

# Geography and Environment

This section presents a variety of information on the physical environment of the United States, starting with basic area measurement data and ending with climatic data for selected weather stations around the country. The subjects covered between those points are mostly concerned with environmental trends, but include such related subjects as land use, water consumption, air pollutant emissions, toxic releases, oil spills, hazardous waste sites, threatened and endangered wildlife, and expenditures for pollution abatement and control.

The information in this section is selected from a wide range of Federal agencies that compile the data for various administrative or regulatory purposes, such as the Environmental Protection Agency, U.S. Geological Survey, National Oceanic and Atmospheric Administration, Soil Conservation Service, and General Services Administration. Other agencies include the Bureau of the Census, which presents nationwide area measurement information and the Bureau of Economic Analysis, which compiles data on pollution abatement and control expenditures.

**Area**—For the 1990 census, area measurements were calculated by computer based on the information contained in a single, consistent geographic data base, the TIGER™ File (described below), rather than relying on historical, local, and manually calculated information. This especially affects water area figures reported in 1990; these had only included those bodies of water of least 40 acres and those streams with a width of at least one-eighth of a statute mile from 1940 to 1980. Water area figures for 1990 increased because the data reflected all water recorded in the Census Bureau's geographic data base including coastal, Great Lakes, and territorial waters.

**Geography**—The U.S. Geological Survey conducts investigations, surveys, and research in the fields of geography, geology, topography, geographic information systems, mineralogy, hydrology, and geothermal energy resources as

## In Brief

Municipal solid waste generated grew only 5.5% between 1990 and 1995 while waste recovery and recycling grew almost 66%. Twenty-seven percent of waste is now recovered compared with 17% in 1990.

Toxic chemical releases into the environment declined for the fourth consecutive year since 1990 to just under 2 billion pounds in 1994, a 29% drop since 1990.

The environmental industry employed just over 1.3 million workers in 1996, an increase of 11% since 1990.

well as natural hazards. In cooperation with State and local agencies, the U.S. Geological Survey prepares and publishes topographic, land use/land cover, geologic, and hydrologic maps and digital data compilations. The U.S. Geological Survey provides United States cartographic data through the Earth Sciences Information Center, water resources data through the National Water Data Exchange (NAWDEX), and a variety of research and Open-File reports which are announced monthly in New Publications of the U.S. Geological Survey. In a joint project with the Census Bureau, the U.S. Geological Survey provided the basic information on geographic features for input into a national geographic and cartographic data base prepared by the Census Bureau, called the TIGER™ (Topologically Integrated Geographic Encoding and Referencing) System.

Maps prepared by the Bureau of the Census show the names and boundaries of various types of legal and statistical entities, such as places, county subdivisions, and larger areas and are available as of the specific decennial census. An inventory is available for the 1990 census, both on computer tape and CD-ROM as the 1990 TIGER/GICS (Geographic Identification Code Scheme)

and for the 1992 economic censuses in the *Geographic Reference Manual* (EC92-R-1). The Census Bureau maintains a current inventory of governmental units and their legal boundaries through its Boundary and Annexation Survey. The TIGER™ System contains information on the legal and statistical entities used by the Census Bureau, as well as on both manmade and natural features, such as streets, roads, railroads, rivers, and lakes; information is available to the public in the form of machine-readable TIGER™ extract files.

An inventory of the Nation's land resources by type of use/cover was conducted by the Soil Conservation Service in 1982, 1987, and 1992. The results, published in the 1992 *National Inventory of Land Resources*, cover all non-Federal land in Puerto Rico, the Virgin Islands, and the United States except Alaska.

**Environment**—The principal Federal agency responsible for pollution abatement and control activities is the Environmental Protection Agency (EPA). It is responsible for establishing and monitoring national air quality standards, water quality activities, solid and hazardous waste disposal, and control of toxic substances.

National Ambient Air Quality Standards (NAAQS) for suspended particulate matter, sulfur dioxide, photochemical oxidants, carbon monoxide, and nitrogen dioxide were originally set by the EPA in April 1971. Every 5 years, each of the NAAQS is reviewed and revised if new health or welfare data indicates that a change is necessary. The standard for photochemical oxidants, now called ozone, was revised in February 1979. Also, a new NAAQS for lead was promulgated in October 1978 and for suspended particulate matter in 1987. Table 378 gives some of the health-related standards for the six air pollutants having NAAQS. Responsibility for demonstrating compliance with or progress toward achieving these standards lies with the State agencies. In 1995, there were 1,737 non-Federal sampling stations for particulates, 695 for sulfur dioxide, 542 for carbon monoxide, 972 for ozone, 406 for nitrogen dioxide, and 448 for lead. Data from these State networks are periodically submitted to EPA's National

Aerometric Information Retrieval System (AIRS) for summarization in annual reports on the nationwide status and trends in air quality; for details, see *National Air Quality and Emissions Trends Report, 1995*.

### Pollution abatement and control expenditures

Data on expenditures for pollution abatement and control were compiled and published by the Bureau of Economic Analysis (BEA) and the U.S. Bureau of the Census through 1994 data. The BEA conducts surveys on national expenditures for pollution abatement and control and presents the data in its *Survey of Current Business*. The Bureau of the Census still collects data on expenditures for pollution control activities for State and local governments and industry. Data on government expenditures are reported in an annual series of publications, *Government Finances*, which covers expenditures on sewage and sanitation outlays. Industry data were reported annually in *Current Industrial Reports* series MA-200 until the final report in 1996. The Council on Environmental Quality published some expenditure data in *Environmental Quality* along with other environmental indicator.

**Climate**—NOAA, through the National Weather Service and the National Environmental Satellite, Data and Information Service, is responsible for data on climate. NOAA maintains about 11,600 weather stations, of which over 3,000 produce autographic precipitation records, about 600 take hourly readings of a series of weather elements, and the remainder record data once a day. These data are reported monthly in the *Climatological Data* (published by State), and monthly and annually in the *Local Climatological Data* (published by location for major cities).

The normal climatological temperatures, precipitation, and degree days listed in this publication are derived for comparative purposes and are averages for the 30-year period, 1961-90. For stations that did not have continuous records for the entire 30 years from the same instrument site, the normals have been adjusted to provide representative values for the current location. The information in all other tables is based on data from the beginning of the record at that location through 1995, except as noted.

# Land and Water Area

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## No. 367. Land and Water Area of States and Other Entities: 1990

[One square mile=2.59 square kilometers. Excludes territorial water, which was included in the 1993 edition of the *Statistical Abstract*.]

| REGION,<br>DIVISION,<br>STATE,<br>AND OTHER AREA | TOTAL AREA       |                  | LAND AREA        |                  | WATER AREA     |                |                   |                    |                           |
|--|------------------|------------------|------------------|------------------|----------------|----------------|-------------------|--------------------|---------------------------|
|  | Sq. mi.          | Sq. km.          | Sq. mi.          | Sq. km.          | Total          |                | Inland<br>sq. mi. | Coastal<br>sq. mi. | Great<br>Lakes<br>sq. mi. |
|  |                  |                  |                  |                  | Sq. mi.        | Sq. km.        |                   |                    |                           |
| <b>United States . . . . .</b>                   | <b>3,717,796</b> | <b>9,629,091</b> | <b>3,536,278</b> | <b>9,158,960</b> | <b>181,518</b> | <b>470,131</b> | <b>78,937</b>     | <b>42,528</b>      | <b>60,052</b>             |
| <b>Northeast . . . . .</b>                       | <b>176,917</b>   | <b>458,215</b>   | <b>162,274</b>   | <b>420,289</b>   | <b>14,643</b>  | <b>37,926</b>  | <b>6,444</b>      | <b>3,549</b>       | <b>4,650</b>              |
| <b>New England . . . . .</b>                     | <b>68,655</b>    | <b>177,815</b>   | <b>62,812</b>    | <b>162,682</b>   | <b>5,843</b>   | <b>15,133</b>  | <b>3,695</b>      | <b>2,148</b>       | <b>-</b>                  |
| Maine . . . . .                                  | 33,741           | 87,388           | 30,865           | 79,939           | 2,876          | 7,449          | 2,263             | 613                | -                         |
| New Hampshire . . . . .                          | 9,283            | 24,044           | 8,969            | 23,231           | 314            | 813            | 314               | -                  | -                         |
| Vermont . . . . .                                | 9,615            | 24,903           | 9,249            | 23,956           | 366            | 947            | 366               | -                  | -                         |
| Massachusetts . . . . .                          | 9,241            | 23,934           | 7,838            | 20,300           | 1,403          | 3,634          | 424               | 979                | -                         |
| Rhode Island . . . . .                           | 1,231            | 3,189            | 1,045            | 2,707            | 186            | 482            | 168               | 18                 | -                         |
| Connecticut . . . . .                            | 5,544            | 14,358           | 4,845            | 12,550           | 698            | 1,808          | 161               | 538                | -                         |
| <b>Middle Atlantic . . . . .</b>                 | <b>108,263</b>   | <b>280,400</b>   | <b>99,462</b>    | <b>257,607</b>   | <b>8,800</b>   | <b>22,793</b>  | <b>2,749</b>      | <b>1,401</b>       | <b>4,650</b>              |
| New York . . . . .                               | 53,989           | 139,833          | 47,224           | 122,310          | 6,766          | 17,523         | 1,888             | 976                | 3,901                     |
| New Jersey . . . . .                             | 8,215            | 21,277           | 7,419            | 19,215           | 796            | 2,062          | 371               | 425                | -                         |
| Pennsylvania . . . . .                           | 46,058           | 119,291          | 44,820           | 116,083          | 1,239          | 3,208          | 490               | -                  | 749                       |
| <b>Midwest . . . . .</b>                         | <b>821,762</b>   | <b>2,128,364</b> | <b>751,519</b>   | <b>1,946,435</b> | <b>70,243</b>  | <b>181,929</b> | <b>14,841</b>     | <b>-</b>           | <b>55,402</b>             |
| <b>East North Central . . . . .</b>              | <b>301,369</b>   | <b>780,547</b>   | <b>243,539</b>   | <b>630,766</b>   | <b>57,830</b>  | <b>149,781</b> | <b>4,974</b>      | <b>-</b>           | <b>52,856</b>             |
| Ohio . . . . .                                   | 44,828           | 116,103          | 40,953           | 106,067          | 3,875          | 10,036         | 376               | -                  | 3,499                     |
| Indiana . . . . .                                | 36,420           | 94,328           | 35,870           | 92,904           | 550            | 1,424          | 315               | -                  | 235                       |
| Illinois . . . . .                               | 57,918           | 150,007          | 55,593           | 143,987          | 2,325          | 6,021          | 750               | -                  | 1,575                     |
| Michigan . . . . .                               | 96,705           | 250,465          | 56,809           | 147,136          | 39,895         | 103,329        | 1,704             | -                  | 38,192                    |
| Wisconsin . . . . .                              | 65,499           | 169,643          | 54,314           | 140,672          | 11,186         | 28,971         | 1,831             | -                  | 9,355                     |
| <b>West North Central . . . . .</b>              | <b>520,393</b>   | <b>1,347,817</b> | <b>507,980</b>   | <b>1,315,669</b> | <b>12,412</b>  | <b>32,148</b>  | <b>9,866</b>      | <b>-</b>           | <b>2,546</b>              |
| Minnesota . . . . .                              | 86,943           | 225,182          | 79,617           | 206,207          | 7,326          | 18,975         | 4,780             | -                  | -                         |
| Iowa . . . . .                                   | 56,276           | 145,754          | 55,875           | 144,716          | 401            | 1,038          | 401               | -                  | -                         |
| Missouri . . . . .                               | 69,709           | 180,546          | 68,898           | 178,446          | 811            | 2,100          | 811               | -                  | -                         |
| North Dakota . . . . .                           | 70,704           | 183,123          | 68,994           | 178,695          | 1,710          | 4,428          | 1,710             | -                  | -                         |
| South Dakota . . . . .                           | 77,121           | 199,744          | 75,896           | 196,571          | 1,225          | 3,174          | 1,225             | -                  | -                         |
| Nebraska . . . . .                               | 77,358           | 200,358          | 76,878           | 199,113          | 481            | 1,245          | 481               | -                  | -                         |
| Kansas . . . . .                                 | 82,228           | 213,110          | 81,823           | 211,922          | 459            | 1,189          | 459               | -                  | -                         |
| <b>South . . . . .</b>                           | <b>907,178</b>   | <b>2,349,591</b> | <b>871,010</b>   | <b>2,255,916</b> | <b>36,168</b>  | <b>93,674</b>  | <b>27,355</b>     | <b>8,813</b>       | <b>-</b>                  |
| <b>South Atlantic . . . . .</b>                  | <b>284,085</b>   | <b>735,780</b>   | <b>266,160</b>   | <b>689,355</b>   | <b>17,925</b>  | <b>46,426</b>  | <b>12,557</b>     | <b>5,368</b>       | <b>-</b>                  |
| Delaware . . . . .                               | 2,396            | 6,206            | 1,955            | 5,062            | 442            | 1,144          | 71                | 371                | -                         |
| Maryland . . . . .                               | 12,297           | 31,849           | 9,775            | 25,316           | 2,522          | 6,533          | 680               | 1,842              | -                         |
| District of Columbia . . . . .                   | 68               | 177              | 61               | 159              | 7              | 18             | 7                 | -                  | -                         |
| Virginia . . . . .                               | 42,326           | 109,625          | 39,598           | 102,558          | 2,729          | 7,067          | 1,000             | 1,728              | -                         |
| West Virginia . . . . .                          | 24,231           | 62,759           | 24,087           | 62,384           | 145            | 375            | 145               | -                  | -                         |
| North Carolina . . . . .                         | 52,672           | 136,421          | 48,718           | 126,180          | 3,954          | 10,241         | 3,954             | -                  | -                         |
| South Carolina . . . . .                         | 31,189           | 80,779           | 30,111           | 77,988           | 1,078          | 2,791          | 1,006             | 72                 | -                         |
| Georgia . . . . .                                | 58,977           | 152,750          | 57,919           | 150,010          | 1,058          | 2,740          | 1,011             | 47                 | -                         |
| Florida . . . . .                                | 59,928           | 155,214          | 53,937           | 139,697          | 5,991          | 15,517         | 4,683             | 1,308              | -                         |
| <b>East South Central . . . . .</b>              | <b>183,080</b>   | <b>474,176</b>   | <b>178,616</b>   | <b>462,615</b>   | <b>4,464</b>   | <b>11,561</b>  | <b>3,355</b>      | <b>1,109</b>       | <b>-</b>                  |
| Kentucky . . . . .                               | 40,411           | 104,665          | 39,732           | 102,907          | 679            | 1,759          | 679               | -                  | -                         |
| Tennessee . . . . .                              | 42,146           | 109,158          | 41,219           | 106,758          | 926            | 2,400          | 926               | -                  | -                         |
| Alabama . . . . .                                | 52,237           | 135,293          | 50,750           | 131,443          | 1,486          | 3,850          | 968               | 519                | -                         |
| Mississippi . . . . .                            | 48,286           | 125,060          | 46,914           | 121,506          | 1,372          | 3,553          | 781               | 591                | -                         |
| <b>West South Central . . . . .</b>              | <b>440,101</b>   | <b>1,139,634</b> | <b>426,234</b>   | <b>1,103,947</b> | <b>13,779</b>  | <b>35,687</b>  | <b>11,444</b>     | <b>2,335</b>       | <b>-</b>                  |
| Arkansas . . . . .                               | 53,182           | 137,742          | 52,075           | 134,875          | 1,107          | 2,867          | 1,107             | -                  | -                         |
| Louisiana . . . . .                              | 49,651           | 128,595          | 43,566           | 112,836          | 6,085          | 15,759         | 4,153             | 1,931              | -                         |
| Oklahoma . . . . .                               | 69,903           | 181,048          | 68,679           | 177,877          | 1,224          | 3,171          | 1,224             | -                  | -                         |
| Texas . . . . .                                  | 267,277          | 692,248          | 261,914          | 678,358          | 5,363          | 13,890         | 4,959             | 404                | -                         |
| <b>West . . . . .</b>                            | <b>1,811,939</b> | <b>4,692,921</b> | <b>1,751,475</b> | <b>4,536,320</b> | <b>60,464</b>  | <b>156,601</b> | <b>30,297</b>     | <b>30,167</b>      | <b>-</b>                  |
| <b>Mountain . . . . .</b>                        | <b>863,613</b>   | <b>2,236,757</b> | <b>856,121</b>   | <b>2,217,354</b> | <b>7,492</b>   | <b>19,404</b>  | <b>7,492</b>      | <b>-</b>           | <b>-</b>                  |
| Montana . . . . .                                | 147,046          | 380,849          | 145,556          | 376,991          | 1,490          | 3,859          | 1,490             | -                  | -                         |
| Idaho . . . . .                                  | 83,574           | 216,456          | 82,751           | 214,325          | 823            | 2,131          | 823               | -                  | -                         |
| Wyoming . . . . .                                | 97,818           | 253,349          | 97,105           | 251,501          | 714            | 1,848          | 714               | -                  | -                         |
| Colorado . . . . .                               | 104,100          | 269,618          | 103,729          | 268,658          | 371            | 960            | 371               | -                  | -                         |
| New Mexico . . . . .                             | 121,598          | 314,939          | 121,364          | 314,334          | 234            | 605            | 234               | -                  | -                         |
| Arizona . . . . .                                | 114,006          | 295,276          | 113,642          | 294,333          | 364            | 943            | 364               | -                  | -                         |
| Utah . . . . .                                   | 84,904           | 219,902          | 82,168           | 212,815          | 2,736          | 7,086          | 2,736             | -                  | -                         |
| Nevada . . . . .                                 | 110,567          | 286,367          | 109,806          | 284,396          | 761            | 1,971          | 761               | -                  | -                         |
| <b>Pacific . . . . .</b>                         | <b>948,326</b>   | <b>2,456,164</b> | <b>895,354</b>   | <b>2,318,967</b> | <b>52,972</b>  | <b>137,197</b> | <b>22,805</b>     | <b>30,167</b>      | <b>-</b>                  |
| Washington . . . . .                             | 70,637           | 182,949          | 66,581           | 172,445          | 4,055          | 10,503         | 1,545             | 2,511              | -                         |
| Oregon . . . . .                                 | 97,132           | 251,571          | 96,002           | 248,646          | 1,129          | 2,925          | 1,050             | 80                 | -                         |
| California . . . . .                             | 158,869          | 411,470          | 155,973          | 403,971          | 2,895          | 7,499          | 2,674             | 222                | -                         |
| Alaska . . . . .                                 | 615,230          | 1,593,444        | 570,374          | 1,477,268        | 44,856         | 116,177        | 17,501            | 27,355             | -                         |
| Hawaii . . . . .                                 | 6,459            | 16,729           | 6,423            | 16,636           | 36             | 93             | 36                | -                  | -                         |
| <b>Other areas:</b>                              |                  |                  |                  |                  |                |                |                   |                    |                           |
| Puerto Rico . . . . .                            | 3,508            | 9,085            | 3,427            | 8,875            | 81             | 210            | 65                | 16                 | -                         |
| American Samoa . . . . .                         | 90               | 233              | 77               | 200              | 13             | 33             | 7                 | 6                  | -                         |
| Guam . . . . .                                   | 217              | 561              | 210              | 543              | 7              | 18             | 7                 | -                  | -                         |
| No. Mariana Islands . . . . .                    | 189              | 490              | 179              | 464              | 10             | 26             | 2                 | 8                  | -                         |
| Palau . . . . .                                  | 241              | 624              | 177              | 458              | 64             | 165            | 40                | 24                 | -                         |
| Virgin Islands of the U.S. . . . .               | 171              | 443              | 134              | 346              | 37             | 96             | 17                | 20                 | -                         |

- Represents or rounds to zero.

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, series CPH-2; and unpublished data from the TIGER/Geographic Information Control System (TIGER/GICS) computer file. Corrections have been made subsequent to the 1990 Census reports.

**No. 368. Area and Acquisition of the Federal Public Domain: 1781 to 1994**

[In millions of acres. Areas of acquisitions are as computed in 1912, and do not agree with figures in square miles shown in table 367 which include later adjustments and reflect subsequent remeasurement. Excludes outlying areas of the United States amounting to 645,949 acres in 1978]

| YEAR | Land area, total <sup>1</sup> | YEAR | LAND AREA <sup>1</sup> |               |          | YEAR AND ACQUISITION                            | ACREAGE |         |               |
|------|-------------------------------|------|------------------------|---------------|----------|---|---------|---------|---------------|
|      |                               |      | Total                  | Public domain | Acquired |   | Total   | Land    | In-land water |
| 1802 | 200.0                         | 1980 | 719.5                  | 648.0         | 71.5     | Aggregate . . . . .                             | 1,840.7 | 1,807.5 | 33.2          |
| 1850 | 1,200.0                       | 1981 | 730.8                  | 668.7         | 62.2     | 1781-1802 (State Cessions) . . . . .            | 236.8   | 233.4   | 3.4           |
| 1880 | 900.0                         | 1982 | 729.8                  | 670.0         | 59.8     | 1803, Louisiana Purchase <sup>2</sup> . . . . . | 529.9   | 523.4   | 6.5           |
| 1912 | 600.0                         | 1983 | 732.0                  | 672.4         | 59.6     | 1819, Cession from Spain . . . . .              | 46.1    | 43.3    | 2.8           |
| 1946 | 413.0                         | 1984 | 726.6                  | 658.9         | 67.7     | Red River Basin . . . . .                       | 29.6    | 29.1    | 0.5           |
| 1950 | 412.0                         | 1985 | 726.7                  | 656.2         | 70.5     |   |         |         |               |
| 1955 | 407.9                         | 1986 | 727.1                  | 662.7         | 64.4     |   |         |         |               |
| 1959 | 768.6                         | 1987 | 724.3                  | 661.0         | 63.3     | 1846, Oregon Compromise . . . . .               | 183.4   | 180.6   | 2.7           |
| 1960 | 771.5                         | 1988 | 688.2                  | 623.2         | 65.0     | 1848, Mexican Cession <sup>2</sup> . . . . .    | 338.7   | 334.5   | 4.2           |
| 1965 | 765.8                         | 1989 | 662.2                  | 597.9         | 64.3     | 1850, Purchase from Texas . . . . .             | 78.9    | 78.8    | 0.1           |
| 1970 | 761.3                         | 1990 | 649.8                  | 587.4         | 62.4     | 1853, Gadsden Purchase . . . . .                | 19.0    | 19.0    | (Z)           |
| 1975 | 760.4                         | 1991 | 649.3                  | 587.6         | 61.8     | 1867, Alaska Purchase . . . . .                 | 378.3   | 365.3   | 12.9          |
| 1976 | 762.2                         | 1992 | 651.1                  | 590.9         | 60.2     |   |         |         |               |
| 1977 | 741.5                         | 1993 | 650.3                  | 590.5         | 59.9     |   |         |         |               |
| 1978 | 775.2                         | 1994 | 657.3                  | 573.2         | 84.1     |   |         |         |               |
| 1979 | 744.1                         |      |                        |               |          |   |         |         |               |

Z Less than 50,000. <sup>1</sup> Owned by Federal Government. Comprises original public domain plus acquired lands. Estimated from imperfect data available for indicated years. Prior to 1959, excludes Alaska, and 1960, Hawaii. Source: Beginning 1955, U.S. General Services Administration, *Inventory Report on Real Property Owned by the United States Throughout the World*, annual.

<sup>2</sup> Data for Louisiana Purchase exclude areas eliminated by Treaty of 1819 with Spain. Such areas are included in figures for Mexican Cession. <sup>3</sup> Represents drainage basin of Red River of the North, south of 49th parallel. Authorities differ as to method and date of its acquisition. Some hold it as part of the Louisiana Purchase; others, as acquired from Great Britain.

Source: Except as noted, U.S. Dept. of the Interior, Estimated area, Bureau of Land Management; all other data, Office of the Secretary, *Areas of Acquisitions to the Territory of the U.S.*, 1922.

**No. 369. Total and Federally Owned Land, 1960 to 1994, and by State, 1994**

[As of end of fiscal year; see text, section 9. Total land area figures are not comparable with those in table 367]

| REGION,<br>DIVISION,<br>AND<br>STATE | Total<br>(1,000<br>acres) | OWNED BY<br>FEDERAL<br>GOVERN-<br>MENT <sup>1</sup> |                | REGION,<br>DIVISION,<br>AND<br>STATE | Total<br>(1,000<br>acres) | NOT OWNED<br>BY<br>FEDERAL<br>GOVERN-<br>MENT <sup>1</sup> |                |
|--------------------------------------|---------------------------|---|----------------|--------------------------------------|---------------------------|--|----------------|
|                                      |                           | Acres<br>(1,000)                                    | Per-<br>cent   |                                      |                           | Acres<br>(1,000)   | Per-<br>cent   |
| 1960                                 | 2,273,407                 | 1,501,894   | 771,512        | 33.9                                 | South . . . . .           | 561,238  | 536,565        |
| 1965                                 | 2,271,343                 | 1,505,546   | 765,797        | 33.7                                 | S.A. . . . .              | 171,325  | 158,798        |
| 1970                                 | 2,271,343                 | 1,510,042   | 761,301        | 33.5                                 | DE . . . . .              | 1,266  | 1,024          |
| 1975                                 | 2,271,343                 | 1,510,929   | 760,414        | 33.5                                 | MD . . . . .              | 6,319  | 5,789          |
| 1980                                 | 2,271,343                 | 1,551,822   | 719,522        | 31.7                                 | DC . . . . .              | 39   | 30             |
| 1985                                 | 2,271,343                 | 1,544,658   | 726,686        | 32.0                                 | VA . . . . .              | 25,496   | 22,478         |
| 1990                                 | 2,271,343                 | 1,621,541   | 649,802        | 28.6                                 | WV . . . . .              | 15,411   | 14,318         |
| 1993                                 | 2,271,343                 | 1,621,021   | 650,322        | 28.6                                 | NC . . . . .              | 31,403   | 28,955         |
| 1994, total<br><b>Northeast</b>      | <b>2,271,343</b>          | <b>1,609,446</b>                                    | <b>661,898</b> | <b>29.1</b>                          | SC . . . . .              | 19,374   | 18,583         |
| <b>N.E.</b>                          | <b>40,401</b>             | <b>38,644</b>                                       | <b>1,756</b>   | <b>4.3</b>                           | GA . . . . .              | 37,295   | 35,618         |
| ME                                   | 19,848                    | 19,518  | 329            | 1.7                                  | FL . . . . .              | 34,721   | 32,002         |
| NH                                   | 5,769                     | 5,006   | 763            | 13.2                                 | KY . . . . .              | 25,512   | 24,439         |
| VT                                   | 5,937                     | 5,504   | 432            | 7.3                                  | TN . . . . .              | 26,728   | 25,164         |
| MA                                   | 5,035                     | 4,833   | 202            | 4.0                                  | AL . . . . .              | 32,678   | 31,597         |
| RI                                   | 677                       | 659   | 18             | 2.6                                  | MS . . . . .              | 30,223   | 28,865         |
| CT                                   | 3,135                     | 3,123   | 12             | 0.4                                  | W.S.C. . . . .            | 274,772  | 267,703        |
| M.A.                                 | <b>64,299</b>             | <b>62,512</b>                                       | <b>1,787</b>   | <b>2.8</b>                           | AR . . . . .              | 33,599   | 32,993         |
| NY                                   | 30,681                    | 30,258  | 423            | 1.4                                  | LA . . . . .              | 28,868   | 27,857         |
| N.J.                                 | 4,813                     | 4,175   | 638            | 13.3                                 | OK . . . . .              | 44,088   | 43,318         |
| PA                                   | 28,804                    | 28,079  | 725            | 2.5                                  | TX . . . . .              | 168,218  | 165,861        |
| Midwest . . . . .                    | <b>482,870</b>            | <b>457,877</b>                                      | <b>24,993</b>  | <b>5.2</b>                           | West . . . . .            | <b>1,122,535</b>   | <b>513,848</b> |
| E.N.C. . . . .                       | <b>156,679</b>            | <b>147,138</b>                                      | <b>9,541</b>   | <b>6.1</b>                           | Mt. . . . .               | <b>548,449</b>   | <b>278,597</b> |
| OH                                   | 26,222                    | 25,872  | 350            | 1.3                                  | MT . . . . .              | 93,271   | 67,312         |
| IN                                   | 23,158                    | 22,688  | 470            | 2.0                                  | ID . . . . .              | 52,933   | 19,987         |
| IL                                   | 35,795                    | 34,717  | 1,078          | 3.0                                  | WY . . . . .              | 62,343   | 31,319         |
| MI                                   | 36,492                    | 31,779  | 4,713          | 12.9                                 | CO . . . . .              | 66,486   | 42,346         |
| WI                                   | 35,011                    | 32,082  | 2,929          | 8.4                                  | NM . . . . .              | 77,766   | 51,217         |
| W.N.C. . . . .                       | <b>326,191</b>            | <b>310,739</b>                                      | <b>15,453</b>  | <b>4.7</b>                           | AZ . . . . .              | 72,688   | 40,200         |
| MN                                   | 51,206                    | 43,902  | 7,304          | 14.3                                 | UT . . . . .              | 52,697   | 18,859         |
| IA                                   | 35,860                    | 35,443  | 418            | 1.2                                  | NV <sup>2</sup> . . . . . | 70,264   | 7,359          |
| MO                                   | 44,248                    | 42,140  | 2,108          | 4.8                                  | Pac . . . . .             | 574,086  | 235,251        |
| ND                                   | 44,452                    | 42,604  | 1,849          | 4.2                                  | WA . . . . .              | 42,694   | 31,237         |
| SD                                   | 48,882                    | 46,184  | 2,698          | 5.5                                  | OR . . . . .              | 61,599   | 24,660         |
| NE                                   | 49,032                    | 48,331  | 700            | 1.4                                  | CA . . . . .              | 100,207  | 53,250         |
| KS                                   | 52,511                    | 52,134  | 377            | 0.7                                  | AK . . . . .              | 365,482  | 122,686        |
|                                      |                           |   |                |                                      | HI . . . . .              | 4,106  | 3,417          |
|                                      |                           |   |                |                                      |                           |  | 688            |
|                                      |                           |   |                |                                      |                           |  | 16.8           |

<sup>1</sup> Excludes trust properties. <sup>2</sup> Data revised after publication of the report.

## No. 370. Land Cover/Use, by State: 1992

[In thousands of acres. Excludes Alaska and District of Columbia]

| STATE                    | Total surface area <sup>1</sup> | Federal land | NONFEDERAL LAND |              |                        |             |                  |         |         |        |
|--------------------------|---------------------------------|--------------|-----------------|--------------|------------------------|-------------|------------------|---------|---------|--------|
|                          |                                 |              | Total           |              | Developed <sup>2</sup> | Rural       |                  |         |         |        |
| Total                    | Developed                       | Total        | Crop-land       | Pasture land | Range-land             | Forest land | Minor cover/ use |         |         |        |
| Total . . . . .          | 1,940,011                       | 407,989      | 1,483,126       | 92,352       | 1,390,774              | 382,317     | 125,927          | 398,949 | 394,958 | 88,624 |
| United States . . . . .  | 1,937,678                       | 407,899      | 1,480,916       | 91,946       | 1,388,970              | 381,950     | 125,215          | 398,803 | 394,437 | 88,565 |
| Alabama . . . . .        | 33,091                          | 921          | 31,192          | 2,046        | 29,147                 | 3,147       | 3,760            | 67      | 20,968  | 1,205  |
| Arizona . . . . .        | 72,960                          | 30,280       | 42,408          | 1,404        | 41,004                 | 1,198       | 76               | 32,227  | 4,718   | 2,785  |
| Arkansas . . . . .       | 34,040                          | 3,207        | 29,803          | 1,322        | 28,480                 | 7,730       | 5,727            | 159     | 14,267  | 598    |
| California . . . . .     | 101,572                         | 46,792       | 52,892          | 5,001        | 47,892                 | 10,052      | 1,161            | 17,140  | 14,794  | 4,746  |
| Colorado . . . . .       | 66,618                          | 23,923       | 42,240          | 1,694        | 40,547                 | 8,940       | 1,256            | 23,537  | 3,755   | 3,059  |
| Connecticut . . . . .    | 3,212                           | 15           | 3,054           | 816          | 2,238                  | 229         | 110              | -       | 1,760   | 140    |
| Delaware . . . . .       | 1,309                           | 33           | 1,213           | 205          | 1,008                  | 499         | 26               | -       | 353     | 130    |
| Florida . . . . .        | 37,545                          | 3,791        | 30,406          | 4,645        | 25,761                 | 2,997       | 4,373            | 3,467   | 12,378  | 2,545  |
| Georgia . . . . .        | 37,702                          | 2,087        | 34,599          | 3,077        | 31,523                 | 5,173       | 3,075            | -       | 21,714  | 1,560  |
| Hawaii . . . . .         | 4,093                           | 432          | 3,621           | 170          | 3,451                  | 274         | 88               | 925     | 1,483   | 680    |
| Idaho . . . . .          | 53,481                          | 33,298       | 19,521          | 587          | 18,934                 | 5,600       | 1,243            | 6,668   | 4,024   | 1,399  |
| Illinois . . . . .       | 36,061                          | 521          | 34,766          | 3,094        | 31,672                 | 24,100      | 2,764            | -       | 3,419   | 1,390  |
| Indiana . . . . .        | 23,159                          | 487          | 22,287          | 2,095        | 20,193                 | 13,513      | 1,866            | -       | 3,626   | 1,188  |
| Iowa . . . . .           | 36,016                          | 184          | 35,363          | 1,779        | 33,584                 | 24,988      | 3,712            | -       | 1,931   | 2,953  |
| Kansas . . . . .         | 52,658                          | 606          | 51,488          | 1,997        | 49,491                 | 26,565      | 2,306            | 15,723  | 1,331   | 3,565  |
| Kentucky . . . . .       | 25,862                          | 1,201        | 23,985          | 1,653        | 22,332                 | 5,092       | 5,859            | -       | 10,312  | 1,069  |
| Louisiana . . . . .      | 30,561                          | 1,264        | 26,373          | 1,764        | 24,609                 | 5,972       | 2,269            | 227     | 12,961  | 3,181  |
| Maine . . . . .          | 21,290                          | 164          | 19,517          | 697          | 18,820                 | 448         | 111              | -       | 17,557  | 705    |
| Maryland . . . . .       | 6,695                           | 167          | 6,034           | 1,095        | 4,939                  | 1,673       | 545              | -       | 2,364   | 356    |
| Massachusetts . . . . .  | 5,302                           | 89           | 4,839           | 1,309        | 3,530                  | 272         | 170              | -       | 2,778   | 310    |
| Michigan . . . . .       | 37,457                          | 3,166        | 33,040          | 3,686        | 29,354                 | 8,985       | 2,353            | -       | 15,608  | 2,408  |
| Minnesota . . . . .      | 54,017                          | 3,383        | 47,092          | 2,418        | 44,674                 | 21,356      | 3,282            | -       | 13,815  | 6,222  |
| Mississippi . . . . .    | 30,521                          | 1,726        | 27,992          | 1,337        | 26,655                 | 5,726       | 4,047            | -       | 15,765  | 1,117  |
| Missouri . . . . .       | 44,606                          | 2,017        | 41,710          | 2,336        | 39,374                 | 13,347      | 11,911           | 126     | 11,656  | 2,332  |
| Montana . . . . .        | 94,109                          | 27,122       | 65,656          | 1,096        | 64,561                 | 15,035      | 3,370            | 36,835  | 5,156   | 4,165  |
| Nebraska . . . . .       | 49,507                          | 739          | 48,137          | 1,252        | 46,885                 | 19,239      | 2,066            | 22,669  | 777     | 2,135  |
| Nevada . . . . .         | 70,759                          | 60,290       | 10,025          | 394          | 9,631                  | 762         | 297              | 7,854   | 353     | 364    |
| New Hampshire . . . . .  | 5,938                           | 747          | 4,952           | 563          | 4,389                  | 142         | 98               | -       | 3,932   | 217    |
| New Jersey . . . . .     | 4,984                           | 159          | 4,549           | 1,588        | 2,961                  | 650         | 159              | -       | 1,766   | 386    |
| New Mexico . . . . .     | 77,819                          | 27,394       | 50,196          | 866          | 49,330                 | 1,892       | 212              | 39,792  | 4,600   | 2,835  |
| New York . . . . .       | 31,429                          | 231          | 29,788          | 3,005        | 26,783                 | 5,616       | 3,001            | -       | 17,178  | 987    |
| North Carolina . . . . . | 33,708                          | 2,448        | 28,476          | 3,542        | 24,933                 | 5,960       | 2,019            | -       | 15,979  | 975    |
| North Dakota . . . . .   | 45,250                          | 1,951        | 42,187          | 1,344        | 40,843                 | 24,743      | 1,168            | 10,325  | 426     | 4,181  |
| Ohio . . . . .           | 26,451                          | 375          | 25,654          | 3,558        | 22,096                 | 11,929      | 2,269            | -       | 6,624   | 1,275  |
| Oklahoma . . . . .       | 44,772                          | 1,202        | 42,395          | 1,875        | 40,520                 | 10,081      | 7,720            | 14,061  | 6,988   | 1,672  |
| Oregon . . . . .         | 62,127                          | 32,291       | 29,155          | 1,125        | 28,030                 | 3,776       | 1,900            | 9,375   | 11,839  | 1,142  |
| Pennsylvania . . . . .   | 28,997                          | 682          | 27,813          | 3,432        | 24,381                 | 5,596       | 2,326            | -       | 15,316  | 1,143  |
| Rhode Island . . . . .   | 776                             | 4            | 661             | 190          | 472                    | 25          | 24               | -       | 393     | 30     |
| South Carolina . . . . . | 19,912                          | 1,156        | 17,961          | 1,856        | 16,105                 | 2,983       | 1,190            | -       | 10,922  | 1,010  |
| South Dakota . . . . .   | 49,354                          | 2,907        | 45,459          | 1,135        | 44,324                 | 16,436      | 2,158            | 21,933  | 540     | 3,257  |
| Tennessee . . . . .      | 26,972                          | 1,379        | 24,740          | 2,161        | 22,579                 | 4,857       | 5,165            | -       | 11,580  | 977    |
| Texas . . . . .          | 170,756                         | 3,203        | 163,687         | 8,231        | 155,456                | 28,261      | 16,710           | 94,155  | 9,960   | 6,369  |
| Utah . . . . .           | 54,336                          | 35,582       | 16,866          | 561          | 16,305                 | 1,815       | 665              | 10,050  | 1,626   | 2,148  |
| Vermont . . . . .        | 6,153                           | 368          | 5,521           | 324          | 5,197                  | 635         | 349              | -       | 4,138   | 75     |
| Virginia . . . . .       | 26,091                          | 2,389        | 22,774          | 2,183        | 20,591                 | 2,901       | 3,444            | -       | 13,539  | 707    |
| Washington . . . . .     | 43,608                          | 12,479       | 29,931          | 1,851        | 28,081                 | 6,745       | 1,352            | 5,476   | 12,547  | 1,960  |
| West Virginia . . . . .  | 15,508                          | 1,201        | 14,138          | 689          | 13,449                 | 915         | 1,609            | -       | 10,534  | 391    |
| Wisconsin . . . . .      | 35,938                          | 1,829        | 32,747          | 2,357        | 30,390                 | 10,813      | 2,954            | -       | 13,410  | 3,212  |
| Wyoming . . . . .        | 62,598                          | 30,020       | 32,012          | 541          | 31,471                 | 2,272       | 901              | 26,015  | 975     | 1,309  |
| Caribbean . . . . .      | 2,334                           | 90           | 2,211           | 407          | 1,804                  | 367         | 712              | 145     | 521     | 59     |

- Represents zero. <sup>1</sup> Includes water area not shown separately. <sup>2</sup> Includes urban and built-up areas in units of 10 acres or greater, and rural transportation.

Source: U.S. Dept. of Agriculture, Soil Conservation Service, and Iowa State University, Statistical Laboratory; *Summary Report, 1992 National Resources Inventory*.

## No. 371. Extreme and Mean Elevations States and Other Areas

[One foot=.305 meter]

| STATE OR OTHER AREA      | HIGHEST POINT                                     |           |        | LOWEST POINT                  |                  |                  | APPROXIMATE MEAN ELEVATION |        |
|--------------------------|---|-----------|--------|-------------------------------|------------------|------------------|----------------------------|--------|
|                          | Name  | Elevation |        | Name                          | Elevation        |                  | Feet                       | Meters |
|                          |   | Feet      | Meters |                               | Feet             | Meters           |                            |        |
| U.S. ....                | Mt. McKinley (AK) .....                           | 20,320    | 6,198  | Death Valley (CA) .....       | -282             | -86              | 2,500                      | 763    |
| AL . . . . .             | Cheaha Mountain . . . . .                         | 2,405     | 733    | Gulf of Mexico . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 500                        | 153    |
| AK . . . . .             | Mount McKinley . . . . .                          | 20,320    | 6,198  | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,900                      | 580    |
| AZ . . . . .             | Humphreys Peak . . . . .                          | 12,633    | 3,853  | Colorado River . . . . .      | 70               | 21               | 4,100                      | 1,251  |
| AR . . . . .             | Magazine Mountain . . . . .                       | 2,753     | 840    | Ouachita River . . . . .      | 55               | 17               | 650                        | 198    |
| CA . . . . .             | Mount Whitney . . . . .                           | 14,494    | 4,419  | Death Valley . . . . .        | -282             | -86              | 2,900                      | 885    |
| CO . . . . .             | Mt. Elbert . . . . .                              | 14,433    | 4,402  | Arkansas River . . . . .      | 3,350            | 1,022            | 6,800                      | 2,074  |
| CT . . . . .             | Mt. Frissell on South slope                       | 2,380     | 726    | Long Island Sound . . . . .   | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 500                        | 153    |
| DE . . . . .             | Ebright Road, <sup>2</sup>                        |           |        |                               |                  |                  |                            |        |
|                          | New Castle County . . . . .                       | 448       | 137    | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 60                         | 18     |
| DC . . . . .             | Tenleytown at Reno Reservoir                      | 410       | 125    | Potomac River . . . . .       | 1                | (Z)              | 150                        | 46     |
| FL . . . . .             | Sec. 30, T6N, R20W, Walton County                 | 345       | 105    | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 100                        | 31     |
| GA . . . . .             | Brasstown Bald . . . . .                          | 4,784     | 1,459  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 600                        | 183    |
| HI . . . . .             | Puu Wekin . . . . .                               | 13,796    | 4,208  | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 3,030                      | 924    |
| ID . . . . .             | Borah Peak . . . . .                              | 12,662    | 3,862  | Snake River . . . . .         | 710              | 217              | 5,000                      | 1,525  |
| IL . . . . .             | Charles Mound . . . . .                           | 1,235     | 377    | Mississippi River . . . . .   | 279              | 85               | 600                        | 183    |
| IN . . . . .             | Franklin Twp., Wayne Co.                          | 1,257     | 383    | Ohio River . . . . .          | 320              | 98               | 700                        | 214    |
| IA . . . . .             | Sec. 29, T100N, R41W, Osceola County <sup>3</sup> | 1,670     | 509    | Mississippi River . . . . .   | 480              | 146              | 1,100                      | 336    |
| KS . . . . .             | Mount Sunflower . . . . .                         | 4,039     | 1,232  | Verdigris River . . . . .     | 679              | 207              | 2,000                      | 610    |
| KY . . . . .             | Black Mountain . . . . .                          | 4,139     | 1,262  | Mississippi River . . . . .   | 257              | 78               | 750                        | 229    |
| LA . . . . .             | Driskill Mountain . . . . .                       | 535       | 163    | New Orleans . . . . .         | -8               | -2               | 100                        | 31     |
| ME . . . . .             | Mount Katahdin . . . . .                          | 5,267     | 1,606  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 600                        | 183    |
| MD . . . . .             | Backbone Mountain . . . . .                       | 3,360     | 1,025  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 350                        | 107    |
| MA . . . . .             | Mount Greylock . . . . .                          | 3,487     | 1,064  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 500                        | 153    |
| MI . . . . .             | Mount Arvon . . . . .                             | 1,979     | 604    | Lake Erie . . . . .           | 571              | 174              | 900                        | 275    |
| MN . . . . .             | Eagle Mountain, Cook Co.                          | 2,301     | 702    | Lake Superior . . . . .       | 600              | 183              | 1,200                      | 366    |
| MS . . . . .             | Woodall Mountain . . . . .                        | 806       | 246    | Gulf of Mexico . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 300                        | 92     |
| MO . . . . .             | Taum Sauk Mountain . . . . .                      | 1,772     | 540    | St. Francis River . . . . .   | 230              | 70               | 800                        | 244    |
| MT . . . . .             | Granite Peak . . . . .                            | 12,799    | 3,904  | Kootenai River . . . . .      | 1,800            | 549              | 3,400                      | 1,037  |
| NE . . . . .             | Johnson Iwp., Kimball Co.                         | 5,424     | 1,654  | Missouri River . . . . .      | 840              | 256              | 2,600                      | 793    |
| NV . . . . .             | Boundary Peak . . . . .                           | 13,140    | 4,007  | Colorado River . . . . .      | 479              | 146              | 5,500                      | 1,678  |
| NH . . . . .             | Mount Washington . . . . .                        | 6,288     | 1,918  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,000                      | 305    |
| NJ . . . . .             | High Point . . . . .                              | 1,803     | 550    | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 250                        | 76     |
| NM . . . . .             | Wheeler Peak . . . . .                            | 13,161    | 4,014  | Red Bluff Reservoir . . . . . | 2,842            | 867              | 5,700                      | 1,739  |
| NY . . . . .             | Mount Marcy . . . . .                             | 5,344     | 1,630  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,000                      | 305    |
| NC . . . . .             | Mount Mitchell . . . . .                          | 6,684     | 2,039  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 700                        | 214    |
| ND . . . . .             | White Butte, Slope Co.                            | 3,506     | 1,069  | Red River . . . . .           | 750              | 229              | 1,900                      | 580    |
| OH . . . . .             | Campbell Hill . . . . .                           | 1,549     | 472    | Ohio River . . . . .          | 455              | 139              | 850                        | 259    |
| OK . . . . .             | Black Mesa . . . . .                              | 4,973     | 1,517  | Little River . . . . .        | 289              | 88               | 1,300                      | 397    |
| OR . . . . .             | Mount Hood . . . . .                              | 11,239    | 3,428  | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 3,300                      | 1,007  |
| PA . . . . .             | Mount Davis . . . . .                             | 3,213     | 980    | Delaware River . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,100                      | 336    |
| RI . . . . .             | Jerimoth Hill . . . . .                           | 812       | 248    | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 200                        | 61     |
| SC . . . . .             | Sassafras Mountain . . . . .                      | 3,560     | 1,086  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 350                        | 107    |
| SD . . . . .             | Harney Peak . . . . .                             | 7,242     | 2,209  | Big Stone Lake . . . . .      | 966              | 295              | 2,200                      | 671    |
| TN . . . . .             | Clingmans Dome . . . . .                          | 6,643     | 2,026  | Mississippi River . . . . .   | 178              | 54               | 900                        | 275    |
| TX . . . . .             | Guadalupe Peak . . . . .                          | 8,749     | 2,668  | Gulf of Mexico . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,700                      | 519    |
| UT . . . . .             | Kings Peak . . . . .                              | 13,528    | 4,126  | Beaverdam Wash . . . . .      | 2,000            | 610              | 6,100                      | 1,861  |
| VT . . . . .             | Mount Mansfield . . . . .                         | 4,393     | 1,340  | Lake Champlain . . . . .      | 95               | 29               | 1,000                      | 305    |
| VA . . . . .             | Mount Rogers . . . . .                            | 5,729     | 1,747  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 950                        | 290    |
| WA . . . . .             | Mount Rainier . . . . .                           | 14,410    | 4,395  | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,700                      | 519    |
| WV . . . . .             | Spruce Knob . . . . .                             | 4,861     | 1,483  | Potomac River . . . . .       | 240              | 73               | 1,500                      | 458    |
| WI . . . . .             | Timms Hill . . . . .                              | 1,951     | 595    | Lake Michigan . . . . .       | 579              | 177              | 1,050                      | 320    |
| WY . . . . .             | Gannett Peak . . . . .                            | 13,804    | 4,210  | Belle Fourche River . . . . . | 3,099            | 945              | 6,700                      | 2,044  |
| Other areas:             |   |           |        |                               |                  |                  |                            |        |
| Puerto Rico . . . . .    | Cerro de Punta . . . . .                          | 4,390     | 1,339  | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,800                      | 549    |
| American Samoa . . . . . | Lata Mountain . . . . .                           | 3,160     | 964    | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 1,300                      | 397    |
| Guam . . . . .           | Mount Lamlam . . . . .                            | 1,332     | 406    | Pacific Ocean . . . . .       | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 330                        | 101    |
| Virgin Is. . . . .       | Crown Mountain . . . . .                          | 1,556     | 475    | Atlantic Ocean . . . . .      | ( <sup>1</sup> ) | ( <sup>1</sup> ) | 750                        | 229    |

Z Less than 0.5 meter. <sup>1</sup> Sea level. <sup>2</sup> At DE-PA State line. <sup>3</sup> "Sec." denotes section; "T," township; "R," range; "N," north; and "W," west.

Source: U.S. Geological Survey, for highest and lowest points, *Elevations and Distances in the United States, 1990*; for mean elevations, 1983 edition.

## No. 372. Water Areas for Selected Major Bodies of Water: 1990

[Includes only that portion of body of water under the jurisdiction of the United States, excluding Hawaii. One square mile=2.59 square kilometers]

| BODY OF WATER<br>AND STATE            | AREA    |         | BODY OF WATER<br>AND STATE             | AREA    |         |  |
|---------------------------------------|---------|---------|--|---------|---------|--|
|                                       | Sq. mi. | Sq. km. |  | Sq. mi. | Sq. km. |  |
| <b>Atlantic Coast water bodies:</b>   |         |         |  |         |         |  |
| Chesapeake Bay (MD-VA)                | 2,747   | 7,115   | Leech Lake (MN)                        | 162     | 419     |  |
| Pamlico Sound (NC)                    | 1,622   | 4,200   | Lake St. Clair (MI)                    | 161     | 416     |  |
| Long Island Sound (CT-NY)             | 914     | 2,368   | Eufaula Lake (OK)                      | 157     | 407     |  |
| Delaware Bay (DE-NJ)                  | 614     | 1,591   | Sam Rayburn Reservoir (TX)             | 150     | 389     |  |
| Cape Cod Bay (MA)                     | 598     | 1,548   | Goose Lake (CA-OR)                     | 147     | 381     |  |
| Alethmarie Sound (NC)                 | 492     | 1,274   | Utah Lake (UT)                         | 139     | 361     |  |
| Biscayne Bay (FL)                     | 218     | 565     | Lake Marion (SC)                       | 139     | 360     |  |
| Buzzards Bay (MA)                     | 215     | 558     | Lake Francis Case (SD)                 | 134     | 346     |  |
| Tangier Sound (MD-VA)                 | 172     | 445     | Lake Pend Oreille (ID)                 | 133     | 343     |  |
| Currituck Sound (NC)                  | 116     | 301     | Lake Texoma (OK-TX)                    | 132     | 342     |  |
| Pocomoke Sound (MD-VA)                | 111     | 286     | Yellowstone Lake (WY)                  | 131     | 339     |  |
| Chincoteague Bay (MD-VA)              | 105     | 272     | Livingston Reservoir (TX)              | 127     | 330     |  |
| Great South Bay (NY)                  | 94      | 243     | Franklin D. Roosevelt Lake (WA)        | 124     | 322     |  |
| Core Sound (NC)                       | 88      | 229     | Moosehead Lake (ME)                    | 116     | 301     |  |
| <b>Gulf Coast water bodies:</b>       |         |         |  |         |         |  |
| Mississippi Sound (AL-LA-MS)          | 813     | 2,105   | Clark Hill Lake (GA-SC)                | 105     | 272     |  |
| Laguna Madre (TX)                     | 733     | 1,897   | Lake Maurepas (LA)                     | 91      | 235     |  |
| Lake Pontchartrain (LA)               | 631     | 1,635   | Lake Moultrie (SC)                     | 89      | 230     |  |
| Florida Bay (FL)                      | 616     | 1,596   | Lake Winnibigoshish (MN)               | 87      | 225     |  |
| Breton Sound (LA)                     | 511     | 1,323   | Hartwell Lake (GA-SC)                  | 86      | 224     |  |
| Mobile Bay (AL)                       | 310     | 802     | Upper Klamath Lake (OR)                | 85      | 221     |  |
| Lake Borgne (LA-MS)                   | 271     | 702     | Harry S. Truman Reservoir (MO)         | 84      | 217     |  |
| Matagorda Bay (TX)                    | 253     | 656     | Oneida Lake (NY)                       | 80      | 207     |  |
| Atchafalaya Bay (LA)                  | 245     | 635     | Malheur Lake (OR)                      | 75      | 195     |  |
| Galveston Bay (TX)                    | 236     | 611     | <b>Alaska water bodies:</b>            |         |         |  |
| Tampa Bay (FL)                        | 212     | 549     | Chatham Strait                         | 1,559   | 4,039   |  |
| Vermilion Bay (LA)                    | 189     | 489     | Prince William Sound                   | 1,382   | 3,579   |  |
| Corpus Christi Bay (TX)               | 151     | 392     | Clarence Strait                        | 1,199   | 3,107   |  |
| West Cote Blanche Bay (LA)            | 146     | 378     | Iliamna Lake                           | 1,022   | 2,646   |  |
| Trinity Bay (TX)                      | 129     | 335     | Frederick Sound                        | 792     | 2,051   |  |
| Choctawhatchee Bay (FL)               | 122     | 315     | Summer Strait                          | 791     | 2,048   |  |
| San Antonio Bay (TX)                  | 118     | 306     | Stephens Passage                       | 702     | 1,819   |  |
| Timbalier Bay (LA)                    | 112     | 291     | Kivichak Bay                           | 640     | 1,659   |  |
| Charlotte Harbor (FL)                 | 112     | 291     | Montague Strait                        | 463     | 1,198   |  |
| Aransas Bay (TX)                      | 104     | 268     | Becharof Lake                          | 447     | 1,158   |  |
| Apalachicola Bay (FL)                 | 101     | 262     | Icy Strait                             | 436     | 1,130   |  |
| Terrebonne Bay (LA)                   | 99      | 256     | Hotham Inlet                           | 433     | 1,120   |  |
| East Cote Blanche Bay (LA)            | 94      | 243     | Selawik Lake                           | 403     | 1,044   |  |
| St. George Sound (FL)                 | 93      | 240     | Nushagak Bay                           | 393     | 1,018   |  |
| Sabine Lake (LA-TX)                   | 89      | 229     | Baird Inlet                            | 348     | 902     |  |
| White Lake (LA)                       | 85      | 221     | <b>Pacific Coast water bodies:</b>     |         |         |  |
| Old Tampa Bay (FL)                    | 83      | 214     | Yakutat Bay                            | 345     | 894     |  |
| Bon Secour Bay (AL)                   | 79      | 204     | Teshekpuk Lake                         | 324     | 839     |  |
| Pine Island Sound (FL)                | 75      | 194     | Behm Canal                             | 324     | 839     |  |
| <b>Interior water bodies:</b>         |         |         |  |         |         |  |
| Lake Michigan (IL-IN-MI-WI)           | 22,342  | 57,866  | Turnagain Arm                          | 322     | 834     |  |
| Lake Superior (MI-MN-WI) <sup>1</sup> | 20,557  | 53,243  | Kachemak Bay                           | 310     | 803     |  |
| Lake Huron (MI) <sup>1</sup>          | 8,800   | 22,792  | Glacier Bay                            | 310     | 803     |  |
| Lake Erie (MI-NY-OH-PA) <sup>1</sup>  | 5,033   | 13,036  | Stefansson Sound                       | 301     | 780     |  |
| Lake Ontario (NY) <sup>1</sup>        | 3,446   | 8,926   | Revillagigedo Channel                  | 295     | 764     |  |
| Great Salt Lake (UT)                  | 1,836   | 4,756   | Kasegaluk Lagoon                       | 293     | 759     |  |
| Green Bay (MI-WI)                     | 1,396   | 3,617   | Cordova Bay                            | 241     | 623     |  |
| Lake Okeechobee (FL)                  | 663     | 1,717   | Sitka Sound                            | 229     | 593     |  |
| Lake Sakakawea (ND)                   | 563     | 1,459   | Naknek Lake                            | 225     | 582     |  |
| Lake Oahe (ND-SD)                     | 538     | 1,394   | Eschscholtz Bay                        | 210     | 543     |  |
| Lake of the Woods (MN)                | 462     | 1,196   | Stepovak Bay                           | 206     | 534     |  |
| Lake Champlain (NY-VT) <sup>1</sup>   | 414     | 1,072   | Keku Strait                            | 206     | 534     |  |
| Fort Peck Lake (MT)                   | 379     | 981     | <b>Pacific Northwest water bodies:</b> |         |         |  |
| Salton Sea (CA)                       | 364     | 944     | Port Clarence                          | 187     | 486     |  |
| Toledo Bend Reservoir (LA-TX)         | 268     | 694     | Orca Bay                               | 184     | 476     |  |
| Lower Red Lake (MN)                   | 257     | 666     | Knik Arm                               | 169     | 437     |  |
| Lake Powell (AZ-UT)                   | 250     | 649     | Dall Lake                              | 167     | 433     |  |
| Kentucky Lake (KY-TN)                 | 234     | 605     | Knight Island Passage                  | 167     | 432     |  |
| Lake Mead (AZ-NV)                     | 233     | 603     | Scammon Bay                            | 163     | 423     |  |
| Lake Winnebago (WI)                   | 206     | 535     | Port Moller                            | 159     | 412     |  |
| Mille Lacs Lake (MN)                  | 200     | 518     | Ernest Sound                           | 158     | 410     |  |
| Flathead Lake (MT)                    | 191     | 495     | Spafarief Bay                          | 157     | 405     |  |
| Lake Tahoe (CA-NV)                    | 187     | 486     | Pavlof Bay                             | 153     | 396     |  |
| Upper Red Lake (MN)                   | 186     | 483     | Shishmaref Inlet                       | 153     | 395     |  |
| Pyramid Lake (NV)                     | 170     | 440     | Smith Bay                              | 140     | 363     |  |
| <b>Other water bodies:</b>            |         |         |  |         |         |  |
| Lake Clark                            |         |         | Seymour Canal                          | 140     | 361     |  |
| Lynn Canal                            |         |         | Sitkalidak Strait                      | 135     | 349     |  |
| Chignik Bay                           |         |         | Tlevak Strait                          | 135     | 349     |  |
| Elson Lagoon                          |         |         | Lake Clark                             | 130     | 336     |  |
| Bucareli Bay                          |         |         | Lynn Canal                             | 130     | 336     |  |
| Hinchinbrook Entrance                 |         |         | Chignik Bay                            | 119     | 309     |  |
|                                       |         |         | Elson Lagoon                           | 119     | 309     |  |
|                                       |         |         | Bucareli Bay                           | 119     | 307     |  |
|                                       |         |         | Hinchinbrook Entrance                  | 118     | 306     |  |

<sup>1</sup> Area measurements for Lake Champlain, Lake Erie, Lake Huron, Lake Ontario, Lake St. Clair, Lake Superior, and Lake of the Woods include only those portions under the jurisdiction of the United States.

## No. 373. Flows of Largest U.S. Rivers—Length, Discharge, and Drainage Area

| RIVER                              | Location of mouth           | Source stream<br>(name and location)       | Length<br>(miles) <sup>1</sup> | Average<br>discharge<br>at mouth<br>(1,000<br>cubic ft.<br>per<br>second) | Drainage<br>area<br>(1,000 sq.<br>mi.) |
|------------------------------------|-----------------------------|--|--------------------------------|---|--|
| Missouri . . . . .                 | Missouri . . . . .          | Red Rock Creek, MT . . . . .               | 2,540                          | 76.2  | 5,529                                  |
| Mississippi . . . . .              | Louisiana . . . . .         | Mississippi River, MN . . . . .            | 2,340                          | 593   | 4,150                                  |
| Yukon . . . . .                    | Alaska . . . . .            | McNeil River, Canada . . . . .             | 1,980                          | 225   | 5,328                                  |
| St. Lawrence . . . . .             | Canada . . . . .            | North River, MN . . . . .                  | 1,900                          | 348   | 5,396                                  |
| Rio Grande . . . . .               | Mexico-Texas . . . . .      | Rio Grande, CO . . . . .                   | 1,900                          | -   | 336                                    |
| Arkansas . . . . .                 | Arkansas . . . . .          | East Fork Arkansas River, CO . . . . .     | 1,460                          | 41  | 161                                    |
| Colorado . . . . .                 | Mexico . . . . .            | Colorado River, CO . . . . .               | 1,450                          | -   | 246                                    |
| Atchafalaya <sup>6</sup> . . . . . | Louisiana . . . . .         | Tierra Blanca Creek, NM . . . . .          | 1,420                          | 58  | 95.1                                   |
| Ohio . . . . .                     | Illinois-Kentucky . . . . . | Allegheny River, PA . . . . .              | 1,310                          | 281   | 203                                    |
| Red . . . . .                      | Louisiana . . . . .         | Tierra Blanca Creek, NM . . . . .          | 1,290                          | 56  | 93.2                                   |
| Brazos . . . . .                   | Texas . . . . .             | Blackwater Draw, NM . . . . .              | 1,280                          | -   | 45.6                                   |
| Columbia . . . . .                 | Oregon-Washington . . . . . | Columbia River, Canada . . . . .           | 1,240                          | 265   | 5,258                                  |
| Snake . . . . .                    | Washington . . . . .        | Snake River, WY . . . . .                  | 1,040                          | 56.9  | 108                                    |
| Platte . . . . .                   | Nebraska . . . . .          | Grizzly Creek, CO . . . . .                | 990                            | -   | 84.9                                   |
| Pecos . . . . .                    | Texas . . . . .             | Pecos River, NM . . . . .                  | 926                            | -   | 44.3                                   |
| Canadian . . . . .                 | Oklahoma . . . . .          | Canadian River, CO . . . . .               | 906                            | -   | 46.9                                   |
| Tennessee . . . . .                | Kentucky . . . . .          | Courthouse Creek, NC . . . . .             | 886                            | 68  | 40.9                                   |
| Colorado (of Texas) . . . . .      | Texas . . . . .             | Colorado River, TX . . . . .               | 862                            | -   | 42.3                                   |
| North Canadian . . . . .           | Oklahoma . . . . .          | Corrumpa Creek, NM . . . . .               | 800                            | -   | 17.6                                   |
| Mobile . . . . .                   | Alabama . . . . .           | Tickanetley Creek, GA . . . . .            | 774                            | 67.2  | 44.6                                   |
| Kansas . . . . .                   | Kansas . . . . .            | Arikaree River, CO . . . . .               | 743                            | -   | 59.5                                   |
| Kuskokwim . . . . .                | Alaska . . . . .            | South Fork Kuskokwim River, AK . . . . .   | 724                            | 67  | 48                                     |
| Yellowstone . . . . .              | North Dakota . . . . .      | North Fork Yellowstone River, WY . . . . . | 692                            | -   | 70                                     |
| Tanana . . . . .                   | Alaska . . . . .            | Nabesna River, AK . . . . .                | 659                            | 41  | 44.5                                   |
| Gila . . . . .                     | Arizona . . . . .           | Middle Fork Gila River, NM . . . . .       | 649                            | -   | 58.2                                   |

<sup>1</sup> Represents zero. <sup>2</sup> From source to mouth. <sup>3</sup> The length from the source of the Missouri River to the Mississippi River and thence to the Gulf of Mexico is about 3,710 miles. <sup>4</sup> Includes about 167,000 cubic ft. per second diverted from the Mississippi into the Atchafalaya River but excludes the flow of the Red River. <sup>5</sup> Excludes the drainage areas of the Red and Atchafalaya Rivers. <sup>6</sup> Drainage area includes both the United States and Canada. <sup>7</sup> In east-central Louisiana, the Red River flows into the Atchafalaya River, a distributary of the Mississippi River. Data on average discharge, length, and drainage area include the Red River, but exclude all water diverted into the Atchafalaya from the Mississippi River.

Source: U.S. Geological Survey, *Largest Rivers in the United States*, Open File Report 87-242, May 1990.

## No. 374. Water Withdrawals and Consumptive Use—States and Other Areas: 1990

[In millions of gallons per day, except as noted. Figures may not add due to rounding. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water]

| STATE OR<br>OTHER AREA         | WATER WITHDRAWN |  |                 |                  | Con-<br>sump-<br>tive<br>use, <sup>1</sup><br>1<br>fresh<br>water | STATE OR<br>OTHER AREA   | WATER WITHDRAWN |  |                 |                  | Con-<br>sump-<br>tive<br>use, <sup>1</sup><br>1<br>fresh<br>water |  |  |  |
|--------------------------------|-----------------|--|-----------------|------------------|---|--------------------------|-----------------|--|-----------------|------------------|---|--|--|--|
|                                | Total           | Per<br>capita<br>(gal.<br>per<br>day)<br>fresh | Source          |                  |   |                          | Total           | Per<br>capita<br>(gal.<br>per<br>day)<br>fresh | Source          |                  |   |  |  |  |
|                                |                 |  | Ground<br>water | Surface<br>water |   |                          |                 |  | Ground<br>water | Surface<br>water |   |  |  |  |
| U.S. <sup>2</sup> . . .        | 407,900         | 1,340  | 80,640          | 327,260          | 93,980  | Montana . . . . .        | 9,320           | 11,600   | 218             | 9,100            | 2,090   |  |  |  |
| Alabama . . . . .              | 8,090           | 2,000  | 403             | 7,680            | 454   | Nebraska . . . . .       | 8,940           | 5,660  | 4,800           | 4,150            | 4,230   |  |  |  |
| Alaska . . . . .               | 641             | 517  | 112             | 529              | 26  | Nevada . . . . .         | 3,350           | 2,780  | 1,070           | 2,280            | 1,690   |  |  |  |
| Arizona . . . . .              | 6,570           | 1,790  | 2,740           | 3,830            | 4,350   | New Hampshire . . . . .  | 1,310           | 378  | 64              | 1,250            | 26  |  |  |  |
| Arkansas . . . . .             | 7,840           | 3,330  | 4,710           | 3,130            | 4,140   | New Jersey . . . . .     | 12,800          | 287  | 566             | 12,200           | 211   |  |  |  |
| California . . . . .           | 46,800          | 1,180  | 14,900          | 31,900           | 20,900  | New Mexico . . . . .     | 3,480           | 2,300  | 1,760           | 1,720            | 2,060   |  |  |  |
| Colorado . . . . .             | 12,700          | 3,850  | 2,800           | 9,910            | 5,250   | New York . . . . .       | 19,000          | 583  | 840             | 18,100           | 562   |  |  |  |
| Connecticut . . . . .          | 4,840           | 325  | 165             | 4,680            | 103   | North Carolina . . . . . | 8,940           | 1,350  | 435             | 8,510            | 390   |  |  |  |
| Delaware . . . . .             | 1,370           | 1,540  | 89              | 1,280            | 59  | North Dakota . . . . .   | 2,680           | 4,190  | 141             | 2,540            | 228   |  |  |  |
| District of Columbia . . . . . | 9               | 15   | 1               | 8                | 16  | Ohio . . . . .           | 11,700          | 1,080  | 904             | 10,800           | 901   |  |  |  |
| Florida . . . . .              | 17,900          | 582  | 4,660           | 13,200           | 3,130   | Oklahoma . . . . .       | 1,670           | 452  | 905             | 760              | 659   |  |  |  |
| Georgia . . . . .              | 5,350           | 816  | 996             | 4,360            | 822   | Oregon . . . . .         | 8,430           | 2,970  | 767             | 7,660            | 3,160   |  |  |  |
| Hawaii . . . . .               | 2,740           | 1,070  | 590             | 2,150            | 627   | Pennsylvania . . . . .   | 9,830           | 827  | 1,020           | 8,810            | 581   |  |  |  |
| Idaho . . . . .                | 19,700          | 19,600   | 7,590           | 12,100           | 6,090   | Rhode Island . . . . .   | 526             | 132  | 25              | 501              | 18  |  |  |  |
| Illinois . . . . .             | 18,000          | 1,570  | 945             | 17,100           | 750   | South Carolina . . . . . | 6,000           | 1,720  | 282             | 5,720            | 293   |  |  |  |
| Indiana . . . . .              | 9,430           | 1,700  | 621             | 8,810            | 451   | South Dakota . . . . .   | 592             | 851  | 251             | 341              | 345   |  |  |  |
| Iowa . . . . .                 | 2,860           | 1,030  | 495             | 2,370            | 271   | Tennessee . . . . .      | 9,190           | 1,880  | 503             | 8,690            | 252   |  |  |  |
| Kansas . . . . .               | 6,080           | 2,460  | 4,360           | 1,720            | 4,410   | Texas . . . . .          | 25,200          | 1,180  | 7,880           | 17,300           | 9,020   |  |  |  |
| Kentucky . . . . .             | 4,320           | 1,170  | 247             | 4,070            | 309   | Utah . . . . .           | 4,480           | 2,540  | 971             | 3,510            | 2,230   |  |  |  |
| Louisiana . . . . .            | 9,350           | 2,200  | 1,340           | 8,010            | 1,590   | Vermont . . . . .        | 632             | 1,120  | 45              | 587              | 29  |  |  |  |
| Maine . . . . .                | 1,140           | 433  | 85              | 1,060            | 51  | Virginia . . . . .       | 6,860           | 762  | 443             | 6,420            | 224   |  |  |  |
| Maryland . . . . .             | 6,420           | 307  | 239             | 6,180            | 126   | Washington . . . . .     | 7,940           | 1,630  | 1,450           | 6,490            | 2,830   |  |  |  |
| Massachusetts . . . . .        | 5,520           | 338  | 338             | 5,180            | 195   | West Virginia . . . . .  | 4,580           | 2,560  | 728             | 3,860            | 509   |  |  |  |
| Michigan . . . . .             | 11,600          | 1,250  | 707             | 10,900           | 738   | Wisconsin . . . . .      | 6,510           | 1,330  | 681             | 5,830            | 461   |  |  |  |
| Minnesota . . . . .            | 3,270           | 748  | 797             | 2,480            | 872   | Puerto Rico . . . . .    | 7,600           | 16,700   | 403             | 7,200            | 2,730   |  |  |  |
| Mississippi . . . . .          | 3,640           | 1,290  | 2,670           | 963              | 1,800   | Virgin Islands . . . . . | 3,040           | 163  | 157             | 2,880            | 199   |  |  |  |
| Missouri . . . . .             | 6,930           | 1,150  | 728             | 6,200            | 529   |                          | 164             | 91   | 3               | 160              | 2   |  |  |  |

<sup>1</sup> Water that has been evaporated, transpired, or incorporated into products, plant or animal tissue; and therefore, is not available for immediate reuse. <sup>2</sup> Includes Puerto Rico and Virgin Islands.

Source: U.S. Geological Survey, *Estimated Use of Water in the United States in 1990*, circular 1081.

**No. 375. U.S. Water Withdrawals and Consumptive Use Per Day, by End Use:  
1940 to 1990**

[Includes Puerto Rico. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water; excludes water used for hydroelectric power]

| YEAR                   | Total<br>(bil. gal.) | Per capita <sup>1</sup><br>(gal.) | Irrigation<br>(bil. gal.) | PUBLIC SUPPLY <sup>2</sup> |                                   | Rural <sup>4</sup><br>(bil. gal.) | Industrial<br>and misc. <sup>5</sup><br>(bil. gal.) | Steam<br>electric<br>utilities<br>(bil. gal.) |
|------------------------|----------------------|-----------------------------------|---------------------------|----------------------------|-----------------------------------|-----------------------------------|---|---|
|                        |                      |                                   |                           | Total<br>(bil. gal.)       | Per capita <sup>3</sup><br>(gal.) |                                   |   |   |
| <b>WITHDRAWALS</b>     |                      |                                   |                           |                            |                                   |                                   |   |   |
| 1940.....              | 140                  | 1,027                             | 71                        | 10                         | 75                                | 3.1                               | 29  | 23  |
| 1950.....              | 180                  | 1,185                             | 89                        | 14                         | 145                               | 3.6                               | 37  | 40  |
| 1955.....              | 240                  | 1,454                             | 110                       | 17                         | 148                               | 3.6                               | 39  | 72  |
| 1960.....              | 270                  | 1,500                             | 110                       | 21                         | 151                               | 3.6                               | 38  | 100   |
| 1965.....              | 310                  | 1,602                             | 120                       | 24                         | 155                               | 4.0                               | 46  | 130   |
| 1970.....              | 370                  | 1,815                             | 130                       | 27                         | 166                               | 4.5                               | 47  | 170   |
| 1975.....              | 420                  | 1,972                             | 140                       | 29                         | 168                               | 4.9                               | 45  | 200   |
| 1980.....              | 440                  | 1,953                             | 150                       | 34                         | 183                               | 5.6                               | 45  | 210   |
| 1985.....              | 399                  | 1,650                             | 137                       | 38                         | 189                               | 7.8                               | 31  | 187   |
| 1990.....              | 408                  | 1,620                             | 137                       | 41                         | 195                               | 7.9                               | 30  | 195   |
| <b>CONSUMPTIVE USE</b> |                      |                                   |                           |                            |                                   |                                   |   |   |
| 1960.....              | 61                   | 339                               | 52                        | 3.5                        | 25                                | 2.8                               | 3.0   | 0.2   |
| 1965.....              | 77                   | 403                               | 66                        | 5.2                        | 34                                | 3.2                               | 3.4   | 0.4   |
| 1970.....              | 87                   | 427                               | 73                        | 5.9                        | 36                                | 3.4                               | 4.1   | 0.8   |
| 1975.....              | 96                   | 451                               | 80                        | 6.7                        | 38                                | 3.4                               | 4.2   | 1.9   |
| 1980.....              | 100                  | 440                               | 83                        | 7.1                        | 38                                | 3.9                               | 5.0   | 3.2   |
| 1985.....              | 92                   | 380                               | 74                        | (6)                        | (6)                               | 9.2                               | 6.1   | 6.2   |
| 1990.....              | 94                   | 370                               | 76                        | (6)                        | (6)                               | 8.9                               | 6.7   | 4.0   |

<sup>1</sup> Based on Bureau of the Census resident population as of July 1. <sup>2</sup> Includes commercial water withdrawals.

<sup>3</sup> Based on population served. <sup>4</sup> Rural farm and nonfarm household and garden use, and water for farm stock and dairies.

<sup>5</sup> For 1940 to 1960, includes manufacturing and mineral industries, rural commercial industries, air-conditioning, resorts, hotels, motels, military and other State and Federal agencies, and miscellaneous; thereafter, includes manufacturing, mining and mineral processing, ordnance, construction, and miscellaneous. <sup>6</sup> Public supply consumptive use included in end-use categories.

Source: 1940-1960, U.S. Bureau of Domestic Business Development, based principally on committee prints, *Water Resources Activities in the United States*, for the Senate Committee on National Water Resources, U.S. Senate, thereafter, U.S. Geological Survey, *Estimated Use of Water in the United States in 1990*, circular 1081, and previous quinquennial issues.

**No. 376. National Ambient Water Quality in Rivers and Streams—Violation Rate:  
1980 to 1995**

[In percent. Violation level based on U.S. Environmental Protection Agency water quality criteria. Violation rate represents the proportion of all measurements of a specific water quality pollutant which exceeds the "violation level" for that pollutant. "Violation" does not necessarily imply a legal violation. Data based on U.S. Geological Survey's National Stream Quality Accounting Network (NASQAN) data system; for details, see source. Years refer to water years. A water year begins in Oct. and ends in Sept. µg=micrograms; mg=milligrams. For metric conversion, see page ix]

| POLLUTANT                                 | VIOLATION LEVEL                 | 1980 | 1985 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---------------------------------|------|------|------|------|------|------|------|------|------|
| Fecal coliform bacteria.....              | Above 200 cells per 100 ml. .   | 31   | 28   | 30   | 26   | 15   | 28   | 31   | 28   | 35   |
| Dissolved oxygen.....                     | Below 5 mg per liter. . . . .   | 5    | 3    | 3    | 2    | 2    | 2    | (Z)  | 2    | 1    |
| Phosphorus, total,<br>as phosphorous..... | Above 1.0 mg per liter . . . .  | 4    | 3    | 2    | 3    | 2    | 2    | 2    | 2    | 4    |
| Lead, dissolved.....                      | Above 50 µg per liter . . . . . | (Z)  | (Z)  | (Z)  | (Z)  | (Z)  | (Z)  | (NA) | (NA) | (NA) |
| Cadmium, dissolved.....                   | Above 10 µg per liter . . . . . | 1    | (Z)  | (Z)  | (Z)  | (Z)  | (Z)  | (NA) | (NA) | (NA) |

NA Not available. Z Less than 1.

Source: U.S. Geological Survey, national-level data, unpublished; State-level data, *Water-Data Report*, annual series prepared in cooperation with the State governments.

**No. 377. Oil Polluting Incidents Reported in and Around U.S. Waters: 1973 to 1993**

| YEAR      | Incidents | Gallons    | YEAR               | Incidents | Gallons    |
|-----------|-----------|------------|--------------------|-----------|------------|
| 1973..... | 11,054    | 15,289,188 | 1986.....          | 5,818     | 4,427,544  |
| 1974..... | 12,083    | 15,739,792 | 1987.....          | 5,693     | 3,759,983  |
| 1975..... | 10,998    | 21,528,444 | 1988.....          | 6,733     | 10,650,138 |
| 1976..... | 11,066    | 18,517,384 | 1989.....          | 8,562     | 25,531,292 |
| 1977..... | 10,979    | 8,188,398  | 1990.....          | 10,186    | 13,907,783 |
| 1978..... | 12,174    | 11,035,890 | 1991.....          | 10,405    | 2,156,063  |
| 1979..... | 11,556    | 10,051,271 | 1992.....          | 9,131     | 1,572,341  |
| 1980..... | 9,886     | 12,638,848 | 1993.....          | 9,672     | 1,543,578  |
| 1981..... | 9,589     | 8,919,789  | Tankships.....     | 185       | 14,138     |
| 1982..... | 9,416     | 10,404,646 | Tank barges.....   | 338       | 295,243    |
| 1983..... | 10,530    | 8,378,719  | Other vessels..... | 5,220     | 412,430    |
| 1984..... | 10,089    | 19,007,332 | Non-vessels.....   | 3,929     | 821,767    |
| 1985..... | 7,740     | 8,465,055  |                    |           |            |

Source: U.S. Coast Guard. Based on unpublished data from the *Marine Safety Information System*.

**No. 378. National Ambient Air Pollutant Concentrations: 1986 to 1995**

[Data represent annual composite averages of pollutant based on daily 24-hour averages of monitoring stations, except carbon monoxide is based on the second-highest, non-overlapping, 8-hour average; ozone, average of the second-highest daily maximum 1-hour value; and lead, quarterly average of ambient lead levels. Based on data from the Aerometric Information Retrieval System.  $\mu\text{g}/\text{m}^3$ =micrograms of pollutant per cubic meter of air; ppm=parts per million]

| POLLUTANT                               | Unit                               | Monitoring stations, number | Air quality standard <sup>1</sup> | 1986  | 1990  | 1991   | 1992   | 1993   | 1994   | 1995   |
|---|------------------------------------|-----------------------------|-----------------------------------|-------|-------|--------|--------|--------|--------|--------|
| Carbon monoxide                         | ppm . . . . .                      | 334                         | <sup>2</sup> 9                    | 7.10  | 5.90  | 5.60   | 5.20   | 4.90   | 5.00   | 4.5    |
| Ozone . . . . .                         | ppm . . . . .                      | 573                         | <sup>3</sup> 0.12                 | 0.120 | 0.113 | 0.115  | 0.107  | 0.109  | 0.109  | 0.113  |
| Sulfur dioxide . . .                    | ppm . . . . .                      | 473                         | 0.03                              | 0.009 | 0.008 | 0.0078 | 0.0073 | 0.0071 | 0.0069 | 0.0057 |
| Particulates (PM-10) <sup>4</sup> . . . | $\mu\text{g}/\text{m}^3$ . . . . . | 955                         | 50                                | (X)   | 29.4  | 29.1   | 26.7   | 26.0   | 26.1   | 25.0   |
| Nitrogen dioxide . . .                  | ppm . . . . .                      | 212                         | 0.053                             | 0.022 | 0.020 | 0.020  | 0.019  | 0.019  | 0.020  | 0.019  |
| Lead . . . . .                          | $\mu\text{g}/\text{m}^3$ . . . . . | 189                         | <sup>5</sup> 1.5                  | 0.18  | 0.08  | 0.08   | 0.05   | 0.05   | 0.04   | 0.04   |

X Not applicable. <sup>1</sup> Refers to the primary National Ambient Air Quality Standard that protects the public health. <sup>2</sup> Based on 8-hour standard of 9 ppm. <sup>3</sup> Based on 1-hour standard of .12 ppm. <sup>4</sup> The particulates (PM-10) standard replaced the previous standard for total suspended particulates in 1987. <sup>5</sup> Based on 3-month standard of 1.5  $\mu\text{g}/\text{m}^3$ .

Source: U.S. Environmental Protection Agency, *National Air Quality and Emissions Trends Report*, annual.

**No. 379. National Air Pollutant Emissions: 1970 to 1995**

[In thousands of tons, except as indicated. PM-10=Particulate matter of less than ten microns. Methodologies to estimate data for 1970 to 1984 period and 1985 to present emissions differ. Beginning with 1985, the estimates are based on a modified National Acid Precipitation Assessment Program inventory]

| YEAR | PM-10  | PM-10, fugitive dust <sup>1</sup> | Sulfur dioxide | Nitrogen dioxides | Volatile organic compounds | Carbon monoxide | Lead (tons) |
|------|--------|-----------------------------------|----------------|-------------------|----------------------------|-----------------|-------------|
| 1970 | 13,044 | (NA)                              | 31,161         | 20,625            | 30,646                     | 128,079         | 219,471     |
| 1975 | 7,617  | (NA)                              | 28,011         | 21,889            | 25,677                     | 115,110         | 158,541     |
| 1980 | 7,050  | (NA)                              | 25,905         | 23,281            | 25,893                     | 115,625         | 74,956      |
| 1984 | 6,220  | (NA)                              | 23,470         | 23,172            | 25,572                     | 114,262         | 42,217      |
| 1985 | 4,094  | 40,889                            | 23,230         | 22,860            | 25,798                     | 114,690         | 20,124      |
| 1986 | 3,890  | 46,582                            | 22,442         | 22,348            | 24,991                     | 109,199         | 7,296       |
| 1987 | 3,931  | 38,041                            | 22,204         | 22,403            | 24,778                     | 108,012         | 6,857       |
| 1988 | 4,750  | 55,881                            | 22,647         | 23,618            | 25,719                     | 115,849         | 6,513       |
| 1989 | 3,927  | 48,650                            | 22,785         | 23,222            | 23,935                     | 103,144         | 6,034       |
| 1990 | 3,195  | 40,142                            | 22,433         | 23,038            | 23,599                     | 100,650         | 5,666       |
| 1991 | 3,170  | 45,738                            | 22,068         | 22,672            | 22,877                     | 97,376          | 5,280       |
| 1992 | 3,222  | 40,499                            | 21,836         | 22,847            | 22,420                     | 94,043          | 4,862       |
| 1993 | 3,163  | 39,389                            | 21,517         | 23,276            | 22,575                     | 94,133          | 4,945       |
| 1994 | 2,371  | 42,250                            | 21,047         | 23,661            | 23,281                     | 98,779          | 5,028       |
| 1995 | 3,050  | 39,586                            | 18,319         | 21,779            | 22,865                     | 92,099          | 4,986       |

NA Not available. <sup>1</sup> Sources such as agricultural tilling, construction, mining and quarrying, paved roads, unpaved roads, and wind erosion.

**No. 380. Air Pollutant Emissions, by Pollutant and Source: 1995**

[In thousands of tons, except as indicated. See headnote, table 379]

| SOURCE  | Particulates <sup>1</sup> | Sulfur dioxide | Nitrogen oxides | Volatile organic compounds | Carbon monoxide | Lead (tons)  |
|---|---------------------------|----------------|-----------------|----------------------------|-----------------|--------------|
| <b>Total . . . . .</b>                            | <b>42,635</b>             | <b>18,320</b>  | <b>21,777</b>   | <b>22,864</b>              | <b>92,099</b>   | <b>4,986</b> |
| Fuel combustion, stationary sources . . . . .     | 905                       | 15,658         | 10,077          | 709                        | 3,960           | 493          |
| Electric utilities . . . . .                      | 258                       | 12,013         | 6,233           | 35                         | 324             | 63           |
| Industrial . . . . .                              | 239                       | 3,046          | 3,137           | 135                        | 672             | 17           |
| Other fuel combustion . . . . .                   | 408                       | 599            | 707             | 539                        | 2,964           | 413          |
| Residential . . . . .                             | 374                       | 181            | 397             | 523                        | 2,829           | 6            |
| Industrial processes . . . . .                    | 630                       | 2,014          | 781             | 2,744                      | 5,606           | 2,072        |
| Chemical and allied product manufacturing . . .   | 66                        | 471            | 283             | 1,617                      | 2,237           | 80           |
| Metals processing . . . . .                       | 145                       | 720            | 84              | 77                         | 2,223           | 1,937        |
| Petroleum and related industries . . . . .        | 26                        | 385            | 91              | 628                        | 379             | (NA)         |
| Other . . . . .                                   | 393                       | 438            | 323             | 422                        | 767             | 55           |
| Solvent utilization . . . . .                     | 2                         | 1              | 3               | 6,394                      | 2               | (NA)         |
| Storage and transport . . . . .                   | 60                        | 5              | 3               | 1,803                      | 65              | (NA)         |
| Waste disposal and recycling . . . . .            | 253                       | 37             | 85              | 2,411                      | 1,766           | 842          |
| Highway vehicles . . . . .                        | 304                       | 305            | 7,604           | 6,105                      | 58,624          | 1,387        |
| Light-duty gas vehicles and motorcycles . . . . . | 62                        | 142            | 3,611           | 3,621                      | 35,981          | 1,036        |
| Light-duty trucks . . . . .                       | 32                        | 71             | 1,624           | 1,783                      | 16,292          | 332          |
| Heavy-duty gas vehicles . . . . .                 | 10                        | 12             | 347             | 375                        | 4,883           | 19           |
| Diesels . . . . .                                 | 200                       | 80             | 2,022           | 326                        | 1,468           | (NA)         |
| Off highway <sup>2</sup> . . . . .                | 393                       | 292            | 2,996           | 2,252                      | 15,622          | 191          |
| Miscellaneous <sup>3</sup> . . . . .              | 40,088                    | 8              | 228             | 446                        | 6,454           | (NA)         |

NA Not available. <sup>1</sup> Represents both PM-10 and PM-10 fugitive dust; see table 379. <sup>2</sup> Includes emissions from farm tractors and other farm machinery, construction equipment, industrial machinery, recreational marine vessels, and small general utility engines such as lawn mowers. <sup>3</sup> Includes emissions such as from forest fires and other kinds of burning, various agricultural activities, fugitive dust from paved and unpaved roads, and other construction and mining activities, and natural sources.

Source of tables 379 and 380: U.S. Environmental Protection Agency, *National Air Pollutant Emission Trends, 1900-1995*.

### No. 381. Metropolitan Areas Failing to Meet National Ambient Air Quality for Carbon Monoxide—Number of Days Exceeding Standards: 1994 and 1995

[Areas generally represent the officially defined metropolitan area, but may, in some cases, not have all the counties identified as part of the area; see *Federal Register*, 40 CFR, part 81, *Air Quality Designations: Revised*, July 1994. Nonattainment status was as of December 1996]

| METROPOLITAN AREA                              | 1994 | 1995 | METROPOLITAN AREA                          | 1994 | 1995 | METROPOLITAN AREA                | 1994 | 1995 |
|--|------|------|--|------|------|----------------------------------|------|------|
| Anchorage, AK . . . . .                        | 2    | -    | Las Vegas, NV . . . . .                    | 5    | 1    | Phoenix, AZ . . . . .            | 3    | 3    |
| Chico, CA . . . . .                            | -    | -    | Longmont, CO <sup>1</sup> . . . . .        | -    | -    | Portland, OR-WA CMSA . . . . .   | 1    | -    |
| Colorado Springs, CO . . . . .                 | -    | -    | Los Angeles, CA CMSA . . . . .             | 24   | 14   | Provo-Orem, UT . . . . .         | 1    | -    |
| Denver-Boulder, CO CMSA . . . . .              | 1    | 2    | Medford, OR . . . . .                      | -    | -    | Reno, NV . . . . .               | -    | -    |
| El Paso, TX . . . . .                          | -    | -    | Minneapolis-St. Paul, MN-WI . . . . .      | -    | -    | Sacramento, CA . . . . .         | -    | -    |
| Fairbanks, AK <sup>1</sup> . . . . .           | 3    | 9    | Missoula County, MT <sup>1</sup> . . . . . | -    | -    | San Diego, CA . . . . .          | -    | -    |
| Fort Collins, CO . . . . .                     | -    | -    | Modesto, CA . . . . .                      | -    | -    | San Francisco, CA CMSA . . . . . | -    | -    |
| Fresno, CA . . . . .                           | -    | -    | New York, NY-NJ-CT . . . . .               | -    | -    | Spokane, WA . . . . .            | -    | 4    |
| Grant Pass, OR <sup>1</sup> . . . . .          | -    | -    | CMSA . . . . .                             | 2    | 1    | Stockton, CA . . . . .           | -    | -    |
| Klamath County, OR <sup>1</sup> . . . . .      | -    | -    | Ogden, UT . . . . .                        | -    | -    |                                  |      |      |
| Lake Tahoe S. Shore, CA <sup>1</sup> . . . . . | -    | -    |  |      |      |                                  |      |      |

- Represents zero. <sup>1</sup> Not a metropolitan area.

Source: U.S. Environmental Protection Agency. Published in the 1995 Air Quality Update, December 1996.

### No. 382. Metropolitan Areas Failing to Meet National Ambient Air Quality Standards for Ozone—Average Number of Days Exceeding Standards: 1993 to 1995

[See headnote, table 381. Nonattainment status was as of December 1996]

| METROPOLITAN AREA   | 1993-95, avg. | 1995 <sup>1</sup> | METROPOLITAN AREA   | 1993-95, avg. | 1995 <sup>1</sup> |
|---|---------------|-------------------|---|---------------|-------------------|
| Albany-Schenectady-Troy, NY . . . . .                       | 0.3           | -                 | Milwaukee-Racine, WI CMSA . . . . .                       | 1.7           | 4.0               |
| Allentown-Bethlehem-Easton, PA-NJ . . . . .                 | -             | -                 | Monterey Bay, CA <sup>6</sup> . . . . .                   | 0.7           | 1.4               |
| Altoona, PA . . . . .                                       | -             | -                 | Muskegon, MI . . . . .                                    | 2.0           | 4.0               |
| Atlanta, GA . . . . .                                       | 6.0           | 3.4               | Nashville, TN . . . . .                                   | 1.0           | -                 |
| Atlantic City, NJ . . . . .                                 | -             | -                 | New York, NY-NJ-CT CMSA <sup>7</sup> . . . . .            | 5.7           | 5.0               |
| Baltimore, MD . . . . .                                     | 3.3           | 4.0               | Norfolk-Virginia Beach-Newport News, VA . . . . .         | 1.0           | -                 |
| Baton Rouge, LA . . . . .                                   | 1.7           | 4.0               | Philadelphia, PA-NJ-DE-MD CMSA . . . . .                  | 3.5           | 4.3               |
| Beaumont-Port Arthur, TX . . . . .                          | 1.8           | 5.3               | Phoenix, AZ . . . . .                                     | 1.3           | 3.0               |
| Birmingham, AL . . . . .                                    | 1.3           | 4.0               | Pittsburgh-Beaver Valley, PA CMSA . . . . .               | 3.0           | 7.0               |
| Boston-Lawrence-Salem, MA-NH CMSA <sup>2</sup> . . . . .    | 2.0           | 2.0               | Portland-Vancouver, OR-WA CMSA . . . . .                  | 0.3           | -                 |
| Buffalo-Niagara Falls, NY CMSA . . . . .                    | -             | -                 | Portland, ME . . . . .                                    | 2.5           | 2.5               |
| Chicago-Gary-Lake County, IL-IN-WI CMSA . . . . .           | 2.1           | 2.0               | Portsmouth-Dover-Rochester, NH-ME . . . . .               | 1.7           | 3.1               |
| Cincinnati-Hamilton, OH-KY-IN CMSA . . . . .                | 1.3           | 2.0               | Poughkeepsie, NY . . . . .                                | 1.7           | 2.0               |
| Dallas-Fort Worth, TX CMSA . . . . .                        | 4.1           | 6.0               | Providence, RI <sup>8</sup> . . . . .                     | 1.8           | 3.0               |
| Door County, WI <sup>3</sup> . . . . .                      | 1.0           | 1.0               | Reading, PA . . . . .                                     | 0.3           | -                 |
| El Paso, TX . . . . .                                       | 2.3           | 3.1               | Reno, NV . . . . .  | -             | -                 |
| Erie, PA . . . . .  | -             | -                 | Richmond-Petersburg, VA . . . . .                         | 0.7           | 1.0               |
| Essex County, NY <sup>3</sup> . . . . .                     | -             | -                 | Sacramento, CA . . . . .                                  | 3.9           | 7.2               |
| Evansville, IN-KY . . . . .                                 | -             | -                 | St. Louis, MO-IL . . . . .                                | 4.5           | 4.7               |
| Greater Connecticut, CT <sup>4</sup> . . . . .              | 4.4           | 8.3               | Salt Lake City-Ogden, UT . . . . .                        | 0.3           | 1.0               |
| Hancock and Waldo counties, ME <sup>3</sup> . . . . .       | 1.0           | 1.0               | San Diego, CA . . . . .                                   | 9.4           | 9.0               |
| Harrisburg-Lebanon-Carlisle, PA . . . . .                   | -             | -                 | San Joaquin Valley, CA . . . . .                          | 31.4          | 34.5              |
| Houston-Galveston-Brazoria, TX CMSA . . . . .               | 11.4          | 19.6              | Santa Barbara-Santa Maria-Lompoc, CA . . . . .            | 1.7           | 2.0               |
| Jefferson County, NY <sup>3</sup> . . . . .                 | 0.3           | 1.0               | Scranton-Wilkes-Barre, PA . . . . .                       | -             | -                 |
| Johnstown, PA . . . . .                                     | -             | -                 | Seattle-Tacoma, WA . . . . .                              | 0.7           | -                 |
| Kent County and Queen Anne's Co., MD <sup>3</sup> . . . . . | 1.0           | 1.0               | Smyth County, VA <sup>3</sup> . . . . .                   | (NA)          | (NA)              |
| Knox and Lincoln counties, ME <sup>3</sup> . . . . .        | 0.8           | 1.2               | Southeast Desert Modified AQMD, CA <sup>9</sup> . . . . . | 53.4          | 26.4              |
| Lake Charles, LA . . . . .                                  | 1.0           | 1.0               | Springfield, MA . . . . .                                 | 2.4           | 2.0               |
| Lancaster, PA . . . . .                                     | 0.7           | 1.0               | Sunland Park, NM <sup>3</sup> . . . . .                   | 3.1           | 3.1               |
| Lewiston-Auburn, ME . . . . .                               | -             | -                 | Sussex County, DE <sup>3</sup> . . . . .                  | -             | -                 |
| Louisville, KY-IN . . . . .                                 | 2.7           | 2.1               | Ventura County, CA . . . . .                              | 15.6          | 22.1              |
| Los Angeles South Coast Air, CA <sup>5</sup> . . . . .      | 86.2          | 67.0              | Washington, DC-MD-VA . . . . .                            | 2.7           | 2.5               |
| Manchester, NH . . . . .                                    | -             | -                 | York, PA . . . . .  | -             | -                 |
| Manitowoc Co, WI . . . . .                                  | 1.5           | 1.0               | Youngstown-Warren, OH <sup>10</sup> . . . . .             | -             | -                 |

- Represents zero. NA Not available. <sup>1</sup> May represent a different monitoring location than one used to calculate average.

<sup>2</sup> Includes also both the Worcester, MA, and New Bedford, MA MSA's. <sup>3</sup> Not a metropolitan area. <sup>4</sup> Primarily represents Hartford-New Haven area. <sup>5</sup> Primarily represents Los Angeles and Orange counties. <sup>6</sup> Primarily represents Monterey, Santa Cruz, and San Benito counties. <sup>7</sup> Excludes the Connecticut portion. <sup>8</sup> Covers entire State of Rhode Island. <sup>9</sup> Represents primarily San Joaquin, Turlock, Merced, Madera, Fresno, Kings, Tulare, and Kern counties. <sup>10</sup> Includes Sharon, PA.

Source: U.S. Environmental Protection Agency. Published in 1995 Air Quality Update, December 1996.

**No. 383. Emissions of Greenhouse Gases, by Type and Source: 1989 to 1995**

[Emission estimates were mandated by Congress through Section 1605(a) of the Energy Policy Act of 1992 (title XVI). Gases that contain carbon can be measured either in terms of the full molecular weight of the gas or just in terms of their carbon content]

| TYPE AND SOURCE  | Unit                | 1989    | 1990    | 1991    | 1992    | 1993    | 1994    | 1995,<br>prel. |
|--|---------------------|---------|---------|---------|---------|---------|---------|----------------|
| Carbon dioxide:  |                     |         |         |         |         |         |         |                |
| Carbon content, total . . . . .                                | Mil. metric tons .  | 1,384.3 | 1,372.0 | 1,358.8 | 1,379.5 | 1,404.8 | 1,431.4 | 1,442.3        |
| Energy sources . . . . .                                       | Mil. metric tons .  | 1,355.8 | 1,344.2 | 1,324.6 | 1,346.3 | 1,375.0 | 1,396.5 | 1,409.4        |
| Cement production . . . . .                                    | Mil. metric tons .  | 8.7     | 8.8     | 8.5     | 8.6     | 9.1     | 9.7     | 10.5           |
| Gas flaring . . . . .  | Mil. metric tons .  | 1.7     | 1.8     | 2.1     | 2.1     | 2.9     | 2.9     | 1.8            |
| Other industrial . . . . .                                     | Mil. metric tons .  | 8.3     | 8.3     | 8.3     | 8.3     | 8.2     | 8.4     | 9              |
| Other, adjustments . . . . .                                   | Mil. metric tons .  | 9.8     | 8.9     | 15.3    | 14.2    | 9.6     | 14.0    | 11.7           |
| Methane:   |                     |         |         |         |         |         |         |                |
| Gas, total . . . . .   | Mil. metric tons .  | 30.9    | 31.3    | 31.4    | 31.5    | 30.5    | 31.0    | (NA)           |
| Energy sources . . . . .                                       | Mil. metric tons .  | 11.8    | 12.0    | 11.9    | 11.9    | 11.0    | 11.4    | (NA)           |
| Landfills . . . . .  | Mil. metric tons .  | 10.8    | 11.0    | 10.9    | 10.8    | 10.6    | 10.3    | (NA)           |
| Agricultural sources . . . . .                                 | Mil. metric tons .  | 8.2     | 8.3     | 8.6     | 8.8     | 8.8     | 9.1     | 9.2            |
| Industrial sources . . . . .                                   | Mil. metric tons .  | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1            |
| Nitrous oxide, total . . . . .                                 | 1,000 metric tons . | 444     | 449     | 452     | 452     | 462     | 471.0   | 462            |
| Agriculture . . . . .  | 1,000 metric tons . | 159     | 164     | 167     | 168     | 176     | 179     | 172            |
| Mobile sources . . . . .                                       | 1,000 metric tons . | 147     | 150     | 148     | 150     | 146     | 146     | 145            |
| Stationary combustion . . . . .                                | 1,000 metric tons . | 38      | 37      | 37      | 37      | 38      | 39      | 39             |
| Industrial sources . . . . .                                   | 1,000 metric tons . | 100     | 97      | 100     | 96      | 103     | 107     | 107            |
| Nitrogen oxide, total . . . . .                                | Mil. metric tons .  | 21.1    | 20.9    | 20.6    | 20.7    | 21.1    | 21.4    | (NA)           |
| Energy related . . . . .                                       | Mil. metric tons .  | 20.0    | 19.8    | 19.5    | 19.7    | 20.1    | 20.3    | (NA)           |
| Transportation . . . . .                                       | Mil. metric tons .  | 9.6     | 9.4     | 9.2     | 9.4     | 9.5     | 9.6     | (NA)           |
| Industrial processes . . . . .                                 | Mil. metric tons .  | 0.7     | 0.7     | 0.7     | 0.7     | 0.7     | 0.7     | (NA)           |
| Stationary source fuel combustion . . . . .                    | Mil. metric tons .  | 10.5    | 10.4    | 10.3    | 10.4    | 10.6    | 10.6    | (NA)           |
| Solid waste disposal . . . . .                                 | Mil. metric tons .  | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | (NA)           |
| Other . . . . .  | Mil. metric tons .  | 0.3     | 0.3     | 0.3     | 0.2     | 0.2     | 0.3     | (NA)           |
| Nonmethane volatile organic compounds (VOC's), total . . . . . | Mil. metric tons .  | 21.7    | 21.4    | 20.8    | 20.3    | 20.5    | 21.0    | (NA)           |
| Energy related . . . . .                                       | Mil. metric tons .  | 9.7     | 9.0     | 8.7     | 8.4     | 8.4     | 8.6     | (NA)           |
| Industrial processes . . . . .                                 | Mil. metric tons .  | 9.4     | 9.4     | 9.3     | 9.5     | 9.6     | 9.8     | (NA)           |
| Solid waste disposal . . . . .                                 | Mil. metric tons .  | 2.1     | 2.1     | 2.1     | 2.1     | 2.1     | 2.1     | (NA)           |
| Other . . . . .  | Mil. metric tons .  | 0.6     | 1.0     | 0.7     | 0.4     | 0.5     | 0.6     | (NA)           |
| Carbon monoxide, total . . . . .                               | Mil. metric tons .  | 93.5    | 91.2    | 88.3    | 85.3    | 85.3    | 88.9    | (NA)           |
| Energy related . . . . .                                       | Mil. metric tons .  | 79.8    | 74.8    | 74.4    | 72.8    | 72.9    | 74.0    | (NA)           |
| Transportation . . . . .                                       | Mil. metric tons .  | 73.1    | 70.3    | 69.5    | 67.8    | 68.5    | 69.6    | (NA)           |
| Stationary source fuel combustion . . . . .                    | Mil. metric tons .  | 6.7     | 4.5     | 4.8     | 5.0     | 4.5     | 4.4     | (NA)           |
| Industrial processes . . . . .                                 | Mil. metric tons .  | 4.8     | 4.7     | 4.6     | 4.7     | 4.8     | 4.9     | (NA)           |
| Solid waste disposal . . . . .                                 | Mil. metric tons .  | 1.6     | 1.5     | 1.5     | 1.6     | 1.6     | 1.6     | (NA)           |
| Other . . . . .  | Mil. metric tons .  | 7.4     | 10.1    | 7.7     | 6.1     | 6.1     | 8.4     | (NA)           |
| Chlorofluorocarbons (CFCs) gases <sup>1</sup> . . . . .        | 1,000 metric tons . | 272     | 231     | 210     | 187     | 166     | 133     | 87             |
| Hydrofluorocarbons . . . . .                                   | 1,000 metric tons . | 5       | 5       | 5       | 8       | 11      | 18      | 25             |
| Hydrochlorofluorocarbons (HCFCs) gases <sup>2</sup> . . . . .  | 1,000 metric tons . | 76      | 84      | 89      | 95      | 107     | 121     | 136            |

NA Not available. <sup>1</sup> Covers principally CFC-11, CFC-12, and CFC-113.

<sup>2</sup> Covers principally HCFC-22.

Source: U.S. Energy Information Administration, *Emissions of Greenhouse Gases in the United States, annual*.

**No. 384. Municipal Solid Waste Generation, Recovery, and Disposal: 1970 to 1995**

[In millions of tons, except as indicated. Covers post-consumer residential and commercial solid wastes which comprise the major portion of typical municipal collections. Excludes mining, agricultural and industrial processing, demolition and construction wastes, sewage sludge, and junked autos and obsolete equipment wastes. Based on material-flows estimating procedure and wet weight as generated]

| ITEM AND MATERIAL                            | 1970  | 1980  | 1985  | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Waste generated . . . . .                    | 121.9 | 151.5 | 164.4 | 197.3 | 196.9 | 202.2 | 205.4 | 209.6 | 208.1 |
| Per person per day (lb.) . . . . .           | 3.3   | 3.7   | 3.8   | 4.3   | 4.3   | 4.3   | 4.4   | 4.4   | 4.3   |
| Materials recovered . . . . .                | 8.6   | 14.5  | 16.4  | 33.9  | 37.7  | 41.4  | 44.8  | 52.0  | 56.2  |
| Per person per day (lb.) . . . . .           | 0.23  | 0.35  | 0.38  | 0.7   | 0.8   | 0.9   | 1.0   | 1.1   | 1.2   |
| Combustion for energy recovery . . . . .     | 0.4   | 2.7   | 7.6   | 29.7  | 31.1  | 30.5  | 31.3  | 31.2  | 32.5  |
| Per person per day (lb.) . . . . .           | 0.02  | 0.06  | 0.17  | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   |
| Combustion without energy recovery . . . . . | 24.7  | 11.0  | 4.1   | 2.2   | 2.2   | 2.2   | 1.6   | 1.3   | 1.0   |
| Per person per day (lb.) . . . . .           | 0.66  | 0.27  | 0.10  | 0.05  | 0.05  | 0.05  | 0.03  | 0.03  | 0.02  |
| Landfill, other disposal . . . . .           | 88.2  | 123.3 | 136.4 | 131.6 | 125.9 | 128.1 | 127.6 | 125.2 | 118.4 |
| Per person per day (lb.) . . . . .           | 2.37  | 2.97  | 3.13  | 2.9   | 2.7   | 2.8   | 2.7   | 2.6   | 2.5   |
| Percent distribution of generation:          |       |       |       |       |       |       |       |       |       |
| Paper and paperboard . . . . .               | 36.3  | 36.1  | 37.4  | 36.9  | 36.1  | 36.7  | 37.7  | 38.6  | 39.2  |
| Glass . . . . .                              | 10.4  | 9.9   | 8.0   | 6.6   | 6.4   | 6.5   | 6.6   | 6.4   | 6.2   |
| Metals . . . . .                             | 11.6  | 9.6   | 8.6   | 8.4   | 8.4   | 7.9   | 7.8   | 7.7   | 7.6   |
| Plastics . . . . .                           | 2.5   | 5.2   | 7.1   | 8.7   | 9.0   | 9.1   | 9.2   | 9.2   | 9.1   |
| Rubber and leather . . . . .                 | 2.6   | 2.8   | 2.3   | 2.9   | 3.0   | 2.9   | 2.8   | 3.0   | 2.9   |
| Textiles . . . . .                           | 1.6   | 1.7   | 1.7   | 2.9   | 3.1   | 3.3   | 3.3   | 3.5   | 3.6   |
| Wood . . . . .                               | 3.3   | 4.4   | 5.0   | 6.0   | 6.2   | 6.4   | 6.6   | 6.9   | 7.1   |
| Food wastes . . . . .                        | 10.5  | 8.7   | 8.0   | 6.7   | 6.9   | 6.7   | 6.7   | 6.6   | 6.7   |
| Yard wastes . . . . .                        | 19.0  | 18.2  | 18.2  | 17.7  | 17.8  | 17.3  | 16.2  | 15.0  | 14.3  |
| Other wastes . . . . .                       | 2.2   | 3.4   | 3.6   | 3.2   | 3.1   | 3.2   | 3.1   | 3.1   | 3.3   |

NA Not available.

Source: Franklin Associates, Ltd., Prairie Village, KS, *Characterization of Municipal Solid Waste in the United States: 1995*. Prepared for the U.S. Environmental Protection Agency.

### No. 385. Generation and Recovery of Selected Materials in Municipal Solid Waste: 1970 to 1995

[In millions of tons, except as indicated. Covers post-consumer residential and commercial solid wastes which comprise the major portion of typical municipal collections. Excludes mining, agricultural and industrial processing, demolition and construction wastes, sewage sludge, and junked autos and obsolete equipment wastes. Based on material-flows estimating procedure and wet weight as generated]

| ITEM AND MATERIAL                                       | 1970         | 1980         | 1985         | 1990         | 1991         | 1992         | 1993         | 1994         | 1995         |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Waste generated, total . . . . .</b>                 | <b>121.9</b> | <b>151.5</b> | <b>164.4</b> | <b>197.3</b> | <b>196.9</b> | <b>202.2</b> | <b>205.4</b> | <b>209.6</b> | <b>208.1</b> |
| Paper and paperboard . . . . .                          | 44.2         | 54.7         | 61.5         | 72.7         | 71.0         | 74.3         | 77.4         | 80.8         | 81.5         |
| Ferrous metals . . . . .                                | 12.6         | 11.6         | 10.9         | 12.6         | 12.7         | 12.1         | 11.9         | 11.8         | 11.6         |
| Aluminum . . . . .                                      | 0.8          | 1.8          | 2.3          | 2.8          | 2.8          | 2.9          | 2.9          | 3.0          | 3.0          |
| Other nonferrous metals . . . . .                       | 0.7          | 1.1          | 1.0          | 1.1          | 1.1          | 1.1          | 1.1          | 1.4          | 1.3          |
| Glass . . . . .   | 12.7         | 15.0         | 13.2         | 13.1         | 12.6         | 13.1         | 13.6         | 13.4         | 12.8         |
| Plastics . . . . .                                      | 3.1          | 7.9          | 11.6         | 17.1         | 17.7         | 18.4         | 19.0         | 19.3         | 19.0         |
| Yard waste . . . . .                                    | 23.2         | 27.5         | 30.0         | 35.0         | 35.0         | 35.0         | 33.3         | 31.5         | 29.8         |
| Other wastes . . . . .                                  | 24.6         | 31.9         | 33.9         | 42.8         | 44.0         | 45.3         | 46.2         | 48.5         | 49.1         |
| <b>Materials recovered, total . . . . .</b>             | <b>8.6</b>   | <b>14.5</b>  | <b>16.4</b>  | <b>33.9</b>  | <b>37.7</b>  | <b>41.4</b>  | <b>44.8</b>  | <b>52.0</b>  | <b>56.2</b>  |
| Paper and paperboard . . . . .                          | 7.4          | 11.9         | 13.1         | 20.2         | 22.5         | 24.5         | 25.5         | 29.5         | 32.6         |
| Ferrous metals . . . . .                                | 0.1          | 0.4          | 0.4          | 2.6          | 3.1          | 3.4          | 3.9          | 4.1          | 4.2          |
| Aluminum . . . . .                                      | -            | 0.3          | 0.6          | 1.0          | 1.0          | 1.1          | 1.1          | 1.2          | 1.0          |
| Other nonferrous metals . . . . .                       | 0.3          | 0.5          | 0.5          | 0.7          | 0.7          | 0.7          | 0.7          | 1.0          | 0.9          |
| Glass . . . . .   | 0.2          | 0.8          | 1.0          | 2.6          | 2.6          | 2.9          | 3.0          | 3.1          | 3.1          |
| Plastics . . . . .                                      | -            | -            | 0.1          | 0.4          | 0.5          | 0.6          | 0.7          | 0.9          | 1.0          |
| Yard waste . . . . .                                    | -            | -            | -            | 4.2          | 4.8          | 5.4          | 6.9          | 8.0          | 9.0          |
| Other wastes . . . . .                                  | 0.6          | 0.6          | 0.7          | 2.1          | 2.6          | 2.9          | 3.1          | 4.2          | 4.3          |
| <b>Percent of generation recovered, total . . . . .</b> | <b>7.1</b>   | <b>9.6</b>   | <b>10.0</b>  | <b>17.2</b>  | <b>19.1</b>  | <b>20.5</b>  | <b>21.8</b>  | <b>24.8</b>  | <b>27.0</b>  |
| Paper and paperboard . . . . .                          | 16.7         | 21.8         | 21.3         | 27.8         | 31.7         | 33.0         | 32.9         | 36.5         | 40.0         |
| Ferrous metals . . . . .                                | 0.8          | 3.4          | 3.7          | 20.4         | 24.1         | 27.7         | 32.8         | 35.0         | 36.5         |
| Aluminum . . . . .                                      | -            | 16.7         | 26.1         | 35.9         | 35.6         | 38.7         | 35.8         | 37.8         | 34.6         |
| Other nonferrous metals . . . . .                       | 42.9         | 45.5         | 50.0         | 66.4         | 65.5         | 63.4         | 63.1         | 73.3         | 69.5         |
| Glass . . . . .   | 1.6          | 5.3          | 7.6          | 20.0         | 20.3         | 22.0         | 22.1         | 23.3         | 24.5         |
| Plastics . . . . .                                      | -            | -            | 0.9          | 2.2          | 2.5          | 3.3          | 3.5          | 4.9          | 5.3          |
| Yard waste . . . . .                                    | -            | -            | -            | 12.0         | 13.7         | 15.4         | 20.8         | 25.4         | 30.3         |
| Other wastes . . . . .                                  | 2.4          | 1.9          | 2.1          | 4.9          | 5.8          | 6.4          | 6.8          | 8.6          | 8.7          |

- Represents zero.

Source: Franklin Associates, Ltd., Prairie Village, KS, *Characterization of Municipal Solid Waste in the United States: 1995*. Prepared for the U.S. Environmental Protection Agency.

### No. 386. Toxic Release Inventory, by Industry and Source: 1990 to 1994

[In millions of pounds. Based on reports from almost 23,000 manufacturing facilities which have 10 or more full-time employees and meet established thresholds for manufacturing, processing, or otherwise using the list of more than 300 chemicals covered. Only chemicals that were reportable in all years shown are compared so that data do not reflect any chemicals added or deleted from the list covered. The inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA). A release is an on-site discharge of a toxic chemical to the environment]

| INDUSTRY                                     | 1987<br>SIC <sup>1</sup><br>code | 1990           | 1991           | 1992           | 1993           | 1994               |                              |                           |             |
|--|----------------------------------|----------------|----------------|----------------|----------------|--------------------|------------------------------|---------------------------|-------------|
|  |                                  |                |                |                |                | Total <sup>2</sup> | Air <sup>3</sup><br>nonpoint | Air <sup>4</sup><br>point | Water       |
| <b>Total . . . . .</b>                       | <b>(X)</b>                       | <b>2,803.7</b> | <b>2,584.3</b> | <b>2,449.6</b> | <b>2,157.4</b> | <b>1,976.9</b>     | <b>350.0</b>                 | <b>991.0</b>              | <b>47.0</b> |
| Food and kindred products . . . . .          | 20                               | 9.9            | 12.0           | 11.9           | 12.0           | 10.3               | 2.5                          | 6.3                       | 0.1         |
| Tobacco products . . . . .                   | 21                               | 1.0            | 0.6            | 0.6            | 0.6            | 1.0                | 0.1                          | 0.9                       | -           |
| Textile mill products . . . . .              | 22                               | 23.4           | 22.2           | 19.1           | 17.6           | 15.9               | 3.2                          | 12.5                      | 0.1         |
| Apparel and other textile products . . . . . | 23                               | 1.1            | 1.3            | 1.3            | 1.0            | 1.3                | 0.3                          | 1.0                       | -           |
| Lumber and wood products . . . . .           | 24                               | 33.6           | 30.2           | 30.0           | 29.8           | 31.7               | 3.7                          | 27.9                      | -           |
| Furniture and fixtures . . . . .             | 25                               | 57.8           | 52.8           | 53.2           | 54.0           | 50.6               | 6.4                          | 44.1                      | -           |
| Paper and allied products . . . . .          | 26                               | 203.6          | 207.2          | 199.1          | 179.8          | 218.6              | 18.4                         | 186.6                     | 8.9         |
| Printing and publishing . . . . .            | 27                               | 51.4           | 46.4           | 40.4           | 35.9           | 34.2               | 19.9                         | 14.3                      | -           |
| Chemical and allied products . . . . .       | 28                               | 1,007.9        | 980.5          | 991.3          | 874.4          | 700.7              | 87.5                         | 220.4                     | 33.5        |
| Petroleum and coal products . . . . .        | 29                               | 62.4           | 56.5           | 61.7           | 50.9           | 43.8               | 28.4                         | 13.6                      | 0.5         |
| Rubber and misc. plastic products . . . . .  | 30                               | 154.5          | 134.2          | 121.1          | 111.0          | 111.6              | 30.7                         | 80.6                      | -           |
| Leather and leather products . . . . .       | 31                               | 9.5            | 7.8            | 7.2            | 4.4            | 3.6                | 1.0                          | 2.6                       | -           |
| Stone, clay, glass products . . . . .        | 32                               | 20.5           | 16.4           | 14.3           | 14.3           | 12.4               | 2.1                          | 8.9                       | -           |
| Primary metal industries . . . . .           | 33                               | 438.6          | 386.8          | 341.2          | 304.6          | 293.8              | 21.6                         | 88.7                      | 1.7         |
| Fabricated metals products . . . . .         | 34                               | 125.6          | 109.1          | 100.6          | 88.6           | 86.1               | 29.5                         | 55.8                      | 0.1         |
| Industrial machinery and equip. . . . .      | 35                               | 48.0           | 38.8           | 33.0           | 26.5           | 23.5               | 7.1                          | 16.1                      | 0.1         |
| Electronic, electric equipment . . . . .     | 36                               | 73.4           | 60.2           | 47.1           | 32.9           | 29.0               | 6.1                          | 22.7                      | 0.1         |
| Transportation equipment . . . . .           | 37                               | 157.5          | 137.5          | 125.3          | 123.8          | 119.7              | 29.5                         | 89.9                      | 0.1         |
| Instruments and related products . . . . .   | 38                               | 38.9           | 34.9           | 29.1           | 22.5           | 15.7               | 4.2                          | 11.3                      | 0.3         |
| Misc. manufacturing industries . . . . .     | 39                               | 21.6           | 18.4           | 16.9           | 15.2           | 13.7               | 3.9                          | 9.8                       | -           |
| Multiple codes . . . . .                     | 20-39                            | 251.7          | 203.6          | 191.8          | 137.2          | 142.9              | 39.0                         | 70.3                      | 1.3         |
| No codes . . . . .                           | 20-39                            | 11.9           | 26.8           | 13.6           | 20.1           | 16.9               | 5.2                          | 6.4                       | 0.2         |

- Represents or rounds to zero. X Not applicable.

<sup>1</sup> Standard Industrial Classification, see text, section 13.

<sup>2</sup> Includes

other releases not shown separately.

<sup>3</sup> Fugitive.

<sup>4</sup> Stack.

Source: U.S. Environmental Protection Agency, 1994 Toxics Release Inventory, June 1996.

## Geography and Environment

## No. 387. Toxic Releases, by State: 1988 to 1994

[In thousands of pounds. See headnote, table 386]

| STATE AND<br>OUTLYING<br>AREAS | 1988      | 1992      | 1993      | 1994      | STATE AND<br>OUTLYING<br>AREAS | 1988    | 1992    | 1993    | 1994    |
|--------------------------------|-----------|-----------|-----------|-----------|--------------------------------|---------|---------|---------|---------|
| Total . . . . .                | 3,536,050 | 2,449,644 | 2,157,355 | 1,976,912 | MT. . . . .                    | 35,719  | 43,331  | 44,660  | 46,428  |
| U.S. total. . . . .            | 3,521,835 | 2,436,663 | 2,145,463 | 1,966,989 | NE. . . . .                    | 13,889  | 10,884  | 9,669   | 8,148   |
| AL. . . . .                    | 110,190   | 101,015   | 96,337    | 88,256    | NV. . . . .                    | 2,316   | 3,422   | 7,781   | 3,009   |
| AK. . . . .                    | 6,203     | 5,299     | 2,774     | 1,667     | NH. . . . .                    | 12,287  | 5,269   | 3,205   | 2,362   |
| AZ. . . . .                    | 66,057    | 44,749    | 11,899    | 30,482    | NJ. . . . .                    | 36,677  | 16,340  | 14,836  | 12,827  |
| AR. . . . .                    | 40,676    | 28,088    | 28,768    | 32,123    | NM. . . . .                    | 30,252  | 19,523  | 22,957  | 17,140  |
| CA. . . . .                    | 97,587    | 57,347    | 43,442    | 35,042    | NY. . . . .                    | 95,609  | 50,424  | 39,476  | 33,387  |
| CO. . . . .                    | 13,765    | 4,648     | 4,113     | 3,744     | NC. . . . .                    | 125,148 | 99,431  | 77,888  | 79,652  |
| CT. . . . .                    | 32,538    | 15,680    | 12,345    | 10,148    | ND. . . . .                    | 1,131   | 1,078   | 907     | 926     |
| DE. . . . .                    | 7,825     | 4,896     | 4,400     | 4,132     | OH. . . . .                    | 166,274 | 109,711 | 102,171 | 98,556  |
| DC. . . . .                    | 1         | (NA)      | (NA)      | 24        | OK. . . . .                    | 34,085  | 18,823  | 16,921  | 15,018  |
| FL. . . . .                    | 96,972    | 68,234    | 56,871    | 82,452    | OR. . . . .                    | 17,600  | 16,369  | 15,630  | 15,460  |
| GA. . . . .                    | 81,661    | 45,447    | 41,746    | 45,248    | PA. . . . .                    | 99,845  | 61,148  | 47,203  | 47,589  |
| HI. . . . .                    | 935       | 568       | 497       | 512       | RI. . . . .                    | 6,351   | 3,365   | 3,325   | 2,879   |
| ID. . . . .                    | 7,898     | 3,037     | 1,838     | 2,422     | SC. . . . .                    | 61,847  | 53,632  | 47,433  | 44,786  |
| IL. . . . .                    | 118,263   | 105,305   | 88,265    | 86,493    | SD. . . . .                    | 2,314   | 2,813   | 1,870   | 1,953   |
| IN. . . . .                    | 169,720   | 111,618   | 86,829    | 70,231    | TN. . . . .                    | 159,647 | 139,070 | 140,374 | 146,698 |
| IA. . . . .                    | 36,349    | 25,456    | 22,005    | 22,592    | TX. . . . .                    | 310,985 | 250,576 | 215,850 | 213,061 |
| KS. . . . .                    | 104,567   | 66,758    | 28,284    | 17,656    | UT. . . . .                    | 134,108 | 94,387  | 91,141  | 70,974  |
| KY. . . . .                    | 82,349    | 64,658    | 32,015    | 30,368    | VT. . . . .                    | 1,598   | 730     | 619     | 610     |
| LA. . . . .                    | 435,022   | 254,514   | 271,665   | 120,017   | VA. . . . .                    | 115,320 | 50,806  | 48,113  | 46,243  |
| ME. . . . .                    | 16,017    | 11,987    | 9,245     | 7,472     | WA. . . . .                    | 26,133  | 21,432  | 19,210  | 22,140  |
| MD. . . . .                    | 19,587    | 11,463    | 11,823    | 12,267    | WV. . . . .                    | 33,152  | 19,966  | 19,655  | 19,324  |
| MA. . . . .                    | 27,009    | 13,432    | 10,108    | 8,579     | WI. . . . .                    | 50,777  | 35,033  | 30,997  | 30,272  |
| MI. . . . .                    | 98,792    | 74,940    | 74,621    | 79,026    | WY. . . . .                    | 42,221  | 12,110  | 12,189  | 18,683  |
| MN. . . . .                    | 54,772    | 28,729    | 22,282    | 19,699    | Am. Samoa. . . . .             | -       | -       | -       | -       |
| MS. . . . .                    | 94,357    | 97,214    | 100,714   | 112,958   | Puerto Rico. . . . .           | 12,368  | 11,836  | 10,313  | 8,962   |
| MO. . . . .                    | 87,441    | 51,907    | 48,493    | 45,252    | Virgin Island. . . . .         | 1,848   | 1,144   | 1,580   | 961     |

- Represents zero. NA Not available.

Source: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, 1994 Toxics Release Inventory, June 1996.

## No. 388. Hazardous Waste Sites on the National Priority List, by State: 1996

[Includes both proposed and final sites listed on the National Priorities List for the Superfund program as authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and the Superfund Amendments and Reauthorization Act of 1986.]

| STATE                         | Total sites | Rank | Percent distribution | Federal | Non-Federal | STATE                   | Total sites | Rank | Percent distribution | Federal | Non-Federal |
|-------------------------------|-------------|------|----------------------|---------|-------------|-------------------------|-------------|------|----------------------|---------|-------------|
| Total . . . . .               | 1,259       | (X)  | (X)                  | 158     | 1,101       | Montana. . . . .        | 9           | 41   | 0.72                 | -       | 9           |
| United States. . . . .        | 1,245       | (X)  | 100.00               | 156     | 1,089       | Nebraska. . . . .       | 10          | 38   | 0.80                 | 1       | 9           |
| Alabama. . . . .              | 13          | 30   | 1.04                 | 3       | 10          | Nevada. . . . .         | 1           | 49   | 0.08                 | -       | 1           |
| Alaska. . . . .               | 7           | 43   | 0.56                 | 6       | 1           | New Hampshire. . . . .  | 18          | 19   | 1.45                 | 1       | 17          |
| Arizona. . . . .              | 10          | 38   | 0.80                 | 3       | 7           | New Jersey. . . . .     | 108         | 1    | 8.67                 | 6       | 102         |
| Arkansas. . . . .             | 12          | 31   | 0.96                 | -       | 12          | New Mexico. . . . .     | 11          | 34   | 0.88                 | 2       | 9           |
| California. . . . .           | 94          | 3    | 7.55                 | 23      | 71          | New York. . . . .       | 79          | 4    | 6.35                 | 4       | 75          |
| Colorado. . . . .             | 18          | 19   | 1.45                 | 3       | 15          | North Carolina. . . . . | 23          | 17   | 1.85                 | 2       | 21          |
| Connecticut. . . . .          | 15          | 26   | 1.20                 | 1       | 14          | North Dakota. . . . .   | 1           | 49   | 0.08                 | -       | 1           |
| Delaware. . . . .             | 18          | 19   | 1.45                 | 1       | 17          | Ohio. . . . .           | 38          | 10   | 3.05                 | 5       | 33          |
| District of Columbia. . . . . | -           | (X)  | -                    | -       | -           | Oklahoma. . . . .       | 11          | 34   | 0.88                 | 1       | 10          |
| Florida. . . . .              | 53          | 6    | 4.26                 | 6       | 47          | Oregon. . . . .         | 11          | 34   | 0.88                 | 2       | 9           |
| Georgia. . . . .              | 15          | 26   | 1.20                 | 2       | 13          | Pennsylvania. . . . .   | 102         | 2    | 8.19                 | 6       | 96          |
| Hawaii. . . . .               | 4           | 45   | 0.32                 | 3       | 1           | Rhode Island. . . . .   | 12          | 31   | 0.96                 | 2       | 10          |
| Idaho. . . . .                | 10          | 38   | 0.80                 | 2       | 8           | South Carolina. . . . . | 26          | 15   | 2.09                 | 2       | 24          |
| Illinois. . . . .             | 40          | 9    | 3.21                 | 4       | 36          | South Dakota. . . . .   | 3           | 46   | 0.24                 | 1       | 2           |
| Indiana. . . . .              | 31          | 11   | 2.49                 | -       | 31          | Tennessee. . . . .      | 15          | 26   | 1.20                 | 4       | 11          |
| Iowa. . . . .                 | 17          | 23   | 1.37                 | 1       | 16          | Texas. . . . .          | 27          | 14   | 2.17                 | 4       | 23          |
| Kansas. . . . .               | 11          | 34   | 0.88                 | 2       | 9           | Vermont. . . . .        | 16          | 24   | 1.29                 | 4       | 12          |
| Kentucky. . . . .             | 16          | 24   | 1.29                 | 1       | 15          | Virginia. . . . .       | 8           | 42   | 0.64                 | -       | 8           |
| Louisiana. . . . .            | 18          | 19   | 1.45                 | 1       | 17          | Washington. . . . .     | 25          | 16   | 2.01                 | 7       | 18          |
| Maine. . . . .                | 12          | 31   | 0.96                 | 3       | 9           | West Virginia. . . . .  | 7           | 43   | 0.56                 | 2       | 5           |
| Maryland. . . . .             | 15          | 26   | 1.20                 | 5       | 10          | Wisconsin. . . . .      | 41          | 8    | 3.29                 | -       | 41          |
| Massachusetts. . . . .        | 30          | 13   | 2.41                 | 8       | 22          | Wyoming. . . . .        | 3           | 46   | 0.24                 | 1       | 2           |
| Michigan. . . . .             | 75          | 5    | 6.02                 | 1       | 74          | Guam. . . . .           | 2           | (X)  | (X)                  | 1       | 1           |
| Minnesota. . . . .            | 31          | 11   | 2.49                 | 3       | 28          | Puerto Rico. . . . .    | 10          | (X)  | (X)                  | 1       | 9           |
| Mississippi. . . . .          | 3           | 46   | 0.24                 | -       | 3           | Virgin Islands. . . . . | 2           | (X)  | (X)                  | -       | 2           |
| Missouri. . . . .             | 22          | 18   | 1.77                 | 3       | 19          |                         |             |      |                      |         |             |

- Represents zero. X Not applicable.

Source: U.S. Environmental Protection Agency, Supplementary Materials: National Priorities List, Proposed Rule, December 1996.

**No. 389. Environmental Industry—Revenues and Employment, by Industry Segment: 1980 to 1996**

[Covers approximately 59,000 private and public companies engaged in environmental activities]

| INDUSTRY SEGMENT                             | REVENUE (bil. dol.) |              |              |              |              | EMPLOYMENT (1,000) |                |                |                |                |
|--|---------------------|--------------|--------------|--------------|--------------|--------------------|----------------|----------------|----------------|----------------|
|  | 1980                | 1990         | 1994         | 1995         | 1996         | 1980               | 1990           | 1994           | 1995           | 1996           |
| <b>Industry total . . . . .</b>              | <b>52.0</b>         | <b>146.4</b> | <b>172.5</b> | <b>180.0</b> | <b>184.3</b> | <b>462.5</b>       | <b>1,174.3</b> | <b>1,274.0</b> | <b>1,299.6</b> | <b>1,306.1</b> |
| Analytical services <sup>1</sup>             | 0.4                 | 1.5          | 1.6          | 1.5          | 1.5          | 6.0                | 20.2           | 19.7           | 17.2           | 16.5           |
| Water treatment works <sup>2</sup>           | 9.2                 | 19.8         | 25.7         | 27.3         | 28.6         | 53.9               | 95.0           | 113.7          | 118.2          | 120.9          |
| Solid waste management <sup>3</sup>          | 8.5                 | 26.1         | 31.0         | 32.5         | 33.8         | 83.2               | 209.5          | 227.9          | 232.1          | 234.6          |
| Hazardous waste management <sup>4</sup>      | 0.6                 | 6.3          | 6.4          | 6.2          | 6.0          | 6.8                | 56.9           | 53.3           | 52.5           | 51.2           |
| Remediation/industrial services              | 0.4                 | 8.5          | 8.6          | 8.5          | 8.6          | 6.9                | 107.2          | 100.0          | 96.6           | 95.3           |
| Consulting & engineering                     | 1.5                 | 12.5         | 15.3         | 15.5         | 15.6         | 20.5               | 144.2          | 162.8          | 160.6          | 159.7          |
| Water equipment & chemicals                  | 6.3                 | 13.5         | 15.6         | 16.5         | 17.4         | 62.4               | 97.9           | 116.4          | 119.8          | 123.3          |
| Instrument manufacturing                     | 0.2                 | 2.0          | 2.9          | 3.0          | 3.2          | 2.5                | 18.8           | 24.8           | 25.9           | 26.6           |
| Air pollution control equipment <sup>5</sup> | 3.0                 | 10.7         | 11.7         | 11.9         | 11.8         | 28.3               | 82.7           | 83.3           | 84.8           | 82.6           |
| Waste management equipment <sup>6</sup>      | 4.0                 | 10.4         | 11.2         | 11.7         | 12.1         | 41.9               | 88.8           | 88.2           | 93.8           | 94.9           |
| Process & prevention technology              | 0.1                 | 0.4          | 0.8          | 0.8          | 0.9          | 2.1                | 8.9            | 17.3           | 19.5           | 20.3           |
| Water utilities <sup>7</sup>                 | 11.9                | 19.8         | 24.2         | 25.3         | 26.3         | 76.9               | 104.7          | 118.0          | 120.5          | 122.2          |
| Resource recovery <sup>8</sup>               | 4.4                 | 13.1         | 15.4         | 16.9         | 16.3         | 48.7               | 118.4          | 124.2          | 132.0          | 131.3          |
| Environmental energy sources <sup>9</sup>    | 1.5                 | 1.8          | 2.2          | 2.3          | 2.4          | 22.4               | 21.1           | 24.4           | 26.1           | 26.7           |

<sup>1</sup> Covers environmental laboratory testing and services. <sup>2</sup> Mostly revenues collected by municipal entities. <sup>3</sup> Covers such activities as collection, transportation, transfer stations, disposal, landfill ownership and management for solid waste.

<sup>4</sup> Transportation and disposal of hazardous, medical and nuclear waste. <sup>5</sup> Includes stationery and mobile sources. <sup>6</sup> Includes vehicles, containers, liners, processing and remediation equipment. <sup>7</sup> Revenues generated from the sale of water. <sup>8</sup> Revenues generated from the sale of recovered metals, paper, plastic, etc. <sup>9</sup> Includes solar, wind, geothermal and conservation devices.

Source: Environmental Business International, Inc., San Diego, CA, *Environmental Business Journal*, monthly (copyright).

**No. 390. Pollution Abatement and Control Expenditures, in Current and Constant (1987) Dollars, 1973 to 1993, and by Media, 1993**

[In millions of dollars]

| YEAR                           | Total expenditures | POLLUTION ABATEMENT |                      |          |            |         |                 |                               | Regulation and monitoring | Research and development |  |  |
|--------------------------------|--------------------|---------------------|----------------------|----------|------------|---------|-----------------|-------------------------------|---------------------------|--------------------------|--|--|
|                                |                    | Total               | Personal consumption | Business | Government |         |                 |                               |                           |                          |  |  |
|                                |                    |                     |                      |          | Total      | Federal | State and local | Govt. enterprise <sup>1</sup> |                           |                          |  |  |
| <b>CURRENT DOLLARS</b>         |                    |                     |                      |          |            |         |                 |                               |                           |                          |  |  |
| 1973                           | 19,404             | 18,011              | 1,867                | 12,261   | 3,883      | 203     | 1,433           | 2,246                         | 490                       | 903                      |  |  |
| 1980                           | 50,399             | 47,352              | 6,558                | 29,706   | 11,088     | 494     | 2,768           | 7,825                         | 1,296                     | 1,751                    |  |  |
| 1985                           | 71,169             | 68,268              | 11,991               | 42,058   | 14,220     | 1,225   | 4,858           | 8,137                         | 1,279                     | 1,621                    |  |  |
| 1986                           | 75,389             | 72,111              | 12,385               | 43,954   | 15,772     | 1,346   | 5,515           | 8,912                         | 1,532                     | 1,746                    |  |  |
| 1987                           | 77,649             | 74,349              | 11,075               | 45,432   | 17,842     | 1,237   | 6,266           | 10,339                        | 1,519                     | 1,781                    |  |  |
| 1988                           | 83,020             | 79,453              | 12,285               | 48,415   | 18,752     | 1,402   | 7,283           | 10,067                        | 1,695                     | 1,872                    |  |  |
| 1989                           | 87,622             | 83,774              | 10,950               | 52,429   | 20,395     | 1,379   | 8,705           | 10,312                        | 1,803                     | 2,044                    |  |  |
| 1990                           | 93,877             | 90,321              | 9,241                | 58,498   | 22,582     | 1,391   | 10,161          | 11,031                        | 1,784                     | 1,772                    |  |  |
| 1991 <sup>2</sup>              | 95,893             | 92,012              | 7,425                | 60,594   | 23,634     | 1,417   | 11,417          | 10,800                        | 1,868                     | 2,013                    |  |  |
| 1992 <sup>2</sup>              | 101,846            | 98,134              | 7,896                | 65,592   | 24,646     | 1,215   | 12,630          | 10,801                        | 1,848                     | 1,864                    |  |  |
| 1993                           | 109,044            | 105,386             | 8,458                | 69,983   | 26,945     | 1,068   | 14,583          | 11,295                        | 1,924                     | 1,734                    |  |  |
| Air                            | 31,902             | 30,238              | 8,458                | 21,274   | 506        | 80      | 21              | 404                           | 561                       | 1,104                    |  |  |
| Water                          | 39,015             | 37,984              | -                    | 25,932   | 12,052     | 567     | 595             | 10,890                        | 789                       | 243                      |  |  |
| Solid Waste                    | 38,844             | 36,326              | -                    | 24,202   | 14,124     | 250     | 13,873          | -                             | 416                       | 102                      |  |  |
| <b>CONSTANT (1987) DOLLARS</b> |                    |                     |                      |          |            |         |                 |                               |                           |                          |  |  |
| 1973                           | 49,683             | 46,166              | 4,543                | 31,997   | 9,626      | 539     | 3,723           | 5,364                         | 1,190                     | 2,327                    |  |  |
| 1980                           | 65,590             | 61,305              | 7,297                | 38,673   | 15,335     | 679     | 4,015           | 10,641                        | 1,873                     | 2,413                    |  |  |
| 1985                           | 72,813             | 69,773              | 11,935               | 42,833   | 15,005     | 1,300   | 5,200           | 8,505                         | 1,361                     | 1,678                    |  |  |
| 1986                           | 77,487             | 74,110              | 12,831               | 45,002   | 16,277     | 1,402   | 5,726           | 9,149                         | 1,589                     | 1,788                    |  |  |
| 1987                           | 77,649             | 74,349              | 11,075               | 45,432   | 17,842     | 1,237   | 6,266           | 10,339                        | 1,519                     | 1,781                    |  |  |
| 1988                           | 80,698             | 77,263              | 12,069               | 47,131   | 18,063     | 1,340   | 6,953           | 9,771                         | 1,643                     | 1,792                    |  |  |
| 1989                           | 81,802             | 78,266              | 10,445               | 48,901   | 18,920     | 1,271   | 7,982           | 9,667                         | 1,657                     | 1,879                    |  |  |
| 1990                           | 84,648             | 81,453              | 8,659                | 52,630   | 20,165     | 1,228   | 8,864           | 10,073                        | 1,636                     | 1,559                    |  |  |
| 1991 <sup>2</sup>              | 84,152             | 80,806              | 6,783                | 53,667   | 20,356     | 1,220   | 9,661           | 9,475                         | 1,654                     | 1,692                    |  |  |
| 1992 <sup>2</sup>              | 88,083             | 84,817              | 7,037                | 57,028   | 20,751     | 1,040   | 10,437          | 9,274                         | 1,619                     | 1,648                    |  |  |
| 1993                           | 91,826             | 88,731              | 7,356                | 59,299   | 22,077     | 902     | 11,691          | 9,484                         | 1,656                     | 1,438                    |  |  |
| Air                            | 27,964             | 26,560              | 7,356                | 18,764   | 440        | 68      | 18              | 354                           | 487                       | 918                      |  |  |
| Water                          | 33,503             | 32,612              | -                    | 22,463   | 10,150     | 480     | 541             | 9,129                         | 690                       | 201                      |  |  |
| Solid Waste                    | 31,025             | 30,594              | -                    | 19,326   | 11,268     | 213     | 11,055          | -                             | 348                       | 84                       |  |  |

<sup>1</sup> Represents or rounds to zero. <sup>2</sup> Fixed capital. <sup>2</sup> Includes "other and unallocated" expenditures (such as for noise, radiation, and pesticide pollution and business expenditures not assigned to media) which may be either positive or negative; therefore, data may not add.

Source: U. S. Bureau of Economic Analysis, *Survey of Current Business*, May 1995.

**No. 391. Threatened and Endangered Wildlife and Plant Species—Number: 1997**

[As of March 31. Endangered species: One in danger of becoming extinct throughout all or a significant part of its natural range. Threatened species: One likely to become endangered in the foreseeable future]

| ITEM                      | Mammals | Birds | Reptiles | Amphibians | Fishes | Snails | Clams | Crustaceans | Insects | Arachnids | Plants |
|---------------------------|---------|-------|----------|------------|--------|--------|-------|-------------|---------|-----------|--------|
| Total listings . . . . .  | 331     | 273   | 111      | 23         | 118    | 23     | 64    | 18          | 37      | 5         | 637    |
| Endangered species, total | 307     | 253   | 79       | 16         | 78     | 16     | 58    | 15          | 28      | 5         | 524    |
| United States . . . . .   | 55      | 75    | 15       | 8          | 67     | 15     | 56    | 15          | 24      | 5         | 523    |
| Foreign . . . . .         | 252     | 178   | 64       | 8          | 11     | 1      | 2     | -           | 4       | -         | 1      |
| Threatened species, total | 24      | 20    | 32       | 7          | 40     | 7      | 6     | 3           | 9       | -         | 113    |
| United States . . . . .   | 8       | 14    | 18       | 6          | 40     | 7      | 6     | 3           | 9       | -         | 111    |
| Foreign . . . . .         | 16      | 6     | 14       | 1          | -      | -      | -     | -           | -       | -         | 2      |

- Represents zero. <sup>1</sup> Species outside United States and outlying areas as determined by Fish and Wildlife Service.

Source: U.S. Fish and Wildlife Service, *Endangered Species Technical Bulletin*, quarterly.

**No. 392. Major U.S. Weather Disasters: 1980 to 1997**

[Covers only weather related disasters costing \$1 billion or more]

| EVENT                                   | Description  | Time period         | Estimated cost (bil. dol.) | Deaths       |
|---|--|---------------------|----------------------------|--------------|
| West Coast Flooding                     | Flooding from rains and snowmelt in CA, WA, OR, ID, NV, & MT . . . . .                                 | Dec. 1996-Jan. 1997 | \$2-\$3                    | 36           |
| Hurricane Fran                          | Category 3 hurricane in NC and VA . . . . .  | Sept. 1996          | \$5                        | 36           |
| Southern Plains Severe Drought          | Drought in agricultural areas of TX & OK . . . . .   | Fall '95-summer '96 | Over \$4                   | (NA)         |
| Pacific Northwest Severe Flooding       | Flooding from heavy rain & snowmelt in OR, WA, ID, and MT  | Feb. 1996           | \$1                        | 9            |
| Blizzard of '96 Followed by Flooding    | Heavy snowstorm followed by severe flooding in Appalachians, Mid-Atlantic, and Northeast . . . . .     | Jan. 1996           | \$3                        | 187          |
| Hurricane Opal                          | Category 3 hurricane in FL, AL, parts of GA, TN, & Carolinas . . . . .                                 | Oct. 1995           | Over \$3                   | 27           |
| Hurricane Marilyn                       | Category 2 hurricane in Virgin Islands . . . . .   | Sept. 1995          | \$2.1                      | 13           |
| TX/OK/LA/MS Severe Weather and Flooding | Flooding, hail, & tornadoes across TX, OK, parts of LA, MS, Dallas & New Orleans hardest hit . . . . . | May 1995            | \$5-\$6                    | 32           |
| California Flooding                     | Flooding from frequent winter storms across much of CA . . . . .                                       | Jan.-Mar. 1995      | \$3                        | 27           |
| Texas Flooding                          | Flooding from torrential rain & thunderstorms across S.E. TX . . . . .                                 | Oct. 1994           | \$1                        | 19           |
| Tropical Storm Alberto                  | Flooding due to 10 to 25 inch rain across GA, AL, part of FL . . . . .                                 | July 1994           | \$1                        | 32           |
| Southeast Ice Storm                     | Intense ice storm in pts of TX, OK, AR, LA, MS, AL, TN, GA, SC, NC, & VA . . . . .                     | Feb. 1994           | \$3                        | 9            |
| California Wildfires                    | Out-of-control wildfires over southern CA . . . . .  | Fall 1993           | \$1                        | 4            |
| Midwest Flooding                        | Extreme flooding across central U.S. . . . .   | Summer 1993         | \$15-\$20                  | 48           |
| Drought/Heat Wave                       | Extreme drought/heatwave across southeastern U.S. . . . .  | Summer 1993         | \$1                        | (NA)         |
| Storm/Blizzard                          | Storm/blizzard over eastern U.S. . . . .   | Mar. 1993           | \$3-\$6                    | 270          |
| Nor'easter of 1992                      | Slow-moving storm batters northeast U.S. coast, New England . . . . .                                  | Dec. 1992           | \$1-\$2                    | 19           |
| Hurricane Iniki                         | Category 4 hurricane hit Hawaiian island of Kauai . . . . .  | Sept. 1992          | \$1.8                      | 7            |
| Hurricane Andrew                        | Category 4 hurricane hit FL & LA . . . . .   | Aug. 1992           | \$27                       | 58           |
| Oakland Firestorm                       | Oakland, CA firestorm due to low humidity & high winds . . . . .                                       | Oct. 1991           | \$1.5                      | 25           |
| Hurricane Bob                           | Category 2 hurricane—mainly coastal NC, Long Island, & N. E. . . . .                                   | Aug. 1991           | \$1.5                      | 18           |
| Hurricane Hugo                          | Category 4 hurricane hit Puerto Rico & Virgin Islands, devastated NC & SC . . . . .                    | Sept. 1989          | Over \$9                   | 86           |
| Drought/Heat Wave                       | Drought/heatwave over central & eastern U.S. . . . .   | Summer 1988         | \$40                       | 5,000-10,000 |
| Hurricane Juan                          | Category 1 hurricane, flooding most severe problem, hit LA and southeast U.S. . . . .                  | Oct.-Nov. 1985      | \$1.5                      | 63           |
| Hurricane Elena                         | Category 3 hurricane across FL to LA . . . . .   | Aug.-Sept. 1985     | \$1.3                      | 4            |
| Florida Freeze                          | Severe freeze central/northern FL, damage to citrus industry . . . . .                                 | Dec. 1983           | \$2                        | -            |
| Hurricane Alicia                        | Category 3 hurricane across TX . . . . .   | Aug. 1983           | \$3                        | 21           |
| Drought/Heat Wave                       | Drought/heatwave over central & eastern U.S. . . . .   | June-Sept. 1980     | \$20                       | 10,000       |

- Represents zero. NA Not available or not reported.

Source: U.S. National Oceanic and Atmospheric Administration, National Climatic Data Center. "Billion Dollar U.S. Weather Disaster, 1980-1997," January 27, 1997. <<http://www.ncdc.noaa.gov/publications/billionz.html>>.

**No. 393. Tornadoes, Floods, and Tropical Storms: 1985 to 1995**

| ITEM  | 1985  | 1986  | 1987  | 1988 | 1989  | 1990  | 1991  | 1992   | 1993   | 1994  | 1995, prel. |
|---|-------|-------|-------|------|-------|-------|-------|--------|--------|-------|-------------|
| Tornadoes, number <sup>1</sup>                              | 684   | 764   | 656   | 702  | 856   | 1,133 | 1,132 | 1,303  | 1,173  | 1,082 | 1,235       |
| Lives lost, total . . . . .                                 | 94    | 15    | 59    | 32   | 50    | 53    | 39    | 39     | 33     | 69    | 30          |
| Most in a single tornado . . . . .                          | 18    | 3     | 30    | 5    | 21    | 29    | 13    | 10     | 7      | 22    | 6           |
| Property loss of \$500,000 and over                         | 69    | 75    | 38    | 48   | 60    | 91    | 64    | 108    | 72     | 83    | 63          |
| Floods: Lives lost . . . . .                                | 304   | 80    | 82    | 29   | 81    | 147   | 63    | 87     | 101    | 72    | 103         |
| Property loss (mil. dol.) . . . . .                         | 3,000 | 4,000 | 1,490 | 114  | 415   | 2,058 | 1,416 | 800    | 16,400 | 1,224 | 5,111       |
| North Atlantic tropical storms and hurricanes: <sup>2</sup> | 11    | 6     | 7     | 12   | 11    | 14    | 8     | 7      | 8      | 7     | 19          |
| Number reaching U.S. coast . . . . .                        | 6     | 2     | 1     | 1    | 3     | -     | 1     | 1      | 1      | -     | 2           |
| Hurricanes only . . . . .                                   | 30    | 9     | -     | 6    | 56    | 10    | 17    | 26     | 9      | 38    | 29          |
| Lives lost in U.S. . . . .                                  | 4,457 | 18    | 8     | 9    | 7,840 | 57    | 1,500 | 25,000 | 57     | 973   | 5,000       |

- Represents zero. <sup>1</sup> A violent, rotating column of air descending from a cumulonimbus cloud in the form of a tubular- or funnel-shaped cloud, usually characterized by movements along a narrow path and wind speeds from 100 to over 300 miles per hour. Also known as a "twister" or "waterspout." <sup>2</sup> Source: National Hurricane Center, Coral Gables, FL, unpublished data.

Tropical storms have maximum winds of 39 to 73 miles per hour; hurricanes have maximum winds of 74 miles per hour or higher.

<sup>3</sup> Source: Hebert, Jarrell, & Mayfield, "The Deadliest, Costliest, and Most Intense U.S. Hurricanes of this Century," NOAA Technical Memo, NHC-31, February 1993.

Source: Except as noted, U.S. National Oceanic and Atmospheric Administration, *Storm Data*, monthly.

# Normal Temperatures

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## No. 394. Normal Daily Mean, Maximum, and Minimum Temperatures—Selected Cities

[In Fahrenheit degrees. Airport data except as noted. Based on standard 30-year period, 1961 through 1990]

| STATE | STATION                         | DAILY MEAN TEMPERATURE |      |                | DAILY MAXIMUM TEMPERATURE |       |                | DAILY MINIMUM TEMPERATURE |      |                |
|-------|---------------------------------|------------------------|------|----------------|---------------------------|-------|----------------|---------------------------|------|----------------|
|       |                                 | Jan.                   | July | Annual average | Jan.                      | July  | Annual average | Jan.                      | July | Annual average |
| AL    | Mobile . . . . .                | 49.9                   | 82.3 | 67.5           | 59.7                      | 91.3  | 77.4           | 40.0                      | 73.2 | 57.4           |
|       | Juneau . . . . .                | 24.2                   | 56.0 | 40.6           | 29.4                      | 63.9  | 46.9           | 19.0                      | 48.1 | 34.1           |
|       | Phoenix . . . . .               | 53.6                   | 93.5 | 72.6           | 65.9                      | 105.9 | 85.9           | 41.2                      | 81.0 | 59.3           |
|       | Little Rock . . . . .           | 39.1                   | 81.9 | 61.8           | 49.0                      | 92.4  | 72.5           | 29.1                      | 71.5 | 51.0           |
|       | Los Angeles . . . . .           | 56.8                   | 69.1 | 63.0           | 65.7                      | 75.3  | 70.4           | 47.8                      | 62.8 | 55.5           |
|       | Sacramento . . . . .            | 45.2                   | 75.7 | 60.8           | 52.7                      | 93.2  | 73.5           | 37.7                      | 58.1 | 48.1           |
|       | San Diego . . . . .             | 57.4                   | 71.0 | 64.2           | 65.9                      | 76.2  | 70.8           | 48.9                      | 65.7 | 57.6           |
|       | San Francisco . . . . .         | 48.7                   | 62.7 | 57.1           | 55.6                      | 71.6  | 65.2           | 41.8                      | 53.9 | 49.0           |
|       | Denver . . . . .                | 29.7                   | 73.5 | 50.3           | 43.2                      | 88.2  | 64.2           | 16.1                      | 58.6 | 36.2           |
| CO    | Hartford . . . . .              | 24.6                   | 73.7 | 49.9           | 33.2                      | 85.0  | 60.2           | 15.8                      | 62.2 | 39.5           |
| CT    | Wilmington . . . . .            | 30.6                   | 76.4 | 54.2           | 38.7                      | 85.6  | 63.6           | 22.4                      | 67.1 | 44.8           |
| DE    | Washington . . . . .            | 34.6                   | 80.0 | 58.0           | 42.3                      | 88.5  | 66.9           | 26.8                      | 71.4 | 49.2           |
| FL    | Jacksonville . . . . .          | 52.4                   | 81.6 | 68.0           | 64.2                      | 91.4  | 78.9           | 40.5                      | 71.9 | 57.1           |
| GA    | Miami . . . . .                 | 67.2                   | 82.6 | 75.9           | 75.2                      | 89.0  | 82.8           | 59.2                      | 76.2 | 69.0           |
| HI    | Atlanta . . . . .               | 41.0                   | 78.8 | 61.3           | 50.4                      | 88.0  | 71.2           | 31.5                      | 69.5 | 51.3           |
| ID    | Honolulu . . . . .              | 72.9                   | 80.5 | 77.2           | 80.1                      | 87.5  | 84.4           | 65.6                      | 73.5 | 70.0           |
| IL    | Boise . . . . .                 | 29.0                   | 74.0 | 50.9           | 36.4                      | 90.2  | 62.8           | 21.6                      | 57.7 | 39.1           |
| IN    | Chicago . . . . .               | 21.0                   | 73.2 | 49.0           | 29.0                      | 83.7  | 58.6           | 12.9                      | 62.6 | 39.5           |
| IA    | Peoria . . . . .                | 21.6                   | 75.5 | 50.7           | 29.9                      | 85.7  | 60.4           | 13.2                      | 65.4 | 41.0           |
| KS    | Indianapolis . . . . .          | 25.5                   | 75.4 | 52.3           | 33.7                      | 85.5  | 62.1           | 17.2                      | 65.2 | 42.4           |
| KY    | Des Moines . . . . .            | 19.4                   | 76.6 | 49.9           | 28.1                      | 86.7  | 59.8           | 10.7                      | 66.5 | 40.0           |
| LA    | Wichita . . . . .               | 29.5                   | 81.4 | 56.2           | 39.8                      | 92.8  | 67.4           | 19.2                      | 69.9 | 45.0           |
| LA    | Louisville . . . . .            | 31.7                   | 77.2 | 56.1           | 40.3                      | 87.0  | 66.0           | 23.2                      | 67.3 | 46.0           |
| LA    | New Orleans . . . . .           | 51.3                   | 81.9 | 68.1           | 60.8                      | 90.6  | 77.6           | 41.8                      | 73.1 | 58.5           |
| ME    | Portland . . . . .              | 20.8                   | 68.6 | 45.4           | 30.3                      | 78.8  | 54.9           | 11.4                      | 58.3 | 35.8           |
| MD    | Baltimore . . . . .             | 31.8                   | 77.0 | 55.1           | 40.2                      | 87.2  | 65.0           | 23.4                      | 66.8 | 45.2           |
| MA    | Boston . . . . .                | 28.6                   | 73.5 | 51.3           | 35.7                      | 81.8  | 59.0           | 21.6                      | 65.1 | 43.6           |
| MI    | Detroit . . . . .               | 22.9                   | 72.3 | 48.6           | 30.3                      | 83.3  | 58.1           | 15.6                      | 61.3 | 39.0           |
| MN    | Sault Ste. Marie . . . . .      | 12.9                   | 63.8 | 39.7           | 21.1                      | 76.3  | 49.6           | 4.6                       | 51.3 | 29.8           |
| MN    | Duluth . . . . .                | 7.0                    | 66.1 | 38.5           | 16.2                      | 77.1  | 47.9           | -2.2                      | 55.1 | 29.0           |
| MS    | Minneapolis-St. Paul . . . . .  | 11.8                   | 73.6 | 44.9           | 20.7                      | 84.0  | 54.3           | 2.8                       | 63.1 | 35.3           |
| MO    | Jackson . . . . .               | 44.1                   | 81.5 | 64.2           | 55.6                      | 92.4  | 76.4           | 32.7                      | 70.5 | 52.0           |
| MT    | Kansas City . . . . .           | 25.7                   | 78.5 | 53.6           | 34.7                      | 88.7  | 63.6           | 16.7                      | 68.2 | 43.7           |
| MT    | St. Louis . . . . .             | 29.3                   | 79.8 | 56.1           | 37.7                      | 89.3  | 65.4           | 20.8                      | 70.4 | 46.7           |
| MT    | Great Falls . . . . .           | 21.2                   | 68.2 | 44.8           | 30.6                      | 83.3  | 56.4           | 11.6                      | 53.2 | 33.1           |
| NE    | Omaha . . . . .                 | 21.1                   | 76.9 | 50.6           | 31.3                      | 87.9  | 61.5           | 10.9                      | 65.9 | 39.5           |
| NV    | Reno . . . . .                  | 32.9                   | 71.6 | 50.8           | 45.1                      | 91.9  | 66.8           | 20.7                      | 51.3 | 34.7           |
| NH    | Concord . . . . .               | 18.6                   | 69.5 | 45.1           | 29.8                      | 82.4  | 57.0           | 7.4                       | 56.5 | 33.1           |
| NJ    | Atlantic City . . . . .         | 30.9                   | 74.7 | 53.0           | 40.4                      | 84.5  | 63.2           | 21.4                      | 64.8 | 42.8           |
| NM    | Albuquerque . . . . .           | 34.2                   | 78.5 | 56.2           | 46.8                      | 92.5  | 70.1           | 21.7                      | 64.4 | 42.2           |
| NY    | Albany . . . . .                | 20.6                   | 71.8 | 47.4           | 30.2                      | 84.0  | 58.1           | 11.0                      | 59.6 | 36.6           |
| NY    | Buffalo . . . . .               | 23.6                   | 71.1 | 47.7           | 30.2                      | 80.2  | 55.8           | 17.0                      | 61.9 | 39.5           |
| NC    | New York <sup>1</sup> . . . . . | 31.5                   | 76.8 | 54.7           | 37.6                      | 85.2  | 62.3           | 25.3                      | 68.4 | 47.1           |
| NC    | Charlotte . . . . .             | 39.3                   | 79.3 | 60.1           | 49.0                      | 88.9  | 70.4           | 29.6                      | 69.6 | 49.7           |
| ND    | Raleigh . . . . .               | 38.9                   | 78.1 | 59.3           | 48.9                      | 88.0  | 70.1           | 28.8                      | 68.1 | 48.4           |
| ND    | Bismarck . . . . .              | 9.2                    | 70.4 | 41.6           | 20.2                      | 84.4  | 53.8           | -1.7                      | 56.4 | 29.4           |
| OH    | Cincinnati . . . . .            | 28.1                   | 75.1 | 53.2           | 36.6                      | 85.5  | 63.2           | 19.5                      | 64.8 | 43.2           |
| OH    | Cleveland . . . . .             | 24.8                   | 71.9 | 49.6           | 31.9                      | 82.4  | 58.7           | 17.6                      | 61.4 | 40.5           |
| OK    | Columbus . . . . .              | 26.4                   | 73.2 | 51.4           | 34.1                      | 83.7  | 61.2           | 18.5                      | 62.7 | 41.6           |
| OK    | Oklahoma City . . . . .         | 35.9                   | 82.0 | 60.0           | 46.7                      | 93.4  | 71.1           | 25.2                      | 70.6 | 48.8           |
| OR    | Portland . . . . .              | 39.6                   | 68.2 | 53.6           | 45.4                      | 79.9  | 62.6           | 33.7                      | 56.5 | 44.5           |
| PA    | Philadelphia . . . . .          | 30.4                   | 76.7 | 54.3           | 37.9                      | 86.1  | 63.4           | 22.8                      | 67.2 | 45.1           |
| PA    | Pittsburgh . . . . .            | 26.1                   | 72.1 | 50.3           | 33.7                      | 82.6  | 59.9           | 18.5                      | 61.6 | 40.7           |
| RI    | Providence . . . . .            | 27.9                   | 72.7 | 50.4           | 36.6                      | 82.1  | 59.8           | 19.1                      | 63.2 | 41.0           |
| SC    | Columbia . . . . .              | 43.8                   | 80.8 | 63.1           | 55.3                      | 91.6  | 75.1           | 32.1                      | 70.0 | 50.9           |
| SD    | Sioux Falls . . . . .           | 13.8                   | 74.3 | 45.5           | 24.3                      | 86.3  | 56.8           | 3.3                       | 62.3 | 34.2           |
| TN    | Memphis . . . . .               | 39.7                   | 82.6 | 62.3           | 48.5                      | 92.3  | 72.1           | 30.9                      | 72.9 | 52.4           |
| TN    | Nashville . . . . .             | 36.2                   | 79.3 | 59.1           | 45.9                      | 89.5  | 69.8           | 26.5                      | 68.9 | 48.4           |
| TX    | Dallas-Fort Worth . . . . .     | 43.4                   | 85.3 | 65.4           | 54.1                      | 96.5  | 76.3           | 32.7                      | 74.1 | 54.6           |
| TX    | El Paso . . . . .               | 42.8                   | 82.3 | 63.2           | 56.1                      | 96.1  | 77.5           | 29.4                      | 68.4 | 49.0           |
| UT    | Houston . . . . .               | 50.4                   | 82.6 | 67.9           | 61.0                      | 92.7  | 78.6           | 39.7                      | 72.4 | 57.3           |
| UT    | Salt Lake City . . . . .        | 27.9                   | 77.9 | 52.0           | 36.4                      | 92.2  | 63.6           | 19.3                      | 63.7 | 40.3           |
| VT    | Burlington . . . . .            | 16.3                   | 70.5 | 44.6           | 25.1                      | 81.2  | 54.0           | 7.5                       | 59.7 | 35.2           |
| VA    | Norfolk . . . . .               | 39.1                   | 78.2 | 59.2           | 47.3                      | 86.4  | 67.8           | 30.9                      | 70.0 | 50.6           |
| VA    | Richmond . . . . .              | 35.7                   | 78.0 | 57.7           | 45.7                      | 88.4  | 68.8           | 25.7                      | 67.5 | 46.6           |
| WA    | Seattle-Tacoma . . . . .        | 40.1                   | 65.2 | 52.0           | 45.0                      | 75.2  | 59.4           | 35.2                      | 55.2 | 44.6           |
| WA    | Spokane . . . . .               | 27.1                   | 68.8 | 47.3           | 33.2                      | 83.1  | 57.5           | 20.8                      | 54.4 | 36.9           |
| WV    | Charleston . . . . .            | 32.1                   | 75.1 | 55.0           | 41.2                      | 85.7  | 65.8           | 23.0                      | 64.4 | 44.2           |
| WI    | Milwaukee . . . . .             | 18.9                   | 70.9 | 46.1           | 26.1                      | 79.9  | 54.3           | 11.6                      | 62.0 | 37.9           |
| WY    | Cheyenne . . . . .              | 26.5                   | 68.4 | 45.6           | 37.7                      | 82.2  | 58.0           | 15.2                      | 54.6 | 33.2           |
| PR    | San Juan . . . . .              | 77.0                   | 82.6 | 80.2           | 83.2                      | 88.5  | 86.4           | 70.8                      | 76.8 | 74.0           |

<sup>1</sup> City office data.

## Geography and Environment

## No. 395. Highest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 1995]

| STATE | STATION                         | Length of record (yr.) | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-------|---------------------------------|------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| AL    | Mobile . . . . .                | 54                     | 84   | 82   | 90   | 94   | 100 | 102  | 104  | 102  | 99    | 93   | 87   | 81   | 104    |
| AK    | Juneau . . . . .                | 51                     | 57   | 57   | 59   | 72   | 82  | 86   | 90   | 83   | 72    | 61   | 56   | 54   | 90     |
| AZ    | Phoenix . . . . .               | 58                     | 88   | 92   | 100  | 105  | 113 | 122  | 121  | 116  | 118   | 107  | 93   | 88   | 122    |
| AR    | Little Rock . . . . .           | 54                     | 83   | 85   | 91   | 95   | 98  | 105  | 112  | 108  | 106   | 97   | 86   | 80   | 112    |
| CA    | Los Angeles . . . . .           | 60                     | 88   | 92   | 95   | 102  | 97  | 104  | 97   | 98   | 110   | 106  | 101  | 94   | 110    |
|       | Sacramento . . . . .            | 45                     | 70   | 76   | 88   | 93   | 105 | 115  | 114  | 109  | 108   | 101  | 87   | 72   | 115    |
|       | San Diego . . . . .             | 55                     | 88   | 90   | 93   | 98   | 96  | 101  | 95   | 98   | 111   | 107  | 97   | 88   | 111    |
|       | San Francisco . . . . .         | 68                     | 72   | 78   | 85   | 92   | 97  | 106  | 105  | 100  | 103   | 99   | 85   | 75   | 106    |
| CO    | Denver . . . . .                | 61                     | 73   | 76   | 84   | 90   | 96  | 104  | 104  | 101  | 97    | 89   | 79   | 75   | 104    |
| CT    | Hartford . . . . .              | 41                     | 65   | 73   | 87   | 96   | 97  | 100  | 102  | 101  | 99    | 91   | 81   | 74   | 102    |
| DE    | Wilmington . . . . .            | 48                     | 75   | 78   | 86   | 94   | 95  | 100  | 102  | 101  | 100   | 91   | 85   | 74   | 102    |
| DC    | Washington . . . . .            | 54                     | 79   | 82   | 89   | 95   | 99  | 101  | 104  | 103  | 101   | 94   | 86   | 75   | 104    |
| FL    | Jacksonville . . . . .          | 54                     | 85   | 88   | 91   | 95   | 100 | 103  | 105  | 102  | 100   | 96   | 88   | 84   | 105    |
|       | Miami . . . . .                 | 53                     | 88   | 89   | 92   | 96   | 96  | 98   | 98   | 98   | 97    | 95   | 89   | 87   | 98     |
| GA    | Atlanta . . . . .               | 47                     | 79   | 80   | 89   | 93   | 95  | 101  | 105  | 102  | 98    | 95   | 84   | 79   | 105    |
| HI    | Honolulu . . . . .              | 26                     | 87   | 88   | 88   | 89   | 93  | 92   | 94   | 93   | 95    | 94   | 93   | 89   | 95     |
| ID    | Boise . . . . .                 | 56                     | 63   | 71   | 81   | 92   | 98  | 109  | 111  | 110  | 102   | 94   | 74   | 65   | 111    |
| IL    | Chicago . . . . .               | 37                     | 65   | 71   | 88   | 91   | 93  | 104  | 104  | 101  | 99    | 91   | 78   | 71   | 104    |
|       | Peoria . . . . .                | 56                     | 70   | 72   | 86   | 92   | 93  | 105  | 103  | 103  | 100   | 90   | 81   | 71   | 105    |
| IN    | Indianapolis . . . . .          | 56                     | 71   | 74   | 85   | 89   | 93  | 102  | 104  | 102  | 100   | 90   | 81   | 74   | 104    |
| IA    | Des Moines . . . . .            | 56                     | 65   | 73   | 91   | 93   | 98  | 103  | 105  | 108  | 101   | 95   | 76   | 69   | 108    |
| KS    | Wichita . . . . .               | 43                     | 75   | 84   | 89   | 96   | 100 | 110  | 113  | 110  | 107   | 95   | 85   | 83   | 113    |
| KY    | Louisville . . . . .            | 48                     | 77   | 77   | 86   | 91   | 95  | 102  | 105  | 105  | 101   | 94   | 84   | 76   | 105    |
| LA    | New Orleans . . . . .           | 49                     | 83   | 85   | 89   | 92   | 96  | 100  | 101  | 102  | 101   | 92   | 87   | 84   | 102    |
| ME    | Portland . . . . .              | 55                     | 64   | 64   | 86   | 85   | 94  | 98   | 99   | 103  | 95    | 88   | 74   | 69   | 103    |
| MD    | Baltimore . . . . .             | 45                     | 75   | 79   | 87   | 94   | 98  | 101  | 104  | 105  | 100   | 92   | 83   | 77   | 105    |
| MA    | Boston . . . . .                | 44                     | 66   | 70   | 81   | 94   | 95  | 100  | 102  | 102  | 100   | 90   | 79   | 73   | 102    |
| MI    | Detroit . . . . .               | 37                     | 62   | 65   | 81   | 89   | 93  | 104  | 102  | 100  | 98    | 91   | 77   | 68   | 104    |
|       | Sault Ste. Marie . . . . .      | 55                     | 45   | 47   | 75   | 85   | 89  | 93   | 97   | 98   | 95    | 80   | 67   | 60   | 98     |
| MN    | Duluth . . . . .                | 54                     | 52   | 55   | 78   | 88   | 90  | 94   | 97   | 97   | 95    | 86   | 70   | 55   | 97     |
|       | Minneapolis-St. Paul . . . . .  | 57                     | 58   | 60   | 83   | 95   | 96  | 102  | 105  | 102  | 98    | 89   | 75   | 63   | 105    |
| MS    | Jackson . . . . .               | 32                     | 82   | 85   | 89   | 94   | 99  | 105  | 106  | 102  | 104   | 95   | 88   | 84   | 106    |
| MO    | Kansas City . . . . .           | 23                     | 69   | 77   | 86   | 93   | 92  | 105  | 107  | 109  | 102   | 92   | 82   | 70   | 109    |
|       | St. Louis . . . . .             | 50                     | 76   | 81   | 87   | 93   | 93  | 101  | 113  | 106  | 104   | 93   | 80   | 77   | 113    |
| MT    | Great Falls . . . . .           | 58                     | 67   | 70   | 78   | 89   | 93  | 101  | 105  | 106  | 98    | 91   | 76   | 69   | 106    |
| NE    | Omaha . . . . .                 | 59                     | 69   | 78   | 89   | 97   | 99  | 105  | 114  | 110  | 104   | 96   | 80   | 72   | 114    |
| NV    | Reno . . . . .                  | 54                     | 70   | 75   | 83   | 89   | 96  | 103  | 104  | 105  | 101   | 91   | 77   | 70   | 105    |
| NH    | Concord . . . . .               | 54                     | 68   | 66   | 85   | 95   | 97  | 98   | 102  | 101  | 98    | 90   | 80   | 68   | 102    |
| NJ    | Atlantic City . . . . .         | 52                     | 78   | 75   | 87   | 94   | 99  | 106  | 104  | 102  | 99    | 90   | 84   | 75   | 106    |
| NM    | Albuquerque . . . . .           | 56                     | 69   | 76   | 85   | 89   | 98  | 107  | 105  | 101  | 100   | 91   | 77   | 72   | 107    |
| NY    | Albany . . . . .                | 49                     | 65   | 67   | 86   | 92   | 94  | 99   | 100  | 99   | 100   | 89   | 82   | 71   | 100    |
|       | Buffalo . . . . .               | 52                     | 72   | 65   | 81   | 94   | 90  | 96   | 97   | 99   | 98    | 87   | 80   | 74   | 99     |
| NC    | New York <sup>1</sup> . . . . . | 127                    | 72   | 75   | 86   | 96   | 99  | 101  | 106  | 104  | 102   | 94   | 84   | 72   | 106    |
|       | Charlotte . . . . .             | 56                     | 78   | 81   | 90   | 93   | 100 | 103  | 103  | 103  | 104   | 98   | 85   | 77   | 104    |
| ND    | Raleigh . . . . .               | 51                     | 79   | 84   | 92   | 95   | 97  | 104  | 105  | 105  | 104   | 98   | 88   | 79   | 105    |
|       | Bismarck . . . . .              | 56                     | 62   | 69   | 81   | 93   | 98  | 107  | 109  | 109  | 105   | 95   | 75   | 65   | 109    |
| OH    | Cincinnati . . . . .            | 34                     | 69   | 73   | 84   | 89   | 93  | 102  | 103  | 102  | 98    | 88   | 81   | 75   | 103    |
|       | Cleveland . . . . .             | 54                     | 73   | 69   | 83   | 88   | 92  | 104  | 103  | 102  | 101   | 90   | 82   | 77   | 104    |
|       | Columbus . . . . .              | 56                     | 74   | 73   | 85   | 89   | 94  | 102  | 100  | 101  | 100   | 90   | 80   | 76   | 102    |
| OK    | Oklahoma City . . . . .         | 42                     | 80   | 84   | 93   | 100  | 104 | 105  | 109  | 110  | 102   | 96   | 87   | 86   | 110    |
| OR    | Portland . . . . .              | 55                     | 63   | 71   | 80   | 87   | 100 | 100  | 107  | 107  | 105   | 92   | 73   | 65   | 107    |
| PA    | Philadelphia . . . . .          | 54                     | 74   | 74   | 87   | 94   | 97  | 100  | 104  | 101  | 100   | 96   | 81   | 72   | 104    |
|       | Pittsburgh . . . . .            | 43                     | 69   | 69   | 82   | 89   | 91  | 98   | 103  | 100  | 97    | 87   | 82   | 74   | 103    |
| RI    | Providence . . . . .            | 42                     | 69   | 72   | 80   | 98   | 94  | 97   | 102  | 104  | 100   | 86   | 78   | 70   | 104    |
| SC    | Columbia . . . . .              | 48                     | 84   | 84   | 91   | 94   | 101 | 107  | 107  | 107  | 101   | 91   | 90   | 83   | 107    |
| SD    | Sioux Falls . . . . .           | 50                     | 66   | 70   | 87   | 94   | 100 | 110  | 108  | 108  | 104   | 94   | 76   | 61   | 110    |
| TN    | Memphis . . . . .               | 54                     | 78   | 81   | 85   | 94   | 99  | 104  | 108  | 105  | 103   | 95   | 85   | 81   | 108    |
|       | Nashville . . . . .             | 56                     | 78   | 84   | 86   | 91   | 97  | 106  | 107  | 104  | 105   | 94   | 84   | 79   | 107    |
| TX    | Dallas-Fort Worth . . .         | 42                     | 88   | 88   | 96   | 95   | 103 | 113  | 110  | 108  | 106   | 102  | 89   | 88   | 113    |
|       | El Paso . . . . .               | 56                     | 80   | 83   | 89   | 98   | 104 | 114  | 112  | 108  | 104   | 96   | 87   | 80   | 114    |
| UT    | Houston . . . . .               | 26                     | 84   | 91   | 91   | 95   | 97  | 103  | 104  | 107  | 102   | 96   | 89   | 85   | 107    |
| VT    | Salt Lake City . . . . .        | 67                     | 62   | 69   | 78   | 86   | 93  | 104  | 107  | 106  | 100   | 89   | 75   | 69   | 107    |
| VA    | Burlington . . . . .            | 52                     | 66   | 62   | 84   | 91   | 93  | 100  | 100  | 101  | 94    | 85   | 75   | 65   | 101    |
|       | Norfolk . . . . .               | 47                     | 78   | 81   | 88   | 97   | 100 | 101  | 103  | 104  | 99    | 95   | 86   | 80   | 104    |
|       | Richmond . . . . .              | 66                     | 80   | 83   | 93   | 96   | 100 | 104  | 105  | 102  | 103   | 99   | 86   | 80   | 105    |
| WA    | Seattle-Tacoma . . . . .        | 51                     | 64   | 70   | 75   | 85   | 93  | 96   | 100  | 99   | 98    | 89   | 74   | 64   | 100    |
|       | Spokane . . . . .               | 48                     | 59   | 63   | 71   | 90   | 96  | 101  | 103  | 108  | 98    | 86   | 67   | 56   | 108    |
| WV    | Charleston . . . . .            | 48                     | 79   | 78   | 89   | 94   | 93  | 98   | 104  | 101  | 102   | 92   | 85   | 80   | 104    |
| WI    | Milwaukee . . . . .             | 55                     | 62   | 65   | 82   | 91   | 93  | 101  | 103  | 103  | 98    | 89   | 77   | 63   | 103    |
| WY    | Cheyenne . . . . .              | 60                     | 66   | 71   | 74   | 83   | 90  | 100  | 100  | 96   | 95    | 83   | 73   | 69   | 100    |
| PR    | San Juan . . . . .              | 41                     | 92   | 96   | 96   | 97   | 96  | 97   | 95   | 97   | 97    | 98   | 96   | 94   | 98     |

<sup>1</sup> City office data.

Source: U.S. National Oceanic and Atmospheric Administration, Comparative Climatic Data, annual.

## No. 396. Lowest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 1995]

| STATE | STATION                         | Length of record (yr.) | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-------|---------------------------------|------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| AL    | Mobile . . . . .                | 54                     | 3    | 11   | 21   | 32   | 43  | 49   | 60   | 59   | 42    | 30   | 22   | 8    | 3      |
| AK    | Juneau . . . . .                | 51                     | -22  | -22  | -15  | 6    | 25  | 31   | 36   | 27   | 23    | 11   | -5   | -21  | -22    |
| AZ    | Phoenix . . . . .               | 58                     | 17   | 22   | 25   | 32   | 40  | 50   | 61   | 60   | 47    | 34   | 25   | 22   | 17     |
| AR    | Little Rock . . . . .           | 54                     | -4   | -5   | 11   | 28   | 40  | 46   | 54   | 52   | 37    | 29   | 17   | -1   | -5     |
| CA    | Los Angeles . . . . .           | 60                     | 23   | 32   | 34   | 39   | 43  | 48   | 49   | 51   | 47    | 41   | 34   | 32   | 23     |
|       | Sacramento . . . . .            | 45                     | 23   | 23   | 26   | 32   | 36  | 41   | 48   | 49   | 43    | 36   | 26   | 18   | 18     |
|       | San Diego . . . . .             | 55                     | 29   | 36   | 39   | 41   | 48  | 51   | 55   | 57   | 51    | 43   | 38   | 34   | 29     |
|       | San Francisco . . . . .         | 68                     | 24   | 25   | 30   | 31   | 36  | 41   | 43   | 42   | 38    | 34   | 25   | 20   | 20     |
| CO    | Denver . . . . .                | 61                     | -25  | -30  | -11  | -2   | 22  | 30   | 33   | 41   | 17    | 3    | -8   | -25  | -30    |
| CT    | Hartford . . . . .              | 41                     | -26  | -21  | -6   | 9    | 28  | 37   | 44   | 36   | 30    | 17   | 1    | -14  | -26    |
| DE    | Wilmington . . . . .            | 48                     | -14  | -6   | 2    | 18   | 30  | 41   | 48   | 43   | 36    | 24   | 14   | -7   | -14    |
| DC    | Washington . . . . .            | 54                     | -5   | 4    | 11   | 24   | 34  | 47   | 54   | 49   | 39    | 29   | 16   | 1    | -5     |
| FL    | Jacksonville . . . . .          | 54                     | 7    | 19   | 23   | 34   | 45  | 47   | 61   | 63   | 48    | 36   | 21   | 11   | 7      |
|       | Miami . . . . .                 | 53                     | 30   | 32   | 32   | 46   | 53  | 60   | 69   | 68   | 68    | 51   | 39   | 30   | 30     |
| GA    | Atlanta . . . . .               | 47                     | -8   | 5    | 10   | 26   | 37  | 46   | 53   | 55   | 36    | 28   | 3    | -    | -8     |
| HI    | Honolulu . . . . .              | 26                     | 53   | 53   | 55   | 57   | 60  | 65   | 66   | 67   | 66    | 61   | 57   | 54   | 53     |
| ID    | Boise . . . . .                 | 56                     | -17  | -15  | 6    | 19   | 22  | 31   | 35   | 34   | 23    | 11   | -3   | -25  | -25    |
| IL    | Chicago . . . . .               | 37                     | -27  | -17  | -8   | 7    | 24  | 36   | 40   | 41   | 28    | 17   | 1    | -25  | -27    |
|       | Peoria . . . . .                | 56                     | 25   | -18  | -10  | 14   | 25  | 39   | 47   | 41   | 26    | 19   | -2   | -23  | -25    |
| IN    | Indianapolis . . . . .          | 56                     | -27  | -21  | -7   | 16   | 28  | 37   | 44   | 41   | 28    | 17   | -2   | -23  | -27    |
| IA    | Des Moines . . . . .            | 56                     | -24  | -20  | -22  | 9    | 30  | 38   | 47   | 40   | 26    | 14   | -4   | -22  | -24    |
| KS    | Wichita . . . . .               | 43                     | -12  | -21  | -2   | 15   | 31  | 43   | 51   | 48   | 31    | 18   | 1    | -16  | -21    |
| KY    | Louisville . . . . .            | 48                     | -22  | -19  | -1   | 22   | 31  | 42   | 50   | 46   | 33    | 23   | -1   | -15  | -22    |
| LA    | New Orleans . . . . .           | 49                     | 14   | 19   | 25   | 32   | 41  | 50   | 60   | 60   | 42    | 35   | 24   | 11   | 11     |
| ME    | Portland . . . . .              | 55                     | -26  | -39  | -21  | 8    | 23  | 33   | 40   | 33   | 23    | 15   | 3    | -21  | -39    |
| MD    | Baltimore . . . . .             | 45                     | -7   | -3   | 6    | 20   | 32  | 40   | 50   | 45   | 35    | 25   | 13   | -    | -7     |
| MA    | Boston . . . . .                | 44                     | -12  | -4   | 6    | 16   | 34  | 45   | 50   | 47   | 38    | 28   | 15   | -7   | -12    |
| MI    | Detroit . . . . .               | 37                     | -21  | -15  | -4   | 10   | 25  | 36   | 41   | 38   | 29    | 17   | 9    | -10  | -21    |
|       | Sault Ste. Marie . . . . .      | 55                     | -36  | -35  | -24  | -2   | 18  | 26   | 36   | 29   | 25    | 16   | -10  | -31  | -36    |
| MN    | Duluth . . . . .                | 54                     | -39  | -33  | -29  | -5   | 17  | 27   | 35   | 32   | 22    | 8    | -23  | -34  | -39    |
|       | Minneapolis-St. Paul . . . . .  | 57                     | -34  | -28  | -32  | 2    | 18  | 34   | 43   | 39   | 26    | 15   | -17  | -29  | -34    |
| MS    | Jackson . . . . .               | 32                     | 2    | 11   | 15   | 27   | 38  | 47   | 51   | 55   | 35    | 26   | 17   | 4    | 2      |
| MO    | Kansas City . . . . .           | 23                     | -17  | -19  | -10  | 12   | 30  | 42   | 52   | 43   | 31    | 17   | 1    | -23  | -23    |
|       | St. Louis . . . . .             | 38                     | -18  | -10  | -5   | 2    | 31  | 43   | 51   | 47   | 36    | 23   | 1    | -16  | -18    |
| MT    | Great Falls . . . . .           | 58                     | -37  | -35  | -29  | -6   | 15  | 31   | 40   | 30   | 20    | -11  | -25  | -43  | -43    |
| NE    | Omaha . . . . .                 | 59                     | -23  | -21  | -16  | 5    | 27  | 38   | 44   | 43   | 25    | 13   | -9   | -23  | -23    |
| NV    | Reno . . . . .                  | 54                     | -16  | -16  | -2   | 13   | 18  | 25   | 33   | 24   | 20    | 8    | 1    | -16  | -16    |
| NH    | Concord . . . . .               | 54                     | -33  | -37  | -16  | 8    | 21  | 30   | 35   | 29   | 21    | 10   | -5   | -22  | -37    |
| NJ    | Atlantic City . . . . .         | 52                     | -10  | -11  | 5    | 12   | 25  | 37   | 42   | 40   | 32    | 20   | 10   | -7   | -11    |
| NM    | Albuquerque . . . . .           | 56                     | -17  | -5   | 8    | 19   | 28  | 40   | 52   | 50   | 37    | 21   | -7   | -7   | -17    |
| NY    | Albany . . . . .                | 49                     | -28  | -21  | -21  | 10   | 26  | 36   | 40   | 34   | 24    | 16   | 5    | -22  | -28    |
|       | Buffalo . . . . .               | 52                     | -16  | -20  | -7   | 12   | 26  | 35   | 43   | 38   | 32    | 20   | 9    | -10  | -20    |
|       | New York <sup>1</sup> . . . . . | 127                    | -6   | -15  | 3    | 12   | 32  | 44   | 52   | 50   | 39    | 28   | 5    | -13  | -15    |
| NC    | Charlotte . . . . .             | 56                     | -5   | 5    | 4    | 24   | 32  | 45   | 53   | 53   | 39    | 24   | 11   | 2    | -5     |
|       | Raleigh . . . . .               | 51                     | -9   | 5    | 11   | 23   | 31  | 38   | 48   | 46   | 37    | 19   | 11   | 4    | -9     |
| ND    | Bismarck . . . . .              | 56                     | 44   | -43  | -31  | -12  | 15  | 30   | 35   | 33   | 11    | -10  | -30  | -43  | -44    |
| OH    | Cincinnati . . . . .            | 34                     | -25  | -11  | -11  | 17   | 27  | 39   | 47   | 43   | 31    | 16   | 1    | -20  | -25    |
|       | Cleveland . . . . .             | 54                     | -20  | -15  | -5   | 10   | 25  | 31   | 41   | 38   | 32    | 19   | 3    | -15  | -20    |
|       | Columbus . . . . .              | 56                     | -22  | -13  | -6   | 14   | 25  | 35   | 43   | 39   | 31    | 20   | 5    | -17  | -22    |
| OK    | Oklahoma City . . . . .         | 42                     | -4   | -3   | 3    | 20   | 37  | 47   | 53   | 51   | 36    | 16   | 11   | -8   | -8     |
| OR    | Portland . . . . .              | 55                     | -2   | -3   | 19   | 29   | 39  | 43   | 44   | 34   | 26    | 13   | 6    | -3   | -3     |
| PA    | Philadelphia . . . . .          | 54                     | -7   | -4   | 7    | 19   | 28  | 44   | 51   | 44   | 35    | 25   | 1    | -7   | -7     |
|       | Pittsburgh . . . . .            | 43                     | -22  | -12  | -1   | 14   | 26  | 34   | 42   | 39   | 31    | 16   | -1   | -12  | -22    |
| RI    | Providence . . . . .            | 42                     | -13  | -7   | 1    | 14   | 29  | 41   | 48   | 40   | 33    | 20   | 6    | -10  | -13    |
| SC    | Columbia . . . . .              | 48                     | -1   | 5    | 4    | 26   | 34  | 44   | 54   | 53   | 40    | 23   | 12   | -4   | -1     |
| SD    | Sioux Falls . . . . .           | 50                     | -36  | -31  | -23  | 5    | 17  | 33   | 38   | 34   | 22    | 9    | -17  | -28  | -36    |
| TN    | Memphis . . . . .               | 54                     | -4   | -11  | 12   | 29   | 38  | 48   | 52   | 48   | 36    | 25   | 9    | -13  | -13    |
|       | Nashville . . . . .             | 56                     | -17  | -13  | 2    | 23   | 34  | 42   | 51   | 47   | 36    | 26   | -1   | -10  | -17    |
| TX    | Dallas-Fort Worth . . . . .     | 42                     | 4    | 7    | 15   | 29   | 41  | 51   | 59   | 56   | 43    | 29   | 20   | -1   | -1     |
|       | El Paso . . . . .               | 56                     | -8   | 8    | 14   | 23   | 31  | 46   | 57   | 56   | 41    | 25   | 1    | 5    | -8     |
|       | Houston . . . . .               | 26                     | 12   | 20   | 22   | 31   | 44  | 52   | 62   | 60   | 48    | 29   | 19   | 7    | 7      |
| UT    | Salt Lake City . . . . .        | 67                     | -22  | -30  | 2    | 14   | 25  | 35   | 40   | 37   | 27    | 16   | -14  | -21  | -30    |
| VT    | Burlington . . . . .            | 52                     | -30  | -30  | -20  | 2    | 24  | 33   | 39   | 35   | 25    | 15   | -2   | -26  | -30    |
| VA    | Norfolk . . . . .               | 47                     | -3   | 8    | 18   | 28   | 36  | 45   | 54   | 49   | 45    | 27   | 20   | 7    | -3     |
|       | Richmond . . . . .              | 66                     | -12  | -10  | 11   | 23   | 31  | 40   | 51   | 46   | 35    | 21   | 10   | -1   | -12    |
| WA    | Seattle-Tacoma . . . . .        | 51                     | -    | 1    | 11   | 29   | 28  | 38   | 43   | 44   | 35    | 28   | 6    | 6    | -      |
|       | Spokane . . . . .               | 48                     | -22  | -17  | -7   | 17   | 24  | 33   | 37   | 35   | 24    | 10   | -21  | -25  | -25    |
| WV    | Charleston . . . . .            | 48                     | -16  | -6   | -    | 19   | 26  | 33   | 46   | 41   | 34    | 17   | 6    | -12  | -16    |
| WI    | Milwaukee . . . . .             | 55                     | -26  | -19  | -10  | 12   | 21  | 33   | 40   | 44   | 28    | 18   | -5   | -20  | -26    |
| WY    | Cheyenne . . . . .              | 60                     | -29  | -34  | -21  | -8   | 16  | 25   | 38   | 36   | 8     | -1   | -16  | -28  | -34    |
| PR    | San Juan . . . . .              | 41                     | 61   | 62   | 60   | 64   | 66  | 69   | 69   | 70   | 69    | 67   | 66   | 63   | 60     |

- Represents zero.

<sup>1</sup> City office data.

Source: U.S. National Oceanic and Atmospheric Administration, Comparative Climatic Data, annual.

## No. 397. Normal Monthly and Annual Precipitation—Selected Cities

[In inches. Airport data, except as noted. Based on standard 30-year period, 1961 through 1990]

| STATE | STATION                         | Jan. | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |       |
|-------|---------------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|--------|-------|
| AL    | Mobile . . . . .                | 4.76 | 5.46 | 6.41 | 4.48 | 5.74 | 5.04 | 6.85 | 6.96 | 5.91  | 2.94 | 4.10 | 5.31 | 63.96  |       |
| AK    | Juneau . . . . .                | 4.54 | 3.75 | 3.28 | 2.77 | 3.42 | 3.15 | 4.16 | 5.32 | 6.73  | 7.84 | 4.91 | 4.44 | 54.31  |       |
| AZ    | Phoenix . . . . .               | 0.67 | 0.68 | 0.88 | 0.22 | 0.12 | 0.13 | 0.83 | 0.96 | 0.86  | 0.65 | 0.66 | 1.00 | 7.66   |       |
| AR    | Little Rock . . . . .           | 3.42 | 3.61 | 4.91 | 5.49 | 5.17 | 3.57 | 3.60 | 3.26 | 4.05  | 3.75 | 5.20 | 4.83 | 50.86  |       |
| CA    | Los Angeles . . . . .           | 2.40 | 2.51 | 1.98 | 0.72 | 0.14 | 0.03 | 0.01 | 0.15 | 0.31  | 0.34 | 1.76 | 1.66 | 12.01  |       |
|       | Sacramento . . . . .            | 3.73 | 2.87 | 2.57 | 1.16 | 0.27 | 0.12 | 0.05 | 0.07 | 0.37  | 1.08 | 2.72 | 2.51 | 17.52  |       |
|       | San Diego . . . . .             | 1.80 | 1.53 | 1.77 | 0.79 | 0.19 | 0.07 | 0.02 | 0.10 | 0.24  | 0.37 | 1.45 | 1.57 | 9.90   |       |
|       | San Francisco . . . . .         | 4.35 | 3.17 | 3.06 | 1.37 | 0.19 | 0.11 | 0.03 | 0.05 | 0.20  | 1.22 | 2.86 | 3.09 | 19.70  |       |
| CO    | Denver . . . . .                | 0.50 | 0.57 | 1.28 | 1.71 | 2.40 | 1.79 | 1.91 | 1.51 | 1.24  | 0.98 | 0.87 | 0.64 | 15.40  |       |
| CT    | Hartford . . . . .              | 3.41 | 3.23 | 3.63 | 3.85 | 4.12 | 3.75 | 3.19 | 3.65 | 3.79  | 3.57 | 4.04 | 3.91 | 44.14  |       |
| DE    | Wilmington . . . . .            | 3.03 | 2.91 | 3.43 | 3.39 | 3.84 | 3.55 | 4.23 | 3.40 | 3.43  | 2.88 | 3.27 | 3.48 | 40.84  |       |
| DC    | Washington . . . . .            | 2.72 | 2.71 | 3.17 | 2.71 | 3.66 | 3.38 | 3.80 | 3.91 | 3.31  | 3.02 | 3.12 | 3.12 | 38.63  |       |
| FL    | Jacksonville . . . . .          | 3.31 | 3.93 | 3.68 | 2.77 | 3.55 | 5.69 | 5.60 | 7.93 | 7.05  | 2.90 | 2.19 | 2.72 | 51.32  |       |
|       | Miami . . . . .                 | 2.01 | 2.08 | 2.39 | 2.85 | 6.21 | 9.33 | 5.70 | 7.58 | 7.63  | 5.64 | 2.66 | 1.83 | 55.91  |       |
| GA    | Atlanta . . . . .               | 4.75 | 4.81 | 5.77 | 4.26 | 4.29 | 3.56 | 5.01 | 3.66 | 3.42  | 3.05 | 3.86 | 4.33 | 50.77  |       |
| HI    | Honolulu . . . . .              | 3.55 | 2.21 | 2.20 | 1.54 | 1.13 | 0.50 | 0.59 | 0.44 | 0.78  | 2.28 | 3.00 | 3.80 | 22.02  |       |
| ID    | Boise . . . . .                 | 1.45 | 1.07 | 1.29 | 1.24 | 1.08 | 0.81 | 0.35 | 0.43 | 0.80  | 0.75 | 1.48 | 1.36 | 12.11  |       |
| IL    | Chicago . . . . .               | 1.53 | 1.36 | 2.69 | 3.64 | 3.32 | 3.78 | 3.66 | 4.22 | 3.82  | 2.41 | 2.92 | 2.47 | 35.82  |       |
|       | Peoria . . . . .                | 1.51 | 1.42 | 2.91 | 3.77 | 3.70 | 3.99 | 4.20 | 3.10 | 3.87  | 2.65 | 2.69 | 2.44 | 36.25  |       |
| IN    | Indianapolis . . . . .          | 2.32 | 2.46 | 3.79 | 3.70 | 4.00 | 3.49 | 4.47 | 3.64 | 2.87  | 2.63 | 3.23 | 3.34 | 39.94  |       |
| IA    | Des Moines . . . . .            | 0.96 | 1.11 | 2.33 | 3.36 | 3.66 | 4.46 | 3.78 | 4.20 | 3.53  | 2.62 | 1.79 | 1.32 | 33.12  |       |
| KS    | Wichita . . . . .               | 0.79 | 0.96 | 2.43 | 2.38 | 3.81 | 4.31 | 3.13 | 3.02 | 3.49  | 2.22 | 1.59 | 1.20 | 29.33  |       |
| KY    | Louisville . . . . .            | 2.86 | 3.30 | 4.66 | 4.23 | 4.62 | 3.46 | 4.51 | 3.54 | 3.16  | 2.71 | 3.70 | 3.64 | 44.39  |       |
| LA    | New Orleans . . . . .           | 5.05 | 6.01 | 4.90 | 4.50 | 4.56 | 5.84 | 6.12 | 6.17 | 5.51  | 3.05 | 4.42 | 5.75 | 61.88  |       |
| ME    | Portland . . . . .              | 3.53 | 3.33 | 3.67 | 4.08 | 3.62 | 3.44 | 3.09 | 2.87 | 3.09  | 3.90 | 5.17 | 4.55 | 44.34  |       |
| MD    | Baltimore . . . . .             | 3.05 | 3.12 | 3.38 | 3.09 | 3.72 | 3.67 | 3.69 | 3.92 | 3.41  | 2.98 | 3.32 | 3.41 | 40.76  |       |
| MA    | Boston . . . . .                | 3.59 | 3.62 | 3.69 | 3.60 | 3.25 | 3.09 | 2.84 | 3.24 | 3.06  | 3.30 | 4.22 | 4.01 | 41.51  |       |
| MI    | Detroit . . . . .               | 1.76 | 1.74 | 2.55 | 2.95 | 2.92 | 3.61 | 3.18 | 3.43 | 2.89  | 2.10 | 2.67 | 2.82 | 32.62  |       |
|       | Sault Ste. Marie . . . . .      | 2.42 | 1.74 | 2.30 | 2.35 | 2.71 | 3.14 | 2.71 | 3.61 | 3.69  | 3.23 | 3.45 | 2.88 | 34.23  |       |
| MN    | Duluth . . . . .                | 1.22 | 0.80 | 1.91 | 2.25 | 3.03 | 3.82 | 3.61 | 3.99 | 3.84  | 2.49 | 1.80 | 1.24 | 30.00  |       |
| MS    | Jackson . . . . .               | 5.24 | 4.70 | 5.82 | 5.57 | 5.05 | 3.18 | 4.51 | 3.77 | 3.55  | 3.26 | 4.81 | 5.91 | 55.37  |       |
| MO    | Kansas City . . . . .           | 1.09 | 1.10 | 2.51 | 3.12 | 5.04 | 4.72 | 4.38 | 4.01 | 4.86  | 3.29 | 1.92 | 1.58 | 37.62  |       |
|       | St. Louis . . . . .             | 1.81 | 2.12 | 3.58 | 3.50 | 3.97 | 3.72 | 3.85 | 3.25 | 3.85  | 3.12 | 2.68 | 3.28 | 3.03   | 37.51 |
| MT    | Great Falls . . . . .           | 0.91 | 0.57 | 1.10 | 1.41 | 2.52 | 2.39 | 1.24 | 1.54 | 1.24  | 0.78 | 0.66 | 0.85 | 15.21  |       |
| NE    | Omaha . . . . .                 | 0.74 | 0.77 | 2.04 | 2.66 | 4.52 | 3.87 | 3.51 | 3.24 | 3.72  | 2.28 | 1.49 | 1.02 | 29.86  |       |
| NV    | Reno . . . . .                  | 1.07 | 0.99 | 0.71 | 0.38 | 0.69 | 0.46 | 0.28 | 0.32 | 0.39  | 0.38 | 0.87 | 0.99 | 7.53   |       |
| NH    | Concord . . . . .               | 2.51 | 2.53 | 2.72 | 2.91 | 3.14 | 3.15 | 3.23 | 3.32 | 2.81  | 3.23 | 3.66 | 3.16 | 36.37  |       |
| NJ    | Atlantic City . . . . .         | 3.46 | 3.06 | 3.62 | 3.56 | 3.33 | 2.64 | 3.83 | 4.14 | 2.93  | 2.82 | 3.58 | 3.32 | 40.29  |       |
| NM    | Albuquerque . . . . .           | 0.44 | 0.46 | 0.54 | 0.52 | 0.50 | 0.59 | 1.37 | 1.64 | 1.00  | 0.89 | 0.43 | 0.50 | 8.88   |       |
| NY    | Albany . . . . .                | 2.36 | 2.27 | 2.93 | 2.99 | 3.41 | 3.62 | 3.18 | 3.47 | 2.95  | 2.83 | 3.23 | 2.93 | 36.17  |       |
|       | Buffalo . . . . .               | 2.70 | 2.31 | 2.68 | 2.87 | 3.14 | 3.55 | 3.08 | 4.17 | 3.49  | 3.09 | 3.83 | 3.67 | 38.58  |       |
| NC    | New York <sup>1</sup> . . . . . | 3.42 | 3.27 | 4.08 | 4.20 | 4.42 | 3.67 | 4.35 | 4.01 | 3.89  | 3.56 | 4.47 | 3.91 | 47.25  |       |
|       | Charlotte . . . . .             | 3.71 | 3.84 | 4.43 | 2.68 | 3.82 | 3.39 | 3.92 | 3.73 | 3.50  | 3.36 | 3.23 | 3.48 | 43.09  |       |
|       | Raleigh . . . . .               | 3.48 | 3.69 | 3.77 | 2.59 | 3.92 | 3.68 | 4.01 | 4.02 | 3.19  | 2.86 | 2.98 | 3.24 | 41.43  |       |
| ND    | Bismarck . . . . .              | 0.45 | 0.43 | 0.77 | 1.67 | 2.18 | 2.72 | 2.14 | 1.72 | 1.49  | 0.90 | 0.49 | 0.51 | 15.47  |       |
| OH    | Cincinnati . . . . .            | 2.59 | 2.69 | 4.24 | 3.75 | 4.28 | 3.84 | 4.24 | 3.35 | 2.88  | 2.86 | 3.46 | 3.15 | 41.33  |       |
|       | Cleveland . . . . .             | 2.04 | 2.19 | 2.91 | 3.14 | 3.49 | 3.70 | 3.52 | 3.40 | 3.44  | 2.54 | 3.17 | 3.09 | 36.63  |       |
| OK    | Oklahoma City . . . . .         | 1.13 | 1.56 | 2.71 | 2.77 | 5.22 | 4.31 | 2.61 | 2.60 | 3.84  | 3.23 | 1.98 | 1.40 | 33.36  |       |
| OR    | Portland . . . . .              | 5.35 | 3.85 | 3.56 | 2.39 | 2.06 | 1.48 | 0.63 | 1.09 | 1.75  | 2.67 | 5.34 | 6.13 | 36.30  |       |
| PA    | Philadelphia . . . . .          | 3.21 | 2.79 | 3.46 | 3.62 | 3.75 | 3.74 | 4.28 | 3.80 | 3.42  | 2.62 | 3.34 | 3.38 | 41.41  |       |
| RI    | Pittsburgh . . . . .            | 2.54 | 2.39 | 3.41 | 3.15 | 3.59 | 3.71 | 3.75 | 3.21 | 2.97  | 2.36 | 2.85 | 2.92 | 36.85  |       |
| SC    | Providence . . . . .            | 3.88 | 3.61 | 4.05 | 4.11 | 3.76 | 3.33 | 3.18 | 3.63 | 3.48  | 3.69 | 4.43 | 4.38 | 45.53  |       |
| SD    | Columbia . . . . .              | 4.42 | 4.12 | 4.82 | 3.28 | 3.68 | 4.80 | 5.50 | 6.09 | 3.67  | 3.04 | 2.90 | 3.59 | 49.91  |       |
| TN    | Sioux Falls . . . . .           | 0.51 | 0.64 | 1.64 | 2.52 | 3.03 | 3.04 | 2.68 | 2.85 | 3.02  | 1.78 | 1.09 | 0.70 | 23.86  |       |
|       | Memphis . . . . .               | 3.73 | 4.35 | 5.41 | 5.46 | 4.98 | 3.57 | 3.79 | 3.43 | 3.53  | 3.01 | 5.10 | 5.74 | 52.10  |       |
|       | Nashville . . . . .             | 3.58 | 3.81 | 4.85 | 4.37 | 4.88 | 3.57 | 3.97 | 3.46 | 3.46  | 2.62 | 4.12 | 4.61 | 47.30  |       |
| TX    | Dallas-Fort Worth . . . . .     | 1.83 | 2.18 | 2.77 | 3.50 | 4.88 | 2.98 | 2.31 | 2.21 | 3.39  | 3.52 | 2.29 | 1.84 | 33.70  |       |
|       | El Paso . . . . .               | 0.40 | 0.41 | 0.29 | 0.20 | 0.25 | 0.67 | 1.54 | 1.58 | 1.70  | 0.76 | 0.44 | 0.57 | 8.81   |       |
|       | Houston . . . . .               | 3.29 | 2.96 | 2.92 | 3.21 | 5.24 | 4.96 | 3.60 | 3.49 | 4.89  | 4.27 | 3.79 | 3.45 | 46.07  |       |
| UT    | Salt Lake City . . . . .        | 1.11 | 1.23 | 1.91 | 2.12 | 1.80 | 0.93 | 0.81 | 0.86 | 1.28  | 1.44 | 1.29 | 1.40 | 16.18  |       |
| VT    | Burlington . . . . .            | 1.82 | 1.63 | 2.23 | 2.76 | 3.12 | 3.47 | 3.65 | 4.06 | 3.30  | 2.88 | 3.13 | 2.42 | 34.47  |       |
| VA    | Norfolk . . . . .               | 3.78 | 3.47 | 3.70 | 3.06 | 3.81 | 3.82 | 5.06 | 4.81 | 3.90  | 3.15 | 2.85 | 3.23 | 44.64  |       |
| WA    | Richmond . . . . .              | 3.24 | 3.16 | 3.61 | 2.96 | 3.84 | 3.62 | 5.03 | 4.40 | 3.34  | 3.53 | 3.17 | 3.26 | 43.16  |       |
|       | Seattle-Tacoma . . . . .        | 5.38 | 3.99 | 3.54 | 2.33 | 1.70 | 1.50 | 1.76 | 1.14 | 1.88  | 3.23 | 5.83 | 5.91 | 37.19  |       |
|       | Spokane . . . . .               | 1.98 | 1.49 | 1.49 | 1.18 | 1.41 | 1.26 | 0.67 | 0.72 | 0.73  | 0.99 | 2.15 | 2.42 | 16.49  |       |
| WV    | Charleston . . . . .            | 2.91 | 3.04 | 3.63 | 3.31 | 3.94 | 3.59 | 4.99 | 4.01 | 3.24  | 2.89 | 3.59 | 3.39 | 42.53  |       |
| WI    | Milwaukee . . . . .             | 1.60 | 1.45 | 2.67 | 3.50 | 2.84 | 3.24 | 3.47 | 3.53 | 3.38  | 2.41 | 2.51 | 2.33 | 32.93  |       |
| WY    | Cheyenne . . . . .              | 0.40 | 0.39 | 1.03 | 1.37 | 2.39 | 2.08 | 2.09 | 1.69 | 1.27  | 0.74 | 0.53 | 0.42 | 14.40  |       |
| PR    | San Juan . . . . .              | 2.81 | 2.15 | 2.35 | 3.76 | 5.93 | 4.00 | 4.37 | 5.32 | 5.28  | 5.71 | 5.94 | 4.72 | 52.34  |       |

<sup>1</sup> City office data.Source: U.S. National Oceanic and Atmospheric Administration, *Climatology of the United States*, No. 81.

No. 398. Average Number of Days With Precipitation of .01 Inch or More—  
Selected Cities

[Airport data, except as noted. For period of record through 1995, except as noted]

| STATE | STATION                     | Length<br>of<br>record<br>(yr.) | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-------|-----------------------------|---------------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| AL    | Mobile.....                 | 54                              | 11   | 10   | 10   | 7    | 9   | 11   | 16   | 14   | 10    | 6    | 8    | 10   | 122    |
| AK    | Juneau.....                 | 51                              | 18   | 17   | 18   | 17   | 17  | 15   | 17   | 17   | 20    | 24   | 20   | 21   | 222    |
| AZ    | Phoenix.....                | 56                              | 4    | 4    | 4    | 2    | 1   | 1    | 4    | 5    | 3     | 3    | 3    | 4    | 36     |
| AR    | Little Rock.....            | 53                              | 10   | 9    | 10   | 10   | 10  | 8    | 8    | 7    | 7     | 7    | 8    | 9    | 105    |
| CA    | Los Angeles.....            | 60                              | 6    | 6    | 6    | 3    | 1   | 1    | 1    | (Z)  | 1     | 2    | 3    | 5    | 35     |
|       | Sacramento.....             | 56                              | 10   | 9    | 9    | 5    | 3   | 1    | (Z)  | (Z)  | 1     | 3    | 7    | 9    | 58     |
|       | San Diego.....              | 55                              | 7    | 6    | 7    | 4    | 2   | 1    | (Z)  | (Z)  | 1     | 4    | 6    | 4    | 42     |
|       | San Francisco.....          | 68                              | 11   | 10   | 10   | 6    | 3   | 1    | (Z)  | (Z)  | 1     | 4    | 7    | 10   | 62     |
| CO    | Denver.....                 | 61                              | 6    | 6    | 9    | 9    | 11  | 9    | 9    | 9    | 6     | 5    | 6    | 5    | 89     |
| CT    | Hartford.....               | 41                              | 11   | 10   | 12   | 11   | 12  | 11   | 10   | 10   | 9     | 9    | 11   | 12   | 127    |
| DE    | Wilmington.....             | 48                              | 11   | 9    | 11   | 11   | 11  | 10   | 9    | 9    | 8     | 8    | 9    | 10   | 116    |
| DC    | Washington.....             | 54                              | 10   | 9    | 11   | 10   | 11  | 9    | 10   | 9    | 8     | 7    | 9    | 9    | 112    |
| FL    | Jacksonville.....           | 54                              | 8    | 8    | 8    | 6    | 8   | 12   | 15   | 14   | 13    | 9    | 7    | 8    | 116    |
|       | Miami.....                  | 53                              | 7    | 6    | 6    | 6    | 10  | 15   | 16   | 17   | 17    | 14   | 9    | 6    | 130    |
| GA    | Atlanta.....                | 61                              | 11   | 10   | 11   | 9    | 9   | 10   | 12   | 12   | 10    | 8    | 7    | 9    | 115    |
| HI    | Honolulu.....               | 46                              | 9    | 9    | 9    | 9    | 7   | 6    | 7    | 6    | 7     | 9    | 9    | 10   | 98     |
| ID    | Boise.....                  | 56                              | 12   | 10   | 10   | 8    | 8   | 6    | 2    | 3    | 4     | 6    | 6    | 10   | 90     |
| IL    | Chicago.....                | 37                              | 11   | 9    | 12   | 13   | 13  | 11   | 10   | 10   | 9     | 9    | 9    | 11   | 126    |
|       | Peoria.....                 | 56                              | 9    | 8    | 11   | 12   | 11  | 10   | 9    | 8    | 9     | 8    | 9    | 10   | 114    |
| IN    | Indianapolis.....           | 56                              | 12   | 10   | 13   | 12   | 12  | 10   | 10   | 9    | 8     | 8    | 11   | 12   | 126    |
| IA    | Des Moines.....             | 56                              | 8    | 7    | 10   | 11   | 11  | 11   | 9    | 9    | 9     | 8    | 7    | 8    | 108    |
| KS    | Wichita.....                | 42                              | 6    | 5    | 8    | 8    | 9   | 8    | 8    | 8    | 8     | 6    | 5    | 6    | 86     |
| KY    | Louisville.....             | 48                              | 11   | 11   | 13   | 12   | 12  | 10   | 10   | 8    | 8     | 8    | 10   | 11   | 124    |
| LA    | New Orleans.....            | 47                              | 10   | 9    | 9    | 7    | 8   | 11   | 14   | 13   | 10    | 6    | 7    | 10   | 114    |
| ME    | Portland.....               | 55                              | 11   | 10   | 11   | 12   | 12  | 11   | 10   | 9    | 9     | 9    | 12   | 12   | 129    |
| MD    | Baltimore.....              | 45                              | 11   | 9    | 11   | 11   | 11  | 9    | 9    | 9    | 8     | 8    | 9    | 9    | 114    |
| MA    | Boston.....                 | 44                              | 12   | 11   | 12   | 11   | 11  | 11   | 9    | 10   | 9     | 9    | 11   | 12   | 127    |
| MI    | Detroit.....                | 37                              | 13   | 11   | 13   | 13   | 11  | 10   | 10   | 10   | 10    | 10   | 12   | 14   | 136    |
|       | Sault Ste. Marie.....       | 54                              | 19   | 15   | 13   | 11   | 11  | 11   | 10   | 11   | 13    | 14   | 17   | 19   | 166    |
| MN    | Duluth.....                 | 54                              | 12   | 10   | 11   | 11   | 12  | 13   | 13   | 11   | 12    | 10   | 11   | 12   | 135    |
|       | Minneapolis-St. Paul.....   | 57                              | 9    | 7    | 10   | 10   | 11  | 12   | 10   | 10   | 10    | 10   | 8    | 9    | 115    |
| MS    | Jackson.....                | 32                              | 11   | 9    | 10   | 8    | 9   | 8    | 8    | 10   | 10    | 8    | 7    | 8    | 109    |
| MO    | Kansas City.....            | 23                              | 7    | 7    | 10   | 11   | 12  | 10   | 9    | 9    | 8     | 7    | 8    | 8    | 106    |
|       | St. Louis.....              | 38                              | 9    | 8    | 11   | 11   | 11  | 9    | 9    | 8    | 8     | 8    | 9    | 9    | 111    |
| MT    | Great Falls.....            | 58                              | 9    | 8    | 9    | 9    | 12  | 12   | 8    | 8    | 7     | 6    | 7    | 8    | 101    |
| NE    | Omaha.....                  | 59                              | 6    | 7    | 9    | 10   | 12  | 11   | 9    | 9    | 8     | 6    | 6    | 7    | 99     |
| NV    | Reno.....                   | 53                              | 6    | 6    | 6    | 4    | 4   | 3    | 2    | 2    | 2     | 3    | 5    | 6    | 51     |
| NH    | Concord.....                | 54                              | 11   | 10   | 11   | 12   | 12  | 11   | 10   | 10   | 9     | 9    | 11   | 11   | 126    |
| NJ    | Atlantic City.....          | 52                              | 11   | 10   | 11   | 11   | 11  | 9    | 9    | 9    | 8     | 7    | 9    | 10   | 112    |
| NM    | Albuquerque.....            | 56                              | 4    | 4    | 5    | 3    | 5   | 4    | 9    | 10   | 6     | 5    | 3    | 4    | 61     |
| NY    | Albany.....                 | 49                              | 12   | 11   | 12   | 12   | 13  | 11   | 10   | 10   | 10    | 10   | 9    | 12   | 134    |
|       | Buffalo.....                | 52                              | 20   | 17   | 16   | 14   | 12  | 10   | 10   | 10   | 10    | 11   | 12   | 16   | 169    |
|       | New York <sup>1</sup> ..... | 126                             | 11   | 10   | 11   | 11   | 11  | 10   | 11   | 11   | 10    | 8    | 8    | 9    | 121    |
| NC    | Charlotte.....              | 56                              | 10   | 10   | 11   | 9    | 10  | 10   | 10   | 11   | 10    | 7    | 7    | 8    | 111    |
|       | Raleigh.....                | 51                              | 10   | 10   | 10   | 9    | 10  | 9    | 11   | 10   | 8     | 7    | 7    | 8    | 112    |
| ND    | Bismarck.....               | 56                              | 8    | 7    | 8    | 8    | 10  | 11   | 9    | 8    | 7     | 6    | 6    | 8    | 96     |
| OH    | Cincinnati.....             | 48                              | 12   | 11   | 13   | 13   | 12  | 11   | 10   | 9    | 8     | 8    | 11   | 12   | 130    |
|       | Cleveland.....              | 54                              | 16   | 14   | 15   | 14   | 13  | 11   | 11   | 10   | 10    | 10   | 11   | 14   | 155    |
|       | Columbus.....               | 56                              | 13   | 11   | 14   | 13   | 13  | 11   | 11   | 11   | 9     | 8    | 9    | 12   | 137    |
| OK    | Oklahoma City.....          | 56                              | 6    | 6    | 7    | 8    | 10  | 9    | 6    | 6    | 7     | 6    | 5    | 6    | 83     |
| OR    | Portland.....               | 55                              | 18   | 16   | 17   | 14   | 12  | 9    | 4    | 5    | 7     | 12   | 18   | 19   | 151    |
| PA    | Philadelphia.....           | 55                              | 11   | 9    | 11   | 11   | 11  | 10   | 9    | 9    | 8     | 8    | 9    | 10   | 116    |
|       | Pittsburgh.....             | 43                              | 16   | 14   | 16   | 14   | 13  | 12   | 11   | 10   | 10    | 10   | 10   | 13   | 153    |
| RI    | Providence.....             | 42                              | 11   | 10   | 12   | 11   | 11  | 11   | 9    | 9    | 8     | 8    | 9    | 11   | 124    |
| SC    | Columbia.....               | 48                              | 10   | 10   | 10   | 8    | 9   | 10   | 12   | 11   | 8     | 8    | 6    | 7    | 110    |
| SD    | Sioux Falls.....            | 50                              | 6    | 7    | 9    | 10   | 11  | 11   | 10   | 10   | 9     | 8    | 6    | 6    | 98     |
| TN    | Memphis.....                | 45                              | 10   | 9    | 11   | 10   | 10  | 9    | 9    | 7    | 7     | 7    | 9    | 10   | 107    |
|       | Nashville.....              | 54                              | 11   | 11   | 12   | 11   | 11  | 9    | 10   | 9    | 8     | 7    | 9    | 11   | 119    |
| TX    | Dallas-Fort Worth.....      | 42                              | 7    | 7    | 7    | 8    | 9   | 6    | 5    | 5    | 7     | 6    | 6    | 7    | 79     |
|       | El Paso.....                | 56                              | 4    | 3    | 2    | 2    | 2   | 3    | 3    | 8    | 5     | 4    | 3    | 4    | 49     |
| UT    | Houston.....                | 26                              | 11   | 9    | 9    | 7    | 9   | 9    | 9    | 9    | 9     | 7    | 8    | 9    | 106    |
|       | Salt Lake City.....         | 67                              | 10   | 9    | 10   | 10   | 8   | 5    | 5    | 6    | 5     | 6    | 8    | 9    | 91     |
| VT    | Burlington.....             | 52                              | 14   | 12   | 13   | 12   | 14  | 12   | 12   | 13   | 12    | 12   | 14   | 15   | 154    |
| VA    | Norfolk.....                | 47                              | 11   | 10   | 11   | 10   | 10  | 9    | 11   | 10   | 8     | 8    | 8    | 9    | 115    |
|       | Richmond.....               | 58                              | 10   | 9    | 11   | 9    | 11  | 9    | 11   | 10   | 10    | 8    | 7    | 8    | 9      |
| WA    | Seattle-Tacoma.....         | 51                              | 18   | 16   | 17   | 14   | 10  | 9    | 5    | 6    | 9     | 13   | 18   | 19   | 154    |
|       | Spokane.....                | 48                              | 14   | 11   | 11   | 9    | 9   | 8    | 5    | 5    | 6     | 7    | 13   | 15   | 112    |
| WV    | Charleston.....             | 48                              | 15   | 14   | 15   | 14   | 13  | 11   | 13   | 11   | 10    | 10   | 12   | 14   | 151    |
| WI    | Milwaukee.....              | 55                              | 11   | 10   | 12   | 12   | 11  | 11   | 10   | 9    | 9     | 9    | 11   | 11   | 125    |
| WY    | Cheyenne.....               | 60                              | 6    | 6    | 9    | 10   | 12  | 11   | 11   | 10   | 8     | 6    | 6    | 6    | 101    |
| PR    | San Juan.....               | 40                              | 17   | 13   | 12   | 13   | 16  | 15   | 19   | 18   | 17    | 17   | 18   | 19   | 196    |

Z Less than 1/2 day.

<sup>1</sup> City office data.

Source: U.S. National Oceanic and Atmospheric Administration, Comparative Climatic Data, annual.

## Geography and Environment

## No. 399. Snow and Ice Pellets—Selected Cities

[In inches. Airport data, except as noted. For period of record through 1995. T denotes trace]

| STATE | STATION                         | Length of record (yr) | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-------|---------------------------------|-----------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| AL    | Mobile . . . . .                | 54                    | 0.1  | 0.1  | 0.1  | T    | T   | -    | T    | -    | -     | -    | T    | 0.1  | 0.4    |
| AK    | Juneau . . . . .                | 51                    | 26.3 | 19.1 | 15.3 | 3.4  | T   | T    | -    | -    | T     | 1    | 12.9 | 22.7 | 100.7  |
| AZ    | Phoenix . . . . .               | 58                    | T    | -    | T    | T    | -   | -    | -    | -    | -     | -    | -    | T    |        |
| AR    | Little Rock . . . . .           | 53                    | 2.4  | 1.4  | 0.5  | T    | -   | -    | -    | -    | -     | T    | 0.2  | 0.6  | 5.1    |
| CA    | Los Angeles . . . . .           | 60                    | T    | T    | T    | -    | T   | -    | -    | -    | -     | -    | T    | T    |        |
|       | Sacramento . . . . .            | 47                    | T    | -    | T    | -    | -   | -    | -    | -    | -     | -    | T    | T    |        |
|       | San Diego . . . . .             | 55                    | T    | -    | T    | -    | -   | -    | -    | -    | -     | -    | T    | T    |        |
|       | San Francisco . . . . .         | 68                    | -    | T    | T    | -    | -   | -    | -    | -    | -     | -    | -    | T    |        |
| CO    | Denver . . . . .                | 61                    | 8.1  | 7.5  | 12.5 | 8.9  | 1.6 | -    | T    | T    | 1.6   | 3.7  | 9.1  | 7.3  | 60.3   |
| CT    | Hartford . . . . .              | 41                    | 12.3 | 11.8 | 9.8  | 1.5  | -   | T    | T    | -    | -     | 0.1  | 2.1  | 10.3 | 47.9   |
| DE    | Wilmington . . . . .            | 48                    | 6.4  | 6.1  | 3.3  | 0.2  | T   | T    | T    | -    | -     | 0.1  | 0.9  | 3.3  | 20.3   |
| DC    | Washington . . . . .            | 52                    | 5.3  | 5.2  | 2.1  | -    | T   | -    | T    | T    | -     | -    | 0.8  | 3    | 16.4   |
| FL    | Jacksonville . . . . .          | 54                    | T    | -    | -    | -    | -   | T    | -    | -    | -     | -    | -    | T    |        |
|       | Miami . . . . .                 | 53                    | -    | -    | -    | -    | -   | -    | -    | -    | -     | -    | -    | -    |        |
| GA    | Atlanta . . . . .               | 61                    | 0.9  | 0.5  | 0.4  | T    | -   | -    | -    | -    | -     | T    | -    | 0.2  | 2.0    |
| HI    | Honolulu . . . . .              | 49                    | -    | -    | -    | -    | -   | -    | -    | -    | -     | -    | -    | -    |        |
| ID    | Boise . . . . .                 | 56                    | 6.6  | 3.6  | 1.6  | 0.6  | 0.1 | T    | T    | T    | -     | 0.1  | 2.3  | 5.8  | 20.7   |
| IL    | Chicago . . . . .               | 37                    | 10.8 | 8.4  | 6.7  | 1.6  | 0.1 | T    | T    | T    | T     | 0.4  | 1.9  | 8.3  | 38.2   |
|       | Peoria . . . . .                | 52                    | 6.6  | 5.5  | 4.0  | 0.8  | -   | -    | T    | -    | T     | 0.1  | 2.0  | 5.8  | 24.8   |
| IN    | Indianapolis . . . . .          | 64                    | 6.3  | 5.8  | 3.3  | 0.5  | -   | T    | -    | T    | -     | 0.2  | 1.8  | 5.0  | 22.9   |
| IA    | Des Moines . . . . .            | 56                    | 8.1  | 7.2  | 6.1  | 1.8  | -   | T    | T    | -    | T     | 0.3  | 3.1  | 6.7  | 33.3   |
| KS    | Wichita . . . . .               | 42                    | 4.4  | 4.2  | 2.5  | 0.2  | T   | T    | T    | T    | -     | 1.2  | 3.2  | 3.3  | 15.7   |
| KY    | Louisville . . . . .            | 48                    | 5.2  | 4.4  | 3.2  | 0.1  | T   | T    | T    | -    | -     | 0.1  | 1    | 2.1  | 16.1   |
| LA    | New Orleans . . . . .           | 49                    | -    | 0.1  | T    | T    | -   | -    | -    | -    | -     | T    | 0.1  | 0.2  |        |
| ME    | Portland . . . . .              | 55                    | 19.3 | 17.3 | 12.8 | 3.0  | 0.2 | -    | -    | -    | T     | 0.2  | 3.0  | 15.0 | 70.8   |
| MD    | Baltimore . . . . .             | 45                    | 5.7  | 6.5  | 3.7  | 0.1  | T   | -    | T    | -    | -     | -    | 1.0  | 3.4  | 20.4   |
| MA    | Boston . . . . .                | 60                    | 12.3 | 11.7 | 7.9  | 0.9  | -   | -    | T    | -    | -     | -    | 1.3  | 7.6  | 41.7   |
| MI    | Detroit . . . . .               | 37                    | 10.5 | 9.2  | 6.8  | 1.7  | T   | -    | -    | -    | T     | 0.2  | 2.9  | 10.0 | 41.3   |
|       | Sault Ste. Marie . . . . .      | 54                    | 28.7 | 18.4 | 14.8 | 5.7  | 0.5 | T    | T    | T    | 0.1   | 2.4  | 15.7 | 30.8 | 117.1  |
| MN    | Duluth . . . . .                | 52                    | 17.1 | 11.3 | 13.4 | 6.7  | 0.7 | -    | T    | T    | 0.1   | 1.5  | 12.7 | 15.4 | 78.9   |
|       | Minneapolis-St. Paul . . . . .  | 57                    | 9.9  | 8.4  | 10.5 | 2.8  | 0.1 | T    | T    | T    | -     | 0.5  | 7.9  | 9.4  | 49.5   |
| MS    | Jackson . . . . .               | 32                    | 0.5  | 0.2  | 0.2  | -    | -   | -    | -    | -    | -     | -    | -    | 0.9  |        |
| MO    | Kansas City . . . . .           | 61                    | 5.6  | 4.5  | 3.5  | 0.8  | T   | T    | T    | -    | -     | -    | 1.1  | 4.4  | 19.9   |
|       | St. Louis . . . . .             | 59                    | 5.2  | 4.6  | 4.1  | 0.4  | -   | T    | -    | -    | T     | -    | 1.4  | 3.8  | 19.5   |
| MT    | Great Falls . . . . .           | 58                    | 9.6  | 8.3  | 10.3 | 7.3  | 1.7 | 0.3  | T    | 0.1  | 1.5   | 3.4  | 7.5  | 8.4  | 58.4   |
| NE    | Omaha . . . . .                 | 60                    | 7.3  | 6.6  | 6.3  | 1    | 0.1 | T    | T    | -    | T     | 0.3  | 2.6  | 5.6  | 29.8   |
| NV    | Reno . . . . .                  | 53                    | 5.9  | 5.2  | 4.3  | 1.2  | 0.8 | T    | -    | -    | T     | 0.3  | 2.4  | 4.3  | 24.4   |
| NH    | Concord . . . . .               | 54                    | 17.9 | 14.6 | 11.0 | 2.3  | 0.1 | T    | -    | -    | T     | 0.1  | 3.9  | 13.6 | 63.5   |
| NJ    | Atlantic City . . . . .         | 51                    | 5.0  | 5.3  | 2.5  | 0.3  | T   | -    | T    | T    | T     | 0.4  | 2.2  | 2.2  | 15.7   |
| NM    | Albuquerque . . . . .           | 56                    | 2.5  | 2.1  | 1.8  | 0.6  | -   | T    | T    | T    | T     | 0.1  | 1.2  | 2.5  | 10.8   |
| NY    | Albany . . . . .                | 49                    | 16.3 | 14.4 | 11.1 | 2.6  | 0.1 | T    | T    | T    | T     | 0.2  | 4.2  | 14.9 | 63.8   |
|       | Buffalo . . . . .               | 52                    | 23.5 | 18.6 | 11.5 | 3.2  | 0.2 | T    | T    | T    | T     | 0.3  | 11.3 | 23.2 | 91.8   |
|       | New York <sup>1</sup> . . . . . | 127                   | 7.5  | 8.6  | 5.0  | 0.9  | T   | -    | T    | -    | -     | -    | 0.9  | 5.4  | 28.3   |
| NC    | Charlotte . . . . .             | 56                    | 2.0  | 1.6  | 1.2  | -    | T   | -    | -    | -    | T     | 0.1  | 0.5  | 5.4  |        |
|       | Raleigh . . . . .               | 51                    | 2.2  | 2.5  | 1.3  | -    | T   | -    | T    | -    | -     | -    | 0.1  | 0.8  | 6.9    |
| ND    | Bismarck . . . . .              | 56                    | 7.4  | 6.8  | 8.4  | 3.8  | 0.9 | T    | T    | T    | 0.2   | 1.7  | 6.5  | 7.0  | 42.7   |
| OH    | Cincinnati . . . . .            | 48                    | 7.0  | 5.5  | 4.3  | 0.5  | -   | T    | T    | -    | -     | 0.3  | 2.0  | 3.8  | 23.4   |
|       | Cleveland . . . . .             | 54                    | 13.0 | 12.3 | 10.4 | 2.3  | 0.1 | T    | T    | -    | T     | 0.6  | 5.0  | 12.0 | 55.7   |
|       | Columbus . . . . .              | 48                    | 8.5  | 6.2  | 4.5  | 0.9  | -   | T    | T    | -    | T     | 0.1  | 2.2  | 5.5  | 27.9   |
| OK    | Oklahoma City . . . . .         | 56                    | 3.0  | 2.4  | 1.5  | -    | T   | T    | -    | -    | -     | -    | 0.5  | 1.8  |        |
| OR    | Portland . . . . .              | 55                    | 3.2  | 1.1  | 0.4  | T    | -   | T    | -    | T    | -     | -    | 0.4  | 1.4  | 6.5    |
| PA    | Philadelphia . . . . .          | 53                    | 6.2  | 6.6  | 3.7  | 0.3  | T   | T    | -    | -    | -     | -    | 0.7  | 3.3  | 20.8   |
|       | Pittsburgh . . . . .            | 43                    | 11.6 | 9.3  | 8.7  | 1.7  | 0.1 | T    | T    | T    | T     | 0.4  | 3.5  | 8.2  | 43.5   |
| RI    | Providence . . . . .            | 42                    | 9.5  | 10.0 | 7.5  | 0.7  | 0.2 | -    | -    | -    | -     | 0.1  | 1.1  | 6.8  | 35.9   |
| SC    | Columbia . . . . .              | 48                    | 0.4  | 0.8  | 0.2  | T    | -   | -    | -    | T    | -     | -    | 0.3  | 1.7  |        |
| SD    | Sioux Falls . . . . .           | 50                    | 6.5  | 8.1  | 9.4  | 2.7  | -   | T    | T    | -    | -     | 0.8  | 5.5  | 7.1  | 40.1   |
| TN    | Memphis . . . . .               | 45                    | 2.2  | 1.4  | 0.8  | T    | T   | -    | -    | T    | -     | 0.1  | 0.6  | 5.1  |        |
|       | Nashville . . . . .             | 54                    | 3.7  | 3.0  | 1.4  | -    | -   | T    | -    | -    | -     | 0.4  | 1.4  | 9.9  |        |
| TX    | Dallas-Fort Worth . . . . .     | 42                    | 1.1  | 0.9  | 0.2  | T    | T   | -    | -    | -    | T     | 0.1  | 0.2  | 2.5  |        |
|       | El Paso . . . . .               | 56                    | 1.3  | 0.8  | 0.4  | 0.3  | T   | T    | T    | -    | T     | -    | 0.9  | 1.6  | 5.3    |
|       | Houston . . . . .               | 61                    | 0.2  | 0.2  | 0.0  | T    | T   | T    | -    | -    | -     | -    | -    | 0.4  |        |
| UT    | Salt Lake City . . . . .        | 67                    | 13.4 | 9.5  | 9.3  | 4.9  | 0.6 | T    | T    | T    | 0.1   | 1.2  | 6.9  | 11.8 | 57.7   |
| VT    | Burlington . . . . .            | 52                    | 19.0 | 17.0 | 12.7 | 3.9  | 0.2 | -    | T    | -    | -     | 0.2  | 6.6  | 18.4 | 78.0   |
| VA    | Norfolk . . . . .               | 47                    | 2.7  | 2.8  | 1.0  | -    | T   | T    | -    | T    | -     | -    | -    | 0.9  | 7.4    |
|       | Richmond . . . . .              | 58                    | 4.8  | 4.0  | 2.4  | 0.1  | T   | -    | -    | -    | T     | -    | 0.4  | 2.0  | 13.7   |
| WA    | Seattle-Tacoma . . . . .        | 51                    | 4.8  | 1.6  | 1.3  | 0.1  | T   | -    | T    | -    | T     | -    | 1.1  | 2.4  | 11.3   |
|       | Spokane . . . . .               | 48                    | 15.6 | 7.6  | 3.9  | 0.6  | 0.1 | T    | -    | -    | T     | 0.4  | 6.4  | 14.9 | 49.5   |
| WV    | Charleston . . . . .            | 48                    | 10.6 | 8.6  | 5.1  | 0.9  | -   | T    | T    | T    | T     | 0.2  | 2.4  | 5.3  | 33.1   |
| WI    | Milwaukee . . . . .             | 55                    | 13.1 | 10.0 | 8.6  | 1.7  | 0.1 | T    | T    | T    | T     | 0.2  | 3.2  | 10.3 | 47.2   |
| WY    | Cheyenne . . . . .              | 60                    | 6.5  | 6.4  | 11.9 | 9.0  | 3.3 | 0.2  | -    | -    | 0.9   | 3.7  | 7.3  | 6.2  | 55.4   |
| PR    | San Juan . . . . .              | 40                    | -    | -    | -    | -    | -   | -    | -    | -    | -     | -    | -    | -    |        |

- Represents zero or rounds to zero.

<sup>1</sup> City office data.

Source: U.S. National Oceanic and Atmospheric Administration, Comparative Climatic Data, annual.

**No. 400. Sunshine, Average Wind Speed, Heating and Cooling Degree Days, and Average Relative Humidity—Selected Cities**

[Airport data, except as noted. For period of record through 1994, except as noted. M=morning. A=afternoon.]

| STATE | STATION                        | AVERAGE PERCENTAGE OF POSSIBLE SUNSHINE |        | AVERAGE WIND SPEED (m.p.h.) |        |      | Heating degree days | Cooling degree days | AVERAGE RELATIVE HUMIDITY (percent) |        |      |      |    |    |    |    |
|-------|--------------------------------|---|--------|-----------------------------|--------|------|---------------------|---------------------|-------------------------------------|--------|------|------|----|----|----|----|
|       |                                | Length of record (yr.)                  | Annual | Length of record (yr.)      | Annual | Jan. |                     |                     | Length of record (yr.)              | Annual | Jan. | July | M  | A  |    |    |
|       |                                |   |        |                             |        |      |                     |                     |                                     | M      | A    | M    | A  |    |    |    |
| AL    | Mobile . . . . .               | 46                                      | 60     | 46                          | 8.9    | 10.3 | 6.9                 | 1,702               | 2,627                               | 32     | 87   | 57   | 82 | 61 | 90 | 60 |
| AK    | Juneau . . . . .               | 44                                      | 23     | 49                          | 8.3    | 8.2  | 7.5                 | 8,897               | -                                   | 28     | 84   | 73   | 81 | 78 | 83 | 70 |
| AZ    | Phoenix . . . . .              | 57                                      | 81     | 49                          | 6.2    | 5.3  | 7.1                 | 1,350               | 4,162                               | 34     | 51   | 23   | 66 | 32 | 44 | 20 |
| AR    | Little Rock . . . . .          | 35                                      | 60     | 52                          | 7.8    | 8.4  | 6.7                 | 3,155               | 2,005                               | 34     | 84   | 58   | 80 | 62 | 88 | 56 |
| CA    | Los Angeles . . . . .          | 59                                      | 72     | 46                          | 7.5    | 6.7  | 7.9                 | 1,458               | 727                                 | 35     | 79   | 64   | 70 | 59 | 86 | 68 |
|       | Sacramento . . . . .           | 46                                      | 73     | 44                          | 7.9    | 7.2  | 9.0                 | 2,749               | 1,237                               | 34     | 83   | 46   | 90 | 70 | 77 | 28 |
|       | San Diego . . . . .            | 54                                      | 72     | 54                          | 7.0    | 5.9  | 7.5                 | 1,256               | 984                                 | 34     | 77   | 62   | 71 | 56 | 82 | 66 |
|       | San Francisco . . . . .        | 67                                      | 72     | 67                          | 10.6   | 7.2  | 13.6                | 3,016               | 145                                 | 35     | 84   | 62   | 86 | 66 | 86 | 59 |
| CO    | Denver . . . . .               | 60                                      | 67     | 46                          | 8.6    | 8.6  | 8.3                 | 6,020               | 679                                 | 34     | 68   | 40   | 64 | 49 | 69 | 34 |
| CT    | Hartford . . . . .             | 40                                      | 52     | 40                          | 8.5    | 9.0  | 7.3                 | 6,151               | 677                                 | 35     | 77   | 52   | 71 | 56 | 79 | 51 |
| DE    | Wilmington . . . . .           | 47                                      | 55     | 46                          | 9.0    | 9.8  | 7.8                 | 4,937               | 1,046                               | 47     | 78   | 55   | 75 | 60 | 79 | 54 |
| DC    | Washington . . . . .           | 46                                      | 55     | 46                          | 9.4    | 10.0 | 8.3                 | 4,047               | 1,549                               | 34     | 74   | 53   | 70 | 55 | 76 | 53 |
| FL    | Jacksonville . . . . .         | 46                                      | 61     | 45                          | 7.9    | 8.2  | 7.0                 | 1,434               | 2,551                               | 58     | 88   | 56   | 87 | 58 | 88 | 58 |
|       | Miami . . . . .                | 45                                      | 68     | 45                          | 9.3    | 9.6  | 8.0                 | 200                 | 4,198                               | 30     | 84   | 61   | 84 | 59 | 84 | 63 |
| GA    | Atlanta . . . . .              | 60                                      | 59     | 56                          | 9.1    | 10.4 | 7.6                 | 2,991               | 1,667                               | 34     | 82   | 56   | 78 | 59 | 88 | 60 |
| HI    | Honolulu . . . . .             | 45                                      | 74     | 45                          | 11.3   | 9.5  | 13.1                | -                   | 4,474                               | 25     | 72   | 55   | 81 | 61 | 67 | 51 |
| ID    | Boise . . . . .                | 55                                      | 58     | 55                          | 8.7    | 8.0  | 8.4                 | 5,861               | 754                                 | 35     | 69   | 43   | 81 | 71 | 54 | 21 |
| IL    | Chicago . . . . .              | 36                                      | 52     | 36                          | 10.4   | 11.7 | 8.3                 | 6,536               | 752                                 | 36     | 80   | 60   | 77 | 68 | 82 | 57 |
| IN    | Peoria . . . . .               | 51                                      | 53     | 51                          | 10.0   | 11.1 | 7.8                 | 6,148               | 982                                 | 35     | 83   | 62   | 79 | 69 | 87 | 59 |
| IA    | Indianapolis . . . . .         | 63                                      | 51     | 46                          | 9.6    | 10.9 | 7.5                 | 5,615               | 1,014                               | 35     | 84   | 62   | 81 | 70 | 87 | 60 |
| KS    | Des Moines . . . . .           | 45                                      | 55     | 45                          | 10.7   | 11.5 | 8.9                 | 6,497               | 1,036                               | 33     | 80   | 60   | 76 | 67 | 82 | 58 |
| KY    | Wichita . . . . .              | 39                                      | 62     | 41                          | 12.3   | 12.1 | 11.4                | 4,791               | 1,628                               | 41     | 80   | 56   | 79 | 63 | 79 | 49 |
| LA    | Louisville . . . . .           | 47                                      | 53     | 47                          | 8.3    | 9.5  | 6.8                 | 4,514               | 1,288                               | 34     | 81   | 58   | 77 | 64 | 85 | 58 |
|       | New Orleans . . . . .          | 46                                      | 60     | 46                          | 8.2    | 9.3  | 6.1                 | 1,513               | 2,655                               | 46     | 88   | 63   | 85 | 66 | 91 | 66 |
| ME    | Portland . . . . .             | 54                                      | 55     | 54                          | 8.8    | 9.1  | 7.6                 | 7,378               | 268                                 | 54     | 79   | 59   | 76 | 60 | 80 | 59 |
| MD    | Baltimore . . . . .            | 44                                      | 58     | 44                          | 9.1    | 9.7  | 7.9                 | 4,707               | 1,137                               | 41     | 77   | 54   | 72 | 57 | 80 | 53 |
| MA    | Boston . . . . .               | 59                                      | 55     | 37                          | 12.5   | 13.8 | 10.9                | 5,641               | 678                                 | 30     | 72   | 58   | 67 | 57 | 74 | 56 |
| MI    | Detroit . . . . .              | 36                                      | 50     | 36                          | 10.4   | 12.0 | 8.6                 | 6,569               | 626                                 | 36     | 81   | 60   | 80 | 69 | 82 | 54 |
| MN    | Sault Ste. Marie . . . . .     | 53                                      | 43     | 53                          | 9.2    | 9.7  | 7.8                 | 9,316               | 131                                 | 53     | 85   | 67   | 81 | 74 | 89 | 62 |
|       | Duluth . . . . .               | 46                                      | 49     | 45                          | 11.0   | 11.6 | 9.4                 | 9,818               | 180                                 | 33     | 81   | 63   | 77 | 70 | 85 | 59 |
|       | Minneapolis-St. Paul . . . . . | 56                                      | 54     | 56                          | 10.5   | 10.5 | 9.4                 | 7,981               | 682                                 | 35     | 79   | 60   | 74 | 67 | 81 | 54 |
| MS    | Jackson . . . . .              | 30                                      | 59     | 31                          | 7.3    | 8.4  | 5.8                 | 2,467               | 2,215                               | 31     | 91   | 58   | 87 | 65 | 94 | 60 |
| MO    | Kansas City . . . . .          | 22                                      | 59     | 22                          | 10.8   | 11.4 | 9.4                 | 5,393               | 1,288                               | 22     | 81   | 60   | 77 | 64 | 85 | 58 |
| MT    | St. Louis . . . . .            | 46                                      | 55     | 45                          | 9.7    | 10.6 | 8.0                 | 4,758               | 1,534                               | 34     | 83   | 59   | 81 | 66 | 84 | 56 |
|       | Great Falls . . . . .          | 57                                      | 51     | 53                          | 12.7   | 15.2 | 10.0                | 7,741               | 388                                 | 33     | 67   | 45   | 67 | 61 | 67 | 30 |
| NE    | Omaha . . . . .                | 49                                      | 59     | 58                          | 10.5   | 10.9 | 8.9                 | 6,300               | 1,072                               | 30     | 82   | 59   | 78 | 65 | 85 | 58 |
| NV    | Reno . . . . .                 | 52                                      | 69     | 52                          | 6.6    | 5.6  | 7.1                 | 5,674               | 508                                 | 31     | 70   | 31   | 79 | 50 | 62 | 18 |
| NH    | Concord . . . . .              | 53                                      | 55     | 52                          | 6.8    | 7.3  | 5.7                 | 7,554               | 328                                 | 29     | 81   | 54   | 75 | 58 | 84 | 51 |
| NJ    | Atlantic City . . . . .        | 36                                      | 56     | 36                          | 9.9    | 10.9 | 8.4                 | 5,169               | 826                                 | 30     | 82   | 56   | 78 | 58 | 83 | 57 |
| NM    | Albuquerque . . . . .          | 55                                      | 76     | 55                          | 8.9    | 8.0  | 9.0                 | 4,425               | 1,244                               | 34     | 60   | 29   | 70 | 40 | 60 | 27 |
| NY    | Albany . . . . .               | 56                                      | 49     | 56                          | 8.9    | 9.8  | 7.5                 | 6,894               | 507                                 | 29     | 80   | 57   | 77 | 63 | 81 | 55 |
|       | Buffalo . . . . .              | 51                                      | 43     | 55                          | 11.9   | 14.2 | 10.3                | 6,747               | 477                                 | 34     | 80   | 62   | 79 | 72 | 78 | 55 |
|       | New York 3 . . . . .           | 42                                      | 64     | 58                          | 9.4    | 10.7 | 7.6                 | 4,805               | 1,096                               | 61     | 72   | 56   | 68 | 60 | 75 | 55 |
| NC    | Charlotte . . . . .            | 46                                      | 58     | 45                          | 7.4    | 7.8  | 6.6                 | 3,341               | 1,582                               | 34     | 82   | 53   | 78 | 55 | 86 | 56 |
| ND    | Raleigh . . . . .              | 46                                      | 59     | 45                          | 7.8    | 8.5  | 6.7                 | 3,457               | 1,417                               | 30     | 85   | 54   | 79 | 55 | 89 | 58 |
| OH    | Bismarck . . . . .             | 55                                      | 55     | 55                          | 10.2   | 10.0 | 9.2                 | 8,968               | 488                                 | 35     | 80   | 57   | 75 | 69 | 84 | 47 |
|       | Cincinnati . . . . .           | 43                                      | 49     | 47                          | 9.0    | 10.6 | 7.2                 | 5,248               | 996                                 | 32     | 82   | 60   | 79 | 68 | 85 | 57 |
|       | Cleveland . . . . .            | 53                                      | 45     | 53                          | 10.5   | 12.2 | 8.6                 | 6,201               | 621                                 | 34     | 79   | 62   | 78 | 69 | 81 | 57 |
|       | Columbus . . . . .             | 45                                      | 48     | 45                          | 8.3    | 9.9  | 6.6                 | 5,708               | 797                                 | 35     | 80   | 59   | 77 | 67 | 84 | 56 |
| OK    | Oklahoma City . . . . .        | 44                                      | 64     | 46                          | 12.3   | 12.6 | 10.9                | 3,659               | 1,859                               | 29     | 80   | 55   | 78 | 59 | 80 | 50 |
| OR    | Portland . . . . .             | 46                                      | 39     | 46                          | 7.9    | 9.9  | 7.6                 | 4,522               | 371                                 | 54     | 86   | 59   | 86 | 75 | 82 | 45 |
| PA    | Philadelphia . . . . .         | 54                                      | 56     | 54                          | 9.5    | 10.3 | 8.2                 | 4,954               | 1,101                               | 35     | 76   | 55   | 73 | 59 | 79 | 54 |
|       | Pittsburgh . . . . .           | 42                                      | 44     | 42                          | 9.1    | 10.6 | 7.3                 | 5,968               | 654                                 | 34     | 79   | 58   | 76 | 66 | 83 | 54 |
| RI    | Providence . . . . .           | 41                                      | 55     | 41                          | 10.5   | 11.1 | 9.4                 | 5,884               | 606                                 | 31     | 75   | 55   | 71 | 56 | 77 | 56 |
| SC    | Columbia . . . . .             | 47                                      | 60     | 46                          | 6.9    | 7.2  | 6.3                 | 2,649               | 1,966                               | 28     | 87   | 51   | 82 | 54 | 89 | 54 |
| SD    | Sioux Falls . . . . .          | 49                                      | 57     | 46                          | 11.1   | 11.0 | 9.8                 | 7,809               | 744                                 | 31     | 82   | 60   | 77 | 68 | 83 | 54 |
| TN    | Memphis . . . . .              | 42                                      | 59     | 46                          | 8.9    | 10.0 | 7.5                 | 3,082               | 2,118                               | 55     | 81   | 57   | 78 | 63 | 84 | 57 |
|       | Nashville . . . . .            | 53                                      | 57     | 53                          | 8.0    | 9.1  | 6.5                 | 3,729               | 1,616                               | 29     | 84   | 57   | 80 | 63 | 89 | 57 |
| TX    | Dallas-Fort Worth . . . . .    | 41                                      | 64     | 41                          | 10.7   | 10.9 | 9.8                 | 2,407               | 2,603                               | 31     | 82   | 56   | 80 | 61 | 81 | 49 |
|       | El Paso . . . . .              | 52                                      | 80     | 52                          | 8.8    | 8.3  | 8.3                 | 2,708               | 2,094                               | 34     | 57   | 26   | 66 | 35 | 62 | 29 |
|       | Houston . . . . .              | 25                                      | 56     | 25                          | 7.9    | 8.2  | 7.0                 | 1,599               | 2,700                               | 25     | 90   | 60   | 86 | 64 | 93 | 57 |
| UT    | Salt Lake City . . . . .       | 66                                      | 62     | 65                          | 8.8    | 7.5  | 9.5                 | 5,765               | 1,047                               | 35     | 67   | 43   | 79 | 69 | 52 | 22 |
| VT    | Burlington . . . . .           | 51                                      | 44     | 51                          | 9.0    | 9.8  | 8.0                 | 7,771               | 388                                 | 29     | 77   | 59   | 72 | 64 | 79 | 53 |
| VA    | Norfolk . . . . .              | 46                                      | 58     | 46                          | 10.6   | 11.5 | 8.9                 | 3,495               | 1,422                               | 46     | 78   | 57   | 75 | 59 | 81 | 59 |
|       | Richmond . . . . .             | 49                                      | 56     | 46                          | 7.7    | 8.1  | 6.9                 | 3,963               | 1,348                               | 60     | 83   | 53   | 80 | 57 | 85 | 56 |
| WA    | Seattle-Tacoma 2 . . . . .     | 50                                      | 38     | 46                          | 9.0    | 9.6  | 8.3                 | 4,908               | 190                                 | 35     | 83   | 62   | 82 | 74 | 82 | 49 |
|       | Spokane . . . . .              | 47                                      | 47     | 47                          | 8.9    | 8.8  | 8.6                 | 6,842               | 398                                 | 35     | 78   | 52   | 86 | 79 | 65 | 28 |
| WV    | Charleston . . . . .           | 47                                      | 48     | 47                          | 6.2    | 7.4  | 4.9                 | 4,646               | 1,031                               | 47     | 83   | 56   | 77 | 63 | 90 | 59 |
| WI    | Milwaukee . . . . .            | 54                                      | 52     | 54                          | 11.5   | 12.6 | 9.7                 | 7,324               | 479                                 | 34     | 80   | 64   | 76 | 68 | 82 | 61 |
| WY    | Cheyenne . . . . .             | 59                                      | 64     | 37                          | 12.9   | 15.3 | 10.4                | 7,326               | 285                                 | 35     | 65   | 44   | 58 | 50 | 70 | 38 |
| PR    | San Juan . . . . .             | 39                                      | 76     | 39                          | 8.4    | 8.5  | 9.7                 | -                   | 5,558                               | 39     | 79   | 65   | 82 | 64 | 79 | 67 |

- Represents zero.

<sup>1</sup> Percent of days that are either clear or partly cloudy.

<sup>2</sup> Does not represent airport data.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.