

Science and engineering profile: California

Characteristic	State	U.S.	Rank	Characteristic	State	U.S.	Rank
Doctoral scientists, 2001	70,650	542,940	1	Total R&D performance, 2002 (millions of dollars)	51,388	255,707	1
Doctoral engineers, 2001	21,040	112,760	1	Industry R&D, 2002 (millions of dollars)	39,664	182,403	1
S&E doctorates awarded, 2002	3,232	24,558	1	Academic R&D, 2002 (millions of dollars)	4,882	36,314	1
life sciences (percent)	22	27	na	life sciences (percent)	58	59	na
engineering (percent)	21	21	na	engineering (percent)	13	15	na
social sciences (percent)	17	16	na	physical sciences (percent)	11	8	na
S&E postdoctorates, 2002				Public higher education current-fund expenditures, 2001 (millions of dollars)	22,675	170,024	1
in doctorate-granting institutions	7,299	45,171	1	Number of SBIR awards, 1999-2002	3,923	19,383	1
S&E graduate students, 2002				Utility patents issued to state residents, 2002	18,829	86,971	1
in doctorate-granting institutions	48,044	482,211	1	Gross state product, 2001 (billions of dollars)	1,359	10,206	1
Population, 2003 (thousands)	35,484	294,688	1	agriculture (percent)	2	1	na
Civilian labor force, 2003 (thousands)	17,460	147,569	1	manufacturing, mining, construction (percent)	17	20	na
Personal income per capita, 2003 (dollars)	33,749	31,632	11	transportation, communication, utilities (percent)	7	8	na
Federal spending				wholesale and retail trade (percent)	16	16	na
Total expenditures, 2002 (millions of dollars)	206,401	1,896,317	1	finance, insurance, real estate (percent)	23	20	na
R&D obligations, 2002 (millions of dollars)	15,686	83,764	1	services (percent)	24	22	na
				government (percent)	11	12	na

na = not applicable.

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 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.

Data 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 fields.

Data on S&E doctorates awarded do not include health fields.

Federal obligations for research and development by agency and performer: California, fiscal year 2002

(Thousands of dollars)

Agency	Performer							Rank
	Total	Federal intramural	All FFRDCs	Industrial firms	Universities and colleges	Other nonprofits	State and local government	
All agencies	15,686,055	2,611,075	2,682,173	6,697,037	2,849,449	821,157	25,164	1
Department of Agriculture	115,099	78,612	0	541	34,927	833	186	3
Department of Commerce	85,030	36,354	588	36,347	10,844	516	381	3
Department of Defense	7,915,109	1,618,597	243,637	5,680,787	323,792	48,296	0	1
Department of Energy	1,306,156	9,809	1,091,931	61,970	122,864	19,310	272	2
Department of Health and Human Services	3,105,359	548,672	42,092	160,171	1,693,959	653,946	6,519	1
Department of the Interior	99,459	90,669	0	1,955	5,865	377	593	1
Department of Transportation	27,535	5,091	50	4,732	3,281	20	14,361	6
Environmental Protection Agency	15,768	181	0	1,221	12,612	1,139	615	5
National Aeronautics and Space Administration	2,492,779	223,024	1,303,480	724,837	182,244	56,957	2,237	1
National Science Foundation	523,761	66	395	24,476	459,061	39,763	0	1
Rank	1	2	1	1	1	2	2	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.