

TABLE 29-A

Companies with domestic R&D paid for and performed by the company, by industry, company size, and state (A-M): 2021

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

Industry and company size	NAICS code	Companies, U.S. total ^a (number)	United States	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	District of Columbia	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri	Montana												
All industries	21-23, 31-33, 42-81	29,860	527,804	1,383	188	6,947	452	199,157	7,213	6,887	2,137	652	7,545	5,249	372	2,203	15,398	7,888	2,338	1,960	897	444	444	4,550	33,937	19,420	7,754	307	4,927	237												
Manufacturing industries	31-33	14,980	287,666	932	139	5,943	326	92,329	3,701	6,118	1,718	143	3,578	2,260	268	1,988	11,105	7,366	1,820	1,528	663	247	316	3,141	25,634	17,986	5,860	252	3,433	122												
Food	311	880	4,963 - 4,968	25	0 - 137	5	62	280	69	28	299	* e	43	34	0 - 174	60	815	260	586	124	28	5	1	94	33	132	447	14	79	4												
Beverage and tobacco products	312	190	1,228	* e	* e	* e	* e	55	6	* e	* e	2	29	155	* e	* e	89	2	* e	* e	47	* e	* e	* e	13	3	10	* e	* e	* e												
Textile, apparel, and leather products	313-16	300	818	6	* e	1	1	291	19	1	* e	* e	18	57	0 - 30	* e	8	1	1	2	1	* e	1	1	18	14	6	* e	2	*												
Wood products	321	150	433 - 442	11	* e	5	4	36	5	1	* e	* e	11	26	* e	6	4	14	18	1	7	3	2	2	1	16	48	11	6	1												
Paper	322	120	1,139	37	*	1	17	16	* e	2	* e	*	20	41	*	* e	34	2	1	9	18	4	14	2	31	16	8	1	1	* e												
Printing and related support activities	323	170	196 - 205	* e	* e	17	1	25	13	* i	* e	* e	1	2	0 - 26	* e	4	*	2	4	5	* e	* i	* e	5	5	18	* e	6	* r												
Petroleum and coal products	324	110	952	1	* e	*	9	22	* i	* e	* e	0	2	1	0	* e	20	6	* e	5	15	1	* e	9	* e	* e	* e	8	3	0												
Chemicals	325	2,120	97,097	191	0 - 137	237	63	22,296	345	4,566	1,229	112	745	404	55	100	4,758	4,278	245	228	197	71	19	1,299	17,375	819	406	27	2,224	9												
Basic chemicals	3251	240	2,559	1	0	4	14	234	1	75	150	0	5	121	* e	* e	84	10	102	52	11	29	* e	69	65	19	5	5	29	* e												
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	120	1,291 - 1,320	0 - 11	e	0	* e	* e	28	* e	0 - 47	i	0 - 47	0	0 - 8	49	0	* e	15	6	4	* e	14	37	3	* e	3	i	266	5	16	i	* e	* e								
Pesticide, fertilizer, and other agricultural chemicals	3253	100	915 - 946	2	0	6	*	26	17	1	101 - 153	0	12	3	0	5	12	1	15	6	* e	* e	* e	* e	5	i	25	0 - 76	2	10	1											
Pharmaceuticals and medicines	3254	1,110	88,524	179	0 - 137	221	48	21,664	314	4,313	928	112	712	185	55	94	4,491	4,236	115	95	38	4	16	1,228	17,200	463	i	177	3	2,133	7											
Soap, cleaning compound, and toilet preparations	3256	290	2,531	* e	0	2	r	* e	198	9	93	* e	0	11	14	* e	* e	100	2	3	73	i	* e	* e	* e	* e	72	1	e	146	* e	9	* e									
Paint, coating, adhesive, and other chemicals	3255, 3259	300	1,242 - 1,252	0 - 11	* e	5	* e	146	3	34 - 87	* e	0	0 - 8	32	0	*	56	23	7	3	134	1	e	*	1	29	45	0 - 76	* i	43	1	i										
Plastics and rubber products	326	880	2,961	20	* e	420	1	e	190	40	40	12	0	58	41	0 - 51	e	4	72	86	11	9	50	i	58	1	e	114	125	234	91	7	12	* e								
Nonmetallic mineral products	327	340	1,503	11	0 - 36	2	e	1	e	110	42	2	e	* e	* e	9	6	e	* e	* e	33	3	e	2	e	2	e	1	e	6	1	e	5	10	20	20	48	5	e	1	e	
Primary metals	331	250	887 - 890	3	0	10	* e	28	2	2	i	* e	0	2	19	0	1	r	21	47	12	3	1	e	2	* e	2	35	40	33	8	4	* e									
Fabricated metal products	332	2,160	3,879	33	e	2	e	66	8	e	464	105	i	83	3	e	* e	92	51	e	* e	8	e	230	151	27	55	27	e	25	e	4	e	34	118	171	103	12	e	82	9	r
Machinery	333	2,090	16,726	51	* e	123	84	4,202	58	153	4	i	0	265	268	1	43	i	1,722	364	578	173	92	33	11	223	635	i	462	460	26	i	146	74	i							
Agricultural implement	33311	140	1,799 - 1,807	1	0	9	2	82	* e	* e	* e	0	3	34	0	2	470	3	535	90	* e	10	*	1	r	*	18	110	* e	2	* e											
Semiconductor machinery	333242	50	5,182	0	0	75	i	0	3,377	1	i	0	0	13	0	0	31	i	0	* e	0	0	0	0	0	392	i	0	9	i	0	0	0	72	i							

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Research and development in nanotechnology	541713	60	154	* i	0	* e	* e	49	2 i	* e	* e	* e	* r	* i	0	0	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	2	* e	
Research and development in biotechnology (except nanobiotechnology)	541714	240	1,664	* e	0	1	* e	583	18	23	20	* e	7	10	0	*	35	1 i	16	*	1	7	*	30	506	2	16	*	5 i	* e	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	720	4,266	9	0	26	* e	1,715	106	30	2 i	*	121	15	3	5	31	9	* e	1 i	1	1	1	42	559	68	27	1	14	41	
Research and development in the social sciences and humanities	541720	20	38	0	0	0	0	22	0	0	0	1 i	0	0	0	0	0	0	0	0	0	0	0	0	*	0	0	0	0	0	
Other professional, scientific, and technical services	other 54	800	6,218	12	1 e	24	3 e	2,461	111	31	3 e	25 e	127	287	2 e	8	322	15	8	9 i	5 e	26	2 e	48	273	46	55	2 e	13 e	2	
Health care services	621–23	550 r	1,965 - 2,043	3 i	* e	11	4	1,533	28	2 i	* e	* e	0 - 78 e	5	* e	* e	6	1 e	1 e	3	1 e	0 - 21 e	1 i	1 e	145	4 e	6	* e	0 - 24 e	1 i	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,960	2,501 - 3,136	0 - 48 e	0 - 6 e	0 - 160 e	0 - 12 e	0 - 646	0 - 56	0 - 17 e	7	10	0 - 279 e	0 - 121	0 - 15	7	0 - 179	0 - 48	48	39	0 - 65	0 - 21 e	3 e	0 - 181 e	0 - 1,000	0 - 162	0 - 134	0 - 10 e	24 e	0 - 10 e	
All companies (number of domestic employees)	–	29,860	527,804	1,383	188 i	6,947	452	199,157	7,213	6,887	2,137	652	7,545	5,249	372 i	2,203	15,398	7,888 i	2,338	1,960	897	444	444	4,550	33,937	19,420	7,754	307	4,927	237	
Small companies																															
10–19 ^b	–	5,250	4,258	33 e	3 e	37 e	11 e	1,032	113	40 e	9 e	17 e	125 e	86 e	6 e	11 e	127 e	58 e	14 e	20 e	30 e	24 e	7 e	154	418	94 e	77 e	11 e	44 e	6 e	
20–49	–	8,700	12,626	82 e	10 e	128 e	27 e	3,268	285	119 e	42	30 e	353 e	184 e	19	36	359 e	137 e	128	82 e	54 e	58 e	19 e	254 e	1,338	345 e	242	22 e	123 e	20	
Medium companies																															
50–99	–	5,520	12,488	65 e	5 e	111	28 e	3,599	165	86	16	32	231	146 e	8 e	34	389	108 e	52	37 e	50	36 e	18	289	2,035	268	243	14 e	85 e	11	
100–249	–	5,330	20,030	106	4 e	169	43	6,839	387	185	117	39 e	406	346	14	58	621	215	63	112	66	75	18	212	2,393	536	344	46 i	149	24	
Large companies																															
250–499	–	1,970	20,574	62	26	130	13	6,811	517	248	14	27	525	349	8	46	705	111	107	159	32	57 i	6	308	2,505	458	297	20	160	17	
500–999	–	1,230	23,655	125	* e	334	28	9,114	402	200	10	13	629	379	16	10	575	186	119	56	53	10	9	358	2,486	501	395	45	58	5	
1,000–4,999	–	1,300	83,609	420	0 - 80	847	132	35,229	1,401	867	836	96	1,328	841	18	169	1,954	788	394	313	375	119	70	1,063	8,115	2,310	1,419	60 i	404	54	
5,000–9,999	–	260	53,873	38	0 - 141	728	22	25,478	957	785	107	44	674	706	29	43	1,369	635	88	760	50	13	166	375	1,985	1,054	622	25	172	3	
10,000–24,999	–	200	84,057	227 i	0 - 141 i	406	34 i	27,311 i	1,453 i	862	578 i	95 i	796	630	221 i	1,726	4,870	5,253 i	585 i	246	122	16	35	464	5,795 i	2,930	1,235	29	2,057	78 i	
25,000 or more	–	130	212,634	225	3	4,057	115	80,475	1,533	3,493	409	258	2,478	1,582	34	69	4,430	396	787	175	65 i	35	96	1,072	6,867	10,924	2,880	34	1,676	18	

* = amount < \$500,000; e = more than 50% of value is modeled—see "Technical Notes"; 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 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. For a given estimate in this table, if the conditions are satisfied for the "i", "r", and "e" flags, the e flag is assigned because the imputation rate and relative standard error may be found in the corresponding tables of imputation rates and relative standard errors (available from the Survey Manager upon request). 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.