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REAL POLLUTION ABATEMENT AND CONTROL SPENDING
INCREASED AGAIN IN 1985

Real spending for pollution abatement and control increased 4.0 percent to \$67.3 billion (1982 dollars) in 1985, according to the Commerce Department's Bureau of Economic Analysis. Real spending increased 7.8 percent in 1984 and 4.0 percent in 1983, following a 3-year decline.

Pollution abatement and control spending consists of spending by business, government, and persons to abate air and water pollution and to dispose of solid waste. Most of the spending is for the direct reduction of pollution; the remainder is for regulation and monitoring and for research and development.

Business pollution abatement spending increased 3.4 percent to \$40.8 billion. Most of the increase was due to an increase in spending to operate pollution abatement facilities and to purchase motor vehicle emission abatement devices on fleet cars and trucks; spending for plant and equipment for pollution abatement increased slightly. Government pollution abatement spending increased 5.3 percent to \$11.9 billion; construction of public sewer systems accounted for one-half of the increase. Pollution abatement spending by persons, which is for the purchase and operation of motor vehicle emission abatement devices, increased 7.3 percent to \$11.4 billion.

Regulation and monitoring spending declined 7.9 percent; federal spending declined substantially, and state and local government spending increased moderately. Research and development declined 1.1 percent; spending at all levels of government declined, and private spending increased slightly.

The following table summarizes real spending for pollution abatement and control in 1985 and changes from 1984 to 1985.

| | 1985 spending level | Change from preceding year | |
|--|----------------------------------|----------------------------------|-----------|
| | (Billions of 1982 dollars) | (Billions of 1982 dollars) | (Percent) |
| Pollution abatement and control | 67.3 | 2.58 | 4.0 |
| Pollution abatement | 64.0 | 2.70 | 4.4 |
| Personal consumption | 11.4 | .77 | 7.3 |
| Motor vehicle emission abatement devices | 7.6 | .62 | 8.9 |
| Operation of motor vehicle emission abatement devices | 3.8 | .15 | 4.1 |
| Business | 40.8 | 1.33 | 3.4 |
| Capital | 14.9 | .37 | 2.5 |
| Motor vehicle emission abatement devices | 4.6 | .29 | 6.8 |
| Plant and equipment | 7.9 | .03 | .3 |
| Other | 2.4 | .05 | 2.3 |
| Current account | 25.9 | .96 | 3.9 |
| Operation of motor vehicle emission abatement devices | 2.7 | .09 | 3.3 |
| Operation of plant and equipment | 16.3 | .17 | 1.1 |
| Operation of public sewer systems | 5.9 | .30 | 5.3 |
| Costs recovered ¹ | -1.2 | .32 | 21.0 |
| Other | 2.2 | .09 | 4.5 |
| Government | 11.9 | .60 | 5.3 |
| Public sewer system construction | 6.7 | .32 | 5.1 |
| Other | 5.2 | .27 | 5.6 |
| Regulation and monitoring | 1.1 | -.10 | -7.9 |
| Research and development | 2.1 | -.02 | -1.1 |

1. Costs recovered is the value of reclaimed materials from pollution abatement. Spending on current account is reported net of costs recovered.

By type of real spending, air pollution abatement spending increased 3.3 percent to \$31.3 billion; water pollution abatement spending increased 4.8 percent to \$25.1 billion; and solid waste disposal spending increased 3.1 percent to \$11.3 billion.

Prices of goods and services for pollution abatement and control increased 3.1 percent in 1985, slightly less than the increase in the GNP fixed-weighted price index.

Over the period for which data are available, 1972-85, real pollution abatement and control spending increased at an average annual rate of 3.5 percent. Spending increased 5.7 percent in 1972-79, declined 3.1 percent in 1979-82, and increased 5.3 percent in 1982-85. The overall increase in pollution abatement and control spending from 1972-85 was mainly due to increases in spending for purchases of motor vehicle emission abatement devices and in spending to operate all types of pollution abatement capital. The decline in 1979-82 was mainly due to declines in construction of public sewer systems and in purchases of industrial capital. The following table compares the distribution of major components of pollution abatement and control spending in 1972 and 1985.

| | <u>1972</u> | <u>1985</u> |
|---------------------------------|--------------------|-------------|
| | (Percent of total) | |
| Pollution abatement and control | 100.0 | 100.0 |
| Pollution abatement | 93.6 | 95.2 |
| Motor vehicles | 11.3 | 27.8 |
| Devices | 2.9 | 18.0 |
| Operation of devices | 8.4 | 9.8 |
| Industrial facilities | 43.2 | 36.1 |
| Capital | 20.8 | 11.8 |
| Operation of capital | 22.4 | 24.3 |
| Public sewer systems | 22.7 | 18.8 |
| Construction | 15.9 | 10.0 |
| Operation of systems | 6.8 | 8.8 |
| Other abatement | 16.4 | 12.5 |
| Regulation and monitoring | 1.8 | 1.7 |
| Research and development | 4.5 | 3.2 |

* * *

Additional discussion will appear in the May issue of the Survey of Current Business, the monthly journal of the Bureau of Economic Analysis. The Survey of Current Business is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. First class mail (domestic only): annual subscription \$50.00. Second class mail: annual subscription \$25.00 domestic, \$31.25 foreign; single issue \$5.00 domestic, \$6.25 foreign.

Table 1.--Expenditures for Pollution Abatement and Control in Current and Constant Dollars and Selected Fixed-Weighted Price Indexes

| | 1983 ^r | | | | | 1984 ^r | | | | | 1985 ^p | | | | |
|---|-------------------|--------|--------|-------------|------------------------------------|-------------------|--------|--------|-------------|------------------------------------|-------------------|--------|--------|-------------|------------------------------------|
| | Total | Air | Water | Solid waste | Other and unallocated ² | Total | Air | Water | Solid waste | Other and unallocated ² | Total | Air | Water | Solid waste | Other and unallocated ² |
| Millions of current dollars | | | | | | | | | | | | | | | |
| Pollution abatement and control..... | 61,779 | 28,419 | 23,214 | 10,469 | -323 | 68,908 | 31,418 | 25,955 | 12,119 | -584 | 73,824 | 33,177 | 28,121 | 12,985 | -458 |
| Pollution abatement ³ | 58,060 | 26,639 | 22,421 | 10,212 | -1,212 | 65,210 | 29,539 | 25,173 | 11,840 | -1,342 | 70,140 | 31,191 | 27,304 | 12,653 | -1,008 |
| Personal consumption..... | 9,771 | 9,771 | ..... | ..... | ..... | 10,814 | 10,814 | ..... | ..... | ..... | 11,886 | 11,886 | ..... | ..... | ..... |
| Durable goods..... | 6,214 | 6,214 | ..... | ..... | ..... | 7,323 | 7,323 | ..... | ..... | ..... | 8,230 | 8,230 | ..... | ..... | ..... |
| Nondurable goods and services..... | 3,557 | 3,557 | ..... | ..... | ..... | 3,492 | 3,492 | ..... | ..... | ..... | 3,656 | 3,656 | ..... | ..... | ..... |
| Business..... | 37,589 | 16,306 | 15,752 | 6,932 | -1,402 | 42,126 | 18,180 | 17,321 | 8,188 | -1,562 | 44,640 | 18,857 | 18,396 | 8,606 | -1,218 |
| On capital account..... | 13,278 | 7,468 | 5,005 | 805 | ..... | 15,492 | 8,809 | 5,653 | 1,030 | ..... | 16,264 | 9,128 | 5,896 | 1,241 | ..... |
| On current account..... | 24,311 | 8,838 | 10,747 | 6,127 | -1,402 | 26,635 | 9,371 | 11,668 | 7,158 | -1,562 | 28,376 | 9,730 | 12,500 | 7,365 | -1,218 |
| Private..... | 19,907 | 8,696 | 5,084 | 6,127 | ..... | 21,969 | 9,224 | 5,586 | 7,158 | ..... | 22,938 | 9,579 | 5,995 | 7,365 | ..... |
| Government enterprise..... | 5,805 | 143 | 5,663 | (*) | ..... | 6,229 | 147 | 6,082 | (*) | ..... | 6,657 | 151 | 6,506 | (*) | 1 |
| Costs recovered..... | -1,402 | ..... | ..... | ..... | -1,402 | -1,562 | ..... | ..... | ..... | -1,562 | -1,219 | ..... | ..... | ..... | -1,219 |
| Government..... | 10,700 | 562 | 6,670 | 3,279 | 189 | 12,269 | 545 | 7,852 | 3,652 | 220 | 13,613 | 448 | 8,908 | 4,068 | 210 |
| Federal..... | 795 | 136 | 443 | 119 | 97 | 944 | 115 | 492 | 197 | 140 | 1,114 | 110 | 639 | 230 | 135 |
| State and local..... | 3,547 | 4 | 290 | 3,161 | 92 | 3,882 | 14 | 333 | 3,455 | 80 | 4,305 | 10 | 403 | 3,818 | 75 |
| Government enterprise fixed capital..... | 6,358 | 422 | 5,936 | ..... | ..... | 7,443 | 416 | 7,027 | ..... | ..... | 8,194 | 328 | 7,866 | ..... | ..... |
| Regulation and monitoring..... | 1,385 | 327 | 473 | 158 | 427 | 1,362 | 351 | 475 | 180 | 355 | 1,314 | 355 | 524 | 229 | 206 |
| Federal..... | 806 | 88 | 241 | 72 | 405 | 743 | 101 | 219 | 76 | 346 | 635 | 105 | 240 | 90 | 200 |
| State and local..... | 579 | 239 | 232 | 85 | 22 | 619 | 250 | 256 | 104 | 9 | 679 | 250 | 284 | 139 | 6 |
| Research and development..... | 2,335 | 1,453 | 320 | 100 | 462 | 2,337 | 1,528 | 307 | 99 | 403 | 2,370 | 1,631 | 293 | 103 | 344 |
| Private..... | 1,659 | 1,315 | 167 | 28 | 149 | 1,714 | 1,359 | 172 | 29 | 154 | 1,801 | 1,428 | 181 | 31 | 162 |
| Federal..... | 640 | 133 | 143 | 66 | 299 | 590 | 165 | 120 | 65 | 240 | 550 | 200 | 100 | 70 | 180 |
| State and local..... | 35 | 6 | 10 | 6 | 14 | 32 | 4 | 14 | 5 | 9 | 20 | 4 | 12 | 2 | 2 |
| Millions of constant (1982) dollars | | | | | | | | | | | | | | | |
| Pollution abatement and control..... | 60,007 | 28,070 | 22,297 | 9,985 | -345 | 64,700 | 30,304 | 23,987 | 11,013 | -604 | 67,279 | 31,298 | 25,144 | 11,349 | -512 |
| Pollution abatement ³ | 56,453 | 26,367 | 21,543 | 9,740 | -1,196 | 61,313 | 28,577 | 23,277 | 10,760 | -1,301 | 64,012 | 29,522 | 24,431 | 11,061 | -1,002 |
| Personal consumption..... | 9,731 | 9,731 | ..... | ..... | ..... | 10,610 | 10,610 | ..... | ..... | ..... | 11,380 | 11,380 | ..... | ..... | ..... |
| Durable goods..... | 6,060 | 6,060 | ..... | ..... | ..... | 6,939 | 6,939 | ..... | ..... | ..... | 7,557 | 7,557 | ..... | ..... | ..... |
| Nondurable goods and services..... | 3,671 | 3,671 | ..... | ..... | ..... | 3,672 | 3,672 | ..... | ..... | ..... | 3,823 | 3,823 | ..... | ..... | ..... |
| Business..... | 36,533 | 16,081 | 15,228 | 6,611 | -1,386 | 39,441 | 17,446 | 16,069 | 7,441 | -1,516 | 40,773 | 17,722 | 16,707 | 7,542 | -1,197 |
| On capital account..... | 12,898 | 7,334 | 4,793 | 771 | ..... | 14,522 | 8,403 | 5,171 | 948 | ..... | 14,892 | 8,509 | 5,259 | 1,124 | ..... |
| On current account..... | 23,635 | 8,747 | 10,435 | 5,840 | -1,386 | 24,919 | 9,044 | 10,898 | 6,493 | -1,516 | 25,881 | 9,213 | 11,447 | 6,418 | -1,197 |
| Private..... | 19,389 | 8,609 | 4,941 | 5,840 | ..... | 20,630 | 8,908 | 5,229 | 6,493 | ..... | 20,975 | 9,079 | 5,479 | 6,418 | ..... |
| Government enterprise..... | 5,632 | 137 | 5,494 | (*) | ..... | 5,805 | 135 | 5,669 | (*) | ..... | 6,103 | 135 | 5,968 | (*) | 1 |
| Costs recovered..... | -1,386 | ..... | ..... | ..... | -1,386 | -1,516 | ..... | ..... | ..... | -1,516 | -1,198 | ..... | ..... | ..... | -1,198 |
| Government..... | 10,188 | 555 | 6,315 | 3,129 | 190 | 11,261 | 520 | 7,208 | 3,318 | 215 | 11,859 | 420 | 7,724 | 3,519 | 195 |
| Federal..... | 771 | 135 | 424 | 116 | 96 | 884 | 111 | 457 | 182 | 134 | 989 | 102 | 561 | 203 | 124 |
| State and local..... | 3,375 | 4 | 265 | 3,013 | 94 | 3,508 | 13 | 277 | 3,136 | 81 | 3,682 | 9 | 285 | 3,316 | 71 |
| Government enterprise fixed capital..... | 6,043 | 416 | 5,626 | ..... | ..... | 6,869 | 396 | 6,474 | ..... | ..... | 7,188 | 310 | 6,879 | ..... | ..... |
| Regulation and monitoring..... | 1,315 | 310 | 448 | 149 | 408 | 1,231 | 316 | 428 | 162 | 325 | 1,134 | 306 | 451 | 196 | 181 |
| Federal..... | 771 | 84 | 230 | 69 | 387 | 681 | 93 | 201 | 70 | 317 | 560 | 93 | 212 | 79 | 176 |
| State and local..... | 545 | 226 | 218 | 80 | 21 | 551 | 224 | 227 | 92 | 8 | 574 | 214 | 239 | 116 | 5 |
| Research and development..... | 2,239 | 1,393 | 307 | 96 | 443 | 2,157 | 1,411 | 283 | 91 | 372 | 2,134 | 1,470 | 263 | 92 | 309 |
| Private..... | 1,591 | 1,260 | 160 | 27 | 143 | 1,583 | 1,255 | 159 | 27 | 143 | 1,624 | 1,287 | 163 | 28 | 146 |
| Federal..... | 615 | 127 | 137 | 63 | 287 | 545 | 152 | 111 | 60 | 221 | 493 | 179 | 90 | 63 | 161 |
| State and local..... | 34 | 5 | 9 | 6 | 13 | 29 | 4 | 13 | 5 | 8 | 17 | 3 | 10 | 2 | 2 |
| Selected fixed-weighted price indexes | | | | | | | | | | | | | | | |
| Pollution abatement and control..... | 103.0 | 101.2 | 104.2 | 104.9 | 102.1 | 106.5 | 103.5 | 108.2 | 110.0 | 105.0 | 109.8 | 105.7 | 112.0 | 114.5 | 105.8 |
| Pollution abatement ³ | 102.9 | 101.0 | 104.2 | 104.9 | 101.0 | 106.3 | 103.2 | 108.2 | 110.1 | 103.1 | 109.6 | 105.3 | 111.9 | 114.5 | 102.6 |
| Personal consumption..... | 100.3 | 100.3 | ..... | ..... | ..... | 101.3 | 101.3 | ..... | ..... | ..... | 103.6 | 103.6 | ..... | ..... | ..... |
| Business..... | 102.9 | 101.4 | 103.4 | 104.9 | 101.1 | 106.7 | 104.1 | 107.8 | 110.0 | 103.1 | 109.5 | 106.2 | 110.2 | 114.2 | 101.8 |
| On capital account..... | 102.8 | 101.7 | 104.3 | 104.4 | ..... | 106.4 | 104.6 | 109.0 | 108.6 | ..... | 108.8 | 106.6 | 111.9 | 110.4 | ..... |
| On current account..... | 102.9 | 101.1 | 103.0 | 104.9 | 101.1 | 106.9 | 103.6 | 107.2 | 110.2 | 103.1 | 109.9 | 105.7 | 109.3 | 114.8 | 101.8 |
| Government..... | 105.1 | 101.4 | 105.7 | 104.9 | 100.2 | 109.0 | 104.9 | 109.0 | 110.2 | 103.1 | 114.7 | 106.2 | 115.5 | 115.1 | 108.5 |
| Regulation and monitoring..... | 105.3 | 105.6 | 105.5 | 105.0 | 104.9 | 110.4 | 111.1 | 110.7 | 109.9 | 109.8 | 115.4 | 116.1 | 115.8 | 114.7 | 114.7 |
| Research and development..... | 104.3 | 104.3 | 104.3 | 104.3 | 104.3 | 108.4 | 108.3 | 108.5 | 108.5 | 108.5 | 111.2 | 111.0 | 111.5 | 111.7 | 111.5 |
| Addendum: Business capital consumption allowance (millions of dollars) ⁴ | | | | | | | | | | | | | | | |
| Value at replacement cost in current dollars..... | 11,590 | ..... | ..... | ..... | ..... | 12,470 | ..... | ..... | ..... | ..... | 13,480 | ..... | ..... | ..... | ..... |
| Value at replacement cost in constant (1982) dollars.. | 11,307 | ..... | ..... | ..... | ..... | 11,829 | ..... | ..... | ..... | ..... | 12,460 | ..... | ..... | ..... | ..... |

^r Revised.

^p Preliminary.

* Less than \$500,000.

1. Includes expenditures for air and water pollution abatement and control. Includes expenditures for solid waste collection and disposal by means acceptable to federal, state, and local authorities. Excludes agricultural production except feedlot operations.

2. "Other" includes expenditures for abatement and control of noise, radiation, and pesticide pollution; "unallocated" includes business expenditures not assigned to media.

3. Expenditures are attributed to the sector that performs the air or water pollution abatement or solid waste collection and disposal.

4. To facilitate conversion of expenditures to a cost basis.