
37	Transportation equipment	35.3	8.6	10.4	16.4	3.2	(Z)	.3	2.8	13
38	Instruments and related products	128.0	21.1	27.6	79.3	6.6	(D)	.3	(D)	7
39	Miscellaneous manufacturing industries	5.6	1.0	1.0	3.5	.9	(Z)	(Z)	.3	10
North Carolina										
20 Food and kindred products										
20	Food and kindred products	54.7	5.4	43.9	5.5	3.1	.5	1.6	1.1	15
21	Tobacco products	18.1	10.0	(D)	(D)	.1	-	-	.1	11
22	Textile mill products	80.9	15.8	49.0	16.1	5.0	.1	.4	4.5	7
24	Lumber and wood products	16.3	6.3	3.6	6.3	.4	.1	(Z)	.2	13
25	Furniture and fixtures	27.3	12.3	2.3	12.6	4.2	2.1	(Z)	2.2	14
26	Paper and allied products	60.3	27.9	19.7	13.4	5.2	(D)	-	(D)	4
27	Printing and publishing	7.8	2.8	1.4	3.6	.5	.5	(Z)	.4	21
28	Chemicals and allied products	127.1	24.2	58.6	44.3	10.1	2.0	.4	7.8	7
30	Rubber and miscellaneous plastics products	17.3	5.0	3.9	8.4	1.9	.8	(Z)	1.2	6
32	Stone, clay, and glass products	18.6	7.8	4.7	6.1	(D)	(Z)	(Z)	(D)	4
33	Primary metal industries	15.3	3.4	2.6	9.3	2.4	(D)	(D)	(Z)	38
34	Fabricated metal products	11.8	2.9	5.0	3.9	(D)	(D)	(D)	(D)	15
35	Industrial machinery and equipment	17.5	1.3	5.7	10.5	1.8	(Z)	(Z)	1.8	19
36	Electronic and other electric equipment	21.0	3.3	7.6	10.2	3.7	.9	.3	2.5	27
37	Transportation equipment	9.6	1.1	3.9	4.6	.5	(Z)	.3	.2	42
38	Instruments and related products	5.4	.8	2.1	2.5	(Z)	-	-	(Z)	30
39	Miscellaneous manufacturing industries	1.9	.7	(D)	(D)	.2	-	-	.2	39
North Dakota										
20 Food and kindred products										
20	Food and kindred products	5.4	1.6	2.6	1.2	.2	-	.1	(Z)	33
29	Petroleum and coal products	10.5	3.4	3.9	3.3	(Z)	(Z)	-	(Z)	78
Ohio										
20 Food and kindred products										
20	Food and kindred products	51.9	9.5	32.7	9.8	1.3	(D)	(D)	.6	16
22	Textile mill products	6.0	2.2	.4	3.4	.4	.4	-	-	36
24	Lumber and wood products	4.7	1.8	.6	2.4	.1	(Z)	(Z)	(Z)	10
25	Furniture and fixtures	6.1	(D)	(D)	2.2	(D)	-	-	(D)	8
26	Paper and allied products	57.1	11.8	24.3	21.0	1.9	1.4	(Z)	.5	19
27	Printing and publishing	9.3	3.1	1.0	5.2	.5	(Z)	(Z)	.5	15
28	Chemicals and allied products	219.7	28.5	78.8	112.4	6.6	1.3	1.2	4.2	10
29	Petroleum and coal products	44.8	(D)	(D)	18.6	(D)	(D)	(D)	(D)	11
30	Rubber and miscellaneous plastics products	38.6	7.6	8.9	22.0	2.2	(Z)	.1	2.1	11
32	Stone, clay, and glass products	51.2	19.8	13.6	17.8	3.8	.9	.7	2.3	8
33	Primary metal industries	267.6	106.2	99.2	62.2	7.4	3.8	2.4	1.2	4
34	Fabricated metal products	70.9	13.8	29.8	27.4	5.0	.3	1.0	3.6	10
35	Industrial machinery and equipment	37.6	7.2	16.4	14.1	1.2	(D)	(D)	.9	7
36	Electronic and other electric equipment	35.4	3.9	18.1	13.3	.7	(Z)	.2	.5	22
37	Transportation equipment	112.4	34.5	35.0	42.9	1.6	.1	.1	1.4	6
38	Instruments and related products	1.5	.1	.5	.9	(Z)	-	-	(Z)	51
39	Miscellaneous manufacturing industries	1.5	.5	.4	.6	(Z)	-	-	(Z)	31
Oklahoma										
20 Food and kindred products										
20	Food and kindred products	6.1	1.9	2.7	1.5	.2	(Z)	.1	.1	30
26	Paper and allied products	11.6	2.7	6.4	2.5	-	-	-	-	33
27	Printing and publishing	2.9	(D)	(D)	1.8	(D)	(Z)	(D)	(Z)	13
28	Chemicals and allied products	7.6	2.4	4.0	1.1	1.1	.7	.4	-	25
29	Petroleum and coal products	27.4	14.8	7.0	5.6	1.6	.5	.4	.7	25
30	Rubber and miscellaneous plastics products	6.9	1.8	1.4	3.7	(D)	(D)	(Z)	(D)	15
32	Stone, clay, and glass products	7.2	4.2	1.5	1.5	.3	(Z)	(D)	(D)	15
33	Primary metal industries	16.3	5.0	4.8	6.5	-	-	-	-	37
34	Fabricated metal products	10.2	.7	2.8	6.7	.5	(D)	(D)	.4	41
35	Industrial machinery and equipment	3.9	.2	1.7	2.0	.6	(Z)	(Z)	.6	33
36	Electronic and other electric equipment	2.8	(D)	(D)	1.6	(Z)	(Z)	-	(D)	8
37	Transportation equipment	10.6	(D)	(D)	3.7	(D)	-	(Z)	(D)	3
38	Instruments and related products	3.3	(D)	(D)	1.1	(Z)	(Z)	-	(Z)	15

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/ contained waste	Total	Air	Water	Solid/ contained waste	
	Oregon	177.7	52.5	74.3	50.9	14.2	4.7	.9	8.5	7
20	Food and kindred products	24.6	1.1	17.7	5.7	1.3	.1	.3	1.0	20
24	Lumber and wood products	25.3	11.8	4.0	9.5	1.9	(Z)	(Z)	1.7	15
26	Paper and allied products	56.0	22.4	22.7	11.0	4.8	(D)	(D)	(D)	11
27	Printing and publishing	2.3	1.0	.3	1.0	1.5	—	—	1.5	25
28	Chemicals and allied products	3.9	1.4	1.4	1.1	1.1	.1	.6	.4	22
29	Petroleum and coal products	1.0	.3	.2	.5	(D)	(D)	—	—	30
30	Rubber and miscellaneous plastics products	1.9	.3	.8	.8	(D)	(D)	—	—	48
32	Stone, clay, and glass products	2.8	.9	.3	1.5	.1	(Z)	—	.1	32
33	Primary metal industries	25.1	5.6	12.2	7.3	(D)	(Z)	—	(D)	20
34	Fabricated metal products	2.9	.8	.5	1.7	.3	.1	—	.2	54
35	Industrial machinery and equipment	7.8	.8	3.0	4.0	.1	—	—	.1	37
36	Electronic and other electric equipment	16.3	4.3	8.7	3.3	2.2	—	(Z)	2.2	37
37	Transportation equipment	1.8	.6	.1	1.1	.1	—	—	.1	33
38	Instruments and related products	6.0	1.2	2.4	2.3	(D)	.1	(Z)	(D)	37
	Pennsylvania	864.3	252.7	290.6	320.9	87.2	21.3	29.9	36.0	5
20	Food and kindred products	59.7	3.8	34.5	21.4	2.3	(D)	(Z)	1.6	11
22	Textile mill products	13.0	.4	10.0	2.6	.9	(Z)	(Z)	.8	38
24	Lumber and wood products	10.4	3.2	2.3	4.9	.3	.1	.1	.1	16
25	Furniture and fixtures	7.5	3.1	.7	3.7	1.1	(D)	(Z)	(D)	28
26	Paper and allied products	95.5	25.4	32.2	37.9	19.2	(D)	(D)	9.4	16
27	Printing and publishing	18.4	6.9	2.4	9.2	3.6	1.1	.2	2.4	13
28	Chemicals and allied products	158.2	39.3	59.3	59.6	20.0	(D)	(D)	7.1	11
29	Petroleum and coal products	61.8	27.9	20.3	13.6	(D)	(D)	7.8	(D)	3
30	Rubber and miscellaneous plastics products	13.3	(D)	(D)	8.2	1.7	.2	.3	1.2	19
31	Leather and leather products	12.0	1.3	5.5	5.2	(Z)	—	—	(Z)	48
32	Stone, clay, and glass products	47.9	23.7	9.0	15.2	5.3	1.4	.6	3.2	9
33	Primary metal industries	221.0	87.1	67.7	68.3	10.3	2.5	2.4	5.3	12
34	Fabricated metal products	42.2	6.8	13.4	22.0	.7	(Z)	.2	.5	13
35	Industrial machinery and equipment	19.8	1.9	6.4	11.4	.7	.1	.2	.5	14
36	Electronic and other electric equipment	27.3	3.0	11.7	12.6	.6	(Z)	.2	.4	10
37	Transportation equipment	27.1	7.2	7.0	12.8	1.2	(Z)	.1	1.1	16
38	Instruments and related products	16.7	4.6	3.8	8.3	(D)	(D)	(Z)	.2	15
39	Miscellaneous manufacturing industries	12.3	(D)	(D)	5.9	(D)	(Z)	(D)	(D)	4
	Rhode Island	29.3	5.5	12.0	11.8	(D)	(D)	.1	1.5	11
22	Textile mill products	2.5	.4	1.6	.5	(Z)	—	—	(Z)	30
26	Paper and allied products	3.2	.8	.2	2.2	.7	—	—	.7	57
28	Chemicals and allied products	(D)	(D)	(D)	1.6	(Z)	—	—	(Z)	(X)
32	Stone, clay, and glass products	(D)	(D)	(D)	.4	—	—	—	—	(X)
33	Primary metal industries	2.1	.3	.5	1.2	.4	—	—	.4	40
34	Fabricated metal products	3.0	1.1	1.2	.7	(D)	(D)	(Z)	(Z)	27
36	Electronic and other electric equipment	2.3	.4	1.1	.7	.1	—	—	.1	74
37	Transportation equipment	1.1	.1	(Z)	.9	—	—	—	—	93
39	Miscellaneous manufacturing industries	5.4	.7	2.6	2.0	.2	(Z)	.1	.1	17
	South Carolina	392.4	116.5	157.9	118.0	22.7	14.2	2.4	6.1	7
20	Food and kindred products	5.9	.4	4.3	1.1	.3	.1	.1	.2	30
22	Textile mill products	40.0	5.8	25.1	9.1	(D)	.1	(D)	1.0	9
24	Lumber and wood products	4.4	1.2	2.0	1.1	1.0	.1	.6	.2	6
25	Furniture and fixtures	2.0	1.2	.1	.8	.6	(Z)	—	.6	35
26	Paper and allied products	72.2	23.1	19.0	30.1	14.4	11.2	(D)	(D)	5
27	Printing and publishing	1.8	(D)	(D)	.5	—	—	—	—	13
28	Chemicals and allied products	161.3	44.4	79.4	37.5	2.7	1.5	.4	.9	13
30	Rubber and miscellaneous plastics products	11.7	3.3	3.6	4.8	.3	(Z)	(Z)	.2	8
32	Stone, clay, and glass products	13.0	7.2	2.9	2.9	(D)	(D)	—	(Z)	4
33	Primary metal industries	22.7	11.3	5.6	5.8	.2	.1	(Z)	.1	26
34	Fabricated metal products	7.3	1.4	2.7	3.2	(Z)	(Z)	(Z)	(Z)	29
35	Industrial machinery and equipment	8.7	.9	3.1	4.6	(Z)	(Z)	—	(Z)	17
36	Electronic and other electric equipment	18.2	4.5	7.0	6.7	.5	.1	.1	.1	23
37	Transportation equipment	21.7	10.4	2.4	8.8	.3	(D)	(Z)	(D)	68
39	Miscellaneous manufacturing industries	1.1	(D)	(D)	.6	—	—	—	—	44
	South Dakota	13.1	3.5	5.9	3.7	.2	(Z)	(Z)	.1	26
20	Food and kindred products	6.7	.9	4.5	1.4	—	—	—	—	43
33	Primary metal industries	1.4	.3	(D)	(D)	—	—	—	—	81
38	Instruments and related products	2.5	1.6	(D)	(D)	.1	—	—	.1	50
	Tennessee	468.1	104.9	205.5	157.6	40.2	14.1	9.1	17.1	5
20	Food and kindred products	31.9	5.6	20.2	6.1	1.9	—	1.3	.6	10
22	Textile mill products	10.3	1.5	5.5	3.3	.8	(D)	(D)	.4	7
24	Lumber and wood products	5.7	.4	.2	5.1	1.5	(D)	(Z)	(D)	26
25	Furniture and fixtures	5.2	1.3	.5	3.4	.1	(Z)	(Z)	(Z)	27
26	Paper and allied products	49.4	7.2	27.5	14.7	4.2	1.6	(Z)	2.6	16
27	Printing and publishing	16.4	10.7	1.6	4.1	(D)	(D)	(Z)	.4	19
28	Chemicals and allied products	188.0	26.6	98.1	63.4	9.8	(D)	(D)	2.0	4
29	Petroleum and coal products	14.1	8.2	2.4	3.5	4.0	1.1	1.3	1.6	53
30	Rubber and miscellaneous plastics products	12.9	2.8	4.4	5.7	1.0	(D)	—	(D)	11
32	Stone, clay, and glass products	14.3	8.7	2.4	3.2	(D)	—	—	(D)	35
33	Primary metal industries	33.7	12.3	8.0	13.4	(D)	(D)	.1	(D)	9
34	Fabricated metal products	15.3	2.2	8.5	5.6	(Z)	—	—	(Z)	30
35	Industrial machinery and equipment	12.5	1.4	4.4	6.6	2.0	—	—	(D)	10
36	Electronic and other electric equipment	11.2	2.3	3.9	5.1	.2	(Z)	(Z)	.2	17
37	Transportation equipment	41.4	13.1	16.6	11.7	4.4	(Z)	(Z)	(D)	38
39	Miscellaneous manufacturing industries	3.7	.6	1.0	2.1	.2	(Z)	(Z)	.2	19

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

-Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	Texas	2 167.6	865.9	777.5	524.2	290.0	197.9	45.1	47.0	3
20	Food and kindred products	80.5	14.9	50.0	15.6	5.4	1.0	2.2	2.2	12
24	Lumber and wood products	13.3	5.3	5.3	2.8	.3	(Z)	(Z)	.2	29
25	Furniture and fixtures	1.8	.2	.5	1.0	.1	(Z)	(Z)	(Z)	35
26	Paper and allied products	74.6	22.9	25.5	26.1	7.5	6.5	.1	.8	15
27	Printing and publishing	9.7	2.7	2.1	4.9	2.1	.1	.2	1.8	12
28	Chemicals and allied products	940.1	256.6	398.0	285.4	94.9	57.5	10.0	27.3	3
29	Petroleum and coal products	786.3	469.9	223.3	93.2	147.1	104.8	30.5	11.8	5
30	Rubber and miscellaneous plastics products	22.0	5.5	5.2	11.4	2.4	1.4	.3	.6	13
31	Leather and leather products	1.0	(Z)	.7	.2	(D)	-	(D)	(Z)	22
32	Stone, clay, and glass products	35.8	18.8	6.1	10.9	1.6	(D)	(D)	(D)	12
33	Primary metal industries	69.6	45.3	13.8	10.5	(D)	(D)	-	.6	5
34	Fabricated metal products	41.2	5.6	12.8	22.8	2.3	(D)	.7	(D)	12
35	Industrial machinery and equipment	11.0	1.7	3.7	5.5	.6	.1	.2	.3	13
36	Electronic and other electric equipment	41.0	8.7	18.1	14.2	.6	.1	.1	.4	12
37	Transportation equipment	25.3	5.8	7.6	12.9	.3	(Z)	(Z)	.3	17
38	Instruments and related products	11.6	1.9	3.8	6.0	(Z)	(Z)	(Z)	(Z)	11
39	Miscellaneous manufacturing industries	.9	.1	.4	.4	(Z)	-	(Z)	-	38
	Utah	120.8	56.7	33.5	39.6	(D)	(D)	.1	1.3	18
20	Food and kindred products	7.6	(Z)	6.0	1.6	.2	-	(Z)	.1	58
27	Printing and publishing	1.0	.5	(D)	(D)	.1	-	(Z)	.1	46
29	Petroleum and coal products	22.5	12.5	5.6	4.4	.5	.4	-	.1	86
32	Stone, clay, and glass products	1.9	1.3	.1	.6	(Z)	(Z)	-	(Z)	38
33	Primary metal industries	51.8	35.2	(D)	(D)	(D)	(D)	-	.2	10
35	Industrial machinery and equipment	1.2	.1	.2	.8	(Z)	(Z)	-	(Z)	38
36	Electronic and other electric equipment	5.2	.6	2.6	2.1	.1	-	-	.1	53
37	Transportation equipment	33.4	5.7	10.2	17.5	.8	(Z)	(Z)	.6	31
38	Instruments and related products	1.0	.1	.1	.8	-	-	-	-	44
	Vermont	15.0	2.2	4.7	8.0	(D)	(Z)	.3	(D)	28
34	Fabricated metal products	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	-	(Z)	(D)	(X)
37	Transportation equipment	5.4	.9	1.7	2.8	.6	-	.3	.4	75
	Virginia	351.2	102.1	139.6	109.5	28.5	12.7	3.7	12.1	7
20	Food and kindred products	29.4	3.1	21.4	4.9	1.6	-	(D)	(D)	12
21	Tobacco products	(D)	(D)	(D)	(D)	(Z)	-	-	(Z)	(X)
22	Textile mill products	16.5	2.6	10.7	3.2	2.3	.1	1.7	.6	10
24	Lumber and wood products	14.2	4.1	4.3	5.8	.3	(Z)	(Z)	.2	24
25	Furniture and fixtures	7.9	4.4	1.1	2.4	.4	(Z)	-	.4	28
26	Paper and allied products	66.5	29.5	17.9	19.1	12.0	(D)	(Z)	(D)	5
27	Printing and publishing	(D)	2.8	(D)	2.5	(D)	-	(Z)	(D)	(X)
28	Chemicals and allied products	87.5	22.0	38.2	27.2	1.3	(D)	(D)	.7	9
29	Petroleum and coal products	25.5	11.0	11.8	2.6	3.1	2.8	.3	-	82
30	Rubber and miscellaneous plastics products	13.7	3.4	3.4	6.9	1.2	-	-	1.2	35
32	Stone, clay, and glass products	6.5	2.6	1.8	2.1	.2	.1	-	.1	17
33	Primary metal industries	11.7	3.0	2.6	6.2	(D)	(D)	(Z)	.5	23
34	Fabricated metal products	6.1	.7	2.5	2.9	.4	-	-	.4	29
35	Industrial machinery and equipment	6.7	.2	1.8	4.7	.1	-	(Z)	.1	23
36	Electronic and other electric equipment	15.1	(D)	7.5	(D)	(D)	-	(D)	(D)	5
37	Transportation equipment	26.5	8.5	8.4	9.6	3.0	(Z)	(Z)	3.0	11
38	Instruments and related products	(D)	(Z)	(D)	1.2	.2	-	-	.2	(X)
	Washington	366.5	115.6	131.2	119.7	55.7	37.0	5.4	13.2	6
20	Food and kindred products	30.0	.4	22.8	6.9	1.7	(Z)	1.0	.7	15
22	Textile mill products	1.5	.2	.7	.6	.1	(Z)	(Z)	(Z)	43
24	Lumber and wood products	17.1	4.0	3.0	10.1	.5	.1	(Z)	.4	22
26	Paper and allied products	94.9	15.5	62.3	17.1	10.1	7.8	(D)	(D)	13
27	Printing and publishing	1.4	.1	.3	1.0	.3	(Z)	(Z)	.3	40
28	Chemicals and allied products	14.3	7.0	4.7	2.6	.4	(Z)	.3	.1	38
29	Petroleum and coal products	46.2	24.4	7.9	13.9	7.7	5.8	1.6	.3	26
30	Rubber and miscellaneous plastics products	1.7	(Z)	.3	1.4	.1	-	-	.1	64
32	Stone, clay, and glass products	(D)	4.9	1.0	(D)	.1	-	(Z)	(D)	(X)
33	Primary metal industries	71.0	48.4	10.6	11.9	23.3	(D)	-	(D)	11
34	Fabricated metal products	4.3	.5	1.9	1.9	(Z)	(Z)	(Z)	-	16
35	Industrial machinery and equipment	5.4	.3	1.0	4.1	.8	.1	.1	.6	42
36	Electronic and other electric equipment	8.2	1.5	4.4	2.3	6.5	.2	.2	6.1	30
37	Transportation equipment	(D)	(D)	8.4	(D)	(D)	-	-	(Z)	(X)
38	Instruments and related products	2.0	.1	1.2	.8	(Z)	(Z)	(Z)	(Z)	27
39	Miscellaneous manufacturing industries	(D)	(D)	.6	(D)	(D)	(D)	(D)	.2	(X)
	West Virginia	273.4	84.5	121.1	67.9	14.7	3.6	6.5	4.7	17
20	Food and kindred products	2.8	-	2.6	.2	-	-	-	-	49
24	Lumber and wood products	(D)	(D)	.7	(D)	(D)	.1	(D)	.1	(X)
28	Chemicals and allied products	133.0	18.8	77.1	37.1	7.9	(D)	5.6	(D)	21
29	Petroleum and coal products	(D)	(Z)	(D)	(D)	(D)	-	-	-	(X)
32	Stone, clay, and glass products	5.6	3.2	.9	1.6	(D)	(D)	-	(Z)	16
33	Primary metal industries	116.6	58.9	36.1	21.6	5.1	(D)	(D)	(D)	31
34	Fabricated metal products	3.9	1.6	.9	1.5	-	-	-	-	28
35	Industrial machinery and equipment	2.6	.2	.7	1.7	.1	-	-	.1	68
38	Instruments and related products	(D)	-	.8	(D)	-	-	-	-	(X)
	Wisconsin	432.7	94.8	188.5	149.4	23.7	1.4	6.5	15.7	10
20	Food and kindred products	55.0	2.1	39.8	13.1	1.5	(Z)	.2	1.2	15
22	Textile mill products	1.0	.3	.1	.6	.1	.1	-	(Z)	48
24	Lumber and wood products	6.6	2.4	1.0	3.2	.7	(Z)	(Z)	.6	12
25	Furniture and fixtures	4.2	1.2	.4	2.5	1.5	.2	(Z)	1.4	37
26	Paper and allied products	203.5	41.5	103.9	58.1	12.3	.5	(D)	(D)	19

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1993

-Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/ contained waste	Total	Air	Water	Solid/ contained waste	
Wisconsin—Con.										
27	Printing and publishing	13.5	7.8	1.1	4.6	1.2	.2	(Z)	1.0	9
28	Chemicals and allied products	16.6	3.1	4.4	9.1	1.3	(Z)	(Z)	1.2	22
30	Rubber and miscellaneous plastics products	6.6	2.0	1.0	3.6	(Z)	(Z)	(Z)	(Z)	24
31	Leather and leather products	5.1	(D)	4.5	(D)	(D)	(D)	(Z)	(Z)	17
32	Stone, clay, and glass products	9.0	2.6	1.9	4.5	.8	.1	(D)	.7	33
33	Primary metal industries	33.7	13.4	5.4	15.0	.5	(Z)	(D)	(D)	7
34	Fabricated metal products	25.2	8.8	8.8	7.6	.8	(Z)	.2	.6	13
35	Industrial machinery and equipment	27.4	3.1	9.3	14.9	1.3	.1	.4	.8	31
36	Electronic and other electric equipment	11.5	2.7	3.6	5.2	.1	(Z)	(Z)	.1	15
37	Transportation equipment	8.3	2.7	2.3	3.4	(D)	(Z)	(Z)	(D)	26
38	Instruments and related products	3.1	.5	.5	2.1	(Z)	(Z)	(Z)	(Z)	28
39	Miscellaneous manufacturing industries	2.4	(D)	.6	(D)	(Z)	(Z)	(Z)	(Z)	29
Wyoming										
		21.3	10.0	7.5	3.8	.1	(Z)	(Z)	(Z)	18
20	Food and kindred products	3.7	.6	(D)	(D)	(Z)	(Z)	(Z)	(Z)	71
28	Chemicals and allied products	13.5	8.7	(D)	(D)	(Z)	(Z)	(Z)	(Z)	10
29	Petroleum and coal products	3.0	.5	1.5	1.1	(Z)	(Z)	(Z)	(Z)	79

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10a. Operating Costs by States for the Media Air: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

State	Total PAOC	Air			Standard error of estimate (PAOC) (percent)
		Total	Type of pollutant abated		
			Hazardous	Nonhazardous	
United States¹	17 555.0	5 574.6	1 533.1	4 041.5	2
Alabama	393.4	140.6	42.4	98.2	6
Alaska	28.9	6.9	(D)	(D)	23
Arizona	119.9	65.2	39.3	26.0	8
Arkansas	226.3	63.9	11.9	52.0	10
California	1 426.2	546.0	148.0	398.0	5
Colorado	85.5	14.0	5.6	8.5	10
Connecticut	160.8	19.9	6.2	13.7	8
Delaware	143.3	79.0	8.2	70.8	17
District of Columbia	4.4	(D)	(D)	(D)	12
Florida	297.0	79.8	8.4	71.5	6
Georgia	415.9	119.0	19.1	99.9	6
Hawaii	12.3	(D)	(D)	3.3	33
Idaho	63.9	23.7	4.4	19.2	12
Illinois	879.5	332.0	73.9	258.1	6
Indiana	690.4	241.2	71.7	169.5	4
Iowa	173.4	51.8	9.0	42.9	7
Kansas	125.0	34.6	9.0	25.6	13
Kentucky	331.3	144.7	34.2	110.4	5
Louisiana	922.7	325.6	84.9	241.0	5
Maine	124.7	25.8	6.9	18.9	10
Maryland	222.0	54.6	17.5	37.2	9
Massachusetts	249.0	35.4	16.3	19.1	8
Michigan	788.5	226.3	75.3	151.0	3
Minnesota	277.4	93.3	19.8	73.5	5
Mississippi	258.7	108.0	19.2	88.8	9
Missouri	297.7	79.1	28.1	51.0	5
Montana	22.5	15.7	(D)	(D)	12
Nebraska	53.5	14.0	3.6	10.4	11
Nevada	10.3	4.8	.8	4.0	21
Nevada	46.4	6.9	2.3	4.7	15
New Hampshire	634.8	143.8	48.4	95.4	11
New Mexico	75.7	42.1	(D)	(D)	41
New York	647.6	122.3	48.7	73.6	5
North Carolina	512.1	130.8	28.7	102.1	4
North Dakota	17.2	5.0	3.1	1.9	49
Ohio	1 016.3	266.6	49.5	217.1	4
Oklahoma	118.1	40.1	6.1	34.0	10
Oregon	177.7	52.5	15.1	37.4	7
Pennsylvania	864.3	252.7	55.3	197.4	5
Rhode Island	29.3	5.5	2.9	2.7	11
South Carolina	392.4	116.5	25.6	90.9	7
South Dakota	13.1	3.5	.2	3.3	26
Tennessee	468.1	104.9	30.0	75.0	5
Texas	2 167.6	865.9	319.5	546.4	3
Utah	129.8	56.7	15.5	41.2	18
Vermont	15.0	2.2	1.2	1.0	28
Virginia	351.2	102.1	27.9	74.2	7
Washington	366.5	115.6	23.5	92.1	6
West Virginia	273.4	84.5	11.6	72.9	17
Wisconsin	432.7	94.8	19.9	74.9	10
Wyoming	21.3	10.0	(D)	(D)	18

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10b. Operating Costs by States for the Media Water: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Water						Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated					
		Total	Hazardous	Nonhazardous			
				Total	Payments to industry	Sewage services payments to government	
United States ¹	17 555.0	6 631.8	1 689.9	4 942.1	3 633.3	1 308.8	2
Alabama	393.4	157.2	28.0	129.2	111.3	17.9	6
Alaska	28.9	12.8	(D)	10.3	10.3	(D)	23
Arizona	119.9	32.7	9.2	23.5	17.3	6.2	8
Arkansas	226.3	99.6	8.5	90.0	75.3	14.8	10
California	1 426.2	484.9	150.1	335.0	205.2	129.8	5
Colorado	85.5	45.7	16.0	29.7	24.1	5.6	10
Connecticut	160.8	53.4	18.5	34.9	28.4	6.5	8
Delaware	143.3	44.4	5.0	39.4	29.9	9.5	17
District of Columbia	4.4	.5	(Z)	.5	.3	.2	12
Florida	297.0	118.5	18.1	100.4	80.6	19.8	6
Georgia	415.9	182.2	22.6	159.6	118.6	41.0	6
Hawaii	12.3	4.4	2.9	1.5	1.4	1	33
Idaho	63.9	24.6	2.9	21.7	18.8	2.9	12
Illinois	879.5	289.1	60.9	228.2	157.1	71.1	6
Indiana	690.4	253.1	73.8	179.2	131.8	47.4	4
Iowa	173.4	66.4	13.0	53.5	39.5	20.0	7
Kansas	125.0	45.6	14.8	30.8	24.2	6.6	13
Kentucky	331.3	102.4	22.8	79.6	61.7	17.9	5
Louisiana	922.7	362.5	159.7	202.8	198.6	4.3	5
Maine	124.7	58.2	3.5	54.6	47.1	7.5	10
Maryland	222.0	98.3	17.6	80.7	45.0	35.7	9
Massachusetts	249.0	120.2	36.9	83.3	52.9	30.4	8
Michigan	768.5	291.0	72.9	218.1	150.9	67.2	3
Minnesota	277.4	100.3	9.8	90.5	50.2	40.3	5
Mississippi	258.7	79.4	24.6	54.7	46.4	8.3	9
Missouri	297.7	123.4	37.0	86.3	55.5	30.8	5
Montana	22.5	4.3	.6	3.7	3.7	(Z)	12
Nebraska	53.5	19.2	3.0	16.1	8.8	7.3	11
Nevada	10.3	2.5	(D)	(D)	(D)	(D)	21
New Hampshire	46.4	21.1	3.2	17.9	14.1	3.8	15
New Jersey	634.8	298.4	76.1	222.2	113.3	108.9	11
New Mexico	75.7	13.2	6.6	6.6	6.4	.2	41
New York	647.6	235.7	65.7	170.1	115.2	54.8	5
North Carolina	512.1	218.1	35.6	182.5	118.1	64.4	4
North Dakota	17.2	6.8	3.3	3.4	3.0	.5	49
Ohio	1 016.3	373.5	65.8	307.6	211.1	96.5	4
Oklahoma	118.1	38.4	10.5	27.9	21.4	6.5	10
Oregon	177.7	74.3	18.2	56.1	42.7	13.4	7
Pennsylvania	864.3	290.6	76.6	214.0	154.3	59.7	5
Rhode Island	29.3	12.0	1.9	10.1	7.1	3.0	11
South Carolina	392.4	157.9	39.8	124.1	99.7	24.4	7
South Dakota	13.1	5.9	2	5.8	2.5	3.3	26
Tennessee	468.1	205.5	54.0	151.5	113.0	38.5	5
Texas	2 167.6	777.5	282.3	495.2	425.0	70.2	3
Utah	129.8	33.5	12.0	21.5	16.3	5.1	18
Vermont	15.0	4.7	1.6	3.1	(D)	(D)	28
Virginia	351.2	139.6	30.3	109.3	78.1	31.2	7
Washington	366.5	131.2	14.4	116.8	94.7	22.1	6
West Virginia	273.4	121.1	49.1	72.0	68.5	3.5	17
Wisconsin	432.7	188.5	11.3	177.2	128.6	48.6	10
Wyoming	21.3	7.5	.7	6.8	6.7	.1	18

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10c. Operating Costs by States for the Media Solid/Contained Waste: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Solid/contained waste						Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated					
		Total	Hazardous	Nonhazardous			
				Total	Payments to industry	Solid/contained waste collection payments to government	
United States ¹	17 555.0	5 348.6	1 874.6	3 474.0	3 182.1	291.8	2
Alabama	393.4	95.6	24.8	70.8	66.1	4.8	6
Alaska	28.9	9.2	1.5	7.8	7.2	.6	23
Arizona	119.9	22.0	9.7	12.3	11.2	1.1	8
Arkansas	226.3	62.8	12.8	50.0	44.3	5.7	10
California	1 426.2	395.4	167.5	227.8	195.3	32.6	5
Colorado	85.5	25.7	14.8	10.9	10.0	1.0	10
Connecticut	160.8	87.5	22.9	64.7	59.5	5.2	8
Delaware	143.3	19.9	7.6	12.3	11.0	1.3	17
District of Columbia	4.4	(D)	(D)	.6	.6	-	12
Florida	297.0	98.6	21.0	77.6	66.8	10.7	6

Table 10c. Operating Costs by States for the Media Solid/ Contained Waste: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Solid/ contained waste							Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated						
		Total	Hazardous	Nonhazardous			Solid/ contained waste collection payments to government	
				Total	Payments to industry			
Georgia	415.9	114.7	22.6	92.1	83.2	8.9	6	
Hawaii	12.3	(D)	(D)	3.5	3.4	.1	33	
Idaho	63.9	15.6	1.9	13.7	12.5	1.2	12	
Illinois	879.5	258.4	61.8	196.5	188.8	7.7	6	
Indiana	690.4	196.1	71.0	125.1	118.6	6.6	4	
Iowa	173.4	55.1	16.0	39.1	33.8	5.3	7	
Kansas	125.0	44.8	19.5	25.2	22.6	2.6	13	
Kentucky	331.3	84.2	28.5	55.7	52.4	3.3	5	
Louisiana	922.7	234.4	93.1	141.3	136.9	4.4	5	
Maine	124.7	40.7	7.3	33.4	32.3	1.1	10	
Maryland	222.0	69.1	25.3	43.8	41.0	2.8	9	
Massachusetts	249.0	93.4	40.3	53.1	48.6	4.5	8	
Michigan	768.5	251.2	82.9	168.3	159.8	8.5	5	
Minnesota	277.4	83.7	22.5	61.2	53.1	8.0	3	
Mississippi	258.7	71.3	22.5	48.8	47.5	1.3	9	
Missouri	297.7	95.2	45.2	50.1	47.4	2.7	5	
Montana	22.5	2.6	1.1	1.5	1.3	.1	12	
Nebraska	53.5	20.4	6.5	13.9	12.6	1.2	11	
Nevada	10.3	3.0	.7	2.3	2.1	.1	21	
New Hampshire	46.4	18.3	7.1	11.2	10.4	.8	15	
New Jersey	634.8	192.6	73.9	118.6	106.7	11.9	11	
New Mexico	75.7	20.4	5.7	14.7	14.5	.2	41	
New York	647.6	289.6	87.5	202.1	189.9	12.2	5	
North Carolina	512.1	163.3	45.4	117.9	105.4	12.5	4	
North Dakota	17.2	5.4	2.7	2.7	2.6	.1	49	
Ohio	1 018.3	376.2	158.3	218.0	201.1	16.9	4	
Oklahoma	118.1	39.6	14.7	24.9	22.5	2.4	10	
Oregon	177.7	50.9	15.2	35.7	32.1	3.6	7	
Pennsylvania	864.3	320.9	101.9	219.0	202.4	16.5	5	
Rhode Island	29.3	11.8	3.6	8.2	7.8	.3	11	
South Carolina	392.4	118.0	22.9	95.0	89.7	5.3	7	
South Dakota	13.1	3.7	1.2	2.5	2.1	.4	26	
Tennessee	468.1	157.6	62.9	94.7	86.1	8.5	5	
Texas	2 167.6	524.2	261.0	263.2	242.1	21.1	3	
Utah	129.8	39.6	23.0	16.6	15.4	1.2	18	
Vermont	15.0	8.0	4.7	3.3	2.9	.4	28	
Virginia	351.2	109.5	35.8	73.7	63.3	10.4	7	
Washington	366.5	119.7	45.2	74.5	59.7	14.7	6	
West Virginia	273.4	67.9	22.9	44.9	42.8	2.1	17	
Wisconsin	432.7	149.4	23.4	126.0	109.5	16.5	10	
Wyoming	21.3	3.8	.5	3.2	3.2	.1	18	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	All Industries ¹	17 555.0	2 666.7	3 075.1	2 600.8	3 594.1	4 017.5	1 600.7	2
20	Food and kindred products	1 339.3	130.4	161.2	140.9	237.1	180.0	489.7	3
201	Meat products	236.3	27.5	28.5	21.9	30.6	49.1	78.6	6
2011	Meat packing plants	67.4	7.6	7.7	6.8	8.9	11.5	25.0	12
2013	Sausages and other prepared meats	34.1	1.3	1.8	2.1	9.5	5.2	14.1	22
2015	Poultry slaughtering and processing	134.8	18.5	19.0	13.0	12.3	32.4	39.6	6
202	Dairy products	159.6	12.3	15.2	10.8	27.8	19.1	74.3	12
2021	Creamery butter	3.7	.5	.2	2	1	5	2.2	53
2022	Cheese, natural and processed	47.6	7.5	5.4	5.1	7.5	8.6	13.5	18
2023	Dry, condensed, and evaporated dairy products	14.0	1.3	2.2	7	3.5	1.6	4.6	17
2024	Ice cream and frozen desserts	22.0	.2	1.2	6	6.0	1.7	12.2	48
2026	Fluid milk	72.2	2.7	6.2	4.2	10.6	6.7	41.8	16
203	Preserved fruits and vegetables	212.6	16.9	29.2	20.3	47.1	24.1	75.0	7
2032	Canned specialties	22.9	(D)	2.0	1.6	5.2	(D)	11.5	16
2033	Canned fruits and vegetables	69.4	3.4	7.7	7.4	14.9	8.5	27.5	15
2034	Dehydrated fruits, vegetables, and soups	7.8	(D)	1.1	7	3.2	(D)	1.5	36
2035	Pickles, sauces, and salad dressings	22.1	2.3	2.7	2.3	3.7	2.4	8.6	26
2037	Frozen fruits and vegetables	55.6	7.9	8.4	7.3	11.6	7.9	12.6	6
2038	Frozen specialties, n.e.c.	34.8	1.5	7.2	1.1	8.4	3.3	13.2	15
204	Grain mill products	172.6	25.4	16.6	35.5	31.7	20.4	43.0	7
2041	Flour and other grain mill products	15.8	1.8	1.6	8.1	1.6	1.4	1.3	32
2043	Cereal breakfast foods	28.1	3.4	4.6	2.9	6.8	3.1	7.4	4
2044	Rice milling	2.7	.4	.2	1.9	.2	.1	.7	57
2045	Prepared flour mixes and doughs	6.5	.3	1.3	.3	.7	.7	2.3	28
2046	Wet corn milling	73.9	12.8	4.8	12.5	8.1	11.2	24.4	7
2047	Dog and cat food	22.5	1.1	2.3	3.1	9.3	1.6	5.2	19
2048	Prepared feeds, n.e.c.	23.1	5.5	1.8	6.8	4.3	2.3	2.4	28

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
20	Food and kindred products—Con.								
205	Bakery products	53.2	2.5	8.0	3.3	13.4	11.6	14.5	10
2051	Bread, cake, and related products	27.9	1.3	3.9	2.3	7.6	3.5	9.3	13
2052	Cookies and crackers	21.3	.7	3.8	.8	4.6	7.5	3.9	16
2053	Frozen bakery products, except bread	4.0	.4	.3	.2	1.2	.7	1.3	42
206	Sugar and confectionery products	75.3	9.2	12.2	8.1	18.0	13.1	14.7	12
2061	Raw cane sugar	10.0	1.4	2.5	1.1	1.4	3.5	.1	37
2062	Cane sugar refining	(D)	(D)	1.0	.6	(D)	.7	1.1	(X)
2069	Beet sugar	27.4	5.6	3.9	4.5	5.3	6.1	2.1	29
2084	Candy and other confectionery products	17.6	1.1	(D)	(D)	5.3	1.6	7.1	12
2086	Chocolate and cocoa products	8.3	.5	2.1	.8	1.6	.6	2.6	14
2067	Chewing gum	(D)	(D)	(D)	.2	(D)	.1	.3	(X)
2068	Salted and roasted nuts and seeds	(D)	.2	.4	(D)	1.3	.5	1.5	(X)
207	Fats and oils	62.9	6.7	10.5	16.7	7.5	9.3	12.4	16
2074	Cottonseed oil mills	9.5	1.5	3.4	2.6	.9	.6	.5	76
2075	Soybean oil mills	26.5	3.2	3.4	7.5	3.6	4.4	4.3	8
2077	Animal and marine fats and oils	6.4	.1	.5	2.2	.1	.7	2.7	83
2079	Edible fats and oils, n.e.c.	20.0	1.7	3.1	4.2	2.8	3.5	4.7	16
208	Beverages	241.5	15.9	26.6	15.1	31.7	22.7	129.5	5
2082	Malt beverages	166.8	(D)	20.0	9.8	15.4	(D)	93.7	4
2083	Malt	4.7	(D)	.2	1.0	.6	(D)	2.2	22
2084	Wines, brandy, and brandy spirits	3.9	1.4	.1	.2	1.4	.1	.8	47
2085	Distilled and blended liquors	7.7	.5	1.2	1.3	1.8	.3	2.5	37
2086	Bottled and canned soft drinks	52.0	3.0	4.6	2.8	11.5	2.5	27.5	12
2087	Flavoring extracts and syrups, n.e.c.	6.3	1.3	.5	(Z)	1.0	.6	2.9	39
209	Miscellaneous food and kindred products	123.6	13.1	14.1	8.9	29.4	10.2	47.7	15
2091	Canned and cured fish and seafoods	3.0	.3	.4	.2	.7	.2	1.2	61
2092	Fresh or frozen prepared fish	20.9	1.6	2.9	.8	7.6	1.1	6.9	23
2095	Roasted coffee	18.1	3.2	1.5	3.6	4.4	1.6	3.8	25
2096	Potato chips and similar snacks	27.3	2.4	3.3	1.8	5.0	2.0	12.9	10
2099	Food preparations, n.e.c.	53.3	5.6	6.1	2.5	11.2	5.3	22.6	32
21	Tobacco products	32.8	9.1	7.3	4.5	4.8	1.9	5.2	6
211	Cigarettes	20.8	6.2	4.4	(D)	3.1	(D)	4.1	9
2111	Cigarettes	20.8	6.2	4.4	(D)	3.1	(D)	4.1	9
213	Chewing and smoking tobacco	1.1	.1	.1	(D)	.4	(D)	.3	30
2131	Chewing and smoking tobacco	1.1	.1	.1	(D)	.4	(D)	.3	30
214	Tobacco stemming and redrying	10.3	2.8	2.8	2.0	1.3	1.1	.4	9
2141	Tobacco stemming and redrying	10.3	2.8	2.8	2.0	1.3	1.1	.4	9
22	Textile mill products	272.8	17.8	31.9	34.6	46.9	29.0	112.7	4
221	Broadwoven fabrics mills, cotton	39.4	2.5	5.3	6.1	3.7	6.3	15.5	6
2211	Broadwoven fabrics mills, cotton	39.4	2.5	5.3	6.1	3.7	6.3	15.5	6
222	Broadwoven fabrics mills, manmade fiber and silk	20.4	.7	3.2	2.6	4.1	1.8	8.0	10
2221	Broadwoven fabrics mills, manmade fiber and silk	20.4	.7	3.2	2.6	4.1	1.8	8.0	10
223	Broadwoven fabrics mills, wool	10.1	.9	1.2	1.0	2.2	1.3	3.5	10
2231	Broadwoven fabrics mills, wool	10.1	.9	1.2	1.0	2.2	1.3	3.5	10
224	Narrow fabrics mills	3.3	.1	.3	.5	.7	.7	1.1	24
2241	Narrow fabrics mills	3.3	.1	.3	.5	.7	.7	1.1	24
225	Knitting mills	65.8	3.2	4.8	6.2	7.3	3.0	41.3	11
2251	Women's hosiery, except socks	2.9	.4	.3	.1	.7	.1	1.3	29
2252	Hosiery, n.e.c.	4.2	(D)	.3	.2	(D)	.2	2.8	24
2253	Knit outerwear mills	9.9	.3	.5	.3	.7	.5	7.6	17
2254	Knit underwear mills	1.4	(D)	(Z)	(Z)	(D)	(Z)	.9	16
2257	Wet knit fabrics mills	32.0	1.1	2.6	3.8	2.7	1.5	20.3	18
2258	Lace and warp knit fabrics mills	15.0	1.2	1.0	1.6	2.2	.6	8.4	23
226	Textile finishing, except wool	54.3	4.1	5.2	8.8	8.0	7.5	20.6	11
2261	Finishing plants, cotton	20.6	1.6	1.7	1.9	3.4	2.7	9.2	18
2262	Finishing plants, manmade	22.9	2.0	3.0	6.2	3.1	4.2	4.3	13
2269	Finishing plants, n.e.c.	10.8	.4	.6	.7	1.5	.5	7.0	29
227	Carpets and rugs	17.9	.4	1.5	.7	4.1	1.0	10.1	17
2273	Carpets and rugs	17.9	.4	1.5	.7	4.1	1.0	10.1	17
228	Yarn and thread mills	21.0	1.6	3.7	3.8	3.2	2.1	6.7	9
2281	Yarn spinning mills	14.0	1.3	2.2	3.4	1.8	1.7	3.5	12
2282	Throwing and winding mills	4.3	.2	1.1	.3	1.0	.2	1.6	13
2284	Thread mills	2.7	.1	.3	.1	.4	.2	1.6	16
229	Miscellaneous textile goods	40.1	4.1	6.6	4.8	13.5	5.5	5.6	9
2295	Coated fabrics, not rubberized	12.9	1.7	2.3	2.2	3.9	1.1	1.8	20
2296	Tire cord and fabrics	1.9	(D)	.2	.2	1.0	(D)	.2	5
2297	Nonwoven fabrics	18.0	1.7	3.5	1.7	5.7	3.0	2.4	8
2299	Textile goods, n.e.c.	6.8	(D)	.7	.6	2.7	(D)	1.1	28
24	Lumber and wood products	253.1	33.8	42.9	41.4	81.7	35.2	18.1	5
241	Logging	7.9	.3	1.7	.9	2.4	2.5	.1	10
2411	Logging	7.9	.3	1.7	.9	2.4	2.5	.1	10
242	Sawmills and planing mills	53.9	7.1	12.2	5.8	14.8	10.3	3.8	8
2421	Sawmills and planing mills, general	42.6	5.7	9.7	2.6	12.7	8.9	3.0	9
2426	Hardwood dimension and flooring mills	11.4	1.4	2.6	3.2	2.0	1.4	.8	22
243	Millwork, plywood, and structural members	76.7	9.5	12.4	15.4	27.7	5.0	6.7	11
2431	Millwork	21.3	1.9	2.3	5.1	8.9	.9	2.2	15
2434	Wood kitchen cabinets	13.3	2.0	1.8	1.7	6.3	.8	.7	29
2435	Hardwood veneer and plywood	7.5	1.2	1.4	1.2	1.2	.9	1.7	33
2436	Softwood veneer and plywood	29.1	3.3	6.2	6.6	9.3	2.1	1.5	21
2439	Structural wood members, n.e.c.	5.6	1.2	.7	.8	2.1	.2	.6	35
244	Wood containers	5.6	.5	.7	1.2	1.8	.6	.6	16
2441	Nailed wood boxes and shooks	1.2	.1	.2	.4	.2	.2	(Z)	55
2448	Wood pallets and skids	3.7	.4	.5	.6	1.4	.3	.5	15

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
24	Lumber and wood products—Con.								
245	Wood buildings and mobile homes	15.3	.2	.9	.1	10.0	.8	3.3	6
2451	Mobile homes	12.5	.1	.6	.1	8.5	.3	2.9	6
2452	Prefabricated wood buildings	2.8	.1	.3	.1	1.5	.4	.4	18
249	Miscellaneous wood products	93.7	16.2	14.9	17.9	25.0	16.0	3.6	6
2491	Wood preserving	19.0	2.8	2.6	.8	10.3	1.8	.6	21
2493	Reconstituted wood products	61.0	12.1	7.9	15.1	10.3	13.2	2.4	5
2499	Wood products, n.e.c.	13.7	1.3	4.3	2.0	4.4	1.0	.6	15
25	Furniture and fixtures	124.2	13.5	19.4	22.4	36.1	18.5	14.2	6
251	Household furniture	61.0	8.3	7.5	14.3	13.4	10.8	6.6	9
2511	Wood household furniture	43.2	7.5	4.6	12.3	7.4	8.5	2.9	12
2512	Upholstered household furniture	6.7	.3	1.1	.8	2.6	.7	1.2	18
2514	Metal household furniture	5.9	.2	1.0	.4	1.8	.9	1.6	25
2515	Mattresses and bedsprings	1.4	(D)	(D)	.2	.4	(D)	.3	42
2517	Wood television and radio cabinets	2.0	(Z)	.3	.4	.8	(Z)	.4	38
2519	Household furniture, n.e.c.	1.7	(D)	(D)	.2	.3	(D)	.2	8
252	Office furniture	31.3	3.3	5.7	6.9	9.9	2.9	3.2	15
2521	Wood office furniture	10.9	1.6	1.6	3.6	2.5	1.1	.6	24
2522	Office furniture, except wood	20.4	1.7	4.2	2.7	7.4	1.8	2.6	18
253	Public building and related furniture	7.3	.4	1.4	.6	3.1	.5	1.4	15
2531	Public building and related furniture	7.3	.4	1.4	.6	3.1	.5	1.4	15
254	Partitions and fixtures	18.2	1.0	3.6	.7	7.7	2.8	2.4	9
2541	Wood partitions and fixtures	7.1	.3	1.2	.3	3.8	.7	.8	18
2542	Partitions and fixtures, except wood	11.1	.6	2.4	.4	3.9	2.1	1.7	9
259	Miscellaneous furniture and fixtures	6.3	.6	1.2	.5	2.1	1.5	.4	15
2591	Drapery hardware and blinds and shades	2.7	.4	.6	.3	.7	.5	.2	8
2599	Furniture and fixtures, n.e.c.	3.6	.2	.6	.2	1.3	1.0	.3	24
26	Paper and allied products	1 901.5	361.9	249.2	268.1	295.7	505.3	221.3	4
261	Pulp mills	244.2	52.9	30.8	39.8	21.2	54.1	45.4	16
2611	Pulp mills	244.2	52.9	30.8	39.8	21.2	54.1	45.4	16
262	Paper mills	969.0	188.2	124.6	108.0	131.5	301.0	115.7	6
2621	Paper mills	969.0	188.2	124.6	108.0	131.5	301.0	115.7	6
263	Paperboard mills	406.9	87.0	49.5	77.2	50.9	109.2	33.1	5
2631	Paperboard mills	406.9	87.0	49.5	77.2	50.9	109.2	33.1	5
265	Paperboard containers and boxes	98.8	6.8	20.8	10.5	32.2	14.6	13.9	10
2652	Setup paperboard boxes	1.0	(Z)	.3	.1	.4	(Z)	.1	57
2653	Corrugated and solid fiber boxes	45.9	2.8	11.2	2.2	11.1	10.4	8.2	14
2655	Fiber cans, drums, and similar products	4.1	.1	.2	.1	2.6	.7	.4	37
2656	Sanitary food containers	4.4	.1	.6	.4	2.1	.3	.9	20
2657	Folding paperboard boxes	48.5	3.8	8.5	7.7	16.0	3.2	4.4	16
267	Miscellaneous converted paper products	182.6	27.0	23.4	32.7	59.9	26.4	13.3	10
2671	Paper coated and laminated, packaging	29.4	7.2	3.3	7.9	5.7	4.0	1.3	24
2672	Paper coated and laminated, n.e.c.	49.6	8.6	4.4	9.2	15.0	9.7	2.7	14
2673	Bags: plastics, laminated, and coated	27.1	3.5	2.7	8.3	8.3	3.2	1.1	39
2674	Bags: uncoated paper and multiwall	4.5	.2	1.2	.3	1.2	.3	1.3	31
2675	Die-cut paper and board	6.9	.7	.8	.3	3.9	.9	.3	36
2676	Sanitary paper products	42.8	5.6	7.1	5.2	17.0	5.8	2.2	24
2677	Envelopes	4.3	.3	1.0	.1	.9	1.1	.9	33
2678	Stationery products	3.4	.1	1.6	.1	1.1	.3	.3	35
2679	Converted paper products, n.e.c.	14.6	.9	1.3	1.2	6.8	1.0	3.3	21
27	Printing and publishing	258.4	33.5	41.7	53.1	76.6	29.4	24.2	4
271	Newspapers	34.6	.5	5.3	1.0	18.0	3.2	6.6	11
2711	Newspapers	34.6	.5	5.3	1.0	18.0	3.2	6.6	11
272	Periodicals	1.1	.5	.1	(Z)	.4	(Z)	.1	33
2721	Periodicals	1.1	.5	.1	(Z)	.4	(Z)	.1	33
273	Books	15.6	2.2	3.7	2.4	3.7	1.3	2.3	6
2731	Book publishing	1.9	(D)	.3	(D)	.7	(D)	(D)	3
2732	Book printing	13.7	(D)	3.5	(D)	3.0	(D)	(D)	7
274	Miscellaneous publishing	1.6	.1	.2	(Z)	.6	.2	.4	9
2741	Miscellaneous publishing	1.6	.1	.2	(Z)	.6	.2	.4	9
275	Commercial printing	165.3	27.6	21.4	47.1	38.6	19.8	10.8	5
2752	Commercial printing, lithographic	98.1	15.9	13.0	27.7	26.1	9.3	6.1	6
2754	Commercial printing, gravure	41.3	7.6	5.8	15.5	3.3	7.8	1.3	7
2759	Commercial printing, n.e.c.	25.9	4.2	2.6	4.0	9.1	2.7	3.4	14
276	Manifold business forms	17.2	.9	5.6	1.0	6.7	1.3	1.6	9
2761	Manifold business forms	17.2	.9	5.6	1.0	6.7	1.3	1.6	9
277	Greeting cards	6.4	.2	2.3	.1	2.8	.5	.5	15
2771	Greeting cards	6.4	.2	2.3	.1	2.8	.5	.5	15
278	Blankbooks and bookbinding	6.2	.6	1.0	.6	1.9	1.5	.5	18
2782	Blankbooks and looseleaf binders	3.4	(Z)	.7	(Z)	1.2	.9	.4	14
2789	Bookbinding and related work	2.8	.5	.3	.5	.7	.6	.1	36
279	Printing trade services	10.4	1.0	1.9	.8	3.9	1.5	1.3	24
2796	Platemaking services	10.1	1.0	1.9	.8	3.8	1.5	1.2	25
28	Chemicals and allied products	4 348.2	738.7	631.7	541.1	668.2	1 168.1	200.4	3
281	Industrial inorganic chemicals	652.1	86.8	133.1	49.6	113.5	250.4	18.7	5
2812	Alkalies and chlorine	72.8	(D)	14.7	(D)	9.4	35.4	.3	3
2813	Industrial gases	18.7	(D)	2.9	(D)	3.8	4.4	.6	4
2816	Inorganic pigments	110.4	17.8	15.7	7.1	16.9	48.2	4.7	3
2819	Industrial inorganic chemicals, n.e.c.	450.2	50.7	99.8	40.7	83.5	162.4	13.1	7
282	Plastics materials and synthetics	769.1	146.0	151.5	97.8	139.8	212.3	21.7	4
2821	Plastics materials and resins	518.9	101.1	102.0	66.7	92.5	138.7	17.8	5
2822	Synthetic rubber	103.5	19.5	20.1	17.7	22.1	23.2	.8	6
2823	Cellulosic manmade fibers	60.4	(D)	(D)	6.0	2.1	26.5	.2	3
2824	Organic fibers, noncellulosic	86.4	(D)	(D)	7.3	23.1	23.9	3.0	4

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

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SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
28	Chemicals and allied products—Con.								
283	Drugs	338.4	56.9	70.0	29.1	87.9	69.8	24.6	4
2833	Medicinals and botanicals	133.5	23.9	29.0	16.6	24.9	34.1	5.0	6
2834	Pharmaceutical preparations	186.9	31.7	38.5	11.3	54.8	33.1	17.5	6
2835	Diagnostic substances	8.2	.7	1.7	.6	3.2	1.6	.5	10
2836	Biological products, except diagnostic	9.7	.7	.9	.7	5.1	.9	1.5	11
284	Soaps, cleaners, and toilet goods	151.3	17.9	26.0	10.2	45.1	23.1	29.0	7
2841	Soap and other detergents	53.1	5.9	7.0	3.2	14.1	9.2	13.6	12
2842	Polishes and sanitation goods	21.4	3.0	4.8	.6	7.1	2.8	3.0	35
2843	Surface active agents	44.6	7.1	9.0	5.4	9.9	7.5	5.8	7
2844	Toilet preparations	32.3	1.9	5.2	1.0	14.1	3.5	6.6	11
285	Paints and allied products	78.5	7.6	11.7	7.1	33.8	10.6	7.6	6
2851	Paints and allied products	78.5	7.6	11.7	7.1	33.8	10.6	7.6	6
286	Industrial organic chemicals	1 788.4	338.8	337.8	265.3	347.4	422.9	76.1	5
2861	Gum and wood chemicals	12.2	2.8	1.7	(D)	2.2	2.3	(D)	9
2865	Cyclic crudes and intermediates	338.3	66.9	61.6	(D)	61.5	72.9	(D)	5
2869	Industrial organic chemicals, n.e.c.	1 438.0	269.1	274.5	219.7	283.7	347.7	43.2	6
287	Agricultural chemicals	364.6	62.3	67.4	83.2	53.7	116.2	1.8	3
2873	Nitrogenous fertilizers	38.1	6.4	7.5	16.2	3.9	4.0	.2	11
2874	Phosphatic fertilizers	110.0	21.1	20.9	11.1	12.5	44.4	.1	4
2875	Fertilizers, mixing only	2.3	.3	.5	.7	.3	.5	.1	10
2879	Agricultural chemicals, n.e.c.	214.1	34.4	38.5	35.3	37.1	67.3	1.4	4
289	Miscellaneous chemical products	205.8	22.5	34.1	18.7	46.9	62.8	20.8	6
2891	Adhesives and sealants	37.4	2.9	6.9	4.6	11.7	7.1	4.2	11
2892	Explosives	21.4	1.1	9.8	1.1	5.6	3.7	.1	8
2893	Printing ink	7.2	.6	1.2	.4	3.6	1.0	.5	21
2895	Carbon black	20.3	1.8	1.6	1.9	2.3	12.4	.2	31
2899	Chemical preparations, n.e.c.	119.4	16.2	14.6	10.7	23.7	38.6	15.7	6
29	Petroleum and coal products	2 647.9	452.4	420.5	639.6	378.6	724.5	32.4	4
291	Petroleum refining	2 579.0	444.4	411.3	626.0	360.8	712.1	24.4	4
2911	Petroleum refining	2 579.0	444.4	411.3	626.0	360.8	712.1	24.4	4
295	Asphalt paving and roofing materials	40.4	3.1	4.7	10.6	9.5	7.0	5.6	9
2951	Asphalt paving mixtures and blocks	11.0	1.0	2.7	3.5	1.1	1.8	.9	28
2952	Asphalt felts and coatings	29.4	2.0	2.0	7.1	8.4	5.2	4.7	6
299	Miscellaneous petroleum and coal products	28.5	4.9	4.5	2.9	8.3	5.4	2.5	10
2992	Lubricating oils and greases	18.6	2.6	2.9	2.5	5.4	3.1	2.1	12
2999	Petroleum and coal products, n.e.c.	9.9	2.3	1.5	.5	3.0	2.3	.3	16
30	Rubber and miscellaneous plastics products	385.2	34.5	56.1	44.6	135.2	58.4	56.5	5
301	Tires and inner tubes	40.4	2.1	8.4	4.6	16.0	5.4	4.0	7
3011	Tires and inner tubes	40.4	2.1	8.4	4.6	16.0	5.4	4.0	7
302	Rubber and plastics footwear	2.1	(Z)	.3	.3	1.0	.2	.3	18
3021	Rubber and plastics footwear	2.1	(Z)	.3	.3	1.0	.2	.3	18
305	Hose and belting and gaskets and packing	19.5	1.2	3.9	2.0	6.8	1.8	3.8	6
3052	Rubber and plastics hose and belting	12.3	.9	2.8	1.4	3.9	.7	2.7	7
3053	Gaskets, packing, and sealing devices	7.1	.3	1.2	.7	2.9	1.1	1.0	13
306	Fabricated rubber products, n.e.c.	62.4	5.7	8.6	7.1	21.6	6.5	12.9	12
3061	Mechanical rubber goods	20.5	1.0	2.8	1.2	6.7	4.0	4.9	10
3069	Fabricated rubber products, n.e.c.	41.9	4.7	5.9	5.9	15.0	2.5	8.0	17
308	Miscellaneous plastics products, n.e.c.	260.8	25.5	34.8	30.6	89.7	44.6	35.6	6
3081	Unsupported plastics film and sheet	62.7	9.5	8.8	11.4	15.8	11.2	5.9	10
3082	Unsupported plastics profile shapes	4.8	.4	.9	.8	2.2	.4	.2	34
3083	Laminated plastics plate, sheet, and profile shapes	16.9	1.9	2.0	4.3	4.0	2.7	2.1	14
3084	Plastics pipe	6.0	.4	1.1	.8	1.1	1.5	.9	38
3085	Plastics bottles	3.3	.1	.2	(Z)	1.9	.3	.7	20
3086	Plastics foam products	38.4	5.8	4.0	3.2	12.1	7.5	5.7	19
3087	Custom compounding of purchased plastics resins	18.0	1.9	3.1	1.8	7.4	2.0	1.8	18
3088	Plastics plumbing fixtures	2.3	(Z)	.3	(Z)	1.8	.1	.1	13
3089	Plastics products, n.e.c.	108.4	5.5	14.2	8.3	43.3	18.9	18.2	8
31	Leather and leather products	50.9	5.1	6.8	4.3	10.3	14.8	9.7	14
311	Leather tanning and finishing	43.3	5.0	6.1	3.8	6.2	14.0	8.3	16
3111	Leather tanning and finishing	43.3	5.0	6.1	3.8	6.2	14.0	8.3	16
313	Footwear cut stock	1.2	(Z)	(Z)	-	.7	.4	.1	85
3131	Footwear cut stock	1.2	(Z)	(Z)	-	.7	.4	.1	85
314	Footwear, except rubber	3.8	(Z)	.5	.2	2.2	.2	.7	20
3143	Men's footwear, except athletic	1.8	(Z)	.1	.1	1.3	.1	.2	27
3144	Women's footwear, except athletic	1.3	(Z)	.3	.1	.6	.1	.2	40
316	Luggage	1.1	(Z)	.2	(Z)	.6	(D)	(D)	20
3161	Luggage	1.1	(Z)	.2	(Z)	.6	(D)	(D)	20
319	Leather goods, n.e.c. ....	.6	(Z)	(Z)	.3	.2	(D)	(D)	58
3199	Leather goods, n.e.c. ....	.6	(Z)	(Z)	.3	.2	(D)	(D)	58
32	Stone, clay, and glass products	521.1	81.9	88.1	101.1	100.4	113.5	36.0	4
321	Flat glass	16.9	3.2	2.8	1.9	5.6	2.0	1.2	10
3211	Flat glass	16.9	3.2	2.8	1.9	5.6	2.0	1.2	10
322	Glass and glassware, pressed or blown	76.1	12.3	10.5	11.4	17.0	17.3	7.6	3
3221	Glass containers	24.8	3.7	3.0	4.4	4.9	4.9	3.9	6
3229	Pressed and blown glass, n.e.c.	51.3	8.6	7.5	7.0	12.1	12.5	3.7	2
323	Products of purchased glass	39.5	4.7	6.9	4.4	10.6	6.3	6.6	14
3231	Products of purchased glass	39.5	4.7	6.9	4.4	10.6	6.3	6.6	14
324	Cement, hydraulic	127.2	25.9	24.9	36.4	11.3	27.7	1.0	6
3241	Cement, hydraulic	127.2	25.9	24.9	36.4	11.3	27.7	1.0	6

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
32	Stone, clay, and glass products—Con.								8
325	Structural clay products	18.3	1.7	3.2	3.0	4.8	3.5	2.0	10
3251	Brick and structural clay tile	4.7	.6	1.0	.4	.7	2.0	.2	6
3253	Ceramic wall and floor tile	6.7	.5	.7	.5	3.1	.8	1.1	16
3255	Clay refractories	5.4	.7	1.3	1.2	1.0	.7	.6	68
3259	Structural clay products, n.e.c.	1.4	.1	.3	1.0	.1	(Z)	(Z)	17
326	Pottery and related products	23.8	2.1	4.2	2.0	8.4	3.8	3.4	14
3261	Vitreous plumbing fixtures	5.8	.7	1.1	.6	1.6	1.1	1.7	14
3262	Vitreous china table and kitchenware	4.3	.3	1.4	.1	1.2	.5	.8	38
3264	Porcelain electrical supplies	10.0	.8	1.1	1.1	4.7	1.7	.6	16
3269	Pottery products, n.e.c.	2.7	.3	.5	.2	1.0	.5	.3	9
327	Concrete, gypsum, and plaster products	77.1	8.3	19.0	11.8	19.8	14.3	3.8	45
3271	Concrete block and brick	1.7	.3	.4	.3	.3	.2	.3	17
3272	Concrete products, n.e.c.	9.5	.5	1.3	.5	4.0	2.3	.9	17
3273	Ready-mixed concrete	27.9	2.8	9.0	4.1	6.0	4.4	1.7	23
3274	Lime	19.1	2.7	5.3	3.1	3.9	4.0	(Z)	12
3275	Gypsum products	18.9	2.0	3.0	3.9	5.6	3.4	1.0	43
328	Cut stone and stone products	3.5	.4	.5	.5	.8	.9	.3	49
3281	Cut stone and stone products	3.5	.4	.5	.5	.8	.9	.3	9
329	Miscellaneous nonmetallic mineral products	138.7	23.2	15.9	29.8	22.0	37.7	10.1	9
3291	Abrasive products	21.7	4.6	1.2	1.1	3.3	8.4	3.1	9
3292	Asbestos products	1.4	.1	.3	.3	.4	.3	(Z)	31
3295	Minerals, ground or treated	18.1	5.3	2.5	3.7	1.2	3.4	2.0	30
3296	Mineral wool	80.8	10.5	9.8	21.1	13.3	23.3	2.2	12
3297	Nonclay refractories	12.7	1.5	1.7	2.7	3.0	2.1	1.8	21
3299	Nonmetallic mineral products, n.e.c.	4.1	1.3	.4	1.0	.8	.2	.4	58
33	Primary metal industries	2 017.2	334.1	324.2	377.9	388.5	534.4	58.1	3
331	Blast furnace and basic steel products	1 061.4	189.0	159.8	204.0	200.4	288.5	19.6	5
3312	Blast furnaces and steel mills	913.3	171.5	136.0	165.4	162.8	262.8	14.8	6
3313	Electrometallurgical products	52.8	8.0	5.6	30.3	5.0	3.7	.1	27
3315	Steel wire and related products	22.4	3.0	4.6	2.1	4.5	5.8	2.3	20
3316	Cold finishing of steel shapes	42.7	4.2	9.1	4.1	14.3	9.9	1.2	7
3317	Steel pipe and tubes	30.2	2.4	4.5	2.0	13.8	6.3	1.1	17
332	Iron and steel foundries	257.4	33.0	40.3	59.7	62.2	46.2	16.0	5
3321	Gray and ductile iron foundries	204.6	27.7	32.8	47.8	44.5	39.7	12.1	5
3322	Malleable iron foundries	10.9	.9	1.5	(D)	3.5	.8	(D)	7
3324	Steel investment foundries	11.7	1.3	2.3	(D)	3.4	1.8	(D)	13
3325	Steel foundries, n.e.c.	30.3	3.1	3.7	7.2	10.8	3.9	1.6	13
333	Primary nonferrous metals	368.5	69.7	60.7	64.9	46.6	124.3	2.3	4
3331	Primary copper	126.9	33.0	15.7	26.6	(D)	40.4	(D)	1
3334	Primary aluminum	180.6	26.2	31.4	28.4	20.3	52.8	1.5	5
3339	Primary nonferrous metals, n.e.c.	81.0	10.6	13.6	9.9	(D)	31.2	(D)	16
334	Secondary nonferrous metals	79.3	15.4	11.2	22.5	8.6	20.6	1.0	9
3341	Secondary nonferrous metals	79.3	15.4	11.2	22.5	8.6	20.6	1.0	9
335	Nonferrous rolling and drawing	178.8	19.3	37.4	15.8	55.7	40.5	10.1	7
3351	Copper rolling and drawing	40.8	4.7	7.4	4.5	10.4	10.7	3.0	10
3353	Aluminum sheet, plate, and foil	59.2	8.3	11.1	5.2	19.0	14.2	1.5	8
3354	Aluminum extruded products	18.9	1.4	4.7	.7	7.5	4.3	1.3	25
3355	Nonferrous rolling and drawing, n.e.c.	30.9	3.7	9.6	2.3	5.7	8.1	1.5	21
3357	Nonferrous wire drawing and insulating	27.3	1.2	4.5	3.0	12.8	3.1	2.8	17
336	Nonferrous foundries (castings)	51.3	5.0	10.5	8.7	9.9	10.5	6.7	12
3363	Aluminum die-castings	18.0	2.8	3.8	2.4	3.3	4.4	1.4	9
3364	Nonferrous die-castings, except aluminum	7.1	(D)	(D)	(D)	(D)	(D)	(D)	21
3365	Aluminum foundries	11.9	1.2	1.7	1.7	3.5	2.1	1.7	12
3366	Copper foundries	9.5	.1	2.7	3.9	1.4	.7	.6	61
3369	Nonferrous foundries, n.e.c.	4.8	(D)	(D)	(D)	(D)	(D)	(D)	1
339	Miscellaneous primary metal products	19.8	2.3	4.4	1.9	5.0	3.6	2.6	7
3398	Metal heat treating	8.6	.6	1.7	.3	2.7	1.2	2.0	14
3399	Primary metal products, n.e.c.	11.2	1.7	2.6	1.5	2.4	2.4	.6	5
34	Fabricated metal products	679.4	83.6	146.7	79.6	166.6	131.9	70.9	4
341	Metal cans and shipping containers	70.2	10.8	11.3	14.5	12.4	13.7	7.5	6
3411	Metal cans	58.9	9.6	9.9	11.2	9.9	11.7	6.7	6
3412	Metal barrels, drums, and pails	11.2	1.2	1.4	3.3	2.6	1.9	.8	17
342	Cutlery, handtools, and hardware	58.0	6.3	12.7	6.8	12.1	14.2	5.9	9
3421	Cutlery	4.2	.7	.7	.5	1.0	.8	.4	26
3423	Hand and edge tools, n.e.c.	14.1	1.7	3.3	1.7	4.2	1.2	2.0	23
3425	Saw blades and handsaws	3.3	.3	1.0	.2	.6	.8	.3	40
3429	Hardware, n.e.c.	36.3	3.5	7.7	4.3	6.2	11.4	3.2	10
343	Plumbing and heating, except electric	26.7	3.4	5.6	4.8	5.8	4.8	2.3	5
3431	Metal sanitary ware	8.7	1.4	1.5	(D)	1.1	(D)	.4	6
3432	Plumbing fixture fittings and trim	13.9	1.4	3.2	1.9	3.5	2.4	1.4	9
3433	Heating equipment, except electric	4.0	.6	.9	(D)	1.1	(D)	.5	10
344	Fabricated structural metal products	70.9	4.4	12.4	3.6	27.5	14.4	8.5	12
3441	Fabricated structural metal	8.6	.1	1.4	.6	3.9	1.1	1.5	26
3442	Metal doors, sash, and trim	13.2	.3	1.7	.4	5.9	2.8	1.9	33
3443	Fabricated plate work (boiler shops)	16.1	2.2	2.0	.5	4.7	4.7	2.0	22
3444	Sheet metal work	14.9	.6	2.4	1.3	6.2	2.4	2.0	25
3446	Architectural metal work	4.7	.4	2.2	.1	1.3	.6	.2	61
3448	Prefabricated metal buildings	5.1	.3	1.2	.3	1.7	1.4	.1	35
3449	Miscellaneous metal work	8.1	.5	1.5	.4	3.8	1.4	.7	30
345	Screw machine products, bolts, etc.	30.3	2.4	8.3	2.0	9.9	5.1	2.7	9
3451	Screw machine products	7.1	.4	2.4	.2	2.9	.8	.4	21
3452	Bolts, nuts, rivets, and washers	23.3	2.1	5.9	1.8	7.0	4.3	2.2	10
346	Metal forgings and stampings	76.7	4.9	19.8	5.1	23.3	12.1	11.5	10
3462	Iron and steel forgings	11.3	1.0	2.3	1.4	3.6	1.3	1.6	23
3463	Nonferrous forgings	5.0	.5	1.2	.2	1.8	.4	.9	28
3465	Automotive stampings	37.3	1.5	12.3	1.5	10.1	7.1	4.7	9
3466	Crowns and closures	2.0	.2	(Z)	1.2	.4	(Z)	.2	71
3469	Metal stampings, n.e.c.	21.2	1.6	3.9	.9	7.4	3.3	4.1	27

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
34	Fabricated metal products—Con.								
347	Metal services, n.e.c.	171.6	17.5	40.2	26.5	31.4	39.4	16.7	7
3471	Plating and polishing	124.9	10.7	30.8	14.3	22.7	31.7	14.7	8
3479	Metal coating and allied services	46.7	6.8	9.4	12.1	8.7	7.7	2.0	12
348	Ordnance and accessories, n.e.c.	69.4	3.2	21.5	3.0	26.3	12.8	2.7	10
3482	Small arms ammunition	17.1	.8	3.6	.6	7.9	3.4	.9	16
3483	Ammunition, except for small arms, n.e.c.	23.1	.8	9.1	1.1	6.3	5.0	.7	25
3484	Small arms	8.0	.7	1.7	(D)	2.3	1.8	(D)	19
3489	Ordnance and accessories, n.e.c.	21.2	.9	7.2	(D)	9.9	2.5	(D)	2
349	Miscellaneous fabricated metal products	105.5	10.6	15.0	13.2	38.0	15.5	13.2	11
3491	Industrial valves	24.1	1.3	4.6	2.6	9.8	1.5	4.2	20
3492	Fluid power valves and hose fittings	12.3	1.2	2.2	.8	4.6	1.8	1.8	26
3494	Valves and pipe fittings, n.e.c.	12.2	1.8	1.4	1.8	3.7	2.0	1.4	25
3495	Wire springs	5.3	.4	.8	.5	2.9	.5	.2	43
3496	Miscellaneous fabricated wire products	2.9	.4	.5	.1	1.3	.3	.3	32
3497	Metal foil and leaf	17.8	2.3	1.3	4.9	4.7	2.0	2.6	32
3498	Fabricated pipe and fittings	9.9	.3	1.7	.5	3.1	3.5	.7	43
3499	Fabricated metal products, n.e.c.	20.1	2.9	2.3	1.9	7.4	3.7	1.9	28
35	Industrial machinery and equipment	445.1	40.7	96.8	33.7	152.1	69.3	52.4	4
351	Engines and turbines	54.8	2.6	15.9	7.0	18.8	5.3	5.1	6
3511	Turbines and turbine generator sets	14.7	.6	3.5	1.3	6.8	1.5	1.2	7
3519	Internal combustion engines, n.e.c.	40.0	2.0	12.4	5.7	12.1	3.8	4.0	8
352	Farm and garden machinery	31.4	3.7	6.6	3.5	6.4	7.4	3.9	9
3523	Farm machinery and equipment	20.9	2.2	4.9	2.8	3.6	5.5	2.1	11
3524	Lawn and garden equipment	10.5	1.5	1.7	.7	2.9	1.9	1.8	15
353	Construction and related machinery	51.1	6.6	11.4	2.6	16.5	10.0	4.0	9
3531	Construction machinery	33.5	5.0	8.2	1.8	9.4	7.6	1.4	8
3532	Mining machinery	3.9	.1	.9	.1	1.8	.1	.9	33
3533	Oil and gas field machinery	2.4	(Z)	.3	.3	.7	.3	.4	16
3534	Elevators and moving stairways	1.5	.2	.6	.1	.6	.2	.2	37
3535	Conveyors and conveying equipment	3.6	.6	.6	.1	1.0	.6	.7	37
3537	Industrial trucks and tractors	5.5	.5	.8	.2	2.6	1.0	.3	47
354	Metalworking machinery	43.6	1.9	8.9	2.3	16.1	7.9	6.5	21
3541	Machine tools, metal cutting types	3.8	.2	.6	.3	1.7	.4	.5	27
3542	Machine tools, metal forming types	1.6	(Z)	.3	—	1.1	.3	.2	38
3543	Industrial patterns	8.4	.3	2.1	.6	3.5	.5	2.4	95
3544	Special dies, tools, jigs, and fixtures	8.6	.3	1.1	.1	4.5	.9	1.1	28
3545	Machine tool accessories	3.1	.4	1.7	.3	2.3	3.2	.8	33
3546	Power-driven handtools	3.1	.2	.4	.2	1.4	.3	.6	20
3548	Welding apparatus	9.1	.6	3.0	.7	1.6	2.3	.9	25
355	Special industry machinery	34.8	.9	6.5	4.8	12.8	4.8	4.8	15
3552	Textile machinery	2.4	.2	.4	.1	.6	.8	.3	39
3553	Woodworking machinery	3.7	(Z)	.3	.3	.6	2.1	.4	57
3554	Paper industries machinery	4.6	.1	1.0	.2	2.0	.3	1.0	22
3555	Printing trades machinery	7.6	.2	1.0	3.7	1.7	.3	.6	45
3556	Food products machinery	1.7	.1	.3	.1	.8	.1	.3	29
3559	Special industry machinery, n.e.c.	14.8	.2	3.6	.6	7.1	1.2	2.0	18
356	General industrial machinery	62.8	3.8	13.4	3.3	25.6	8.9	7.7	10
3561	Pumps and pumping equipment	11.6	.5	2.8	.4	4.2	1.2	2.4	18
3562	Ball and roller bearings	11.7	.8	2.9	1.1	3.2	3.2	.8	16
3563	Air and gas compressors	6.1	.6	1.0	.1	3.0	.6	.8	16
3564	Blowers and fans	4.5	.1	.7	.2	2.7	.2	.7	39
3565	Packaging machinery	2.3	(Z)	.3	.1	1.4	.3	.2	44
3566	Speed changers, drives, and gears	8.3	1.1	2.0	.3	2.7	1.4	.7	43
3567	Industrial furnaces and ovens	3.0	.2	.7	.2	1.0	.5	.4	30
3568	Power transmission equipment, n.e.c.	3.4	.1	.7	.2	1.9	.2	.4	37
3569	General industrial machinery, n.e.c.	11.8	.5	2.2	.8	5.6	1.1	1.5	24
357	Computer and office equipment	53.8	8.0	11.1	2.8	17.8	5.4	8.6	12
3571	Electronic computers	26.8	4.4	4.6	1.5	9.9	2.1	4.3	21
3572	Computer storage devices	7.5	2.2	1.7	.1	2.0	.4	1.0	12
3577	Computer peripheral equipment, n.e.c.	9.9	.8	2.2	.5	3.1	1.3	2.0	23
3578	Calculating and accounting equipment	2.0	.6	.6	—	.8	—	.6	68
3579	Office machines, n.e.c.	7.1	.6	1.7	.7	1.8	1.6	.7	29
358	Refrigeration and service machinery	74.7	11.5	16.0	4.3	23.3	11.4	8.1	6
3581	Automatic vending machines	1.1	(Z)	.4	(Z)	.3	.2	.2	16
3582	Commercial laundry equipment	2.2	.1	.5	.1	.8	.2	.5	30
3585	Refrigeration and heating equipment	65.2	11.0	14.0	4.0	19.5	10.6	6.9	6
3589	Service industry machinery, n.e.c.	4.5	.3	1.0	.2	2.1	.4	.4	10
359	Industrial machinery, n.e.c.	38.1	1.6	6.8	3.0	14.8	8.1	3.7	11
3592	Carburetors, pistons, rings, and valves	8.0	.8	2.2	.5	1.3	2.3	.9	14
3593	Fluid power cylinders and actuators	4.8	.3	1.8	.2	1.2	.8	.4	41
3594	Fluid power pumps and motors	3.9	.2	.7	.1	1.8	.7	.4	17
3599	Industrial machinery, n.e.c.	20.7	.3	2.0	2.1	10.1	4.3	1.9	15
36	Electronic and other electric equipment	662.4	77.3	160.3	61.9	157.6	131.8	73.5	5
361	Electric distribution equipment	23.1	1.9	5.7	1.2	7.6	3.7	3.0	7
3612	Transformers, except electronic	11.1	1.1	2.4	.5	3.8	1.9	1.4	8
3613	Switchgear and switchboard apparatus	12.0	.7	3.3	.7	3.8	1.8	1.6	11
362	Electrical industrial apparatus	47.6	5.5	7.9	4.5	13.2	11.4	5.1	18
3621	Motors and generators	16.4	1.1	3.4	.6	7.0	1.5	2.8	12
3624	Carbon and graphite products	20.1	3.0	2.1	3.1	4.0	7.3	.7	38
3625	Relays and industrial controls	10.5	1.3	2.4	.7	2.0	2.3	1.6	23
363	Household appliances	41.5	5.0	9.1	2.7	13.3	5.3	6.0	9
3631	Household cooking equipment	7.2	1.1	1.1	.5	1.9	1.2	1.4	21
3632	Household refrigerators and freezers	11.3	1.5	3.2	.5	3.5	1.1	1.6	11
3633	Household laundry equipment	11.0	1.5	2.5	.8	2.9	1.7	1.6	19
3634	Electric housewares and fans	3.4	.1	.8	—	1.9	.3	.4	30
3635	Household vacuum cleaners	2.8	.1	.5	.3	1.4	.2	.3	35
3639	Household appliances, n.e.c.	5.7	.7	1.2	.5	1.7	.7	.8	31

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government		
36	Electronic and other electric equipment—									
	Con.									
364	Electric lighting and wiring equipment	51.0	4.0	11.8	4.1	17.2	7.2	6.7	13	
3641	Electric lamp bulbs and tubes	8.8	.6	1.7	.6	2.7	1.3	1.7	23	
3643	Current-carrying wiring devices	10.6	1.1	2.2	.8	2.8	2.0	1.7	19	
3644	Noncurrent-carrying wiring devices	10.3	.5	2.0	.5	4.5	1.6	1.2	29	
3646	Commercial lighting fixtures	4.2	.1	.5	.2	2.3	.5	.5	25	
3647	Vehicular lighting equipment	9.4	.7	(D)	(D)	2.6	.9	.4	7	
3648	Lighting equipment, n.e.c.	7.0	.8	(D)	(D)	2.0	.8	1.1	65	
365	Household audio and video equipment	17.9	1.5	3.8	.9	7.1	3.3	1.4	18	
3651	Household audio and video equipment	11.0	1.3	1.9	.6	3.7	2.4	1.1	17	
3652	Prerecorded records and tapes	6.9	.2	1.8	.3	3.4	.9	.2	37	
366	Communications equipment	62.4	4.4	18.1	4.0	13.6	14.1	6.3	31	
3661	Telephone and telegraph apparatus	45.7	3.1	13.9	2.7	8.2	12.6	5.1	42	
3663	Radio and television communications									
	equipment	15.1	1.3	3.8	1.2	4.6	1.4	2.8	12	
3669	Communications equipment, n.e.c.	1.6	(Z)	.3	(Z)	.8	.1	.4	49	
367	Electronic components and accessories	391.4	43.0	87.1	36.1	63.8	65.3	36.2	6	
3671	Electron tubes	13.5	1.2	2.8	1.3	6.0	1.5	.8	4	
3672	Printed circuit boards	102.8	7.2	32.8	9.7	17.0	27.1	9.0	8	
3674	Semiconductors and related devices	150.0	28.1	33.0	18.9	25.8	25.6	18.6	9	
3675	Electronic capacitors	7.8	1.4	1.6	.4	3.0	.7	.7	35	
3676	Electronic resistors	3.1	.2	1.0	.3	1.1	.1	.4	53	
3677	Electronic coils and transformers	2.4	.1	.4	.1	1.0	.1	.7	50	
3678	Electronic connectors	7.0	.9	2.8	.3	1.3	.9	.8	36	
3679	Electronic components, n.e.c.	44.8	3.9	12.7	5.0	8.5	9.4	5.3	17	
369	Miscellaneous electrical equipment and									
	supplies	87.4	12.0	16.9	8.5	21.9	21.4	6.7	10	
3691	Storage batteries	21.5	2.3	3.8	3.2	5.0	6.9	.3	22	
3692	Primary batteries, dry and wet	12.9	2.7	3.1	.9	1.6	4.0	.7	39	
3694	Engine electrical equipment	19.2	1.0	3.8	1.3	7.4	3.8	1.9	20	
3695	Magnetic and optical recording media	26.1	5.8	4.8	2.7	5.1	5.3	2.5	9	
3699	Electrical equipment and supplies, n.e.c.	7.7	.3	1.5	.3	2.8	1.5	1.3	22	
37	Transportation equipment	1 194.4	193.9	289.1	113.9	321.0	190.5	85.9	4	
371	Motor vehicles and equipment	684.0	159.3	150.1	84.8	135.6	102.4	51.8	5	
3711	Motor vehicles and car bodies	403.2	122.2	86.4	60.1	61.2	47.9	25.5	7	
3713	Truck and bus bodies	8.5	.5	2.0	.5	3.6	1.3	.6	13	
3714	Motor vehicle parts and accessories	262.9	36.0	59.6	23.6	66.3	52.3	25.0	7	
3715	Truck trailers	5.2	.4	1.3	.4	2.2	.5	.3	12	
3716	Motor homes	4.2	.2	.8	.2	2.2	.5	.4	14	
372	Aircraft and parts	285.1	19.0	79.3	16.3	105.7	52.4	22.4	7	
3721	Aircraft	133.4	7.5	37.0	5.2	40.5	32.2	11.0	12	
3724	Aircraft engines and engine parts	60.8	5.1	15.6	2.6	26.0	7.7	3.7	12	
3728	Aircraft parts and equipment, n.e.c.	101.0	6.4	26.7	8.5	39.2	12.5	7.7	9	
373	Ship and boat building and repairing	61.5	5.7	13.5	2.4	26.6	7.6	5.6	9	
3731	Ship building and repairing	48.4	5.3	11.4	1.6	19.4	6.4	4.2	11	
3732	Boat building and repairing	13.1	.4	2.1	.8	7.2	1.3	1.4	19	
374	Railroad equipment	12.2	1.0	2.0	.7	6.1	1.5	.9	9	
3743	Railroad equipment	12.2	1.0	2.0	.7	6.1	1.5	.9	9	
375	Motorcycles, bicycles, and parts	5.0	(D)	.9	(D)	(D)	.8	(D)	13	
3751	Motorcycles, bicycles, and parts	5.0	(D)	.9	(D)	(D)	.8	(D)	13	
376	Guided missiles, space vehicles, parts	112.7	6.7	35.5	6.7	38.6	22.1	3.1	15	
3761	Guided missiles and space vehicles	62.0	3.5	16.0	3.3	21.4	15.4	2.3	11	
3764	Space propulsion units and parts	35.3	3.2	12.0	1.4	13.3	5.0	.4	33	
3769	Space vehicle equipment, n.e.c.	15.5	—	7.5	1.9	3.9	1.7	.4	62	
379	Miscellaneous transportation equipment	23.9	(D)	7.7	(D)	(D)	3.7	(D)	11	
3792	Travel trailers and campers	6.1	.2	1.2	1.0	2.2	.6	.9	40	
3795	Tanks and tank components	10.5	(D)	5.1	(D)	(D)	2.0	(D)	2	
3799	Transportation equipment, n.e.c.	7.3	.5	1.5	.4	3.0	1.1	.7	13	
38	Instruments and related products	336.6	36.5	87.9	26.8	88.8	68.1	28.4	4	
381	Search and navigation equipment	62.9	6.3	18.6	2.4	19.6	8.6	7.4	8	
3812	Search and navigation equipment	62.9	6.3	18.6	2.4	19.6	8.6	7.4	8	
382	Measuring and controlling devices	55.5	2.3	12.2	2.8	22.6	7.4	8.3	9	
3821	Laboratory apparatus and furniture	4.3	.1	.6	.1	2.4	.1	.9	35	
3822	Environmental controls	5.0	.1	1.0	.4	2.5	.4	.9	27	
3823	Process control instruments	11.1	.3	2.3	.5	5.2	1.0	1.9	26	
3824	Fluid meters and counting devices	7.5	.5	1.6	.6	2.6	1.6	.7	23	
3825	Instruments to measure electricity	13.9	.7	3.8	1.0	3.9	2.9	1.6	12	
3826	Analytical instruments	6.1	.3	1.2	.2	2.5	.8	1.1	22	
3827	Optical instruments and lenses	3.9	.1	.7	.3	1.6	.4	.9	33	
3829	Measuring and controlling devices, n.e.c.	3.6	.2	.9	.1	1.9	.3	.3	19	
384	Medical instruments and supplies	43.0	2.9	6.1	1.9	19.9	4.7	7.5	14	
3841	Surgical and medical instruments	10.3	.8	1.3	.5	4.8	.6	2.2	22	
3842	Surgical appliances and supplies	21.7	1.7	3.3	1.2	8.9	3.3	3.2	20	
3844	X-ray apparatus and tubes	4.2	.2	.8	.1	1.8	.4	1.0	25	
3845	Electromedical equipment	6.0	.2	.7	.1	4.3	.1	.6	49	
385	Ophthalmic goods	7.2	.4	1.9	.2	1.8	1.7	1.2	17	
3851	Ophthalmic goods	7.2	.4	1.9	.2	1.8	1.7	1.2	17	
386	Photographic equipment and supplies	166.6	24.6	48.9	19.3	24.6	45.4	3.8	7	
3861	Photographic equipment and supplies	166.6	24.6	48.9	19.3	24.6	45.4	3.8	7	
387	Watches, clocks, watchcases, and parts	1.4	.1	.3	.1	.3	.4	.2	24	
3873	Watches, clocks, watchcases, and parts	1.4	.1	.3	.1	.3	.4	.2	24	

Table 11a. Operating Costs by Industries for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
39	Miscellaneous manufacturing industries -----	84.5	7.9	13.4	11.5	27.7	12.8	11.1	5
391	Jewelry, silverware, and plated ware -----	7.8	.6	1.2	1.2	2.3	1.7	.8	9
3911	Jewelry, precious metal -----	3.3	.3	.6	.3	1.1	.5	.4	16
3914	Silverware and plated ware -----	3.4	.1	.4	(D)	.7	(D)	.4	7
3915	Jewelers' materials and lapidary work -----	1.2	.1	.2	(D)	.5	(D)	.1	33
393	Musical instruments -----	3.6	.5	.5	.6	1.0	.5	.5	20
3931	Musical instruments -----	3.6	.5	.5	.6	1.0	.5	.5	20
394	Toys and sporting goods -----	20.8	1.7	3.5	2.2	6.5	3.7	3.2	15
3942	Dolls and stuffed toys -----	.6	-	-	-	.6	-	-	99
3944	Games, toys, and children's vehicles -----	3.4	.2	.5	.4	1.5	.3	.5	14
3949	Sporting and athletic goods, n.e.c. -----	16.9	1.5	3.0	1.7	4.5	3.4	2.8	18
395	Pens, pencils, office, and art supplies -----	7.0	.5	1.2	.3	4.0	.4	.5	10
3951	Pens and mechanical pencils -----	3.8	(D)	.9	(D)	1.9	(D)	.3	14
3952	Lead pencils and art goods -----	1.6	(D)	.2	(D)	1.1	(D)	(Z)	9
3955	Carbon paper and inked ribbons -----	1.5	.1	(Z)	(Z)	1.0	.1	.2	31
396	Costume jewelry and notions -----	10.6	1.6	2.6	1.8	1.6	1.6	1.4	14
3961	Costume jewelry -----	3.8	.3	.8	.8	.8	.6	.5	21
3965	Fasteners, buttons, needles, and pins -----	6.8	1.3	1.8	1.0	.8	.9	.9	18
399	Miscellaneous manufactures -----	34.6	3.1	4.3	5.4	12.3	5.0	4.5	5
3991	Brooms and brushes -----	1.4	(Z)	.1	(Z)	1.2	(Z)	(Z)	32
3993	Signs and advertising specialties -----	5.1	.1	.5	.2	2.8	1.0	.6	17
3995	Burial caskets -----	2.7	.3	.3	.4	.9	.4	.3	29
3996	Hard surface floor coverings, n.e.c. -----	19.5	2.2	2.0	4.4	5.2	(D)	(D)	3
3999	Manufacturing industries, n.e.c. -----	5.9	.4	1.4	.5	2.2	(D)	(D)	15

*Excludes Major Group 23, Apparel and Other Textile Products.

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	United States¹ -----	17 555.0	2 666.7	3 075.1	2 600.8	3 594.1	4 017.5	1 600.7	2
20	Food and kindred products -----	1 339.3	130.4	161.2	140.9	237.1	180.0	489.7	3
21	Tobacco products -----	32.8	9.1	7.3	4.5	4.8	1.9	5.2	6
22	Textile mill products -----	272.8	17.8	31.9	34.6	46.9	29.0	112.7	4
24	Lumber and wood products -----	253.1	33.8	42.9	41.4	81.7	35.2	18.1	5
25	Furniture and fixtures -----	124.2	13.5	19.4	22.4	36.1	18.5	14.2	6
26	Paper and allied products -----	1 901.5	361.9	249.2	268.1	295.7	505.3	221.3	4
27	Printing and publishing -----	258.4	33.5	41.7	53.1	76.6	29.4	24.2	4
28	Chemicals and allied products -----	4 348.2	738.7	831.7	541.1	869.2	1 168.1	200.4	3
29	Petroleum and coal products -----	2 647.9	452.4	420.5	639.6	378.6	724.5	32.4	4
30	Rubber and miscellaneous plastics products -----	385.2	34.5	56.1	44.6	135.2	58.4	56.5	5
31	Leather and leather products -----	50.9	5.1	6.8	4.3	10.3	14.8	9.7	14
32	Stone, clay, and glass products -----	521.1	81.9	88.1	101.1	100.4	113.5	36.0	4
33	Primary metal industries -----	2 017.2	334.1	324.2	377.9	388.5	534.4	58.1	3
34	Fabricated metal products -----	679.4	63.6	146.7	79.6	186.6	131.9	70.9	4
35	Industrial machinery and equipment -----	445.1	40.7	96.8	33.7	152.1	69.3	52.4	4
36	Electronic and other electric equipment -----	662.4	77.3	160.3	61.9	157.6	131.8	73.5	5
37	Transportation equipment -----	1 194.4	193.9	289.1	113.9	321.0	190.5	85.9	4
38	Instruments and related products -----	396.6	35.5	87.9	26.8	86.8	68.1	28.4	4
39	Miscellaneous manufacturing industries -----	84.5	7.9	13.4	11.5	27.7	12.8	11.1	5
	Alabama -----	393.4	88.3	54.7	56.2	67.4	104.1	22.7	6
20	Food and kindred products -----	19.8	3.0	2.2	2.5	1.8	3.6	6.7	19
22	Textile mill products -----	10.6	.4	1.6	1.2	1.4	1.5	4.4	16
24	Lumber and wood products -----	6.1	.9	1.0	1.1	2.2	.7	.2	20
25	Furniture and fixtures -----	1.9	.3	.3	.2	.4	.5	.3	40
26	Paper and allied products -----	87.1	22.5	9.9	15.0	15.6	22.8	1.2	3
28	Chemicals and allied products -----	94.5	18.3	13.8	13.8	16.9	30.8	1.0	11
29	Petroleum and coal products -----	8.6	.1	2.3	.3	4.2	.9	.8	88
30	Rubber and miscellaneous plastics products -----	8.1	.7	.9	.4	1.8	3.0	1.3	13
32	Stone, clay, and glass products -----	13.8	4.0	1.6	3.4	1.0	3.4	.3	23
33	Primary metal industries -----	96.4	31.8	11.0	12.6	9.5	28.0	3.4	20
34	Fabricated metal products -----	12.9	.9	3.4	1.9	3.5	2.3	.9	21
35	Industrial machinery and equipment -----	7.6	2.5	2.3	.1	1.4	.9	.4	39
36	Electronic and other electric equipment -----	16.9	(D)	3.4	2.7	4.8	(D)	.8	9
37	Transportation equipment -----	6.2	.3	.7	.7	1.8	2.2	.6	24
39	Miscellaneous manufacturing industries -----	1.2	(D)	.1	.1	.4	(D)	.2	31
	Alaska -----	28.9	12.7	5.0	4.2	2.6	3.8	.7	23
20	Food and kindred products -----	(D)	(D)	(D)	.1	(D)	.2	.6	(X)
26	Paper and allied products -----	24.0	11.5	4.1	4.0	1.3	(D)	(D)	27
28	Chemicals and allied products -----	(D)	(D)	(D)	(Z)	(D)	(D)	(D)	(X)
	Arizona -----	119.9	24.8	17.4	22.4	17.3	30.8	7.3	8
20	Food and kindred products -----	1.3	.3	.2	.1	.2	.1	.5	46
24	Lumber and wood products -----	2.2	(Z)	(D)	(Z)	2.0	(Z)	(D)	74
26	Paper and allied products -----	6.5	.9	.4	.4	1.2	3.7	-	45
27	Printing and publishing -----	2.4	.6	.7	.7	.5	.1	.1	22
28	Chemicals and allied products -----	3.1	.2	.3	.1	1.2	1.2	.2	23

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
Arizona—Con.									
30	Rubber and miscellaneous plastics products ----	1.4	.2	.2	.2	.5	.1	.3	41
32	Stone, clay, and glass products ----	12.4	1.6	2.5	5.4	2.5	2.5	(Z)	45
33	Primary metal industries ----	(D)	(D)	4.6	(D)	3.4	(D)	.1	(X)
34	Fabricated metal products ----	5.2	.5	.7	.8	.9	1.2	1.0	44
36	Electronic and other electric equipment ----	18.5	2.7	3.6	3.2	1.0	4.0	3.9	5
37	Transportation equipment ----	16.4	1.3	3.3	5.2	4.5	1.6	.5	37
38	Instruments and related products ----	2.3	(D)	(D)	.1	.8	(D)	(D)	31
39	Miscellaneous manufacturing industries ----	(D)	.1	.3	(D)	.4	.4	(Z)	(X)
	Arizona -----	226.3	33.5	37.7	31.9	42.9	59.9	20.5	10
20	Food and kindred products ----	34.4	3.1	6.3	2.6	3.4	8.0	11.1	13
22	Textile mill products ----	1.1	(D)	.1	(Z)	(D)	(Z)	.6	14
24	Lumber and wood products ----	16.2	1.0	2.8	2.5	9.0	.4	.5	26
25	Furniture and fixtures ----	2.1	.1	(D)	(Z)	(D)	(D)	.9	10
26	Paper and allied products ----	58.1	16.0	6.2	14.5	6.2	14.1	1.1	11
27	Printing and publishing ----	4.2	(D)	.9	.2	2.5	(D)	.2	51
28	Chemicals and allied products ----	65.7	8.2	13.0	6.6	7.9	29.8	.2	30
29	Petroleum and coal products ----	5.1	1.1	.7	2.1	.7	.3	.1	93
30	Rubber and miscellaneous plastics products ----	5.9	.5	.8	.4	2.6	.4	1.2	18
32	Stone, clay, and glass products ----	3.9	.2	.6	1.0	.1	.6	1.3	52
33	Primary metal industries ----	11.4	2.0	1.7	1.1	2.0	3.7	.9	42
34	Fabricated metal products ----	5.1	.4	.8	.2	2.5	.9	.4	10
35	Industrial machinery and equipment ----	2.7	.1	.7	.1	.9	.2	.6	21
36	Electronic and other electric equipment ----	6.2	.2	1.5	.2	2.3	.7	1.2	33
37	Transportation equipment ----	1.4	.1	(D)	-	.9	(D)	.3	52
38	Instruments and related products ----	1.4	.2	.4	.2	.2	.2	.3	31
	California -----	1 426.2	150.5	259.5	228.5	292.2	325.2	162.4	5
20	Food and kindred products ----	156.1	7.3	17.2	12.8	29.5	10.3	79.0	11
22	Textile mill products ----	11.2	.8	.6	1.9	1.5	.2	6.2	25
24	Lumber and wood products ----	23.9	2.3	4.7	3.9	5.0	6.4	1.7	16
25	Furniture and fixtures ----	10.7	.4	2.2	.9	4.3	1.7	1.3	34
26	Paper and allied products ----	56.2	8.7	7.3	11.7	7.2	10.1	11.2	19
27	Printing and publishing ----	24.1	1.5	5.8	4.0	7.9	3.1	1.9	14
28	Chemicals and allied products ----	115.8	9.9	21.6	21.2	20.4	31.3	11.4	12
29	Petroleum and coal products ----	523.2	70.1	81.3	109.6	77.2	176.3	8.7	11
30	Rubber and miscellaneous plastics products ----	31.0	3.1	5.2	6.4	9.3	3.0	4.1	16
31	Leather and leather products ----	1.0	(Z)	.1	.3	(Z)	.3	.3	44
32	Stone, clay, and glass products ----	62.6	11.2	11.0	15.1	8.2	14.2	2.8	7
33	Primary metal industries ----	54.7	7.2	8.8	6.5	14.1	13.9	4.1	9
34	Fabricated metal products ----	61.7	5.6	16.3	9.2	12.9	12.6	5.1	11
35	Industrial machinery and equipment ----	20.4	.8	5.5	1.1	8.5	1.6	2.9	13
36	Electronic and other electric equipment ----	118.0	14.2	30.5	14.0	28.5	20.2	10.6	11
37	Transportation equipment ----	110.3	12.8	29.9	7.4	42.0	12.9	5.3	7
38	Instruments and related products ----	39.8	2.3	10.9	1.9	14.3	5.6	4.9	11
39	Miscellaneous manufacturing industries ----	5.6	.3	.7	.6	1.3	1.7	1.0	28
	Colorado -----	85.5	11.0	16.4	7.4	16.8	27.2	6.6	10
20	Food and kindred products ----	27.8	(D)	4.9	(D)	3.4	10.5	3.6	7
27	Printing and publishing ----	1.3	(Z)	.2	(Z)	.6	(Z)	.4	33
28	Chemicals and allied products ----	12.7	1.3	1.4	1.6	3.2	5.2	.1	51
32	Stone, clay, and glass products ----	2.2	.1	.4	.1	(D)	.9	(D)	17
34	Fabricated metal products ----	4.2	.7	1.3	.9	.3	.7	.2	18
35	Industrial machinery and equipment ----	7.7	(D)	2.2	.6	1.0	1.0	(D)	32
36	Electronic and other electric equipment ----	8.9	1.7	1.8	.6	.8	3.5	.6	51
37	Transportation equipment ----	(D)	(D)	(D)	.4	2.9	(D)	(Z)	(X)
38	Instruments and related products ----	(D)	(D)	(D)	(D)	(D)	(D)	.5	(X)
	Connecticut -----	160.8	13.1	34.9	14.0	48.9	38.2	11.7	8
20	Food and kindred products ----	1.5	(D)	(D)	(D)	.4	(D)	(D)	5
22	Textile mill products ----	1.9	.2	.3	.4	.3	.2	.4	48
26	Paper and allied products ----	10.9	.8	1.1	2.7	4.3	.5	1.5	38
27	Printing and publishing ----	2.8	.5	(D)	(D)	1.2	.3	.1	27
28	Chemicals and allied products ----	25.3	3.7	5.2	3.6	5.6	(D)	(D)	11
29	Petroleum and coal products ----	1.6	.2	.2	.7	.2	.3	(Z)	48
30	Rubber and miscellaneous plastics products ----	1.4	.1	.2	(Z)	.7	.1	.1	44
32	Stone, clay, and glass products ----	2.4	.2	.3	.2	1.2	.4	.1	53
33	Primary metal industries ----	10.1	1.1	1.5	.6	3.2	1.9	1.8	40
34	Fabricated metal products ----	18.4	1.7	4.1	1.9	5.6	3.7	1.4	12
35	Industrial machinery and equipment ----	7.0	.2	1.9	(D)	2.1	(D)	.5	9
36	Electronic and other electric equipment ----	7.7	.3	2.2	.5	3.2	1.0	.4	23
37	Transportation equipment ----	62.1	(D)	15.5	1.7	18.2	(D)	2.7	16
38	Instruments and related products ----	3.7	.2	.5	.1	1.4	1.1	.4	38
39	Miscellaneous manufacturing industries ----	3.0	.5	1.2	.2	.9	.1	.1	35
	Delaware -----	143.3	16.6	41.3	14.2	12.3	48.2	10.8	17
20	Food and kindred products ----	4.6	(D)	.8	.8	1.3	.9	(D)	29
28	Chemicals and allied products ----	35.5	6.8	5.2	2.7	4.7	8.0	8.1	17
29	Petroleum and coal products ----	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
30	Rubber and miscellaneous plastics products ----	1.9	(D)	.2	(D)	(D)	.2	.2	36
36	Electronic and other electric equipment ----	2.3	.1	.2	.1	.6	1.3	(Z)	84
37	Transportation equipment ----	(D)	1.5	(D)	(D)	2.3	(D)	(D)	(X)
	District of Columbia -----	4.4	(D)	.4	(Z)	(D)	(Z)	.2	12
27	Printing and publishing ----	4.1	(D)	.4	(Z)	(D)	(Z)	.2	11
	Florida -----	297.0	49.4	47.0	37.4	59.0	73.5	30.6	6
20	Food and kindred products ----	50.8	4.1	6.8	8.6	8.9	14.1	8.4	10
24	Lumber and wood products ----	2.8	.4	.3	.6	.9	.3	.2	35
25	Furniture and fixtures ----	1.3	.1	.3	.3	(D)	.1	(D)	50
26	Paper and allied products ----	70.4	14.6	9.0	8.8	(D)	20.8	(D)	3
27	Printing and publishing ----	3.7	.1	.4	.3	1.4	.3	1.2	24

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
Florida—Con.									
28	Chemicals and allied products	79.2	22.7	13.8	10.0	8.3	22.2	2.2	7
29	Petroleum and coal products	1.5	.1	(Z)	.2	.2	.5	.4	37
30	Rubber and miscellaneous plastics products	6.3	.6	.9	.9	2.4	.4	1.0	40
32	Stone, clay, and glass products	11.0	1.1	2.4	2.3	2.2	.8	.8	17
33	Primary metal industries	3.4	.2	.6	.1	1.3	1.1	.1	42
34	Fabricated metal products	12.4	1.0	2.7	1.6	2.5	3.6	1.0	29
35	Industrial machinery and equipment	5.4	.4	1.2	.5	1.6	2.9	1.5	29
36	Electronic and other electric equipment	13.9	2.2	2.8	1.8	2.7	2.9	1.0	11
37	Transportation equipment	28.1	1.6	4.5	1.0	15.3	3.4	2.3	48
38	Instruments and related products	4.5	.2	1.1	.1	1.3	.6	1.2	4
39	Miscellaneous manufacturing industries	1.7	.1	.3	.3	.6	.3	.2	49
Georgia									
20	Food and kindred products	39.1	6.4	6.2	3.9	5.6	5.6	11.4	10
21	Tobacco products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
22	Textile mill products	35.2	1.4	4.3	3.2	6.1	4.1	16.0	9
24	Lumber and wood products	10.8	1.8	2.2	1.5	2.8	1.6	.9	14
25	Furniture and fixtures	(D)	(D)	.8	(D)	.6	.5	.4	(X)
26	Paper and allied products	123.4	24.8	20.9	19.3	16.3	37.1	5.0	10
27	Printing and publishing	7.8	2.1	1.1	1.6	1.2	1.2	.5	23
28	Chemicals and allied products	74.7	11.2	11.2	12.4	12.9	21.1	6.0	16
29	Petroleum and coal products	2.8	.4	.2	.4	1.1	(D)	(D)	34
30	Rubber and miscellaneous plastics products	18.4	3.9	2.7	1.4	6.5	2.2	1.7	42
32	Stone, clay, and glass products	14.6	2.0	2.0	5.6	1.4	2.5	1.1	5
33	Primary metal industries	11.3	.8	2.6	.7	3.9	2.4	.9	24
34	Fabricated metal products	12.4	1.0	3.4	2.0	2.1	2.8	1.1	29
35	Industrial machinery and equipment	10.2	1.6	3.0	.3	2.5	2.1	.7	36
36	Electronic and other electric equipment	5.4	.8	1.3	.3	1.4	.9	.8	11
37	Transportation equipment	40.3	13.0	8.5	3.7	8.4	4.7	2.0	19
38	Instruments and related products	1.4	.1	.3	(Z)	.3	.1	.6	42
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	.6	(D)	(X)
Hawaii									
20	Food and kindred products	3.6	.7	.2	.5	1.9	.2	.1	46
29	Petroleum and coal products	5.8	.1	.5	(D)	4.9	(D)	.1	61
32	Stone, clay, and glass products	2.0	.2	.5	(D)	.4	(D)	(Z)	23
Idaho									
20	Food and kindred products	12.6	2.7	2.6	1.2	1.2	2.3	2.4	18
24	Lumber and wood products	3.6	.3	.8	.3	(D)	1.0	(D)	12
26	Paper and allied products	(D)	(D)	(D)	(D)	(Z)	(D)	(Z)	(X)
28	Chemicals and allied products	30.8	5.3	11.7	4.1	3.2	6.4	(Z)	22
34	Fabricated metal products	2.7	.4	.4	.1	.3	1.0	.5	71
35	Industrial machinery and equipment	1.4	.3	.6	.1	.1	.2	.2	23
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
Illinois									
20	Food and kindred products	67.1	4.9	8.9	7.1	11.9	12.2	22.0	10
24	Lumber and wood products	2.9	.3	.3	.4	1.4	.2	.3	32
25	Furniture and fixtures	4.4	.4	.8	.4	1.9	.4	.5	24
26	Paper and allied products	49.9	5.3	4.3	7.9	13.9	11.5	7.0	40
27	Printing and publishing	26.6	4.0	4.0	5.7	6.8	4.6	1.5	14
28	Chemicals and allied products	169.7	21.4	30.5	16.6	36.7	40.8	23.8	10
29	Petroleum and coal products	212.0	31.2	45.3	55.7	24.0	54.0	1.8	14
30	Rubber and miscellaneous plastics products	23.7	(D)	3.1	2.7	7.3	(D)	2.6	13
31	Leather and leather products	1.8	(Z)	.1	.1	.5	.3	.8	45
32	Stone, clay, and glass products	16.2	1.9	1.8	3.0	7.2	1.5	.8	29
33	Primary metal industries	124.4	23.0	21.5	23.6	31.8	22.3	2.2	6
34	Fabricated metal products	49.0	4.4	8.0	7.2	16.8	9.0	3.6	10
35	Industrial machinery and equipment	42.0	5.7	10.9	2.3	13.4	6.9	2.8	7
36	Electronic and other electric equipment	44.1	2.5	10.3	3.1	12.7	9.7	5.6	44
37	Transportation equipment	32.9	8.0	6.5	4.3	7.6	5.6	.9	34
38	Instruments and related products	7.4	.4	1.7	.3	3.3	.6	1.1	35
39	Miscellaneous manufacturing industries	4.3	(D)	.9	.6	1.3	(D)	.6	13
Indiana									
20	Food and kindred products	34.2	2.5	3.6	3.2	5.3	2.9	16.7	11
24	Lumber and wood products	6.6	.3	1.0	.3	3.4	.7	1.4	22
25	Furniture and fixtures	7.2	1.1	1.2	1.3	2.3	.7	.7	22
26	Paper and allied products	18.5	2.5	1.7	5.9	5.9	1.9	.7	55
27	Printing and publishing	9.7	1.5	1.3	2.6	2.6	1.0	.7	18
28	Chemicals and allied products	128.7	33.0	23.9	23.7	10.9	32.3	4.9	7
29	Petroleum and coal products	70.4	(D)	10.7	6.9	17.6	(D)	.8	15
30	Rubber and miscellaneous plastics products	19.8	1.5	4.8	1.8	8.4	1.8	1.5	16
32	Stone, clay, and glass products	18.1	1.6	3.6	3.3	5.1	2.8	1.8	20
33	Primary metal industries	226.4	33.7	31.9	34.2	48.5	71.4	6.7	6
34	Fabricated metal products	38.5	4.4	7.8	3.5	8.3	7.3	7.1	13
35	Industrial machinery and equipment	23.9	1.8	4.6	1.7	10.5	2.6	2.7	16
36	Electronic and other electric equipment	27.4	1.5	10.1	2.1	8.8	3.1	1.8	7
37	Transportation equipment	53.3	4.8	16.0	3.2	11.7	12.1	5.6	7
38	Instruments and related products	4.4	.5	.9	.1	1.5	.7	.7	33
39	Miscellaneous manufacturing industries	2.3	(D)	.3	.5	.7	(D)	.2	16
Iowa									
20	Food and kindred products	52.2	7.2	4.3	8.9	8.5	6.2	17.0	8
24	Lumber and wood products	3.6	.7	.6	1.1	.7	.3	.3	33
26	Paper and allied products	4.3	1.2	.3	(D)	1.2	(D)	.2	29
27	Printing and publishing	4.7	(D)	(D)	.7	2.2	.3	(D)	33
28	Chemicals and allied products	26.1	2.5	5.1	4.0	6.6	5.5	2.3	2

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
Iowa—Con.									
30	Rubber and miscellaneous plastics products	5.3	.1	.5	(Z)	2.7	.7	1.2	20
32	Stone, clay, and glass products	6.2	.6	1.3	1.2	.6	2.2	.2	24
33	Primary metal industries	26.7	1.6	5.3	12.0	5.2	2.2	.3	35
34	Fabricated metal products	3.5	.1	.4	(Z)	2.6	.1	.2	35
35	Industrial machinery and equipment	18.2	1.1	(D)	(D)	3.9	4.2	1.3	5
36	Electronic and other electric equipment	12.5	1.3	2.8	.8	3.1	3.2	1.2	31
37	Transportation equipment	3.9	.8	.7	.3	1.3	.7	.3	37
38	Instruments and related products	4.5	(D)	.8	.1	2.4	(D)	(D)	60
		125.0	15.2	28.1	23.9	23.3	25.3	9.2	13
Kansas									
20	Food and kindred products	11.7	1.0	1.3	2.4	3.1	1.0	2.9	18
24	Lumber and wood products	1.6	.2	.2	.1	.8	.2	.1	82
26	Paper and allied products	4.0	(D)	.7	.5	1.3	1.4	(D)	52
27	Printing and publishing	2.1	.3	.7	.1	.7	.1	.2	27
28	Chemicals and allied products	19.2	3.8	5.6	2.4	2.7	3.3	1.4	9
29	Petroleum and coal products	36.6	3.4	11.8	11.3	4.4	5.1	.6	37
30	Rubber and miscellaneous plastics products	4.1	.1	.7	.4	1.5	.8	.6	20
32	Stone, clay, and glass products	5.6	1.6	.8	.7	1.0	1.2	.2	11
33	Primary metal industries	2.0	.3	.2	.7	.4	.1	.2	52
34	Fabricated metal products	1.2	—	.9	—	.1	.2	(Z)	51
35	Industrial machinery and equipment	3.8	.3	.9	.4	1.3	.6	.3	25
36	Electronic and other electric equipment	4.0	(D)	1.2	.6	.5	.8	(D)	63
37	Transportation equipment	26.8	3.2	2.4	4.1	4.7	10.5	1.9	20
38	Instruments and related products	1.6	.1	.5	.1	.5	.1	.4	83
		331.3	62.7	62.1	59.4	58.0	67.9	21.2	5
Kentucky									
20	Food and kindred products	9.9	.8	1.4	1.0	1.7	1.1	4.0	29
21	Tobacco products	(D)	(D)	—	—	(D)	(Z)	(D)	(X)
22	Textile mill products	1.8	(Z)	.1	.1	.2	.1	1.2	31
24	Lumber and wood products	1.3	.3	.2	.3	.3	.2	.1	13
25	Furniture and fixtures	1.7	.1	.2	.1	.7	.4	.1	76
26	Paper and allied products	30.9	6.5	7.5	8.6	3.1	4.0	1.1	25
27	Printing and publishing	7.5	1.1	1.6	1.5	1.7	1.1	4.5	12
28	Chemicals and allied products	98.0	20.3	20.0	10.6	17.0	25.6	—	(X)
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	7.0	(D)	.7	.2	2.4	(D)	1.5	22
32	Stone, clay, and glass products	7.3	1.1	1.0	.5	1.9	1.5	1.2	10
33	Primary metal industries	52.7	7.7	11.2	10.9	6.2	15.9	.9	10
34	Fabricated metal products	13.8	1.6	2.2	3.4	2.9	2.5	1.2	33
35	Industrial machinery and equipment	7.9	.3	2.1	.5	3.7	.4	.8	2
36	Electronic and other electric equipment	12.1	1.3	2.0	.9	3.0	3.7	1.3	22
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
39	Miscellaneous manufacturing industries	1.9	.2	.3	.1	.9	.2	.3	33
		922.7	183.6	157.1	106.1	175.9	281.4	8.7	1
Louisiana									
20	Food and kindred products	8.7	.4	.5	.9	2.9	1.1	3.0	21
24	Lumber and wood products	6.0	(D)	(D)	(D)	2.1	.6	(D)	11
26	Paper and allied products	45.8	13.3	7.5	8.2	6.7	9.9	1.3	1
28	Chemicals and allied products	534.2	108.3	102.9	36.7	105.5	179.2	1.5	1
29	Petroleum and coal products	290.3	57.9	30.7	54.2	50.9	84.4	2.1	1
30	Rubber and miscellaneous plastics products	1.8	.4	.1	.4	.3	.3	.3	41
32	Stone, clay, and glass products	2.5	.1	.8	.6	.4	.4	.3	3
33	Primary metal industries	5.4	1.3	.8	1.3	.6	1.3	(Z)	5
34	Fabricated metal products	2.3	(D)	.6	(D)	.9	.4	.1	1
35	Industrial machinery and equipment	1.1	.1	.2	(Z)	.5	(Z)	.1	1
36	Electronic and other electric equipment	3.1	.7	(D)	(D)	.8	.3	(D)	2
37	Transportation equipment	20.6	.1	10.2	2.6	4.2	3.1	.5	4
		124.7	29.9	16.1	10.8	19.6	39.6	8.6	1
Maine									
22	Textile mill products	3.9	.2	.3	.3	.8	.3	2.1	3
24	Lumber and wood products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1
26	Paper and allied products	83.7	24.6	10.5	5.6	9.8	31.3	1.8	5
28	Chemicals and allied products	4.5	.6	.6	.5	1.4	(Z)	1.3	5
30	Rubber and miscellaneous plastics products	4.4	.1	.5	.5	1.7	1.0	.5	3
31	Leather and leather products	(D)	(D)	.3	.1	1.5	3.1	(D)	0
32	Stone, clay, and glass products	5.7	1.5	1.2	1.3	.6	1.1	.1	6
34	Fabricated metal products	5.1	.2	.9	1.2	1.8	.4	.6	7
36	Electronic and other electric equipment	4.5	.7	.7	.7	.6	1.4	.4	4
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	0
		222.0	33.6	31.8	25.5	38.7	53.9	38.5	1
Maryland									
20	Food and kindred products	44.4	3.6	4.4	3.6	4.8	6.3	21.8	3
22	Textile mill products	1.1	(Z)	.1	.1	.2	.1	.5	4
25	Furniture and fixtures	1.1	(Z)	.3	.1	.4	.2	.1	4
26	Paper and allied products	12.1	(D)	.9	(D)	2.1	2.0	(D)	1
27	Printing and publishing	6.7	.7	1.5	1.4	2.0	.5	.8	1
28	Chemicals and allied products	51.2	8.2	7.5	3.0	11.1	17.6	3.8	1
29	Petroleum and coal products	(D)	.2	.1	(D)	.8	(D)	(D)	0
30	Rubber and miscellaneous plastics products	(D)	.2	.1	(D)	.4	(D)	(D)	0
32	Stone, clay, and glass products	4.2	.5	1.3	.9	.6	1.0	—	0
33	Primary metal industries	(D)	(D)	6.7	(D)	(D)	(D)	1.4	0
34	Fabricated metal products	4.3	.2	.8	.8	1.8	.5	.2	1
35	Industrial machinery and equipment	4.6	(Z)	.5	.1	2.6	.2	1.0	1
36	Electronic and other electric equipment	2.2	.1	.3	.3	.9	.4	.3	1
37	Transportation equipment	17.2	2.7	3.8	2.1	5.8	2.0	.9	1
38	Instruments and related products	6.1	.3	2.7	.1	1.7	.6	.8	1
		249.0	26.3	44.0	24.7	72.8	46.4	34.9	1
Massachusetts									
20	Food and kindred products	19.2	2.4	2.2	1.6	5.0	1.5	6.6	1
22	Textile mill products	12.7	2.1	1.1	1.6	2.1	1.1	4.7	1
26	Paper and allied products	23.6	3.0	3.0	1.5	4.8	10.3	1.0	1
27	Printing and publishing	5.6	.1	.7	.3	3.5	.5	.5	1
28	Chemicals and allied products	34.7	2.8	5.8	3.2	10.3	6.3	6.3	1

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
Massachusetts—Con.									
29	Petroleum and coal products	3.0	(D)	(Z)	.7	(D)	1.0	.2	25
30	Rubber and miscellaneous plastics products	20.1	1.5	2.1	2.5	4.8	6.4	2.9	19
32	Stone, clay, and glass products	3.7	.5	.7	.4	1.1	.6	.4	43
33	Primary metal industries	11.6	1.7	3.7	.8	2.4	2.0	.9	21
34	Fabricated metal products	19.2	2.2	4.2	2.7	5.0	2.2	2.8	20
35	Industrial machinery and equipment	9.8	.2	1.5	3.5	2.9	.8	.8	35
36	Electronic and other electric equipment	28.0	3.1	8.2	2.4	5.5	5.1	3.7	17
37	Transportation equipment	(D)	(D)	(D)	(D)	7.4	(D)	(D)	(X)
38	Instruments and related products	40.8	5.5	8.5	2.7	14.7	6.2	3.2	16
39	Miscellaneous manufacturing industries	(D)	.3	(D)	(D)	(D)	(D)	(D)	(X)
Michigan									
		768.5	115.3	154.7	96.0	179.8	147.1	75.7	3
20	Food and kindred products	49.0	3.4	4.8	3.2	14.3	5.2	18.3	14
24	Lumber and wood products	8.4	1.2	.9	2.1	2.5	1.4	.3	10
25	Furniture and fixtures	9.6	1.5	1.7	1.7	3.0	.6	1.2	9
26	Paper and allied products	61.8	9.3	8.1	5.0	17.2	10.8	11.4	15
27	Printing and publishing	3.8	.4	.7	.5	1.3	.4	.5	25
28	Chemicals and allied products	151.8	22.0	23.7	12.4	48.7	35.2	9.8	8
29	Petroleum and coal products	1.0	(Z)	.2	.4	.2	(Z)	.2	27
30	Rubber and miscellaneous plastics products	23.9	3.6	2.2	4.3	7.6	4.7	1.5	26
31	Leather and leather products	3.7	.5	.7	.2	.2	1.3	.9	35
32	Stone, clay, and glass products	18.9	3.9	2.3	2.0	2.2	6.6	1.8	10
33	Primary metal industries	120.6	11.7	30.8	24.2	23.0	26.3	4.5	5
34	Fabricated metal products	49.7	4.0	19.2	4.5	12.3	10.2	5.6	10
35	Industrial machinery and equipment	22.0	1.1	5.3	4.1	4.5	5.3	1.9	15
36	Electronic and other electric equipment	6.9	.9	2.0	.4	2.0	.6	1.1	40
37	Transportation equipment	231.2	51.4	56.7	30.6	38.0	38.0	16.6	5
38	Instruments and related products	4.0	(D)	1.2	(D)	1.5	.3	.3	7
39	Miscellaneous manufacturing industries	1.5	(D)	.1	(D)	.9	.1	.1	24
Minnesota									
		277.4	47.7	34.4	33.7	52.9	60.3	48.4	5
20	Food and kindred products	58.6	6.3	5.8	5.7	9.4	10.8	21.6	17
24	Lumber and wood products	10.8	1.6	1.5	3.2	2.7	1.5	.3	7
25	Furniture and fixtures	(D)	.1	(D)	.2	(D)	.3	(D)	(X)
26	Paper and allied products	38.1	9.1	3.6	3.3	2.3	9.5	11.3	7
27	Printing and publishing	10.3	2.2	1.6	2.0	2.5	1.2	.7	16
28	Chemicals and allied products	20.1	(D)	.7	.1	5.4	(D)	1.4	25
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	3.1	.2	.2	.3	1.0	.8	.6	26
32	Stone, clay, and glass products	7.5	(D)	.5	(D)	.5	2.9	1.4	10
33	Primary metal industries	5.5	.6	1.4	1.0	1.4	.9	.3	36
34	Fabricated metal products	13.0	.8	3.6	1.3	3.9	1.3	2.2	12
35	Industrial machinery and equipment	14.1	.6	2.9	.9	4.8	2.0	2.9	37
36	Electronic and other electric equipment	8.7	.8	1.9	.2	3.2	1.5	1.2	15
37	Transportation equipment	13.6	4.7	2.2	1.3	3.2	.8	1.3	30
38	Instruments and related products	4.8	.2	1.6	.1	1.3	.8	.9	30
Mississippi									
		258.7	46.0	37.9	35.5	38.9	90.7	9.6	9
20	Food and kindred products	10.1	.4	.6	.8	3.0	.7	4.7	16
22	Textile mill products	2.9	.1	(D)	.1	.6	(D)	.2	4
24	Lumber and wood products	8.5	.9	1.3	2.1	2.8	1.2	.2	10
25	Furniture and fixtures	4.8	.2	.7	.2	2.3	.9	.4	20
26	Paper and allied products	38.7	10.6	3.7	(D)	5.5	10.0	(D)	6
27	Printing and publishing	2.7	(D)	.7	(D)	.5	(D)	.3	18
28	Chemicals and allied products	52.3	10.3	8.4	5.6	8.8	18.9	.2	13
29	Petroleum and coal products	97.5	19.0	(D)	(D)	2.8	51.2	.1	20
30	Rubber and miscellaneous plastics products	5.3	.2	.9	.8	2.1	.5	.7	34
32	Stone, clay, and glass products	3.2	.3	.8	.6	.7	.7	.2	22
33	Primary metal industries	9.7	1.7	1.7	2.8	.9	2.3	.3	53
34	Fabricated metal products	3.3	.5	.5	.9	.3	.3	.3	18
35	Industrial machinery and equipment	4.7	.2	.5	.1	2.5	.9	.6	32
36	Electronic and other electric equipment	5.4	.3	1.2	.3	2.4	.7	.5	14
37	Transportation equipment	8.2	(D)	(D)	.1	2.7	(D)	.3	9
39	Miscellaneous manufacturing industries	1.4	.4	.2	(D)	.1	.4	(D)	29
Missouri									
		297.7	39.2	55.5	39.5	71.9	58.0	33.5	5
20	Food and kindred products	47.5	4.6	3.8	4.9	10.8	4.9	18.5	12
24	Lumber and wood products	2.5	.2	.4	1.1	1.6	.1	.1	11
25	Furniture and fixtures	3.1	(D)	.5	(D)	1.6	.2	.3	22
26	Paper and allied products	7.2	1.3	.8	.9	3.6	.1	.4	14
27	Printing and publishing	8.1	1.0	2.0	1.2	2.4	.7	.8	22
28	Chemicals and allied products	80.7	15.3	12.5	12.6	15.5	21.0	3.9	13
30	Rubber and miscellaneous plastics products	5.4	(D)	.2	.2	1.4	(D)	.4	18
31	Leather and leather products	4.0	.2	.6	(D)	.2	(D)	.5	19
32	Stone, clay, and glass products	15.3	2.0	3.9	3.1	1.8	4.1	.8	8
33	Primary metal industries	38.4	6.8	6.5	7.6	7.3	9.4	.8	14
34	Fabricated metal products	25.3	1.7	6.5	2.1	8.7	3.9	2.4	9
35	Industrial machinery and equipment	5.6	.3	1.4	.3	2.6	.5	.4	32
36	Electronic and other electric equipment	18.4	1.8	4.9	.8	4.8	4.6	1.5	21
37	Transportation equipment	33.5	3.2	11.1	4.5	8.3	3.4	3.0	8
39	Miscellaneous manufacturing industries	1.3	(Z)	.3	.1	.5	.3	.1	56
Montana									
		22.5	(D)	5.7	5.2	(D)	6.8	.2	12
24	Lumber and wood products	1.4	.4	.3	.1	.4	.2	.1	19
26	Paper and allied products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
28	Chemicals and allied products	3.9	.3	.8	2.1	.6	(Z)	(Z)	58
32	Stone, clay, and glass products	1.2	.2	.6	.3	.1	(Z)	(Z)	88
33	Primary metal industries	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	(X)

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	Nebraska	53.5	6.4	10.3	6.1	12.0	10.3	6.5	11
20	Food and kindred products	17.2	1.5	2.3	2.5	3.1	1.7	6.0	15
26	Paper and allied products	1.1	-	.4	-	.6	(Z)	(Z)	48
27	Printing and publishing	1.6	.3	.4	.2	.1	.5	.1	27
28	Chemicals and allied products	4.7	.5	1.0	.8	.8	1.2	.4	43
30	Rubber and miscellaneous plastics products	2.8	.1	(D)	(D)	(D)	(D)	.6	7
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
33	Primary metal industries	(D)	(D)	.7	.4	1.8	(D)	(Z)	(X)
34	Fabricated metal products	6.4	2.0	.8	.5	.7	2.1	.3	55
35	Industrial machinery and equipment	5.8	.5	1.4	.3	1.1	2.3	.2	28
36	Electronic and other electric equipment	3.8	.1	.8	.2	1.9	.4	.2	37
37	Transportation equipment	(D)	(Z)	(D)	(Z)	.6	(D)	.1	(X)
38	Instruments and related products	1.0	.1	.1	(Z)	.2	.4	.2	38
	Nevada	10.3	(D)	1.2	2.4	(D)	1.4	.2	21
26	Paper and allied products	2.0	.1	.2	-	1.7	.1	(Z)	88
27	Printing and publishing	(D)	(D)	(D)	(D)	.1	(D)	(Z)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(D)	.4	.6	(Z)	(X)
32	Stone, clay, and glass products	2.8	.5	.4	1.0	-	-	(Z)	23
	New Hampshire	46.4	3.7	9.7	5.9	15.0	7.5	4.6	15
20	Food and kindred products	(D)	(D)	(D)	(D)	.1	(D)	(D)	(X)
22	Textile mill products	(D)	(Z)	(D)	.2	.3	.2	.5	(X)
26	Paper and allied products	13.0	1.7	2.8	3.0	3.3	(D)	(D)	30
27	Printing and publishing	1.2	(Z)	.7	.1	.3	(Z)	(Z)	34
30	Rubber and miscellaneous plastics products	(D)	.2	(D)	(D)	1.4	.3	.1	(X)
33	Primary metal industries	3.0	.1	(D)	.3	1.3	(D)	.3	18
34	Fabricated metal products	4.3	.4	.4	.4	2.8	.1	.2	56
35	Industrial machinery and equipment	2.8	.2	.7	.4	1.1	.1	.3	29
36	Electronic and other electric equipment	4.5	.3	1.7	.2	.7	1.2	.5	30
37	Transportation equipment	5.4	.2	1.4	.4	3.0	.3	.2	88
38	Instruments and related products	2.8	.1	.8	.1	.9	.8	.1	29
	New Jersey	634.8	61.7	85.5	70.9	183.8	112.0	120.8	11
20	Food and kindred products	37.5	3.1	6.2	3.2	7.1	3.7	14.3	12
22	Textile mill products	7.3	.3	.6	.3	1.5	1.1	3.5	37
25	Furniture and fixtures	1.0	.1	.1	.1	.5	.2	.1	38
26	Paper and allied products	96.1	3.6	4.7	3.9	9.5	4.4	70.1	45
27	Printing and publishing	10.3	1.4	1.6	1.6	3.0	1.7	1.0	19
28	Chemicals and allied products	255.8	31.0	40.0	21.7	104.9	40.6	17.6	20
29	Petroleum and coal products	105.0	11.2	12.7	23.4	14.8	42.1	.8	13
30	Rubber and miscellaneous plastics products	12.3	1.1	1.1	1.5	4.3	1.4	2.8	24
31	Leather and leather products	(D)	(D)	(D)	(Z)	.7	(D)	(D)	(X)
32	Stone, clay, and glass products	21.0	1.0	5.3	2.6	7.4	2.8	1.8	36
33	Primary metal industries	21.9	3.5	3.1	3.6	7.1	3.5	1.0	23
34	Fabricated metal products	28.2	3.1	4.2	6.0	6.1	6.2	2.5	21
35	Industrial machinery and equipment	7.7	.2	1.6	.6	3.2	1.1	1.0	21
36	Electronic and other electric equipment	7.7	.3	1.4	.4	4.7	.4	.5	31
37	Transportation equipment	3.9	.2	.4	(Z)	2.8	.1	.3	43
38	Instruments and related products	7.6	.4	1.0	.6	3.3	1.1	1.1	12
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	1.2	2.8	(D)	(D)	(X)
	New Mexico	75.7	15.6	11.6	26.2	6.5	15.4	.4	41
24	Lumber and wood products	1.2	.1	.3	.2	.2	.2	.1	23
29	Petroleum and coal products	33.8	7.9	6.5	11.6	2.6	5.2	-	90
32	Stone, clay, and glass products	1.2	.1	.2	.6	(Z)	.2	-	68
33	Primary metal industries	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	(X)
	New York	647.6	83.0	132.1	77.2	146.4	142.0	67.0	5
20	Food and kindred products	55.3	3.5	9.4	6.9	12.1	9.6	13.8	15
22	Textile mill products	5.5	.1	.6	.1	1.3	.1	3.3	38
24	Lumber and wood products	3.3	.3	.5	1.1	.9	.4	.1	58
25	Furniture and fixtures	3.1	.3	.6	.3	1.1	.3	.5	33
26	Paper and allied products	74.3	7.7	10.5	7.0	10.7	24.1	14.4	22
27	Printing and publishing	10.3	.4	1.8	.9	5.3	1.3	.6	11
28	Chemicals and allied products	93.3	16.9	16.8	11.7	22.9	18.2	6.8	15
29	Petroleum and coal products	2.7	.3	1.7	.3	.1	.2	-	95
30	Rubber and miscellaneous plastics products	16.4	1.0	2.4	1.3	9.3	.8	1.5	14
31	Leather and leather products	6.3	.5	.7	.3	1.2	1.6	2.0	49
32	Stone, clay, and glass products	27.3	2.7	(D)	4.4	5.0	(D)	3.0	8
33	Primary metal industries	69.0	12.6	12.1	13.7	13.7	13.8	3.0	21
34	Fabricated metal products	29.6	2.3	6.3	2.9	7.2	5.1	5.9	16
35	Industrial machinery and equipment	43.8	7.8	7.4	2.3	16.2	6.8	3.3	6
36	Electronic and other electric equipment	38.7	6.3	6.0	3.8	9.2	9.0	2.4	7
37	Transportation equipment	35.3	3.1	8.3	3.2	11.3	5.7	3.6	13
38	Instruments and related products	128.0	16.9	(D)	16.0	16.4	(D)	2.7	7
39	Miscellaneous manufacturing industries	5.6	.2	.6	.8	2.5	1.1	.3	10
	North Carolina	512.1	73.6	87.0	77.7	95.8	101.1	78.9	4
20	Food and kindred products	54.7	10.1	6.5	9.6	3.7	9.4	15.4	15
21	Tobacco products	18.1	6.2	4.7	3.0	.8	.5	2.9	11
22	Textile mill products	80.9	5.7	8.8	14.1	10.2	6.5	35.5	7
24	Lumber and wood products	16.3	3.0	2.3	3.3	4.7	2.2	.8	13
25	Furniture and fixtures	27.3	3.0	3.5	7.6	5.4	5.8	2.0	14
26	Paper and allied products	60.3	14.1	11.4	11.4	9.5	13.1	.8	4
27	Printing and publishing	7.8	1.0	1.2	1.8	1.2	.7	1.8	21
28	Chemicals and allied products	127.1	17.0	24.2	11.2	26.2	41.2	7.4	7
30	Rubber and miscellaneous plastics products	17.3	1.9	3.5	2.8	4.6	1.9	2.5	6
32	Stone, clay, and glass products	18.6	4.0	3.7	2.4	3.8	4.0	.7	4

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
North Carolina—Con.									
33	Primary metal industries.....	15.3	.7	3.4	4.7	2.5	3.4	.6	38
34	Fabricated metal products.....	11.8	1.1	2.6	1.5	3.3	2.5	.9	15
35	Industrial machinery and equipment.....	17.5	1.4	2.7	.8	8.6	2.3	1.7	19
36	Electronic and other electric equipment.....	21.0	2.6	4.6	2.0	4.8	4.7	2.3	27
37	Transportation equipment.....	9.6	.8	2.1	.5	3.5	1.6	.9	42
38	Instruments and related products.....	5.4	.5	1.3	.2	2.0	.9	.4	30
39	Miscellaneous manufacturing industries.....	1.9	.2	.3	.6	.5	.1	.3	39
	North Dakota	17.2	5.4	3.7	2.1	4.3	1.1	.5	40
20	Food and kindred products.....	5.4	1.7	.8	1.0	1.0	.5	.4	33
29	Petroleum and coal products.....	10.5	3.7	2.9	1.1	2.7	.2	-	78
	Ohio	1 016.3	123.3	166.5	142.0	241.9	229.1	113.4	4
20	Food and kindred products.....	51.9	3.9	4.5	8.5	7.6	4.4	22.9	16
22	Textile mill products.....	6.0	.7	.8	1.1	3.1	.2	.2	38
24	Lumber and wood products.....	4.7	.7	.6	1.1	2.0	.2	.2	10
25	Furniture and fixtures.....	6.1	(D)	(D)	(D)	.8	(D)	.6	8
26	Paper and allied products.....	57.1	5.2	7.4	5.9	13.2	16.4	9.0	19
27	Printing and publishing.....	9.3	1.2	1.1	1.9	3.0	.5	1.6	15
28	Chemicals and allied products.....	219.7	21.7	32.6	15.6	51.1	69.9	28.7	10
29	Petroleum and coal products.....	44.8	(D)	(D)	(D)	13.3	(D)	1.5	11
30	Rubber and miscellaneous plastics products.....	38.6	2.4	5.1	4.4	15.6	4.1	7.0	11
32	Stone, clay, and glass products.....	51.2	9.3	8.8	8.1	10.0	10.9	4.2	8
33	Primary metal industries.....	267.6	40.3	38.0	60.7	55.7	64.9	8.1	4
34	Fabricated metal products.....	70.9	6.4	16.5	6.6	19.1	13.5	8.8	7
35	Industrial machinery and equipment.....	37.6	4.2	7.5	3.6	9.8	6.9	5.6	10
36	Electronic and other electric equipment.....	35.4	2.7	7.1	2.1	8.4	10.3	4.8	22
37	Transportation equipment.....	112.4	15.4	27.2	17.1	27.9	15.2	9.7	6
38	Instruments and related products.....	1.5	(Z)	.3	(Z)	.8	(Z)	.3	51
39	Miscellaneous manufacturing industries.....	1.5	.3	.2	.2	.6	-	.3	31
	Oklahoma	118.1	14.0	20.3	17.1	35.5	22.1	8.9	10
20	Food and kindred products.....	6.1	1.9	.6	.5	1.0	.4	1.7	30
26	Paper and allied products.....	11.6	3.2	1.6	1.8	1.1	3.5	.4	33
27	Printing and publishing.....	2.9	(D)	(D)	.2	(D)	.2	(D)	13
28	Chemicals and allied products.....	7.6	1.4	.8	1.8	2.0	1.3	.2	25
29	Petroleum and coal products.....	27.4	2.5	3.5	6.7	10.5	3.7	.5	25
30	Rubber and miscellaneous plastics products.....	6.9	.5	1.0	.7	2.9	.9	1.0	15
32	Stone, clay, and glass products.....	7.2	.8	2.2	1.3	.9	1.4	.6	15
33	Primary metal industries.....	16.3	1.4	2.0	1.4	5.7	4.7	1.0	37
34	Fabricated metal products.....	10.2	.9	2.1	.6	3.1	2.7	.7	41
35	Industrial machinery and equipment.....	3.9	.3	.9	.1	2.0	.2	.5	33
36	Electronic and other electric equipment.....	2.8	(D)	(D)	(Z)	.3	(D)	.3	8
37	Transportation equipment.....	10.6	.2	(D)	(D)	2.3	(D)	(D)	3
38	Instruments and related products.....	3.3	.1	.5	(D)	(D)	(D)	.1	15
	Oregon	177.7	28.9	29.3	23.0	31.9	47.6	17.0	7
20	Food and kindred products.....	24.6	3.6	3.1	1.9	5.7	4.0	6.3	20
24	Lumber and wood products.....	25.3	4.5	3.9	5.6	6.7	2.4	2.2	15
26	Paper and allied products.....	56.0	10.0	7.4	7.3	8.0	21.7	1.6	11
27	Printing and publishing.....	2.3	.3	.5	.5	.4	.3	.2	25
28	Chemicals and allied products.....	3.9	.8	.8	.4	.7	.8	.3	22
29	Petroleum and coal products.....	1.0	(D)	.1	.1	.5	(D)	.1	30
30	Rubber and miscellaneous plastics products.....	1.9	(Z)	.3	(Z)	.5	.4	.7	48
32	Stone, clay, and glass products.....	2.8	.4	.8	.5	.4	.5	.2	32
33	Primary metal industries.....	25.1	4.2	6.0	3.4	3.1	7.2	1.2	20
34	Fabricated metal products.....	2.9	.4	1.3	.3	.5	.3	.2	54
35	Industrial machinery and equipment.....	7.8	.3	1.5	.5	1.9	3.2	.4	37
36	Electronic and other electric equipment.....	16.3	3.8	2.9	2.2	1.6	3.3	2.5	37
37	Transportation equipment.....	1.8	(Z)	.3	(Z)	1.1	.3	.1	33
38	Instruments and related products.....	6.0	(D)	.5	.3	.8	(D)	.8	37
	Pennsylvania	864.3	110.7	150.6	121.4	227.0	178.3	76.3	5
20	Food and kindred products.....	59.7	4.6	7.8	6.0	14.9	8.1	18.2	11
22	Textile mill products.....	13.0	.3	.5	.3	2.0	.8	9.0	38
24	Lumber and wood products.....	10.4	1.7	1.2	1.8	3.9	1.4	.5	18
25	Furniture and fixtures.....	7.5	.6	1.1	(D)	2.4	.7	(D)	28
26	Paper and allied products.....	95.5	8.8	16.9	10.2	25.4	19.8	14.4	16
27	Printing and publishing.....	18.4	3.1	2.7	3.5	5.4	2.1	1.6	13
28	Chemicals and allied products.....	158.2	27.5	35.2	17.2	33.4	38.0	6.9	11
29	Petroleum and coal products.....	61.8	9.7	14.8	12.5	11.4	10.3	3.1	3
30	Rubber and miscellaneous plastics products.....	13.3	1.0	1.5	1.3	4.8	1.0	3.8	19
31	Leather and leather products.....	12.0	2.1	1.7	1.9	3.6	2.5	.2	48
32	Stone, clay, and glass products.....	47.9	6.5	7.2	11.8	10.2	9.9	2.3	9
33	Primary metal industries.....	221.0	31.5	29.6	39.1	61.2	57.0	2.6	12
34	Fabricated metal products.....	42.2	3.3	8.2	3.4	14.8	9.0	3.5	13
35	Industrial machinery and equipment.....	19.8	1.0	4.2	.7	8.7	2.8	2.3	14
36	Electronic and other electric equipment.....	27.3	3.8	6.9	2.8	7.3	3.8	2.6	10
37	Transportation equipment.....	27.1	2.2	7.0	2.7	6.7	7.3	1.1	16
38	Instruments and related products.....	16.7	1.8	2.9	1.2	7.1	2.0	1.8	15
39	Miscellaneous manufacturing industries.....	12.3	1.2	1.3	(D)	3.6	1.8	(D)	4
	Rhode Island	29.3	3.1	5.5	3.4	9.4	4.6	3.3	11
22	Textile mill products.....	2.5	.1	.4	.5	.3	.2	1.0	30
26	Paper and allied products.....	3.2	.4	.3	.4	1.9	.1	(Z)	57
28	Chemicals and allied products.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products.....	(D)	(D)	(D)	.1	(Z)	(D)	(D)	(X)
33	Primary metal industries.....	2.1	.2	.6	.1	.2	.9	.1	40
34	Fabricated metal products.....	3.0	.2	.6	.8	.6	.4	.3	27
36	Electronic and other electric equipment.....	2.3	.1	.6	.3	.6	.4	.3	74
37	Transportation equipment.....	1.1	(Z)	.1	(Z)	.8	.1	.1	93
39	Miscellaneous manufacturing industries.....	5.4	.4	1.1	(D)	(D)	(D)	(D)	17

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	South Carolina	392.4	76.2	70.1	54.4	71.9	90.0	29.7	7
20	Food and kindred products	5.9	.4	.4	.4	.8	.7	3.2	30
22	Textile mill products	40.0	2.9	5.6	6.1	7.9	7.4	10.1	9
24	Lumber and wood products	4.4	1.0	.5	.5	1.1	.4	.8	6
25	Furniture and fixtures	2.0	.5	.3	.6	.3	.2	.1	35
26	Paper and allied products	72.2	13.5	11.5	20.8	9.0	16.7	.6	5
27	Printing and publishing	1.8	(D)	.2	(D)	.2	(D)	.1	13
28	Chemicals and allied products	161.3	31.2	36.0	15.4	28.1	43.1	7.5	13
30	Rubber and miscellaneous plastics products	11.7	2.3	3.2	1.3	2.5	1.3	1.0	8
32	Stone, clay, and glass products	13.0	3.2	1.6	1.0	3.9	2.5	.7	4
33	Primary metal industries	22.7	2.9	3.5	2.8	4.4	8.4	.5	26
34	Fabricated metal products	7.3	1.1	1.3	.7	1.6	1.5	1.0	29
35	Industrial machinery and equipment	8.7	.4	1.4	.4	2.6	2.7	1.2	17
36	Electronic and other electric equipment	18.2	2.6	2.9	1.7	5.7	3.3	1.9	23
37	Transportation equipment	21.7	13.8	1.6	1.8	2.9	1.1	.5	68
39	Miscellaneous manufacturing industries	1.1	(D)	.1	(D)	.3	(D)	.3	44
	South Dakota	13.1	2.1	1.0	1.8	2.0	2.5	3.7	26
20	Food and kindred products	6.7	.3	(D)	1.3	1.2	(D)	(D)	43
33	Primary metal industries	1.4	.3	.1	(Z)	.3	.5	.2	81
38	Instruments and related products	2.5	1.2	(D)	.2	.1	(D)	(D)	50
	Tennessee	468.1	75.9	101.5	49.7	83.4	110.5	47.0	5
20	Food and kindred products	31.9	3.3	3.2	3.0	5.9	3.6	12.9	10
22	Textile mill products	10.3	1.0	2.1	.6	2.4	1.2	3.1	7
24	Lumber and wood products	5.7	.2	2.3	.4	1.8	.5	.4	26
25	Furniture and fixtures	5.2	1.0	.6	.2	1.3	.5	1.6	27
26	Paper and allied products	49.4	7.8	7.3	4.2	8.5	13.6	8.0	16
27	Printing and publishing	16.4	2.1	1.7	8.3	1.4	1.4	1.5	19
28	Chemicals and allied products	188.0	26.4	57.6	13.6	24.7	62.0	3.8	4
29	Petroleum and coal products	14.1	3.2	.8	1.1	5.3	3.1	.6	53
30	Rubber and miscellaneous plastics products	12.9	1.0	1.2	1.0	6.1	1.2	2.4	11
32	Stone, clay, and glass products	14.3	3.8	2.5	2.5	2.9	2.0	.6	35
33	Primary metal industries	33.7	4.9	5.8	6.1	6.1	9.2	1.6	9
34	Fabricated metal products	16.3	2.4	4.0	1.0	3.7	3.7	1.5	30
35	Industrial machinery and equipment	12.5	1.2	2.7	1.0	3.0	2.6	2.0	10
36	Electronic and other electric equipment	11.2	.9	3.0	1.5	1.3	2.5	2.0	17
37	Transportation equipment	41.4	16.3	6.0	4.6	7.3	3.2	4.0	38
39	Miscellaneous manufacturing industries	3.7	.4	.6	.4	1.3	.2	.8	19
	Texas	2 167.6	336.9	371.1	526.8	341.7	499.7	91.4	3
20	Food and kindred products	80.5	7.0	11.5	7.8	11.4	9.1	33.7	12
24	Lumber and wood products	13.3	1.8	2.1	2.5	4.6	1.9	.4	29
25	Furniture and fixtures	1.8	.1	.3	.1	.8	.2	.3	35
26	Paper and allied products	74.6	13.5	8.0	12.6	19.5	13.7	7.4	15
27	Printing and publishing	9.7	1.0	1.6	1.4	3.3	(D)	(D)	12
28	Chemicals and allied products	940.1	165.3	184.4	202.9	151.1	222.1	14.4	3
29	Petroleum and coal products	786.3	120.1	110.1	269.6	94.4	186.2	5.9	5
30	Rubber and miscellaneous plastics products	22.0	2.2	3.7	2.7	5.5	3.9	4.0	13
31	Leather and leather products	1.0	(Z)	.1	(Z)	.1	(D)	(D)	22
32	Stone, clay, and glass products	35.8	5.1	5.2	6.9	7.7	7.9	3.0	12
33	Primary metal industries	69.6	7.6	13.1	11.2	8.0	26.8	2.8	5
34	Fabricated metal products	41.2	2.5	8.6	2.5	16.1	9.0	2.6	12
35	Industrial machinery and equipment	11.0	.8	2.3	.7	4.4	1.5	1.3	13
36	Electronic and other electric equipment	41.0	5.0	9.1	3.2	5.7	9.4	8.7	12
37	Transportation equipment	26.3	3.7	7.6	2.0	5.5	5.2	2.4	17
38	Instruments and related products	11.6	1.1	3.1	.4	3.1	1.4	2.7	11
	Utah	129.8	26.2	21.9	16.2	31.3	27.8	6.4	18
20	Food and kindred products	7.6	.3	.8	.4	1.1	1.5	3.4	58
27	Printing and publishing	1.0	.2	.1	.3	.2	.2	.1	46
29	Petroleum and coal products	22.5	10.3	4.2	1.4	2.7	2.9	1.2	86
32	Stone, clay, and glass products	1.9	.4	(D)	.4	.4	(D)	.1	38
33	Primary metal industries	51.8	11.5	(D)	12.0	14.4	(D)	(Z)	10
35	Industrial machinery and equipment	1.2	(Z)	.2	(Z)	.5	.1	.3	38
36	Electronic and other electric equipment	5.2	.4	.8	.8	.4	2.7	.2	53
37	Transportation equipment	39.4	2.9	8.3	.7	8.7	12.3	.6	31
39	Instruments and related products	1.0	(Z)	.2	(Z)	.6	(Z)	.1	44
39	Miscellaneous manufacturing industries .....	.5	(Z)	.1	(Z)	.2	.1	.2	10
	Vermont	15.0	2.1	2.9	.7	6.8	1.4	1.0	28
34	Fabricated metal products	(D)	(D)	(D)	(Z)	(D)	.1	(D)	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
37	Transportation equipment	5.4	1.2	.6	(D)	2.4	(D)	.6	75
	Virginia	351.2	69.9	63.7	39.1	72.5	64.3	41.7	7
20	Food and kindred products	29.4	5.3	4.1	3.3	2.6	4.1	10.0	12
21	Tobacco products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
22	Textile mill products	16.5	.7	2.2	1.8	2.1	1.6	8.1	10
24	Lumber and wood products	14.2	1.5	2.0	1.4	5.6	2.7	1.0	24
25	Furniture and fixtures	7.9	1.0	1.0	1.9	1.2	1.3	1.5	28
26	Paper and allied products	66.5	18.9	6.9	(D)	12.4	18.6	(D)	5
27	Printing and publishing	(D)	.7	.7	2.0	(D)	(D)	.4	(X)
28	Chemicals and allied products	87.5	16.3	20.0	7.7	19.0	19.9	4.6	9
29	Petroleum and coal products	25.5	12.8	4.7	5.1	1.5	1.4	-	82
30	Rubber and miscellaneous plastics products	13.7	.4	2.5	1.6	5.1	1.9	2.1	35
32	Stone, clay, and glass products	6.5	1.0	1.0	.9	1.2	1.6	.7	17
33	Primary metal industries	11.7	1.4	1.3	1.4	3.8	2.8	1.2	23
34	Fabricated metal products	6.1	.7	1.2	.3	2.2	.9	.7	29
35	Industrial machinery and equipment	6.7	.5	1.2	.2	3.4	.4	1.1	23
36	Electronic and other electric equipment	15.1	1.4	5.8	2.4	2.7	1.6	1.3	5
37	Transportation equipment	26.5	4.4	6.6	2.6	6.0	3.7	3.3	11
38	Instruments and related products	(D)	(D)	(D)	(D)	.2	.5	.5	(X)

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media							Standard error estimate (PAOC percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government		
	Washington	366.5	66.3	70.2	37.5	70.3	85.3	36.6		
20	Food and kindred products	30.0	2.6	2.9	1.4	7.4	2.3	13.4	11	
22	Textile mill products	1.5	.3	.3	.1	.4	.2	.2	45	
24	Lumber and wood products	17.1	2.7	3.7	1.4	3.6	2.8	3.0	22	
26	Paper and allied products	94.9	20.9	10.2	11.7	7.4	42.1	2.7	11	
27	Printing and publishing	1.4	(Z)	.3	.1	.7	.1	.3	45	
28	Chemicals and allied products	14.3	3.1	5.1	1.6	1.6	1.1	1.8	31	
29	Petroleum and coal products	46.2	16.9	7.7	4.1	12.0	5.0	.5	24	
30	Rubber and miscellaneous plastics products	1.7	(Z)	.1	-	1.3	-	.3	61	
32	Stone, clay, and glass products	(D)	(D)	1.3	1.7	(D)	.8	1.4	(X)	
33	Primary metal industries	71.0	11.6	14.8	13.0	7.0	23.2	1.3	11	
34	Fabricated metal products	4.3	.4	.5	.1	.9	1.5	.8	11	
35	Industrial machinery and equipment	5.4	.2	1.1	.2	1.5	1.3	1.2	41	
36	Electronic and other electric equipment	8.2	1.7	1.8	.5	1.0	1.8	1.3	31	
37	Transportation equipment	(D)	(D)	19.5	1.1	(D)	2.3	7.2	(X)	
38	Instruments and related products	2.0	.1	.5	(Z)	.3	.5	.6	21	
39	Miscellaneous manufacturing industries	(D)	.2	.4	.5	.6	(D)	.4	(X)	
	West Virginia	273.4	53.7	51.4	35.8	40.5	86.6	5.6	11	
20	Food and kindred products	2.8	.7	.6	.3	.1	.9	.2	41	
24	Lumber and wood products	(D)	.5	(D)	.2	(D)	(D)	(D)	(X)	
28	Chemicals and allied products	133.0	29.9	25.3	(D)	24.9	43.7	(D)	21	
29	Petroleum and coal products	(D)	-	(D)	(D)	(D)	(D)	-	(X)	
32	Stone, clay, and glass products	5.6	.9	.9	.9	1.2	1.6	.1	11	
33	Primary metal industries	116.6	20.5	20.9	25.7	9.9	38.7	.8	31	
34	Fabricated metal products	3.9	.6	.7	1.1	1.0	.2	.2	21	
35	Industrial machinery and equipment	2.6	.1	1.2	(Z)	.4	.2	.6	61	
38	Instruments and related products	(D)	-	-	-	(D)	-	-	(X)	
	Wisconsin	432.7	72.6	57.6	52.2	78.4	106.7	65.1	11	
20	Food and kindred products	55.0	7.8	3.8	2.9	10.3	3.6	26.7	11	
22	Textile mill products	1.0	.1	.2	.1	.4	(Z)	.1	41	
24	Lumber and wood products	6.6	.9	.9	.9	1.7	1.4	.6	11	
25	Furniture and fixtures	4.2	.3	.5	1.2	1.0	1.1	(Z)	31	
26	Paper and allied products	203.5	42.3	28.1	26.5	15.3	74.2	17.3	11	
27	Printing and publishing	13.5	2.9	1.0	4.9	2.3	1.4	.9	11	
28	Chemicals and allied products	16.6	2.5	2.6	.4	6.8	2.5	1.7	21	
30	Rubber and miscellaneous plastics products	6.6	.4	.5	.7	2.1	1.7	1.2	21	
31	Leather and leather products	5.1	.5	1.1	.4	.3	(D)	(D)	11	
32	Stone, clay, and glass products	9.0	.2	.5	.6	2.7	2.6	.6	31	
33	Primary metal industries	33.7	5.2	3.7	5.7	11.2	5.9	2.0	11	
34	Fabricated metal products	25.2	3.3	4.4	3.9	5.3	5.8	2.5	11	
35	Industrial machinery and equipment	27.4	1.5	4.6	2.2	10.6	2.2	6.1	31	
36	Electronic and other electric equipment	11.5	1.1	2.8	.8	3.7	1.3	1.8	11	
37	Transportation equipment	8.3	1.2	1.7	.7	2.8	1.0	1.0	21	
38	Instruments and related products	3.1	.1	.8	.2	.9	.2	.9	21	
39	Miscellaneous manufacturing industries	2.4	.3	.3	.1	1.0	(D)	(D)	21	
	Wyoming	21.3	5.9	3.9	1.9	5.0	4.6	.1	11	
20	Food and kindred products	3.7	-	1.0	.5	(D)	(D)	(Z)	71	
28	Chemicals and allied products	13.5	5.4	2.5	1.0	(D)	(D)	-	11	
29	Petroleum and coal products	3.0	.4	.2	.3	2.1	(Z)	(Z)	71	

*Excludes Major Group 23, Apparel and Other Textile Products.

Table 12a. Other Capital Expenditures by Major Groups for Kinds of Cost: 1993

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PACENM ¹	Total PACE	Total	Nonmedia and other						Standard error estimate (PACE percent)
					Kind of cost						
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
	All Industries²	7 568.2	7 177.9	390.3	96.1	254.4	5.2	1.0	21.0	12.7	
20	Food and kindred products	240.2	219.9	20.3	10.1	7.6	1.6	(Z)	.1	.9	21
21	Tobacco products	18.1	17.8	.3	.3	(Z)	-	-	-	-	11
22	Textile mill products	43.8	39.9	3.9	1.9	1.5	-	-	.1	.5	11
24	Lumber and wood products	91.1	74.0	17.2	.7	15.9	.3	-	(Z)	.3	11
25	Furniture and fixtures	45.1	39.7	5.4	.3	5.0	(Z)	-	(Z)	.1	11
26	Paper and allied products	737.7	715.6	22.1	6.3	14.5	.5	(Z)	.2	.6	11
27	Printing and publishing	42.4	38.4	3.9	1.4	1.8	.1	.1	(Z)	.6	11
28	Chemicals and allied products	2 088.8	1 957.9	130.9	19.1	99.3	.4	(D)	(D)	3.4	11
29	Petroleum and coal products	2 672.0	2 648.5	23.5	1.4	9.6	(D)	-	(D)	1.0	11
30	Rubber and miscellaneous plastics products	76.2	63.3	12.9	8.8	3.5	.1	-	(Z)	.4	11
31	Leather and leather products	18.3	18.1	.1	(D)	(D)	-	-	-	-	11
32	Stone, clay, and glass products	131.4	118.1	13.3	4.9	8.1	(Z)	-	(Z)	.2	11
33	Primary metal industries	481.2	442.2	39.0	4.1	32.7	1.5	(Z)	.1	.6	11
34	Fabricated metal products	117.6	102.9	14.6	3.9	8.9	.3	(D)	.3	(D)	11
35	Industrial machinery and equipment	122.9	105.0	18.0	3.2	13.2	.1	(Z)	.2	1.2	11

Table 12a. Other Capital Expenditures by Major Groups for Kinds of Cost: 1993—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Major group	Total PACENM ¹	Total PACE	Nonmedia and other							Standard error of estimate (PACE) (percent)
				Kind of cost							
				Total	Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
				20.5	2.5	17.2	.1	-	.1	.7	13
36	Electronic and other electric equipment	197.2	176.7	19.6	8.0	(D)	(D)	(Z)	(Z)	1.0	7
37	Transportation equipment	297.2	277.6	22.7	(D)	3.7	(Z)	(Z)	(Z)	.2	20
38	Instruments and related products	127.7	105.0	2.1	.5	1.4	.1	-	(Z)		7
39	Miscellaneous manufacturing industries	19.3	17.2								

¹PACENM denotes pollution abatement capital expenditures including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 12b. Other Capital Expenditures by States for Kinds of Cost: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

State	Total PACENM ¹	Total PACE	Total	Nonmedia and other						Standard error of estimate (PACE) (percent)
				Kind of cost						
				Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
United States ²	7 568.2	7 177.9	390.3	96.1	254.4	5.2	1.0	21.0	12.7	2
Alabama	156.8	150.6	6.2	1.6	4.2	-	(Z)	(Z)	.3	12
Alaska	10.2	10.2	(Z)	(Z)	-	-	-	-	-	20
Arizona	24.3	24.2	.1	-	-	.1	-	-	.3	22
Arkansas	68.4	59.4	9.1	(Z)	8.7	(Z)	-	(D)	(D)	7
California	985.1	955.2	29.9	2.7	24.9	.5	.1	(D)		
Colorado	9.2	7.9	1.3	(D)	(D)	-	-	(Z)	.4	16
Connecticut	32.7	23.1	9.6	7.6	1.6	(Z)	(Z)	(Z)		7
Delaware	95.1	94.8	.3	.2	.1	(Z)	(Z)	(D)	(D)	22
Florida	70.9	64.3	6.6	.9	4.9	(Z)	(Z)	.2	.2	16
Georgia	136.0	123.5	12.5	10.3	1.8	(Z)	(Z)			10
Hawaii	37.3	37.2	.2	-	-	(Z)	-	-	.2	60
Idaho	37.3	37.2	.1	-	.1	(Z)	-	-	.1	21
Illinois	307.7	295.7	12.0	3.4	8.4	.1	-	(Z)	.2	3
Indiana	292.0	286.7	5.3	1.1	3.9	(D)	-	(Z)	(D)	5
Iowa	43.4	39.6	3.8	.2	3.3	(D)	-	-	.1	43
Kansas	96.0	93.8	2.2	.4	1.7	(Z)	(Z)	(Z)	1.3	9
Kentucky	117.1	104.0	13.1	2.6	9.2	(D)	(Z)	(Z)	.7	4
Louisiana	931.0	905.2	25.9	.5	9.5	(Z)	(Z)	(Z)	.1	8
Maine	46.1	45.2	.8	.8	.8	(Z)	-	-	.3	12
Maryland	42.6	40.8	1.8	.6	.8	(Z)	-	-		
Massachusetts	88.5	82.8	5.7	3.3	2.0	.1	(Z)	(D)	.1	28
Michigan	194.1	176.4	17.7	6.5	8.4	.9	(D)	(Z)	(D)	5
Minnesota	195.7	193.8	1.9	.9	.6	(D)	(Z)	(Z)	(D)	2
Mississippi	80.3	78.8	1.4	(D)	1.1	-	-	(Z)	(Z)	6
Missouri	56.5	45.9	10.7	1.3	9.3	-	-	(Z)		11
Montana	18.4	18.3	.1	(Z)	.1	-	(Z)	-	-	43
Nebraska	9.9	9.7	.2	.1	.2	(Z)	-	-	-	8
Nevada	4.5	3.4	1.1	(D)	(D)	(Z)	-	-	(Z)	29
New Hampshire	53.7	53.4	.2	(D)	(D)	(Z)	-	(D)	(D)	10
New Jersey	155.8	137.0	18.9	6.9	10.8	.1	-	(D)	(D)	10
New Mexico	79.2	78.7	.5	-	.5	-	-	(D)	(D)	60
New York	152.4	129.8	22.6	(D)	3.6	.1	-	(D)	(D)	14
North Carolina	254.4	226.3	28.1	2.6	23.7	(Z)	(Z)	(D)	(D)	7
North Dakota	10.0	10.0	(Z)	(Z)	(Z)	-	-	(D)	(D)	48
Ohio	267.3	238.0	29.4	9.4	19.3	(Z)	(Z)	(D)	.1	5
Oklahoma	41.5	40.6	1.0	.3	.4	-	-	(Z)	.3	15
Oregon	48.5	46.8	1.8	.1	.6	.7	-	(Z)	.4	17
Pennsylvania	346.8	322.8	24.0	4.5	19.0	.1	(Z)	(Z)	.2	5
Rhode Island	6.5	2.9	3.5	(D)	2.2	(Z)	(D)	(Z)	(Z)	5
South Carolina	161.3	157.9	3.4	.4	.4	(Z)	(D)	(Z)	(Z)	15
South Dakota	1.4	1.0	.4	.2	.2	(Z)	-	(Z)	.7	28
Tennessee	133.5	127.9	5.6	.5	4.2	.5	(Z)	(D)	(D)	7
Texas	1 036.3	1 002.6	33.7	2.7	28.4	.5	-	(Z)	.1	49
Utah	36.0	35.3	.6	(Z)	(D)	(D)	-	(Z)	-	27
Vermont	(D)	8.4	(D)	.4	(D)	-	-	(Z)	(Z)	9
Virginia	182.9	180.7	2.2	.6	1.3	-	-	(Z)	(Z)	14
Washington	126.0	109.7	16.3	(D)	14.9	.4	-	(Z)	(D)	28
West Virginia	77.1	69.1	8.0	1.3	6.5	(Z)	-	(D)	(D)	4
Wisconsin	133.2	128.1	5.1	.4	3.5	(Z)	-	(D)	(D)	21
Wyoming	(D)	63.4	(D)	-	(D)	-	-	(D)	(D)	1

¹PACENM denotes pollution abatement capital expenditures including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 13a. Other Operating Costs by Major Groups for Kinds of Cost: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Major group	Nonmedia and other									Standard error of estimate (PAOC) (percent)
		Total PAOCNM ¹	Total PAOC	Total	Kind of cost					Not elsewhere classified (n.e.c.)	
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		
	All industries²	19 798.8	17 555.0	1 243.8	77.1	982.7	4.8	13.4	79.0	866	2
20	Food and kindred products	1 368.0	1 339.3	28.7	8.0	18.0	.3	(Z)	1.2	12	3
21	Tobacco products	(D)	32.8	(D)	(Z)	(D)	-	-	-	(D)	6
22	Textile mill products	279.8	272.8	7.0	3.1	2.7	(Z)	(Z)	.3	8	4
24	Lumber and wood products	279.3	253.1	26.3	.4	22.5	.1	(Z)	2.4	8	5
25	Furniture and fixtures	136.7	124.2	12.5	.3	12.0	-	-	.1	1	6
26	Paper and allied products	1 948.3	1 901.5	46.8	3.8	23.4	.3	(Z)	5.4	139	4
27	Printing and publishing	266.0	258.4	7.6	1.7	4.6	(Z)	(Z)	.4	8	4
28	Chemicals and allied products	4 801.8	4 348.2	453.6	11.2	380.2	1.3	(D)	34.8	(D)	3
29	Petroleum and coal products	2 792.5	2 647.9	144.7	1.3	129.2	.1	(D)	5.3	(D)	4
30	Rubber and miscellaneous plastics products	408.8	385.2	23.5	1.5	19.5	.3	(Z)	.6	16	5
31	Leather and leather products	51.5	50.9	.6	.2	.1	-	-	-	3	14
32	Stone, clay, and glass products	543.8	521.1	22.8	2.0	14.7	.3	(Z)	3.2	25	4
33	Primary metal industries	2 144.0	2 017.2	126.8	11.7	90.6	.6	3.7	4.6	152	3
34	Fabricated metal products	741.9	679.4	62.5	6.3	(D)	.2	(D)	5.1	21	4
35	Industrial machinery and equipment	488.1	445.1	43.0	6.0	31.9	.3	(D)	2.4	(D)	4
36	Electronic and other electric equipment	716.1	662.4	53.8	3.3	35.7	(Z)	-	6.4	83	5
37	Transportation equipment	1 326.5	1 194.4	132.1	14.7	103.5	(D)	(D)	5.4	62	4
38	Instruments and related products	382.9	336.6	46.3	1.4	41.0	(D)	(D)	1.5	7	4
39	Miscellaneous manufacturing industries	(D)	84.5	(D)	.2	(D)	(Z)	-	(Z)	(D)	5

¹PAOCNM denotes pollution abatement operating costs including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 13b. Other Operating Costs by States for Kinds of Cost: 1993

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Nonmedia and other									Standard error of estimate (PAOC) (percent)
	Total PAOCNM ¹	Total PAOC	Total	Kind of cost					Not elsewhere classified (n.e.c.)	
				Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		
United States²	18 798.8	17 555.0	1 243.8	77.1	982.7	4.8	13.4	79.0	866	2
Alabama	412.2	393.4	18.8	.5	15.3	.2	-	1.8	10	6
Alaska	29.3	28.9	.3	-	.3	-	-	-	-	23
Arizona	124.9	119.9	5.0	.8	4.0	-	(Z)	(Z)	2	8
Arkansas	247.8	226.3	21.5	.1	20.4	(Z)	(Z)	(D)	(D)	10
California	1 567.4	1 426.2	141.2	8.8	118.9	.4	(D)	4.5	(D)	5
Colorado	93.7	85.5	8.2	.1	7.6	(Z)	.1	(D)	(D)	10
Connecticut	185.1	160.8	24.3	5.4	15.8	(Z)	-	1.3	19	8
Delaware	145.1	143.3	1.8	(D)	1.3	(D)	-	-	(Z)	17
District of Columbia	4.4	4.4	(Z)	(Z)	-	-	-	-	-	12
Florida	322.8	297.0	25.8	.2	22.6	(D)	-	2.4	(D)	6
Georgia	428.6	415.9	12.8	3.6	8.0	.1	(Z)	.6	5	6
Hawaii	15.2	12.3	2.8	(Z)	2.5	-	-	-	-	3
Idaho	(D)	63.9	(D)	(D)	(D)	(Z)	-	-	(D)	12
Illinois	920.3	879.5	40.8	3.6	25.1	.2	3.7	2.4	58	6
Indiana	736.8	690.4	46.4	2.8	32.9	(Z)	-	6.1	45	4
Iowa	190.1	173.4	16.7	.5	15.0	-	(D)	.3	(D)	7
Kansas	136.2	125.0	11.2	.5	8.7	-	-	.8	11	13
Kentucky	346.2	331.3	14.9	1.0	10.9	(Z)	(D)	.6	(D)	5
Louisiana	989.1	922.7	66.4	.1	58.9	-	(D)	5.9	(D)	5
Maine	129.6	124.7	4.9	.5	3.1	-	(D)	(D)	(D)	10
Maryland	227.5	222.0	5.4	.9	3.9	(Z)	(Z)	.1	5	9
Massachusetts	258.9	249.0	9.8	.6	8.2	.4	(Z)	.3	4	8
Michigan	823.9	768.5	55.4	12.0	37.3	(Z)	(Z)	1.2	48	3
Minnesota	286.0	277.4	8.6	.4	7.3	.1	(Z)	.2	5	5
Mississippi	261.6	258.7	2.9	.1	2.0	-	-	.7	(Z)	9
Missouri	308.3	297.7	10.6	.8	9.4	(Z)	(Z)	.1	3	5
Montana	23.4	22.5	1.0	(Z)	1.0	-	-	-	-	12
Nebraska	56.1	53.5	2.6	.2	2.0	(Z)	(Z)	(D)	(D)	11
Nevada	10.9	10.3	.6	(Z)	(D)	-	-	-	(D)	21
New Hampshire	48.7	46.4	2.3	.1	1.7	(Z)	-	(Z)	5	15
New Jersey	721.0	634.8	86.3	3.6	64.1	.2	(Z)	.1	181	11
New Mexico	79.3	75.7	3.6	(Z)	(D)	-	(Z)	(D)	-	41
New York	717.9	647.6	70.3	3.1	58.2	(D)	(D)	5.8	(D)	5
North Carolina	549.5	512.1	37.4	1.9	31.5	(Z)	.1	3.4	6	4
North Dakota	18.0	17.2	.7	-	.7	-	-	-	-	49
Ohio	1 117.4	1 016.3	101.1	4.6	87.9	.5	(D)	1.5	(D)	4
Oklahoma	123.5	118.1	5.4	.9	3.4	(Z)	(Z)	.3	8	10
Oregon	192.7	177.7	15.0	.9	10.8	(Z)	-	.6	27	7
Pennsylvania	916.6	864.3	52.3	8.0	38.0	.2	(Z)	4.5	16	5
Rhode Island	(D)	29.3	(D)	(Z)	.5	(D)	-	(D)	(Z)	11
South Carolina	405.8	392.4	13.5	.5	6.3	(Z)	(D)	1.0	(D)	7
South Dakota	13.1	13.1	(Z)	(Z)	(Z)	-	-	-	-	26
Tennessee	526.3	488.1	57.2	2.2	51.5	(D)	-	1.9	(D)	5
Texas	2 286.6	2 187.6	119.1	1.4	96.2	.1	(Z)	12.2	92	3
Utah	136.4	129.8	6.6	1.3	4.8	-	-	.3	2	18

Table 13b. Other Operating Costs by States for Kinds of Cost: 1993—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PAOCNM ¹	Total PAOC	Nonmedia and other							Standard error of estimate (PAOC) (percent)
			Total	Kind of cost						
				Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
Vermont	(D)	15.0	(D)	.1	(D)	(Z)	-	(D)	-	28
Virginia	393.9	351.2	32.7	1.5	23.5	(D)	(D)	6.3	8	7
Washington	397.2	366.5	30.8	1.7	23.9	(D)	-	(D)	31	6
West Virginia	287.7	273.4	14.3	.2	8.5	(Z)	-	1.7	35	17
Wisconsin	448.5	432.7	15.8	.9	9.6	(Z)	-	4.0	14	10
Wyoming	23.5	21.3	2.2	(Z)	2.2	-	-	-	-	18

¹PAOCNM denotes pollution abatement operating costs including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 14. Summary New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for All Media: 1989 to 1993

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code ¹	Industry	New plant and equipment	Pollution abatement capital expenditures (PACE)						Nonmedia and other
			Total PACENM ²	Media					
				Total	Air	Water	Solid/contained waste		
10,12,13,14	Mining	1993	10 075.2	503.6	388.8	113.2	161.1	114.5	114.8
		1992	8 893.7	405.1	317.6	105.9	144.7	67.0	87.5
		1991	10 022.5	(NA)	273.6	117.5	119.6	36.5	(NA)
		1990	9 890.3	(NA)	251.7	78.9	138.2	34.6	(NA)
		1989	9 207.9	(NA)	199.9	39.9	112.9	47.2	(NA)
29	Petroleum and coal products	1993	28 671.6	4 445.4	3 963.5	2 380.4	1 115.1	468.0	481.9
		1992	29 585.8	4 367.3	3 873.5	1 932.9	1 380.5	560.1	493.6
		1991	35 590.6	(NA)	3 559.6	1 744.2	1 503.3	312.2	(NA)
		1990	34 787.3	(NA)	3 221.3	1 265.6	1 643.6	312.2	(NA)
		1989	30 081.0	(NA)	2 275.9	771.5	1 174.5	329.9	(NA)
491,493	Electric utilities ³	1993	45 897.8	4 200.0	4 032.3	2 929.1	620.5	482.7	167.7
		1992	42 657.6	3 037.9	2 866.7	1 948.3	567.0	371.4	151.2
		1991	38 616.7	(NA)	1 943.2	1 054.5	573.0	315.7	(NA)
		1990	39 267.5	(NA)	2 111.1	1 111.3	673.0	326.9	(NA)
		1989	40 319.1	(NA)	1 819.1	1 074.6	481.9	262.5	(NA)

¹For further description of SIC codes covered in this survey, see introductory text.
²PACENM denotes pollution abatement capital expenditures including the nonmedia and other.
³Does not include Rural Electric Administration utilities.

Table 15a. New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Air: 1993

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code ¹	Industry	Total PACE	Total	Air					
				Type of pollutant abated			Abatement technique		
				Hazardous	Nonhazardous		End of line	Production process enhancements	
10,12,13,14	Mining	388.8	113.2		5.2	108.0			95.5	12.5	54.9	58.3
				Total			Particulates, etc. ²	Other	
29	Petroleum and coal products	3 963.5	2 380.4	407.9	1 972.5	1 767.3	205.2	1 244.4	1 136.0
491,493	Electric utilities ³	4 032.3	2 929.1	85.4	2 843.7	2 734.9	108.8	2 269.9	659.2

¹For further description of SIC codes covered in this survey, see introductory text.
²particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons and volatile organic compounds, and lead.
³Does not include Rural Electric Administration utilities.

Table 15b. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Water: 1993**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACE	Water				
			Total	Type of pollutant abated		Abatement technique	
				Hazardous	Nonhazardous	End of line	Production process enhancements
10,12,13,14	Mining	388.8	161.1	28.3	132.8	141.5	19.6
29	Petroleum and coal products	3 963.5	1 115.1	220.6	894.5	819.5	295.6
491,493	Electric utilities ²	4 032.3	620.5	53.2	567.3	569.1	51.4

¹For further description of SIC codes covered in this survey, see introductory text.
²Does not include Rural Electric Administration utilities.

Table 15c. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Solid/Contained Waste: 1993**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACE	Solid/contained waste				
			Total	Type of pollutant abated		Abatement technique	
				Hazardous	Nonhazardous	End of line	Production process enhancements
10,12,13,14	Mining	388.8	114.5	6.1	108.4	94.2	20.3
29	Petroleum and coal products	3 963.5	468.0	67.9	400.1	249.9	218.1
491,493	Electric utilities ²	4 032.3	482.7	49.9	432.8	451.7	31.0

¹For further description of SIC codes covered in this survey, see introductory text.
²Does not include Rural Electric Administration utilities.

Table 15d. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for Kinds of Cost: 1993**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACENM ²	Total PACE	Nonmedia and other							
				Total	Kind of cost						Not elsewhere classified (n.e.c.)
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		
10,12,13,14	Mining	503.6	388.8	114.8	14.4	99.4	.3	.5	.1	.2	
29	Petroleum and coal products	4 445.4	3 963.5	481.9	145.4	305.3	3.2	-	27.1	.9	
491,493	Electric utilities ³	4 200.0	4 032.3	167.7	52.1	71.4	21.6	1.3	7.1	14.2	

¹For further description of SIC codes covered in this survey, see introductory text.
²PACENM denotes pollution abatement capital expenditures including the nonmedia and other.
³Does not include Rural Electric Administration utilities.

Table 16. Selected Industrial Air Pollution Control Equipment: 1989 to 1993

[Million dollars]

Type of equipment	Value			Shipments by end use												
	New orders	Total shipments	Back-log of orders	Pulp and paper mill operations	Chemical and fertilizer production	Petroleum refining	Cement manufacturing	Foundries	Iron and steel mills	Primary metals smelting plants	Grain milling and handling	Coal mining and cleaning	Steam electric utility power plants	Steam industrial power plants	Municipal waste combusters	Other end use industries
Total air pollution control equipment ¹	1993..	(NA)	(NA)	(NA)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
	1992..	781.2	713.4	754.1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
	1991..	846.6	617.8	684.3	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
	1990..	962.2	825.3	621.1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
	1989..	826.6	710.9	558.5	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Particulates emission collectors	1993..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	1992..	422.1	463.3	255.1	35.7	58.6	32.3	14.1	4.2	5.5	6.9	5.3	4.9	98.2	18.0	2.5
	1991..	494.0	495.0	284.4	47.4	84.4	41.2	15.0	4.1	6.6	7.3	5.6	3.4	72.4	21.0	5.2
	1990..	531.0	446.5	264.7	53.8	42.5	18.2	12.3	3.7	6.3	8.7	5.9	4.3	65.7	47.9	(D)
	1989..	426.0	394.0	221.7	61.2	42.1	10.2	10.5	3.3	6.9	3.4	4.2	4.9	47.9	38.7	-
Gaseous emission control devices	1993..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	1992..	292.4	195.9	422.8	(D)	9.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	1991..	225.2	226.9	327.3	(D)	6.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	1990..	280.8	224.8	299.3	(D)	3.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	1989..	295.1	227.7	304.0	(D)	16.2	5.6	-	(D)	(D)	(D)	(D)	(D)	97.2	39.7	-

Source: Current Industrial Reports, Selected Industrial Air Pollution Control Equipment (MA-35J), 1989 to 1993.

¹Includes other types of industrial air pollution control equipment not shown separately.²No longer collected.

MA-200(I)
(9-93)

OMB No. 0607-0176:
Approval Expires 09/30/95



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

OFFICE OF THE DIRECTOR

FROM THE ACTING DIRECTOR
BUREAU OF THE CENSUS

Industrial firms are devoting a significant share of their resources for pollution abatement. Consequently, it is important that accurate and timely statistics be available on a broad national basis so that business, Government, and the general public can better evaluate the economic implications of such costs. The annual "Survey of Pollution Abatement Costs and Expenditures" provides this information.

We require this report only for plant(s) for which you received an addressed form. Please read the general instructions carefully, particularly if more than one establishment of your company used the same pollution abatement facilities. If actual records are not available, carefully prepared estimates are acceptable.

The law (Title 13, United States Code, Sections 182, 224, and 225) requires response to this inquiry. By Section 9 of the same law, your report to the Census Bureau is confidential. Only sworn Census Bureau employees will see the information reported and will use it only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Your cooperation in returning the completed form by **March 15** will help to make possible the timely release of the survey results. If you need additional time to complete the report or need additional forms, call (812) 288-3331. If you have any questions, call the Special Surveys Branch of our Industry Division on (301) 763-1755. Your Census Bureau appreciates your help.

Sincerely,

HARRY A. SCARR

1993
SURVEY OF POLLUTION ABATEMENT
COSTS AND EXPENDITURES

PLEASE COMPLETE THIS WORKBOOK. COPY THE
ANSWERS TO THE ENCLOSED ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET.

SUBJECT and PURPOSE

This annual survey collects new capital expenditures and annual operating expenses for pollution abatement in manufacturing. It also covers cost offsets for reclaiming valuable materials or energy as a result of pollution abatement efforts.

Pollution abatement is for the purpose of reducing, eliminating, or disposing of unwanted emissions or wastes that are created by the production process and harmful to the environment or the removal of pollution created by prior years production. For this survey, only expenditures with the primary purpose of protecting the environment are included. This survey does not collect expenditures intended to meet worker safety and health requirements. It also does not include expenditures that abate pollution when the primary purpose is to increase profits or cut costs, and the environmental protection is a side benefit.

The ***statistics from this survey*** are mainly used by the Bureau of Economic Analysis to incorporate pollution abatement expenditures into the national income and product accounts and by the Environmental Protection Agency to monitor the economic impact of environmental programs. Other data users include: other Federal agencies, state and local governments, trade associations, manufacturers, marketing and research companies, universities, financial institutions, and environmental reporters.

AUTHORITY and CONFIDENTIALITY

Response to this inquiry is ***required by law*** (Title 13, U.S. Code). By Section 9, of Title 13, U.S. Code, your report to the Census Bureau is ***confidential***. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The data can not be used for regulation or enforcement. Copies of your report retained in your files are ***immune from legal process***.

HOW TO REPORT

This report is required only for the establishment located at the address named in the address box on the answer sheet. **DO NOT COMBINE** with other establishments in your company even though operations may jointly use the same pollution abatement facilities. When this occurs, apportion the costs and expenditures according to the rate of pollution abatement equipment utilization or the relative amounts of pollutants produced.

All respondents should complete Item 1, **Operational Status**. Review Section B on page 6, **Screening for Pollution Abatement Costs and Expenditures**. Complete Item 2, **Total Pollution Abatement Costs and Expenditures**, and follow Item 2 instructions.

Answer all questions. If you can not answer a question from your plant records, please estimate the answer carefully. In some cases, identification of pollution abatement expenditures may require the joint efforts of your establishment's financial and engineering staff. Report all value figures in thousands of dollars. Report data for the calendar year. If calendar year book figures are not available except at considerable cost, reasonable estimates are acceptable. If your fiscal year ends between October 31 and February 28, fiscal year figures are acceptable.

This booklet contains general definitions and specific instructions for each item. Each item's instructions include a guide listing examples of expenditures. In most cases these lists will provide sufficient information for completing this survey form.

For further details or definitions, see the following acts:

Clean Air Act and Amendments
 Clean Water Act and Amendments
 Resource Conservation and Recovery Act and Amendments
 Pollution Prevention Act of 1990
 Comprehensive Environmental Responses, Compensation, and Liability Act
 Superfund Amendments and Reauthorization Act
 Noise Pollution Control Act

For the most recent amendments to these acts write:

U.S. House of Representatives
 Document Room
 Ford Building, Room B18
 Washington, DC 20515-6622

This survey is directed to manufacturing operations. The information requested supplements the data collected in the annual survey of manufactures. If you think that you are **not a manufacturing operation**, call our analysts at (301) 763-1755 for instructions. **NOTE:** Printing and publishing operations, logging, machine shops, and boat repair are included in manufacturing.

If you have **questions** or **suggestions** regarding this report, please call the Special Surveys Branch on (301) 763-1755. Please refer to the Census Bureau file number (the 11-digit number above the plant name in the address box) when calling or in written correspondence.

DUE DATE

Complete the answer sheet and return it by **March 15** in the enclosed prepaid envelope to:

Bureau of the Census
 1201 East 10th Street
 Jeffersonville, IN 47132-0001

DO NOT RETURN THIS WORKBOOK.

If you need **additional time** to complete the report, or if you need a **duplicate workbook** or answer sheet, please call our Jeffersonville office at **(812) 288-3331**.

RESPONSE TIME

Public reporting burden for this collection of information is estimated to vary from 45 minutes to 35 hours per form (with an average of 2-1/2 hours), including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send **comments** regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project (0607-0176), Room 2027, FB 3, Bureau of the Census, Washington, DC 20233-0001; and to the Office of Management and Budget, Paperwork Reduction Project (0607-0176), Washington, DC 20503.

ELECTRONIC REPORTING

For **information** concerning the possible use of reporting formats other than the form provided, such as computer tape or printouts, contact our Special Surveys Branch on (301) 763-1755.

PUBLICATION OF RESULTS OF THIS SURVEY

Industry estimates are tabulated and published in the Current Industrial Report, Pollution Abatement Costs and Expenditures, MA-200. Companies reporting in this survey may obtain a copy of this publication without charge by marking the check box on the answer sheet for a copy of the **MA-200 publication**. You also may request a copy without charge by writing to the Bureau of the Census, Industry Division, Federal Office Building 4, Room 2105, Washington, DC 20233-0001.

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SECTION A - OPERATIONAL STATUS

► **ITEM 1 - OPERATIONAL STATUS**

Check **one box** which best describes this establishment on December 31 *of the survey year.*

IN OPERATION

If you operated the plant or operations for the entire year, **CONTINUE WITH SECTION B.**

If you operated the plant or operations (possessed the book records) on December 31 but for less than the entire survey year, indicate the month purchased or started up:

Month

--	--

 and **CONTINUE WITH SECTION B.**

TEMPORARILY IDLE

If the plant or operations were idle for part or all of the survey year, **CONTINUE WITH SECTION B.**

PERMANENTLY CEASED OPERATIONS, NOT YET SOLD OR DISMANTLED

CONTINUE WITH SECTION B.

DISMANTLED, OR QUIT LEASE

Check this box on the answer sheet. **COMPLETE ITEM 13** of the answer sheet and return it.

SOLD

Complete the following information on the answer sheet. If the book records were relinquished in the sale, **COMPLETE ITEM 13** and return it. If you retain the book records, **CONTINUE WITH SECTION B.**

SOLD INFORMATION																		
Date sold:	Month <table border="1" style="display: inline-table;"><tr><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td></tr></table> Year <table border="1" style="display: inline-table;"><tr><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td></tr></table>																	
Sold to:																		
Name _____																		
Street _____																		
City _____																		
State _____	ZIP _____																	
Employer Identification <table border="1" style="display: inline-table;"><tr><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td><td style="width: 20px; height: 20px;"> </td></tr></table>																		

Failure to return the answer sheet will require the issuance of letters and duplicate forms. Save tax dollars by sending your response in on time.

SECTION B – SCREENING FOR POLLUTION ABATEMENT COSTS AND EXPENDITURES

This survey collects the following types of expenditures for pollution abatement and environmental protection:

1. Capital expenditures for pollution abatement structures or equipment added to the production process, **and** for structures and equipment with built-in pollution abatement features to reduce generation of air pollutants, water pollutants, or solid/contained wastes.
2. Operating expenses for operating pollution abatement equipment; for removal or disposal of pollutants including **trash removal or sewage service**; for testing and monitoring of emissions or wastes; for pollution abatement audits, reports, studies, or operating procedures development.
3. Costs and expenditures for cleaning up contaminants from the site.
4. Costs and expenditures for other environmental protection such as expenditures to reduce noise pollution, radiation, or multimedia expenses.

Note: Some common pollution abatement expenses are for the removal of **garbage, paints, boxes, discarded cans, used oils, and inks** resulting from the production process.

► **ITEM 2 – TOTAL POLLUTION ABATEMENT COSTS AND EXPENDITURES**

Check **all** appropriate boxes to indicate the types of pollution abatement expenditures at this location and proceed as instructed.

No operating expenses or capital expenditures for pollution abatement. Your production process does not generate pollutants, or all your potential pollutants are recycled.

Costs either included in rent or not charged. All pollution abatement expenses were included in rent, taxes, lease agreement, **or** waste removal at no charge (such as a scavenger service)

Pollution abatement operating expenses and capital expenditures **each** were less than \$500 but greater than zero

*You have no pollution or do not need to report any. Check this box on the answer sheet. Complete **ITEM 13** of the answer sheet and return it.*

Annual pollution abatement operating expenses exceeding \$500

*Complete **Section D** starting on page 8*

Capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features

*Complete **Section E** starting on page 11*

Costs and expenditures for underground storage tanks

*Complete **Section F** starting on page 13*

Costs and expenditures exceeding \$500 for site cleanup

*Complete **Section G** starting on page 14*

OTHER environmental protection costs and expenditures exceeding \$500

*Complete **Section H** starting on page 15*

*Read **Section C**, General Definitions, on page 7 first*

SECTION C - GENERAL DEFINITIONS

MEDIA

Report expenditures by the media, **air, water, or solid/contained (land) waste**, that would be affected by the pollutants if the pollutants were not reduced, eliminated, or disposed of. See the hazardous versus nonhazardous pollutants section below for examples of the types of wastes affecting each media.

TECHNIQUES FOR POLLUTION ABATEMENT

Treatment refers to the wide variety of techniques used on wastes to cool, detoxify, decompose, and separate-to-store or ameliorate.

Collection/Disposal refers to the collection, storage, transport, processing, and disposal of solid waste by incineration, sanitary or other landfill methods, and disposing in authorized areas.

Waste minimization is any practice which prevents, reduces, eliminates, or recovers and reuses emissions or wastes so as to avoid treatment or collection/disposal. Waste minimization includes source reduction and recycling.

Source reduction is any practice which prevents or reduces the amount of emissions or waste generated for recycling, treatment, or collection/disposal. This can be accomplished by equipment/technology changes, process procedure modifications, product reformulation/redesign, raw material substitutions (including improved catalysts and reuse of waste or water), and improvements in housekeeping, maintenance, training, or inventory control.

Recycling is a method of waste management in which waste is recovered and reused for its material or energy values. The waste can be reused in the production process or sold to an outside party as material. We are including the burning of flammable wastes for energy recovery as recycling. Closed loop recovery systems are recycling.

HAZARDOUS VERSUS NONHAZARDOUS POLLUTANTS

Hazardous air pollutants are those regulated under Section 112 of the Clean Air Act. Examples include arsenic, benzene, beryllium, mercury, and vinyl chloride. **Nonhazardous air pollutants** examples typically include particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, volatile organic compounds (VOC), and lead. Hazardous particulates and VOCs should be reported as hazardous.

Hazardous water pollutants are toxic metals/toxic inorganic compounds, and toxic organic compounds as listed by the Clean Water Act. Examples of toxic metals and inorganic compounds include antimony, arsenic, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, thallium, and zinc. Examples of toxic organic compounds are benzene, chlorethane, toluene, and zylene. **Nonhazardous water pollutants** examples include conventional pollutants such as detergents and food wastes, and nonconventional pollutants.

Hazardous solid/contained wastes are listed under Subtitle C of the Resource Conservation and Recovery Act. Oils and inks are common hazardous contained liquid wastes. **Nonhazardous solid/contained waste** examples include boxes, nails, containers, sawdust, scrap metal, scrap wood, sewage sludge, dredged spoils, incinerator residue, and wrecked or discarded equipment.

SECTION D – ANNUAL OPERATING EXPENSES AND COST OFFSETS FOR POLLUTION ABATEMENT

GUIDE FOR ITEMS 3-5

The following list describes the types of expenses to report in this section. The list is intended to be a guide and is not complete.

Include operating expenses for:

- private contractor collection/disposal of waste created by the production process (Report in Item 3, line d – Contract Work.)
- sewage or solid/contained waste collection/disposal paid to Federal, State, or local governments (Report only in Item 5.)
- handling, treatment, or disposal of wastes created by the production process
- testing and monitoring of emissions or wastes
- operating and maintaining pollution abatement equipment
- fuel and power costs for operating pollution abatement equipment
- incremental costs for consumption of environmentally preferable materials and fuels
- conducting environmental studies for development or expansion
- parts for pollution abatement equipment replacement and repair
- leasing of pollution abatement equipment
- compliance and environmental auditing
- salaries and wages for time spent completing environmental reporting requirements
- developing pollution abatement operating procedures
- permits and costs incurred obtaining permits

Exclude operating expenses for:

- collection/disposal of office and cafeteria trash (If you can not separate from industrial, report the entire amount.)
- sanitary sewage (If you can not separate from industrial, report the entire amount.)
- health, safety, environmental aesthetics, or employee comfort (OSHA)
- research and development services
- manufacture of pollution abatement equipment
- taxes, fines, legal fees, superfund taxes and contributions, insurance
- interest for financing pollution abatement capital expenditures
- clean up of spills (Report in Item 10.)
- substituted materials in products to abate pollution either in the production process or from the product. Costs to reformulate products to eliminate or reduce pollution from the production process are reportable.
- abatement activities that are a normal operating procedure and would continue in the absence of pollution abatement legislation

Trash and hazardous material pick up by a private contractor are reported in Item 3, line d, solid/contained waste. Trash pick up by a government agency is reported in Item 5, line b.
Sewage costs paid to a private contractor are reported in Item 3, line d, water. Sewage costs paid to a government agency are reported in Item 5, line a.

▶ ITEM 3 – OPERATING EXPENSES FOR POLLUTION ABATEMENT EXCEPT PAYMENTS TO GOVERNMENTS

Report pollution abatement annual operating expenses by media and expense category for the survey year. If all operating expenses fall between \$500–\$1,000, round up to \$1,000, and report in the most applicable category. See Section C on page 7 for media definitions.

Depreciation – Report depreciation for all pollution abatement structures and equipment in place as of December 31 of the survey year.

Salary & Wages – Follow the definition of salary and wages used for calculating the withholding tax. Report the gross earnings. Exclude supplemental labor costs.

Materials – Report the delivered cost of materials, parts, and components that were used as operating supplies for pollution abatement, or used in repair or maintenance of pollution abatement capital assets.

Expense Category	Media		
	Air	Water	Solid/Contained Waste
a. Depreciation	\$, ,000	\$, ,000	\$, ,000
b. Salaries & Wages	\$, ,000	\$, ,000	\$, ,000
c. Fuel & Electricity	\$, ,000	\$, ,000	\$, ,000
d. Contract Work/Services	\$, ,000	\$, ,000	\$, ,000
e. Materials, Leasing, Miscellaneous	\$, ,000	\$, ,000	\$, ,000
f. Total	\$, ,000	\$, ,000	\$, ,000

▶ ITEM 4 – OPERATING EXPENSES FOR HAZARDOUS POLLUTANTS

Percent hazardous – Report percents of dollars reported in Item 3, line f which are for the abatement of hazardous pollutants. For example, if the expenses for the abatement of pollutants are intended to abate only hazardous pollutants, report 100% in the appropriate category below. Report zero (0) when no hazardous pollutants are abated. Estimate the percentage of expenditures directed to hazardous pollutants when both hazardous and nonhazardous pollutants are abated. See Section C on page 7 for hazardous pollutants definitions.

Percent Hazardous	Air	Water	Solid/ Contained Waste
		.0%	.0%	.0%

▶ ITEM 5 – PAYMENTS TO GOVERNMENTS FOR POLLUTANT REMOVAL

Payments to governments includes payments to Federal, State, county, or local governmental units for sewage services or solid/contained waste collection/disposal for the survey year.

Payments to governments for:	
a. Sewage Services	\$, ,000
b. Solid/Contained Waste Collection/Disposal	\$, ,000
c. Total	\$, ,000

GUIDE FOR ITEM 6

Pollution abatement **cost offsets** (usually the value of recovered materials and energy) are pollution abatement operating expenses recovered as a result or an off-shoot of pollution abatement techniques. See Section C on page 7 for techniques definitions. There are conditions for which the techniques have cost offsets associated with them. Cost offsets must be related to production and for environmental protection. There must be a pollution abatement expense against which the cost offset is counted. *The offset may be greater than the expense.*

Conditions consistent with cost offsets:

- waste minimization (source reduction or recycling) for environmental protection
- energy recovery for environmental protection

Conditions not consistent with cost offsets:

- waste minimization (source reduction or recycling) for production efficiency or profit
- recycling of waste not related to production, such as cafeteria and office trash
- recycling that is your primary product, that is, you are a recycling plant
- savings due to better planning that avoided operating expenses
- tax credits

The list is intended to be a guide and is not complete.

Examples of cost offsets:

As an environmental protection alternative to used oil disposal, a printing plant has used machinery oil picked up by a hazardous waste collection and treatment service. The service charges a fee. The fee is reported in Item 3. The service returns the oil clean. Thus, the printer avoids buying new oil. The value of the oil is an offset to the service's fees.

A manufacturer purchases a cardboard baler. The capital expenditure is reported in Item 7. The costs of operating the baler are reported in Item 3. The manufacturer sells the cardboard to a recycler. The activity is not a potentially profit making venture; it is conducted for environmental protection. The revenues received from the recycler are cost offsets.

A manufacturer installs a closed loop recovery system in the production process so as to prevent the dumping of the chemicals into the water system. Since the closed loop recovery system recaptures and reuses the chemicals in the production process, it reduces expenses for chemicals. The pollution abatement portion of the capital expenditure pertaining to the closed loop recovery system is reported in Item 7. The operating expenses to maintain the system are reported in Item 3. The value of the recovered chemicals is reported as a cost offset.

Examples that are not cost offsets:

A copper smelter collects copper particulates in filters and sells the copper. The activity is viewed as necessary for profit goals.

Rejects and scraps are further processed at a bakery and are sold as animal feed for profit. This would be done even in the absence of environmental protection objectives.

A household cooking equipment manufacturer recaptures porcelain enamel particulates in air bags and reuses the material in the production process. The value of the particulates is substantial. The activity is viewed as necessary for profit goals.

▶ ITEM 6 – POLLUTION ABATEMENT COST OFFSETS

Note: Do not reduce the costs reported in Item 3 by the estimates here.

Air (a)	Water (b)	Solid/Contained Waste (c)	Total
\$, ,000	\$, ,000	\$, ,000	\$, ,000

SECTION E – NEW CAPITAL EXPENDITURES FOR ABATEMENT OF POLLUTANTS

GUIDE FOR ITEMS 7-8

New capital expenditures for pollution abatement are all outlays during the survey year for pollution abatement structures and equipment that are chargeable to fixed asset accounts, and for which depreciation or amortization reserves (accounts) are maintained. Report only those capital outlays actually made during the year, not the final value of equipment put in place or the building completed during the year. If leasing arrangements meet Financial Accounting Standards Board criteria, please report the original cost or market value of the structure or equipment as a new capital expenditure. **Do not report total capital expenditures.** Total capital expenditures are reported on your annual survey of manufacturers (ASM). Report only the portions of capital expenditures that are for pollution abatement as defined by this survey.

Pollution abatement structures and equipment are of two types: **end-of-line** and **production process**.

End-of-line structures or equipment reduce pollutants after their generation. These are separately identifiable (retrofit) treatment facilities that are installed exclusively for the purpose of abating pollutant emissions or wastes. Report the entire end-of-line expenditure.

Production process enhancements (or replacements, additions, or alterations) reduce or eliminate the generation of pollutants by converting processes and equipment to enable waste minimization (source reduction or recycling), or to enable additional uses of water prior to discharge. Report the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built-in.)

Special instructions: Estimating the pollution abatement portion (distinct from production efficiency, energy conservation, employee safety, etc.) of a process enhancement may not be feasible in all cases. For these cases, report in this manner: Do **not** include any of the project cost **unless** the primary purpose is environmental protection. If the primary purpose of the project is environmental protection, report the whole production process enhancement project expenditure. Indicate in the remarks section that this is the case. **Caution:** A project with the primary purpose of improving production efficiency may include pollution abatement features added to meet legal requirements. Since the primary purpose of such a project is still not environmental protection, do not report **any** of the production process enhancement.

Examples of Pollution Abatement Capital

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line Structures and Equipment	dust collectors, scrubbers, precipitators	trickling filters, settling ponds, clarifiers, spill containment dikes	cardboard balers, compactors, bins, improved containments for waste, incinerators
Production Process Enhancements	conversion to substitute fuels that generate fewer pollutants	conversion to a closed or partially closed loop system for pollution abatement	conversion to enable recycling scrap materials, converting piping for greater pollution prevention

The following list further describes the capital expenditures to report in this section. The list is intended to be a guide and is not complete.

Include new capital expenditures for:

- end-of-line structures or equipment: new, replacement, and/or expansion, intended for environmental protection
- the pollution abatement **portion** of production process enhancements intended for environmental protection
- pollution monitoring and testing equipment (Report as production process.)
- construction in progress intended for environmental protection including pollution abatement expenditures at a plant under construction intended to replace current plant
- waste storage facilities (Report tanks in Section F, Item 9.)

Exclude new capital expenditures for:

- pollution abatement end-of-line structures or equipment, or production process enhancements intended to maximize efficiency or profit
- research and development
- health, safety, environmental aesthetics or employee comfort (OSHA)
- recycling equipment if your primary product is recycling, that is, you are a recycling plant
- motor vehicles with pollution abatement devices, or refitting motor vehicles with pollution abatement devices
- production of pollution abatement equipment that is your primary product, that is, you are a pollution abatement equipment manufacturer
- projects undertaken exclusively for the purpose of insuring adequate water supply for production

► **ITEM 7 – NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA**

For each media, report your pollution abatement end-of-line structures and equipment expenditures; the pollution abatement **portion** of your spending for production process enhancements; and the total of your end-of-line and your production process responses. Report the percentage of each total by media, except air, which is directed to hazardous pollutants. (Item 8 asks for the percentage for air.) Report for the survey year.

Exclude tanks from ITEM 7. Report capital expenditures for installation of safeguards or replacement of inferior underground storage tank systems in SECTION F, ITEM 9. Capital expenditures for other tank systems are not collected on this survey.

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	\$, ,000	\$, ,000	\$, ,000
Production Process (pollution abatement portion)	\$, ,000	\$, ,000	\$, ,000
Total by Media	\$, ,000	\$, ,000	\$, ,000
Percent Hazardous	See Item 8.	.0%	.0%

▶ ITEM 8 - TYPE OF AIR POLLUTANTS

Report the percentage of new capital expenditures for air pollution abatement from Item 7 by the type of pollutant the structure or equipment will abate. For example, if expenditures are intended to abate hazardous air pollutants and sulfur oxides equally, report 50% on the hazardous air pollutant line and 50% on the particulates, sulfur oxides etc. line.

a. Hazardous air pollutants		.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons – volatile organic compounds, and lead		.0%
c. Other nonhazardous air pollutants		.0%
d. Total	100	.0%

SECTION F - COSTS AND EXPENDITURES FOR UNDERGROUND STORAGE TANKS

▶ ITEM 9 - COSTS AND EXPENDITURES FOR UNDERGROUND STORAGE TANKS

GUIDE FOR ITEM 9

The following list describes the types of expenditures to report in this section. The list is intended to be a guide and is not complete.

Include costs and expenditures for:

- installation of safeguards for existing underground tanks
- replacement of inferior or leaking underground storage tanks
- removal of inferior or leaking underground storage tanks
- monitoring underground storage tanks

Report costs and expenditures for **underground storage tanks** for the survey year.

Annual operating expenses for removal of underground storage tanks	\$	,	,000
New capital expenditures for underground storage tanks	\$	,	,000

33
34
35
36
37

SECTION G – COSTS AND EXPENDITURES FOR SITE CLEANUP

GUIDE FOR ITEM 10

Site cleanup is the abatement of pollutant contamination from leaks, spills, past production processes, or at a former disposal site (Superfund). The pollution must be on the site of the establishment named on this survey form or from your plant's production process. Site cleanup is not reported by media. The following list describes the types of expenditures to report in this section. The list is intended to be a guide and is not complete.

Include costs and expenditures for:

- privately-paid site cleanup
- testing and monitoring
- compliance and environmental auditing
- environmental studies
- groundwater contamination cleanup
- reclamation for pollution abatement

Exclude costs and expenditures for:

- government-paid site cleanup
- taxes, fines, permits, legal fees such as for settling liability and other issues, superfund taxes and contributions
- interest for financing pollution abatement capital expenditures
- reclamation to enhance property values or for aesthetics

▶ ITEM 10 – COSTS AND EXPENDITURES FOR SITE CLEANUP

Report costs and expenditures for site cleanup for the survey year.

Annual operating expenses for site cleanup	\$, ,000
New capital expenditures for site cleanup	\$, ,000

SECTION H - COSTS AND EXPENDITURES FOR ABATEMENT OF OTHER POLLUTANTS

GUIDE FOR ITEMS 11-12

OTHER pollution abatement costs and expenditures cover pollution emissions or wastes that can not be reasonably allocated by media. Media are defined in Section C on page 7.

Include costs and expenditures for:

- noise pollution control that would otherwise disturb the surrounding community
- protection against radiation that would otherwise reach the surrounding environment
- multimedia expenses, that is, expenses that can not be allocated to one particular media (such as administrative costs for an on-site environmental office or lab)

▶ **ITEM 11 - COST AND EXPENDITURES FOR OTHER POLLUTANTS**

Report costs and expenditures for OTHER pollutants for the survey year.

Annual operating expenses for OTHER pollution abatement	\$, ,000
New capital expenditures for OTHER pollution abatement	\$, ,000

▶ **ITEM 12 - TYPE OF OTHER POLLUTANTS**

Check the type(s) of pollutants abated by the expenditures reported in ITEM 11.

- Noise pollution that would otherwise disturb the surrounding community
- Radiation that would otherwise reach the surrounding environment
- Multimedia expenses
- Other pollutants within the scope of this survey but not reported elsewhere on this form.
Please specify in remarks.

SECTION I - CERTIFICATION

▶ **ITEM 13 - CERTIFICATION** - Certify the answer sheet. For this workbook, record the name of the person who can clarify the data reported in this year's survey.

Name of person to contact regarding this report (<i>Print or type</i>)	Telephone		
	Area code	Number	Extension

**COPY YOUR ANSWERS TO THE ENCLOSED ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET.**

THANK YOU FOR YOUR COOPERATION.

**COPY YOUR ANSWERS TO THE ENCLOSED ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET.
THANK YOU FOR YOUR COOPERATION.**

PLEASE TURN THIS BOOKLET OVER AND BEGIN THE SURVEY WITH THE LETTER.

FORM **IA-200**
(11-19-93)

OMB NO.0607-0176: Approval Expires 09/30/95

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

**1993
SURVEY OF POLLUTION ABATEMENT
COSTS AND EXPENDITURES**

PLEASE COMPLETE THE WORKBOOK.
COPY THE ANSWERS
TO THIS ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET TO:

**Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132-0001**

Mark changes to name, contact, or physical location above.
Report mailing address changes in remarks.

ITEM 1 - OPERATIONAL STATUS

Check **one box** which best describes this establishment on
December 31 **of the survey year.**

011 **IN OPERATION** Indicate month purchased
or started up if
applicable in 1992: → Month

012 **TEMPORARILY
IDLE**

013 **PERMANENTLY CEASED
OPERATIONS, NOT YET SOLD
OR DISMANTLED**

014 **DISMANTLED
OR QUIT LEASE**

015 **SOLD** _____

SOLD INFORMATION	
Date sold:	Month <input type="text"/> <input type="text"/> Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Sold to:	
021 Name	_____
022 Street	_____
023 City	_____
024 State	_____ 026 ZIP _____
Employer 025 Identification	<input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

ITEM 2 – TOTAL POLLUTION ABATEMENT EXPENDITURES

- 211 **No** operating expenses or capital expenditures for pollution abatement. Your production process does not generate pollutants, or all your potential pollutants are recycled.
- 212 Costs either included in rent or not charged. All pollution abatement expenses were included in rent, taxes, lease agreement, **or** waste removal at no charge (such as a scavenger service)
- 213 Pollution abatement operating expenses and capital expenditures **each** were less than \$500 but greater than zero
- 214 Annual pollution abatement operating expenses exceeding \$500
- 215 Capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features
- 216 Costs and expenditures exceeding \$500 for underground storage tanks
- 217 Costs and expenditures exceeding \$500 for site cleanup
- 218 OTHER environmental protection costs and expenditures exceeding \$500

*You have no pollution or do not need to report any. Complete **ITEM 13** and return the answer sheet.*

Complete **Section D (Items 3–6)**

Complete **Section E (Items 7–8)**

Complete **Section F (Item 9)**

Complete **Section G (Item 10)**

Complete **Section H (Items 11–12)**

ITEM 3 – OPERATING EXPENSES FOR POLLUTION ABATEMENT EXCEPT PAYMENTS TO GOVERNMENT

Expense Category	Media		
	Air	Water	Solid/Contained Waste
a. Depreciation	301 \$, ,000	311 \$, ,000	321 \$, ,000
b. Salaries & Wages	302 \$, ,000	312 \$, ,000	322 \$, ,000
c. Fuel & Electricity	303 \$, ,000	313 \$, ,000	323 \$, ,000
d. Contract Work/Services	304 \$, ,000	314 \$, ,000	324 \$, ,000
e. Materials, Leasing, Miscellaneous	305 \$, ,000	315 \$, ,000	325 \$, ,000
f. Total	306 \$, ,000	316 \$, ,000	326 \$, ,000

ITEM 4 – OPERATING EXPENSES FOR HAZARDOUS POLLUTANTS

Percent Hazardous	Air	Water	Solid/ Contained Waste
	401 .0%	411 .0%	421 .0%

ITEM 5 - PAYMENTS TO GOVERNMENTS FOR POLLUTION REMOVAL

Payments to governments for:	
a. Sewage Services	501 \$, ,000
b. Solid/Contained Waste Collection/Disposal	502 \$, ,000
c. Total	503 \$, ,000

ITEM 6 - POLLUTION ABATEMENT COST OFFSETS

Air (a)	Water (b)	Solid/Contained Waste (c)	Total
601 \$, ,000	611 \$, ,000	621 \$, ,000	631 \$, ,000

ITEM 7 - NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	701 \$, ,000	711 \$, ,000	721 \$, ,000
Production Process (pollution abatement portion)	702 \$, ,000	712 \$, ,000	722 \$, ,000
Total by Media	703 \$, ,000	713 \$, ,000	723 \$, ,000
Percent Hazardous	See Item 8.	714 .0%	724 .0%

ITEM 8 - TYPE OF AIR POLLUTANTS

a. Hazardous air pollutants	801 .0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons - volatile organic compounds, and lead	802 .0%
c. Other nonhazardous air pollutants	803 .0%
d. Total	100 .0%

PA-2(I)
(10-93)

OMB No. 0607-0176:
Approval Expires 09/30/95



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001
OFFICE OF THE DIRECTOR

FROM THE ACTING DIRECTOR
BUREAU OF THE CENSUS

Industrial firms are devoting a significant share of their resources for pollution abatement. Consequently, it is important that accurate and timely statistics be available on a broad national basis so that business, Government, and the general public can better evaluate the economic implications of such costs. The annual "Plant and Equipment Survey Supplement for Pollution Abatement" provides this information.

This report covers the operations of the company identified in the address box. Please read the general instructions carefully. If actual records are not available, carefully prepared estimates are acceptable.

The law (Title 13, United States Code, Sections 182, 224, and 225) requires response to this inquiry. By Section 9 of the same law, your report to the Census Bureau is confidential. Only sworn Census Bureau employees will see the information reported and will use it only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Your cooperation in returning the completed form by **March 15** will help to make possible the timely release of the survey results. If you need additional time to complete the report, require additional forms, or if you have any questions, call the Special Surveys Branch of our Industry Division on (301) 763-1755. Your Census Bureau appreciates your help.

Sincerely,

HARRY A. SCARR

**1993
PLANT AND EQUIPMENT SURVEY
SUPPLEMENT FOR POLLUTION ABATEMENT**

PLEASE COMPLETE THIS WORKBOOK. COPY THE
ANSWERS TO THE ENCLOSED ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET.

SUBJECT and PURPOSE

This annual survey collects total new domestic capital expenditures and pollution abatement new domestic capital expenditures.

Pollution abatement is for the purpose of reducing or eliminating, or disposing of unwanted emissions or wastes that are harmful to the environment or the removal of pollution created by prior years activities. For this survey, only expenditures which have the primary purpose of protecting the environment are included. This survey does not collect expenditures intended to meet worker safety and health requirements. It also does not include expenditures that abate pollution when the primary purpose is to increase profits or cut costs, and the environmental protection is a side benefit.

The *statistics from this survey* are mainly used by the Bureau of Economic Analysis in the environmental accounts that assess the effect of pollution control programs on investment and overall economic performance. Other data users include: other Federal agencies, state and local governments, trade associations, manufacturers, marketing and research companies, universities, financial institutions, and environmental reporters.

AUTHORITY and CONFIDENTIALITY

Response to this inquiry is *required by law* (Title 13, U.S. Code). By Section 9 of Title 13, U.S. Code, your report to the Census Bureau is *confidential*. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The data can not be used for regulation or enforcement. Copies of your report retained in your files are *immune from legal process*.

HOW TO REPORT

Report for all operations, including active and inactive sites, of the company named in the address box on the answer sheet. All respondents should complete Item 1, **Operational Status**. Review Section B on page 7, **Screening for Pollution Abatement New Capital Expenditures**. Complete Item 2, **Total New Capital Expenditures and Pollution Abatement New Capital Expenditures**, and follow Item 2 instructions.

This booklet contains general definitions and specific instructions for each item. Each item's instructions include a guide listing examples of expenditures. In most cases these lists will provide sufficient information for completing this survey form.

Answer all questions. If you can not answer a question from your company records, please estimate the answer carefully. In some cases, identification of pollution abatement new capital expenditures may require the joint efforts of your company's financial and engineering staff. Report all value figures in thousands of dollars. If the answer is zero, please report zero. Report data for the calendar year. If calendar year book figures are not available except at considerable cost, reasonable estimates are acceptable. If your fiscal year ends between October 31 and February 28, fiscal year figures are acceptable.

For further details or definitions, see the following acts:

- Clean Air Act and Amendments
- Clean Water Act and Amendments
- Resource Conservation and Recovery Act and Amendments
- Pollution Prevention Act of 1990
- Comprehensive Environmental Responses, Compensation, and Liability Act
- Superfund Amendments and Reauthorization Act
- Noise Pollution Control Act

For the most recent amendments to these acts, write:

U.S. House of Representatives
Document Room
Ford Building, Room B18
Washington, DC 20515-6622

If you have **questions** or **suggestions** regarding this report, please call the Special Surveys Branch on (301) 763-1755.

Please refer to the identification number (the 10-digit number above the company name in the address box) in calls or correspondence.

DUE DATE

Complete the answer sheet and return it by **March 15** in the enclosed prepaid envelope to:

Bureau of the Census
Industry Division
FOB 4 Room 2105
Washington, DC 20233-0001

DO NOT RETURN THIS WORKBOOK.

If you need **additional time** to complete the report, or if you need a **duplicate workbook** or answer sheet, please call our Special Surveys Branch on (301) 763-1755.

RESPONSE TIME

Public reporting burden for this collection of information is estimated to vary from 45 minutes to 60 hours per form (with an average of 2-1/2 hours), including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project (0607-0176), Room 2027, FB 3, Bureau of the Census, Washington, DC 20233-0001; and to the Office of Management and Budget, Paperwork Reduction Project (0607-0176), Washington, DC 20503.

ELECTRONIC REPORTING

For **information** concerning the possible use of reporting formats other than the form provided, such as computer tape or printouts, contact our Special Surveys Branch on (301) 763-1755.

PUBLICATION OF RESULTS OF THIS SURVEY

Industry estimates will be tabulated and published in the Current Industrial Report, Pollution Abatement Costs and Expenditures, MA-200. Companies reporting in this survey may mark the check box on the answer sheet to obtain a copy of the **MA-200 publication** without charge. You also may request a copy by writing to the Bureau of the Census, Industry Division, Federal Office Building 4, Room 2105, Washington, DC 20233-0001.

SPECIAL NOTE FOR THE PETROLEUM INDUSTRY

This survey covers all of your domestic petroleum operations including exploration, production, refining, marketing, and transportation. Not reportable are nonpetroleum operations such as coal, shale, or mineral mining, and chemical operations.

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SECTION A - OPERATIONAL STATUS

▶ **ITEM 1 - OPERATIONAL STATUS**

Check the **one box** that best describes the company as a whole on December 31 of the survey year.

In operation on December 31 of the survey year.

No longer in operation on December 31 of the survey year.
Give date operations ceased:

Month Year

Change of ownership. Give date of change and ownership information:

Month Year

New Owner _____

Street _____

City _____

State _____ ZIP Code _____

CONTINUE WITH SECTION B ON PAGE 6.

*Failure to return the answer sheet will require the issuance of letters and duplicate forms.
Save tax dollars by sending your response in on time.*

SECTION B - SCREENING FOR POLLUTION ABATEMENT NEW DOMESTIC CAPITAL EXPENDITURES

This survey collects total new domestic capital expenditures and the following types of new capital expenditures for pollution abatement and environmental protection:

1. New domestic capital expenditures for pollution abatement structures or equipment added to the production process, *and* structures and equipment with built-in pollution abatement features to reduce generation of air pollutants, water pollutants, or solid/contained waste.
2. New domestic capital expenditures for cleaning up contaminants from the site.
3. New domestic capital expenditures for other environmental protection such as expenditures to reduce noise pollution, radiation, or multimedia expenditures.

▶ ITEM 2 - TOTAL NEW DOMESTIC CAPITAL EXPENDITURES AND POLLUTION ABATEMENT NEW CAPITAL EXPENDITURES

Check *all* appropriate boxes to indicate new domestic capital expenditures and the types of pollution abatement new domestic capital expenditures for this company and proceed as instructed.

Total new domestic capital expenditures for all purposes *Complete Section D starting on page 8*

No pollution abatement new domestic capital expenditures. Your operations do not generate pollutants, or all your potential pollutants were recycled, or you had no pollution abatement capital expenditures this year

Pollution abatement new domestic capital expenditures less than \$500 but greater than zero

You have no pollution or do not need to report any. Check this box on the answer sheet. Complete ITEM 10 of the answer sheet and return it.

New domestic capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features. *Complete Section E starting on page 9*

New domestic capital expenditures exceeding \$500 for site cleanup *Complete Section F starting on page 11*

OTHER environmental protection new domestic capital expenditures exceeding \$500 *Complete Section G starting on page 12*

Read Section C, General Definitions, starting on page 7, first.

SECTION C - GENERAL DEFINITIONS

MEDIA

Report expenditures by the media, **air, water, or solid/contained (land), waste**, that would be affected by the pollutants if the pollutants were not reduced, eliminated, or disposed of. See the hazardous versus nonhazardous pollutants section below for examples of the types of wastes affecting each media.

TECHNIQUES FOR POLLUTION ABATEMENT

Treatment refers to the wide variety of techniques used on wastes to cool, detoxify, decompose, and separate-to-store or ameliorate.

Collection/Disposal refers to the collection, storage, transport, processing, and disposal of solid waste by incineration, sanitary or other landfill methods, and disposing in authorized areas.

Waste minimization is any practice which prevents, reduces, eliminates, or recovers and reuses emissions or wastes so as to avoid treatment or collection/disposal. Waste minimization includes source reduction and recycling.

Source reduction is any practice which prevents or reduces the amount of emissions or waste generated for recycling, treatment, or collection/disposal. This can be accomplished by equipment/technology changes, process procedure modifications, product reformulation/redesign, raw material substitutions (including improved catalysts and reuse of waste or water), and improvements in housekeeping, maintenance, training, or inventory control.

Recycling is a method of waste management in which waste is recovered and reused for its material or energy values. The waste can be reused in the production process or sold to an outside party as material. We are including the burning of flammable wastes for energy recovery as recycling. Closed loop recovery systems are recycling.

HAZARDOUS VERSUS NONHAZARDOUS POLLUTANTS

Hazardous air pollutants are those regulated under Section 112 of the Clean Air Act. Examples include arsenic, benzene, beryllium, mercury, and vinyl chloride. **Nonhazardous air pollutants** examples typically include particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, volatile organic compounds (VOC), and lead. Hazardous particulates and VOCs should be reported as hazardous.

Hazardous water pollutants are toxic metals/toxic inorganic compounds, and toxic organic compounds as listed by the Clean Water Act. Examples of toxic metals and inorganic compounds include antimony, arsenic, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, thallium, and zinc. Examples of toxic organic compounds are benzene, chlorethane, toluene, and zylene. **Nonhazardous water pollutants** examples include conventional pollutants such as detergents and food, and nonconventional pollutants.

Hazardous solid/contained wastes are listed under Subtitle C of the Resource Conservation and Recovery Act. Oils and inks are common hazardous contained liquid wastes. **Nonhazardous solid/contained waste** examples include boxes, nails, containers, sawdust, scrap metal, scrap wood, sewage sludge, dredged spoils, incinerator residue, and wrecked or discarded equipment.

SECTION D - TOTAL NEW DOMESTIC CAPITAL EXPENDITURES

GUIDE FOR ITEM 3

New domestic capital expenditures are all outlays during the survey year for new structures and equipment that are chargeable to fixed asset accounts, and for which depreciation or amortization reserves (accounts) are maintained. Purchases of used structures and equipment are not new capital expenditures. Report only those capital outlays actually made during the year, not the final value of equipment put in place or the building completed during the year.

▶ **ITEM 3 - TOTAL NEW DOMESTIC CAPITAL EXPENDITURES**

This number is available on your **PE-4** or **PE-5** Plant and Equipment Survey.

Total new domestic capital expenditures including pollution abatement expenditures	\$ _____, _____,000
--	---------------------

SECTION E - NEW DOMESTIC CAPITAL EXPENDITURES FOR ABATEMENT OF POLLUTANTS

GUIDE FOR ITEMS 4-6

Pollution abatement new capital expenditures for structures and equipment are of two types: *end-of-line* and *production process*.

End-of-line structures or equipment reduce pollutants after their generation. These are separately identifiable (retrofit) treatment facilities that are installed exclusively for the purpose of abating pollutant emissions or wastes. Report the entire end-of-line expenditure.

Production process enhancements (or replacements, additions, or alterations) reduce or eliminate the generation of pollutants by converting processes and equipment to enable waste minimization (source reduction or recycling), or to enable additional uses of water prior to discharge. Report the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built-in.)

Special instructions: Estimating the pollution abatement portion (distinct from production efficiency, energy conservation, employee safety, etc.) of a process enhancement may not be feasible in all cases. For these cases, report in this manner: Do **not** include any of the project cost **unless** the primary purpose is environmental protection. If the primary purpose of the project is environmental protection, report the whole production process enhancement project expenditure. Indicate in the remarks section that this is the case. **Caution:** A project with the primary purpose of improving production efficiency may include pollution abatement features added to meet legal requirements. Since the primary purpose of such a project is still not environmental protection, do not report **any** of the production process enhancement.

Examples of Pollution Abatement Capital

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line Structures and Equipment	dust collectors, scrubbers, precipitators	trickling filters, settling ponds, clarifiers, spill containment dikes	cardboard balers, compactors, bins, improved containments for waste, incinerators
Production Process Enhancements	conversion to substitute fuels that generate fewer pollutants	conversion to a closed or partially closed loop system for pollution abatement	conversion to enable recycling scrap materials, converting piping for greater pollution prevention

The following list further describes the capital expenditures to report in this section. The list is intended to be a guide and is not complete.

Include new capital expenditures for:

- end-of-line structures or equipment: new, replacement, and/or expansion, intended for environmental protection
- the pollution abatement *portion of* production process enhancements intended for environmental protection
- pollution monitoring and testing equipment (Report as production process.)
- construction in progress intended for environmental protection including pollution abatement expenditures at plants under construction and intended to replace current plants
- waste storage facilities (Report tanks in Item 6.)

Exclude new capital expenditures for:

- pollution abatement end-of-line structures or equipment, or production process enhancements intended to maximize efficiency or profit
- research and development
- health, safety, environmental aesthetics or employee comfort (OSHA)
- recycling equipment if a plant's primary product is recycling, that is, it is a recycling plant
- motor vehicles with pollution abatement devices or refitting motor vehicles with pollution abatement devices
- production of pollution abatement equipment that is a plant's primary product, that is, it is a pollution abatement equipment manufacturer
- projects undertaken exclusively for the purpose of insuring adequate water supply for production

► **ITEM 4 – NEW DOMESTIC CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA**

For each media, report your pollution abatement end-of-line structures and equipment expenditures; the pollution abatement *portion* of your spending for production process enhancements; and the total of your end-of-line and your production process enhancements. Report the percentage of each total by media, except air, which is directed to hazardous pollutants. (Item 5 asks for this percentage for air.) Report for the survey year.

Exclude tanks from ITEM 4. Report capital expenditures for installation of safeguards or replacement of inferior storage tank systems in ITEM 6. Capital expenditures for other tank systems are not collected on this survey.

Percent hazardous – Report the percent of total expenditures for water and solid/contained waste which is for the abatement of hazardous pollutants. For example, if the expenses for the abatement of pollutants are intended to abate only hazardous pollutants, report 100% in the appropriate category below. Report 0 when no hazardous pollutants are abated. Estimate the percentage of expenditures directed to hazardous pollutants when both hazardous and nonhazardous pollutants are abated. See Section C on page 7 for hazardous pollutants definitions.

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	\$, ,000	\$, ,000	\$, ,000
Production Process (pollution abatement portion)	\$, ,000	\$, ,000	\$, ,000
Total by Media	\$, ,000	\$, ,000	\$, ,000
Percent Hazardous	See Item 5.	.0%	.0%

▶ ITEM 5 – TYPE OF AIR POLLUTANTS

Report the percentage of new capital expenditures for air pollution abatement from Item 4 by the type of pollutant the structure or equipment will abate. For example, if expenditures are intended to abate hazardous air pollutants and sulfur oxides equally, report 50% on the hazardous air pollutant line and 50% on the particulates, sulfur oxides etc. line.

a. Hazardous air pollutants		.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons – volatile organic compounds, and lead		.0%
c. Other nonhazardous air pollutants		.0%
d. Total	100	.0%

▶ ITEM 6 – NEW DOMESTIC CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS

Report new capital expenditures for *underground storage tanks* for the survey year.

Include new capital expenditures for:

- installation of safeguards for existing underground tanks
- replacement of inferior or leaking underground storage tanks

New domestic capital expenditures for underground storage tanks	\$,	,000
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SECTION F – NEW DOMESTIC CAPITAL EXPENDITURES FOR SITE CLEANUP

GUIDE FOR ITEM 7

Site cleanup is the abatement of pollutant contamination from leaks, spills, past production processes, or at a former disposal site (Superfund). The pollution must be on the property of the company named on this survey form or from your company's production process. Site cleanup is not reported by media. The following list describes the types of expenditures to report in this section. The list is intended to be a guide and is not complete.

Include site cleanup new capital expenditures for:

- privately paid-for site cleanup capital
- testing and monitoring equipment
- reclamation for pollution abatement
- groundwater contamination cleanup capital

Exclude site cleanup new capital expenditures for:

- government paid-for site cleanup
- interest for financing pollution abatement capital expenditures
- reclamation to enhance property values or for aesthetics

▶ ITEM 7 – NEW DOMESTIC CAPITAL EXPENDITURES FOR SITE CLEANUP

Report new capital expenditures for site cleanup for the survey year.

New domestic capital expenditures for site cleanup	\$,	,000
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SECTION G - NEW DOMESTIC CAPITAL EXPENDITURES FOR ABATEMENT OF OTHER POLLUTANTS

GUIDE FOR ITEMS 8-9

OTHER pollution abatement new capital expenditures cover pollution emissions or wastes that can not be reasonably allocated by media. Media are defined in Section C on page 7.

Include new capital expenditures for:

- noise pollution control that would otherwise disturb the surrounding community
- protection against radiation that would otherwise reach the surrounding environment
- multimedia expenditures, that is, expenses that can not be allocated to one particular media (such as capital expenditures for an environmental protection office or lab)

▶ **ITEM 8 - NEW DOMESTIC CAPITAL EXPENDITURES FOR OTHER POLLUTANTS**

Report new capital expenditures for other pollutants for the survey year.

New domestic capital expenditures for OTHER pollution abatement	\$,000
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▶ **ITEM 9 - TYPE OF OTHER POLLUTANTS**

Check the type(s) of pollutants abated by the new capital expenditures reported in ITEM 8.

- Noise pollution that would otherwise disturb the surrounding community
- Radiation that would otherwise reach the surrounding environment
- Multimedia expenditures
- Other pollutants within the scope of this survey but not reported elsewhere on this form - *Please specify in remarks.*

SECTION H - CERTIFICATION

▶ **ITEM 10 - CERTIFICATION** - Certify the answer sheet. For this workbook, record the name of the person who can clarify the data reported in this year's survey.

Name of person to contact regarding this report (<i>Print or type</i>)	Telephone		
	Area code	Number	Extension

**COPY YOUR ANSWERS TO THE ENCLOSED ANSWER SHEET.
RETURN ONLY THE ANSWER SHEET.
THANK YOU FOR YOUR COOPERATION.**

**THIS IS A WORKBOOK WITH AN ENCLOSED ANSWER SHEET FOR THE PLANT
AND EQUIPMENT SUPPLEMENT FOR POLLUTION ABATEMENT.**

PLEASE TRANSFER ALL ANSWERS TO THE ANSWER SHEET.

**COMPLETE ITEM 10, CERTIFICATION,
AND RETURN ONLY THE ANSWER SHEET
IN THE ENCLOSED ENVELOPE
TO OUR WASHINGTON OFFICE.**

THIS WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.

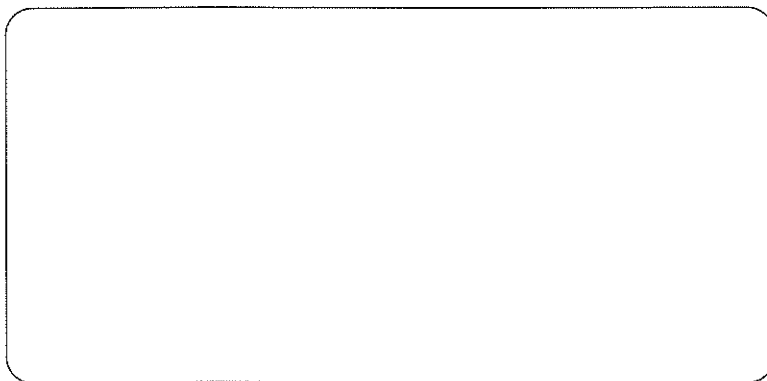
PLEASE TURN THIS BOOKLET OVER AND BEGIN THE SURVEY WITH THE LETTER.

OMB NO. 0607-0176: Approval Expires 09/30/95

FORM PA-2
(10-6-93)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

**1993
PLANT AND
EQUIPMENT SURVEY
SUPPLEMENT FOR
POLLUTION
ABATEMENT**



PLEASE COMPLETE THE WORKBOOK. COPY THE ANSWERS TO THIS ANSWER SHEET. RETURN ONLY THE ANSWER SHEET.

ITEM 1 - OPERATIONAL STATUS

- 011 **In operation** on December 31 of the survey year.
- 012 **No longer in operation** on December 31 of the survey year.
Give date operations ceased:

Month Year

- 013 **Change of ownership.** Give date of change and ownership information:

Month Year

021 New Owner _____

022 Street _____

023 City _____

024 State _____ 025 ZIP Code _____

ITEM 2 - TOTAL NEW DOMESTIC CAPITAL EXPENDITURES AND POLLUTION ABATEMENT NEW CAPITAL EXPENDITURES

- 211 Total new domestic capital expenditures for all purposes
- 212 **No** pollution abatement new domestic capital expenditures
- 213 Pollution abatement new domestic capital expenditures less than \$500 but greater than zero
- 214 New domestic capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features
- 215 New domestic capital expenditures exceeding \$500 for site cleanup
- 216 **OTHER** environmental protection new domestic capital expenditures exceeding \$500

ITEM 3 - TOTAL NEW DOMESTIC CAPITAL EXPENDITURES

Total new domestic capital expenditures including pollution abatement expenditures	301 \$ _____, _____,000
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ITEM 4 - NEW DOMESTIC CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	⁴⁰¹ \$, ,000	⁴²¹ \$, ,000	⁴³¹ \$, ,000
Production Process (pollution abatement portion)	⁴⁰² \$, ,000	⁴²² \$, ,000	⁴³² \$, ,000
Total by Media	⁴⁰³ \$, ,000	⁴²³ \$, ,000	⁴³³ \$, ,000
Percent Hazardous	See Item 5.	⁴²⁴ .0%	⁴³⁴ .0%

ITEM 5 - TYPE OF AIR POLLUTANTS

a. Hazardous air pollutants	⁵⁰¹	.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons - volatile organic compounds, and lead	⁵⁰²	.0%
c. Other nonhazardous air pollutants	⁵⁰³	.0%
d. Total	100	.0%

ITEM 6 - NEW DOMESTIC CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS

New domestic capital expenditures for underground storage tanks	⁶⁰¹ \$, ,000
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ITEM 7 - NEW DOMESTIC CAPITAL EXPENDITURES FOR SITE CLEANUP

New domestic capital expenditures for site cleanup	⁷⁰¹ \$, ,000
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ITEM 8 - NEW DOMESTIC CAPITAL EXPENDITURES FOR OTHER POLLUTANTS

New domestic capital expenditures for OTHER pollution abatement	⁸⁰¹ \$, ,000
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ITEM 9 - TYPE OF OTHER POLLUTANTS

- 901 Noise pollution that would otherwise disturb the surrounding community
 902 Radiation that would otherwise reach the surrounding environment
 903 Multimedia expenditures
 904 Other pollutants within the scope of this survey but not reported elsewhere on this form -
Please specify in remarks.

ITEM 10 - CERTIFICATION

This report is substantially accurate and has been prepared in accordance with instructions.

Remarks

Name of person to contact regarding this report (Print or type) ¹⁰¹	¹⁰² Telephone		
	Area code	Number	Extension
Signature of authorized person	Month	Day	Year

¹⁰³ Check here, if you would like a copy of the MA-200 publication without charge.

RETURN THIS ANSWER SHEET TO OUR WASHINGTON OFFICE.

THE WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.