

Science and Engineering Profile: Massachusetts

Characteristic	State	U.S.	Rank	Characteristic	State	U.S.	Rank
Doctoral scientists, 2001 ¹	26,970	542,940	4	Total R&D performance, 2000 (millions).....	\$13,004	\$244,855	5
Doctoral engineers, 2001 ¹	4,890	112,770	4	Industry R&D, 2000 (millions).....	\$9,863	\$187,544	6
S&E doctorates awarded, 2001 ¹	1,448	25,509	4	Academic R&D, 2001 (millions).....	\$1,577	\$32,716	6
of which, in life sciences.....	25%	26%		of which, in life sciences.....	47%	59%	
in engineering.....	24%	22%		in engineering.....	16%	15%	
in social sciences.....	20%	16%		in physical sciences.....	13%	9%	
S&E postdoctorates, 2001 ¹				Public higher education current-fund			
in doctorate-granting institutions.....	5,544	42,899	2	expenditures, 2000 (millions).....	\$2,149	\$152,068	28
S&E graduate students, 2001 ¹				Number of SBIR awards, 1999-2001.....	1,993	13,650	2
in doctorate-granting institutions.....	23,554	452,411	5	Utility patents issued to state residents, 2001.....	3,667	87,605	6
Population, 2002 (thousands).....	6,428	292,228	13	Gross state product, 2000 (billions).....	\$285	\$10,003	11
Civilian labor force, 2002 (thousands).....	3,486	146,712	13	of which, agriculture.....	1%	1%	
Personal income per capita, 2001.....	\$38,907	\$30,472	3	manufacturing, mining, construction.....	18%	22%	
Federal spending				transportation, communication, utilities.....	6%	8%	
Total expenditures, 2001 (millions).....	\$44,179	\$1,753,011	14	wholesale and retail trade.....	15%	16%	
R&D obligations, 2001 (millions).....	\$4,318	\$78,006	4	finance, insurance, real estate.....	24%	19%	
				services.....	28%	22%	
				government.....	9%	12%	

¹Data on graduate students, doctoral scientists, doctoral engineers, and postdoctorates include all graduate degree (except M.D.) candidates and recipients in S&E fields, including health. Data on S&E doctorates awarded do not include health fields.

NOTES: Rankings and totals are based on data for the 50 States, District of Columbia, and Puerto Rico. Reliability of the estimates of industry R&D and of doctoral scientists and engineers varies by State, because the sample allocation was not based on geography. The rankings do not take into account the margin of error of estimates from sample surveys.

Federal Obligations for Research and Development by Agency and Performer: Massachusetts, Fiscal Year 2001

Agency	Performer							State rank, total
	Total	Federal intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	
	[In thousands of dollars]							
Total, all agencies.....	4,318,139	362,811	366,480	1,365,472	1,109,466	1,105,243	8,667	4
Department of Agriculture.....	27,713	17,298	0	1,110	8,268	1,037	0	28
Department of Commerce.....	25,257	7,222	108	10,188	4,479	1,097	2,163	8
Department of Defense.....	1,997,854	265,442	366,252	1,155,158	177,878	33,124	0	5
Department of Energy.....	79,153	0	0	1,819	72,552	4,782	0	15
Dept. of Health & Human Services.....	1,689,966	1,511	0	117,417	612,625	954,530	3,883	3
Department of the Interior.....	18,362	17,163	0	403	662	134	0	6
Department of Transportation.....	54,700	39,670	120	10,161	2,488	0	2,261	3
Environmental Protection Agency.....	15,435	69	0	1,775	3,768	9,463	360	6
National Aeronautics and Space Admin....	188,163	14,436	0	38,582	51,538	83,607	0	9
National Science Foundation.....	221,536	0	0	28,859	175,208	17,469	0	3
State rank, total.....	4	12	4	5	6	1	13	na

KEY: FFRDC = federally funded research and development center; SBIR = small business innovation research; 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".