

TABLE 48. Domestic R&D paid for by the company and others and performed by the company with agricultural 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	4,249	3,869	379
Manufacturing industries	31-33	3,333	3,159	174
Food	311	206	200	6
Beverage and tobacco products	312	D	71	D
Textiles, apparel, and leather products	313-316	20	20	0
Wood products	321	14	14	0
Paper	322	2	2	0
Printing and related support activities	323	*	*	0
Petroleum and coal products	324	25	25	0
Chemicals	325	D	1,271	D
Basic chemicals	3251	194	194	*
Resin, synthetic rubber, fibers, and filaments	3252	8	8	*
Pesticide, fertilizer, and other agricultural chemical	3253	D	849	D
Pharmaceuticals and medicines	3254	D	193	D
Soap, cleaning compound, and toilet preparation	3256	9	9	0
Paint, coating, adhesive, and other chemical	3255, 3259	19	19	0
Plastics and rubber products	326	82	57	25
Nonmetallic mineral products	327	4	4	0
Primary metals	331	6	5	1
Fabricated metal products	332	43	42	1
Machinery	333	910	908	3
Agricultural implements	33311	780	778	2
Semiconductor machinery	333295	*	*	*
Engine, turbine, and power transmission equipment	3336	10	10	*
Other machinery	other 333	121	120	*
Computer and electronic products	334	415	404	11
Communications equipment	3342	3	3	0
Semiconductor and other electronic components	3344	28	28	*
Navigational, measuring, electromedical, and control instruments	3345	381	371	10
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	198	198	*
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	17	6	10
Other measuring and controlling instruments	other 3345	166	166	*
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	3	3	*
Electrical equipment, appliances, and components	335	66	66	0
Transportation equipment	336	25	25	0
Automobiles, bodies, trailers, and parts	3361-3363	15	15	0
Aerospace products and parts	3364	6	6	0
Aircraft, aircraft engine, and aircraft parts	336411-336413	6	6	0
Guided missile, space vehicle, and related parts	336414, 336415, 336419	0	0	0
Military armored vehicle, tank, and tank components	336992	0	0	0
Other transportation equipment	other 336	4	4	0
Furniture and related products	337	*	*	0
Miscellaneous manufacturing	339	42	42	*
Medical equipment and supplies	3391	8	8	*
Other miscellaneous manufacturing	3399	34	34	*
Nonmanufacturing industries	21-23, 42-81	915	710	205
Mining, extraction, and support activities	21	2	2	0
Utilities	22	*	*	0
Construction	23	4	4	0
Wholesale trade	42	164	137	27
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	1	1	0
Information	51	96	96	*

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Publishing	511	87	87	*
Newspaper, periodical, book, and directory publishers	5111	1	1	0
Software publishers	5112	86	86	*
Telecommunications	517	*	*	0
Internet service providers, Web search portals, and data processing services	518	9	9	0
Other information	other 51	0	0	0
Finance and insurance	52	0	0	0
Real estate and rental and leasing	53	76	76	0
Professional, scientific, and technical services	54	571	393	178
Architectural, engineering, and related services	5413	26	3	23
Computer systems design and related services	5415	283	167	116
Scientific R&D services	5417	207	170	37
Other professional, scientific, and technical services	other 54	55	54	1
Health care services	621-623	0	0	0
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	1	1	*
All companies	21-23, 31-33, 42-81	4,249	3,869	379
Small companies (number of domestic employees) ^a				
5-499	-	1,398	1,173	224
5-99	-	1,024	829	195
5-49	-	705	554	151
5-24	-	494	369	125
25-49	-	211	185	25
50-99	-	319	275	45
100-249	-	222	202	19
250-499	-	152	142	10
Medium and large companies (number of domestic employees)				
500-999	-	118	113	5
1,000-4,999	-	737	654	83
5,000-9,999	-	D	285	D
10,000-24,999	-	D	1,041	D
25,000 or more	-	D	603	D

* = 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.