

Table 2. Total R&D cost, by selected industry and company size, for companies with 1–9 employees: 2023

(Number and thousands of U.S. dollars)

Industry	NAICS code	All companies		1–4 employees		5–9 employees	
		Companies (number)	Amount (\$thousands)	Companies (number)	Amount (\$thousands)	Companies (number)	Amount (\$thousands)
All selected industries	31–33, 42, 51, 5413, 5415, 5417	18,579	8,283,032	12,048	4,022,872	6,531	4,260,160
Manufacturing industries	31–33	2,085	780,797	1,133	363,781	953	417,015
Food, beverage, and tobacco products	311–12	30	11,110	18	5,355 r	12	5,755
Textile, apparel, and leather products	313–16	40 r	9,493 r	2	131	37 r	9,362 r
Wood products	321	56 r	10,390 r	53 r	9,573 r	3 r	817 r
Paper	322	0	0	0	0	0	0
Printing and related support activities	323	1 r	91	1 r	91	0	0
Petroleum and coal products	324	0	0	0	0	0	0
Chemicals	325	383	200,577	228	48,468	155	152,109 r
Pharmaceuticals and medicines	3254	141	65,684	85	22,193	56	43,490
Chemicals, excluding pharmaceuticals	other 325	242	134,893 r	143	26,274	99	108,619 r
Plastics and rubber products	326	94 r	23,495 r	5	1,493 r	89 r	22,002 r
Nonmetallic mineral products	327	24	4,085	17 r	2,101	8 r	1,984 r
Primary metals	331	9	1,226	3	806	6	419
Fabricated metal products	332	29	7,852	4 r	1,142 r	25	6,711 r
Machinery	333	197	47,071	68	12,309	130	34,762
Computer and electronic products	334	855	362,793	501	225,802	354	136,991
Semiconductor and other electronic components	3344	232	154,157 r	164	128,737 r	68	25,420
Navigational, measuring, electromedical, and control instruments	3345	521	172,275	290	87,763	231	84,513
Other computer and electronic products	other 334	103	36,361	48	9,302	55	27,058
Electrical equipment, appliances, and components	335	99	23,705	66	8,888	33	14,817
Transportation equipment	336	42	17,415	17	5,214	25	12,201
Aerospace products and parts	3364	19	6,827	13	4,754	6 r	2,072
Other transportation equipment	other 336	23	10,588	4 r	460 r	19	10,128
Furniture and related products	337	3	307	0	0	3	307
Miscellaneous manufacturing	339	223	61,188	149	42,409	75	18,779
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	16,493	7,502,235	10,916	3,659,091	5,578	3,843,144
Wholesale trade	42	1,077	227,906	517	123,259	560	104,647
Information	51	2,822	1,153,109	1,748	485,861	1,074	667,248
Software publishers	5112	2,199	949,010	1,310	407,996	888	541,014
Information, excluding software publishers	51 less 5112	623	204,099	437	77,866	186	126,234
Architectural, engineering, and related services	5413	2,373	664,122	1,657	316,772	715	347,350
Computer systems design and related services	5415	6,529	1,969,675	4,439	1,090,682	2,090	878,992
Scientific research and development services	5417	3,693	3,487,423	2,555	1,642,516	1,138	1,844,907
Research and development in nanotechnology	541713	224	123,696	153	79,296	71	44,399
Research and development in biotechnology (except nanobiotechnology)	541714	1,246	1,685,456	893	702,580	353	982,875

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Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	2,185	1,662,175	1,482	853,900	702	808,276
Social sciences and humanities research and development	541720	39	16,096	27	6,740	11	9,357

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.