

Appendix table 5-60

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**Coauthorship of S&E articles, by field and sector: 2003**

Field and sector	All articles	Coauthored articles		
		Total	U.S. coauthored	Internationally coauthored
<b>All fields</b>				
All sectors .....	242,431	155,723	95,535	60,188
Academic .....	200,727	134,182	86,379	47,803
Industry.....	25,584	19,292	13,136	6,156
Federal government.....	27,020	22,053	15,458	6,595
Nonprofit institutions .....	29,957	24,694	18,007	6,687
FFRDCs .....	10,975	8,675	4,615	4,060
State/local government.....	4,112	3,519	2,997	522
<b>Clinical medicine</b>				
All sectors .....	74,254	53,468	37,302	16,166
Academic .....	60,019	45,278	33,043	12,235
Industry.....	8,238	6,924	4,627	2,297
Federal government .....	9,789	8,564	6,348	2,216
Nonprofit institutions .....	17,879	14,855	11,385	3,470
FFRDCs .....	432	379	266	113
State/local government .....	1,962	1,739	1,495	244
<b>Biomedical research</b>				
All sectors .....	39,855	27,656	17,007	10,649
Academic .....	33,585	24,233	15,697	8,536
Industry.....	3,414	2,518	1,639	879
Federal government .....	4,663	3,795	2,425	1,370
Nonprofit institutions .....	5,540	4,708	3,115	1,593
FFRDCs .....	976	840	538	302
State/local government .....	487	418	299	119
<b>Biology</b>				
All sectors .....	15,812	9,780	5,966	3,814
Academic .....	13,184	8,562	5,494	3,068
Industry.....	926	767	577	190
Federal government .....	3,153	2,275	1,656	619
Nonprofit institutions .....	1,160	918	558	360
FFRDCs .....	149	130	88	42
State/local government .....	544	459	382	77
<b>Chemistry</b>				
All sectors .....	17,808	9,041	5,133	3,908
Academic .....	14,260	7,517	4,418	3,099
Industry.....	2,887	1,669	1,097	572
Federal government .....	1,055	720	512	208
Nonprofit institutions .....	465	354	274	80
FFRDCs .....	1,221	910	610	300
State/local government .....	40	28	22	6
<b>Physics</b>				
All sectors .....	23,585	15,511	6,395	9,116
Academic .....	18,806	13,061	5,720	7,341
Industry.....	2,940	2,148	1,393	755
Federal government .....	1,802	1,396	857	539
Nonprofit institutions .....	319	261	143	118
FFRDCs .....	4,605	3,578	1,542	2,036
State/local government .....	6	6	3	3
<b>Earth/space sciences</b>				
All sectors .....	15,762	11,514	5,338	6,176
Academic .....	12,675	9,581	4,785	4,796
Industry.....	1,253	1,093	730	363
Federal government .....	3,246	2,825	1,701	1,124
Nonprofit institutions .....	1,324	1,170	555	615
FFRDCs .....	1,978	1,680	852	828
State/local government .....	280	235	198	37

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Field and sector	All articles	Coauthored articles		
		Total	U.S. coauthored	Internationally coauthored
<b>Engineering/technology</b>				
All sectors .....	17,121	9,950	5,420	4,530
Academic .....	13,091	8,098	4,733	3,365
Industry .....	4,256	3,026	2,114	912
Federal government .....	1,476	1,124	840	284
Nonprofit institutions .....	269	208	149	59
FFRDCs .....	1,502	1,073	659	414
State/local government .....	163	128	123	5
<b>Mathematics</b>				
All sectors .....	4,651	2,726	982	1,744
Academic .....	4,474	2,639	957	1,682
Industry .....	188	144	97	47
Federal government .....	73	56	43	13
Nonprofit institutions .....	56	48	35	13
FFRDCs .....	71	57	37	20
State/local government .....	3	3	3	0
<b>Psychology</b>				
All sectors .....	8,472	4,633	3,485	1,148
Academic .....	8,022	4,476	3,417	1,059
Industry .....	247	206	179	27
Federal government .....	443	365	295	70
Nonprofit institutions .....	654	538	461	77
FFRDCs .....	3	3	3	0
State/local government .....	138	125	114	11
<b>Social sciences</b>				
All sectors .....	10,510	4,289	2,823	1,466
Academic .....	9,581	4,022	2,734	1,288
Industry .....	227	162	133	29
Federal government .....	487	286	230	56
Nonprofit institutions .....	905	595	410	185
FFRDCs .....	24	13	10	3
State/local government .....	76	57	54	3
<b>Health sciences</b>				
All sectors .....	5,415	3,225	2,637	588
Academic .....	4,645	2,938	2,444	494
Industry .....	400	325	275	50
Federal government .....	596	502	429	73
Nonprofit institutions .....	1,033	809	717	92
FFRDCs .....	2	1	1	0
State and local government .....	268	228	216	12
<b>Professional fields</b>				
All sectors .....	9,186	3,930	3,047	883
Academic .....	8,385	3,777	2,937	840
Industry .....	608	310	275	35
Federal government .....	237	145	122	23
Nonprofit institutions .....	353	230	205	25
FFRDCs .....	12	11	9	2
State/local government .....	145	93	88	5

FFRDC = federally funded research and development center

NOTES: Articles on whole-count basis, i.e., for articles with collaborating institutions from more than one country/economy, each country/economy with at least one participating institution is credited one count. Internationally coauthored articles have at least one collaborating U.S. and foreign institution.

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.