

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	All R&D			Basic research			Applied research		
		Total	Company funded	Federally funded	Total	Company funded	Federally funded	Total	Company funded	Federally funded
All industries	21-23, 31-33, 42, 44-81	0.8	0.9	2.1	10.6	6.5	37.4	5.4	6.0	10.7
Manufacturing industries	31-33	0.6	0.7	0.8	9.9	6.0	47.5	4.9	5.3	25.6
Food	311	1.3	1.3	0.0	0.5	0.5	0.0	1.2	1.2	0.0
Beverage and tobacco products	312	0.4	0.4	0.0	0.1	0.1	0.0	0.5	0.5	0.0
Textiles, apparel, and leather	313-16	14.9	15.1	0.0	4.1	4.3	0.0	4.8	5.5	0.0
Wood products	321	0.9	0.9	0.0	2.7	2.7	0.0	0.6	0.6	0.0
Paper, printing, and support activities	322, 323	1.3	1.3	0.0	7.2	7.2	0.0	6.8	6.8	0.0
Petroleum and coal products	324	3.5	3.5	0.0	3.5	3.5	0.0	3.5	3.5	0.0
Chemicals	325	1.8	1.8	32.1	6.1	6.1	5.1	5.3	5.3	46.5
Basic chemicals	3251	0.2	0.2	0.3	0.2	0.2	0.9	0.2	0.2	0.5
Resin, synthetic rubber, fibers, and filament	3252	0.5	0.5	0.5	0.4	0.4	8.7	0.2	0.2	1.3
Pharmaceuticals and medicines	3254	2.0	2.0	44.8	1.7	1.7	6.4	2.5	2.2	59.4
Other chemicals	other 325	0.9	0.9	0.1	2.1	2.1	0.0	0.9	0.9	0.3
Plastics and rubber products	326	6.3	6.4	1.0	1.7	1.6	44.4	1.8	1.8	1.3
Nonmetallic mineral products	327	7.3	7.4	1.2	0.9	0.9	0.0	20.6	20.7	3.6
Primary metals	331	4.5	4.5	0.2	2.1	2.1	72.6	2.8	2.8	0.0
Fabricated metal products	332	7.7	8.3	0.3	24.0	24.0	0.0	14.3	16.4	2.2
Machinery	333	1.0	1.0	1.5	5.3	5.3	0.0	3.1	3.2	2.1
Computer and electronic products	334	0.7	0.8	1.0	6.6	9.9	8.8	3.1	3.2	11.4
Computers and peripheral equipment	3341	0.2	0.2	0.1	0.1	0.2	0.4	1.5	1.6	0.4
Communications equipment	3342	3.1	3.2	1.8	1.3	1.4	0.0	6.1	6.4	1.4
Semiconductor and other electronic components	3344	0.5	0.5	3.3	1.3	1.3	2.4	0.4	0.4	1.4
Navigational, measuring, electromedical, and control instruments	3345	0.9	1.3	1.1	6.8	3.3	9.1	5.1	3.8	13.2
Other computer and electronic products	other 334	0.3	0.3	0.0	0.2	0.2	0.0	2.0	2.0	0.0
Electrical equipment, appliances, and components	335	6.1	6.3	5.3	5.3	5.4	0.7	14.7	14.8	0.7
Transportation equipment	336	0.3	0.4	0.1	3.1	6.4	0.0	10.5	18.0	0.4
Motor vehicles, trailers, and parts	3361-63	0.7	0.7	3.5	0.8	0.9	1.3	1.3	1.3	1.3
Aerospace products and parts	3364	0.1	0.1	0.2	0.0	0.0	0.0	0.3	0.1	0.5
Other transportation equipment	other 336	1.0	3.3	0.0	0.1	0.6	0.0	0.4	0.6	0.0
Furniture and related products	337	1.6	1.6	96.6	4.2	4.2	0.0	2.3	2.3	96.6
Miscellaneous manufacturing	339	6.0	6.0	51.1	16.4	16.7	0.0	33.3	34.3	79.9
Medical equipment and supplies	3391	7.4	7.4	56.4	3.8	3.8	0.0	36.0	37.2	81.4
Other miscellaneous manufacturing	other 339	4.8	4.9	4.8	47.2	52.6	0.0	9.4	9.4	0.0

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(Percent)

Industry and company size	NAICS codes	All R&D			Basic research			Applied research		
		Total	Company funded	Federally funded	Total	Company funded	Federally funded	Total	Company funded	Federally funded
Nonmanufacturing industries	21–23, 42, 44–81	2.3	2.5	6.5	11.2	12.4	24.2	8.4	10.8	4.2
Mining, extraction, and support activities	21	6.2	6.2	0.0	12.8	12.8	0.0	3.5	3.5	0.0
Utilities	22	2.0	2.3	0.0	0.3	0.4	0.0	10.7	11.7	0.0
Construction	23	30.5	31.2	0.0	46.1	59.4	0.0	53.6	56.2	0.0
Wholesale trade	42	10.2	10.3	2.1	1.2	1.2	10.8	9.8	10.1	0.7
Retail trade	44, 45	18.8	18.6	99.8	34.4	34.4	0.0	62.3	61.5	99.8
Transportation and warehousing	48, 49	0.3	0.3	0.0	0.1	0.1	0.0	2.3	2.4	0.0
Information	51	0.5	0.5	0.6	3.5	3.6	32.9	2.6	2.6	16.0
Publishing	511	0.3	0.3	7.2	5.2	5.2	32.9	1.1	1.1	17.9
Newspaper, periodical, book, and directory	5111	1.4	1.4	0.0	0.1	0.1	0.0	11.0	11.2	0.0
Software	5112	0.3	0.3	7.4	5.4	5.4	32.9	1.1	1.1	19.2
Telecommunications	517	3.4	3.4	0.0	0.0	0.0	0.0	2.3	2.3	0.0
Wired and wireless (except satellite)										
telecommunications carriers	5171, 5172	3.5	3.5	0.0	0.0	0.0	0.0	1.0	1.0	0.0
Satellite telecommunications	5174	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other telecommunications	other 517	8.9	8.9	0.0	0.2	0.2	0.0	17.0	17.0	0.0
Internet service providers, Web search portals, and data-processing services	518	1.1	1.2	0.0	47.9	47.9	0.0	9.3	9.3	0.0
Internet service providers and Web search portals	5181	0.4	0.4	0.0	83.0	83.0	0.0	5.7	5.7	0.0
Data-processing, hosting, and related services	5182	2.4	2.7	0.0	33.2	33.2	0.0	10.0	10.1	0.0
Other information	other 51	11.5	11.5	0.0	72.6	72.6	0.0	37.9	37.9	0.0
Finance, insurance, and real estate	52, 53	1.0	1.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Professional, scientific, and technical services	54	4.3	5.1	4.5	11.6	11.6	24.8	11.2	16.3	4.3
Architectural, engineering, and related services	5413	9.5	13.1	8.9	53.4	63.4	63.7	21.3	30.2	13.9
Computer systems design and related services	5415	2.8	2.7	20.5	14.8	5.4	51.2	9.0	8.4	27.4
Scientific R&D services	5417	2.1	2.1	5.1	8.0	11.1	8.7	3.0	3.9	4.3
Other professional, scientific, and technical services	other 54	45.6	46.8	12.6	45.7	48.9	36.2	78.1	78.6	48.2
Health care services	621–23	22.2	22.3	7.8	94.8	95.1	1.9	41.8	42.2	1.9
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	27.0	7.4	95.7	4.9	6.7	5.6	6.2	6.9	5.6

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	Development			Type of R&D expense				
		Total	Company funded	Federally funded	Wages and salaries of R&D personnel	Fringe benefits of R&D personnel	Materials and supplies	R&D depreciation	Other costs
All industries	21-23, 31-33, 42, 44-81	5.9	5.8	25.1	0.9	0.7	1.1	0.6	1.2
Manufacturing industries	31-33	5.8	6.3	34.0	0.6	0.5	1.2	0.5	0.9
Food	311	1.8	1.8	0.0	0.9	0.6	10.5	0.3	0.3
Beverage and tobacco products	312	0.3	0.3	0.0	0.6	0.3	0.8	0.0	0.0
Textiles, apparel, and leather	313-16	16.3	16.4	0.0	24.2	1.0	2.5	0.9	0.6
Wood products	321	1.1	1.1	0.0	1.2	1.5	1.0	1.3	0.5
Paper, printing, and support activities	322, 323	2.0	2.0	0.0	2.0	0.9	1.4	0.7	0.4
Petroleum and coal products	324	3.6	3.6	0.0	3.6	3.6	3.8	3.8	3.4
Chemicals	325	6.6	6.6	13.6	2.2	1.1	4.5	0.6	2.1
Basic chemicals	3251	0.2	0.2	0.0	0.2	0.2	0.3	0.1	0.1
Resin, synthetic rubber, fibers, and filament	3252	0.9	1.0	0.0	0.7	0.3	1.5	0.2	0.2
Pharmaceuticals and medicines	3254	2.8	2.8	26.6	2.7	1.3	5.1	0.8	2.3
Other chemicals	other 325	1.0	1.0	0.0	0.8	0.3	6.2	0.2	0.7
Plastics and rubber products	326	8.3	8.3	1.3	9.6	8.6	3.8	5.0	5.2
Nonmetallic mineral products	327	1.1	1.1	1.2	9.5	1.0	13.8	0.3	3.8
Primary metals	331	5.7	5.8	0.0	8.7	7.9	1.7	2.2	1.9
Fabricated metal products	332	9.5	10.0	1.6	7.6	16.2	8.0	4.0	8.8
Machinery	333	0.9	0.9	2.1	1.3	1.4	1.8	0.6	0.6
Computer and electronic products	334	2.3	2.6	3.1	0.6	0.5	1.1	0.3	1.4
Computers and peripheral equipment	3341	0.2	0.2	0.4	0.3	0.1	0.5	0.1	0.1
Communications equipment	3342	2.3	2.3	3.3	2.3	1.9	0.3	1.4	6.7
Semiconductor and other electronic components	3344	0.7	0.7	4.0	0.3	0.6	2.7	0.3	0.5
Navigational, measuring, electromedical, and control instruments	3345	1.3	1.0	3.3	1.1	0.6	1.2	0.5	1.0
Other computer and electronic products	other 334	0.3	0.3	0.0	0.4	0.3	0.8	0.9	0.0
Electrical equipment, appliances, and components	335	6.0	6.2	5.7	3.4	2.1	16.1	6.1	11.7
Transportation equipment	336	14.3	17.2	0.1	0.2	0.4	0.3	1.1	0.6
Motor vehicles, trailers, and parts	3361-63	0.9	0.9	7.0	0.5	0.8	0.7	0.8	1.7
Aerospace products and parts	3364	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other transportation equipment	other 336	1.2	4.0	0.0	0.7	0.3	1.4	14.4	2.3
Furniture and related products	337	1.5	1.5	96.6	2.0	2.8	0.8	1.6	1.2
Miscellaneous manufacturing	339	12.8	12.9	4.0	7.0	9.2	5.2	14.2	4.6
Medical equipment and supplies	3391	3.2	3.2	4.2	8.7	11.4	3.7	15.7	5.6
Other miscellaneous manufacturing	other 339	5.1	5.1	14.0	4.9	1.7	21.5	5.5	1.9

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Industry and company size	NAICS codes	Development			Type of R&D expense				
		Total	Company funded	Federally funded	Wages and salaries of R&D personnel	Fringe benefits of R&D personnel	Materials and supplies	R&D depreciation	Other costs
Nonmanufacturing industries	21–23, 42, 44–81	2.1	2.1	13.9	2.4	1.9	2.8	1.7	3.8
Mining, extraction, and support activities	21	7.6	7.7	0.0	3.6	2.1	27.8	0.2	5.8
Utilities	22	0.4	0.5	0.0	1.5	1.8	1.9	2.1	2.4
Construction	23	19.4	19.4	0.0	52.4	44.1	0.0	0.0	17.4
Wholesale trade	42	12.0	12.0	2.7	15.5	6.3	9.5	3.2	8.0
Retail trade	44, 45	19.1	19.1	0.0	22.2	10.8	20.4	13.6	26.7
Transportation and warehousing	48, 49	0.1	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Information	51	0.5	0.5	0.1	0.5	0.4	1.4	0.5	0.9
Publishing	511	0.3	0.3	1.4	0.3	0.2	1.4	0.4	0.3
Newspaper, periodical, book, and directory	5111	1.4	1.4	0.0	1.9	1.3	21.0	0.4	2.5
Software	5112	0.3	0.3	1.4	0.3	0.2	0.6	0.9	0.3
Telecommunications	517	3.7	3.7	0.0	4.1	3.4	4.6	7.0	2.3
Wired and wireless (except satellite)									
telecommunications carriers	5171, 5172	3.9	3.9	0.0	3.5	2.4	4.9	16.1	3.4
Satellite telecommunications	5174	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other telecommunications	other 517	9.1	9.1	0.0	13.8	11.0	11.6	6.0	0.4
Internet service providers, Web search portals, and data-processing services	518	0.9	1.0	0.0	1.3	2.3	2.4	0.4	1.2
Internet service providers and Web search portals	5181	0.3	0.3	0.0	0.4	1.4	0.6	0.2	1.0
Data-processing, hosting, and related services	5182	2.1	2.5	0.0	2.9	3.9	9.1	1.7	2.1
Other information	other 51	5.0	5.0	0.0	6.8	2.8	4.9	3.8	29.6
Finance, insurance, and real estate	52, 53	1.1	1.1	0.0	1.0	1.0	1.0	1.3	0.9
Professional, scientific, and technical services	54	4.0	4.3	9.5	4.6	2.9	2.8	3.2	7.1
Architectural, engineering, and related services	5413	11.3	14.4	16.4	10.4	6.1	12.8	17.4	15.4
Computer systems design and related services	5415	2.8	2.8	22.1	3.3	2.8	5.5	3.1	3.0
Scientific R&D services	5417	2.7	2.3	12.9	2.4	2.5	1.4	3.3	3.2
Other professional, scientific, and technical services	other 54	34.6	36.1	7.9	39.8	29.8	40.3	39.6	75.9
Health care services	621–23	11.2	11.3	34.2	26.6	26.5	44.5	21.0	13.1
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	28.6	7.9	98.9	27.7	48.2	57.1	1.5	2.9

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007

(Percent)

Industry and company size	NAICS codes	R&D performed by other organizations			Company-funded R&D projected for next year		
		Total	Company funded	Federally funded	Total	Company funded	Federally funded
All industries	21–23, 31–33, 42, 44–81	10.1	10.8	17.0	0.9	0.9	2.4
Manufacturing industries	31–33	13.3	14.0	7.2	0.8	0.9	1.0
Food	311	1.3	1.3	0.0	1.4	1.3	67.9
Beverage and tobacco products	312	0.0	0.0	0.0	0.3	0.3	0.0
Textiles, apparel, and leather	313–16	14.7	16.9	0.0	14.9	15.1	0.0
Wood products	321	2.6	2.6	0.0	1.3	1.3	0.0
Paper, printing, and support activities	322, 323	2.9	2.9	0.0	1.2	1.2	0.0
Petroleum and coal products	324	0.4	0.4	0.0	3.6	3.6	0.0
Chemicals	325	19.3	19.4	86.7	2.3	2.3	38.4
Basic chemicals	3251	4.2	4.4	0.5	0.1	0.1	0.2
Resin, synthetic rubber, fibers, and filament	3252	0.1	0.1	0.0	0.3	0.3	0.2
Pharmaceuticals and medicines	3254	19.9	20.1	92.6	2.6	2.6	52.4
Other chemicals	other 325	5.2	5.2	0.0	1.1	1.1	0.0
Plastics and rubber products	326	26.2	26.2	0.0	6.6	6.7	3.7
Nonmetallic mineral products	327	11.8	11.9	81.5	8.3	8.4	1.6
Primary metals	331	0.2	0.1	72.5	3.4	3.4	16.2
Fabricated metal products	332	8.3	8.3	0.0	8.1	8.6	5.7
Machinery	333	12.6	13.0	4.6	0.9	0.9	6.0
Computer and electronic products	334	1.5	1.1	7.8	0.9	1.0	1.2
Computers and peripheral equipment	3341	4.0	4.1	0.0	0.2	0.2	0.2
Communications equipment	3342	1.5	1.5	30.2	3.9	4.0	3.9
Semiconductor and other electronic components	3344	4.4	0.8	12.9	0.5	0.5	3.6
Navigational, measuring, electromedical, and control instruments	3345	1.6	1.6	3.0	0.9	1.2	1.3
Other computer and electronic products	other 334	1.3	1.4	0.0	0.3	0.3	0.0
Electrical equipment, appliances, and components	335	3.3	3.4	7.9	6.5	6.7	9.2
Transportation equipment	336	4.2	5.4	0.4	0.5	0.7	0.2
Motor vehicles, trailers, and parts	3361–63	2.0	2.0	77.8	1.5	1.5	8.8
Aerospace products and parts	3364	0.1	0.2	0.0	0.1	0.1	0.3
Other transportation equipment	other 336	57.1	68.5	0.0	1.1	3.4	0.0
Furniture and related products	337	4.5	4.5	0.0	1.7	1.7	96.6
Miscellaneous manufacturing	339	4.0	4.1	0.0	5.6	5.6	49.1
Medical equipment and supplies	3391	3.2	3.3	0.0	6.5	6.6	53.5
Other miscellaneous manufacturing	other 339	39.5	43.9	0.0	9.1	9.1	6.0

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(Percent)

Industry and company size	NAICS codes	R&D performed by other organizations			Company-funded R&D projected for next year		
		Total	Company funded	Federally funded	Total	Company funded	Federally funded
Nonmanufacturing industries	21-23, 42, 44-81	9.1	9.1	33.0	2.3	2.4	7.0
Mining, extraction, and support activities	21	0.0	0.0	0.0	4.0	4.0	0.0
Utilities	22	3.4	3.6	0.0	1.7	2.0	0.0
Construction	23	98.0	98.0	0.0	30.9	31.7	0.0
Wholesale trade	42	16.5	16.5	0.0	10.4	10.5	0.0
Retail trade	44, 45	41.4	41.4	0.0	17.3	17.0	99.8
Transportation and warehousing	48, 49	0.0	0.0	0.0	0.1	0.1	0.0
Information	51	1.4	1.5	0.0	0.4	0.4	11.5
Publishing	511	3.9	3.9	0.0	0.3	0.3	9.8
Newspaper, periodical, book, and directory	5111	11.6	11.6	0.0	1.8	1.8	0.0
Software	5112	4.1	4.2	0.0	0.3	0.3	9.9
Telecommunications	517	0.7	0.7	0.0	3.3	3.3	0.0
Wired and wireless (except satellite)							
telecommunications carriers	5171, 5172	2.4	2.4	0.0	3.8	3.8	0.0
Satellite telecommunications	5174	0.0	0.0	0.0	0.0	0.0	0.0
Other telecommunications	other 517	0.2	0.2	0.0	6.8	6.8	0.0
Internet service providers, Web search portals, and data-processing services	518	2.2	3.0	0.0	1.4	1.3	15.1
Internet service providers and Web search portals	5181	4.8	4.8	0.0	1.3	0.8	96.9
Data-processing, hosting, and related services	5182	2.5	3.8	0.0	2.9	3.1	0.0
Other information	other 51	1.0	1.0	0.0	7.2	7.2	0.0
Finance, insurance, and real estate	52, 53	0.1	0.1	0.0	1.0	1.0	0.0
Professional, scientific, and technical services	54	13.7	15.8	11.0	4.3	5.1	4.3
Architectural, engineering, and related services	5413	6.7	31.6	0.0	10.5	14.7	8.0
Computer systems design and related services	5415	13.9	15.2	0.6	2.7	2.6	19.9
Scientific R&D services	5417	5.5	5.7	20.4	2.8	3.2	5.1
Other professional, scientific, and technical services	other 54	74.3	74.7	0.0	47.0	48.7	32.8
Health care services	621-23	0.0	0.0	0.0	21.5	21.6	6.1
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	92.0	4.1	99.4	27.7	6.8	96.1

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(Percent)

Industry and company size	NAICS codes	R&D performed by other organizations			Company-funded R&D projected for next year		
		Total	Company funded	Federally funded	Total	Company funded	Federally funded
Company size (employees)							
All companies	-	10.1	10.8	17.0	0.9	0.9	2.4
5-24	-	33.6	38.8	65.6	12.4	13.3	31.7
25-49	-	77.3	78.5	8.3	11.2	12.0	15.1
50-99	-	34.5	36.8	0.3	15.2	16.2	26.9
100-249	-	5.5	6.0	0.6	4.5	4.8	9.7
250-499	-	4.8	5.0	0.0	1.4	1.5	1.6
500-999	-	0.1	0.1	0.0	4.5	4.7	0.0
1,000-4,999	-	0.1	0.1	0.0	0.2	0.2	0.0
5,000-9,999	-	0.4	0.4	0.0	0.0	0.0	0.0
10,000-24,999	-	0.0	0.0	0.0	0.0	0.0	0.0
25,000 or more	-	0.0	0.0	0.0	0.0	0.0	0.0

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	R&D area						Percentage of nanotechnology
		Sales	Domestic employment	Biotechnology	Software development	Materials synthesis and processing	Other areas	
All industries	21–23, 31–33, 42, 44–81	0.7	1.1	2.6	1.5	1.6	1.8	21.9
Manufacturing industries	31–33	1.0	1.5	3.2	1.1	1.0	0.8	18.4
Food	311	0.7	0.9	1.4	2.8	3.0	1.7	58.1
Beverage and tobacco products	312	0.0	0.1	3.4	0.0	0.8	0.2	0.0
Textiles, apparel, and leather	313–16	10.6	11.8	5.0	2.9	1.1	34.6	53.9
Wood products	321	0.8	1.2	0.0	3.1	1.8	1.5	0.0
Paper, printing, and support activities	322, 323	2.8	7.3	0.0	24.9	11.3	1.9	45.6
Petroleum and coal products	324	0.2	2.4	0.0	0.0	1.4	0.1	0.0
Chemicals	325	0.8	2.1	3.6	9.0	2.2	3.3	38.5
Basic chemicals	3251	2.9	1.5	4.3	21.9	0.3	0.2	37.1
Resin, synthetic rubber, fibers, and filament	3252	0.8	1.7	1.0	0.0	1.4	0.3	83.8
Pharmaceuticals and medicines	3254	0.6	1.1	3.7	13.8	4.4	4.0	18.4
Other chemicals	other 325	2.4	6.5	0.2	3.0	1.1	0.9	44.5
Plastics and rubber products	326	22.6	14.1	1.5	22.1	8.9	9.7	12.2
Nonmetallic mineral products	327	15.2	18.1	1.3	10.7	1.2	0.8	35.3
Primary metals	331	1.1	5.9	0.0	35.6	1.9	5.4	0.0
Fabricated metal products	332	3.9	4.4	1.0	20.4	34.8	3.9	40.9
Machinery	333	0.8	1.2	42.0	3.8	2.2	1.0	62.5
Computer and electronic products	334	0.4	0.7	5.4	2.3	1.1	0.6	11.6
Computers and peripheral equipment	3341	0.1	0.4	0.0	0.5	13.0	0.3	50.4
Communications equipment	3342	0.4	1.3	0.0	8.6	1.6	0.3	0.0
Semiconductor and other electronic components	3344	0.4	0.4	0.0	4.8	0.4	1.1	24.3
Navigational, measuring, electromedical, and control instruments	3345	1.0	1.5	7.9	2.5	9.0	1.5	15.0
Other computer and electronic products	other 334	0.1	0.4	0.0	2.2	0.0	0.4	0.0
Electrical equipment, appliances, and components	335	1.7	0.8	94.5	2.4	11.1	3.2	32.2
Transportation equipment	336	1.9	4.5	0.0	0.1	2.2	0.5	11.7
Motor vehicles, trailers, and parts	3361–63	2.9	8.4	0.0	3.6	1.8	1.1	17.9
Aerospace products and parts	3364	0.8	0.4	0.0	0.0	0.2	0.1	0.0
Other transportation equipment	other 336	0.6	0.9	0.0	0.1	27.6	3.8	10.1
Furniture and related products	337	2.0	4.2	0.0	86.8	1.0	1.5	0.0
Miscellaneous manufacturing	339	10.8	13.0	7.9	15.2	9.0	2.9	35.5
Medical equipment and supplies	3391	12.9	18.3	7.6	25.4	12.9	3.8	47.9
Other miscellaneous manufacturing	other 339	2.2	2.8	84.1	14.4	2.8	4.0	45.3

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	R&D area						Percentage of nanotechnology
		Sales	Domestic employment	Biotechnology	Software development	Materials synthesis and processing	Other areas	
Nonmanufacturing industries	21–23, 42, 44–81	1.0	1.6	4.0	1.9	6.3	8.5	35.2
Mining, extraction, and support activities	21	0.6	2.3	0.0	12.6	0.7	10.3	75.6
Utilities	22	3.2	3.2	0.3	0.0	0.0	2.4	0.0
Construction	23	11.2	22.9	0.0	77.8	43.4	10.9	0.0
Wholesale trade	42	6.7	9.2	26.2	7.4	44.1	5.6	94.0
Retail trade	44, 45	3.6	2.7	83.6	30.2	45.9	7.7	99.8
Transportation and warehousing	48, 49	0.0	0.1	0.0	0.0	5.1	0.0	0.0
Information	51	0.1	0.2	1.3	0.6	6.5	1.2	46.1
Publishing	511	0.4	0.5	0.4	0.3	0.6	1.6	53.5
Newspaper, periodical, book, and directory	5111	0.7	1.0	0.0	2.2	0.0	1.6	0.0
Software	5112	0.5	0.5	0.4	0.3	0.6	9.8	53.5
Telecommunications	517	0.1	0.2	0.0	4.3	3.4	2.8	0.0
Wired and wireless (except satellite)								
telecommunications carriers	5171, 5172	0.1	0.2	0.0	3.6	0.0	3.5	0.0
Satellite telecommunications	5174	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other telecommunications	other 517	0.2	0.4	0.0	11.9	3.4	2.4	0.0
Internet service providers, Web search portals, and data-processing services	518	0.8	1.1	3.5	1.3	24.3	0.3	84.4
Internet service providers and Web search portals	5181	1.5	3.0	0.0	0.4	85.5	0.1	96.9
Data-processing, hosting, and related services	5182	0.9	1.1	3.5	2.9	0.0	0.7	0.0
Other information	other 51	0.6	1.0	0.0	24.0	0.0	1.9	0.0
Finance, insurance, and real estate	52, 53	0.0	0.4	34.1	0.1	0.5	0.1	0.0
Professional, scientific, and technical services	54	4.9	7.4	3.3	4.6	4.1	13.6	30.3
Architectural, engineering, and related services	5413	5.6	4.5	5.6	31.4	7.3	10.6	58.4
Computer systems design and related services	5415	1.1	1.6	22.6	3.6	2.0	11.6	62.0
Scientific R&D services	5417	1.3	1.8	3.4	2.3	12.3	5.5	24.1
Other professional, scientific, and technical services	other 54	31.9	32.7	0.1	35.8	3.1	87.2	48.0
Health care services	621–23	8.1	9.3	53.5	35.1	0.0	20.7	0.0
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	5.5	7.7	12.7	7.9	18.9	67.9	12.1

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	Scientists and engineers by source of funds			Company-funded R&D performed outside of the 50 United States and DC
		Total	Company funded	Federally funded	
All industries	21-23, 31-33, 42, 44-81	0.8	0.9	3.2	1.4
Manufacturing industries	31-33	0.6	0.6	1.0	1.8
Food	311	2.8	2.8	0.0	0.2
Beverage and tobacco products	312	0.4	0.4	0.0	0.0
Textiles, apparel, and leather	313-16	11.0	11.1	0.0	0.3
Wood products	321	2.1	2.1	0.0	0.0
Paper, printing, and support activities	322, 323	4.6	4.6	0.0	0.0
Petroleum and coal products	324	18.0	18.0	0.0	0.0
Chemicals	325	1.4	1.4	21.4	4.0
Basic chemicals	3251	0.6	0.6	0.6	0.0
Resin, synthetic rubber, fibers, and filament	3252	2.1	2.1	1.8	0.0
Pharmaceuticals and medicines	3254	1.9	1.9	41.4	4.3
Other chemicals	other 325	1.4	1.4	0.3	0.1
Plastics and rubber products	326	11.9	11.9	9.1	4.1
Nonmetallic mineral products	327	4.4	4.5	4.7	0.5
Primary metals	331	7.9	8.0	3.1	0.0
Fabricated metal products	332	8.5	8.6	2.4	0.6
Machinery	333	1.7	1.7	6.1	0.3
Computer and electronic products	334	0.7	0.8	1.3	0.7
Computers and peripheral equipment	3341	0.3	0.3	0.5	0.1
Communications equipment	3342	2.8	2.8	0.8	0.2
Semiconductor and other electronic components	3344	0.3	0.3	4.3	1.8
Navigational, measuring, electromedical, and control instruments	3345	1.5	1.9	1.5	0.0
Other computer and electronic products	other 334	0.5	0.5	0.0	0.1
Electrical equipment, appliances, and components	335	4.6	4.7	12.3	0.1
Transportation equipment	336	0.6	0.7	0.5	1.6
Motor vehicles, trailers, and parts	3361-63	1.0	1.0	2.0	0.8
Aerospace products and parts	3364	0.3	0.4	0.6	0.0
Other transportation equipment	other 336	2.8	3.7	0.0	74.0
Furniture and related products	337	9.0	9.1	96.6	0.0
Miscellaneous manufacturing	339	4.9	5.0	21.2	8.3
Medical equipment and supplies	3391	6.6	6.7	26.3	10.8
Other miscellaneous manufacturing	other 339	6.0	6.1	12.3	1.6

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007

(Percent)

Industry and company size	NAICS codes	Scientists and engineers by source of funds			Company-funded R&D performed outside of the 50 United States and DC
		Total	Company funded	Federally funded	
Nonmanufacturing industries	21–23, 42, 44–81	2.1	2.2	6.2	1.7
Mining, extraction, and support activities	21	6.5	6.5	0.0	0.0
Utilities	22	1.8	2.1	0.0	0.0
Construction	23	29.6	30.8	0.0	0.0
Wholesale trade	42	12.0	12.1	1.2	10.0
Retail trade	44, 45	21.9	21.4	99.8	0.0
Transportation and warehousing	48, 49	16.2	16.2	0.0	0.0
Information	51	0.6	0.6	1.3	0.2
Publishing	511	0.4	0.4	6.9	0.2
Newspaper, periodical, book, and directory	5111	2.3	2.3	0.0	0.0
Software	5112	0.5	0.5	7.0	0.2
Telecommunications	517	3.0	3.0	0.0	0.8
Wired and wireless (except satellite)					
telecommunications carriers	5171, 5172	4.3	4.3	0.0	1.0
Satellite telecommunications	5174	0.0	0.0	0.0	0.0
Other telecommunications	other 517	2.8	2.8	0.0	0.0
Internet service providers, Web search portals, and data-processing services	518	1.9	2.0	0.0	0.8
Internet service providers and Web search portals	5181	1.5	1.5	0.0	0.9
Data-processing, hosting, and related services	5182	2.8	3.0	0.0	1.0
Other information	other 51	10.8	10.8	0.0	71.8
Finance, insurance, and real estate	52, 53	1.3	1.3	0.0	0.0
Professional, scientific, and technical services	54	3.5	4.1	4.8	3.9
Architectural, engineering, and related services	5413	6.9	8.7	8.1	0.3
Computer systems design and related services	5415	3.7	3.7	21.6	4.6
Scientific R&D services	5417	3.1	3.6	5.3	6.5
Other professional, scientific, and technical services	other 54	30.6	31.6	42.5	0.1
Health care services	621–23	29.9	30.1	5.9	0.0
Other nonmanufacturing ^a	55, 56, 61, 624, 71, 72, 81	26.0	11.8	86.0	0.0

TABLE A-9. Relative standard error for survey estimates, by industry and company size: 2007
(Percent)

Industry and company size	NAICS codes	Scientists and engineers by source of funds			Company-funded R&D performed outside of the 50 United States and DC
		Total	Company funded	Federally funded	
Company size (employees)					
All companies	-	0.8	0.9	3.2	1.4
5-24	-	8.8	8.8	30.2	32.7
25-49	-	9.8	10.3	16.6	37.3
50-99	-	9.6	10.0	27.8	8.0
100-249	-	5.3	5.6	8.9	9.8
250-499	-	2.0	2.2	1.6	4.2
500-999	-	3.7	4.0	0.0	4.7
1,000-4,999	-	0.1	0.1	0.0	0.0
5,000-9,999	-	0.0	0.0	0.0	0.0
10,000-24,999	-	0.0	0.0	0.0	0.0
25,000 or more	-	0.0	0.0	0.0	0.0

- = 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 are not directly comparable with those for years prior to 2004. A description of the standard error of estimate is given in the technical notes in Appendix A. The percentage (or relative) standard errors (RSE) in this table may be converted to standard errors of estimate by multiplying the percentages shown by the associated estimates. For example, the relative standard error of estimate for company-funded R&D performance by the wood products industry (NAICS 321) is shown as 1.9%, and the associated company-funded R&D estimate for this industry is shown as \$192 million in Table 11. The standard error of estimate is 0.019 times \$192 million, or \$3.6 million. A relative standard error of 0.0 either relates to an estimate of 0 or indicates that the RSE itself has been rounded to zero. Also, RSEs for data items only collected on the Form RD-1 from companies selected for the sample with certainty are equal to 0.0. However, for data items only collected on Form RD-1, but imputed for companies receiving Form RD-1A, the respective RSEs are equal to some positive value. 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: 2007.