

## Arizona

Science and Engineering Profile							
Characteristic	State	U.S.	Rank	Characteristic	State	U.S.	Rank
Doctoral scientists, 1999 <sup>1</sup>	6,320	518,670	26	Total R&D performance, 1998 (millions).....	\$2,318	\$214,668	25
Doctoral engineers, 1999 <sup>1</sup>	1,830	107,100	18	Industry R&D, 1998 (millions).....	\$1,727	\$163,480	22
S&E doctorates awarded, 1999 <sup>1</sup>	445	25,953	19	Academic R&D, 1998 (millions).....	\$406	\$25,342	20
of which, in life sciences.....	24%	25%		of which, in life sciences.....	42%	57%	
in engineering.....	21%	21%		in physical sciences.....	23%	9%	
in social sciences.....	18%	16%		in engineering.....	19%	16%	
S&E postdoctorates, 1998 <sup>1</sup>				Public higher education current-fund expenditures, 1997 (millions).....	\$2,071	\$125,236	23
in doctorate-granting institutions.....	571	39,494	20	Number of SBIR awards, 1990-98.....	614	35,413	16
S&E graduate students, 1998 <sup>1</sup>				Patents issued to state residents, 1999.....	1,497	83,901	18
in doctorate-granting institutions.....	7,322	422,834	19	Gross state product, 1998 (billions).....	\$134	\$8,800	23
Population, 1999 (thousands).....	4,778	276,580	20	of which, agriculture.....	2%	1%	
Civilian labor force, 1999 (thousands).....	2,364	140,536	21	manufacturing, mining, construction.....	22%	22%	
Personal income per capita, 1999.....	\$25,189	\$28,542	36	transportation, communication, utilities.....	8%	9%	
Federal spending				wholesale and retail trade.....	17%	16%	
Total expenditures, 1999 (millions).....	\$26,959	\$1,508,933	19	finance, insurance, real estate.....	19%	19%	
R&D obligations, 1998 (millions).....	\$986	\$70,445	18	services.....	21%	21%	
				government.....	12%	12%	

NOTE: 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.

<sup>1</sup>Data on graduate students, doctoral scientists and 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: Fiscal Year 1998								
Agency	Performer							
	Total	Federal Intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank, total
	[In thousands of dollars]							
Total, all agencies.....	985,734	138,493	36,485	636,632	159,883	7,777	6,464	18
Department of Agriculture.....	21,817	15,904	0	0	5,872	41	0	24
Department of Commerce.....	2,059	114	0	901	1,044	0	0	34
Department of Defense.....	726,497	101,853	0	600,739	21,296	9	2,600	12
Department of Energy.....	4,017	0	0	0	4,017	0	0	37
Dept. of Health & Human Services.....	84,299	4,830	0	3,533	67,961	6,149	1,826	27
Department of the Interior.....	11,984	10,780	0	47	1,015	7	135	14
Department of Transportation.....	1,753	0	0	25	25	0	1,703	37
Environmental Protection Agency.....	2,512	0	0	212	2,300	0	0	28
National Aeronautics and Space Admin.....	56,587	5,012	0	29,150	20,867	1,358	200	15
National Science Foundation.....	74,209	0	36,485	2,025	35,486	213	0	9
State rank, total.....	18	18	14	13	25	31	12	na

NOTE: 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.

KEY: FFRDC = federally funded research and development center; SBIR = small business innovation research; na = not applicable.

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