

TABLE 20

Companies with domestic R&D paid for by the company and others and performed by the company in the biotechnology focus area, by industry and company size: 2021

(Millions of U.S. dollars and number of companies)

Industry and company size	NAICS code	Domestic R&D		Biotechnology 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	31,490	602,499	2,840	i 102,513	2,440	i 81,585	730	i 20,928		
Manufacturing industries	31-33	15,620	326,060	1,910	i 85,389	1,750	i 76,968	370	8,422		
Food	311	890	5,266	90	i 522	90	i 493	10	29		
Beverage and tobacco products	312	190	1,247	10	23	10	23	0	0		
Textile, apparel, and leather products	313-16	310	829	30	i 9	30	i 9	0	0		
Wood products	321	150	444	10	0 - 8	10	0 - 8	0	0		
Paper	322	120	1,139	10	2	10	2	0	0		
Printing and related support activities	323	170	204	i 0	0	0	0	0	0		
Petroleum and coal products	324	110	957	10	103 - 110	10	104	10	0 - 5		
Chemicals	325	2,250	109,490	1,000	79,551	930	71,611	250	7,940		
Basic chemicals	3251	250	2,713	70	i 310	60	i 218	30	i 92		
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	130	1,389	i 20	i 0 - 217	i 20	i 0 - 148	i 10	i 0 - 76		
Pesticide, fertilizer, and other agricultural chemicals	3253	100	1,157	30	i 0 - 217	i 30	i 0 - 148	10	i 0 - 76		
Pharmaceuticals and medicines	3254	1,210	100,220	830	78,889	780	71,154	220	7,736		
Soap, cleaning compound, and toilet preparations	3256	290	2,740	60	i 131	60	i 93	10	38		
Paint, coating, adhesive, and other chemicals	3255, 3259	300	1,271	10	6	10	0 - 7	10	0 - 7		
Plastics and rubber products	326	920	3,144	70	i 82	i 70	i 82	i 0	0		
Nonmetallic mineral products	327	340	1,533	10	1	10	1	10	*		
Primary metals	331	260	912	10	0 - 8	10	0 - 8	0	0		
Fabricated metal products	332	2,310	4,291	180	i 225	r 180	i 225	r 0	0		
Machinery	333	2,170	17,730	30	114	i 30	110	i 10	4		
Agricultural implement	33311	150	1,867	10	0 - 58	i 10	0 - 58	i 0	0		
Semiconductor machinery	333242	60	5,349	10	i 54	10	i 53	10	*		
Engine, turbine, and power transmission equipment	3336	80	1,374	0	0	0	0	0	0		
Other machinery	other 333	1,900	9,140	30	3 - 61	i 20	0 - 58	i 10	4		
Computer and electronic products	334	2,130	101,063	240	i 2,344	i 200	i 1,969	i 50	i 375		
Communications equipment	3342	280	12,557	0	0	0	0	0	0		
Semiconductor and other electronic components	3344	660	47,396	50	i 41	20	r 0 - 42	40	i 0 - 42		
Navigational, measuring, electromedical, and control instruments	3345	960	13,644	190	i 2,254 - 2,299	i 180	i 1,925	i 10	329 - 373		
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	180	3,087	70	i 1,247	i 70	i 1,152	i 10	96		
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	190	5,301	20	i 364	i 20	i 89 - 136	10	i 229 - 274		

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Other measuring and controlling devices	other 3345	600	5,256	100	642 - 688	100	637 - 685	10	4
Other computer and electronic products	other 334	240	27,465	10	4 - 49	10	1 - 45	10	3
Electrical equipment, appliances, and components	335	580	5,494	40	54	40	54	0	0
Transportation equipment	336	1,150	50,760	10	4 - 14	10	5	10	0 - 9
Motor vehicles, bodies, trailers, and parts	3361-63	570	26,391	0	0	0	0	0	0
Aerospace products and parts	3364	350	21,468	10	4 - 14	10	5	10	0 - 9
Aircraft, aircraft engine, and aircraft parts	336411-13	310	19,845	0	0	0	0	0	0
Guided missile, space vehicle, and related parts	336414-15, 336419	40	1,623	10	4 - 14	10	5	10	0 - 9
Military armored vehicle, tank, and tank components	336992	20	21 - 25	0	0	0	0	0	0
Other transportation	other 336	220	2,875 - 2,880	0	0	0	0	0	0
Furniture and related products	337	230	426	0	0	0	0	0	0
Miscellaneous	339	1,450	21,133	250	2,347	200	2,279	70	68
Medical equipment and supplies	3391	820	18,438	240	2,338	190	2,270	70	68
Other miscellaneous manufacturing	3399	640	2,695	10	9	10	9	10	*
Nonmanufacturing industries	21-23, 42-81	15,880	276,439	940	17,123	700	4,617	360	12,506
Mining, quarrying, oil and gas extraction, and support activities	21	180	1,260 - 1,334	10	6	10	4	10	2
Utilities	22	40	168 - 17,997	10	2	10	2	0	0
Wholesale trade	42	1,810	1,745 - 1,855	70	72	70	72	0	0
Electronic shopping and electronic auctions	454111-12	180	5,936 - 24,040	0	0	0	0	0	0
Transportation and warehousing	48-49	80	7,208	10	0 - 15	10	0 - 15	0	0
Information	51	3,450	147,855	30	198	30	198	0	0
Publishing	511	1,420	39,152	20	110	20	110	0	0
Newspaper, periodical, book, and directory publishers	5111	60	103	0	0	0	0	0	0
Software publishers	5112	1,370	39,049	20	110	20	110	0	0
Telecommunications	517	170	3,835	10	*	10	*	0	0
Data processing, hosting, and related services	518	1,700	45,192	20	87	20	87	0	0
Other information	other 51	180	59,676	10	1	10	1	0	0
Finance and insurance	52	530	20,947	10	4	10	4	0	0

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				Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount
Real estate and rental and leasing	53	50	2,096	10	2	10	2	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	10	5 - 8	10	2	10	2	0	0
Other real estate and rental and leasing	other 53	40	2,088 - 2,091	0	0	0	0	0	0
Professional, scientific, and technical services	54	7,050	66,496	770 i	15,504 i	530 i	3,020	360 i	12,484 i
Architectural, engineering, and related services	5413	1,430	4,560	80 i	119	40 i	44 i	40 i	75
Computer systems design and related services	5415	3,390	20,409	30 i	39 i	10	10	20 i	29 i
Scientific research and development services	5417	1,370	34,142 i	600 i	15,190 i	460 i	2,895	260 i	12,295 i
Research and development in nanotechnology	541713	70	228	20 i	70 i	20 i	52 i	10	19 i
Research and development in biotechnology (except nanobiotechnology)	541714	310	9,039	290 i	6,570	230 i	1,585	130 i	4,985
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	980	24,312 i	300 i	8,550 i	210 i	1,258	130 i	7,292 i
Research and development in the social sciences and humanities	541720	30	563	0	0	0	0	0	0
Other professional, scientific, and technical services	other 54	870	7,385	80 i	156 i	40 i	71 i	40 i	85
Health care services	621-23	590 r	2,060 - 2,138	70 i	1,325	70 i	1,305	10 i	20 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,980	2,564 - 3,199	10	0 - 15	10	0 - 15	0	0
All companies (number of domestic employees)	-	31,490	602,499	2,840 i	102,513	2,440 i	81,585	730 i	20,928
Small companies									
10-19 ^c	-	5,690	5,477	610 i	1,343	500 i	1,039	190 i	304 i
20-49	-	9,210	15,061	880 i	4,144	770 i	3,412	200 i	732
Medium companies									
50-99	-	5,760	14,540	460 i	4,840	400 i	4,237	120	604
100-249	-	5,570	24,023	410 i	6,603	350 i	5,622	110 i	981 i
Large companies									
250-499	-	2,050	23,932	200	7,751	180	6,752	60 i	999
500-999	-	1,290	27,432	110	5,246	100	4,639	30	607
1,000-4,999	-	1,350	94,615	120	12,804	110	9,530	30	3,275 i
5,000-9,999	-	270	62,817	40	13,635 i	30	9,085 i	10	4,550 i
10,000-24,999	-	210	104,607	40	28,301	30	21,566	20	6,735
25,000 or more	-	130	229,995	20	17,844	20	15,703	10	2,142

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

NAICS = 2017 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. 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. 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, 2021.