

TABLE 85

**Company methods of obtaining technology capabilities for innovation activities, by industry: 2017–19**

(Number and percent)

Industry	NAICS code	All companies	Acquired technology products	Acquired intellectual property rights	Modified or adapted existing technology	Developed new technology in-house
All industries	11, 21–23, 31–33, 42–81	1,674,779	48.5	9.2	40.2	14.9
Manufacturing industries	31–33	108,198	58.3	11.8	46.1	21.7
Food	311	7,956	49.8	9.4	39.6	15.1
Beverage and tobacco products	312	4,640	57.0	14.8	42.0	10.8
Textile, apparel, and leather products	313–16	3,873	49.5	14.1	39.6	16.1
Wood products	321	4,470	53.2	6.8	37.6	12.5
Paper	322	1,135	62.6	13.0	48.2	11.5
Printing and related support activities	323	9,570	67.7	8.2	42.3	13.5
Petroleum and coal products	324	266	39.1 r	8.3 r	36.8 r	12.4
Chemicals	325	4,592	52.8	17.5	53.2	21.4
Pesticide, fertilizer, and other agricultural chemical	3253	408	51.0	7.8	43.4	7.4 r
Pharmaceuticals and medicines	3254	908	62.0	28.5	56.7	30.3
Soap, cleaning compound, and toilet preparation	3256	961	48.0	19.6	54.2	20.9
Other chemicals	other 325	2,316	51.5	13.9	53.1	20.5
Plastics and rubber products	326	4,420	60.8	13.7	49.5	22.9
Nonmetallic mineral products	327	3,570	54.8	9.5	36.4	18.2
Primary metals	331	1,289	62.3	6.1	49.3	21.8
Fabricated metal products	332	25,303	63.4	8.8	46.1	19.2
Machinery	333	10,757	56.8	13.9	49.9	32.9
Computer and electronic products	334	5,939	56.0	20.5	65.8	57.3
Communications equipment	3342	655	51.3	19.2	67.5	66.4
Semiconductor and other electronic components	3344	1,858	62.0	22.1	61.6	44.8
Navigational, measuring, electromedical, and control instruments	3345	2,569	52.0	20.3	67.5	63.8
Other computer and electronic products	other 334	858	58.4	18.8	68.1	58.4
Electrical equipment, appliances, and components	335	2,449	53.3	13.4	61.3	40.7
Transportation equipment	336	3,733	59.3	14.1	51.0	26.3
Automobiles, bodies, trailers, and parts	3361–63	2,209	60.3	14.3	51.5	25.5
Aerospace products and parts	3364	691	62.7	19.1	61.8	29.5
Other transportation	other 336	832	53.7	10.0	40.6	25.2
Furniture and related products	337	5,581	56.8	8.5	41.8	13.8
Miscellaneous	339	8,630	56.3	16.3	42.1	18.4
Medical equipment and supplies	3391	3,476	63.3	21.9	44.2	21.9
Other miscellaneous manufacturing	3399	5,155	51.6	12.5	40.7	15.9
Nonmanufacturing industries	11, 21–23, 42–81	1,566,582	47.8	9.0	39.8	14.4
Agriculture, forestry, fishing, and hunting	11	9,134	47.8	4.7	25.8	5.8
Mining, extraction, and support activities	21	4,547	44.1	4.1	28.9	9.3
Utilities	22	952	50.2	8.5	44.6	17.3
Construction	23	226,549	41.0	4.8	27.7	7.3
Wholesale trade	42	92,776	50.3	11.9	46.9	20.2
Retail trade	44–45	156,644	48.6	10.0	38.9	13.1
Transportation and warehousing	48–49	52,049	43.7	5.6	33.2	12.4
Information	51	29,954	51.8	17.8	57.2	44.8
Publishing	511	10,373	47.3	19.8	61.1	61.6
Newspaper, periodical, book, and directory publishers	5111	3,597	51.8	16.3	54.7	24.8
Software publishers	5112	6,777	44.9	21.7	64.4	81.0

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Telecommunications	517	2,622	62.1	14.4	54.1	25.4
Data processing, hosting, and related services	518	4,790	45.3	13.4	63.2	66.5
Other information	other 51	12,167	56.0	18.4	52.1	26.2
Finance and insurance	52	62,322	55.0	11.9	54.0	17.8
Real estate and rental and leasing	53	65,387	51.5	8.4	43.9	11.7
Lessors of nonfinancial intangible assets (except copyrighted works)	533	454	23.8	r 37.4	44.7	32.8
Other real estate and rental and leasing	other 53	64,934	51.7	8.2	43.8	11.5
Professional, scientific, and technical services	54	279,832	52.4	10.4	53.2	25.5
Legal services	5411	41,573	60.8	8.0	60.1	10.0
Accounting, tax preparation, bookkeeping, and payroll services	5412	29,351	69.5	12.1	55.8	12.1
Architectural, engineering, and related services	5413	44,685	55.7	9.9	52.4	22.7
Specialized design services	5414	10,713	49.6	11.9	45.0	13.0
Computer systems design and related services	5415	56,297	44.4	10.4	61.5	56.7
Management, scientific, and technical consulting services	5416	56,104	43.1	10.9	46.1	19.6
Scientific research and development services	5417	7,575	48.6	28.7	53.8	49.5
Advertising, public relations, and related services	5418	9,388	47.6	9.0	48.8	18.6
Other professional, scientific, and technical services	5419	24,146	55.2	6.7	41.7	15.7
Management of companies and enterprises	55	587	64.1	22.1	r 47.4	7.7
Administrative and support and waste management and remediation services	56	99,924	41.5	5.9	32.0	10.2
Educational services	61	21,496	37.3	13.3	35.3	15.2
Health care and social assistance	62	202,424	52.5	9.5	42.2	9.8
Health care services	621–23	175,473	56.2	9.9	44.4	9.9
Social assistance	624	26,953	28.4	7.1	27.7	9.1
Arts, entertainment, and recreation	71	29,031	42.7	12.0	33.7	12.6
Accommodation and food services	72	119,731	41.7	9.0	30.9	10.2
Other services	81	113,244	48.3	8.6	30.3	9.0

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, 2020 Annual Business Survey: Data Year 2019.