

TABLE 44. Domestic R&D paid for by the company and others and performed by the company with defense applications, by industry and company size: 2008
(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Funded by company	Funded by others
All industries	21–23, 31–33, 42–81	41,500	9,718	31,782
Manufacturing industries	31–33	35,329	7,315	28,014
Food	311	D	*	D
Beverage and tobacco products	312	0	0	0
Textiles, apparel, and leather products	313–316	38	34	5
Wood products	321	*	*	0
Paper	322	D	8	D
Printing and related support activities	323	1	1	0
Petroleum and coal products	324	1	1	0
Chemicals	325	332	235	97
Basic chemicals	3251	64	49	15
Resin, synthetic rubber, fibers, and filaments	3252	13	10	3
Pesticide, fertilizer, and other agricultural chemical	3253	2	1	1
Pharmaceuticals and medicines	3254	178	115	63
Soap, cleaning compound, and toilet preparation	3256	10	4	6
Paint, coating, adhesive, and other chemical	3255, 3259	66	56	10
Plastics and rubber products	326	80	78	1
Nonmetallic mineral products	327	58	40	18
Primary metals	331	58	51	7
Fabricated metal products	332	305	296	9
Machinery	333	166	120	46
Agricultural implements	33311	D	D	0
Semiconductor machinery	333295	25	17	8
Engine, turbine, and power transmission equipment	3336	13	9	4
Other machinery	other 333	D	D	34
Computer and electronic products	334	7,879	3,425	4,454
Communications equipment	3342	1,290	722	568
Semiconductor and other electronic components	3344	1,023	888	135
Navigational, measuring, electromedical, and control instruments	3345	4,959	1,271	3,688
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	801	85	716
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,913	1,043	2,870
Other measuring and controlling instruments	other 3345	245	144	102
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	607	544	63
Electrical equipment, appliances, and components	335	334	249	86
Transportation equipment	336	25,895	2,658	23,237
Automobiles, bodies, trailers, and parts	3361–3363	169	118	52
Aerospace products and parts	3364	25,686	2,509	23,177
Aircraft, aircraft engine, and aircraft parts	336411–336413	20,841	2,208	18,633
Guided missile, space vehicle, and related parts	336414, 336415, 336419	4,845	301	4,544
Military armored vehicle, tank, and tank components	336992	31	24	7
Other transportation equipment	other 336	8	7	1
Furniture and related products	337	*	*	0
Miscellaneous manufacturing	339	167	119	48
Medical equipment and supplies	3391	63	44	19
Other miscellaneous manufacturing	3399	104	75	29
Nonmanufacturing industries	21–23, 42–81	6,171	2,403	3,768
Mining, extraction, and support activities	21	1	1	0
Utilities	22	1	1	*
Construction	23	12	12	0
Wholesale trade	42	59	22	37
Retail trade	44, 45	*	0	*
Electronic shopping and mail-order houses	4541	*	0	*
Other retail trade	other 44, 45	0	0	0
Transportation and warehousing	48, 49	4	4	0
Information	51	823	716	107

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Publishing	511	711	640	71
Newspaper, periodical, book, and directory publishers	5111	*	*	0
Software publishers	5112	711	640	71
Telecommunications	517	99	64	35
Internet service providers, Web search portals, and data processing services	518	11	10	1
Other information	other 51	1	1	0
Finance and insurance	52	1	1	0
Real estate and rental and leasing	53	*	*	0
Professional, scientific, and technical services	54	5,214	1,625	3,589
Architectural, engineering, and related services	5413	1,417	433	984
Computer systems design and related services	5415	970	499	472
Scientific R&D services	5417	1,923	462	1,461
Other professional, scientific, and technical services	other 54	903	231	672
Health care services	621-623	8	6	2
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	50	16	34
All companies	21-23, 31-33, 42-81	41,500	9,718	31,782
Small companies (number of domestic employees) ^a				
5-499	-	6,259	2,698	3,561
5-99	-	4,081	1,802	2,279
5-49	-	3,043	1,233	1,810
5-24	-	1,656	681	974
25-49	-	1,388	552	836
50-99	-	1,038	569	469
100-249	-	1,121	591	529
250-499	-	1,057	304	753
Medium and large companies (number of domestic employees)				
500-999	-	1,202	617	586
1,000-4,999	-	3,308	1,663	1,645
5,000-9,999	-	1,293	370	923
10,000-24,999	-	3,429	1,122	2,307
25,000 or more	-	26,010	3,249	22,761

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies.

NAICS = 2002 North American Industry Classification System.

^a 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 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.