

TABLE 10

Domestic R&D performed by the company, by selected industry, for companies with 1–9 employees: 2019, 2020, and 2021

(Thousands of U.S. dollars)

Industry	NAICS code	2019	2020	2021
All selected industries	31–33, 42, 51, 5413, 5415, 5417	5,218,911	5,600,668	6,124,669
Manufacturing industries	31–33	622,220	627,387	747,124
Food, beverage, and tobacco products	311–12	5,896	9,614	18,270 r
Textile, apparel, and leather products	313–16	236	472 r	7,096 r
Wood products	321	4,065	0	134
Paper	322	0	0	0
Printing and related support activities	323	555	0	0
Petroleum and coal products	324	0	0	739
Chemicals	325	178,170	160,031	132,255
Pharmaceuticals and medicines	3254	117,508	77,054	96,666
Chemicals, excluding pharmaceuticals	other 325	60,661	82,977	35,589
Plastics and rubber products	326	6,261	18,099	6,427
Nonmetallic mineral products	327	5,860	133	3,638 r
Primary metals	331	2,353	9,077 r	2,117
Fabricated metal products	332	20,518	37,292 r	11,983 r
Machinery	333	22,057	62,840	64,109
Computer and electronic products	334	227,158	189,225	279,203
Semiconductor and other electronic components	3344	38,305	36,372	71,280
Navigational, measuring, electromedical, and control instruments	3345	161,373	135,652	164,799
Other computer and electronic products	other 334	27,480	17,201	43,124
Electrical equipment, appliances, and components	335	9,592	24,958 r	40,032
Transportation equipment	336	24,577	38,247	33,911
Aerospace products and parts	3364	11,859	19,307	13,003
Other transportation equipment	other 336	12,718	18,940 r	20,908
Furniture and related products	337	0	124	1,471 r
Miscellaneous manufacturing	339	114,922	77,276	145,741
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	4,596,691	4,973,281	5,377,544
Wholesale trade	42	225,813	392,416	143,063
Information	51	598,684	689,766	756,657
Software publishers	5112	327,921	468,557	535,950
Information, excluding software publishers	51 less 5112	270,764	221,209	220,707
Architectural, engineering, and related services	5413	454,913	574,367	606,186
Computer systems design and related services	5415	1,435,159	1,122,622	1,616,190
Scientific research and development services	5417	1,882,122	2,194,110	2,255,449
Research and development in nanotechnology	541713	175,639	162,996	172,582
Research and development in biotechnology (except nanobiotechnology)	541714	645,887	913,514	868,580
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	1,026,911	1,099,371	1,193,678
Social sciences and humanities research and development	541720	31,464	18,229	12,047

r = relative standard error > 50%.

NAICS = 2017 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, 2022 Annual Business Survey: Data Year 2021.