

TABLE 24. Capital expenditures for domestic R&D paid for by the company and others and performed by the company, by type, industry, and company size: 2008  
(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Structures	Equipment	Capitalized software	All other	Undistributed <sup>a</sup>
All industries	21–23, 31–33, 42–81	33,634	4,604	11,219	3,402	2,528	11,881
Manufacturing industries	31–33	18,424	2,953	8,734	1,490	1,682	3,566
Food	311	327	D	88	4	6	D
Beverage and tobacco products	312	D	D	D	2	D	9
Textiles, apparel, and leather products	313–316	D	3	7	2	1	D
Wood products	321	24	0	9	0	0	15
Paper	322	85	3	59	2	6	15
Printing and related support activities	323	49 i	4	3	D	*	D
Petroleum and coal products	324	72	4	D	4	D	14
Chemicals	325	3,477	841	1,510	246	183	697
Basic chemicals	3251	365	79	251	2	D	D
Resin, synthetic rubber, fibers, and filaments	3252	55	5 i	38 i	0	0	12
Pesticide, fertilizer, and other agricultural chemical	3253	117	26	49	D	D	4
Pharmaceuticals and medicines	3254	2,685	700	1,030	227	137	592
Soap, cleaning compound, and toilet preparation	3256	150	22	103	5	6	14
Paint, coating, adhesive, and other chemical	3255, 3259	106	9	40	D	6	D
Plastics and rubber products	326	227	22	62	8	45	91
Nonmetallic mineral products	327	74	12	32 i	6 i	9 i	17
Primary metals	331	142	7	D	1	*	D
Fabricated metal products	332	341	3	42	9	5	282
Machinery	333	2,383	947	821	206	143	266
Agricultural implement	33311	78	10	35	8	10	15
Semiconductor machinery	333295	146	11	115	2	12	6
Engine, turbine, and power transmission equipment	3336	1,510	D	428	125	78	D
Other machinery	other 333	649	D	243	71	43	D
Computer and electronic products	334	5,546	376	2,867	746	786	771
Communications equipment	3342	1,580	2	1,044	180	212	D
Semiconductor and other electronic components	3344	2,160	288	1,084	317	D	D
Navigational, measuring, electromedical, and control instruments	3345	869	19	239	110	302	199
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	497	10	76	73	238	100
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	208	7	76	18	60	47
Other measuring and controlling instruments	other 3345	164	2	87	19	4	52
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	937	67	500	138 i	108	124
Electrical equipment, appliances, and components	335	940	30	656	7	26	221
Transportation equipment	336	2,525	404 i	1,425	202	332	162
Automobiles, bodies, trailers, and parts	3361–3363	1,351	227	724	153	156	91
Aerospace products and parts	3364	1,106 i	D	673 i	46	170	D
Aircraft, aircraft engine, and aircraft parts	336411–336413	1,054 i	D	646 i	41	167	D
Guided missile, space vehicle, and related parts	336414, 336415, 336419	52	D	27	5	3	D
Military armored vehicle, tank, and tank components	336992	2	1	1	*	*	0
Other transportation	other 336	65	D	28	3	6	D
Furniture and related products	337	111	0	28 i	1 i	13 i	69

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Miscellaneous manufacturing	339	1,024	28	281	41	104	572
Medical equipment and supplies	3391	878	23	249	31	44	531
Other miscellaneous manufacturing	3399	147	5	32	10	60	40
							0
Nonmanufacturing industries	21–23, 42–81	15,210	1,651	2,485	1,912	846	8,317
Mining, extraction, and support activities	21	162	22	52	2	20	66
Utilities	22	116	D	18	4	D	57
Construction	23	1,191	*	*	*	5	1,186
Wholesale trade	42	1,375 i	168 i	189 i	3 i	111 i	905
Retail trade	44, 45	243	0	D	23	D	142
Electronic shopping and mail-order houses	4541	122	0	D	23	D	21
Other retail trade	other 44, 45	121	0	1	*	*	120
Transportation and warehousing	48, 49	131	D	25	D	1	41
Information	51	6,821	1,270	1,599	1,214	156	2,583
Publishing	511	3,758	D	D	915	100	1,818
Newspaper, periodical, book, and directory publishers	5111	31	1	3	8	17	2
Software publishers	5112	3,727	D	D	908	83	1,815
Telecommunications	517	383	*	24	37	9	313
Internet service providers, Web search portals, and data processing services	518	2,536	D	D	227 i	23	414
Other information	other 51	144	34	13	34	23	40
Finance and insurance	52	221	*	11	193	5	12
Real estate and rental and leasing	53	38	0	1	1	*	36
Professional, scientific, and technical services	54	3,681	157	528	351	507	2,138
Architectural, engineering, and related services	5413	309	17	17	1	10	264
Computer systems design and related services	5415	1,381	15	164	288	138	775
Scientific R&D services	5417	1,373	125	247	45	356	600
Other professional, scientific, and technical services	other 54	618	0	99 i	17 i	2	500
Health care services	621–623	143	0	8	1	*	134
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	1,088	1	D	D	5	1,019
All companies	21–23, 31–33, 42–81	33,634	4,604	11,219	3,402	2,528	11,881
Small companies (number of employees) <sup>b</sup>							
5–499	–	12,492	248	766	231	268	10,980
5–99	–	8,242	43	164	55	76	7,903
5–49	–	6,537	23	64	15	56	6,379
5–24	–	4,390	6	24	4	19	4,338
25–49	–	2,147	17	41	11	37	2,041
50–99	–	1,705	20	100	40	21	1,524
100–249	–	3,195	123	336	91	87	2,560
250–499	–	1,055	82	266	85	105	518
Medium and large companies (number of domestic employees)							
500–999	–	1,074	169	430	120	168	186
1,000–4,999	–	5,573	1,273	2,645	643	746	267

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5,000–9,999	–	3,459	1,062	1,648	478	226	46
10,000–24,999	–	4,394	916	2,237	645	362 i	234
25,000 or more	–	6,643	937	3,493	1,284	759	170

\* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; i = value > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2002 North American Industry Classification System.

<sup>a</sup> Detailed data for capital expenditures for domestic R&D detailed data were not collected on Form BRDI-1A (questionnaire sent to smaller firms). Form BRDI-1A total capital expenditure data are included in undistributed column.

<sup>b</sup> Upper bound based on U.S. Small Business Administration's definition of small business; Business R&D and Innovation Survey (BRDIS) does not include companies with fewer than five domestic employees. After 2008 BRDIS sample was selected and surveyed, an error was identified that resulted in excluding 226,884 single-establishment companies with five paid employees from sample frame. Most excluded establishments were classified in industries with low R&D intensities, such as construction, retail trade, and service sectors. Based on available information for these small single-establishment companies, their contribution to 2008 R&D estimates is estimated to be negligible.

NOTES: Detail may not add to total because of rounding. Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics and U.S. Census Bureau, Business R&D and Innovation Survey, 2008.