

TABLE 45. Domestic R&D paid for by the company and others and performed by the company with medical and health 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	76,103	66,404	9,698
Manufacturing industries	31–33	60,334	56,156	4,178
Food	311	89	89	1
Beverage and tobacco products	312	24	24	*
Textiles, apparel, and leather products	313–316	31	31	*
Wood products	321	*	*	0
Paper	322	205	202	3
Printing and related support activities	323	41	4	37
Petroleum and coal products	324	*	*	0
Chemicals	325	47,691	44,743	2,948
Basic chemicals	3251	134	126	7
Resin, synthetic rubber, fibers, and filaments	3252	22	21	*
Pesticide, fertilizer, and other agricultural chemical	3253	13	13	0
Pharmaceuticals and medicines	3254	47,309	44,369	2,940
Soap, cleaning compound, and toilet preparation	3256	192	192	1
Paint, coating, adhesive, and other chemical	3255, 3259	21	21	*
Plastics and rubber products	326	216	206	10
Nonmetallic mineral products	327	50	48	2
Primary metals	331	9	9	*
Fabricated metal products	332	142	123	18
Machinery	333	204	193	11
Agricultural implements	33311	*	*	0
Semiconductor machinery	333295	5	4	1
Engine, turbine, and power transmission equipment	3336	28	28	0
Other machinery	other 333	170	160	10
Computer and electronic products	334	5,372	4,383	989
Communications equipment	3342	142	100	42
Semiconductor and other electronic components	3344	507	477	30
Navigational, measuring, electromedical, and control instruments	3345	4,527	3,628	899
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,034	3,139	895
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	39	38	*
Other measuring and controlling instruments	other 3345	455	450	4
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	196	178	18
Electrical equipment, appliances, and components	335	155	150	5
Transportation equipment	336	941	896	45
Automobiles, bodies, trailers, and parts	3361–3363	49	6	43
Aerospace products and parts	3364	890	888	2
Aircraft, aircraft engine, and aircraft parts	336411–336413	D	D	2
Guided missile, space vehicle, and related parts	336414, 336415, 336419	D	D	0
Military armored vehicle, tank, and tank components	336992	2	2	0
Other transportation equipment	other 336	*	*	*
Furniture and related products	337	43	43	0
Miscellaneous manufacturing	339	5,121	5,012	109
Medical equipment and supplies	3391	5,057	4,953	104
Other miscellaneous manufacturing	3399	64	59	5
Nonmanufacturing industries	21–23, 42–81	15,769	10,249	5,520
Mining, extraction, and support activities	21	*	*	0
Utilities	22	2	2	0
Construction	23	6	6	0
Wholesale trade	42	299	255	44
Retail trade	44, 45	0	0	0
Electronic shopping and mail-order houses	4541	0	0	0
Other retail trade	other 44, 45	0	0	0
Transportation and warehousing	48, 49	*	*	0
Information	51	2,032	1,976	57

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Publishing	511	1,929	1,919	11
Newspaper, periodical, book, and directory publishers	5111	48	48	0
Software publishers	5112	1,882	1,871	11
Telecommunications	517	3	2	*
Internet service providers, Web search portals, and data processing services	518	47	47	0
Other information	other 51	53	7	46
Finance and insurance	52	1	1	0
Real estate and rental and leasing	53	29 <sup>i</sup>	29 <sup>i</sup>	0
Professional, scientific, and technical services	54	12,106	6,963	5,143
Architectural, engineering, and related services	5413	288	66	221
Computer systems design and related services	5415	1,422	1,065	357
Scientific R&D services	5417	10,125	5,623	4,502
Other professional, scientific, and technical services	other 54	270	209	62
Health care services	621-623	1,273	1,015	257
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	21	2	19
All companies	21-23, 31-33, 42-81	76,103	66,404	9,698
Small companies (number of domestic employees) <sup>a</sup>				
5-499	-	16,947	13,305	3,642
5-99	-	9,770	7,038	2,732
5-49	-	6,164	4,445	1,718
5-24	-	3,555	2,504	1,050
25-49	-	2,609	1,941	668
50-99	-	3,605	2,592	1,013
100-249	-	4,871	4,383	488
250-499	-	2,306	1,884	422
Medium and large companies (number of domestic employees)				
500-999	-	3,798	3,171	626
1,000-4,999	-	11,016	8,892	2,124
5,000-9,999	-	6,230	4,590	1,639
10,000-24,999	-	19,028	17,559	1,469
25,000 or more	-	19,084	18,887	197

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

NAICS = 2002 North American Industry Classification System.

<sup>a</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 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.