



APPENDIX TABLE 4-6

U.S. R&D expenditures, by source of funds and performing sector: 1953–2015

(Millions of current and of constant 2009 dollars)

| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | Business | | | | | Higher ed-ucation | Other nonprofit organizations | | | | |
|--------------------|---------------------|--------|---------------------|-------|-------------------------|-----------|-------------------|-----|-----------------------|-------|-------------------------|-----------|-------------------|----------|-------|-----------|-------------------|-----|-------------------|-------------------------------|-------|-----------|-------------------|-----|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP |
| Current \$millions | | | | | | | | | | | | | | | | | | | | | | | | |
| 1953 | 5,160 | 2,783 | 1,015 | 131 | NA | 1,430 | 149 | 58 | 40 | NA | NA | NA | 40 | 2,247 | NA | 2,200 | 21 | 26 | 37 | 55 | NA | NA | 27 | 28 |
| 1954 | 5,621 | 3,102 | 963 | 165 | NA | 1,750 | 165 | 61 | 45 | NA | NA | NA | 45 | 2,375 | NA | 2,320 | 24 | 31 | 40 | 60 | NA | NA | 29 | 31 |
| 1955 | 6,185 | 3,507 | 973 | 319 | NA | 1,960 | 191 | 65 | 50 | NA | NA | NA | 50 | 2,522 | NA | 2,460 | 27 | 35 | 42 | 64 | NA | NA | 32 | 32 |
| 1956 | 8,501 | 4,979 | 1,131 | 561 | NA | 2,995 | 221 | 71 | 57 | NA | NA | NA | 57 | 3,346 | NA | 3,277 | 32 | 37 | 46 | 74 | NA | NA | 36 | 38 |
| 1957 | 9,908 | 6,233 | 1,297 | 688 | NA | 3,928 | 242 | 79 | 64 | NA | NA | NA | 64 | 3,470 | NA | 3,396 | 37 | 37 | 51 | 91 | NA | NA | 40 | 51 |
| 1958 | 10,915 | 6,974 | 1,507 | 657 | NA | 4,436 | 280 | 95 | 72 | NA | NA | NA | 72 | 3,707 | NA | 3,630 | 39 | 38 | 56 | 107 | NA | NA | 45 | 62 |
| 1959 | 12,490 | 8,167 | 1,681 | 789 | NA | 5,217 | 356 | 125 | 81 | NA | NA | NA | 81 | 4,065 | NA | 3,983 | 40 | 42 | 61 | 117 | NA | NA | 50 | 67 |
| 1960 | 13,711 | 8,915 | 1,801 | 910 | NA | 5,604 | 453 | 148 | 90 | NA | NA | NA | 90 | 4,516 | NA | 4,428 | 40 | 48 | 67 | 123 | NA | NA | 55 | 68 |
| 1961 | 14,564 | 9,484 | 1,987 | 1,087 | NA | 5,685 | 557 | 169 | 101 | NA | NA | NA | 101 | 4,757 | NA | 4,668 | 40 | 49 | 75 | 148 | NA | NA | 62 | 86 |
| 1962 | 15,636 | 10,138 | 2,188 | 1,056 | NA | 6,008 | 687 | 200 | 112 | NA | NA | NA | 112 | 5,124 | NA | 5,029 | 41 | 54 | 84 | 179 | NA | NA | 70 | 109 |
| 1963 | 17,519 | 11,646 | 2,559 | 1,159 | NA | 6,856 | 839 | 234 | 125 | NA | NA | NA | 125 | 5,456 | NA | 5,360 | 41 | 55 | 96 | 197 | NA | NA | 78 | 119 |
| 1964 | 19,103 | 12,765 | 2,966 | 1,297 | NA | 7,257 | 995 | 250 | 138 | NA | NA | NA | 138 | 5,888 | NA | 5,792 | 41 | 55 | 114 | 200 | NA | NA | 88 | 112 |
| 1965 | 20,253 | 13,194 | 3,157 | 1,218 | NA | 7,367 | 1,167 | 286 | 150 | NA | NA | NA | 150 | 6,549 | NA | 6,445 | 42 | 62 | 136 | 225 | NA | NA | 101 | 124 |
| 1966 | 22,072 | 14,165 | 3,308 | 1,217 | NA | 7,977 | 1,335 | 329 | 160 | NA | NA | NA | 160 | 7,331 | NA | 7,216 | 45 | 70 | 165 | 252 | NA | NA | 114 | 138 |



| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | Business | | | | | Higher ed-ucation | | Other nonprofit organizations | | | | |
|------|---------------------|--------|---------------------|-------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|----------|-------|-----------|-------------------|-----|-------------------|-------|-------------------------------|-----------|-------------------|-----|--|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | |
| 1967 | 23,347 | 14,564 | 3,445 | 1,340 | NA | 7,946 | 1,491 | 342 | 168 | NA | NA | NA | 168 | 8,146 | NA | 8,020 | 52 | 74 | 200 | 271 | NA | NA | 126 | 145 | |
| 1968 | 24,667 | 14,965 | 3,498 | 1,372 | NA | 8,145 | 1,586 | 364 | 185 | NA | NA | NA | 185 | 9,008 | NA | 8,869 | 58 | 81 | 221 | 290 | NA | NA | 139 | 151 | |
| 1969 | 25,996 | 15,228 | 3,790 | 1,440 | NA | 7,987 | 1,624 | 388 | 208 | NA | NA | NA | 208 | 10,011 | NA | 9,857 | 61 | 93 | 233 | 316 | NA | NA | 155 | 161 | |
| 1970 | 26,271 | 14,984 | 4,154 | 1,430 | NA | 7,306 | 1,686 | 410 | 237 | NA | NA | NA | 237 | 10,449 | NA | 10,288 | 66 | 95 | 259 | 343 | NA | NA | 171 | 172 | |
| 1971 | 26,952 | 15,210 | 4,409 | 1,441 | NA | 7,175 | 1,760 | 427 | 262 | NA | NA | NA | 262 | 10,824 | NA | 10,654 | 72 | 98 | 290 | 366 | NA | NA | 182 | 184 | |
| 1972 | 28,740 | 16,039 | 4,676 | 1,533 | NA | 7,469 | 1,890 | 472 | 282 | NA | NA | NA | 282 | 11,715 | NA | 11,535 | 79 | 101 | 312 | 393 | NA | NA | 195 | 198 | |
| 1973 | 30,952 | 16,587 | 4,837 | 1,576 | NA | 7,600 | 2,009 | 566 | 301 | NA | NA | NA | 301 | 13,299 | NA | 13,104 | 90 | 105 | 344 | 421 | NA | NA | 210 | 211 | |
| 1974 | 33,359 | 17,287 | 5,132 | 1,784 | NA | 7,572 | 2,160 | 639 | 320 | NA | NA | NA | 320 | 14,886 | NA | 14,667 | 105 | 114 | 394 | 474 | NA | NA | 239 | 235 | |
| 1975 | 35,671 | 18,533 | 5,561 | 2,019 | NA | 7,878 | 2,400 | 675 | 348 | NA | NA | NA | 348 | 15,824 | NA | 15,582 | 118 | 124 | 432 | 534 | NA | NA | 272 | 262 | |
| 1976 | 39,435 | 20,292 | 5,890 | 2,401 | NA | 8,671 | 2,619 | 711 | 369 | NA | NA | NA | 369 | 17,702 | NA | 17,436 | 131 | 135 | 480 | 592 | NA | NA | 300 | 292 | |
| 1977 | 43,338 | 22,071 | 6,211 | 2,704 | NA | 9,523 | 2,893 | 740 | 394 | NA | NA | NA | 394 | 19,642 | NA | 19,340 | 155 | 147 | 569 | 662 | NA | NA | 337 | 326 | |
| 1978 | 48,719 | 24,414 | 6,962 | 3,186 | NA | 10,107 | 3,329 | 830 | 443 | NA | NA | NA | 443 | 22,457 | NA | 22,115 | 182 | 160 | 679 | 727 | NA | NA | 364 | 363 | |
| 1979 | 55,379 | 27,225 | 7,471 | 3,567 | NA | 11,354 | 3,848 | 985 | 482 | NA | NA | NA | 482 | 26,097 | NA | 25,708 | 215 | 174 | 785 | 791 | NA | NA | 386 | 405 | |
| 1980 | 63,224 | 29,986 | 7,831 | 4,052 | NA | 12,752 | 4,335 | 1,017 | 519 | NA | NA | NA | 519 | 30,929 | NA | 30,476 | 264 | 189 | 920 | 871 | NA | NA | 419 | 452 | |
| 1981 | 72,292 | 33,739 | 8,605 | 4,393 | NA | 14,997 | 4,670 | 1,075 | 581 | NA | NA | NA | 581 | 35,948 | NA | 35,428 | 314 | 206 | 1,058 | 967 | NA | NA | 463 | 504 | |
| 1982 | 80,748 | 37,133 | 9,501 | 4,563 | NA | 17,061 | 4,879 | 1,129 | 621 | NA | NA | NA | 621 | 40,692 | NA | 40,105 | 363 | 224 | 1,207 | 1,095 | NA | NA | 534 | 561 | |
| 1983 | 89,949 | 41,451 | 10,830 | 5,011 | NA | 19,095 | 5,210 | 1,306 | 658 | NA | NA | NA | 658 | 45,264 | NA | 44,588 | 432 | 244 | 1,357 | 1,220 | NA | NA | 595 | 626 | |
| 1984 | 102,244 | 46,470 | 11,916 | 5,602 | NA | 21,657 | 5,748 | 1,548 | 721 | NA | NA | NA | 721 | 52,187 | NA | 51,404 | 518 | 265 | 1,514 | 1,351 | NA | NA | 654 | 698 | |



| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | | Business | | | | | Higher ed-ucation | | Other nonprofit organizations | | | | |
|------|---------------------|--------|---------------------|--------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|---------|----------|-----------|-------------------|-------|-------------------|-------------------|-------|-------------------------------|-------------------|-------|--|--|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | | |
| 1985 | 114,671 | 52,641 | 13,093 | 6,134 | NA | 25,333 | 6,388 | 1,694 | 834 | NA | NA | NA | 834 | 57,962 | NA | 57,043 | 630 | 289 | 1,743 | 1,491 | NA | NA | 713 | 778 | | |
| 1986 | 120,249 | 54,622 | 13,505 | 6,405 | NA | 26,000 | 7,028 | 1,686 | 969 | NA | NA | NA | 969 | 60,991 | NA | 59,932 | 745 | 314 | 2,019 | 1,647 | NA | NA | 780 | 867 | | |
| 1987 | 126,360 | 58,609 | 13,588 | 6,792 | NA | 28,757 | 7,768 | 1,704 | 1,065 | NA | NA | NA | 1,065 | 62,576 | NA | 61,403 | 831 | 342 | 2,262 | 1,849 | NA | NA | 882 | 967 | | |
| 1988 | 133,881 | 60,131 | 14,342 | 7,212 | NA | 28,221 | 8,593 | 1,762 | 1,165 | NA | NA | NA | 1,165 | 67,977 | NA | 66,672 | 933 | 372 | 2,527 | 2,081 | NA | NA | 1,003 | 1,078 | | |
| 1989 | 141,891 | 60,465 | 15,231 | 7,497 | NA | 26,359 | 9,317 | 2,062 | 1,274 | NA | NA | NA | 1,274 | 74,966 | NA | 73,501 | 1,061 | 405 | 2,852 | 2,333 | NA | NA | 1,131 | 1,202 | | |
| 1990 | 151,993 | 61,610 | 15,671 | 7,853 | NA | 25,802 | 9,939 | 2,346 | 1,399 | NA | NA | NA | 1,399 | 83,208 | NA | 81,602 | 1,166 | 440 | 3,187 | 2,589 | NA | NA | 1,249 | 1,340 | | |
| 1991 | 160,876 | 60,783 | 15,249 | 8,093 | NA | 24,095 | 10,667 | 2,679 | 1,483 | NA | NA | NA | 1,483 | 92,300 | NA | 90,580 | 1,242 | 479 | 3,458 | 2,852 | NA | NA | 1,358 | 1,494 | | |
| 1992 | 165,350 | 60,915 | 15,853 | 8,360 | NA | 22,369 | 11,528 | 2,806 | 1,525 | NA | NA | NA | 1,525 | 96,229 | NA | 94,388 | 1,320 | 521 | 3,569 | 3,113 | NA | NA | 1,448 | 1,666 | | |
| 1993 | 165,730 | 60,528 | 16,531 | 8,003 | NA | 20,844 | 12,307 | 2,843 | 1,557 | NA | NA | NA | 1,557 | 96,549 | NA | 94,591 | 1,392 | 567 | 3,709 | 3,388 | NA | NA | 1,531 | 1,857 | | |
| 1994 | 169,207 | 60,777 | 16,355 | 8,254 | NA | 20,261 | 12,996 | 2,911 | 1,623 | NA | NA | NA | 1,623 | 99,204 | NA | 97,131 | 1,456 | 617 | 3,938 | 3,665 | NA | NA | 1,595 | 2,071 | | |
| 1995 | 183,625 | 62,969 | 16,904 | 8,448 | NA | 21,178 | 13,592 | 2,847 | 1,751 | NA | NA | NA | 1,751 | 110,871 | NA | 108,652 | 1,548 | 671 | 4,110 | 3,925 | NA | NA | 1,617 | 2,308 | | |
| 1996 | 197,346 | 63,394 | 16,585 | 8,464 | NA | 21,356 | 14,084 | 2,906 | 1,861 | NA | NA | NA | 1,861 | 123,417 | NA | 121,015 | 1,672 | 730 | 4,436 | 4,239 | NA | NA | 1,666 | 2,574 | | |
| 1997 | 211,894 | 64,362 | 16,819 | 8,413 | NA | 21,798 | 14,317 | 3,014 | 1,902 | NA | NA | NA | 1,902 | 136,208 | NA | 133,611 | 1,788 | 809 | 4,852 | 4,571 | NA | NA | 1,767 | 2,804 | | |
| 1998 | 225,759 | 65,908 | 17,362 | 8,480 | NA | 22,086 | 14,699 | 3,281 | 1,920 | NA | NA | NA | 1,920 | 147,774 | NA | 145,016 | 1,898 | 859 | 5,193 | 4,963 | NA | NA | 1,871 | 3,092 | | |
| 1999 | 244,451 | 66,817 | 18,142 | 8,704 | NA | 20,496 | 15,714 | 3,761 | 2,036 | NA | NA | NA | 2,036 | 164,545 | NA | 161,594 | 2,020 | 931 | 5,654 | 5,399 | NA | NA | 2,050 | 3,349 | | |
| 2000 | 267,950 | 67,238 | 19,247 | 9,269 | NA | 17,117 | 17,095 | 4,510 | 2,182 | NA | NA | NA | 2,182 | 185,975 | NA | 182,844 | 2,112 | 1,020 | 6,270 | 6,285 | NA | NA | 2,258 | 4,027 | | |
| 2001 | 278,539 | 73,793 | 22,374 | 10,056 | NA | 16,899 | 18,976 | 5,488 | 2,341 | 22 | NA | NA | 2,319 | 188,408 | 142 | 185,118 | 2,120 | 1,029 | 6,874 | 7,122 | 218 | NA | 2,461 | 4,443 | | |
| 2002 | 277,911 | 78,873 | 23,798 | 11,242 | NA | 16,401 | 21,655 | 5,778 | 2,553 | 32 | NA | NA | 2,521 | 180,704 | 135 | 177,467 | 2,103 | 998 | 7,673 | 8,109 | 275 | NA | 2,732 | 5,102 | | |



| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | | Business | | | | | Higher ed-ucation | | Other nonprofit organizations | | | | |
|--------------------------|---------------------|---------|---------------------|--------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|---------|----------|-----------|-------------------|-------|-------------------|-------------------|-------|-------------------------------|-------------------|--------|--|--|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | | |
| 2003 | 291,365 | 85,133 | 24,982 | 11,841 | NA | 17,798 | 24,567 | 5,945 | 2,788 | 32 | NA | NA | 2,756 | 186,171 | 134 | 182,926 | 2,090 | 1,020 | 8,286 | 8,988 | 245 | NA | 2,879 | 5,864 | | |
| 2004 | 302,731 | 90,795 | 24,898 | 12,471 | NA | 20,266 | 26,624 | 6,537 | 2,926 | 31 | NA | NA | 2,896 | 191,346 | 122 | 188,035 | 2,148 | 1,041 | 8,637 | 9,028 | 165 | NA | 2,993 | 5,870 | | |
| 2005 | 325,288 | 95,413 | 26,322 | 12,894 | NA | 21,909 | 27,743 | 6,545 | 2,977 | 32 | NA | NA | 2,945 | 207,775 | 139 | 204,250 | 2,279 | 1,107 | 9,353 | 9,771 | 180 | NA | 3,170 | 6,420 | | |
| 2006 | 350,908 | 99,938 | 28,240 | 12,969 | 105 | 24,304 | 28,277 | 6,044 | 3,293 | 31 | 204 | NA | 3,059 | 227,182 | 171 | 223,365 | 2,464 | 1,182 | 10,176 | 10,320 | 200 | NA | 3,394 | 6,726 | | |
| 2007 | 377,890 | 105,128 | 29,859 | 13,845 | 135 | 26,585 | 28,725 | 5,980 | 3,594 | 32 | 253 | NA | 3,308 | 246,815 | 180 | 242,682 | 2,697 | 1,257 | 10,933 | 11,420 | 216 | NA | 3,767 | 7,438 | | |
| 2008 | 404,773 | 117,615 | 29,839 | 15,369 | 176 | 36,360 | 29,635 | 6,236 | 4,221 | 33 | 315 | 306 | 3,567 | 258,016 | 199 | 253,562 | 2,954 | 1,301 | 11,738 | 13,184 | 209 | 452 | 4,161 | 8,362 | | |
| 2009 | 402,931 | 125,765 | 30,560 | 16,571 | 224 | 39,573 | 31,741 | 7,097 | 4,295 | 40 | 381 | 195 | 3,679 | 246,610 | 184 | 242,135 | 3,033 | 1,258 | 12,056 | 14,205 | 218 | 490 | 4,400 | 9,097 | | |
| 2010 | 406,580 | 126,617 | 31,970 | 18,409 | 264 | 34,199 | 34,682 | 7,093 | 4,302 | 46 | 427 | 156 | 3,673 | 248,124 | 174 | 243,732 | 2,953 | 1,265 | 12,262 | 15,275 | 199 | 890 | 4,515 | 9,672 | | |
| 2011 | 426,160 | 127,015 | 34,950 | 18,176 | 273 | 31,309 | 35,742 | 6,564 | 4,386 | 30 | 421 | 321 | 3,615 | 266,421 | 189 | 261,901 | 2,999 | 1,333 | 13,104 | 15,235 | 179 | 561 | 4,630 | 9,865 | | |
| 2012 | 433,619 | 123,838 | 34,017 | 17,727 | 266 | 30,621 | 34,968 | 6,239 | 4,158 | 42 | 398 | 157 | 3,560 | 275,717 | 185 | 270,997 | 3,169 | 1,366 | 14,300 | 15,607 | 173 | 476 | 4,899 | 10,059 | | |
| 2013 | 453,964 | 120,130 | 33,406 | 17,296 | 257 | 29,362 | 33,839 | 5,970 | 4,244 | 45 | 362 | 194 | 3,643 | 297,167 | 195 | 292,153 | 3,375 | 1,444 | 15,378 | 17,045 | 144 | 819 | 5,312 | 10,770 | | |
| 2014 | 475,426 | 118,363 | 34,783 | 17,523 | 247 | 26,554 | 33,121 | 6,135 | 4,214 | 26 | 336 | 138 | 3,715 | 318,382 | 218 | 313,043 | 3,601 | 1,520 | 16,217 | 18,250 | 137 | 993 | 5,701 | 11,420 | | |
| 2015 ^a | 495,144 | 120,933 | 35,673 | 18,287 | 249 | 26,990 | 33,546 | 6,189 | 4,280 | 19 | 361 | 127 | 3,772 | 333,207 | 205 | 327,589 | 3,842 | 1,572 | 17,334 | 19,390 | 138 | 1,115 | 6,159 | 11,978 | | |
| Constant 2009 \$millions | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1953 | 34,048 | 18,360 | 6,697 | 864 | NA | 9,436 | 983 | 379 | 261 | NA | NA | NA | 261 | 14,823 | NA | 14,516 | 135 | 172 | 241 | 363 | NA | NA | 178 | 185 | | |
| 1954 | 36,745 | 20,280 | 6,293 | 1,075 | NA | 11,441 | 1,075 | 396 | 291 | NA | NA | NA | 291 | 15,524 | NA | 15,167 | 154 | 203 | 258 | 392 | NA | NA | 190 | 203 | | |
| 1955 | 39,748 | 22,538 | 6,253 | 2,047 | NA | 12,596 | 1,227 | 415 | 321 | NA | NA | NA | 321 | 16,208 | NA | 15,809 | 174 | 225 | 270 | 411 | NA | NA | 206 | 206 | | |
| 1956 | 52,831 | 30,942 | 7,026 | 3,487 | NA | 18,614 | 1,374 | 441 | 351 | NA | NA | NA | 351 | 20,792 | NA | 20,367 | 196 | 230 | 286 | 460 | NA | NA | 224 | 236 | | |



| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | | Business | | | | | Higher ed-ucation | | Other nonprofit organizations | | | | |
|------|---------------------|--------|---------------------|-------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|--------|----------|-----------|-------------------|-----|-------------------|-------------------|-------|-------------------------------|-------------------|-----|--|--|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | | |
| 1957 | 59,592 | 37,486 | 7,801 | 4,135 | NA | 23,625 | 1,453 | 472 | 385 | NA | NA | NA | 385 | 20,867 | NA | 20,425 | 220 | 223 | 307 | 547 | NA | NA | 241 | 307 | | |
| 1958 | 64,206 | 41,024 | 8,862 | 3,862 | NA | 26,094 | 1,647 | 559 | 424 | NA | NA | NA | 424 | 21,806 | NA | 21,353 | 229 | 224 | 326 | 626 | NA | NA | 262 | 365 | | |
| 1959 | 72,451 | 47,376 | 9,751 | 4,577 | NA | 30,264 | 2,062 | 722 | 467 | NA | NA | NA | 467 | 23,578 | NA | 23,105 | 229 | 244 | 354 | 676 | NA | NA | 287 | 389 | | |
| 1960 | 78,453 | 51,011 | 10,302 | 5,207 | NA | 32,065 | 2,589 | 847 | 515 | NA | NA | NA | 515 | 25,840 | NA | 25,337 | 229 | 275 | 383 | 704 | NA | NA | 315 | 389 | | |
| 1961 | 82,428 | 53,676 | 11,246 | 6,149 | NA | 32,175 | 3,150 | 956 | 569 | NA | NA | NA | 569 | 26,923 | NA | 26,419 | 226 | 277 | 422 | 838 | NA | NA | 351 | 487 | | |
| 1962 | 87,421 | 56,681 | 12,230 | 5,904 | NA | 33,591 | 3,838 | 1,118 | 626 | NA | NA | NA | 626 | 28,645 | NA | 28,117 | 226 | 302 | 470 | 998 | NA | NA | 389 | 609 | | |
| 1963 | 96,851 | 64,380 | 14,144 | 6,405 | NA | 37,902 | 4,636 | 1,294 | 691 | NA | NA | NA | 691 | 30,160 | NA | 29,632 | 224 | 304 | 531 | 1,089 | NA | NA | 431 | 658 | | |
| 1964 | 104,011 | 69,499 | 16,146 | 7,062 | NA | 39,512 | 5,418 | 1,361 | 749 | NA | NA | NA | 749 | 32,056 | NA | 31,536 | 221 | 299 | 618 | 1,089 | NA | NA | 479 | 610 | | |
| 1965 | 108,294 | 70,551 | 16,878 | 6,510 | NA | 39,393 | 6,240 | 1,529 | 799 | NA | NA | NA | 799 | 35,016 | NA | 34,463 | 222 | 332 | 727 | 1,200 | NA | NA | 537 | 663 | | |
| 1966 | 114,799 | 73,674 | 17,205 | 6,327 | NA | 41,489 | 6,943 | 1,709 | 832 | NA | NA | NA | 832 | 38,129 | NA | 37,531 | 234 | 364 | 856 | 1,308 | NA | NA | 590 | 718 | | |
| 1967 | 118,000 | 73,607 | 17,412 | 6,773 | NA | 40,161 | 7,533 | 1,729 | 849 | NA | NA | NA | 849 | 41,169 | NA | 40,535 | 260 | 374 | 1,008 | 1,367 | NA | NA | 634 | 733 | | |
| 1968 | 119,577 | 72,544 | 16,955 | 6,651 | NA | 39,485 | 7,689 | 1,765 | 894 | NA | NA | NA | 894 | 43,666 | NA | 42,995 | 279 | 393 | 1,069 | 1,403 | NA | NA | 671 | 732 | | |
| 1969 | 120,114 | 70,362 | 17,513 | 6,654 | NA | 36,904 | 7,501 | 1,790 | 961 | NA | NA | NA | 961 | 46,254 | NA | 45,545 | 280 | 430 | 1,077 | 1,460 | NA | NA | 716 | 744 | | |
| 1970 | 115,302 | 65,764 | 18,231 | 6,274 | NA | 32,065 | 7,397 | 1,797 | 1,040 | NA | NA | NA | 1,040 | 45,857 | NA | 45,153 | 287 | 417 | 1,135 | 1,505 | NA | NA | 750 | 755 | | |
| 1971 | 112,571 | 63,529 | 18,414 | 6,017 | NA | 29,968 | 7,349 | 1,781 | 1,094 | NA | NA | NA | 1,094 | 45,209 | NA | 44,499 | 301 | 409 | 1,209 | 1,529 | NA | NA | 760 | 769 | | |
| 1972 | 115,066 | 64,215 | 18,720 | 6,138 | NA | 29,903 | 7,567 | 1,888 | 1,129 | NA | NA | NA | 1,129 | 46,903 | NA | 46,182 | 316 | 404 | 1,247 | 1,571 | NA | NA | 779 | 793 | | |
| 1973 | 117,527 | 62,982 | 18,365 | 5,984 | NA | 28,858 | 7,626 | 2,149 | 1,143 | NA | NA | NA | 1,143 | 50,497 | NA | 49,757 | 342 | 399 | 1,306 | 1,599 | NA | NA | 797 | 801 | | |
| 1974 | 116,224 | 60,227 | 17,881 | 6,215 | NA | 26,381 | 7,525 | 2,225 | 1,113 | NA | NA | NA | 1,113 | 51,862 | NA | 51,100 | 364 | 398 | 1,371 | 1,651 | NA | NA | 831 | 820 | | |



| Year | All funding sources | Federal | | | | | | | Nonfederal government | | | | | Business | | | | | Higher ed-ucation | Other nonprofit organizations | | | | |
|------|---------------------|---------|---------------------|--------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|----------|-------|-----------|-------------------|-----|-------------------|-------------------------------|-------|-----------|-------------------|-------|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP |
| 1975 | 113,745 | 59,097 | 17,733 | 6,438 | NA | 25,121 | 7,653 | 2,152 | 1,110 | NA | NA | NA | 1,110 | 50,459 | NA | 49,686 | 376 | 396 | 1,376 | 1,704 | NA | NA | 867 | 836 |
| 1976 | 119,199 | 61,335 | 17,804 | 7,256 | NA | 26,210 | 7,916 | 2,149 | 1,115 | NA | NA | NA | 1,115 | 53,508 | NA | 52,704 | 396 | 409 | 1,451 | 1,789 | NA | NA | 905 | 884 |
| 1977 | 123,345 | 62,818 | 17,678 | 7,697 | NA | 27,104 | 8,232 | 2,107 | 1,121 | NA | NA | NA | 1,121 | 55,902 | NA | 55,044 | 440 | 419 | 1,618 | 1,886 | NA | NA | 958 | 928 |
| 1978 | 129,565 | 64,926 | 18,515 | 8,473 | NA | 26,879 | 8,852 | 2,207 | 1,178 | NA | NA | NA | 1,178 | 59,722 | NA | 58,813 | 483 | 426 | 1,806 | 1,933 | NA | NA | 967 | 967 |
| 1979 | 136,047 | 66,883 | 18,354 | 8,762 | NA | 27,893 | 9,453 | 2,420 | 1,183 | NA | NA | NA | 1,183 | 64,111 | NA | 63,156 | 527 | 428 | 1,928 | 1,942 | NA | NA | 947 | 995 |
| 1980 | 142,470 | 67,571 | 17,646 | 9,130 | NA | 28,736 | 9,767 | 2,292 | 1,168 | NA | NA | NA | 1,168 | 69,696 | NA | 68,675 | 594 | 427 | 2,072 | 1,962 | NA | NA | 944 | 1,018 |
| 1981 | 148,990 | 69,534 | 17,733 | 9,054 | NA | 30,908 | 9,624 | 2,214 | 1,197 | NA | NA | NA | 1,197 | 74,087 | NA | 73,015 | 647 | 425 | 2,179 | 1,992 | NA | NA | 954 | 1,038 |
| 1982 | 156,699 | 72,060 | 18,438 | 8,855 | NA | 33,109 | 9,467 | 2,191 | 1,205 | NA | NA | NA | 1,205 | 78,967 | NA | 77,828 | 704 | 435 | 2,341 | 2,125 | NA | NA | 1,035 | 1,090 |
| 1983 | 167,927 | 77,384 | 20,218 | 9,354 | NA | 35,649 | 9,727 | 2,437 | 1,228 | NA | NA | NA | 1,228 | 84,504 | NA | 83,242 | 807 | 456 | 2,532 | 2,279 | NA | NA | 1,110 | 1,169 |
| 1984 | 184,335 | 83,781 | 21,483 | 10,101 | NA | 39,046 | 10,362 | 2,790 | 1,300 | NA | NA | NA | 1,300 | 94,088 | NA | 92,677 | 933 | 479 | 2,730 | 2,436 | NA | NA | 1,178 | 1,258 |
| 1985 | 200,332 | 91,965 | 22,873 | 10,716 | NA | 44,257 | 11,160 | 2,959 | 1,456 | NA | NA | NA | 1,456 | 101,261 | NA | 99,656 | 1,101 | 505 | 3,045 | 2,605 | NA | NA | 1,246 | 1,359 |
| 1986 | 205,920 | 93,538 | 23,126 | 10,968 | NA | 44,524 | 12,034 | 2,887 | 1,659 | NA | NA | NA | 1,659 | 104,445 | NA | 102,631 | 1,276 | 538 | 3,457 | 2,821 | NA | NA | 1,336 | 1,485 |
| 1987 | 211,005 | 97,870 | 22,691 | 11,341 | NA | 48,020 | 12,972 | 2,846 | 1,778 | NA | NA | NA | 1,778 | 104,494 | NA | 102,535 | 1,388 | 571 | 3,777 | 3,087 | NA | NA | 1,472 | 1,615 |
| 1988 | 216,002 | 97,015 | 23,139 | 11,637 | NA | 45,532 | 13,864 | 2,843 | 1,880 | NA | NA | NA | 1,880 | 109,673 | NA | 107,568 | 1,505 | 600 | 4,077 | 3,358 | NA | NA | 1,618 | 1,740 |
| 1989 | 220,356 | 93,903 | 23,653 | 11,643 | NA | 40,935 | 14,469 | 3,202 | 1,979 | NA | NA | NA | 1,979 | 116,422 | NA | 114,147 | 1,647 | 628 | 4,429 | 3,623 | NA | NA | 1,756 | 1,867 |
| 1990 | 227,623 | 92,267 | 23,469 | 11,760 | NA | 38,641 | 14,885 | 3,513 | 2,095 | NA | NA | NA | 2,095 | 124,611 | NA | 122,206 | 1,745 | 659 | 4,772 | 3,878 | NA | NA | 1,870 | 2,007 |
| 1991 | 233,168 | 88,097 | 22,102 | 11,730 | NA | 34,923 | 15,460 | 3,883 | 2,149 | NA | NA | NA | 2,149 | 133,777 | NA | 131,284 | 1,799 | 694 | 5,011 | 4,134 | NA | NA | 1,968 | 2,166 |
| 1992 | 234,312 | 86,320 | 22,465 | 11,846 | NA | 31,698 | 16,335 | 3,976 | 2,161 | NA | NA | NA | 2,161 | 136,362 | NA | 133,754 | 1,870 | 738 | 5,057 | 4,412 | NA | NA | 2,051 | 2,361 |



| Year | All funding sources | | Federal | | | | | | Nonfederal government | | | | | | Business | | | | | Higher ed-ucation | | Other nonprofit organizations | | | | |
|------|---------------------|---------|---------------------|--------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|---------|----------|-----------|-------------------|-------|-------------------|-------------------|-------|-------------------------------|-------------------|-------|--|--|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | | |
| 1993 | 229,392 | 83,778 | 22,880 | 11,077 | NA | 28,851 | 17,034 | 3,935 | 2,155 | NA | NA | NA | 2,155 | 133,637 | NA | 130,926 | 1,926 | 785 | 5,133 | 4,689 | NA | NA | 2,118 | 2,571 | | |
| 1994 | 229,321 | 82,370 | 22,166 | 11,187 | NA | 27,459 | 17,612 | 3,945 | 2,199 | NA | NA | NA | 2,199 | 134,448 | NA | 131,639 | 1,973 | 836 | 5,337 | 4,967 | NA | NA | 2,161 | 2,806 | | |
| 1995 | 243,780 | 83,597 | 22,441 | 11,215 | NA | 28,116 | 18,045 | 3,780 | 2,325 | NA | NA | NA | 2,325 | 147,191 | NA | 144,246 | 2,054 | 891 | 5,456 | 5,211 | NA | NA | 2,146 | 3,065 | | |
| 1996 | 257,299 | 82,653 | 21,623 | 11,035 | NA | 27,844 | 18,363 | 3,788 | 2,426 | NA | NA | NA | 2,426 | 160,910 | NA | 157,779 | 2,179 | 952 | 5,783 | 5,527 | NA | NA | 2,171 | 3,355 | | |
| 1997 | 271,619 | 82,503 | 21,560 | 10,785 | NA | 27,942 | 18,353 | 3,864 | 2,438 | NA | NA | NA | 2,438 | 174,600 | NA | 171,271 | 2,293 | 1,037 | 6,219 | 5,859 | NA | NA | 2,265 | 3,594 | | |
| 1998 | 286,282 | 83,578 | 22,017 | 10,754 | NA | 28,007 | 18,640 | 4,160 | 2,435 | NA | NA | NA | 2,435 | 187,390 | NA | 183,893 | 2,407 | 1,089 | 6,585 | 6,294 | NA | NA | 2,373 | 3,921 | | |
| 1999 | 305,315 | 83,453 | 22,659 | 10,871 | NA | 25,599 | 19,627 | 4,697 | 2,544 | NA | NA | NA | 2,544 | 205,514 | NA | 201,828 | 2,524 | 1,162 | 7,061 | 6,743 | NA | NA | 2,560 | 4,183 | | |
| 2000 | 327,218 | 82,110 | 23,504 | 11,319 | NA | 20,903 | 20,876 | 5,508 | 2,665 | NA | NA | NA | 2,665 | 227,111 | NA | 223,287 | 2,579 | 1,245 | 7,656 | 7,675 | NA | NA | 2,757 | 4,918 | | |
| 2001 | 332,570 | 88,108 | 26,715 | 12,006 | NA | 20,177 | 22,657 | 6,552 | 2,796 | 27 | NA | NA | 2,769 | 224,956 | 169 | 221,027 | 2,531 | 1,229 | 8,207 | 8,504 | 260 | NA | 2,939 | 5,305 | | |
| 2002 | 326,805 | 92,749 | 27,984 | 13,219 | NA | 19,286 | 25,464 | 6,794 | 3,002 | 38 | NA | NA | 2,965 | 212,495 | 159 | 208,689 | 2,473 | 1,174 | 9,023 | 9,535 | 324 | NA | 3,213 | 5,999 | | |
| 2003 | 335,926 | 98,153 | 28,803 | 13,652 | NA | 20,520 | 28,324 | 6,854 | 3,214 | 37 | NA | NA | 3,177 | 214,643 | 154 | 210,902 | 2,410 | 1,176 | 9,553 | 10,363 | 283 | NA | 3,319 | 6,761 | | |
| 2004 | 339,690 | 101,879 | 27,937 | 13,993 | NA | 22,740 | 29,874 | 7,335 | 3,283 | 34 | NA | NA | 3,249 | 214,707 | 137 | 210,992 | 2,410 | 1,168 | 9,691 | 10,130 | 185 | NA | 3,358 | 6,587 | | |
| 2005 | 353,622 | 103,723 | 28,615 | 14,017 | NA | 23,817 | 30,159 | 7,115 | 3,236 | 35 | NA | NA | 3,202 | 225,873 | 152 | 222,041 | 2,477 | 1,203 | 10,167 | 10,622 | 196 | NA | 3,446 | 6,980 | | |
| 2006 | 370,102 | 105,404 | 29,784 | 13,678 | 111 | 25,633 | 29,823 | 6,374 | 3,473 | 32 | 215 | NA | 3,227 | 239,609 | 181 | 235,583 | 2,598 | 1,247 | 10,732 | 10,884 | 210 | NA | 3,579 | 7,094 | | |
| 2007 | 388,229 | 108,004 | 30,676 | 14,224 | 138 | 27,312 | 29,511 | 6,143 | 3,692 | 33 | 260 | NA | 3,399 | 253,568 | 185 | 249,322 | 2,771 | 1,291 | 11,232 | 11,732 | 221 | NA | 3,870 | 7,641 | | |
| 2008 | 407,848 | 118,508 | 30,066 | 15,485 | 178 | 36,636 | 29,860 | 6,283 | 4,253 | 33 | 318 | 308 | 3,594 | 259,975 | 201 | 255,488 | 2,976 | 1,310 | 11,827 | 13,284 | 210 | 455 | 4,193 | 8,426 | | |
| 2009 | 402,931 | 125,765 | 30,560 | 16,571 | 224 | 39,573 | 31,741 | 7,097 | 4,295 | 40 | 381 | 195 | 3,679 | 246,610 | 184 | 242,135 | 3,033 | 1,258 | 12,056 | 14,205 | 218 | 490 | 4,400 | 9,097 | | |
| 2010 | 401,673 | 125,089 | 31,584 | 18,187 | 261 | 33,786 | 34,263 | 7,008 | 4,250 | 46 | 422 | 154 | 3,629 | 245,129 | 172 | 240,790 | 2,917 | 1,250 | 12,114 | 15,091 | 196 | 879 | 4,460 | 9,555 | | |



| Year | All funding sources | Federal | | | | | | | Nonfederal government | | | | | Business | | | | | Higher ed-ucation | Other nonprofit organizations | | | | |
|-------------------|---------------------|---------|---------------------|--------|-------------------------|-----------|-------------------|-------|-----------------------|-------|-------------------------|-----------|-------------------|----------|-------|-----------|-------------------|-------|-------------------|-------------------------------|-------|-----------|-------------------|--------|
| | All per-formers | Total | Federal intra-mural | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | ONP | Total | FFRDC | Non-federal govern-ment | Busi-ness | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP | Higher ed-ucation | Total | FFRDC | Busi-ness | Higher ed-ucation | ONP |
| 2011 | 412,503 | 122,944 | 33,830 | 17,593 | 264 | 30,306 | 34,597 | 6,354 | 4,245 | 29 | 407 | 311 | 3,499 | 257,883 | 183 | 253,508 | 2,902 | 1,290 | 12,684 | 14,747 | 173 | 543 | 4,482 | 9,549 |
| 2012 | 412,127 | 117,700 | 32,331 | 16,849 | 253 | 29,103 | 33,234 | 5,930 | 3,952 | 40 | 379 | 149 | 3,384 | 262,051 | 176 | 257,566 | 3,012 | 1,298 | 13,591 | 14,833 | 164 | 452 | 4,656 | 9,560 |
| 2013 | 424,610 | 112,363 | 31,246 | 16,178 | 241 | 27,463 | 31,650 | 5,584 | 3,970 | 42 | 339 | 181 | 3,407 | 277,952 | 183 | 273,262 | 3,156 | 1,351 | 14,383 | 15,943 | 134 | 766 | 4,969 | 10,074 |
| 2014 | 436,844 | 108,758 | 31,961 | 16,101 | 227 | 24,399 | 30,433 | 5,637 | 3,872 | 24 | 309 | 127 | 3,413 | 292,544 | 200 | 287,639 | 3,309 | 1,397 | 14,901 | 16,769 | 126 | 912 | 5,238 | 10,493 |
| 2015 ^a | 450,080 | 109,927 | 32,427 | 16,622 | 226 | 24,534 | 30,493 | 5,625 | 3,890 | 17 | 328 | 115 | 3,429 | 302,881 | 186 | 297,774 | 3,492 | 1,429 | 15,756 | 17,625 | 125 | 1,014 | 5,598 | 10,888 |

NA = not available.

FFRDC = federally funded research and development center; ONP = other nonprofit organization.

^a Some data for 2015 are preliminary and may later be revised.

Note(s)

This table reaggregates the R&D performer data in Appendix Table 4-2 according to major categories of R&D funding: federal government, nonfederal government (state and local), business, higher education, and other nonprofit organizations. Business sources of R&D funding in this table include the own funds of domestic R&D performing businesses, funds from other domestic businesses, and funds from foreign businesses. For interpretive detail on the R&D performers listed, see Appendix Table 4-2, footnotes a–f. Detail may not add to total because of rounding. Constant-dollar estimates are derived from unrounded data. For trend comparisons, use only the historical data reported in this table, as some back-year data may have been revised. Except for the nonprofit sector, data are based on annual reports by performers in the National Science Foundation's annual R&D expenditure surveys: Business R&D and Innovation Survey, Higher Education R&D Survey, Survey of Federal Funds for R&D, FFRDC R&D Expenditures Survey, and Survey of State Government R&D. R&D expenditures by business performers—and also, before 2001, industry-administered FFRDCs—are collected on a calendar year basis. Expenditures for other performers are calendar year approximations based on fiscal year data (see Appendix Table 4-2, general notes). The 1998–2015 data for ONP R&D performance funded by businesses and the nonprofit sector itself are estimated, based on parameters from the 1996–97 Survey of R&D Funding and Performance by Nonprofit Organizations.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, National Patterns of R&D Resources (annual series).

Science and Engineering Indicators 2018