

TABLE 19
Companies with domestic R&D paid for by the company and others and performed by the company in the software products and embedded software technology focus area, by industry and company size: 2018

(Millions of U.S. dollars)

Industry and company size	NAICS code	Software products and embedded software R&D									
		Domestic R&D		Total		Paid for by company		Paid for by others			
		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount	Total		Federally funded	
								Companies ^b (number)	Amount	Companies ^b (number)	Amount
All industries	21-23, 31-33, 42-81	26,313	441,036	11,034	i 165,576	10,185	i 155,935	1,372	i 9,641	790	i 5,365
Manufacturing industries	31-33	15,205	274,075	4,004	i 40,507	3,878	i 35,634	324	i 4,873	68	3,383
Food	311	808	4,654	63	i 53	62	i 48	D	4	0	0
Chemicals	325	2,713	84,137	195	i 498	187	i 445	16	53	8	11
Basic chemicals	3251	328	2,443	10	i 18	9	i 17	D	1	0	0
Pharmaceuticals and medicines	3254	1,334	74,592	99	315	93	285	12	29	D	11
Other chemicals	other 325	1,052	7,102	86	i 165	85	i 143	D	23	D	*
Plastics and rubber products	326	912	2,751	159	i 163	159	i 163	0	0	0	0
Nonmetallic mineral products	327	228	1,385	50	i 83	50	i 83	0	0	0	0
Fabricated metal products	332	1,485	2,327	225	i 146	225	i 146	0	0	0	0
Machinery	333	2,072	14,799	827	i 1,620	810	i 1,562	35	58	D	0 - 20
Agricultural implement	33311	238	1,872	108	i 336	D	325 - 337	D	0 - 11	D	0 - 3
Semiconductor machinery	333242	47	4,166	26	i 274	D	215 - 275	i D	0 - 59	0	0
Engine, turbine, and power transmission equipment	3336	71	2,483	23	i 248	D	199 - 249	i D	0 - 49	D	0 - 20
Other machinery	other 333	1,718	6,278	669	i 761	D	702 - 762	D	0 - 59	0	0
Computer and electronic products	334	2,340	83,697	1,394	i 30,187	1,334	i 26,759	159	i 3,429	44	2,602
Semiconductor and other electronic components	3344	648	31,052	185	i 7,523	167	i 7,352	42	i 170	i D	22
Other electronic products	other 334	1,692	52,645	1,210	i 22,665	1,167	i 19,406	117	i 3,258	D	2,580
Electrical equipment, appliances, and components	335	761	4,487	290	i 633	286	i 613	17	i 20	i D	0 - 20
Transportation equipment	336	1,105	52,629	234	i 4,629	208	i 3,480	57	1,149	i 11	752
Motor vehicles, bodies, trailers, and parts	3361-63	661	25,586	123	i 1,920	100	i 1,635	46	i 284	4	2
Other transportation	other 336	445	27,044	110	i 2,710	108	i 1,844	11	865	i 6	749
Miscellaneous	339	1,251	17,209	329	i 2,263	318	i 2,103	D	160	i 0	0
Other manufacturing	312-16, 321-24, 331, 337	1,546	5,999	239	i 232	239	i 232	0	0	0	0
Nonmanufacturing industries	21-23, 42-81	11,116	166,961	7,030	i 125,069	6,307	i 120,301	1,048	i 4,768	722	i 1,982
Mining, quarrying, oil and gas extraction, and support activities	21	153	1,905	75	i 563	71	i 534	5	29	0	0

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Utilities	22	61	275	26	i 40	26	i 40	0	0	0	0
Wholesale trade	42	778	906	i 143	i 117	i 142	i 113	D	3	0	0
Information	51	2,660	94,349	2,383	86,457	2,354	85,856	69	i 601	7	15
Publishing	511	987	32,770	886	i 29,175	865	i 28,887	46	i 288	D	11
Telecommunications	517	183	3,696	116	2,906	D	2,849 - 2,894	D	12 - 57	0	0
Data processing, hosting, and related services	518	1,201	23,306	1,143	21,045	1,138	20,863	17	182	i	D 3
Other information	other 51	290	34,576	238	33,330	D	33,212 - 33,258	D	73 - 117	0	0
Professional, scientific, and technical services	54	6,224	44,860	3,968	i 16,590	3,280	i 12,552	967	i 4,038	715	i 1,967
Architectural, engineering, and related services	5413	1,283	3,961	488	i 747	i 356	i 332	196	i 415	i 134	i 259
Scientific research and development services	5417	1,469	20,185	668	i 1,956	268	i 347	488	i 1,609	400	i 1,308
Research and development in biotechnology	541711	272	5,857	39	i 25	i 38	i 21	5	3	D	1
Other scientific research and development	other 5417	1,197	14,327	628	i 1,932	230	i 326	483	i 1,606	D	1,308
Other professional, scientific, and technical services	other 54	3,472	20,714	2,813	i 13,887	2,656	i 11,873	283	i 2,014	181	i 400
Health care services	621-23	229	1,476	22	i 118	i 20	i 118	D	*	0	0
Other nonmanufacturing	23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81	1,015	23,191	i 414	i 21,184	i 414	i 21,087	D	96	0	0
All companies (number of domestic employees)	-	26,313	441,036	11,034	i 165,576	10,185	i 155,935	1,372	i 9,641	790	i 5,365
Small companies											
10-19 ^c	-	4,294	4,390	2,128	i 1,496	1,898	i 1,335	367	i 161	230	i 101
20-49	-	7,386	11,252	3,316	i 3,946	3,091	i 3,538	358	i 408	219	i 252
Medium companies											
50-99	-	4,591	12,321	1,850	i 3,677	1,776	i 3,238	138	i 439	60	235
100-249	-	5,004	18,547	1,797	i 5,690	1,569	i 4,599	292	i 1,091	192	i 539

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Large companies															
250–499	–	2,060	19,645	722	5,982	682	5,356	76	i	626	33	i	246	i	
500–999	–	1,152	17,657	429	5,730	407	5,387	38		343	11	i	13		
1,000–4,999	–	1,263	68,578	523	27,408	507	26,234	46		1,175	15		485		
5,000–9,999	–	241	45,337	114	13,619	108	13,405	21		214	7		63		
10,000–24,999	–	207	84,420	98	27,794	94	25,535	21		2,260	11	i	812	i	
25,000 or more	–	114	158,889	57	70,233	i	55	14		2,923	10		2,619		

* = 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 = 2012 North American Industry Classification System.

^a Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^b Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. These company count estimates reflect an imputation process implemented for survey year 2014. This change has affected the comparability of these company count estimates with estimates published for years prior to 2014. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^c Business Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s):

Detail may not add to total because of rounding. 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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. Companies could report R&D in one, more than one, or no application area. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2018.