

TABLE 21. Domestic R&D paid for by others and performed by the company, by industry and company size: 2011

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)											
		All companies	5-9 ^a	10-24	25-49	50-99	100-249	250-499	500-999	1,000-4999	5,000-9,999	10,000-24,999	25,000 or more
All industries	21-23, 31-33, 42-81	55,324	1,221	1,872	1,432	1,857	2,095	1,806	1,288	7,579	6,292	6,630	23,253 i
Manufacturing industries	31-33	38,021	68	185	224	359	527	888	492	4,918	2,850	6,035	21,474 i
Food	311	196	*	0	2	* i	D	D	4	100	D	D	D
Beverage and tobacco products	312	D	0	0	0	0	D	D	0	0	D	0	0
Textile, apparel, and leather products	313-316	34	1	*	1	1	17	D	D	D	0	0	0
Wood products	321	9	0	0	*	*	1	3	0	0	0	5	0
Paper	322	23	0	0	D	D	D	D	0	D	0	0	D
Printing and related support activities	323	1	0	1	0	0	*	0	0	*	0	0	0
Petroleum and coal products	324	D	0	0	D	D	0	0	0	0	0	D	0
Chemicals	325	5,337	4	32	58	77	128	102	D	2,081	1,690	977	D
Basic chemicals	3251	D	*	4	5	D	*	D	7	D	D	D	D
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	12	0	D	0	*	3	4	3	D	D	D	0
Pesticide, fertilizer, and other agricultural chemical	3253	D	0	*	0	D	*	D	D	D	0	0	0
Pharmaceuticals and medicines	3254	4,838	4	D	47	66	116	87	D	1,700	1,655	966	D
Soap, cleaning compound, and toilet preparation	3256	6	*	D	0	*	*	3	D	D	0	D	D
Paint, coating, adhesive, and other chemicals	3255, 3259	40	0	6	6	4 i	9	0	1	D	0	D	0
Plastics and rubber products	326	307 i	0	2	3	10	5	D	12	1	D	267 i	0
Nonmetallic mineral products	327	33	3	0	3	0	D	0	*	23	0	D	0
Primary metals	331	64	0	0	3	*	D	D	D	6	1	D	D
Fabricated metal products	332	115	3	21	2 i	18	53	12	4	D	*	D	0
Machinery	333	1,131	3	4	37	20	D	80	64	132	D	D	D
Agricultural implement	33311	22	0	0	0	D	0	D	0	0	0	D	D
Semiconductor machinery	333295	139	0	3	1	D	25	D	D	D	0	0	0
Engine, turbine, and power transmission equipment	3336	693	D	0	D	D	0	D	D	0	D	D	D
Other machinery	other 333	278	D	1	D	D	D	D	D	D	D	0	D
Computer and electronic products	334	9,040	50	57	53	112	124	108	101	1,701	943	1,995 i	3,796
Communications equipment	3342	1,858 i	0	D	1	D	D	D	0	512	484	D	0
Semiconductor and other electronic components	3344	1,245	20	D	D	58	50	62	51	670	D	D	0
Navigational, measuring, electromedical, and control instruments	3345	5,451	29	33	27	D	64	D	38	D	D	D	D
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	243	26	1	4	3	4	0	D	D	D	D	D
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	5,111	1	2 i	5	D	51	D	0	D	D	D	3,548

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Other measuring and controlling device	other 3345	97	2	30	18	10	9	4	D	11	D	0	0
Other computer and electronic products	other 334	485	*	D	D	D	D	*	12	D	D	0	D
Electrical equipment, appliances, and components	335	178	0	22	5	48	D	10	53	15	0	D	0
Transportation equipment	336	20,605 i	*	1	15	46	21	147	159	783	145	2,416	16,873 i
Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	D	0	*	1	D	D	D	D	D	D	341	D
Aerospace products and parts	3364	18,469 i	0	*	12	D	D	D	D	538	D	2,075	15,759 i
Aircraft, aircraft engine, and aircraft parts	336411-13	17,480 i	0	*	2 i	D	D	D	D	D	0	D	15,759 i
Guided missile, space vehicle, and related parts	336414-15, 336419	989	0	*	10	*	D	D	0	D	D	D	0
Military armored vehicle, tank, and tank component	336992	2	0	0	0	0	D	D	D	0	0	0	0
Other transportation equipment	other 336	D	*	*	1	3	0	3	D	D	0	0	D
Furniture and related products	337	2	0	*	0	*	2	0	0	0	0	0	0
Miscellaneous manufacturing	339	D	3	45	42	28	32	321	64	62	D	191	0
Medical equipment and supplies	3391	406	3	39	D	4	29	11	35	D	0	191	0
Other miscellaneous manufacturing	3399	D	0	6	D	24	3	311	29	D	D	0	0
Nonmanufacturing industries	21-23, 42-81	17,303	1,153	1,687	1,207	1,498	1,568	918	796	2,661	3,441	595	1,778
Mining, extraction, and support activities	21	307	0	1	D	0	D	0	0	0	0	D	D
Utilities	22	84	8 i	13	D	3	0	0	1	D	1	8	D
Wholesale trade	42	248	14	4	26	37	59 i	0	8 i	100 i	0	0	0
Electronic shopping and electronic auctions	454111-12	0	0	0	0	0	0	0	0	0	0	0	0
Transportation and warehousing	48-49	*	0	0	0	0	0	0	0	D	0	0	D
Information	51	851	2	37	D	69	44	45	0	92	D	D	D
Publishing	511	687	*	16	D	47	18	43	0	D	D	D	D
Newspaper, periodical, book, and directory publishers	5111	1	0	1	0	0	0	0	0	0	0	0	0
Software publishers	5112	685	*	15	D	47	18	43	0	D	D	D	D
Telecommunications	517	117	0	0	*	3	24	2	0	89	0	0	0
Data processing, hosting, and related services	518	28	0	21	D	3	2	0	0	D	0	0	0
Other information	other 51	19	2	0	0	17 i	0	0	0	0	0	0	0
Finance and insurance	52	146	0	0	0	0	D	137	0	D	0	0	0
Real estate and rental and leasing	53	0	0	0	0	0	0	0	0	0	0	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0	0	0	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	14,851	1,124	1,582	1,120	1,354	1,389	662	726	2,457	3,435	44	958

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Architectural, engineering, and related services	5413	1,966	217	362	94	D	282	58	56	325	D	44	D
Computer systems design and related services	5415	1,553	267	384	242 i	160	181	54	19	182	0	0	64
Scientific research and development services	5417	9,131	632	823	716	1,046	832	530	528	1,948	2,066 i	0	9
Biotechnology research and development	541711	1,735	D	D	156	225	234	61	147	D	0	0	9
Physical, engineering, and life sciences (except biotechnology) research and development	541712	6,797	527	568	548	819	572	468	382	847	2,066 i	0	0
Social sciences and humanities research and development	541720	599	D	D	13	3	26	0	0	D	0	0	0
Other professional, scientific, and technical services	other 54	2,202	8	13	68	D	93	20	123	3	D	0	D
Health care services	621-23	183	2	42	0	21	69	33	12	2	0	0	*
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	632	3	9	D	15	D	41	48	3	D	0	491

* = 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 = 2007 North American Industry Classification System.

^a Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

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, 2011.