

Science and engineering profile: Massachusetts

| Characteristic | State | U.S. | Rank |
|---|--------|-----------|------|
| Doctoral scientists, 2003 | 28,030 | 566,330 | 4 |
| Doctoral engineers, 2003 | 5,230 | 118,540 | 4 |
| S&E doctorates awarded, 2004 | 1,481 | 26,275 | 4 |
| Life sciences (percent) | 26 | 27 | na |
| Engineering (percent) | 21 | 22 | na |
| Social sciences (percent) | 20 | 16 | na |
| S&E and health postdoctorates in doctorate-granting institutions, 2003 | 5,986 | 46,807 | 2 |
| S&E and health graduate students in doctorate-granting institutions, 2003 | 25,234 | 507,247 | 4 |
| Population, 2004 (thousands) | 6,417 | 297,550 | 13 |
| Civilian labor force, 2004 (thousands) | 3,393 | 148,769 | 13 |
| Personal income per capita, 2004 (dollars) | 42,102 | 33,041 | 3 |
| Federal spending | | | |
| Total expenditures, 2003 (millions of dollars) | 51,265 | 2,024,246 | 14 |
| R&D obligations, 2003 (millions of dollars) | 5,157 | 91,359 | 4 |
| Total R&D performance, 2003 (millions of dollars) | 15,638 | 277,577 | 3 |
| Industry R&D, 2003 (millions of dollars) | 11,094 | 198,244 | 4 |
| Academic R&D, 2003 (millions of dollars) | 1,822 | 40,055 | 6 |
| Life sciences (percent) | 48 | 59 | na |
| Engineering (percent) | 17 | 15 | na |
| Physical sciences (percent) | 13 | 8 | na |
| Number of SBIR awards, 1999–2004 | 4,462 | 31,847 | 2 |
| Utility patents issued to state residents, 2004 | 3,672 | 84,268 | 5 |
| Gross state product, 2004 (billions of dollars) | 318 | 11,744 | 13 |

na = not applicable.

S&E = science and engineering.

SBIR = small business innovation research.

NOTES: Rankings and totals are based on data for the 50 states, District of Columbia, and Puerto Rico. Reliability of estimates of industry R&D and of doctoral scientists and engineers varies by state, because sample allocation was not based on geography. Rankings do not take into account the margin of error of estimates from sample surveys. Data on doctoral scientists and engineers include only recipients of doctoral degrees from U.S. institutions in S&E and health fields. The field percentages represent the largest three fields within the state.

Federal obligations for research and development, by agency and performer: Massachusetts, FY 2003
(Thousands of dollars)

| Agency | Total | Performer | | | | | State and local government | Rank |
|---|-----------|--------------------|------------|------------------|---------------------------|------------------|----------------------------|------|
| | | Federal intramural | All FFRDCs | Industrial firms | Universities and colleges | Other nonprofits | | |
| All agencies | 5,156,530 | 898,512 | 331,512 | 1,368,269 | 1,251,495 | 1,300,709 | 6,033 | 4 |
| Department of Agriculture | 25,173 | 18,747 | 0 | 0 | 6,270 | 156 | 0 | 30 |
| Department of Commerce | 42,577 | 17,841 | 0 | 17,939 | 6,051 | 691 | 55 | 6 |
| Department of Defense | 1,973,113 | 331,328 | 327,752 | 1,149,596 | 129,775 | 33,327 | 1,335 | 6 |
| Department of Energy | 99,807 | 0 | 0 | 23,196 | 73,731 | 2,880 | 0 | 14 |
| Department of Health and Human Services | 2,475,883 | 454,833 | 0 | 125,561 | 746,179 | 1,147,378 | 1,932 | 2 |
| Department of the Interior | 15,815 | 14,670 | 0 | 0 | 890 | 255 | 0 | 7 |
| Department of Transportation | 58,613 | 42,996 | 3,760 | 7,476 | 1,575 | 425 | 2,381 | 2 |
| Environmental Protection Agency | 14,874 | 269 | 0 | 852 | 7,441 | 6,312 | 0 | 12 |
| National Aeronautics and Space Administration | 190,085 | 17,828 | 0 | 30,541 | 54,639 | 87,048 | 29 | 9 |
| National Science Foundation | 260,590 | 0 | 0 | 13,108 | 224,944 | 22,237 | 301 | 3 |
| Rank | 4 | 6 | 6 | 8 | 6 | 1 | 21 | na |

FFRDC = federally funded research and development center.

na = not applicable.

NOTES: Federal R&D obligations are as reported by funding agencies. Ranks and totals are based on data for the 50 states, District of Columbia, and Puerto Rico.

SOURCES: Prepared by the National Science Foundation/Division of Science Resources Statistics. Data compiled from numerous sources; see the section, Data Sources for Science and Engineering (S&E) State Profiles.