

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: 2020

(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	30,360	537,619	2,910	88,423	2,630	72,459	660	15,964
Manufacturing industries	31-33	15,920	308,445	2,000	76,520	1,920	69,328	320	7,192
Food	311	970	5,239	120	686	110	655	20	31
Beverage and tobacco products	312	240	1,177	10	37 - 49	10	38	10	0 - 11
Textile, apparel, and leather products	313-16	230	822	10	1	10	1	0	0
Wood products	321	130	187	10	8	10	8	0	0
Paper	322	100	928	10	3	10	3	0	0
Printing and related support activities	323	220	283	0	0	0	0	0	0
Petroleum and coal products	324	100	1,311 - 1,324	30	178 - 190	30	179	10	0 - 11
Chemicals	325	2,550	101,079	1,210	71,042	1,160	64,339	240	6,703
Basic chemicals	3251	300	2,694	50	226	50	126	10	100
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	150	1,234	20	124 - 199	20	125	10	0 - 73
Pesticide, fertilizer, and other agricultural chemicals	3253	130	1,060 - 1,066	50	154 - 252	50	155	10	0 - 97
Pharmaceuticals and medicines	3254	1,230	91,776	970	70,192	920	63,723	230	6,469
Soap, cleaning compound, and toilet preparation	3256	370	2,665	110	132	110	93	10	39
Paint, coating, adhesive, and other chemicals	3255, 3259	400	1,643 - 1,649	40	117 - 157	40	118	10	0 - 39
Plastics and rubber products	326	1,040	2,634	70	174	70	174	0	0
Nonmetallic mineral products	327	240	1,717	10	10	10	9	10	*
Primary metals	331	270	815	10	2	10	2	0	0
Fabricated metal products	332	2,270	3,396	70	31	70	31	0	0
Machinery	333	2,120	16,223	30	136	30	122	10	14
Agricultural implement	33311	160	1,769 - 1,811	10	35	10	35	0	0
Semiconductor machinery	333242	60	4,807	0	0	0	0	0	0
Engine, turbine, and power transmission equipment	3336	90	1,645	10	61	10	61	0	0
Other machinery	other 333	1,830	7,959 - 8,001	20	40	20	26	10	14
Computer and electronic products	334	2,220	99,535	150	1,792	140	1,424	30	368
Communications equipment	3342	400	12,103	0	0	0	0	0	0
Semiconductor and other electronic components	3344	570	43,181	10	6	10	6	0	0

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				Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount					
Navigational, measuring, electromedical, and control instruments	3345	1,060	18,505	140	i	1,649 - 1,787	i	140	i	1,281 - 1,419	i	30	i	367
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	190	2,858	60	i	1,275	i	50	i	1,166	i	10		108
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	130	10,586	10	i	375		10	i	115 - 253		10		121 - 260
Other measuring and controlling device	other 3345	740	5,061	90	i	0 - 138	i	80	i	0 - 138	i	20	i	0 - 138
Other computer and electronic products	other 334	210	25,747	10		0 - 138		10		0 - 138		10		1
Electrical equipment, appliances, and components	335	680	4,998	10		11		10		11		0		0
Transportation equipment	336	980	48,796	10		6		10		6		0		0
Motor vehicles, bodies, trailers, and parts	3361-63	490	23,121	10		3		10		3		0		0
Aerospace products and parts	3364	340	22,914	i	10	3		10		3		0		0
Aircraft, aircraft engine, and aircraft parts	336411-13	310	21,291	i	10	3		10		3		0		0
Guided missile, space vehicle, and related parts	336414-15, 336419	40	1,623	10	i	*	i	10	i	*	i	0		0
Military armored vehicle, tank, and tank component	336992	10	11	0		0		0		0		0		0
Other transportation	other 336	140	2,750	0		0		0		0		0		0
Furniture and related products	337	240	496	10		1		10		1		0		0
Miscellaneous	339	1,430	18,791 - 18,809	320	i	2,393	i	310	i	2,325	i	30	i	68
Medical equipment and supplies	3391	840	16,116	310	i	2,273	i	300	i	2,205	i	30	i	68
Other miscellaneous manufacturing	3399	600	2,674 - 2,692	20		120	i	20		120	i	0		0
Nonmanufacturing industries	21-23, 42-81	14,460	229,174	910	i	11,904	i	720	i	3,131		350	i	8,773
Mining, quarrying, oil and gas extraction, and support activities	21	300	1,165	10		2 - 23		10		0 - 19		10		3
Utilities	22	50	264	10		1		10		1		0		0
Wholesale trade	42	1,160	1,058	30	i	41		30	i	41		0		0
Electronic shopping and electronic auctions	454111-12	90	3,840 - 19,390	i	0	0		0		0		0		0
Transportation and warehousing	48-49	60	4,957	i	10	*		10		*		0		0
Information	51	3,810	129,463	30		85		30		79		10	i	6
Publishing	511	1,680	35,025	20		80		20		74		10	i	6
Newspaper, periodical, book, and directory publishers	5111	30	60	0		0		0		0		0		0
Software publishers	5112	1,650	34,965	20		80		20		74		10	i	6
Telecommunications	517	140	3,425 - 3,437	10		*		10		*		0		0

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Data processing, hosting, and related services	518	1,660	41,551	10	4	10	4	0	0							
Other information	other 51	350	49,449 - 49,463	10	i *	10	i *	0	0							
Finance and insurance	52	220	12,296	0	0	0	0	0	0							
Real estate and rental and leasing	53	60	3,249	0	0	0	0	0	0							
Lessors of nonfinancial intangible assets (except copyrighted works)	533	20	7	0	0	0	0	0	0							
Other real estate and rental and leasing	other 53	40	3,242	0	0	0	0	0	0							
Professional, scientific, and technical services	54	6,980	54,367	790	i	10,820	i	600	i	2,085	340	i	8,735			
Architectural, engineering, and related services	5413	1,390	4,214	60	i	199	i	50	i	78	30	i	121	i		
Computer systems design and related services	5415	2,780	17,935	30		79		30		76	10		3			
Scientific research and development services	5417	1,710	25,600	670	i	10,429	i	510	i	1,861	300	i	8,568			
Research and development in nanotechnology	541713	110	i 179	i	10	i	12	i	10	i	12	i	10	i	* i	
Research and development in biotechnology (except nanobiotechnology)	541714	350	6,191	330	i	4,448		250	i	1,101	170	i	3,347			
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	1,250	18,539	i	340	i	5,966	i	260	i	747	i	140	i	5,220	i
Research and development in the social sciences and humanities	541720	20	691	10		3		10		3	0		0			
Other professional, scientific, and technical services	other 54	1,110	6,618	40	i	114	i	30	i	70	i	20	44			
Health care services	621-23	620	1,477	70	i	937		60	i	909	10		28	i		
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,160	1,491 - 17,041	10		0 - 19		10		0 - 19	0		0			
All companies (number of domestic employees)	-	30,360	537,619	2,910	i	88,423	i	2,630	i	72,459	660	i	15,964			
Small companies																
10-19 ^c	-	5,110	5,047	720	i	1,416		650	i	1,187	190	i	229	i		
20-49	-	9,510	12,994	870	i	3,584		780	i	3,105	190	i	479			
Medium companies																
50-99	-	5,530	12,993	390	i	3,802		360	i	3,235	90	i	567			
100-249	-	4,950	25,411	480		7,191		450		6,372	110		819			
Large companies																
250-499	-	2,100	20,878	170		3,812		160		3,318	30		494			
500-999	-	1,280	21,264	90		4,211		80		3,741	i	20	470			
1,000-4,999	-	1,320	88,238	120		12,666	i	110		10,094	i	30	i	2,572	i	
5,000-9,999	-	260	48,397	30		11,716	i	30		8,136	i	10	3,580	i		

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10,000–24,999	–	220	88,567	40	22,623 i	40	17,458 i	20	5,164
25,000 or more	–	130	213,829	20	17,403	20	15,814	10	1,589

* = 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 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, 2020.