

TABLE 8-3

## Domestic R&amp;D costs, by selected industry and type of cost, for companies with 5–9 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	3,448,877	1,695,949	77,152	237,790	812,768	33,374	591,846
Manufacturing industries	31–33	382,529	203,990	23,476	44,374	58,827	6,021	45,841
Food, beverage, and tobacco products	311–12	0	0	0	0	0	0	0
Textile, apparel, and leather products	313–16	D	D	D	D	0	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	0	0	0	0	0	0	0
Petroleum and coal products	324	D	D	D	D	D	0	D
Chemicals	325	69,274	23,122	2,006	5,764	30,524	239	7,618
Pharmaceuticals and medicines	3254	61,207	18,424	1,643	4,779	29,830	148	6,383
Chemicals, excluding pharmaceuticals	other 325	8,068	4,699	363 r	985	695 r	91	1,236
Plastics and rubber products	326	0	0	0	0	0	0	0
Nonmetallic mineral products	327	D	D	D	D	D	D	D
Primary metals	331	0	0	0	0	0	0	0
Fabricated metal products	332	D	D	D	D	0	0	0
Machinery	333	28,974 r	14,267 r	229 r	7,554 r	D	D	918 r
Computer and electronic products	334	234,551	138,859	18,035 r	24,333	18,427	4,337 r	30,560
Semiconductor and other electronic components	3344	41,819	30,147 r	1,346	2,437	2,015	176	5,697
Navigational, measuring, electromedical, and control instruments	3345	161,424	87,879	16,112 r	18,150	15,833	3,983 r	19,468
Other computer and electronic products	other 334	31,308	20,833	577	3,747	579 r	178 r	5,395
Electrical equipment, appliances, and components	335	18,181 r	10,507 r	988 r	1,770 r	2,323 r	394 r	2,199 r
Transportation equipment	336	7,940	4,009	471	687	1,147	D	1,494 r
Aerospace products and parts	3364	7,027	3,552	471	687	D	D	1,494 r
Other transportation equipment	other 336	D	D	0	0	D	0	0
Furniture and related products	337	0	0	0	0	0	0	0
Miscellaneous manufacturing	339	16,273	9,088	718	3,132 r	498 r	D	2,786
Selected nonmanufacturing industries	42, 51, 5413, 5415, 5417	3,066,349	1,491,958	53,676	193,416	753,941	27,353	546,005
Wholesale trade	42	135,966	74,420	1,821	2,345	24,421 r	D	32,260
Information	51	365,550	306,602	6,674	7,406	13,334	755	30,778
Software publishers	5112	260,193	226,355	4,639	3,086 r	8,953	262 r	16,899
Information, excluding software publishers	51, excluding 5112	105,356	80,247	2,035	4,320	4,382	494 r	13,879
Architectural, engineering, and related services	5413	190,293	91,614	4,327	20,086	6,549	2,584	65,134

TABLE 8-3

**Domestic R&D costs, by selected industry and type of cost, for companies with 5–9 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
Computer systems design and related services	5415	643,072	413,862	7,181	32,055	52,161	3,362	134,451 r
Scientific research and development services	5417	1,731,468	605,461	33,673	131,524	657,475	19,954	283,381
Research and development in nanotechnology	541713	191,397	105,632	7,738	20,450	18,203	3,840	35,534
Research and development in biotechnology (except nanobiotechnology)	541714	894,811	214,747	6,180	47,062	504,511 r	3,969	118,342
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	616,016	272,024	19,120	61,644	128,921	11,592	122,714
Social sciences and humanities research and development	541720	11,976	5,994	D	330	D	D	2,559

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.