

Appendix table 5-37

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U.S. S&E articles with foreign coauthors, by field and U.S. sector: 1995 and 2005

Field/sector	1995			2005			1995–2005 change (percentage points)
	All articles	Articles with foreign coauthors		All articles	Articles with foreign coauthors		
		Number	Percent		Number	Percent	
All fields.....	212,456	36,361	17.1	249,152	66,274	26.6	9.5
FFRDCs	9,140	2,577	28.2	11,778	4,509	38.3	10.1
Federal government.....	25,558	4,133	16.2	28,304	7,145	25.2	9.1
State/local government.....	3,653	361	9.9	4,484	688	15.3	5.5
Academic institutions	170,462	28,312	16.6	208,441	53,367	25.6	9.0
Industry	24,142	3,883	16.1	25,148	6,618	26.3	10.2
Private nonprofit.....	25,603	3,689	14.4	32,788	7,992	24.4	10.0
Agricultural sciences	3,867	451	11.7	4,046	950	23.5	11.8
FFRDCs	31	4	12.9	37	8	21.6	8.7
Federal government.....	888	60	6.8	1,048	167	15.9	9.2
State/local government.....	47	1	2.1	40	5	12.5	10.4
Academic institutions	3,080	378	12.3	3,383	786	23.2	11.0
Industry.....	432	46	10.6	410	81	19.8	9.1
Private nonprofit.....	84	10	11.9	96	18	18.8	6.8
Astronomy.....	3,156	1,331	42.2	4,172	2,435	58.4	16.2
FFRDCs	549	246	44.8	853	528	61.9	17.1
Federal government.....	547	227	41.5	607	363	59.8	18.3
State/local government.....	0	0	0.0	0	0	0.0	0.0
Academic institutions	2,403	947	39.4	3,253	1,866	57.4	18.0
Industry.....	163	79	48.5	129	62	48.1	–0.4
Private nonprofit.....	394	191	48.5	635	429	67.6	19.1
Biological sciences	59,390	10,792	18.2	64,825	18,112	27.9	9.8
FFRDCs	1,198	310	25.9	1,343	434	32.3	6.4
Federal government.....	8,464	1,576	18.6	8,797	2,441	27.7	9.1
State/local government.....	1,063	154	14.5	1,247	224	18.0	3.5
Academic institutions	47,511	8,159	17.2	54,012	14,372	26.6	9.4
Industry.....	6,654	1,202	18.1	6,043	1,729	28.6	10.5
Private nonprofit.....	8,309	1,588	19.1	9,612	2,927	30.5	11.3
Chemistry.....	16,223	2,593	16.0	19,521	4,525	23.2	7.2
FFRDCs	943	164	17.4	1,633	378	23.1	5.8
Federal government.....	1,071	159	14.8	1,201	257	21.4	6.6
State/local government.....	44	3	6.8	44	12	27.3	20.5
Academic institutions	12,582	2,012	16.0	15,961	3,613	22.6	6.6
Industry.....	3,147	454	14.4	2,743	572	20.9	6.4
Private nonprofit.....	407	62	15.2	454	101	22.2	7.0
Computer sciences.....	2,125	432	20.3	2,783	788	28.3	8.0
FFRDCs	47	5	10.6	64	9	14.1	3.4
Federal government.....	61	2	3.3	85	18	21.2	17.9
State/local government.....	1	0	0.0	3	0	0.0	0.0
Academic institutions	1,726	367	21.3	2,418	663	27.4	6.2
Industry.....	581	93	16.0	617	177	28.7	12.7
Private nonprofit.....	42	6	14.3	43	11	25.6	11.3
Engineering	13,694	2,105	15.4	16,707	4,324	25.9	10.5
FFRDCs	1,099	228	20.7	1,533	400	26.1	5.3
Federal government.....	1,564	182	11.6	1,645	307	18.7	7.0
State/local government.....	76	7	9.2	158	13	8.2	–1.0
Academic institutions	9,637	1,521	15.8	13,244	3,313	25.0	9.2
Industry.....	3,629	390	10.7	3,458	746	21.6	10.8
Private nonprofit.....	358	47	13.1	320	85	26.6	13.4
Geosciences.....	10,912	2,189	20.1	13,454	4,489	33.4	13.3
FFRDCs	843	218	25.9	1,066	383	35.9	10.1
Federal government.....	2,416	425	17.6	2,922	844	28.9	11.3
State/local government.....	341	25	7.3	468	77	16.5	9.1
Academic institutions	8,196	1,655	20.2	11,022	3,590	32.6	12.4
Industry.....	1,160	184	15.9	1,193	323	27.1	11.2
Private nonprofit.....	754	153	20.3	1,019	376	36.9	16.6

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Field/sector	1995			2005			1995–2005 change (percentage points)
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		Number	Percent		Number	Percent	
Mathematics	3,646	904	24.8	4,840	1,787	36.9	12.1
FFRDCs	53	7	13.2	105	37	35.2	22.0
Federal government.....	82	9	11.0	118	30	25.4	14.4
State/local government.....	3	0	0.0	2	1	50.0	50.0
Academic institutions	3,484	879	25.2	4,643	1,702	36.7	11.4
Industry.....	164	21	12.8	175	72	41.1	28.3
Private nonprofit.....	65	8	12.3	65	14	21.5	9.2
Medical sciences.....	55,602	7,351	13.2	68,305	15,693	23.0	9.8
FFRDCs	347	70	20.2	326	85	26.1	5.9
Federal government.....	7,337	1,078	14.7	8,521	1,997	23.4	8.7
State/local government.....	1,703	149	8.7	2,170	330	15.2	6.5
Academic institutions	45,541	5,715	12.5	56,490	12,361	21.9	9.3
Industry.....	4,028	706	17.5	6,687	1,964	29.4	11.8
Private nonprofit.....	12,807	1,370	10.7	17,705	3,530	19.9	9.2
Other life sciences.....	2,394	121	5.1	3,851	359	9.3	4.3
FFRDCs	2	0	0.0	1	0	0.0	0.0
Federal government.....	192	9	4.7	445	30	6.7	2.1
State/local government.....	79	3	3.8	117	5	4.3	0.5
Academic institutions	1,887	111	5.9	3,265	322	9.9	4.0
Industry.....	163	6	3.7	361	44	12.2	8.5
Private nonprofit.....	554	22	4.0	776	58	7.5	3.5
Physics.....	23,062	6,467	28.0	25,945	9,969	38.4	10.4
FFRDCs	3,975	1,316	33.1	4,784	2,244	46.9	13.8
Federal government.....	1,908	343	18.0	1,806	561	31.1	13.1
State/local government.....	14	3	21.4	9	1	11.1	-10.3
Academic institutions	17,884	5,114	28.6	21,476	8,201	38.2	9.6
Industry.....	3,456	674	19.5	2,736	761	27.8	8.3
Private nonprofit.....	329	79	24.0	371	142	38.3	14.3
Psychology	8,137	627	7.7	9,111	1,241	13.6	5.9
FFRDCs	7	1	14.3	3	0	0.0	-14.3
Federal government.....	399	30	7.5	486	58	11.9	4.4
State/local government.....	189	11	5.8	151	13	8.6	2.8
Academic institutions	7,531	585	7.8	8,618	1,147	13.3	5.5
Industry.....	256	10	3.9	340	51	15.0	11.1
Private nonprofit.....	549	31	5.6	692	74	10.7	5.1
Social sciences.....	10,248	998	9.7	11,592	1,602	13.8	4.1
FFRDCs	46	8	17.4	30	3	10.0	-7.4
Federal government.....	629	33	5.2	623	72	11.6	6.3
State/local government.....	93	5	5.4	75	7	9.3	4.0
Academic institutions	9,000	869	9.7	10,656	1,431	13.4	3.8
Industry.....	309	18	5.8	256	36	14.1	8.2
Private nonprofit.....	951	122	12.8	1,000	227	22.7	9.9

FFRDC = federally funded research and development center

NOTES: Article counts from set of journals covered by Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). Articles classified by year they entered the database, rather than year of publication, and assigned to sector on basis of institutional address(es) listed on article. Articles on whole-count basis, i.e., each collaborating country or sector credited one count. Detail may add to more than total because articles may have authors from more than one U.S. sector. Articles from joint or unknown sectors omitted from detail but included in total.

SOURCES: Thomson Scientific, SCI and SSCI, <http://scientific.thomson.com/products/categories/citation/>; iplQ, Inc.; and National Science Foundation, Division of Science Resources Statistics, special tabulations.