

TABLE 8-2

## Domestic R&amp;D costs, by selected industry and type of cost, for companies with 1–4 employees: 2018

(Thousands of U.S. dollars)

Industry	NAICS code	Total	Salaries, wages, and fringe benefits	Expensed machinery and equipment	Materials and supplies	Payments to others for R&D	Depreciation on R&D property and equipment	All other costs
All selected industries	31–33, 42, 51, 5413, 5415, 5417	2,317,852	1,122,207	86,736	187,470	427,124	26,662	467,652
Manufacturing industries	31–33	272,489	121,932	23,995	30,319	40,516	2,712	53,015
Food, beverage, and tobacco products	311–12	D	D	0	D	D	0	D
Textile, apparel, and leather products	313–16	D	D	0	D	D	0	0
Wood products	321	0	0	0	0	0	0	0
Paper	322	0	0	0	0	0	0	0
Printing and related support activities	323	D	D	D	D	D	0	D
Petroleum and coal products	324	0	0	0	0	0	0	0
Chemicals	325	55,824	23,579	9,371	6,187	8,303	724	7,661
Pharmaceuticals and medicines	3254	31,324	11,354	1,590	5,019	8,120	561	4,680
Chemicals, excluding pharmaceuticals	other 325	24,500	12,225	7,781	1,168	183	163	2,981
Plastics and rubber products	326	0	0	0	0	0	0	0
Nonmetallic mineral products	327	D	D	D	D	D	0	D
Primary metals	331	0	0	0	0	0	0	0
Fabricated metal products	332	D	D	D	D	D	D	D
Machinery	333	20,444	11,230	2,017	3,939	1,424	D	1,830
Computer and electronic products	334	97,049	51,634	9,229	9,019	9,462	1,310	16,394
Semiconductor and other electronic components	3344	17,868	13,095	319	635	859	397	2,562
Navigational, measuring, electromedical, and control instruments	3345	62,152	28,960	8,460	6,809	7,039	615	10,268
Other computer and electronic products	other 334	17,028	9,579	449	1,575	1,563	299	3,564
Electrical equipment, appliances, and components	335	12,246	8,277	263	1,875	151	D	1,629
Transportation equipment	336	6,464	3,109	913	1,384	279	202	577
Aerospace products and parts	3364	4,123	1,600	762	871	279	142	469
Other transportation equipment	other 336	D	D	D	D	0	D	D
Furniture and related products	337	0	0	0	0	0	0	0
Miscellaneous manufacturing	339	74,272	21,159	1,679	7,301	20,125	382	23,625
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	2,045,363	1,000,275	62,740	157,151	386,608	23,950	414,638
Wholesale trade	42	91,212	44,631	3,019	6,546	19,225	0	17,792
Information	51	173,023	124,962	3,051	3,025	7,149	1,176	33,660
Software publishers	5112	122,486	88,288	2,162	1,943	5,439	1,015	23,640
Information, excluding software publishers	51, excluding 5112	50,537	36,674	889	1,082	1,710	162	10,020
Architectural, engineering, and related services	5413	255,880	138,062	9,741	38,035	27,637	3,941	38,464

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Computer systems design and related services	5415	479,777	320,046	24,221	14,690	33,107	7,706 r	80,007
Scientific research and development services	5417	1,045,470	372,574	22,708	94,855	299,491	11,127	244,714
Research and development in nanotechnology	541713	140,193	69,990	3,314	10,676	20,621	2,314	33,278
Research and development in biotechnology (except nanobiotechnology)	541714	413,090	104,101	5,816	39,819	146,811	5,247	111,296
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	486,474	194,887	13,442	43,973	131,872	3,547	98,753
Social sciences and humanities research and development	541720	2,864	2,288	D	212 r	0	0	318

D = withheld to avoid disclosing data for individual companies; data are included in higher-level totals. 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, 2019 Annual Business Survey: Data Year 2018.