TABLE 100

Motivation for specialized software technology adoption and utilization for companies using the technology, by industry: 2016–18

(Number and percent)

Industry	NAICS code	Companies (number)	To automate tasks performed by labor	To upgrade outdated processes or methods	To improve quality or reliability of processes or methods	To expand the range of goods or services	To adopt standards and accreditation	Some other reason
All industries	11, 21–23, 31–33, 42–81	1,818,697	19.8	43.5	50.9	15.3	11.9	19.4
Manufacturing industries	31–33	88,457	23.1	48.4	55.1	18.3	10.1	16.6
Food	311	4,753	17.1	46.0	51.9	10.8	10.3	21.1
Beverage and tobacco products	312	3,363	20.2	44.5	57.2	12.7	10.9	17.2
Textile, apparel, and leather products	313–16	3,283	16.5	47.0	47.1	16.3	7.4	21.8
Wood products	321	3,209	36.4	46.9	50.2	14.5	6.2	17.0
Paper	322	1,033	33.5	57.7	52.0	14.7 r	12.5	19.3
Printing and related support activities	323	10,799	19.1	50.6	51.5	19.9	6.0	16.5
Petroleum and coal products	324	201	36.8 r	82.1	48.8 r	9.0 r	6.0	10.4 r
Chemicals	325	2,942	24.6	43.1	63.1	13.6	14.3	12.8
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	189	39.7 r	70.9	69.3	25.9 r	24.3 r	D
Pharmaceuticals and medicines	3254	572	28.3	47.7	59.8	14.5	25.0	13.3
Soap, cleaning compound, and toilet preparation manufacturing	3256	548	16.6	44.5	57.5	11.7	11.7	19.5 r
Other chemicals	other 325	1,631	24.2	37.8	65.6	12.6	10.5	11.4
Plastics and rubber products	326	3,745	22.8	55.4	58.9	16.4	16.8	19.0
Nonmetallic mineral products	327	2,209	21.8	53.9	47.8	13.0	7.0	14.8
Primary metals	331	1,042	15.5	41.5	63.8	8.4	11.1 r	13.3
Fabricated metal products	332	20,037	23.8	48.9	55.6	15.6	11.7	15.9
Machinery	333	8,900	25.9	48.5	63.6	23.0	11.4	13.8
Computer and electronic products	334	4,631	22.1	39.9	58.4	27.8	11.0	18.7
Communications equipment	3342	574	19.2	40.2	68.3	36.9	12.9 r	12.2
Semiconductor and other electronic components	3344	1,427	27.7	45.0	62.4	24.7	12.8	18.8
Navigational, measuring, electromedical, and control instruments	3345	1,928	19.9	35.8	55.5	28.8	10.5	21.2
Other computer and electronic products	other 334	703	19.1	40.3	50.5	23.8	7.4	16.8
Electrical equipment, appliances, and components	335	1,872	24.8	50.6	49.5	26.9	9.6	17.0
Transportation equipment	336	2,758	26.8	51.5	57.8	19.7	14.6	17.3
Automobiles, bodies, trailers, and parts	3361–63	1,766	28.7	54.3	60.8	20.8	13.9	14.7
Aerospace products and parts	3364	476	24.4	50.8	57.6	21.6	19.1	22.7
Other transportation	other 336	515	21.9	42.5	48.0	13.8	12.8 r	21.4
Furniture and related products	337	5,208	28.6	44.7	53.2	14.2	6.4	17.0
Miscellaneous	339	8,474	20.5	49.8	52.6	27.3	8.8	15.4
Medical equipment and supplies	3391	3,192	29.6	48.9	57.7	37.0	11.2	10.8
Other miscellaneous manufacturing	3399	5,281	14.9	50.3	49.5	21.5	7.3	18.2
Nonmanufacturing industries	11, 21–23, 42–81	1,730,242	19.6	43.2	50.7	15.2	12.0	19.5
Agriculture, forestry, fishing, and hunting	11	4,216	19.1	47.8	45.1	10.2	5.3	18.9
Mining, extraction, and support activities	21	3,992	15.0	41.0	44.1	7.3	3.4 r	22.6
Utilities	22	1,058	23.9	39.2	49.2	9.4	10.8 r	18.5

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Construction	23	153,792	16.5		45.3		46.3		10.6		7.0		22.4	
Wholesale trade	42	80,452	16.1		46.4		49.2		14.0		7.7		19.2	
Retail trade	44–45	169,897	17.1		44.9		48.3		14.6		9.3		18.7	
Transportation and warehousing	48–49	41,847	18.4		44.9		46.3		11.5		11.0		20.1	
Information	51	36,310	22.5		45.4		55.1		27.1		9.9		17.6	
Publishing	511	10,789	22.5		48.9		57.2		28.2		8.1		17.3	
Newspaper, periodical, book, and directory publishers	5111	5,223	15.9		50.6		50.7		18.2		3.8		19.7	
Software publishers	5112	5,565	28.7		47.3		63.2		37.5		12.2		15.1	
Telecommunications	517	3,218	26.6		44.7		54.1		21.6		9.4		18.1	
Data processing, hosting, and related services	518	6,165	34.6		49.9		58.1		38.1		15.2		13.4	
Other information	other 51	16,138	17.2		41.4		52.8		23.4		9.2		19.2	
Finance and insurance	52	108,580	23.6		46.8		58.2		18.8		13.6		14.9	
Real estate and rental and leasing	53	101,319	19.9		45.0		51.7		12.6		9.8		18.1	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	669	23.0	r	53.4		46.2		19.0	r	16.4	r	D	
Other real estate and rental and leasing	other 53	100,648	19.9		44.9		51.8		12.5		9.7		18.2	
Professional, scientific, and technical services	54	397,321	22.6		40.7		53.7		20.3		11.3		20.0	
Legal services	5411	84,212	22.9		44.9		54.0		8.6		7.8		20.8	
Accounting, tax preparation, bookkeeping, and payroll services	5412	75,646	23.3		32.7		51.3		16.3		12.7		22.8	
Architectural, engineering, and related services	5413	57,394	21.4		40.1		52.1		22.4		13.5		20.6	
Specialized design services	5414	14,719	15.0		39.7		48.5		19.8		10.0		25.4	
Computer systems design and related services	5415	61,904	27.8		45.7		58.3		35.4		15.0		16.6	
Management, scientific, and technical consulting services	5416	55,062	22.8		40.9		53.3		23.9		9.3		17.8	
Scientific research and development services	5417	4,838	21.2		33.6		58.2		23.8		16.1		23.6	
Advertising, public relations, and related services	5418	13,660	20.4		47.0		54.7		23.9		7.5		14.3	
Other professional, scientific, and technical services	5419	29,847	16.2		38.4		54.9		19.4		11.3		19.6	
Management of companies and enterprises	55	764	6.9	r	50.0		62.7		D		D		12.7	r
Administrative and support and waste management and remediation services	56	92,899	21.0		46.3		52.2		14.2		9.0		20.2	
Educational services	61	23,595	21.9		45.7		53.4		17.2		9.8		18.3	
Health care and social assistance	62	259,822	19.3		40.5		50.9		11.3		25.3		18.8	
Health care services	621–23	240,008	19.1		40.3		50.6		11.4		26.0		18.8	
Social assistance	624	19,813	21.3		43.3		53.8		10.5		16.5		19.3	
Arts, entertainment, and recreation	71	32,812	15.3		39.4		46.6		17.3		6.7		23.7	
Accommodation and food services	72	114,110	17.5		45.0		45.1		10.7		8.1		20.1	

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Other services	81	107,459	17.5	40.2	46.8	14.9	8.4	21.4

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. 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 that reported a low, moderate, or high use of the technology (see Table 88).

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