

Appendix table 5-58

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Cross-sectoral coauthorship of S&E articles, by field and sector: 2003

(Number of articles)

Field and sector	All sectors	Academic	Industry	Federal government	Nonprofit institutions	FFRDCs	State/local government
All fields							
All sectors	41,072	na	na	na	na	na	na
Academic	38,082	na	12,114	15,482	17,671	5,698	2,802
Industry	11,607	12,114	na	2,400	2,524	868	388
Federal government	13,913	15,482	2,400	na	2,703	914	728
Nonprofit institutions	15,437	17,671	2,524	2,703	na	375	743
FFRDCs	4,240	5,698	868	914	375	na	23
State/local government	2,876	2,802	388	728	743	23	na
Clinical medicine							
All sectors	17,549	na	na	na	na	na	na
Academic	16,398	na	4,511	6,345	10,571	239	1,423
Industry	4,181	4,511	na	833	1,758	54	193
Federal government	5,717	6,345	833	na	1,576	103	371
Nonprofit institutions	9,435	10,571	1,758	1,576	na	65	519
FFRDCs	252	239	54	103	65	na	6
State/local government	1,442	1,423	193	371	519	6	na
Biomedical research							
All sectors	6,128	na	na	na	na	na	na
Academic	5,786	na	1,617	2,576	3,392	567	313
Industry	1,428	1,617	na	266	386	81	32
Federal government	2,119	2,576	266	na	436	103	80
Nonprofit institutions	2,731	3,392	386	436	na	86	72
FFRDCs	487	567	81	103	86	na	9
State/local government	284	313	32	80	72	9	na
Biology							
All sectors	2,649	na	na	na	na	na	na
Academic	2,451	na	518	1,584	606	88	337
Industry	541	518	na	142	40	14	32
Federal government	1,469	1,584	142	na	116	26	129
Nonprofit institutions	532	606	40	116	na	8	35
FFRDCs	85	88	14	26	8	na	2
State/local government	361	337	32	129	35	2	na
Chemistry							
All sectors	1,723	na	na	na	na	na	na
Academic	1,583	na	778	427	190	608	20
Industry	768	778	na	112	26	69	5
Federal government	432	427	112	na	20	58	3
Nonprofit institutions	185	190	26	20	na	11	3
FFRDCs	535	608	69	58	11	na	0
State/local government	21	20	5	3	3	0	na
Physics							
All sectors	3,053	na	na	na	na	na	na
Academic	2,754	na	1,229	854	177	2,320	5
Industry	1,205	1,229	na	280	31	306	2
Federal government	805	854	280	na	28	170	0
Nonprofit institutions	139	177	31	28	na	26	1
FFRDCs	1,412	2,320	306	170	26	na	0
State/local government	3	5	2	0	1	0	na
Earth/space sciences							
All sectors	3,119	na	na	na	na	na	na
Academic	2,797	na	710	1,959	807	1,216	183
Industry	705	710	na	388	69	130	34
Federal government	1,558	1,959	388	na	262	383	37
Nonprofit institutions	539	807	69	262	na	161	12
FFRDCs	819	1,216	130	383	161	na	5
State/local government	185	183	34	37	12	5	na

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(Number of articles)

Field and sector	All sectors	Academic	Industry	Federal government	Nonprofit institutions	FFRDCs	State/local government
Engineering/technology							
All sectors	2,997	na	na	na	na	na	na
Academic	2,689	na	1,888	695	125	597	94
Industry	1,876	1,888	na	280	50	205	45
Federal government	773	695	280	na	39	68	7
Nonprofit institutions	144	125	50	39	na	14	6
FFRDCs	594	597	205	68	14	na	0
State/local government	119	94	45	7	6	0	na
Mathematics							
All sectors	190	na	na	na	na	na	na
Academic	185	na	105	35	36	41	3
Industry	92	105	na	3	5	5	0
Federal government	33	35	3	na	0	1	0
Nonprofit institutions	34	36	5	0	na	1	0
FFRDCs	33	41	5	1	1	na	0
State/local government	3	3	0	0	0	0	na
Psychology							
All sectors	988	na	na	na	na	na	na
Academic	952	na	166	311	475	3	115
Industry	175	166	na	23	28	0	6
Federal government	286	311	23	na	37	0	11
Nonprofit institutions	446	475	28	37	na	0	18
FFRDCs	3	3	0	0	0	na	1
State/local government	111	115	6	11	18	1	na
Social sciences							
All sectors	749	na	na	na	na	na	na
Academic	708	na	115	209	439	9	50
Industry	129	115	na	13	21	2	4
Federal government	209	209	13	na	39	2	12
Nonprofit institutions	390	439	21	39	na	2	3
FFRDCs	10	9	2	2	2	na	0
State/local government	53	50	4	12	3	0	na
Health sciences							
All sectors	1,315	na	na	na	na	na	na
Academic	1,216	na	248	388	666	1	185
Industry	266	248	na	41	90	0	23
Federal government	400	388	41	na	134	0	60
Nonprofit institutions	667	666	90	134	na	0	62
FFRDCs	1	1	0	0	0	na	0
State and local government	212	185	23	60	62	0	na
Professional fields							
All sectors	612	na	na	na	na	na	na
Academic	563	na	229	99	187	9	74
Industry	241	229	na	19	20	2	12
Federal government	112	99	19	na	16	0	18
Nonprofit institutions	195	187	20	16	na	1	12
FFRDCs	9	9	2	0	1	na	0
State/local government	82	74	12	18	12	0	na

na = not applicable

FFRDC = federally funded research and development center

NOTES: Articles on whole-count basis, i.e., for articles with collaborating institutions from multiple sectors, each sector receives one count for participation by its institution(s). Sum of sector counts exceeds total because multiple sectors are credited one count for collaboration on an article.

SOURCES: Thomson ISI, *Science Citation Index* and *Social Sciences Citation Index*, <http://www.isinet.com/products/citation/>; iPLQ, Inc.; and National Science Foundation, Division of Science Resources Statistics, special tabulations.