

TABLE 36

Domestic R&D paid for by others and performed by the company, by source of funds, industry, and company size: 2020

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Companies in the United States		Companies outside the United States		U.S. federal government agencies	U.S. state government agencies	Foreign government agencies	U.S. universities, colleges, and academic researchers	Foreign universities, colleges, and academic researchers	All other	
			Company's parent	Unaffiliated companies	In the United States	Outside the United States							
All industries	21-23, 31-33, 42-81	71,457	21,572	17,784	2,070	28,905	199	128	60	2	707	30	
Manufacturing industries	31-33	43,848	5,929	14,162	1,636	21,710	i 42	127	12	*	209	21	
Food	311	254	11	205	14	0	0	0	*	0	22	2	
Beverage and tobacco products	312	121	*	121	0	0	0	0	0	0	0	0	
Textile, apparel, and leather products	313-16	9	1	0	*	5	0	0	0	0	3	0	
Wood products	321	3	0	3	0	*	0	0	0	0	0	0	
Paper	322	1	0	1	0	0	0	0	0	0	0	0	
Printing and related support activities	323	1	1	0	0	0	0	0	0	0	*	0	
Petroleum and coal products	324	89 - 103	0 - 15	0 - 120	0	0	0	0	0	0	0 - 6	0 - 8	
Chemicals	325	11,675	2,602	7,045	861	1,101	15	0 - 4	2	*	39	4 - 12	
Basic chemicals	3251	171	6	157	1	5	*	0	*	*	2	0	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	73	2	66	*	4	0	0	*	0	*	0	
Pesticide, fertilizer, and other agricultural chemicals	3253	284 - 291	0	284 - 291	0	0	0	0	0	0	*	0	
Pharmaceuticals and medicines	3254	10,918	2,592	6,342	856	1,066	14	0 - 4	2	*	35	4 - 12	
Soap, cleaning compound, and toilet preparation	3256	189	0	187	0	0	0	0	0	0	2	0	
Paint, coating, adhesive, and other chemicals	3255, 3259	32 - 39	1	0 - 11	4	25	0	0	0	*	i *	0	
Plastics and rubber products	326	26	19	5	1	*	0	0	0	0	1	0	
Nonmetallic mineral products	327	98	1	95	*	i 2	0	0	0	0	*	0	
Primary metals	331	20	0 - 6	*	12	0 - 2	0	0	0	0	4	0	
Fabricated metal products	332	60	38	7	2	12	2	0	*	0	*	0	
Machinery	333	1,152	214	684	141	98	2	0	4	0	9	0	
Agricultural implement	33311	10 - 52	0	0 - 57	0 - 57	*	0	0	0	0	0	0	
Semiconductor machinery	333242	686	*	606	79	*	0	0	0	0	*	0	
Engine, turbine, and power transmission equipment	3336	122	20	10	0	87	1	0	1	0	3	0	
Other machinery	other 333	292 - 334	194	10 - 70	4 - 63	9	2	0	3	0	6	0	

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Computer and electronic products	334	11,030	1,586	2,727	227	6,434	i	3	29	6	*	14	6
Communications equipment	3342	996	i 0 - 446 i	116	7	366 - 531	i	0	0	4	0	5	4
Semiconductor and other electronic components	3344	2,380	70	2,068	169	68		1	0	*	*	2	2
Navigational, measuring, electromedical, and control instruments	3345	7,493	1,072	503	43	5,837	i	2	29	1	0	5	0
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	251	9	224	*	12		0	0	1	0	5	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	7,025	i 1,002	160 - 235	0 - 44	5,788	i	1	0 - 30	*	0	0	0
Other measuring and controlling device	other 3345	217	61	43 - 120	0 - 44	38		*	0 - 30	1	0	1	0
Other computer and electronic products	other 334	161	0 - 446	40	8	0 - 162		*	0	0	0	1	0
Electrical equipment, appliances, and components	335	506	48	413	10	29		2	0	*	0	3	0
Transportation equipment	336	18,564	1,355	2,664	362	i 13,961	i	17	95	*	0	107	3
Motor vehicles, bodies, trailers, and parts	3361-63	3,599	654	2,570	273	i 68		17	*	i *	0	17	i *
Aerospace products and parts	3364	13,803	i 684 - 702	42	74 - 90	12,797	i	*	95	*	0	89	3
Aircraft, aircraft engine, and aircraft parts	336411-13	13,011	i 661	42	75	12,051	i	0	90	*	0	89	3
Guided missile, space vehicle, and related parts	336414-15, 336419	793	24 - 42	0	0 - 16	746		*	5	i 0	0	0	0
Military armored vehicle, tank, and tank component	336992	6	0 - 7	0	0	0 - 7		*	0	0	0	0	0
Other transportation	other 336	1,155	0 - 18	52	0 - 16	i 1,088 - 1,098		0	0	0	0	*	0
Furniture and related products	337	3	3	0	0	*		0	0	0	0	0	0
Miscellaneous	339	215 - 233	41 - 57	78 - 199	7	65 - 72		1	0 - 4	*	0	6 - 12	*
Medical equipment and supplies	3391	173	42	79	7	36		1	0	*	0	7	*
Other miscellaneous manufacturing	3399	42 - 60	0 - 15	0 - 120	0	29 - 36		0	0 - 4	0	0	0 - 6	0
Nonmanufacturing industries	21-23, 42-81	27,608	15,643	i 3,622	435	7,195		157	2	47	2	498	9
Mining, quarrying, oil and gas extraction, and support activities	21	45	12 - 43	i 0	0 - 26	i 3	i	0	0	0	0	*	1

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Utilities	22	40	0	4	0	35	*	0	0	0	*	0
Wholesale trade	42	58	9	32	0	0	0	0	0	0	17	i 0
Electronic shopping and electronic auctions	454111-12	2 - 50	0	0 - 51	0	0	0	0	0	0	0	0
Transportation and warehousing	48-49	3	2	0	*	0	0	0	0	0	1	0
Information	51	1,113	206	427	28	364	0	*	0	0	88	*
Publishing	511	509	181	187	*	65	0	0	0	0	76	*
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0	0	0	0	0	0	0	0
Software publishers	5112	509	181	187	*	65	0	0	0	0	76	*
Telecommunications	517	54 - 66	0 - 14	26 - 64	0	2 - 14	0	0	0	0	0	*
Data processing, hosting, and related services	518	446	13	101 - 121	28	287	0	*	0	0	0 - 13	0
Other information	other 51	91 - 105	0 - 14	54 - 113	0	0 - 11	0	0	0	0	0 - 13	0
Finance and insurance	52	92	5	0	0	45	0	0	0	0	41	0
Real estate and rental and leasing	53	*	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
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	26,045	15,297	i 3,111	380	6,733	135	1	44	2	335	7
Architectural, engineering, and related services	5413	2,001	359	27	4	1,466	56	*	26	1	62	0
Computer systems design and related services	5415	3,643	581	2,277	38	662	61	*	*	1	22	0
Scientific research and development services	5417	19,354	14,109	i 777	296	3,914	12	1	15	*	228	*
Research and development in nanotechnology	541713	53	i 5	i 9	i *	38	i *	0	*	i 0	1	i 0
Research and development in biotechnology (except nanobiotechnology)	541714	5,014	4,574	194	30	117	1	0	11	0	87	0
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	13,632	i 9,485 - 9,532	i 573	266	3,157	3	1	4	*	95 - 142	*
Research and development in the social sciences and humanities	541720	654	0 - 43	0	0	603	9	0	*	0	0 - 43	0
Other professional, scientific, and technical services	other 54	1,048	249	30	42	690	6	*	3	0	22	7
Health care services	621-23	103	72	0	3	13	0	0	1	0	14	*

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Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	62 - 109	5 - 44	0 - 51	0 - 26	2	21	0	2	0	2	0	
All companies (number of domestic employees)	-	71,457	21,572	17,784	2,070	28,905	199	128	60	2	707	30	
Small companies													
10-19 ^a	-	1,029	300	127	29	445	16	3	27	1	81	*	
20-49	-	2,025	601	414	42	856	26	1	6	* i	69	10	
Medium companies													
50-99	-	1,816	490	551	105	604	3	1	8	1	52	*	
100-249	-	3,280	723	689	153	1,499	22	*	12	* i	171	10	
Large companies													
250-499	-	2,811	550	833	210	1,070	13	0	*	*	134	*	
500-999	-	2,807	712	1,392	199	467	4	5 i	2 i	0	22	2	
1,000-4,999	-	12,322	1,825 i	7,323	330	2,744	62	0	4	* i	33	0	
5,000-9,999	-	5,945	3,677 i	843	489	814	34	* i	*	0	86	3 i	
10,000-24,999	-	15,739 i	8,356 i	5,536	459 i	1,330	16	37 i	0	0	5	0	
25,000 or more	-	23,684	4,338	76	55	19,075	i 1	80	0	0	54	3	

* = amount < \$500,000; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2017 North American Industry Classification System.

^a 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. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. 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, 2020.