

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: 2022

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

Industry and company size	NAICS code	Domestic R&D		Biotechnology R&D							
				Total		Paid for by the company		Paid for by others			
		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount		
All industries	21-23, 31-33, 42-81	29,990	691,547	3,040	i 117,108	2,730	i 95,021	660	i 22,087	i	
Manufacturing industries	31-33	14,850	372,459	1,980	i 97,021	1,880	i 88,352	320	i 8,669		
Food	311	960	7,143	190	i 1,994	190	i 1,956	10		38	
Beverage and tobacco products	312	160	767	10	i 36	10	i 36	0		0	
Textile, apparel, and leather products	313-16	260	635	30	i D	30	i D	0		0	
Wood products	321	110	259	10		10		0		0	
Paper	322	100	1,005	20	i 19	20	i 19	0		0	
Printing and related support activities	323	140	165	0		0		0		0	
Petroleum and coal products	324	80	860	10		108	i 105	10	i 3	i	
Chemicals	325	2,320	125,728	1,160		88,646	1,100	80,848	240	7,797	
Basic chemicals	3251	320	2,860	70	i 466	60	i D	20	i D		
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	200	1,493	40	i 60	40	i 60	0		0	
Pesticide, fertilizer, and other agricultural chemicals	3253	70	1,193	40	i D	40	i D	10		D	
Pharmaceuticals and medicines	3254	1,130	116,073	910		87,320	850	79,764	230	7,556	
Soap, cleaning compound, and toilet preparations	3256	270	2,886	130	i D	130	i D	10		D	
Paint, coating, adhesive, and other chemicals	3255, 3259	350	1,223	10		D	10	D	10	D	
Plastics and rubber products	326	840	3,470	90	i 66	80	i 64	10	i 2		
Nonmetallic mineral products	327	260	1,464	10		1	10	1	10	*	
Primary metals	331	270	1,120	10		1	10	1	0	0	
Fabricated metal products	332	1,870	3,526	10		10	10	10	0	0	
Machinery	333	2,050	19,464	40		128	i 125	10	i 3	i	
Agricultural implement	33311	160	2,287	10		54	i 54	0		0	
Semiconductor machinery	333242	50	5,438	10	i 56	10	i 55	10	i 1	i	
Engine, turbine, and power transmission equipment	3336	110	3,026	10		4	10	4	0	0	
Other machinery	other 333	1,740	8,713	30		13	30	11	10	i 2	
Computer and electronic products	334	2,370	104,718	140	i 2,318	140	i 1,558	10		760	
Communications equipment	3342	340	11,665	0		0	0	0	0	0	
Semiconductor and other electronic components	3344	510	49,330	10		31	10	31	0	0	
Navigational, measuring, electromedical, and control instruments	3345	1,030	12,777	140	i 2,260	130	i 1,502	10		757	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	190	4,578	50		1,240	i 50	749	i 10	491	
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	110	4,146	10	i 265	0	0	10	i 265	i	
Other measuring and controlling devices	other 3345	740	4,053	90	i 755	90	i 753	10		1	

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Other computer and electronic products	other 334	500	30,946	10	27	10	24	10	3
Electrical equipment, appliances, and components	335	520	7,086	10	14	10	14	0	0
Transportation equipment	336	1,100	71,259	10	101	10	99	10	2
Motor vehicles, bodies, trailers, and parts	3361-63	600	32,881	10	2	10	2	0	0
Aerospace products and parts	3364	270	35,356	10	96	10	94	10	2
Aircraft, aircraft engine, and aircraft parts	336411-13	230	24,571	10	*	10	*	0	0
Guided missile, space vehicle, and related parts	336414-15, 336419	40	10,785	10	96	10	94	10	2
Military armored vehicle, tank, and tank components	336992	10	30	0	0	0	0	0	0
Other transportation	other 336	230	2,992	10	3	10	3	0	0
Furniture and related products	337	210	410	0	0	0	0	0	0
Miscellaneous	339	1,330	23,382	310	D	280	D	60	63
Medical equipment and supplies	3391	820	20,394	300	3,539	270	3,476	60	63
Other miscellaneous manufacturing	3399	510	2,989	10	D	10	D	0	0
Nonmanufacturing industries	21-23, 42-81	15,150	319,088	1,060	20,087	850	6,669	340	13,418
Mining, quarrying, oil and gas extraction, and support activities	21	140	D	10	30	10	28	10	2
Utilities	22	50	D	10	1	10	1	0	0
Wholesale trade	42	1,600	D	60	68	60	68	0	0
Electronic shopping and electronic auctions	454111-12	120	D	0	0	0	0	0	0
Transportation and warehousing	48-49	70	9,395	0	0	0	0	0	0
Information	51	3,500	182,340	30	340	30	340	0	0
Publishing	511	1,440	50,367	10	316	10	316	0	0
Newspaper, periodical, book, and directory publishers	5111	40	72	0	0	0	0	0	0
Software publishers	5112	1,410	50,295	10	316	10	316	0	0
Telecommunications	517	270	3,690	10	1	10	1	0	0
Data processing, hosting, and related services	518	1,530	49,407	20	21	20	21	0	0
Other information	other 51	280	78,876	10	2	10	2	0	0
Finance and insurance	52	530	17,222	10	2	10	2	0	0
Real estate and rental and leasing	53	70	2,398	10	2	10	2	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	20	5	10	2	10	2	0	0
Other real estate and rental and leasing	other 53	50	2,393	0	0	0	0	0	0
Professional, scientific, and technical services	54	7,280	74,773	880	18,132	670	4,737	330	13,394
Architectural, engineering, and related services	5413	1,430	3,883	60	127	50	85	20	42

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Computer systems design and related services	5415	3,360	22,534	20	45	20	43	10	1		
Scientific research and development services	5417	1,450	39,625	670	17,494	510	4,301	280	13,193		
Research and development in nanotechnology	541713	100	282	30	61	30	55	10	6		
Research and development in biotechnology (except nanobiotechnology)	541714	340	10,226	320	6,944	270	2,547	120	4,397		
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	1,020	28,420	330	10,489	220	1,698	160	8,791		
Research and development in the social sciences and humanities	541720	20	698	0	0	0	0	0	0		
Other professional, scientific, and technical services	other 54	1,050	8,730	140	466	110	309	40	157		
Health care services	621-23	310	2,855	90	1,490	90	1,468	10	22		
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,550	3,394	10	24	10	24	0	0		
All companies (number of domestic employees)	-	29,990	691,547	3,040	117,108	2,730	95,021	660	22,087		
Small companies											
10-19 ^c	-	5,890	5,277	620	1,373	530	1,028	160	345		
20-49	-	8,200	14,695	900	4,392	800	3,770	210	622		
Medium companies											
50-99	-	5,110	15,265	470	4,936	430	4,470	90	466		
100-249	-	5,190	27,847	450	9,035	420	8,256	90	779		
Large companies											
250-499	-	2,160	29,549	260	10,131	230	8,978	50	1,153		
500-999	-	1,410	31,802	130	7,574	120	6,949	30	625		
1,000-4,999	-	1,440	104,505	150	16,789	140	13,486	30	3,304		
5,000-9,999	-	270	58,709	40	7,939	40	7,631	10	309		
10,000-24,999	-	220	121,142	40	29,480	40	18,872	20	10,608		
25,000 or more	-	140	282,756	30	25,458	20	21,582	10	3,876		

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies 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.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2022.