

TABLE 38. Full-time equivalent R&D scientists and engineers per 1,000 employees in companies performing industrial R&D in the United States, by industry and company size: 2004

Industry and company size	NAICS codes	Per 1,000 employees
All industries	21–23, 31–33, 42, 44–81	71.0
Manufacturing industries	31–33	75.0
Food	311	13.0
Beverage and tobacco products	312	46.0 i
Textiles, apparel, and leather	313–16	54.0
Wood products	321	D
Paper, printing, and support activities	322, 323	D
Petroleum and coal products	324	D
Chemicals	325	111.0
Basic chemicals	3251	62.0
Resin, synthetic rubber, fibers, and filament	3252	94.0
Pharmaceuticals and medicines	3254	173.0
Other chemicals	other 325	54.0
Plastics and rubber products	326	29.0
Nonmetallic mineral products	327	34.0 i
Primary metals	331	16.0 i
Fabricated metal products	332	26.0
Machinery	333	83.0
Computer and electronic products	334	198.0
Computers and peripheral equipment	3341	179.0
Communications equipment	3342	213.0
Semiconductor and other electronic components	3344	245.0
Navigational, measuring, electromedical, and control instruments	3345	169.0 i
Other computer and electronic products	other 334	111.0
Electrical equipment, appliances, and components	335	51.0
Transportation equipment	336	70.0
Motor vehicles, trailers, and parts	3361–63	D
Aerospace products and parts	3364	60.0
Other transportation equipment	other 336	D
Furniture and related products	337	10.0
Miscellaneous manufacturing	339	56.0
Medical equipment and supplies	3391	61.0
Other miscellaneous manufacturing	other 339	48.0
Nonmanufacturing industries	21–23, 42, 44–81	64.0
Mining, extraction, and support activities	21	D
Utilities	22	3.0
Construction	23	D
Wholesale trade	42	59.0
Retail trade	44, 45	15.0
Transportation and warehousing	48, 49	D
Information	51	103.0
Publishing	511	278.0
Newspaper, periodical, book, and database	5111	49.0
Software	5112	379.0
Broadcasting and telecommunications	513	17.0 i
Telecommunications	5133	D
Other broadcasting and telecommunications	other 513	D
Other information	other 51	107.0
Finance, insurance, and real estate	52, 53	23.0
Professional, scientific, and technical services	54	153.0
Architectural, engineering, and related services	5413	223.0
Computer systems design and related services	5415	134.0
Scientific R&D services	5417	218.0
Other professional, scientific, and technical services	other 54	72.0 i
Health care services	621–23	45.0 i
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	27.0

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Industry and company size	NAICS codes	Per 1,000 employees
Company size (employees)		
All companies	-	71.0
5-24	-	157.0
25-49	-	163.0
50-99	-	98.0
100-249	-	89.0
250-499	-	83.0
500-999	-	88.0
1,000-4,999	-	72.0
5,000-9,999	-	71.0
10,000-24,999	-	86.0
25,000 or more	-	52.0

D = suppressed to avoid disclosure of confidential data.

i = more than 50% of the value is imputed.

- = not applicable.

^a Estimates for management of companies and enterprises (NAICS 55), formerly shown separately, now are included in other nonmanufacturing.

NOTES: The method used to assign industry classifications has changed; industry-specific estimates for 2004 are not directly comparable with those for previous years. Excludes federally funded research and development centers. The number of full-time-equivalent R&D scientist and engineers used to estimate the cost per R&D scientist or engineer is the arithmetic mean of the numbers of R&D scientist and engineers reported for January 2004 and January 2005. This number is then divided into the total R&D expenditures for 2004, and the ratio is attributed to 2004. Data recorded in January represent employment for the previous year. For definitions and more information about year-to-year comparability of the statistics, see technical notes and survey methodology.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2004.