

TABLE 124

**Motivations for companies producing artificial intelligence or goods or services with artificial intelligence, by industry: 2016–18**

(Number and percent)

Industry	NAICS code	Companies (number)	To upgrade goods or services	To expand the range of goods or services	To enter new markets or adapt existing products to new markets	To increase or maintain market share	To adopt standards and accreditation	Some other reason
All industries	11, 21–23, 31–33, 42–81	19,775	56.5	54.8	41.2	36.1	16.5	14.8
Manufacturing industries	31–33	817	65.7	59.1	46.8	46.4	19.3	8.0
Food	311	30 r	D	0.0	0.0	0.0	0.0	D
Beverage and tobacco products	312	0	0.0	0.0	0.0	0.0	0.0	0.0
Textile, apparel, and leather products	313–16	11	D	D	0.0	D	D	0.0
Wood products	321	3	100.0	0.0	0.0	D	0.0	0.0
Paper	322	D	D	D	D	D	0.0	0.0
Printing and related support activities	323	56	78.6	80.4	39.3 r	67.9	D	0.0
Petroleum and coal products	324	0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals	325	25 r	D	D	D	D	0.0	D
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmaceuticals and medicines	3254	D	D	D	D	0.0	0.0	0.0
Soap, cleaning compound, and toilet preparation manufacturing	3256	D	D	D	D	D	0.0	0.0
Other chemicals	other 325	D	0.0	0.0	0.0	0.0	0.0	D
Plastics and rubber products	326	9	88.9 r	D	D	66.7	D	0.0
Nonmetallic mineral products	327	D	D	D	0.0	0.0	D	0.0
Primary metals	331	0	0.0	0.0	0.0	0.0	0.0	0.0
Fabricated metal products	332	153	63.4 r	58.8 r	56.9 r	90.2	D	D
Machinery	333	231	63.6	58.9	37.7 r	33.3 r	22.9 r	D
Computer and electronic products	334	145	56.6	67.6	65.5	50.3	D	4.1
Communications equipment	3342	9	111.1	D	D	D	0.0	D
Semiconductor and other electronic components	3344	10	0.0	D	30.0	D	0.0	D
Navigational, measuring, electromedical, and control instruments	3345	93	59.1	75.3	78.5	63.4	D	D
Other computer and electronic products	other 334	30	60.0 r	73.3	46.7 r	23.3 r	0.0	0.0
Electrical equipment, appliances, and components	335	80	87.5	60.0 r	56.3 r	16.3 r	0.0	11.3
Transportation equipment	336	17	64.7 r	82.4 r	76.5 r	76.5 r	D	35.3
Automobiles, bodies, trailers, and parts	3361–63	11	72.7 r	54.5 r	54.5 r	54.5 r	D	D
Aerospace products and parts	3364	D	D	D	D	D	0.0	D
Other transportation	other 336	D	D	D	D	D	0.0	0.0
Furniture and related products	337	9 r	D	D	D	0.0	0.0	0.0
Miscellaneous	339	46	80.4	73.9	56.5 r	50.0 r	47.8 r	0.0
Medical equipment and supplies	3391	38	84.2	73.7	63.2 r	50.0 r	55.3 r	0.0
Other miscellaneous manufacturing	3399	6 r	D	D	D	D	D	0.0
Nonmanufacturing industries	11, 21–23, 42–81	18,959	56.1	54.6	41.0	35.7	16.4	15.1
Agriculture, forestry, fishing, and hunting	11	0	0.0	0.0	0.0	0.0	0.0	0.0
Mining, extraction, and support activities	21	D	0.0	D	D	0.0	0.0	0.0
Utilities	22	5	D	D	D	D	D	D
Construction	23	1,146	53.8	47.8	22.4	20.1	D	20.9
Wholesale trade	42	1,322	61.6	69.4	47.7	43.7	16.0	4.9

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Retail trade	44–45	1,818	58.7	38.4	35.6	40.1	15.6	7.9 r
Transportation and warehousing	48–49	92 r	73.9	10.9 r	31.5	12.0 r	D	52.2
Information	51	1,301	58.6	66.3	53.3	59.3	14.3	11.2
Publishing	511	428	57.7	59.1	62.9	60.7	17.3	9.1 r
Newspaper, periodical, book, and directory publishers	5111	22	36.4 r	36.4 r	36.4 r	40.9 r	D	68.2
Software publishers	5112	407	58.2	59.7	63.6	61.4	16.7	6.1 r
Telecommunications	517	170	27.6 r	51.2 r	35.9 r	45.9 r	D	40.0 r
Data processing, hosting, and related services	518	521	65.8	77.0	47.2	59.7	17.9	5.0
Other information	other 51	180	68.9	67.2	63.9	67.2	8.3 r	7.2
Finance and insurance	52	780	57.2	28.8	24.7	57.6	28.7	10.3 r
Real estate and rental and leasing	53	295	47.8 r	62.4	47.8 r	52.5 r	52.2	0.0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0.0	0.0	0.0	0.0	0.0	0.0
Other real estate and rental and leasing	other 53	295	47.8 r	62.4	47.8 r	52.5 r	52.2	0.0
Professional, scientific, and technical services	54	8,045	55.3	61.4	45.3	34.3	11.8	15.0
Legal services	5411	425	43.1 r	41.6	31.8	41.2 r	9.6 r	30.8 r
Accounting, tax preparation, bookkeeping, and payroll services	5412	449	79.1	34.7	29.2 r	30.5 r	17.4 r	D
Architectural, engineering, and related services	5413	598	67.6	57.9	46.8	43.5	6.7 r	20.6
Specialized design services	5414	148	D	D	D	0.0	D	D
Computer systems design and related services	5415	4,470	56.4	67.7	48.3	33.4	14.5	12.9
Management, scientific, and technical consulting services	5416	1,184	49.2	54.6	38.9	28.0	2.0 r	13.5
Scientific research and development services	5417	274	50.4	65.3	56.9	28.5	4.7	13.5
Advertising, public relations, and related services	5418	182	33.5	79.1	45.6	33.0	19.2 r	7.7
Other professional, scientific, and technical services	5419	320	52.2	71.9	63.1	71.6	D	D
Management of companies and enterprises	55	D	0.0	0.0	D	0.0	0.0	0.0
Administrative and support and waste management and remediation services	56	959	57.9	58.5	41.6	32.8	18.5	17.8
Educational services	61	88 r	D	100.0	D	51.1 r	0.0	D
Health care and social assistance	62	1,570	67.6	47.4	32.9	27.7	26.4	26.8
Health care services	621–23	1,570	67.6	47.4	32.9	27.7	26.4	26.8
Social assistance	624	0	0.0	0.0	0.0	0.0	0.0	0.0
Arts, entertainment, and recreation	71	D	D	D	D	D	D	0.0
Accommodation and food services	72	749	35.8 r	28.7 r	30.4	D	29.6	21.6
Other services	81	637	53.1	39.2	36.4	19.0 r	17.4 r	22.1 r

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. Detail may exceed total because companies could select more than one response. 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.