

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, 2005	1,632	27,974	4
Life sciences (%)	27	26	-
Engineering (%)	20	23	-
Social sciences (%)	18	15	-
S&E and health postdoctorates in doctorate-granting institutions, 2005	6,502	48,601	2
S&E and health graduate students in doctorate-granting institutions, 2005	26,387	527,767	4
Population, 2005 (thousands)	6,399	300,322	13
Civilian labor force, 2005 (thousands)	3,364	150,717	13
Personal income per capita, 2005 (dollars)	43,702	34,495	4
Federal spending			
Total expenditures, 2004 (\$millions)	53,120	2,136,440	14
R&D obligations, 2004 (\$millions)	5,325	98,936	4
Total R&D performance, 2004 (\$millions)	15,987	283,439	3
Industry R&D, 2004 (\$millions)	11,819	201,131	3
Academic R&D, 2005 (\$millions)	2,079	45,725	6
Life sciences (%)	50	60	-
Engineering (%)	17	15	-
Physical sciences (%)	12	8	-
SBIR awards, 2000-05	4,497	33,289	2
Utility patents issued to state residents, 2005	3,114	74,630	5
Gross domestic product, 2005 (\$billions)	326	12,492	13

- = no value possible.

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. Rankings are based on unrounded totals. Reliability of estimates 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 2004
(Thousands of dollars)

Agency	Total	Performer					State, local governments	Rank
		Federal intramural	All FFRDCs	Industrial firms	Universities and colleges	Other nonprofits		
All agencies	5,324,808	367,835	467,201	1,888,359	1,359,385	1,205,100	36,928	4
Department of Agriculture	23,788	17,121	0	111	6,121	430	5	32
Department of Commerce	32,551	7,273	0	13,735	10,388	1,155	0	6
Department of Defense	2,408,050	281,421	464,381	1,518,281	112,176	31,791	0	5
Department of Energy	113,072	0	0	23,665	86,226	3,181	0	12
Department of Health and Human Services	2,215,281	1,145	0	208,289	870,725	1,134,105	1,017	3
Department of Homeland Security	20,944	19,308	0	1,312	324	0	0	13
Department of the Interior	10,605	10,314	0	1	290	0	0	11
Department of Transportation	53,228	31,111	2,820	15,233	883	295	2,886	2
Environmental Protection Agency	10,027	142	0	861	4,894	4,016	114	16
National Aeronautics and Space Administration	173,020	0	0	95,696	38,484	5,934	32,906	8
National Science Foundation	264,242	0	0	11,175	228,874	24,193	0	3
Rank	4	11	4	6	5	1	7	-

- = no value possible.

FFRDC = federally funded research and development center.

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.