

TABLE 40. Domestic R&D performance by source of funds, performer, industry, and company size: 2012  
(Millions of U.S. dollars)

Industry and company size	NAICS code	Paid for by the company				Paid for by others				
		Total	R&D performed by others (purchased and collaborative R&D)		R&D performed by the company	Total	R&D performed by the company			
			R&D performed by others (subcontracted/passed through R&D costs)	Total			Paid for by the U.S. government	Paid for by non-U.S. government sources		
All industries	21-23, 31-33, 42-81	277,398	30,118	247,280	66,778	11,808 i	54,970	30,621 i	24,350	
Manufacturing industries	31-33	195,990	25,793	170,197	47,578	9,360 i	38,218	24,059 i	14,159	
Food	311	4,316	396	3,921	180	8	171	12	159	
Beverage and tobacco products	312	831	144	688	D	* i	D	D	D	
Textile, apparel, and leather products	313-16	551	14	537	24	1	23	5 i	18	
Wood products	321	468 i	16 i	453 i	9	*	9	1	8	
Paper	322	763	20	743	10	1	9	0	9	
Printing and related support activities	323	257 i	4 i	253 i	4 i	1 i	3 i	* i	2 i	
Petroleum and coal products	324	D	D	880	19	5	14	6	9	
Chemicals	325	68,509	17,642	50,867	9,102	2,743	6,359	369 i	5,990	
Basic chemicals	3251	3,124	589	2,536	387 i	7	380 i	285 i	96	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	867	23	844	102	*	102	1	101	
Pesticide, fertilizer, and other agricultural chemical	3253	1,387	59 i	1,328	D	D	D	D	D	
Pharmaceuticals and medicines	3254	59,239	16,645	42,594	8,272	2,719	5,552	57	5,495	
Soap, cleaning compound, and toilet preparation	3256	2,598	260	2,339	5 i	1 i	4 i	1	3 i	
Paint, coating, adhesive, and other chemicals	3255, 3259	1,293	67	1,227	D	D	D	D	D	
Plastics and rubber products	326	3,351	180	3,171	350 i	13 i	338 i	13 i	325 i	
Nonmetallic mineral products	327	1,505 i	212	1,293 i	38	4	34	25	9	
Primary metals	331	805	119	686	59	4	55	10	45	
Fabricated metal products	332	1,766 i	46 i	1,720 i	118 i	5 i	114 i	13 i	101 i	
Machinery	333	14,158	864	13,294	1,149	189	960	385	576	
Agricultural implement	33311	1,757	254	1,503	D	D	43	4	39	
Semiconductor machinery	333295	2,107	29	2,078	74	1	73	4	70	
Engine, turbine, and power transmission equipment	3336	4,205	447	3,757	D	D	579	363	217	
Other machinery	other 333	6,089	133	5,956	269	4	265 i	15 i	250 i	
Computer and electronic products	334	58,210	1,533	56,677	8,849	457	8,391	4,852	3,540	
Communications equipment	3342	13,294	745	12,549	1,510 i	69 i	1,440 i	806 i	634	
Semiconductor and other electronic components	3344	26,266	309	25,957	1,433	59	1,375	88	1,286	
Navigational, measuring, electromedical, and control instruments	3345	10,957	354	10,603	5,670	325	5,345	3,922	1,423	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,305	139	4,166	239	8	230	31	200	
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	2,900	91	2,810	5,243	316	4,927	3,819	1,108	
Other measuring and controlling device	other 3345	3,752	124	3,628	189 i	1 i	188 i	72 i	116 i	
Other computer and electronic products	other 334	7,693	125	7,568	236	5	231	35	197 i	
Electrical equipment, appliances, and components	335	3,029	129	2,900	191	5	187	44 i	143	
Transportation equipment	336	24,896	3,553	21,344	26,855 i	5,894 i	20,961 i	18,268 i	2,693	
Automobiles, bodies, trailers, and parts	3361-63	15,630	2,439	13,191	D	D	D	D	1,903	

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Aerospace products and parts	3364	8,219	1,079	7,140	23,408 i	5,731 i	17,677 i	16,895 i	782	
Aircraft, aircraft engine, and aircraft parts	336411-13	7,670	976	6,695	22,424 i	5,721 i	16,702 i	15,935 i	767	
Guided missile, space vehicle, and related parts	336414-15, 336419	548	103 i	445 i	985 i	10	975	960	15	
Military armored vehicle, tank, and tank component	336992	22	1	21	D	D	D	D	D	
Other transportation	other 336	1,026	34	992	D	D	D	D	D	
Furniture and related products	337	368	20	348	* i	0	* i	0	* i	
Miscellaneous manufacturing	339	D	D	10,423	D	30	D	D	D	
Medical equipment and supplies	3391	8,474	589	7,885	456	24	431	43	389	
Other miscellaneous manufacturing	3399	D	D	2,538	D	6	D	D	D	
Nonmanufacturing industries	21-23, 42-81	81,408	4,325	77,083	19,201	2,448	16,752	6,562	10,191	
Mining, extraction, and support activities	21	2,703	260	2,443	D	D	372	2	370	
Utilities	22	484	239	245	130	27	103	64	38	
Wholesale trade	42	1,717 i	137 i	1,580 i	250 i	5 i	245 i	3 i	242 i	
Electronic shopping and electronic auctions	454111-12	1,349	2 i	1,346	6 i	0	6 i	0	6 i	
Transportation and warehousing	48-49	193	15 i	177	1	0	1	*	* i	
Information	51	47,196	1,345	45,851	965	11	954	142	812	
Publishing	511	29,079	826	28,253	737	3	734	103	631	
Newspaper, periodical, book, and directory publishers	5111	258 i	17 i	241 i	1 i	* i	1 i	* i	* i	
Software publishers	5112	28,820	808	28,012	737	3	733	103	630	
Telecommunications	517	2,958 i	190 i	2,768 i	59	3	56	* i	56	
Data processing, hosting, and related services	518	5,000	200	4,801	116	4	112	36	77	
Other information	other 51	10,159	129	10,030	52 i	* i	52 i	3 i	49 i	
Finance and insurance	52	3,634	127	3,507	12	0	12	0	12	
Real estate and rental and leasing	53	378	19	359	4	0	4	4	* i	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	355	17	338	4	0	4	4	* i	
Other real estate and rental and leasing	other 53	22 i	1 i	21 i	0	0	0	0	0	
Professional, scientific, and technical services	54	22,105	1,939	20,166	16,447	2,304	14,143	5,606	8,537	
Architectural, engineering, and related services	5413	1,153	30	1,123	1,730 i	340 i	1,390 i	889 i	501 i	
Computer systems design and related services	5415	9,314 i	151 i	9,163 i	2,197	109	2,088	1,449	639 i	
Scientific research and development services	5417	8,493	1,705	6,788	11,549	1,793	9,756	2,596	7,160	
Biotechnology research and development	541711	5,845	1,475	4,370	3,675	657	3,017	225	2,793	
Physical, engineering, and life sciences (except biotechnology) research and development	541712	2,626	228	2,398	7,166	1,005	6,161	1,835	4,325	
Social sciences and humanities research and development	541720	22 i	1 i	20 i	709	131	578	536	42	
Other professional, scientific, and technical services	other 54	3,145	53	3,092	972	62	909	672	238	
Health care services	621-23	453	37 i	416	268 i	9 i	259 i	198 i	60 i	

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Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,197 i	205 i	992 i	D	D	653	542	111	
All companies (number of domestic employees)	–	277,398	30,118	247,280	66,778	11,808 i	54,970	30,621 i	24,350	
Small companies <sup>a</sup>										
5–499	–	44,492	5,104	39,388	12,165	1,593	10,573 i	4,416 i	6,156 i	
5–99	–	22,855 i	2,897	19,958 i	7,214 i	955 i	6,259 i	2,850 i	3,409 i	
5–49	–	14,862 i	2,193	12,670 i	5,010 i	645 i	4,365 i	2,010 i	2,355 i	
5–9	–	2,264 i	298 i	1,966 i	1,053 i	94 i	959 i	548 i	411 i	
10–24	–	5,760 i	775	4,985 i	2,224 i	294 i	1,930 i	662 i	1,268 i	
25–49	–	6,839 i	1,120	5,718 i	1,733	257	1,476	800	676	
50–99	–	7,993	705	7,288 i	2,204 i	310	1,894 i	840	1,054 i	
100–249	–	11,155	1,256	9,899	3,012	431	2,581	1,137 i	1,444	
250–499	–	10,482	951	9,531	1,939	207	1,733	430	1,303	
Medium and large companies										
500–999	–	10,989	761	10,227	1,324	67	1,257	266	990	
1,000–4,999	–	47,416	4,390	43,025	9,845	2,179	7,666	1,532	6,134	
5,000–9,999	–	26,030	2,209	23,821	7,791	1,129	6,662	790	5,872	
10,000–24,999	–	52,041	8,922	43,119	7,087	714	6,373	3,342	3,031	
25,000 or more	–	96,430	8,732	87,698	28,567 i	6,127 i	22,440 i	20,275 i	2,166	

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

NAICS = 2007 North American Industry Classification System.

<sup>a</sup> The upper bound is based on the U.S. Small Business Administration's definition of a small business; the 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. The industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the 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, 2012.