

TABLE 41

Use of machine learning technology, by industry: 2020

(Number and percent)

Industry	NAICS code	Companies (number)	In use	In testing, but not in use		Not in use nor testing	Don't know	Did not answer	
All industries	11, 21–23, 31–33, 42–81	4,865,616	1.6	0.8		83.9	13.4	0.3	
Manufacturing industries	31–33	213,833	4.2	1.2		82.3	11.9	0.4	
Food	311	18,385	1.8	0.7		85.7	11.5	0.3	
Beverage and tobacco products	312	9,314	1.2	0.1		90.1	8.0	0.6	r
Textile, apparel, and leather products	313–16	9,850	2.2	0.9	r	84.7	10.6	1.5	r
Wood products	321	10,237	3.4	0.6	r	84.0	11.7	0.2	r
Paper	322	1,907	4.2	1.4	r	82.1	11.9	0.5	r
Printing and related support activities	323	20,357	2.8	0.7		83.7	12.3	0.5	r
Petroleum and coal products	324	463	0.9	1.3		81.4	16.4	0.0	
Chemicals	325	8,095	2.1	1.2		86.4	9.9	0.4	r
Pesticide, fertilizer, and other agricultural chemicals	3253	514	8.2	r	0.0	78.6	13.2	r	0.0
Pharmaceuticals and medicines	3254	1,417	2.3	2.5		82.6	11.8	0.8	r
Soap, cleaning compound, and toilet preparation	3256	1,807	0.5	r	0.6	85.0	13.7	0.2	r
Other chemicals	other 325	4,357	2.0	1.1		89.2	7.3	0.5	r
Plastics and rubber products	326	7,478	3.2	2.0		81.2	13.5	0.1	
Nonmetallic mineral products	327	7,300	2.7	0.9		84.0	12.4	0.0	r
Primary metals	331	2,394	2.9	r	1.2	77.2	18.4	0.3	r
Fabricated metal products	332	46,992	6.6	1.6		79.4	12.1	0.3	
Machinery	333	18,052	7.5	1.7		76.1	14.6	0.1	
Computer and electronic products	334	8,732	5.0	3.5		80.3	10.8	0.4	r
Communications equipment	3342	836	1.3	r	3.1	r	89.1	6.2	0.2
Semiconductor and other electronic components	3344	2,773	5.5	2.1		78.4	13.9	0.1	r
Navigational, measuring, electromedical, and control instruments	3345	3,753	5.5	4.5		78.8	10.5	0.7	r
Other computer and electronic products	other 334	1,369	4.7	3.6		82.9	8.7	0.1	
Electrical equipment, appliances, and components	335	4,064	3.9	1.7		84.0	10.3	0.2	r
Transportation equipment	336	7,786	3.6	1.4		83.5	11.2	0.3	
Automobiles, bodies, trailers, and parts	3361–63	5,054	3.3	1.3		83.0	12.1	0.3	
Aerospace products and parts	3364	994	4.5	3.2	r	79.6	12.4	0.3	r
Other transportation	other 336	1,738	3.7	r	0.5	87.2	8.3	0.2	
Furniture and related products	337	12,594	3.7	1.0		82.8	12.1	0.4	r
Miscellaneous	339	19,761	4.0	0.7		83.1	11.9	0.3	
Medical equipment and supplies	3391	7,588	5.5	0.8		78.6	14.9	0.2	r
Other miscellaneous manufacturing	3399	12,172	3.1	0.6		85.9	10.0	0.4	r
Nonmanufacturing industries	11, 21–23, 42–81	4,651,784	1.5	0.8		84.0	13.5	0.3	

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Agriculture, forestry, fishing, and hunting	11	21,859	1.1	0.3	86.4	12.3	0.0
Mining, extraction, and support activities	21	15,323	2.2	0.3	83.4	13.8	0.3
Utilities	22	2,729	0.8	0.6	87.1	11.3	0.2
Construction	23	627,170	0.9	0.4	85.5	12.9	0.2
Wholesale trade	42	246,019	1.5	1.0	84.1	13.0	0.4
Retail trade	44–45	548,126	1.2	0.4	83.7	14.5	0.2
Transportation and warehousing	48–49	160,599	0.8	0.3	83.6	14.9	0.4
Information	51	63,631	4.8	3.5	81.3	10.2	0.2
Publishing	511	17,644	7.0	4.3	78.3	10.2	0.2
Newspaper, periodical, book, and directory publishers	5111	9,186	0.8	0.3	89.0	9.8	0.2
Software publishers	5112	8,459	13.7	8.7	66.7	10.6	0.3
Telecommunications	517	7,670	2.0	1.6	82.7	13.6	0.1
Data processing, hosting, and related services	518	8,311	11.3	7.2	72.3	8.9	0.3
Other information	other 51	30,006	2.4	2.4	85.3	9.7	0.2
Finance and insurance	52	198,294	1.5	0.7	81.4	16.2	0.2
Real estate and rental and leasing	53	272,733	1.0	0.4	83.0	15.3	0.2
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1,581	7.0	0.0	87.2	5.9	0.0
Other real estate and rental and leasing	other 53	271,153	1.0	0.4	83.0	15.4	0.2
Professional, scientific, and technical services	54	709,564	2.8	1.9	85.1	9.9	0.3
Legal services	5411	153,271	0.7	0.3	87.3	11.3	0.4
Accounting, tax preparation, bookkeeping, and payroll services	5412	106,909	2.4	0.4	85.7	11.0	0.4
Architectural, engineering, and related services	5413	88,331	2.2	1.5	87.3	8.7	0.3
Specialized design services	5414	29,243	0.9	1.2	89.7	8.1	0.1
Computer systems design and related services	5415	98,634	7.8	7.4	75.0	9.3	0.5
Management, scientific, and technical consulting services	5416	139,202	2.5	1.5	86.8	9.0	0.2
Scientific research and development services	5417	10,785	8.3	4.7	77.0	9.3	0.6
Advertising, public relations, and related services	5418	27,701	3.1	1.9	85.5	9.4	0.1
Other professional, scientific, and technical services	5419	55,490	2.2	0.9	86.7	10.1	0.1
Management of companies and enterprises	55	2,331	0.2	0.1	85.3	14.3	0.0
Administrative and support and waste management and remediation services	56	291,891	1.0	0.5	86.5	11.9	0.2
Educational services	61	56,639	2.0	0.5	85.5	11.9	0.1
Health care and social assistance	62	531,069	1.2	0.5	84.7	13.4	0.3
Health care services	621–23	466,688	1.2	0.5	85.0	13.1	0.3
Social assistance	624	64,382	1.0	0.3	82.2	16.0	0.4

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Arts, entertainment, and recreation	71	90,143	0.4	0.5	86.2	12.8	0.2 r
Accommodation and food services	72	464,142	0.9	0.6	81.1	17.1	0.3
Other services	81	349,519	1.8	0.6	82.3	15.1	0.3

r = relative standard error > 50%.

NAICS = 2017 North American Industry Classification System.

Note(s):

Detail across rows may not add to total because of rounding or unavailable NAICS detail for select records beyond the 4-digit industry classification. Detail across columns have been adjusted to add to total. 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, 2021 Annual Business Survey: Data Year 2020.