

TABLE 86

**Use of cloud-based computing systems and applications 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	60.7	0.8	10.4	11.5	10.4	6.2	
Manufacturing industries	31–33	217,565	64.6	1.0	12.0	10.2	6.4	5.8	
Food	311	18,250	67.8	0.4	10.4	8.1	5.8	7.5	
Beverage and tobacco products	312	7,723	46.9	0.4	17.7	17.7	13.2	4.1	
Textile, apparel, and leather products	313–16	10,554	68.5	0.4	9.6	8.5	6.4	6.6	
Wood products	321	11,012	77.2	0.6	8.3	6.4	3.5	4.0	
Paper	322	2,117	58.2	1.4	r 14.4	17.3	5.4	3.4	
Printing and related support activities	323	20,851	52.2	0.3	17.2	16.1	8.6	5.6	
Petroleum and coal products	324	583	53.9	0.0	26.7	9.8	r 4.1	r 5.5	
Chemicals	325	7,522	58.0	1.4	9.4	14.6	9.0	7.6	
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	593	52.8	D	3.5	25.3	4.4	12.0	r
Pharmaceuticals and medicines	3254	1,365	52.8	2.0	r 13.3	14.8	10.2	7.0	
Soap, cleaning compound, and toilet preparation manufacturing	3256	1,636	57.6	1.4	r 9.8	13.0	11.4	r 6.7	
Other chemicals	other 325	3,927	60.6	1.0	8.7	13.6	8.5	7.6	
Plastics and rubber products	326	8,087	59.8	1.2	14.7	12.8	6.2	5.3	
Nonmetallic mineral products	327	7,749	71.7	0.6	10.2	7.5	4.6	5.4	
Primary metals	331	2,537	61.1	2.2	r 14.5	13.6	4.4	4.2	
Fabricated metal products	332	48,472	72.1	1.0	10.8	7.8	3.8	4.5	
Machinery	333	18,558	62.0	1.6	12.0	10.6	7.6	6.2	
Computer and electronic products	334	9,036	54.7	3.1	14.3	12.3	8.6	7.0	
Communications equipment	3342	974	52.7	6.5	r 10.9	10.6	12.3	6.9	
Semiconductor and other electronic components	3344	2,796	53.9	1.6	15.6	14.8	6.2	7.9	
Navigational, measuring, electromedical, and control instruments	3345	3,909	57.6	3.4	13.6	11.2	7.6	6.5	
Other computer and electronic products	other 334	1,359	48.8	3.0	r 16.0	11.7	13.8	6.6	
Electrical equipment, appliances, and components	335	4,000	59.2	2.2	11.7	12.2	8.3	6.4	
Transportation equipment	336	7,175	65.8	1.1	13.1	9.0	4.6	6.4	
Automobiles, bodies, trailers, and parts	3361–63	4,565	65.6	1.1	13.7	8.9	4.8	5.9	
Aerospace products and parts	3364	985	55.2	2.0	r 16.2	12.6	5.5	8.6	r
Other transportation	other 336	1,625	72.6	0.7	r 9.2	7.1	3.6	6.8	
Furniture and related products	337	12,647	72.2	0.9	r 9.0	7.0	4.6	6.3	
Miscellaneous	339	20,669	61.5	0.6	11.8	9.6	9.4	7.1	
Medical equipment and supplies	3391	8,060	62.3	0.9	r 11.5	7.8	6.1	11.4	
Other miscellaneous manufacturing	3399	12,608	60.9	0.3	12.1	10.8	11.5	4.4	
Nonmanufacturing industries	11, 21–23, 42–81	4,587,586	60.6	0.8	10.3	11.5	10.6	6.2	
Agriculture, forestry, fishing, and hunting	11	21,606	82.6	D	6.8	6.2	1.6	2.3	
Mining, extraction, and support activities	21	14,969	75.2	0.9	r 6.8	6.3	6.3	4.5	
Utilities	22	2,684	60.5	2.2	r 13.2	13.1	5.8	5.2	
Construction	23	613,110	71.5	0.6	9.1	8.4	5.2	5.2	
Wholesale trade	42	257,153	62.8	1.2	11.2	11.3	7.6	5.9	
Retail trade	44–45	560,952	68.5	0.8	9.0	8.2	6.3	7.2	
Transportation and warehousing	48–49	152,463	69.4	0.5	8.6	8.2	6.3	7.0	
Information	51	61,638	34.5	1.7	13.8	18.4	25.7	6.0	

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Publishing	511	17,590	31.0	3.0	13.8	18.0	29.5	4.8
Newspaper, periodical, book, and directory publishers	5111	9,761	41.7	1.4	16.2	20.0	16.3	4.4
Software publishers	5112	7,828	17.8	4.9	10.7	15.4	46.0	5.3
Telecommunications	517	7,164	38.2	1.3	14.1	19.2	15.7	11.5
Data processing, hosting, and related services	518	8,918	21.3	1.7	11.8	14.7	44.4	6.2
Other information	other 51	27,965	39.9	1.1	14.4	19.6	19.8	5.2
Finance and insurance	52	200,857	43.8	0.7	11.2	17.3	19.8	7.1
Real estate and rental and leasing	53	255,783	55.5	0.6	10.9	13.7	13.0	6.3
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1,812	49.8	D	7.1	17.8	19.5	2.5
Other real estate and rental and leasing	other 53	253,970	55.5	0.6	10.9	13.7	13.0	6.3
Professional, scientific, and technical services	54	695,672	41.5	1.4	14.1	18.1	19.9	5.0
Legal services	5411	152,243	40.1	0.9	14.2	18.8	19.3	6.6
Accounting, tax preparation, bookkeeping, and payroll services	5412	106,634	40.7	1.0	15.7	17.7	20.6	4.3
Architectural, engineering, and related services	5413	88,491	47.6	1.0	16.2	17.6	12.5	5.1
Specialized design services	5414	26,282	43.1	0.7	12.4	16.6	23.1	4.1
Computer systems design and related services	5415	95,950	26.2	3.8	12.3	20.7	33.0	4.1
Management, scientific, and technical consulting services	5416	132,989	46.4	0.9	13.3	17.4	17.4	4.6
Scientific research and development services	5417	9,798	49.3	2.0	11.2	15.8	15.7	6.0
Advertising, public relations, and related services	5418	27,677	38.8	1.1	13.6	21.2	20.9	4.5
Other professional, scientific, and technical services	5419	55,569	50.6	0.9	14.6	14.7	14.2	5.0
Management of companies and enterprises	55	2,409	58.7	D	11.2	16.2	6.1	7.8
Administrative and support and waste management and remediation services	56	287,807	64.0	0.8	9.5	10.8	9.4	5.5
Educational services	61	53,912	52.4	0.3	13.7	14.5	14.8	4.3
Health care and social assistance	62	519,556	53.3	0.7	11.1	13.0	14.9	7.0
Health care services	621–23	459,855	52.0	0.7	11.3	13.3	15.6	7.1
Social assistance	624	59,700	64.0	0.4	9.3	10.5	9.6	6.2
Arts, entertainment, and recreation	71	88,831	62.7	0.3	11.3	12.3	8.5	4.9
Accommodation and food services	72	453,059	70.9	0.5	7.6	8.2	5.1	7.7
Other services	81	345,125	72.2	0.5	7.9	7.6	4.8	7.0

D = withheld to avoid disclosing data for individual companies; data are included in higher-level totals. r = relative standard error &gt; 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.