

TABLE 71

**Importance of types of intellectual property protections to companies located in the United States that performed or funded R&D, by industry and company size: 2022**

(Percent)

Industry and company size	NAICS code	Utility patents			Design patents			Trademarks			Copyrights			Trade secrets			Mask works		
		Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
All industries	21-23, 31-33, 42-81	28.1	16.4	55.5	17.2	19.8	63.0	36.0	27.3	36.7	26.1	27.0	46.9	45.5	24.1	30.4	4.9	9.5	85.6
Manufacturing industries	31-33	32.0	18.0	50.0	22.3	22.2	55.5	38.2	27.0	34.8	23.4	27.3	49.3	47.6	24.1	28.3	5.6	11.1	83.3
Food	311	14.0	12.8	73.3	10.5	15.1	74.4	44.2	25.6	30.2	18.6	25.6	55.8	42.5	31.0	26.4	3.5	7.0	89.5
Beverage and tobacco products	312	14.3	7.1	78.6	14.3	14.3	71.4	50.0	21.4	28.6	20.0	20.0	60.0	42.9	14.3	42.9	6.7	6.7	86.7
Textile, apparel, and leather products	313-316	24.0	16.0	60.0	20.0	24.0	56.0	34.6	26.9	38.5	19.2	26.9	53.8	32.0	24.0	44.0	4.0	12.0	84.0
Wood products	321	20.0	30.0	50.0	10.0	30.0	60.0	30.0	20.0	50.0	20.0	30.0	50.0	40.0	30.0	30.0	10.0	10.0	80.0
Paper	322	22.2	22.2	55.6	22.2	22.2	55.6	33.3	33.3	33.3	20.0	30.0	50.0	44.4	33.3	22.2	0.0	11.1	88.9
Printing and related support activities	323	13.3	20.0	66.7	14.3	14.3	71.4	21.4	21.4	57.1	14.3	21.4	64.3	26.7	26.7	46.7	7.1	7.1	85.7
Petroleum and coal products	324	37.5	12.5	50.0	25.0	25.0	50.0	66.7	11.1	22.2	37.5	25.0	37.5	62.5	12.5	25.0	12.5	12.5	75.0
Chemicals	325	47.3	17.1	35.6	18.7	20.2	61.1	40.8	35.4	23.8	20.3	36.1	43.6	62.3	19.1	18.6	6.4	10.8	82.8
Basic chemicals	3251	53.3	20.0	26.7	20.7	13.8	65.5	40.0	43.3	16.7	17.9	53.6	28.6	69.0	17.2	13.8	7.1	7.1	85.7
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	33.3	27.8	38.9	21.1	31.6	47.4	33.3	44.4	22.2	16.7	38.9	44.4	57.9	21.1	21.1	5.3	31.6	63.2
Pesticide, fertilizer, and other agricultural chemicals	3253	33.3	22.2	44.4	22.2	22.2	55.6	50.0	25.0	25.0	37.5	25.0	37.5	55.6	22.2	22.2	12.5	12.5	75.0
Pharmaceuticals and medicines	3254	59.2	15.5	25.2	20.6	19.6	59.8	41.2	32.4	26.5	21.6	33.3	45.1	64.7	17.6	17.6	6.9	8.8	84.3
Soap, cleaning compound, and toilet preparations	3256	23.8	19.0	57.1	16.7	22.2	61.1	55.0	15.0	30.0	26.3	26.3	47.4	50.0	25.0	25.0	5.6	5.6	88.9
Paint, coating, adhesive, and other chemicals	3255, 3259	27.3	15.2	57.6	15.2	21.2	63.6	29.4	47.1	23.5	15.2	36.4	48.5	50.0	26.5	23.5	8.8	14.7	76.5
Plastics and rubber products	326	24.7	22.2	53.1	18.5	25.9	55.6	32.9	20.7	46.3	18.5	23.5	58.0	41.3	26.3	32.5	3.8	9.0	87.2
Nonmetallic mineral products	327	15.4	19.2	65.4	8.3	16.7	75.0	23.1	30.8	46.2	11.5	26.9	61.5	38.5	26.9	34.6	4.0	8.0	88.0
Primary metals	331	19.2	11.5	69.2	11.5	15.4	73.1	18.5	22.2	59.3	11.5	19.2	69.2	60.0	16.0	24.0	4.0	8.0	88.0
Fabricated metal products	332	15.7	13.4	70.9	13.8	20.7	65.5	16.7	20.1	63.2	9.3	18.6	72.1	31.2	23.1	45.7	1.7	6.4	91.9
Machinery	333	37.9	22.1	40.0	28.4	28.9	42.6	34.2	32.1	33.7	23.9	28.2	47.9	43.4	29.1	27.5	4.2	11.1	84.7
Agricultural implement	33311	50.0	18.8	31.3	37.5	31.3	31.3	58.8	23.5	17.6	25.0	43.8	31.3	31.3	43.8	25.0	5.9	11.8	82.4
Semiconductor machinery	333242	60.0	20.0	20.0	33.3	33.3	33.3	40.0	40.0	20.0	40.0	40.0	20.0	60.0	40.0	0.0	40.0	20.0	40.0

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		Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
Engine, turbine, and power transmission equipment	3336	36.4	18.2	45.5	20.0	30.0	50.0	45.5	18.2	36.4	20.0	40.0	40.0	54.5	18.2	27.3	10.0	10.0	80.0
Other machinery	other 333	36.2	22.7	41.1	28.2	28.2	43.6	30.9	33.3	35.8	24.1	25.9	50.0	42.6	28.4	29.0	3.7	11.2	85.1
Computer and electronic products	334	37.0	16.7	46.4	24.3	18.5	57.1	50.7	24.2	25.1	37.2	25.6	37.2	56.3	21.4	22.4	13.8	19.0	67.2
Communications equipment	3342	40.6	15.6	43.8	29.0	19.4	51.6	46.9	40.6	12.5	35.5	38.7	25.8	60.6	21.2	18.2	12.9	25.8	61.3
Semiconductor and other electronic components	3344	31.1	22.2	46.7	23.9	15.2	60.9	37.0	23.9	39.1	24.4	31.1	44.4	48.9	23.4	27.7	24.4	20.0	55.6
Navigational, measuring, electromedical, and control instruments	3345	36.2	16.0	47.9	23.4	21.3	55.3	45.3	25.3	29.5	28.4	28.4	43.2	57.4	20.2	22.3	8.5	19.1	72.3
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	70.6	17.6	11.8	52.9	17.6	29.4	58.8	29.4	11.8	47.1	23.5	29.4	70.6	17.6	11.8	23.5	23.5	52.9
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	27.3	18.2	54.5	27.3	18.2	54.5	27.3	36.4	36.4	18.2	27.3	54.5	45.5	27.3	27.3	9.1	18.2	72.7
Other measuring and controlling devices	other 3345	29.0	15.9	55.1	17.1	22.9	60.0	44.9	21.7	33.3	25.7	30.0	44.3	55.7	18.6	25.7	5.8	18.8	75.4
Other computer and electronic products	other 334	43.5	13.0	43.5	26.1	13.0	60.9	75.5	12.2	12.2	67.3	8.2	24.5	54.5	22.7	22.7	18.2	13.6	68.2
Electrical equipment, appliances, and components	335	41.7	22.9	35.4	31.3	29.2	39.6	43.8	37.5	18.8	35.4	29.2	35.4	55.3	19.1	25.5	6.4	21.3	72.3
Transportation equipment	336	33.3	18.6	48.0	31.1	20.4	48.5	38.6	28.7	32.7	31.1	27.2	41.7	45.5	27.7	26.7	7.0	14.0	79.0
Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	33.9	16.1	50.0	33.3	15.8	50.9	31.6	36.8	31.6	25.0	32.1	42.9	35.1	38.6	26.3	9.1	16.4	74.5
Aerospace products and parts	3364	32.0	20.0	48.0	24.0	24.0	52.0	44.0	16.0	40.0	36.0	24.0	40.0	60.9	13.0	26.1	8.0	12.0	80.0
Aircraft, aircraft engine, and aircraft parts	336411-13	33.3	14.3	52.4	26.1	21.7	52.2	45.5	13.6	40.9	36.4	22.7	40.9	57.1	14.3	28.6	9.1	9.1	81.8
Guided missile, space vehicle, and related parts	336414-15, 336419	25.0	50.0	25.0	25.0	50.0	25.0	20.0	40.0	40.0	25.0	25.0	50.0	50.0	25.0	25.0	0.0	25.0	75.0

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		Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
Military armored vehicle, tank, and tank components	336992	50.0	0.0	50.0	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	50.0	0.0	50.0
Other transportation	other 336	30.4	26.1	43.5	34.8	26.1	39.1	52.2	21.7	26.1	40.9	18.2	40.9	52.2	17.4	30.4	4.3	17.4	78.3
Furniture and related products	337	18.2	27.3	54.5	23.8	28.6	47.6	38.1	23.8	38.1	18.2	27.3	54.5	23.8	33.3	42.9	4.8	4.8	90.5
Miscellaneous	339	41.5	24.4	34.1	36.6	28.5	35.0	50.8	24.6	24.6	29.5	34.4	36.1	54.1	23.0	23.0	7.5	10.8	81.7
Medical equipment and supplies	3391	44.7	22.4	32.9	35.5	27.6	36.8	50.0	22.4	27.6	28.9	31.6	39.5	57.9	18.4	23.7	9.3	9.3	81.3
Other miscellaneous manufacturing	3399	35.4	27.1	37.5	37.5	29.2	33.3	51.1	27.7	21.3	31.3	37.5	31.3	46.8	31.9	21.3	6.4	14.9	78.7
Nonmanufacturing industries	21-23, 42-81	24.3	15.0	60.7	12.5	17.5	70.1	34.0	27.5	38.6	28.8	26.7	44.5	43.6	24.1	32.4	4.2	7.9	87.9
Mining, quarrying, oil and gas extraction, and support activities	21	30.8	38.5	30.8	16.7	41.7	41.7	30.8	38.5	30.8	16.7	41.7	41.7	28.6	50.0	21.4	0.0	38.5	61.5
Utilities	22	28.6	28.6	42.9	16.7	16.7	66.7	28.6	28.6	42.9	16.7	33.3	50.0	33.3	33.3	33.3	16.7	16.7	66.7
Wholesale trade	42	27.8	16.6	55.6	28.5	20.5	51.0	43.4	26.3	30.3	20.8	38.3	40.9	41.7	29.8	28.5	3.3	12.7	84.0
Electronic shopping and electronic auctions	454111-12	30.8	7.7	61.5	15.4	38.5	46.2	42.9	42.9	14.3	38.5	38.5	23.1	38.5	46.2	15.4	0.0	7.7	92.3
Transportation and warehousing	48-49	28.6	28.6	42.9	16.7	33.3	50.0	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	16.7	0.0	83.3
Information	51	20.2	22.1	57.6	10.1	23.6	66.4	44.1	31.7	24.2	36.0	32.9	31.1	46.7	27.7	25.5	4.5	9.9	85.6
Publishing	511	16.3	21.5	62.2	6.7	23.1	70.1	50.4	28.1	21.5	43.4	29.4	27.2	44.0	26.1	29.9	5.4	8.5	86.2
Newspaper, periodical, book, and directory publishers	5111	14.3	14.3	71.4	16.7	16.7	66.7	33.3	33.3	33.3	28.6	14.3	57.1	16.7	33.3	50.0	0.0	16.7	83.3
Software publishers	5112	16.2	22.3	61.5	7.0	23.3	69.8	51.5	27.7	20.8	43.8	30.0	26.2	45.0	25.6	29.5	5.6	8.8	85.6
Telecommunications	517	22.2	25.9	51.9	19.2	23.1	57.7	26.9	38.5	34.6	23.1	26.9	50.0	61.5	26.9	11.5	15.4	7.7	76.9
Data processing, hosting, and related services	518	25.0	23.5	51.5	12.4	25.5	62.0	40.6	34.1	25.4	30.7	38.0	31.4	47.8	28.3	23.9	2.9	12.5	84.6
Other information	other 51	15.4	15.4	69.2	7.7	19.2	73.1	44.4	29.6	25.9	40.7	29.6	29.6	40.7	33.3	25.9	4.0	8.0	88.0
Finance and insurance	52	5.9	5.9	88.2	3.9	7.8	88.2	11.8	7.8	80.4	7.8	9.8	82.4	80.4	7.8	11.8	0.0	2.0	98.0
Real estate and rental and leasing	53	16.7	16.7	66.7	14.3	14.3	71.4	42.9	28.6	28.6	33.3	16.7	50.0	42.9	28.6	28.6	14.3	14.3	71.4

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Lessors of nonfinancial intangible assets (except copyrighted works)	533	50.0	0.0	50.0	50.0	0.0	50.0	66.7	0.0	33.3	50.0	0.0	50.0	50.0	25.0	25.0	33.3	0.0	66.7
Other real estate and rental and leasing	other 53	20.0	20.0	60.0	16.7	16.7	66.7	40.0	40.0	20.0	40.0	20.0	40.0	20.0	40.0	40.0	0.0	20.0	80.0
Professional, scientific, and technical services	54	23.5	13.7	62.7	12.3	16.2	71.5	26.4	31.1	42.5	26.6	26.5	46.9	39.9	25.3	34.8	4.8	7.5	87.6
Architectural, engineering, and related services	5413	23.4	12.5	64.1	14.1	14.1	71.9	22.5	22.5	55.0	19.7	19.7	60.6	36.7	23.4	39.8	7.1	7.1	85.8
Computer systems design and related services	5415	17.7	13.2	69.1	10.9	16.3	72.8	27.9	34.9	37.1	23.9	29.0	47.1	40.4	27.2	32.4	4.8	7.4	87.8
Scientific research and development services	5417	46.6	17.3	36.1	18.9	20.5	60.6	27.8	34.6	37.6	18.9	29.5	51.5	55.6	19.5	24.8	5.3	10.7	84.0
Research and development in nanotechnology	541713	40.0	20.0	40.0	20.0	20.0	60.0	20.0	40.0	40.0	10.0	30.0	60.0	60.0	20.0	20.0	10.0	20.0	70.0
Research and development in biotechnology (except nanobiotechnology)	541714	56.3	15.6	28.1	16.1	22.6	61.3	32.3	35.5	32.3	18.8	31.3	50.0	53.1	18.8	28.1	6.5	12.9	80.6
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	43.6	18.1	38.3	19.6	20.7	59.8	27.2	33.7	39.1	19.4	29.0	51.6	55.3	19.1	25.5	5.4	10.9	83.7
Research and development in the social sciences and humanities	541720	0.0	33.3	66.7	0.0	33.3	66.7	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	0.0	33.3	66.7
Other professional, scientific, and technical services	other 54	12.1	13.1	74.7	7.1	14.1	78.8	24.7	25.8	49.5	54.1	23.5	22.4	21.4	29.6	49.0	3.1	5.2	91.8
Health care services	621-23	21.4	7.1	71.4	10.7	21.4	67.9	20.7	27.6	51.7	14.3	14.3	71.4	25.0	14.3	60.7	7.1	7.1	85.7

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Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	39.7	7.3	53.0	6.6	6.0	87.4	45.3	8.7	46.0	42.0	8.0	50.0	47.4	9.2	43.4	4.0	3.3	92.7
All companies (number of domestic employees)	-	28.1	16.4	55.5	17.2	19.8	63.0	36.0	27.3	36.7	26.1	27.0	46.9	45.5	24.1	30.4	4.9	9.5	85.6
Small companies																			
10-19 <sup>a</sup>	-	27.3	11.3	61.4	12.7	10.1	77.3	39.2	23.9	36.9	37.2	21.5	41.3	48.5	21.0	30.5	5.1	4.5	90.4
20-49	-	27.2	16.4	56.3	16.7	18.9	64.4	32.1	25.8	42.0	24.4	25.3	50.3	49.8	22.4	27.8	5.0	10.2	84.8
Medium companies																			
50-99	-	27.1	17.7	55.2	19.7	23.1	57.3	31.9	33.2	34.9	19.7	29.7	50.6	39.4	28.8	31.8	4.1	10.8	85.2
100-249	-	23.3	16.8	60.0	16.6	20.2	63.2	31.5	28.0	40.5	20.2	27.5	52.3	37.3	24.1	38.6	4.9	9.8	85.3
Large companies																			
250-499	-	30.8	19.2	50.0	19.3	26.4	54.3	40.4	27.3	32.3	25.3	29.3	45.5	45.2	25.4	29.4	5.1	12.2	82.7
500-999	-	30.6	24.0	45.5	19.8	29.8	50.4	42.6	32.0	25.4	24.6	36.9	38.5	43.4	30.3	26.2	5.8	14.2	80.0
1,000-4,999	-	40.2	23.1	36.8	22.9	28.0	49.2	51.7	26.3	22.0	31.6	34.2	34.2	53.4	24.1	22.4	6.0	12.1	81.9
5,000-9,999	-	54.2	20.8	25.0	30.4	30.4	39.1	65.2	21.7	13.0	36.4	40.9	22.7	60.9	26.1	13.0	9.1	13.6	77.3
10,000-24,999	-	61.1	16.7	22.2	44.4	27.8	27.8	72.2	11.1	16.7	44.4	33.3	22.2	66.7	16.7	16.7	11.1	11.1	77.8
25,000 or more	-	58.3	16.7	25.0	36.4	36.4	27.3	72.7	18.2	9.1	45.5	36.4	18.2	66.7	16.7	16.7	9.1	18.2	72.7

NAICS = 2017 North American Industry Classification System.

<sup>a</sup> The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.**Note(s):**

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. Statistics are based on companies in the United States that reported to the survey. No systematic item imputation was applied. Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse; beginning in survey year 2020, the company counts used in the calculation of the percentage estimates reflect a change in rounding methodology. These statistics are also not comparable to estimates prior to 2012 because those estimates are representative of all companies in the United States.

**Source(s):**

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2022.