

Table 63. Companies with intellectual property activities, by industry and type of intellectual property activity: 2023

(Percent)

Industry	NAICS code	All companies (number)	Licensed or purchased IP from businesses that are not affiliated		Licensed or sold IP to businesses that are not affiliated		Transferred IP to businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Received IP from businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Participated in cross- licensing agreements with businesses that are not affiliated		Acquired or merged with businesses that are not affiliated to acquire their IP		Transferred IP to a spin- off or spin- out of this business		Received IP from a parent company as part of a spin-off or spin- out		Allowed free use of patents or other IP owned by this business		Made use of open source patents or other freely available IP not owned by this businesses		
All industries	11, 21–23, 31–33, 42–81	5,033,879		1.3		0.7		0.4		0.5		0.5		0.2		0.1		0.2		0.3		1.1	
Manufacturing industries	31–33	207,352		1.6		1.0		0.7		0.7		0.6		0.4		0.2		0.2		0.3		1.2	
Food	311	18,929		0.6		0.6		0.7		0.4		0.5		0.3	r	0.3	r	0.2	r	0.2		0.7	
Beverage and tobacco products	312	9,236		1.6		1.2		0.3		0.3		1.1	r	0.2		0.2	r	0.2		0.1	r	1.1	r
Textile, apparel, and leather products	313–16	9,223		0.6		0.1	r	0.3	r	0.1		0.5		0.1		0.0		0.2	r	0.1	r	0.4	
Wood products	321	9,572		1.4	r	0.7	r	*		1.3	r	*	r	0.1	r	*		0.1	r	0.1	r	0.2	
Paper	322	2,042		2.7	r	0.6		0.3		0.3		0.1		0.1		0.1		0.2		0.1		1.7	r
Printing and related support activities	323	18,767		1.6		0.8		0.1	r	0.3		0.4		0.1		*	r	*	r	0.1	r	0.7	
Petroleum and coal products	324	222		2.7		1.8		1.8		1.8		2.7		0.0		0.0		0.5		0.0		3.2	
Chemicals	325	7,878		4.9		2.9		2.2		2.1		1.3		1.2		1.5	r	1.0		0.6		2.1	
Pesticide, fertilizer, and other agricultural chemicals	3253	499		3.6		1.8		2.2	r	2.0	r	0.8	r	0.2	r	0.4	r	0.4	r	0.2		0.2	
Pharmaceuticals and medicines	3254	1,702		8.2		5.8		5.0		3.2		2.7		2.6		1.1		1.8	r	1.1		2.5	
Soap, cleaning compound, and toilet preparation	3256	1,817		1.2		0.5		0.8		0.7	r	0.4		0.7		3.2	r	0.0		0.4	r	0.4	
Other chemicals	other 325	3,860		5.4	r	3.0	r	1.6	r	2.3		1.1		0.9		0.9		1.1		0.5	r	3.0	
Plastics and rubber products	326	6,787		1.9		0.9		0.6		0.3		0.4		1.2	r	0.1	r	0.0		0.3		0.7	
Nonmetallic mineral products	327	7,659		0.4		0.3		0.2		0.8	r	0.3		0.8	r	*	r	*	r	*		0.2	
Primary metals	331	1,933		1.4		1.0		0.4	r	0.7		0.2	r	0.6		0.2	r	0.1	r	0.1	r	0.5	
Fabricated metal products	332	47,168		0.8		0.3	r	0.7		0.7		0.3	r	0.3		0.2	r	0.3	r	0.2	r	0.8	
Machinery	333	17,417		1.8		1.3		1.4		0.6		0.6	r	0.6	r	0.1		0.1		0.9	r	1.4	
Computer and electronic products	334	8,108		4.5		3.5		2.4		2.2		1.7		1.2		0.3		0.3		0.9		7.3	
Communications equipment	3342	973		7.1		2.1		0.8		1.7		1.2		0.9		0.3		0.5		0.8		8.6	
Semiconductor and other electronic components	3344	2,583		2.0		2.3		1.3		1.4		1.0		0.7		0.3		0.2		0.5		4.5	
Navigational, measuring, electromedical, and control instruments	3345	3,674		4.8		4.0	r	3.6	r	2.3		1.7		1.8		0.4		0.5		1.0		8.3	
Other computer and electronic products	other 334	878		7.4	r	6.3	r	3.0	r	4.2	r	4.6	r	0.9	r	0.3		0.0		2.2	r	10.0	
Electrical equipment, appliances, and components	335	4,012		1.7		2.3	r	1.3		1.2		0.7		0.4	r	*	r	0.2	r	0.4		3.8	r
Transportation equipment	336	7,200		2.0		1.5		1.5		1.2		0.9		0.5		0.3		0.4		0.4		1.3	
Automobiles, bodies, trailers, and parts	3361–63	4,517		1.5		1.2		1.3		1.0		0.8		0.4		0.2	r	0.4		0.3		0.8	
Aerospace products and parts	3364	907		5.6	r	2.2		4.2	r	3.7		1.8	r	1.0	r	0.9	r	0.7	r	1.8	r	4.3	
Other transportation	other 336	1,776		1.5		1.7		0.6		0.4		0.8		0.4		0.3		0.1		0.1		1.0	r
Furniture and related products	337	11,432		1.3	r	0.3		0.1	r	0.2	r	0.2		0.1	r	0.2	r	*		0.0		0.7	r

Table 63. Companies with intellectual property activities, by industry and type of intellectual property activity: 2023

(Percent)

Industry	NAICS code	All companies (number)	Licensed or purchased IP from businesses that are not affiliated		Licensed or sold IP to businesses that are not affiliated		Transferred IP to businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Received IP from businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Participated in cross- licensing agreements with businesses that are not affiliated		Acquired or merged with businesses that are not affiliated to acquire their IP		Transferred IP to a spin- off or spin- out of this business		Received IP from a parent company as part of a spin-off or spin- out		Allowed free use of patents or other IP owned by this business		Made use of open source patents or other freely available IP not owned by this businesses	
Miscellaneous	339	19,766	2.5		2.0		0.6	r	0.7		0.9		0.4		0.1		0.3	r	0.2	r	1.1	
Medical equipment and supplies	3391	7,071	2.4		1.0	r	1.3	r	1.0	r	0.5		0.6		0.1		0.1		*	r	1.4	
Other miscellaneous manufacturing	3399	12,695	2.6		2.5		0.2		0.5		1.1	r	0.3	r	*	r	0.5	r	0.3	r	0.9	
Nonmanufacturing industries	11, 21–23, 42–81	4,826,527	1.3		0.7		0.4		0.4		0.5		0.2		0.1		0.2		0.3		1.1	
Agriculture, forestry, fishing, and hunting	11	18,408	0.3	r	*		*		0.4	r	0.3	r	*		0.0		0.0		0.2	r	1.0	
Mining, extraction, and support activities	21	14,212	0.9	r	0.2		0.1		0.6	r	0.2		*		*		*		0.7	r	0.6	r
Utilities	22	3,367	1.5		1.6	r	0.7		0.5		0.6		0.2		0.1		0.0		1.8	r	2.8	r
Construction	23	697,532	0.4		0.1		0.1		0.2		0.2		0.1		*		*		0.1		0.3	
Wholesale trade	42	236,689	1.4		1.0		0.4		0.6		0.7		0.3		0.1		0.2		0.4		0.8	
Retail trade	44–45	542,047	1.0		0.5		0.2		0.3		0.4		0.3		0.1		0.2		0.3		0.7	
Transportation and warehousing	48–49	184,207	0.5		0.1		0.3	r	0.3		0.3		0.2		0.1		0.2		0.2		0.4	
Information	51	67,109	6.1		5.7		1.1		1.3		2.0		0.9		0.5		0.5		1.5		7.8	
Publishing	511	19,008	6.2		7.3		1.0		1.5		3.1		1.7		0.9		0.7		2.8		12.9	
Newspaper, periodical, book, and directory publishers	5111	8,557	2.9		5.2		0.3		0.2		1.3		0.4		0.3		0.1		0.7	r	3.0	
Software publishers	5112	10,451	9.0		9.0		1.6		2.6		4.5		2.8		1.3	r	1.3		4.5		21.0	
Telecommunications	517	6,886	3.2	r	2.5	r	1.2	r	2.2	r	2.2	r	1.2	r	0.9	r	0.8	r	1.0	r	4.4	r
Data processing, hosting, and related services	518	8,312	5.6		4.2		2.0	r	2.8		1.5		1.1		0.3		0.4		1.6		12.8	
Other information	other 51	32,903	6.7		5.7		0.9		0.7		1.5		0.3		0.3		0.4		0.8		4.3	
Finance and insurance	52	195,489	1.2		0.4		0.2		0.5		0.7		0.1		*	r	0.1		0.1		0.8	
Real estate and rental and leasing	53	282,087	1.0		0.3		0.2		0.3		0.2		0.1		0.1		0.1		0.1		0.8	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1,783	0.2		3.6	r	0.0		0.1		2.1	r	0.0		0.0		0.0		0.0		0.0	
Other real estate and rental and leasing	other 53	280,304	1.0		0.3		0.2		0.3		0.2		0.1		0.1		0.1		0.1		0.8	
Professional, scientific, and technical services	54	730,285	2.8		1.9		1.1		0.9		0.9		0.3		0.2		0.1		0.8		3.4	
Legal services	5411	153,500	2.2		0.2		0.2		0.4		0.1		0.1	r	0.1	r	0.1	r	0.3		1.2	
Accounting, tax preparation, bookkeeping, and payroll services	5412	108,031	2.3		0.1		0.2		0.2		0.4		0.2		*		*	r	0.1	r	0.5	
Architectural, engineering, and related services	5413	88,454	2.7		2.3		1.7		1.2		0.7		0.3		0.1		*		0.5		3.0	
Specialized design services	5414	28,137	3.7		2.8		1.6		1.0		0.6		*		*		0.1	r	0.8		3.8	
Computer systems design and related services	5415	99,385	3.9		4.6		2.2		1.8		1.8		0.6		0.5		0.4		2.3		10.5	
Management, scientific, and technical consulting services	5416	156,771	2.6		2.0		1.4		1.2		1.0		0.2		0.1		0.1		1.1		3.5	
Scientific research and development services	5417	11,544	11.2		7.5		5.7		4.3		3.5		1.2		1.3		0.6		1.7		7.9	

Table 63. Companies with intellectual property activities, by industry and type of intellectual property activity: 2023

(Percent)

Industry	NAICS code	All companies (number)		Licensed or purchased IP from businesses that are not affiliated		Licensed or sold IP to businesses that are not affiliated		Transferred IP to businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Received IP from businesses that are not affiliated through participation in technical assistance or "know-how" agreements		Participated in cross- licensing agreements with businesses that are not affiliated		Acquired or merged with businesses that are not affiliated to acquire their IP		Transferred IP to a spin- off or spin- out of this business		Received IP from a parent company as part of a spin-off or spin- out		Allowed free use of patents or other IP owned by this business		Made use of open source patents or other freely available IP not owned by this businesses	
Advertising, public relations, and related services	5418	27,216		3.2		3.0		0.7		0.7		1.4		0.2	r	*		0.2	r	0.4		2.7	
Other professional, scientific, and technical services	5419	57,246		1.8		2.4		0.6		0.4		1.4		0.1	r	0.2		0.2		0.9		2.0	
Management of companies and enterprises	55	2,682		3.2	r	0.1		1.7	r	1.7	r	0.0		0.0		2.2	r	0.0		0.0		0.0	
Administrative and support and waste management and remediation services	56	305,400		0.8		0.3		0.2		0.2		0.3		0.3		0.2		0.2		0.2		0.7	
Educational services	61	61,684		4.1		1.9		0.7		0.6		0.9		0.2		0.6	r	0.3		0.8		2.4	
Health care and social assistance	62	549,826		1.1		0.1		0.2		0.3		0.3		0.1		0.1		0.1		0.2		0.7	
Health care services	621-23	482,098		1.0		0.2		0.2		0.4		0.3		0.1		0.1		0.1		0.2		0.7	
Social assistance	624	67,728		1.2		0.1	r	0.1	r	0.2		0.1	r	0.1	r	0.1	r	0.2	r	0.1	r	0.8	
Arts, entertainment, and recreation	71	97,837		2.5		4.4		0.6		0.8		1.3		0.2		0.4		0.5		0.4		1.3	
Accommodation and food services	72	492,801		0.8		0.4		0.3		0.4		0.4		0.2		0.2		0.3		0.2		0.3	
Other services	81	344,866		0.7		0.1	r	0.1		0.3		0.2		0.1		*	r	0.1		0.1		0.4	

* = amount < 0.05%; r = relative standard error > 50%.

IP = intellectual property; NAICS = 2022 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 that performed or funded R&D.

Source(s):
National Center for Science and Engineering Statistics and Census Bureau, 2024 Annual Business Survey: Data Year 2023.