

TABLE 28. Funds for industrial R&D performance in the United States as a percent of net sales of companies that performed industrial R&D in the United States, by industry and size of company, ranked by size of R&D program: 2002

Industry and size of company	NAICS codes	All R&D funds			R&D funds as a percent of net sales		
		First 4	Next 4	Next 12	First 4	Next 4	Next 12
		companies	companies	companies	companies	companies	companies
		Millions of dollars			Percent		
Distribution by industry:							
All industries	21-23, 31-33, 42, 44-81	19,130	12,500	23,697	12.5	6.0	6.1
Manufacturing	31-33	16,860	9,897	17,886	6.5	5.1	6.9
Food	311	971	305	357	1.3	0.8	0.4
Beverage and tobacco products	312	124	33	4	0.5	0.8	0.2
Textiles, apparel, and leather	313-16	67	41 (S)	64	0.9	2.0	1.3
Wood products	321	98	12	11	1.3	0.3	0.2
Paper, printing and support activities	322, 323	2,132	187	176	3.6	0.8	0.2
Petroleum and coal products	324	1,093	124	10	0.5	0.1	0.5
Chemicals	325	6,391	4,278	4,704	8.9	10.8	8.8
Basic chemicals	3251	467	288	501	2.6	5.5	3.9
Resin, synthetic rubber, fibers, and filament	3252	1,974	269	138	5.6	2.9	1.2
Pharmaceuticals and medicines	3254	6,391	3,905	2,566	8.9	12.1	10.0
Other chemicals	325 minus (3251-52, 3254)	1,204	236 (S)	316	6.4	2.7	1.9
Plastics and rubber products	326	553	148	251	3.4	1.8	2.4
Nonmetallic mineral products	327	197	82	84	1.6	1.9	1.2
Primary metals	331	276	57	84	1.2	0.4	0.4
Fabricated metal products	332	430	169	222	2.5	3.0	1.1
Machinery	333	2,077	736	1,046	9.7	4.9	3.7
Computer and electronic products	334	11,787	3,918	6,235	17.5	9.8	8.0
Computers and peripheral equipment	3341	1,783	427	337	5.7	24.4	12.4
Communications equipment	3342	4,081	616	765	16.0	11.6	8.4
Semiconductor and other electronic components	3344	5,789	1,696 (S)	1,927	14.5	6.9	23.2
Navigational, measuring, electromedical, and control instruments	3345	7,334	2,291	2,016	14.2	12.7	12.4
Other computer and electronic products	334 minus (3341-42, 3344-45)	308	68	47	5.4	11.0	5.6
Electrical equipment, appliances, and components	335	560	287	376	2.6	4.0	3.0
Transportation equipment	336	13,806	6,179	3,739	3.7	4.2	4.6
Motor vehicles, trailers, and parts	3361-63	12,894	836	758	3.8	3.1	1.2
Aerospace products and parts	3364	7,091	1,796	689	4.0	4.3	7.2
Other transportation equipment	336 minus (3361-64)	997	127	69	6.3	1.8	1.2
Furniture and related products	337	113	48	35	0.9	0.8	0.9
Miscellaneous manufacturing	339	4,187	717	779	12.9	10.1	5.4
Medical equipment and supplies	3391	4,187	666	470	12.9	12.2	6.6
Other miscellaneous manufacturing	339 minus (3391)	398	197	156	4.4	5.4	3.1
Other manufacturing	31-33 minus (311-16, 321-27, 331-37, 339)	--	--	--	--	--	--
Nonmanufacturing	21-23, 42, 44-81	14,771	6,234	9,231	14.4	25.1	14.8
Mining, extraction, and support activities	21	625	45	40	4.7	0.8	1.2
Utilities	22	61	18 (S)	25	0.2	0.1	-
Construction	23	115	16	13	1.1	0.9	0.1
Trade	42, 44, 45	11,262	3,104	3,625	11.3	12.4	15.6
Transportation and warehousing	48, 49	263	14	4	0.6	0.1	-
Information	51	7,397	1,185	2,164	19.1	1.8	3.2

TABLE 28. Funds for industrial R&D performance in the United States as a percent of net sales of companies that performed industrial R&D in the United States, by industry and size of company, ranked by size of R&D program: 2002

Industry and size of company	NAICS codes	All R&D funds			R&D funds as a percent of net sales		
		First 4	Next 4	Next 12	First 4	Next 4	Next 12
		companies	companies	companies	companies	companies	companies
		Millions of dollars			Percent		
Distribution by industry:							
Publishing	511	6,537	988	1,882	23.9	22.2	12.4
Newspaper, periodical, book, and database	5111	512	60	28	4.1	3.1	0.4
Software	5112	6,537	988	1,758	23.9	22.2	23.4
Broadcasting and telecommunications	513	625 (S)	134 (S)	108	0.4	0.4	0.3
Radio and television broadcasting	5131	(z)	-	-	0.1	-	-
Telecommunications	5133	625 (S)	(D)	90	0.4	0.4	0.3
Other broadcasting and telecommunications	513 minus (5131, 5133)	20 (S)	(D)	-	7.0	0.3	-
Other information	51 minus (511, 513)	1,485	228	258	10.0	0.9	6.6
Finance, insurance, and real estate	52, 53	610	253	334	1.0	0.6	0.5
Professional, scientific, and technical services	54	6,178	2,145	2,252	30.4	87.1	51.4
Architectural, engineering, and related services	5413	1,138	335	542	40.4	38.3	16.3
Computer systems design and related services	5415	5,353	632	971	37.7	27.7	7.9
Scientific R&D services	5417	2,645	749	1,293	28.5	260.1	96.6
Other professional, scientific, and technical services	54 minus (5413, 5415, 5417)	335	125 (S)	94	3.8	13.3	1.0
Management of companies and enterprises	55	96	10	(z)	10.3	7.8	0.3
Health care services	621-23	387	48	47 (S)	4.7	15.5	0.5
Other nonmanufacturing	56, 61, 624, 71, 72, 81	299	124	163	3.1	4.1	2.5
Distribution by size of company (number of employees):							
Total	(na)	19,130	12,500	23,697	12.5	6.0	6.1
5 to 24	(na)	60	22 (S)	50	431.2	117.8	17.6
25 to 49	(na)	90	54	128	102.4	185.5	182.1
50 to 99	(na)	153	102	216	149.2	291.4	139.5
100 to 249	(na)	330	266	607	471.8	121.9	191.6
250 to 499	(na)	540	339	740	167.8	89.0	17.7
500 to 999	(na)	769	596	1,134	115.9	74.5	36.6
1,000 to 4,999	(na)	2,193	1,599	3,361	53.3	22.4	27.6
5,000 to 9,999	(na)	3,988	2,474	4,808	30.8	22.3	13.2
10,000 to 24,999	(na)	7,961	3,918	6,405	18.8	13.3	7.4
25,000 or more	(na)	19,130	12,070	21,583	12.5	5.7	5.5

(D) = data have been withheld to avoid disclosing operations of individual companies; (S) = indicates imputation of more than 50 percent; (z) = indicates data less than half the unit shown; (-) = indicates data not collected; (-) = indicates a value of zero or a value rounded to zero; (na) = not applicable.

NOTES: Excludes data for federally funded research and development centers. Rankings were based on total (company, federal, and other) R&D funds. For information on sampling for 2002, see appendix A, Technical Notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2002