

TABLE 88

Use of specialized software as a production technology for goods and services, by industry: 2016–18

(Number and percent)

Industry	NAICS code	Companies (number)	Did not use	Tested, but not used in production or service	Low use	Moderate use	High use	Don't know
All industries	11, 21–23, 31–33, 42–81	4,805,151	54.7	0.5	7.8	13.3	16.8	6.9
Manufacturing industries	31–33	217,565	51.2	0.8	9.1	15.4	16.1	7.4
Food	311	18,250	64.6	0.5	8.3	10.0	7.7	8.9
Beverage and tobacco products	312	7,723	49.9	1.1	14.0	14.2	15.4	5.5
Textile, apparel, and leather products	313–16	10,554	59.9	D	7.9	11.0	12.2	9.0
Wood products	321	11,012	64.0	0.3	6.2	11.2	11.8	6.5
Paper	322	2,117	44.9	1.6 r	15.1	18.8	14.9	4.9
Printing and related support activities	323	20,851	40.2	0.9	10.4	19.5	22.0	7.0
Petroleum and coal products	324	583	60.9	0.0	5.7 r	6.9 r	21.8	4.5
Chemicals	325	7,522	52.6	1.0	8.8	15.3	15.0	7.3
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	593	60.5	0.0	7.8	20.4	3.7	7.6
Pharmaceuticals and medicines	3254	1,365	49.3	2.3 r	9.9	16.7	15.5	6.5
Soap, cleaning compound, and toilet preparation manufacturing	3256	1,636	58.1	0.9 r	8.5	9.8	15.2	7.3
Other chemicals	other 325	3,927	50.2	0.7	8.8	16.2	16.5	7.6
Plastics and rubber products	326	8,087	46.4	0.8 r	10.6	19.4	16.3	6.6
Nonmetallic mineral products	327	7,749	63.2	0.4	7.3	11.4	9.8	7.9
Primary metals	331	2,537	51.1	2.8 r	10.8	15.3	14.9	5.1
Fabricated metal products	332	48,472	51.7	0.5	9.5	15.7	16.2	6.5
Machinery	333	18,558	42.1	1.8	9.2	17.0	21.8	8.2
Computer and electronic products	334	9,036	39.4	1.5	10.2	19.6	21.5	7.8
Communications equipment	3342	974	33.7	2.8 r	8.8	23.2	26.7	4.9
Semiconductor and other electronic components	3344	2,796	38.9	1.1 r	12.0	20.7	18.3	9.0
Navigational, measuring, electromedical, and control instruments	3345	3,909	40.9	1.5 r	8.3	18.3	22.7	8.4
Other computer and electronic products	other 334	1,359	40.7	1.8 r	12.6	18.3	20.7	5.8
Electrical equipment, appliances, and components	335	4,000	46.2	1.2	12.0	19.7	15.2	5.9
Transportation equipment	336	7,175	52.5	1.2	8.1	14.3	16.1	7.8
Automobiles, bodies, trailers, and parts	3361–63	4,565	52.4	1.1	7.3	14.4	16.9	7.8
Aerospace products and parts	3364	985	41.8	1.2 r	7.6	16.2	24.6	8.3
Other transportation	other 336	1,625	59.1	1.6 r	10.3	12.9	8.4	7.6
Furniture and related products	337	12,647	52.2	0.2	8.6	16.4	16.2	6.4
Miscellaneous	339	20,669	49.1	0.6 r	7.3	16.1	17.6	9.3
Medical equipment and supplies	3391	8,060	48.6	0.7 r	5.9	16.1	17.6	11.1
Other miscellaneous manufacturing	3399	12,608	49.4	0.5	8.2	16.2	17.5	8.2
Nonmanufacturing industries	11, 21–23, 42–81	4,587,586	54.9	0.5	7.7	13.2	16.8	6.9
Agriculture, forestry, fishing, and hunting	11	21,606	77.1	0.0	5.0	8.3	6.2	3.4
Mining, extraction, and support activities	21	14,969	67.2	0.5 r	5.3	11.5	9.9	5.6
Utilities	22	2,684	54.3	0.6 r	13.4	14.2	11.8	5.6
Construction	23	613,110	69.0	0.6	8.0	9.9	7.2	5.3
Wholesale trade	42	257,153	60.6	0.6	8.4	12.3	10.5	7.5
Retail trade	44–45	560,952	61.7	0.5	7.2	11.0	12.1	7.5
Transportation and warehousing	48–49	152,463	63.4	0.6	6.8	10.6	10.0	8.6
Information	51	61,638	32.7	0.8	8.9	20.3	29.8	7.6

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Publishing	511	17,590	31.0	1.1	9.9	20.9	30.6	6.6
Newspaper, periodical, book, and directory publishers	5111	9,761	39.0	0.9	11.1	23.3	19.0	6.5
Software publishers	5112	7,828	20.9	1.4	8.4	17.7	44.9	6.7
Telecommunications	517	7,164	41.0	1.0 r	9.0	20.2	15.7	13.1
Data processing, hosting, and related services	518	8,918	21.8	1.1	7.8	21.4	39.9	7.9
Other information	other 51	27,965	35.0	0.5	8.5	19.5	29.7	6.8
Finance and insurance	52	200,857	37.5	0.2	8.0	17.5	28.6	8.2
Real estate and rental and leasing	53	255,783	53.6	0.2	8.1	15.3	16.1	6.7
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1,812	62.9	0.0	7.9	13.5 r	15.5 r	D
Other real estate and rental and leasing	other 53	253,970	53.5	0.2	8.1	15.3	16.1	6.7
Professional, scientific, and technical services	54	695,672	35.8	0.7	9.1	18.3	29.8	6.4
Legal services	5411	152,243	36.3	0.4	11.8	22.3	21.3	8.0
Accounting, tax preparation, bookkeeping, and payroll services	5412	106,634	23.0	0.2	3.3	12.9	54.7	5.9
Architectural, engineering, and related services	5413	88,491	28.3	0.4	8.1	19.0	37.8	6.4
Specialized design services	5414	26,282	38.8	0.5	7.7	16.4	31.9	4.6
Computer systems design and related services	5415	95,950	28.2	1.6	10.2	21.9	32.5	5.6
Management, scientific, and technical consulting services	5416	132,989	51.9	1.0	11.1	15.5	14.9	5.7
Scientific research and development services	5417	9,798	41.5	1.4	8.7	20.0	20.7	7.7
Advertising, public relations, and related services	5418	27,677	44.8	0.4	10.7	18.6	20.0	5.4
Other professional, scientific, and technical services	5419	55,569	38.4	0.7	7.2	17.3	29.2	7.2
Management of companies and enterprises	55	2,409	60.5	0.0	5.6	11.5	14.6	7.8
Administrative and support and waste management and remediation services	56	287,807	61.0	0.7	7.6	10.8	13.9	6.0
Educational services	61	53,912	51.0	0.6	10.3	16.5	17.0	4.6
Health care and social assistance	62	519,556	42.5	0.4	7.0	15.6	27.4	7.1
Health care services	621–23	459,855	40.2	0.3	6.8	16.2	29.2	7.2
Social assistance	624	59,700	60.4	0.7	8.4	11.3	13.6	5.7
Arts, entertainment, and recreation	71	88,831	57.2	0.2	9.2	13.2	14.5	5.6
Accommodation and food services	72	453,059	66.2	0.3	6.4	10.0	8.8	8.3
Other services	81	345,125	61.3	0.5	7.2	11.1	12.9	7.1

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.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, 2019 Annual Business Survey: Data Year 2018.