

TABLE 18. Domestic R&D paid for by others and performed by the company, by type of cost, industry, and company size: 2008

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Salaries and wages	Fringe benefits	Stock-based compensation	Temporary staffing	Expensed equipment	Materials and supplies	Lease and rental payments	Depreciation	Other
All industries	21-23, 31-33, 42-81	58,176	22,782	7,190	252	1,170 i	314 i	6,904	685 i	1,024	17,857 i
Manufacturing industries	31-33	39,368	13,527	5,122	86	576	157	5,161	164	558	14,017 i
Food	311	37	16	8	0	2	*	2	*	1	7
Beverage and tobacco products	312	3	2	*	0	*	*	*	*	*	*
Textiles, apparel, and leather products	313-316	12	6	*	0	* i	* i	2	* i	* i	3 i
Wood products	321	3	2	1	0	0	0	*	0	0	*
Paper	322	11	5	1	*	*	0	D	* i	D	4
Printing and related support activities	323	37	20	3	1 i	1 i	* i	2 i	* i	2 i	8 i
Petroleum and coal products	324	D	D	D	0	1	2	D	0	D	D
Chemicals	325	3,207	1,421	340	65	58	11	158	31	107	1,017
Basic chemicals	3251	62	31	8	0	2	1	5	*	2	12
Resin, synthetic rubber, fibers, and filaments	3252	35	11	D	* i	1	1	D	1	1	D
Pesticide, fertilizer, and other agricultural chemical	3253	D	D	D	D	D	* i	D	1 i	6	D
Pharmaceuticals and medicines	3254	2,962	1,326	299	D	D	9	139	29	97	950
Soap, cleaning compound, and toilet preparation	3256	9	3	1	* i	* i	* i	1 i	* i	1 i	3 i
Paint, coating, adhesive, and other chemical	3255, 3259	D	D	1	0	0	*	2	0	0	D
Plastics and rubber products	326	104	60	13	0	1 i	1 i	5 i	1 i	3 i	20 i
Nonmetallic mineral products	327	46	18	3	0	* i	*	7	0	4	14
Primary metals	331	42	12	1	* i	* i	2 i	10 i	* i	* i	16 i
Fabricated metal products	332	57	37	6	*	* i	*	9 i	1 i	1 i	4 i
Machinery	333	258	127	29	2 i	5	3	44	3 i	4 i	42
Agricultural implement	33311	3	1	*	* i	* i	* i	* i	* i	* i	* i
Semiconductor machinery	333295	59	36	6	1 i	1 i	* i	6 i	2 i	2 i	5 i
Engine, turbine, and power transmission equipment	3336	63	24	7	* i	3	1 i	11 i	1	1 i	15 i
Other machinery	other 333	133	66	16	*	1	2	26	*	1	21
Computer and electronic products	334	7,551	3,087	907	17 i	188 i	88 i	1,425	80	315	1,444
Communications equipment	3342	1,419 i	416	106	0	17	D	177 i	3	46 i	D
Semiconductor and other electronic components	3344	736	322	103	5	5	2	56	9	91	143
Navigational, measuring, electromedical, and control instruments	3345	4,997	2,100	683	9 i	165 i	72 i	1,163	66	143	597
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	1,119 i	557 i	68 i	7 i	12 i	D	260 i	26 i	52 i	D
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,739	1,495	596	2	152 i	19	885	40	90	460
Other measuring and controlling instruments	other 3345	139	48	19	0	1 i	D	17	* i	1 i	D
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	399	250	16	2	2	D	29	3	35	D

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Electrical equipment, appliances, and components	335	196	98	22	0	5 i	2 i	36 i	* i	9 i	25 i
Transportation equipment	336	27,513	8,486 i	3,761 i	1	310	48	3,430	38	100	11,339 i
Automobiles, bodies, trailers, and parts	3361-3363	906	312	125	0	34	D	45	D	44	D
Aerospace products and parts	3364	26,570	8,162 i	3,633 i	1	277	45	3,374	15	55	11,009 i
Aircraft, aircraft engine, and aircraft parts	336411-336413	21,163	6,469	2,976	1	D	D	2,569	15	D	D
Guided missile, space vehicle, and related parts	336414, 336415, 336419	5,407	1,692 i	657 i	0	D	D	804	*	D	D
Military armored vehicle, tank, and tank components	336992	7	D	D	0	D	D	D	D	D	D
Other transportation	other 336	30 i	D	D	*	D	0	D	D	D	D
Furniture and related products	337	*	*	0	0	0	0	* i	0	0	* i
Miscellaneous manufacturing	339	D	D	D	1	4 i	1 i	D	8 i	D	D
Medical equipment and supplies	3391	121	57	11	1	2	*	11	3	6	30
Other miscellaneous manufacturing	3399	D	D	D	0	2 i	1 i	D	5 i	D	D
Nonmanufacturing industries	21-23, 42-81	18,807	9,254	2,068	165 i	594 i	157 i	1,743 i	521 i	466 i	3,840 i
Mining, extraction, and support activities	21	24	6	2	*	2	*	1	*	1	13
Utilities	22	35	8	6	*	D	D	D	*	0	D
Construction	23	D	2 i	* i	0	0	0	D	0	0	D
Wholesale trade	42	140	73	20	0	D	*	D	1	*	46
Retail trade	44, 45	2	1	0	0	0	0	1	0	0	0
Electronic shopping and mail-order houses	4541	1	1	0	0	0	0	0	0	0	0
Other retail trade	other 44, 45	1	0	0	0	0	0	1	0	0	0
Transportation and warehousing	48, 49	*	*	*	0	0	0	0	0	0	*
Information	51	772	537	62	9	D	D	17	14	14	105
Publishing	511	556	398	51	6	D	D	14	8	9	61
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0	0	0	0	0	0	0
Software publishers	5112	556	398	51	6	D	D	14	8	9	61
Telecommunications	517	83	51	5	0	D	D	* i	3	2 i	20 i
Internet service providers, Web search portals, and data processing services	518	75	50	6	2 i	4 i	* i	* i	1 i	* i	12 i
Other information	other 51	58	38 i	*	1 i	1 i	* i	2 i	2 i	2 i	12 i
Finance and insurance	52	8	7	* i	0	0	0	0	0	0	0
Real estate and rental and leasing	53	7 i	4 i	* i	0	0	0	0	0	0	3 i
Professional, scientific, and technical services	54	17,415	8,350	1,911	156 i	576 i	147 i	1,681 i	504 i	448 i	3,641 i
Architectural, engineering, and related services	5413	2,044	1,078	252	* i	8 i	52 i	222 i	30 i	15 i	386 i
Computer systems design and related services	5415	3,577	1,618	403	16 i	270 i	12 i	219 i	176 i	55 i	807 i
Scientific R&D services	5417	9,205	4,435	937	137	274	61	803	255	334	1,971

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Other professional, scientific, and technical services	other 54	2,590	1,219	319	2 i	25	22 i	438 i	43 i	44 i	477 i
Health care services	621-623	282	186	45	* i	1 i	1	38 i	1 i	3	7 i
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	D	81	23	0	D	*	D	1	*	D
All companies	21-23, 31-33, 42-81	58,176	22,782	7,190	252	1,170 i	314 i	6,904	685 i	1,024	17,857 i
Small companies (number of domestic employees) ^a											
5-499	-	11,741	6,175	1,303	66 i	230 i	108 i	1,193 i	259 i	283 i	2,126 i
5-99	-	8,366	4,395	900	46 i	132 i	82 i	880 i	175 i	193 i	1,562 i
5-49	-	6,263	3,266	646	34 i	96 i	63 i	682 i	135 i	145 i	1,196 i
5-24	-	3,947	2,013	358	21 i	63 i	44 i	486 i	83 i	93 i	784 i
25-49	-	2,317	1,252	288	14 i	33 i	19 i	196 i	52 i	52 i	412 i
50-99	-	2,103	1,130	254	12 i	36 i	19 i	198 i	39 i	48 i	367 i
100-249	-	1,729	986	206	11	40	12	147	34	42 i	251
250-499	-	1,646	793	197	9	57	13	166 i	50	48	313
Medium and large companies (number of domestic employees)											
500-999	-	2,213	913	287	34	95	18	202	50	63	551
1,000-4,999	-	7,327	3,045	735	91	324 i	85 i	706 i	216 i	232	1,893
5,000-9,999	-	4,406	2,005	439	12 i	98	31	650	87	143	941
10,000-24,999	-	5,688	2,137	739	45	110	27	826	12	168	1,623
25,000 or more	-	26,800	8,506 i	3,687	5	313	45	3,326	62	134	10,722 i

* = 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.

^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.