

Science and engineering profile: Pennsylvania

Characteristic	State	U.S. total	Rank
Employed SEH doctorate holders, 2006	29,120	620,140	5
S&E doctorates awarded, 2006	1,472	29,854	5
Engineering (%)	27	24	–
Life sciences (%)	23	26	–
Social sciences (%)	13	14	–
SEH postdoctorates in doctorate-granting institutions, 2006	2,530	49,201	5
SEH graduate students in doctorate-granting institutions, 2006	24,031	542,073	7
Population, 2007 (thousands)	12,433	305,563	6
Civilian labor force, 2007 (thousands)	6,287	154,046	6
Personal income per capita, 2006 (\$)	36,689	36,629	20
Federal spending			
Total expenditures, 2005 (\$millions)	99,503	2,260,098	5
R&D obligations, 2005 (\$millions)	3,235	106,845	10
Total R&D performance, 2005 (\$millions)	11,916	310,194	9
Industry R&D, 2005 (\$millions)	8,846	222,427	9
Academic R&D, 2006 (\$millions)	2,428	47,735	5
Life sciences (%)	60	60	–
Engineering (%)	17	15	–
Math and computer sciences (%)	8	4	–
SBIR awards, 2000–06	1,449	38,825	9
Utility patents issued to state residents, 2006	2,842	89,820	10
Gross domestic product, 2006 (\$billions)	510	13,235	6

– = no value possible.

S&E = science and engineering; SEH = science, engineering, and health; 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; they do not account for margin of error of estimates from sample surveys. Employed SEH doctorate holders include only recipients of U.S. doctoral degrees. State estimates for employed SEH doctorate holders may have large sampling errors because the source for these data, the Survey of Doctorate Recipients, was not designed to provide a sample for estimates at the state level; these data are classified by the state where the doctorate holder resides, if known; otherwise, data are classified by employer's location.

Federal obligations for research and development, by agency and performer: Pennsylvania, FY 2005
(Thousands of dollars)

Agency	Total	Performer					Rank	
		Federal intramural	All FFRDCs	Industrial firms	Universities and colleges	Other nonprofits		State, local governments
All agencies	3,234,522	202,500	22,565	1,053,371	1,498,846	451,510	5,730	10
Department of Agriculture	66,835	48,884	0	0	16,993	928	30	8
Department of Commerce	7,924	23	0	3,238	4,658	5	0	20
Department of Defense	1,082,141	79,113	22,565	657,464	195,680	127,319	0	16
Department of Energy	430,617	56,503	0	335,132	35,834	3,148	0	6
Department of Health and Human Services	1,425,128	10,775	0	42,798	1,062,159	304,222	5,174	5
Department of Homeland Security	5,973	3,582	0	479	1,912	0	0	21
Department of the Interior	3,525	3,043	0	141	270	0	71	28
Department of Transportation	1,277	577	0	485	215	0	0	24
Environmental Protection Agency	2,631	0	0	70	1,273	1,206	82	23
National Aeronautics and Space Administration	39,604	0	0	11,711	27,520	0	373	15
National Science Foundation	168,867	0	0	1,853	152,332	14,682	0	5
Rank	10	20	15	13	3	3	19	–

– = no value possible.

FFRDC = federally funded research and development center.

NOTES: Federal R&D obligations are as reported by funding agencies. Rankings 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 State Profiles".