TABLE 32

Total capital expenditures for R&D operations, by type of cost and selected industry, for companies with 1–9 employees: 2022

(Thousands of U.S. dollars)

Industry	NAICS code	Total	Land acquisition	Buildings and land improvement	Machinery and equipment	Capitalized software	Other intellectual property	All other costs
All selected industries	31-33, 42, 51, 5413, 5415, 5417	340,811	327	8,868	155,636	40,324	37,277	98,378
Manufacturing industries	31-33	63,769	78	2,927	32,771	686	7,170	20,138
Food, beverage, and tobacco products	311-12	3,185 r	0	0	3,185 r	0	0	0
Textile, apparel, and leather products	313-16	198 r	0	0	144 r	0	0	54
Wood products	321	0	0	0	0	0	0	0
Paper	322	48 r	0	27 r	21 r	0	0	0
Printing and related support activities	323	0	0	0	0	0	0	0
Petroleum and coal products	324	0	0	0	0	0	0	0
Chemicals	325	16,374	78	1,387	7,420	246	2,660	4,585
Pharmaceuticals and medicines	3254	10,128	78	438	4,326	238	2,235	2,813
Chemicals, excluding pharmaceuticals	other 325	6,247	0	949	3,094	8	425 r	1,772 r
Plastics and rubber products	326	1,246	0	70 r	1,176	0	0	0
Nonmetallic mineral products	327	628	0	17 r	252	0	0	360
Primary metals	331	18	0	0	18	0	0	0
Fabricated metal products	332	642 r	0	0	179	0	463 r	0
Machinery	333	1,984	0	148 r	1,190	46	130	470
Computer and electronic products	334	23,188	0	305	8,474	272	1,588	12,548 r
Semiconductor and other electronic components	3344	10,160 r	0	75	2,900	84	59	7,043 r
Navigational, measuring, electromedical, and control instruments	3345	10,255	0	15	3,614	83	1,309 r	5,235 r
Other computer and electronic products	other 334	2,773	0	215	1,960	106	221	270
Electrical equipment, appliances, and components	335	1,405	0	63	912	18	231 r	181
Transportation equipment	336	972 r	0	0	715 r	0	0	256 r
Aerospace products and parts	3364	710 r	0	0	710 r	0	0	0
Other transportation equipment	other 336	262 r	0	0	5 r	0	0	256 r
Furniture and related products	337	0	0	0	0	0	0	0
Miscellaneous manufacturing	339	13,880	0	910 r	9,084 r	104 r	2,098 r	1,684 r
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	277,041	249 r	5,940	122,866	39,638	30,108	78,240
Wholesale trade	42	8,780	0	181 r	3,566	665 r	1,791 r	2,577 r
Information	51	36,766	0	237 r	7,098	10,064	7,414	11,952
Software publishers	5112	20,905	0	210 r	5,645 r	7,300	3,097 r	4,653
Information, excluding software publishers	51 less 5112	15,861	0	27 r	1,453	2,763	4,318 r	7,299 r
Architectural, engineering, and related services	5413	16,950	12	186 r	10,029	1,048	421 r	5,255
Computer systems design and related services	5415	68,819	0	2,798 r	10,599	24,341	6,500 r	24,581
Scientific research and development services	5417	145,727	238 r	2,538	91,574	3,521	13,981	33,876
Research and development in nanotechnology	541713	10,766	0	0	7,454	292 r	855 r	2,165
Research and development in biotechnology (except nanobiotechnology)	541714	76,869	0	1,119	53,284	1,411	3,158	17,897

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(Thousands of U.S. dollars)

Industry	NAICS code	Total	Land acquisition	Buildings and land improvement	Machinery and equipment	Capitalized software	Other intellectual property	All other costs
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	57,474	238 r	1,419	30,666	1,710	9,787	13,654
Social sciences and humanities research and development	541720	618	0	0	170	108 r	180 r	159

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, 2023 Annual Business Survey: Data Year 2022.