

Appendix table 4-20

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Company and other non-Federal funds for industrial R&D performance in United States, by industry and size of company: 1999–2001

(Millions of dollars)

Industry and size of company	NAICS codes	Funds		
		1999 ^a	2000	2001
All industries.....	21–23, 31–33, 42, 44–81	160,176	180,421	181,606
Manufacturing.....	31–33	99,865	110,750	109,221
Food.....	311	1,132	1,145	1,818
Beverage and tobacco products.....	312	D	417	152
Textiles, apparel, and leather.....	313–16	334	266	255
Wood products.....	321	70	105	181
Paper, printing, and support activities.....	322, 323	2,474	2,700	2,664
Petroleum and coal products.....	324	D	1,172	1,057
Chemicals.....	325	20,051	20,768	17,713
Basic chemicals.....	3251	2,648	2,050	1,835
Resin, synthetic rubber, fibers, and filament.....	3252	2,216	2,842	2,745
Pharmaceuticals and medicines.....	3254	12,236	12,793	10,137
Other chemicals.....	325 minus (3251–52, 3254)	2,951	3,084	2,996
Plastics and rubber products.....	326	1,785	1,675	2,245
Nonmetallic mineral products.....	327	595	845	978
Primary metals.....	331	457	598	479
Fabricated metal products.....	332	1,608	1,631	1,545
Machinery.....	333	5,658	6,539	6,337
Computer and electronic products.....	334	29,939	39,553	41,232
Computers and peripheral equipment.....	3341	4,126	5,162	3,165
Communications equipment.....	3342	5,797	11,183	15,209
Semiconductor and other electronic components.....	3344	10,624	12,787	14,210
Navigational, measuring, electromedical, and control instruments.....	3345	8,632	10,114	7,565
Other computer and electronic products.....	334 minus (3341–42, 3344–45)	760	307	1,083
Electrical equipment, appliances, and components.....	335	3,820	3,390	4,680
Transportation equipment.....	336	23,928	22,917	21,004
Motor vehicles, trailers, and parts.....	3361–63	17,987	18,306	16,089
Aerospace products and parts.....	3364	5,309	3,895	4,083
Other transportation equipment.....	336 minus (3361–64)	632	716	825
Furniture and related products.....	337	248	284	301
Miscellaneous manufacturing.....	339	3,825	4,195	6,581
Medical equipment and supplies.....	3391	3,251	3,741	5,903
Other miscellaneous manufacturing.....	339 minus (3391)	574	453	678
Other manufacturing.....	31–33 minus (311–16, 321–27, 331–37, 339)	—	—	—
Nonmanufacturing.....	21–23, 42, 44–81	60,311	69,671	72,384
Mining, extraction, and support activities.....	21	2,352	822	846
Utilities.....	22	126	136	114
Construction.....	23	690	222	320
Trade.....	42, 44, 45	19,521	24,929	24,284
Transportation and warehousing.....	48, 49	460	277	1,776
Information.....	51	14,892	16,290	17,259
Publishing.....	511	11,253	12,926	13,716
Newspaper, periodical, book, and database.....	5111	371	365	649
Software.....	5112	10,882	12,561	13,067
Broadcasting and telecommunications.....	513	1,393	1,025	1,270
Radio and television broadcasting.....	5131	D	D	D
Telecommunications.....	5133	D	D	1,101
Other broadcasting and telecommunications.....	513 minus (5131, 5133)	18	59	D
Other information.....	51 minus (511, 513)	2,246	2,339	2,273
Finance, insurance, and real estate.....	52, 53	1,570	4,024	2,424
Professional, scientific, and technical services.....	54	14,379	17,949	22,640
Architectural, engineering, and related services.....	5413	2,402	2,232	2,365
Computer systems design and related services.....	5415	3,989	4,943	8,656
Scientific R&D services.....	5417	7,413	9,715	10,893
Other professional, scientific, and technical services.....	54 minus (5413, 5415, 5417)	575	1,059	726

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(Millions of dollars)

Industry and size of company	NAICS codes	Funds		
		1999 ^a	2000	2001
Management of companies and enterprises	55	72	49	381
Health care services	621–23	631	477	1,120
Other nonmanufacturing	56, 61, 624, 71, 72, 81	640	713	1,221
Company size (employees)				
All companies	na	160,176	180,421	181,606
5–24	na	6,393	5,940	4,175
25–49	na	4,382	4,786	3,548
50–99	na	6,623	6,745	7,654
100–249	na	6,540	8,351	12,012
250–499	na	7,407	6,819	8,143
500–999	na	6,441	8,580	9,936
1,000–4,999	na	23,944	29,860	26,140
5,000–9,999	na	14,182	15,143	15,836
10,000–24,999	na	24,525	27,976	26,161
25,000 or more	na	59,740	66,221	68,001

— data not collected; D data have been withheld to avoid disclosing operations of individual companies; NAICS North American Industry Classification System; S imputation of more than 50 percent
na not applicable

^aSome statistics for 1999 have been revised since originally published.

NOTES: R&D in this table is the industrial R&D performed within company facilities funded from all sources except the Federal Government. Funds predominantly are the company's own but also include funds from outside organizations, such as other companies, research institutions, universities and colleges, nonprofit organizations, and state governments. Excluded from this table are company-funded R&D not performed within the company (e.g., R&D contracted out to other organizations) and company-funded R&D not performed in the United States (e.g., R&D not performed on U.S. soil by foreign subsidiaries or other foreign organizations).

For 1999, 2000, and 2001, the frame from which statistical samples were selected was divided into two partitions based on total company employment. In the manufacturing sector, companies with 50 or more employees were included in the large company partition. In the nonmanufacturing sector, companies with 15 or more employees were included in the large company partition. Companies in the respective sectors with employment below these values but with at least 5 employees were included in the small company partition. The purpose of partitioning the sample in this way was to reduce variability in industry estimates largely attributed to random year-to-year selection of small companies by industry and high sampling weights that sometimes were assigned to them. Because of this, in prior reports detailed industry statistics were published from only the large company partition. Statistics from the small company partition were included in the manufacturing, nonmanufacturing, and all industries totals but were aggregated into "small manufacturing" and "small nonmanufacturing" classifications instead of being included in their respective industry classifications. For this report, this practice was evaluated and discontinued because it was determined that data for small companies are more useful if they are included in their respective industries even given sampling concerns described above. Consequently, the "small manufacturing" and "small nonmanufacturing" stublines are no longer used. For 1999 and 2000, statistics previously published for firms in the small company classifications are not shown separately in this table but are included in the manufacturing, nonmanufacturing, and all industries totals. For more information, see the technical notes in National Science Foundation, Division of Science Resources Statistics, Survey of Industrial Research and Development Methodology: 2001, <http://www.nsf.gov/sbe/srs/sird/start.htm>.

SOURCE: National Science Foundation, Division of Science Resources Statistics, *Research and Development in Industry: 2001* (Arlington, VA, forthcoming).

Science & Engineering Indicators – 2004