

Table 11. Domestic R&D performed by the company, by selected industry, for companies with 1–9 employees: 2019–23

(Thousands of U.S. dollars)

Industry	NAICS code	2019	2020	2021	2022	2023
All selected industries	31–33, 42, 51, 5413, 5415, 5417	5,218,911	5,600,668	6,124,669	5,710,570	5,943,753
Manufacturing industries	31–33	622,220	627,387	747,124	694,247	557,276
Food, beverage, and tobacco products	311–12	5,896	9,614	18,270 r	17,426	5,438
Textile, apparel, and leather products	313–16	236	472 r	7,096 r	9,268 r	5,748 r
Wood products	321	4,065	0	134	0	10,390 r
Paper	322	0	0	0	898 r	0
Printing and related support activities	323	555	0	0	0	91
Petroleum and coal products	324	0	0	739	159	0
Chemicals	325	178,170	160,031	132,255	168,564	171,118
Pharmaceuticals and medicines	3254	117,508	77,054	96,666	125,474	42,297
Chemicals, excluding pharmaceuticals	other 325	60,661	82,977	35,589	43,090	128,821 r
Plastics and rubber products	326	6,261	18,099	6,427	14,467	20,770 r
Nonmetallic mineral products	327	5,860	133	3,638 r	3,608	4,070
Primary metals	331	2,353	9,077 r	2,117	3,214	855
Fabricated metal products	332	20,518	37,292 r	11,983 r	44,875	6,362 r
Machinery	333	22,057	62,840	64,109	44,334	39,207
Computer and electronic products	334	227,158	189,225	279,203	171,928	216,085
Semiconductor and other electronic components	3344	38,305	36,372	71,280	46,427	58,730
Navigational, measuring, electromedical, and control instruments	3345	161,373	135,652	164,799	94,814	127,231
Other computer and electronic products	other 334	27,480	17,201	43,124	30,686	30,125
Electrical equipment, appliances, and components	335	9,592	24,958 r	40,032	14,597	16,905
Transportation equipment	336	24,577	38,247	33,911	36,738	14,188
Aerospace products and parts	3364	11,859	19,307	13,003	19,882	5,483
Other transportation equipment	other 336	12,718	18,940 r	20,908	16,856	8,706
Furniture and related products	337	0	124	1,471 r	212	293
Miscellaneous manufacturing	339	114,922	77,276	145,741	163,959	45,755
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	4,596,691	4,973,281	5,377,544	5,016,323	5,386,477
Wholesale trade	42	225,813	392,416	143,063	305,962	174,079
Information	51	598,684	689,766	756,657	653,665	912,856
Software publishers	5112	327,921	468,557	535,950	478,466	747,100
Information, excluding software publishers	51 less 5112	270,764	221,209	220,707	175,199	165,755
Architectural, engineering, and related services	5413	454,913	574,367	606,186	388,846	595,681
Computer systems design and related services	5415	1,435,159	1,122,622	1,616,190	1,414,970	1,556,103
Scientific research and development services	5417	1,882,122	2,194,110	2,255,449	2,252,879	2,147,759
Research and development in nanotechnology	541713	175,639	162,996	172,582	137,272	96,618
Research and development in biotechnology (except nanobiotechnology)	541714	645,887	913,514	868,580	1,010,361	883,444
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	1,026,911	1,099,371	1,193,678	1,085,263	1,155,371
Social sciences and humanities research and development	541720	31,464	18,229	12,047	19,984	12,326

r = relative standard error > 50%.

NAICS = 2022 North American Industry Classification System.

Note(s):

Detail may not add to total because of rounding or unavailable NAICS detail for select records beyond the 4-digit industry classification. Industry classification is based on dominant establishment payroll. Statistics are representative of companies located in the United States that performed or funded R&D.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, 2024 Annual Business Survey: Data Year 2023.