

Appendix table 4-21

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**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 <sup>a</sup>	2000	2001 <sup>b</sup>
All industries.....	21–23, 31–33, 42, 44–81	22,535	19,118	16,899
Manufacturing.....	31–33	17,055	13,328	11,484
Food.....	311	0	D	0
Beverage and tobacco products.....	312	0	0	0
Textiles, apparel, and leather.....	313–16	0	D	D
Wood products.....	321	0	0	0
Paper, printing, and support activities.....	322, 323	D	D	D
Petroleum and coal products.....	324	D	D	D
Chemicals.....	325	194	150	180
Basic chemicals.....	3251	98	31	42
Resin, synthetic rubber, fibers, and filament.....	3252	D	11	D
Pharmaceuticals and medicines.....	3254	D	D	0
Other chemicals.....	325 minus (3251–52, 3254)	D	D	D
Plastics and rubber products.....	326	0	D	D
Nonmetallic mineral products.....	327	D	1	11
Primary metals.....	331	12	26 S	6
Fabricated metal products.....	332	46	41	54
Machinery.....	333	399 S	41	67
Computer and electronic products.....	334	5,993	5,544	5,848
Computers and peripheral equipment.....	3341	D	0	D
Communications equipment.....	3342	206	432	298
Semiconductor and other electronic components.....	3344	77	107	148
Navigational, measuring, electromedical, and control instruments.....	3345	5,705	5,002	5,382
Other computer and electronic products.....	334 minus (3341–42, 3344–45)	D	3	D
Electrical equipment, appliances, and components.....	335	D	D	301S
Transportation equipment.....	336	10,037	7,168	4,961
Motor vehicles, trailers, and parts.....	3361–63	D	D	D
Aerospace products and parts.....	3364	9,117	6,424	3,785
Other transportation equipment.....	336 minus (3361–64)	D	D	D
Furniture and related products.....	337	0	0	0
Miscellaneous manufacturing.....	339	26	12	25
Medical equipment and supplies.....	3391	D	D	D
Other miscellaneous manufacturing.....	339 minus (3391)	D	D	D
Other manufacturing.....	31–33 minus (311–16, 321–27, 331–37, 339)	—	—	—
Nonmanufacturing.....	21–23, 42, 44–81	5,479	5,790	5,415
Mining, extraction, and support activities.....	21	D	1	D
Utilities.....	22	17	D	19
Construction.....	23	2	D	1
Trade.....	42, 44, 45	95	30	88
Transportation and warehousing.....	48, 49	0	D	72
Information.....	51	497	540 S	D
Publishing.....	511	49	78	44
Newspaper, periodical, book, and database.....	5111	0	0	0
Software.....	5112	49	78	44
Broadcasting and telecommunications.....	513	D	382 S	D
Radio and television broadcasting.....	5131	D	D	0
Telecommunications.....	5133	D	D	D
Other broadcasting and telecommunications.....	513 minus (5131, 5133)	13	0	0
Other information.....	51 minus (511, 513)	D	81	D
Finance, insurance, and real estate.....	52, 53	D	0	D
Professional, scientific, and technical services.....	54	4,615	4,628	5,065
Architectural, engineering, and related services.....	5413	1,177	1,149	1,021
Computer systems design and related services.....	5415	D	226	498
Scientific R&D services.....	5417	3,057	3,177	3,352
Other professional, scientific, and technical services.....	54 minus (5413, 5415, 5417)	D	77	194

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(Millions of dollars)

Industry and size of company	NAICS codes	Funds		
		1999 <sup>a</sup>	2000	2001 <sup>b</sup>
Management of companies and enterprises .....	55	D	0	0
Health care services .....	621–23	10	59	29
Other nonmanufacturing .....	56, 61, 624, 71, 72, 81	D	18	38
Company size (employees)				
All companies .....	na	22,535	19,118	16,899
5 to 24 .....	na	611	922	653
25 to 49 .....	na	368	222	201
50 to 99 .....	na	603	514	548
100 to 249 .....	na	674	669	903
250 to 499 .....	na	485	660	560
500 to 999 .....	na	591	495	627
1,000 to 4,999 .....	na	896	775	608
5,000 to 9,999 .....	na	2,194	1,625	1,651
10,000 to 24,999 .....	na	397	678	904
25,000 or more .....	na	15,717	12,559	10,243

— 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

<sup>a</sup>Some statistics for 1999 have been revised since originally published.

<sup>b</sup>Beginning with 2001, statistics for total and federally funded industrial R&D exclude data for federally funded research and development centers.

NOTES: R&D in this table is the industrial R&D performed within company facilities funded by the Federal Government. Excluded from this table are R&D not performed within the company (e.g., R&D contracted out to other organizations) and 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).

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