

TABLE 25

Companies with domestic R&D paid for by the company and others and performed by the company in the defense application area, by industry and company size: 2019

(Millions of U.S. dollars and number)

Industry and company size	NAICS code	Domestic R&D		Defense R&D							
		Companies ^a (number)	Amount	Total		Paid for by the company		Paid for by others			
				Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount		
All industries	21-23, 31-33, 42-81	28,270	492,956	3,680	i 33,331	i 2,770	i 13,290	i 1,170	i 20,041		
Manufacturing industries	31-33	15,180	285,674	2,320	i 25,506	i 2,090	i 11,649	i 380	i 13,858		
Food	311	870	4,180	0	0	0	0	0	0		
Beverage and tobacco products	312	350	1,082	0	0	0	0	0	0		
Textile, apparel, and leather products	313-16	240	904	20	i 22	20	i 17	10	4		
Wood products	321	80	186	0	0	0	0	0	0		
Paper	322	90	1,064	10	1	10	1	0	0		
Printing and related support activities	323	200	420	i 0	0	0	0	0	0		
Petroleum and coal products	324	80	1,306	0	0	0	0	0	0		
Chemicals	325	2,330	97,063	170	i 1,689	150	i 128	20	i 1,561		
Basic chemicals	3251	240	2,360	40	i 34	40	i 34	0	0		
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	180	1,172	10	i 10	10	i 10	0	0		
Pesticide, fertilizer, and other agricultural chemicals	3253	150	1,822 - 1,846	0	0	0	0	0	0		
Pharmaceuticals and medicines	3254	1,060	87,619	30	1,608	20	57	20	i 1,551		
Soap, cleaning compound, and toilet preparation	3256	270	2,760	10	1	10	1	0	0		
Paint, coating, adhesive, and other chemicals	3255, 3259	460	1,305 - 1,333	100	i 36	100	i 25	10	10		
Plastics and rubber products	326	790	2,856	80	i 82	80	i 81	10	1		
Nonmetallic mineral products	327	170	1,508	i 20	i 123	20	i 121	10	i 2		
Primary metals	331	200	665	50	i 45	50	i 41	10	4		
Fabricated metal products	332	1,840	2,885	380	i 127	380	i 127	0	0		
Machinery	333	2,240	15,184	310	i 423	270	i 255	50	169		
Agricultural implement	33311	190	1,921	10	i *	10	i *	0	0		
Semiconductor machinery	333242	80	4,459	30	26	10	15	30	12		
Engine, turbine, and power transmission equipment	3336	110	1,301	30	i 209	20	i 73	10	136		
Other machinery	other 333	1,880	7,503	250	i 188	240	i 167	20	21		
Computer and electronic products	334	2,280	86,729	800	i 11,220	740	i 5,780	140	i 5,440		
Communications equipment	3342	300	12,595	70	i 343	70	i 264	10	79		
Semiconductor and other electronic components	3344	640	35,183	i 300	i 2,872	280	i 2,717	50	i 155		
Navigational, measuring, electromedical, and control instruments	3345	1,140	17,562	410	i 7,789	380	i 2,634	90	i 5,154		

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		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount				
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	230	3,342	40	i 126	30	i 118	10	i 7				
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	190	9,662	150	i 7,128	140	i 2,014	40		5,115			
Other measuring and controlling device	other 3345	740	4,558	240	i 534	220	i 502	50	i 32				
Other computer and electronic products	other 334	220	21,388	40		30		10		52			
Electrical equipment, appliances, and components	335	900	5,263	160	i 121	140	i 96	30	i 25				
Transportation equipment	336	1,090	45,375	340	i 11,596	250	i 4,955	130	i 6,641				
Motor vehicles, bodies, trailers, and parts	3361-63	540	24,117	40	i 40 - 1,212	30	i 22	10	i 18 - 1,190				
Aerospace products and parts	3364	380	i 18,358	280	i 9,951	190	i 4,507	120	i 5,444				
Aircraft, aircraft engine, and aircraft parts	336411-13	200	16,891	i 100	9,089	i 90	4,091	i 30	4,998				
Guided missile, space vehicle, and related parts	336414-15, 336419	190	i 1,467	190	i 862	110	i 416	90	i 445				
Military armored vehicle, tank, and tank component	336992	30	35	30	33	20	24	10	9				
Other transportation	other 336	150	2,865	10	401 - 1,571	10	402	10	0 - 1,169				
Furniture and related products	337	190	409	0	0	0	0	0	0				
Miscellaneous	339	1,310	18,596	50	58	30	48	20	i 10				
Medical equipment and supplies	3391	790	16,014	30	i 28	10	22	20	i 5				
Other miscellaneous manufacturing	3399	520	2,582	20	31	20	25	10	5				
Nonmanufacturing industries	21-23, 42-81	13,100	207,283	1,370	i 7,824	690	i 1,641	790	i 6,183				
Mining, quarrying, oil and gas extraction, and support activities	21	160	2,717	10	14	10	14	0	0				
Utilities	22	40	275	10	*	10	*	0	0				
Wholesale trade	42	1,560	1,191	10	1	10	1	0	0				
Electronic shopping and electronic auctions	454111-12	60	3,131 - 15,818	i 0	0	0	0	0	0				
Transportation and warehousing	48-49	130	9,890	i 0	0	0	0	0	0				
Information	51	3,090	110,227	130	1,105	i 120	942	i 20	163				
Publishing	511	1,080	33,019	70	i 841	70	i 825	10	16				

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Newspaper, periodical, book, and directory publishers	5111	40	61	0	0	0	0	0	0	0	0
Software publishers	5112	1,040	32,958	70	841	70	825	10	16		
Telecommunications	517	210	3,733	10	3 - 27	10	0 - 23	10	4		
Data processing, hosting, and related services	518	1,480	30,558	60	239	50	95	10	143		
Other information	other 51	340	42,917	10	0 - 23	10	0 - 23	0	0		
Finance and insurance	52	220	8,917	0	0	0	0	0	0		
Real estate and rental and leasing	53	50	1,371	0	0	0	0	0	0		
Lessors of nonfinancial intangible assets (except copyrighted works)	533	20	45	0	0	0	0	0	0		
Other real estate and rental and leasing	other 53	30	1,326	0	0	0	0	0	0		
Professional, scientific, and technical services	54	6,500	53,233	1,220	6,676	550	666	780	6,010		
Architectural, engineering, and related services	5413	1,450	4,207	270	1,065	100	76	200	989		
Computer systems design and related services	5415	3,020	21,046	370	1,176	290	394	100	782		
Scientific research and development services	5417	1,230	21,669	470	4,021	160	138	390	3,883		
Research and development in biotechnology	541711	310	6,457	50	58	10	9	40	49		
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	900	14,446	420	3,734	150	129	340	3,606		
Research and development in the social sciences and humanities	541720	30	766	10	228	0	0	10	228		
Other professional, scientific, and technical services	other 54	810	6,312	120	414	20	59	110	356		
Health care services	621-23	680	2,265	10	3	10	2	10	2		
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	680	1,380 - 14,067	20	25	20	16	10	9		
All companies (number of domestic employees)	-	28,270	492,956	3,680	33,331	2,770	13,290	1,170	20,041		
Small companies											
10-19 ^c	-	5,490	5,501	830	575	520	204	350	371		

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20-49	-	7,980	12,418	1,070	i	1,095	740	i	352	410	i	743
Medium companies												
50-99	-	4,960	14,021	610	i	1,128	510	i	401	130		727
100-249	-	4,580	19,793	660	i	1,711	560	i	764	150	i	947
Large companies												
250-499	-	2,140	18,883	200	i	1,139	170	i	300	60		839
500-999	-	1,230	23,969	110	i	609	100		399	20	i	211
1,000-4,999	-	1,330	75,671	140		4,546	130		1,854	40		2,692
5,000-9,999	-	240	50,811	50		2,038	40		887	20		1,150
10,000-24,999	-	220	88,263	30	i	4,429	30		1,812	20		2,617
25,000 or more	-	130	183,626	20		16,061	20		6,318	20		9,743

* = amount < \$500,000; 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; beginning in survey year 2019, these company count estimates reflect a change in rounding methodology.^b Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse; beginning in survey year 2019, these company count estimates reflect a change in rounding methodology. These company count estimates also 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.^c The Business Enterprise 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 Census Bureau, Business Enterprise Research and Development Survey, 2019.