

Table 67. Companies that collaborated with government laboratories, by industry and type of collaboration: 2023

(Percent)

Industry	NAICS code	All companies (number)	All companies with any kind of collaboration with government laboratories (number)	All companies with any kind of collaboration with government laboratories	Conducted collaborative research using agreements	Conducted research at government user facilities	Funded research at government laboratory	Licensed IP from government laboratory	Engaged in formal or informal personnel exchanges with government laboratories	Attended workshops or seminars located at or sponsored by government laboratories
All industries	11, 21–23, 31–33, 42–81	5,033,879	23,488	0.5	38.2	24.4	14.3	11.5	39.6	61.2
Manufacturing industries	31–33	207,352	1,838	0.9	49.6	17.0	13.9	8.3	43.6	50.2
Food	311	18,929	114	0.6	17.5	14.0	28.9	9.6	18.4	71.1
Beverage and tobacco products	312	9,236	52	0.6	32.7	21.2	0.0	0.0	28.8	67.3
Textile, apparel, and leather products	313–16	9,223	37	0.4	100.0	2.7	0.0	0.0	27.0	8.1
Wood products	321	9,572	6	0.1	50.0	100.0	0.0	0.0	0.0	50.0
Paper	322	2,042	3	0.1	100.0	0.0	0.0	0.0	0.0	33.3
Printing and related support activities	323	18,767	10	0.1	60.0	40.0	40.0	40.0	80.0	80.0
Petroleum and coal products	324	222	10	4.5	50.0	0.0	30.0	20.0	50.0	50.0
Chemicals	325	7,878	269	3.4	49.1	14.5	14.9	7.8	37.9	67.3
Pesticide, fertilizer, and other agricultural chemicals	3253	499	34	6.8	85.3	52.9	52.9	0.0	55.9	73.5
Pharmaceuticals and medicines	3254	1,702	85	5.0	60.0	10.6	11.8	17.6	45.9	64.7
Soap, cleaning compound, and toilet preparation	3256	1,817	59	3.2	1.7	1.7	0.0	0.0	1.7	98.3
Other chemicals	other 325	3,860	91	2.4	56.0	13.2	13.2	6.6	47.3	47.3
Plastics and rubber products	326	6,787	30	0.4	53.3	6.7	33.3	0.0	60.0	33.3
Nonmetallic mineral products	327	7,659	41	0.5	36.6	19.5	19.5	0.0	61.0	53.7
Primary metals	331	1,933	27	1.4	51.9	11.1	11.1	11.1	48.1	51.9
Fabricated metal products	332	47,168	265	0.6	61.9	2.3	27.2	26.4	58.1	36.6
Machinery	333	17,417	262	1.5	45.8	15.3	12.6	3.1	28.6	51.1
Computer and electronic products	334	8,108	456	5.6	50.2	28.3	5.9	4.8	49.3	49.3
Communications equipment	3342	973	26	2.7	76.9	0.0	7.7	23.1	34.6	38.5
Semiconductor and other electronic components	3344	2,583	112	4.3	65.2	35.7	2.7	2.7	54.5	67.0
Navigational, measuring, electromedical, and control instruments	3345	3,674	305	8.3	43.6	28.5	6.9	4.3	48.5	42.6
Other computer and electronic products	other 334	878	13	1.5	30.8	7.7	7.7	0.0	46.2	76.9
Electrical equipment, appliances, and components	335	4,012	124	3.1	50.8	11.3	5.6	1.6	64.5	48.4
Transportation equipment	336	7,200	68	0.9	57.4	41.2	19.1	13.2	38.2	41.2
Automobiles, bodies, trailers, and parts	3361–63	4,517	31	0.7	58.1	25.8	16.1	9.7	12.9	41.9
Aerospace products and parts	3364	907	30	3.3	46.7	46.7	16.7	13.3	56.7	33.3
Other transportation	other 336	1,776	8	0.5	87.5	75.0	37.5	37.5	62.5	75.0
Furniture and related products	337	11,432	18	0.2	72.2	11.1	11.1	0.0	11.1	16.7
Miscellaneous	339	19,766	44	0.2	31.8	6.8	2.3	2.3	52.3	27.3
Medical equipment and supplies	3391	7,071	19	0.3	63.2	15.8	5.3	5.3	10.5	26.3
Other miscellaneous manufacturing	3399	12,695	25	0.2	8.0	0.0	4.0	0.0	84.0	28.0

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Nonmanufacturing industries	11, 21–23, 42–81	4,826,527	21,651	0.4	37.2	25.0	14.3	11.8	39.2	62.1
Agriculture, forestry, fishing, and hunting	11	18,408	378	2.1	24.6	10.6	44.2	10.6	72.5	44.2
Mining, extraction, and support activities	21	14,212	60	0.4	16.7	6.7	1.7	1.7	68.3	86.7
Utilities	22	3,367	49	1.5	40.8	4.1	10.2	0.0	14.3	89.8
Construction	23	697,532	911	0.1	9.8	27.6	27.6	17.6	27.8	72.3
Wholesale trade	42	236,689	1,027	0.4	50.1	30.4	8.4	8.2	37.9	35.1
Retail trade	44–45	542,047	1,501	0.3	39.5	35.5	28.6	26.2	53.8	46.9
Transportation and warehousing	48–49	184,207	769	0.4	41.7	20.9	11.8	14.2	52.9	49.5
Information	51	67,109	509	0.8	53.4	36.1	24.4	11.6	62.9	69.4
Publishing	511	19,008	259	1.4	49.8	4.6	5.8	2.7	55.2	54.4
Newspaper, periodical, book, and directory publishers	5111	8,557	4	*	25.0	100.0	25.0	25.0	25.0	25.0
Software publishers	5112	10,451	255	2.4	50.2	3.1	5.5	2.4	55.7	54.9
Telecommunications	517	6,886	91	1.3	70.3	53.8	57.1	53.8	54.9	81.3
Data processing, hosting, and related services	518	8,312	144	1.7	47.9	78.5	37.5	0.0	82.6	88.9
Other information	other 51	32,903	15	*	66.7	66.7	20.0	20.0	53.3	66.7
Finance and insurance	52	195,489	484	0.2	27.5	8.1	14.9	0.4	34.5	50.8
Real estate and rental and leasing	53	282,087	518	0.2	47.3	30.3	26.8	26.8	38.6	56.6
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1,783	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other real estate and rental and leasing	other 53	280,304	518	0.2	47.3	30.3	26.8	26.8	38.6	56.6
Professional, scientific, and technical services	54	730,285	9,339	1.3	37.6	25.1	7.5	4.7	41.8	61.0
Legal services	5411	153,500	297	0.2	0.0	11.8	0.0	0.0	21.9	70.0
Accounting, tax preparation, bookkeeping, and payroll services	5412	108,031	178	0.2	1.1	0.6	0.0	0.6	0.0	98.9
Architectural, engineering, and related services	5413	88,454	2,157	2.4	34.0	30.3	10.2	2.7	42.7	67.0
Specialized design services	5414	28,137	144	0.5	0.7	0.0	0.0	0.0	100.0	24.3
Computer systems design and related services	5415	99,385	1,681	1.7	38.6	40.2	8.4	9.0	44.4	60.0
Management, scientific, and technical consulting services	5416	156,771	2,217	1.4	30.5	15.1	0.3	1.4	49.0	72.7
Scientific research and development services	5417	11,544	1,857	16.1	65.4	30.0	13.0	8.5	36.5	45.8
Advertising, public relations, and related services	5418	27,216	105	0.4	31.4	14.3	14.3	0.0	1.0	54.3
Other professional, scientific, and technical services	5419	57,246	703	1.2	28.6	10.8	10.4	4.8	37.7	43.8
Management of companies and enterprises	55	2,682	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative and support and waste management and remediation services	56	305,400	1,711	0.6	28.2	18.1	17.9	16.9	30.0	91.9
Educational services	61	61,684	395	0.6	26.3	19.2	0.0	19.2	34.9	70.6
Health care and social assistance	62	549,826	2,603	0.5	33.4	15.8	5.5	9.3	21.4	64.4

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Health care services	621–23	482,098		2,293		0.5		34.1		14.1		5.0		9.2		24.1		63.6	
Social assistance	624	67,728		310		0.5		28.7		28.7		9.4	r	9.7	r	1.6	r	70.0	
Arts, entertainment, and recreation	71	97,837		120	r	0.1	r	0.0	r	36.7		0.0	r	0.0		0.0		63.3	
Accommodation and food services	72	492,801		935	i	0.2	i	76.6		47.4		57.6		52.5		50.1		76.1	
Other services	81	344,866		342		0.1		24.6		27.8	r	13.5	r	10.8	r	13.5	r	50.6	r

* = amount < 0.05%; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse; 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.

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