

Table 28-B. Companies with domestic R&D paid for and performed by the company, by industry, company size, and state (N–Z): 2024

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

Industry and company size	NAICS code	Companies, U.S. total (number)	United States	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina	South Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Wyoming						
All industries	21–23, 31–33, 42–81	25,580	679,371	2,441	2,554	2,043	20,872	855	36,658	14,076	574	10,313	2,569	10,887	17,963	652	3,278	261	3,391	34,206	4,504	773	7,345	57,853	392	7,582	7						
Manufacturing industries	31–33	12,530	356,431	456	1,271	1,139	14,163	537	11,794	7,579	296	7,205	726	7,951	13,166	508	1,370	170	1,034	18,105	1,674	585	1,445	9,560	208	4,739	2						
Food	311	830	6,020	84	6	17	360	6	69	173	32	193	61	23	188	1	11	10	61	125	22	2	14	70	*	121							
Beverage and tobacco products	312	250	1,459	* e	* e	* e	1 e	1	417	111	* e	8	* e	2 e	3 e	* e	* e	* e	1 e	295	1	* e	118	69	*	31							
Textile, apparel, and leather products	313–16	180	783	* e	* e	1	8	* e	39	65	* e	155	1	22	4 e	7	76	* e	2 e	4 e	6	3	1 e	34	* e	16							
Wood products	321	80	261	2	1	*	1	*	2	15	14	4	*	10	7	*	4	*	6	15	1	* i	5	14	1	6							
Paper	322	70	1,238	1	*	1	20	* e	33	58	0	23	2	* e	42	2	62	* e	34	33	* e	* e	46	23	*	363							
Printing and related support activities	323	130	253	* i	10	*	2	i	* i	16	8	* i	4	i	* i	* i	7	3	2	i	* i	10	8	i	1	i	* i	3	1	i	4	95	
Petroleum and coal products	324	60	1,004	* e	* e	* e	151	* e	* e	5	0	15	18	1	34	* e	* e	* e	* e	648	10	0	*	* e	* e	20							
Chemicals	325	2,190	131,790	159	28	74	11,672	7	6,975	2,529	21	i	2,521	18	68	9,311	163	125	24	296	1,190	508	45	303	3,055	145	1,009						
Basic chemicals	3251	310	2,883	95	2 e	2	245	i	2 e	101	51	D	229	11	15	186	1 e	38	21	237	167	7	*	126	17	12	64						
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	110	D	D	0	3	D	0	49	i	22	0	265	D	4	126	3	i	13	i	0	12	r	320	D	D	2	1	e	37	7		
Pesticide, fertilizer, and other agricultural chemicals	3253	70	D	D	* e	* e	D	D	* e	346	D	34	3	1	1	0	D	D	*	8	3	D	3	3	* e	7							
Pharmaceuticals and medicines	3254	1,130	122,656	57	20	i	62	10,874	4	6,550	2,062	19	i	517	3	36	8,829	159	60	D	37	634	490	39	163	3,027	94	802					
Soap, cleaning compound, and toilet preparations	3256	180	2,684	3	* e	1	337	i	D	264	i	23	0	1,225	D	* e	9	*	D	0	3	40	D	6	* e	1	r	0	115				
Paint, coating, adhesive, and other chemicals	3255, 3259	410	D	2	6	6	78	1	i	10	26	0	250	1	e	11	160	* e	14	1	6	i	22	8	D	9	7	2	14				
Plastics and rubber products	326	680	2,767	8	1 e	7	13	* e	139	i	98	1 e	396	53	4	166	8	205	* e	25	99	3	1	11	6	i	7	86					
Nonmetallic mineral products	327	220	1,556	i	* e	1	2	9	* e	959	i	27	i	* e	54	i	1 e	4	34	* e	3	* e	3	5 e	1	* e	1 e	2	8	i	11		
Primary metals	331	170	1,129	* e	* e	5	1	* e	14	11	* e	62	5	26	144	3	1	*	14	134	4	1	i	19	1	i	3	183					
Fabricated metal products	332	1,380	3,137	106	23	69	33	8	79	46	1 e	218	62	22	119	5	40	1 e	38	219	16	1	35	251	1 e	166							

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Machinery	333	1,850	19,844	35	18	74	82	18	382	658	213	476	287	793	383	24	338	56	i 79	1,405	36	8	99	99	3	e 822	
Agricultural implement	33311	170	D	22	*	*	D	* e	3	39	85	10	D	2	43	0	11	43	i 5	D	D	0	17	12	0	114	
Semiconductor machinery	333242	40	D	0	D	0	D	0	132	*	0	5	0	649	D	0	*	0	0	D	D	0	0	0	0	0	0
Engine, turbine, and power transmission equipment	3336	130	D	1	D	1	3	1	75	198	1	22	D	21	D	2	220	5	14	D	*	*	28	5	*	152	
Other machinery	other 333	1,520	8,060	13	D	73	55	17	172	420	127	439	233	121	304	21	107	8	61	735	28	8	55	81	3	e 556	
Computer and electronic products	334	1,750	107,038	37	134	680	833	427	1,710	2,799	4	737	53	6,376	1,166	107	179	18	170	10,974	457	300	405	2,728	10	323	
Communications equipment	3342	310	12,069	7	36	132	287	12	240	966	1	92	18	57	145	11	48	6	58	988	89	8	197	303	5	46	
Semiconductor and other electronic components	3344	460	48,546	17	24	i 284	180	409	509	1,188	i 2	e 237	13	5,761	405	42	i 74	8	62	6,246	143	259	113	i 963	i 3	i 43	i 2
Navigational, measuring, electromedical, and control instruments	3345	820	10,736	11	53	182	318	3	396	i 215	1	361	i 13	180	i 497	12	45	3	34	553	170	22	72	277	1	i 135	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	170	3,046	* e	2	32	48	0	71	17	*	25	5	4	51	1	3	i *	20	54	81	* e	4	16	i 0	6	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	140	3,190	6	38	138	92	1	217	i 115	0	51	1	76	314	*	1	2	4	108	50	i 0	48	93	*	86	0
Other measuring and controlling devices	other 3345	520	4,501	6	13	12	178	2	108	83	1	e 285	i 7	100	i 132	10	42	*	10	i 391	i 39	i 22	19	169	1	i 42	
Other computer and electronic products	other 334	180	35,687	2	i 21	82	i 48	4	i 564	429	*	i 47	10	i 378	119	42	12	2	16	3,187	56	10	23	i 1,185	1	100	i 0
Electrical equipment, appliances, and components	335	390	6,135	1	e 18	8	174	i 1	142	70	*	e 127	17	27	289	6	52	42	i 23	224	21	1	e 29	214	*	e 519	
Transportation equipment	336	1,050	47,039	14	460	41	308	64	578	545	9	1,733	132	327	554	26	243	15	73	1,989	199	207	287	2,526	20	277	

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Motor vehicles, bodies, trailers, and parts	3361–63	630	D	5	442	15	159	2 i	278	257	1 e	963	7	301	196	3	155	12	30	1,146	96	* e	12	223	* e	90	
Aerospace products and parts	3364	240	15,130	6	9	27	136	63	296	273	7	760	124	20	211	7	74	*	22	784	101	207	136	2,288	16	49	
Aircraft, aircraft engine, and aircraft parts	336411–13	220	D	D	D	24	108	D	D	D	D	680	D	19	D	D	D	*	20	551	100	D	D	2,228	12	47	D
Guided missile, space vehicle, and related parts	336414–15, 336419	30	D	D	D	3	28	D	D	D	D	80	D	1	D	D	D	0	2	234	1	D	D	61	4	3	D
Military armored vehicle, tank, and tank components	336992	20	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other transportation	other 336	180	D	3	9 r	* e	14	0	4	15	0	10	* e	6 e	147	17	14	2	21	59	1 e	* e	138	14 e	3	138	
Furniture and related products	337	170	450	* i	*	* e	27 i	* e	8	13	* e	15	* i	5	1	* e	1 i	* e	19	3	30	3	3	1	*	5	
Miscellaneous	339	1,170	24,528	8	571	159	468	5	232	350	1 e	464	14	241	716	151 i	26	3 i	180	735	356	14	66	467	5	685	
Medical equipment and supplies	3391	800	21,840	4 e	9	136	413	4	179	312	1 e	411	7	71	671	22	21	1	167	687	299	2 e	51	265	3 e	639	
Other miscellaneous manufacturing	3399	380	2,688	4	562	22	55	1 e	54	38	* e	52	8	170	45	129 i	5	2 i	13	48	58	12	15	202 i	2	46	
Nonmanufacturing industries	21–23, 42–81	13,060	322,940	1,985	1,283	904	6,709	318	24,865	6,496	278	3,109	1,843	2,936	4,797	145	1,908	91	2,357	16,101	2,830	187	5,900	48,293	184	2,843	4
Mining, quarrying, oil and gas extraction, and support activities	21	70	1,224	* e	48	* e	* e	2	6	* e	2	7	87	* e	82	* e	*	* e	* e	719	1	* e	* e	1	35	4	
Utilities	22	70	D	D	* e	D	3	* e	12	12	2	16	1 e	4	5	* e	*	18	* e	25	106	D	D	2	7	10	
Wholesale trade	42	1,580	D	9	6 i	21 i	71 i	1 e	86 i	25 i	3 i	34	D	10	24 e	6 i	24 i	4	30 i	108	60 i	D	D	D	1 e	20 i	
Electronic shopping and electronic auctions	454111–12	110	7898 i	D	27 i	D	54 i	* i	283 i	D	* i	17 i	D	54 i	30 i	D	D	* e	D	194 i	18	D	D	D	* i	D	
Transportation and warehousing	48–49	440	D	9	11	2 e	46	2 e	548 i	30	2 e	35 e	7 e	26	394 i	D	7 e	1 e	110	621	11 e	D	28	2,714	1 e	21	
Information	51	3,610	226,853	1,573	1,010	537	3,068	221	14,864	3,768	212	1,887	1,668	2,321	2,740	81	1,730	36	1,888	8,930	2,082	113	3,857	37,826	50	1,930	3
Publishing	511	1,670	63,085	D	175	180	587	49	2,412	1,828	195	333	D	875	920	32	160	D	D	2,867	826	57	730	20,129	D	1,564	
Newspaper, periodical, book, and directory publishers	5111	40	489 i	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	* e	9	* e	* e	* e	* e	* e	5 i	

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Software publishers	5112	1,630	62,597	D	175	180	587	49	2,412	1,828	195	333	D	875	920	32	160	D	D	2,858	826	57	730	20,129	D	1,560	0
Telecommunications	517	150	D	D	2	13	1,189	D	11	127	1 e	16	3	D	8	* e	6	1 e	7	112	14	1	110	376	2 e	21	0
Data processing, hosting, and related services	518	1,640	58,017	286	D	289 i	676	D	3,269	861	D	409	195	477	771	33	D	18	851 i	3,081	703	39	986	4,060	36	253	D
Other information	other 51	170	D	D	D	55	615	D	9,172	951	D	1,129	D	D	1,041	15	D	D	D	2,870	540	16	2,032	13,261	D	91	D
Finance and insurance	52	210	25,362	316	45	114 i	1,522	2	4,715	1,106	1	590	20	96	401	4	34	6	37	1,753	50	3	596	1,312	5	609	0
Real estate and rental and leasing	53	60	2,750	* e	22	* e	30	1	186	D	* e	4	* e	46	69	* e	1	* e	D	82	1	* e	24	492	* e	7	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	10	23	0	0	0	0	0	0	0	0	0	0	0	* i	0	0	0	0	4	0	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	50	2,727	* e	22	* e	30	1	186	D	* e	4	* e	46	69	* e	1	* e	D	78	1	* e	24	492	* e	7	0
Professional, scientific, and technical services	54	6,290	40,134	51	99	227	1,850 i	68	4,005	1,467	56	464	41	324	926	41	96	21	203 i	2,844	433	68	1,152	1,574	84	188	1
Architectural, engineering, and related services	5413	1,550	3,240	8	12	35	72	21 i	100	57	2 e	119	12	107	250	6	20	2 e	100 i	195	20	7	115	155	15	55	0
Computer systems design and related services	5415	2,650	22,353	32	80	44	615	26	3,414	1,042	31	147	25	176	381	26	60	10	53	2,058	281	57	648	1,005	13	92	4
Scientific research and development services	5417	930	5,705	4	1	141	116	14	117	220	22	151	1	17	108	7	3	7	8	174	52	* e	124 i	218	55	25	0
Research and development in nanotechnology	541713	50	434	0	0	*	* i	0	15	*	0	2	0	1	37	0	0	0	* i	20	5	0	2	4	53	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	260	1,204	1	* e	42	14	* e	18	88	14	16	* e	1	9 i	2 i	* e	7	2	36	3	* e	6	113	1	2	0
Research and development in the physical, engineering, and	541715	610	4,060	3 r	1	99	97	14	83	133	9	133	1	15	63	5	3	*	6	118	45	* e	116 i	102	1 i	23	0

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life sciences (except nanotechnology and biotechnology)																											
Research and development in the social sciences and humanities	541720	20	8	0	0	0	5	0	0	* 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	1,170	8,835 i	7	5	8	1,047 i	6	375	148	* e	47 i	3	23	187	3	14	1 i	42	417	80	5	266	195	1	16	0
Health care services	621–23	190	1,888	* e	* e	*	42 i	19	25	19	*	1	* e	3 i	7	7	D	* e	25	227	25	D	18	8	*	D	2
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	490	3,579	26	15	1	24	1	133	59	1	53	10	52	120	4	9	4	59	597	43	1 i	25	626	* e	39	0
All companies (number of domestic employees)	–	25,580	679,371	2,441	2,554	2,043	20,872	855	36,658	14,076	574	10,313	2,569	10,887	17,963	652	3,278	261	3,391	34,206	4,504	773	7,345	57,853	392	7,582	7
Small companies																											
10–19 ^b	–	4,330	3,734	10 e	20	23	123	7 i	168	114	3 e	78 e	13 e	29 e	136	8	22 e	2 e	33 e	215 e	53	4 e	92 e	151	2 e	30 e	1
20–49	–	7,190	14,153	30 e	37 e	66	356	21	420 e	254	18	274 e	44 e	119	431	29	52 e	16	712 i	699	157	15	302 e	404	10 e	142 e	4
Medium companies																											
50–99	–	4,510	14,998	32 e	67	78	330	35	614	286	11 e	247	76	125	462	44	82	12	85 e	785	196	21	260 e	502	11	227	1
100–249	–	4,070	26,548	56	91	85	433	31	1,406	670	29 i	378	43 e	237	642	60	78	12	120	1,181	335	17	378	1,210	13	281	4
Large companies																											
250–499	–	1,910	26,185	136	109	73	539	22 i	1,329	568	4	383	37	177	866	17	96	9	150	934	551	14	420	1,191	48	240	10
500–999	–	1,610	40,152	103	195	421	1,650	59	1,991	547	32	309	73	313	601	32	149	10	157	1,864	479	211	354	852	76	653	5
1,000–4,999	–	1,370	110,612	270	770	425	2,991	76	7,159	3,128	66	1,703	256	984	2,578	334 i	425	105	261	4,940	1,057	318	866	6,686	129	961	14
5,000–9,999	–	260	55,804	183	34	83	2,187	20	1,491	1,619	139	624	271	812	1,155	23	193	15	213	2,302	170	39	525	3,658	6	1,182	5
10,000–24,999	–	220	120,991	363	104	316 i	4,918	22 i	6,975	1,726	132	1,118	121	1,249 i	4,292 i	27	635	49 i	512	9,565	752	39	530	3,270	64	3,323	3
25,000 or more	–	140	266,195	1,257	1,129	474	7,343	563	15,106	5,164	140	5,199	1,635	6,842	6,801	78	1,546	32	1,146	11,720	753	96	3,618	39,928	32	544	1

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; e = more than 50% of value is modeled—see the technical notes section at <https://nces.nsf.gov/surveys/business-enterprise-research-development/2023#methodology>; 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 Undistributed includes data reported that were not allocated to a specific state by multi-establishment companies. For single-establishment companies, data reported were allocated to the state in the address used to mail the survey form.

^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. 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 upon request from the National Center for Science and Engineering Statistics).

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2024.