

Appendix table 5-40

## U.S. S&amp;E articles, by field and sector: 1997–2012

Field and sector	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All fields	189,477	189,813	190,390	188,125	193,066	187,400	202,475	192,913	214,557	207,874	204,307	221,913	214,350	203,053	209,443	213,902
Federal government	14,090	13,936	13,721	13,567	13,816	13,251	13,987	13,159	14,244	13,625	13,144	14,113	13,071	12,364	12,887	13,075
Industry	14,116	13,994	14,183	13,760	13,974	13,389	14,316	13,100	13,632	13,195	12,524	13,503	12,793	11,815	11,831	11,779
Academic	137,577	138,132	138,395	137,036	140,812	137,340	148,715	142,502	160,128	156,089	154,089	167,797	163,004	154,614	159,183	163,137
FFRDCs	5,217	5,102	5,226	5,049	5,259	4,874	5,721	5,352	6,004	5,653	5,392	5,699	5,349	4,957	5,395	5,690
Private nonprofit	15,298	15,236	15,681	15,942	16,363	15,639	16,773	16,205	17,620	17,013	16,888	18,516	17,978	17,379	18,222	18,322
State/local government	1,809	1,850	1,817	1,765	1,881	1,817	1,834	1,773	1,981	1,925	1,871	1,928	1,885	1,744	1,755	1,728
Joint/unknown sectors	1,370	1,562	1,368	1,006	961	1,090	1,130	821	948	373	399	357	270	181	170	170
Engineering	11,760	11,815	12,312	11,637	12,560	12,475	13,467	12,671	14,455	14,347	14,048	15,140	15,299	13,823	14,890	15,038
Federal government	908	859	893	814	886	844	885	827	952	869	772	868	877	695	790	781
Industry	2,343	2,359	2,411	2,316	2,287	2,228	2,385	1,918	2,091	2,053	1,904	1,973	2,016	1,653	1,792	1,628
Academic	7,292	7,448	7,817	7,421	8,203	8,260	8,925	8,783	10,121	10,295	10,128	11,131	11,139	10,489	11,079	11,431
FFRDCs	889	807	782	759	913	733	892	820	935	838	980	834	986	711	891	904
Private nonprofit	181	185	190	211	161	156	176	203	194	184	177	221	197	199	243	217
State/local government	37	35	96	33	33	163	93	60	87	84	57	92	68	65	82	66
Joint/unknown sectors	110	122	124	83	76	90	112	60	77	25	29	20	15	11	13	9
Astronomy	2,557	1,932	2,829	2,566	2,697	2,996	2,719	2,874	2,853	2,885	2,805	2,981	3,421	2,876	2,897	3,377
Federal government	295	207	306	264	252	229	191	220	208	201	184	241	243	207	202	241
Industry	51	54	58	57	54	68	55	38	46	42	52	79	77	50	63	71
Academic	1,663	1,261	1,816	1,607	1,755	1,954	1,817	1,887	1,862	1,919	1,899	1,957	2,322	1,949	1,937	2,304
FFRDCs	228	179	259	267	266	276	263	294	300	306	308	311	322	278	291	309
Private nonprofit	308	222	369	347	349	439	364	404	409	394	341	375	435	377	391	437
State/local government	0	0 *	0 *	0 *	0	0	0	0 *	0	0	0 *	0	0	0 *	1	0
Joint/unknown sectors	13	9	21	25	21	30	29	30	28	24	22	19	22	15	12	14
Chemistry	14,375	14,414	14,491	14,560	14,342	14,043	15,763	15,110	17,138	16,266	15,268	16,684	17,064	16,977	17,405	17,221
Federal government	698	648	607	614	655	647	673	669	702	632	599	629	624	597	636	609
Industry	2,031	1,849	1,956	1,818	1,761	1,830	2,125	2,101	1,948	1,944	1,793	1,861	1,754	1,675	1,465	1,466
Academic	10,666	10,914	10,848	10,998	10,854	10,565	11,823	11,180	13,133	12,521	11,760	12,838	13,312	13,363	13,889	13,690
FFRDCs	648	636	676	715	705	639	749	774	987	812	784	906	919	953	989	1,065
Private nonprofit	272	292	331	349	313	306	322	322	310	319	294	405	415	364	402	369
State/local government	29	27	27	35	26	21	26	24	22	25	17	23	26	17	19	15
Joint/unknown sectors	32	48	45	31	29	35	46	41	35	14	21	22	15	8	4	7
Physics	18,037	17,951	18,061	16,888	17,376	17,288	18,643	17,642	20,540	19,787	18,209	20,696	18,551	17,632	17,953	18,672
Federal government	991	992	1,071	884	942	903	978	941	913	925	845	922	762	728	800	832
Industry	1,814	1,884	1,807	1,679	1,813	1,652	1,774	1,586	1,568	1,556	1,316	1,398	1,285	1,119	1,160	1,180
Academic	12,903	12,719	12,726	12,094	12,307	12,412	13,227	12,752	15,416	14,713	13,775	15,891	14,383	13,712	13,847	14,396
FFRDCs	2,042	2,093	2,175	1,994	2,077	2,053	2,390	2,127	2,371	2,335	2,033	2,211	1,880	1,846	1,907	2,022
Private nonprofit	203	162	198	195	188	210	218	189	226	224	210	247	223	212	224	231
State/local government	7	5	4	2	6	2	2	7	4	7	5	5	5	6	6	5
Joint/unknown sectors	78	96	80	39	44	57	54	40	42	27	24	21	14	8	8	5
Geosciences	9,237	9,835	9,891	9,787	10,081	9,227	11,499	10,447	11,120	11,361	11,223	12,472	11,993	11,311	11,608	12,088
Federal government	1,294	1,415	1,404	1,401	1,402	1,357	1,625	1,426	1,503	1,482	1,485	1,682	1,595	1,440	1,527	1,607

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**U.S. S&E articles, by field and sector: 1997-2012**

Field and sector	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Industry	638	618	639	555	660	561	577	560	564	592	602	639	599	589	537	625
Academic	6,183	6,526	6,563	6,590	6,715	6,174	7,839	7,194	7,774	8,026	7,859	8,698	8,535	8,061	8,257	8,485
FFRDCs	480	508	517	495	498	411	632	498	498	506	475	608	495	461	556	588
Private nonprofit	398	467	478	472	503	450	506	503	503	509	518	576	541	536	509	538
State/local government	174	209	209	217	255	218	257	224	224	228	263	252	215	215	211	236
Joint/unknown sectors	69	91	82	56	49	55	63	42	54	19	20	18	13	9	11	10
Mathematics	3,062	3,497	3,573	3,767	3,666	3,568	3,774	3,574	3,933	3,940	3,813	4,482	4,275	3,841	3,995	4,159
Federal government	45	55	68	59	48	54	46	51	55	47	52	55	48	58	56	56
Industry	89	126	130	120	127	111	107	89	86	81	84	91	87	79	104	87
Academic	2,841	3,223	3,277	3,459	3,403	3,318	3,539	3,340	3,685	3,719	3,594	4,234	4,052	3,619	3,756	3,922
FFRDCs	41	41	41	70	39	39	42	55	63	57	48	65	52	45	43	57
Private nonprofit	37	43	46	52	46	39	29	34	37	34	27	31	32	35	36	36
State/local government	3	2	4	2	1	1	1	1	1	1	1	2	1	2	0 *	0 *
Joint/unknown sectors	6	6	6	4	4	6	10	4	6	1	6	4	4	4	0	0 *
Computer sciences	1,929	1,952	2,008	2,075	2,083	1,999	2,254	2,173	2,390	2,521	2,329	2,337	2,282	2,160	2,146	2,295
Federal government	50	49	61	41	42	41	35	34	42	40	56	35	32	36	35	36
Industry	434	445	448	481	461	443	410	343	366	376	321	352	286	260	281	306
Academic	1,352	1,364	1,398	1,475	1,482	1,454	1,736	1,729	1,912	2,024	1,875	1,885	1,888	1,812	1,761	1,887
FFRDCs	42	48	51	31	44	31	36	38	41	44	39	32	34	29	40	41
Private nonprofit	32	23	27	35	36	19	23	18	20	28	31	26	35	20	26	22
State/local government	1	1	1	1	1	0 *	2	0 *	1	2	1	1	2	1	2	3
Joint/unknown sectors	19	23	22	12	17	11	12	11	8	6	6	5	5	3	1	0 *
Agricultural sciences	3,605	3,464	2,804	3,640	3,203	3,924	3,903	3,526	3,561	3,964	3,624	3,859	3,490	3,371	3,391	3,406
Federal government	610	586	463	656	548	629	669	628	649	759	675	761	610	595	568	595
Industry	241	237	201	250	264	263	232	220	220	227	221	243	217	212	227	239
Academic	2,615	2,532	2,043	2,639	2,260	2,928	2,888	2,585	2,595	2,875	2,640	2,757	2,563	2,471	2,502	2,458
FFRDCs	16	12	8	12	8	9	21	11	17	18	21	12	14	15	13	16
Private nonprofit	52	38	40	44	48	46	54	49	50	56	42	55	56	48	55	75
State/local government	33	24	19	18	49	27	19	22	17	25	21	25	25	25	21	20
Joint/unknown sectors	38	35	29	20	26	22	20	12	13	4	4	6	5	5	4	2
Biological sciences	51,694	52,061	51,425	50,989	52,680	50,085	52,968	51,491	55,494	51,775	51,849	53,394	51,037	47,933	48,847	49,100
Federal government	4,633	4,574	4,500	4,469	4,516	4,263	4,412	4,257	4,546	4,202	4,126	4,241	3,908	3,693	3,871	3,888
Industry	3,689	3,649	3,627	3,597	3,554	3,299	3,501	3,153	3,321	2,942	2,888	3,047	2,922	2,691	2,658	2,674
Academic	37,484	38,002	37,582	37,180	38,664	36,887	39,155	38,275	41,464	38,998	39,192	40,309	38,681	36,247	36,914	37,056
FFRDCs	626	569	552	546	553	540	540	584	626	591	537	549	506	482	529	509
Private nonprofit	4,562	4,512	4,471	4,531	4,716	4,427	4,655	4,560	4,808	4,484	4,511	4,680	4,505	4,351	4,432	4,515
State/local government	509	519	489	516	532	506	512	535	560	495	528	507	469	439	415	430
Joint/unknown sectors	191	235	203	150	145	163	193	128	169	63	68	60	46	29	27	28
Medical sciences	52,146	52,402	52,550	51,886	53,437	51,384	56,128	53,541	60,130	57,052	57,535	62,017	59,898	57,174	60,273	59,286
Federal government	3,796	3,859	3,637	3,625	3,782	3,542	3,763	3,507	3,837	3,647	3,556	3,769	3,556	3,410	3,523	3,434
Industry	2,191	2,268	2,377	2,384	2,492	2,491	2,701	2,674	2,907	2,881	2,879	3,191	2,979	2,922	2,982	2,885
Academic	36,890	36,792	36,931	36,235	37,192	35,933	39,301	37,504	42,325	40,310	40,831	43,929	42,484	40,467	42,702	42,085

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**U.S. S&E articles, by field and sector: 1997–2012**

Field and sector	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
FFRDCs	176	182	147	138	127	126	138	128	147	115	130	138	125	109	103	142
Private nonprofit	7,846	7,973	8,191	8,381	8,685	8,188	9,064	8,667	9,666	9,124	9,190	10,062	9,794	9,426	10,086	9,943
State/local government	778	794	783	757	808	709	765	740	912	846	808	816	880	790	822	752
Joint/unknown sectors	469	534	484	365	350	396	396	321	337	129	140	113	80	50	56	46
Other life sciences	3,009	3,009	2,876	2,942	3,146	2,958	2,964	2,699	3,670	4,456	3,947	4,706	4,714	4,394	4,426	4,680
Federal government	141	123	116	135	170	144	135	109	231	214	179	207	225	221	185	198
Industry	154	153	155	147	150	157	150	142	193	236	197	251	230	221	229	244
Academic	2,181	2,181	2,081	2,147	2,336	2,121	2,207	2,025	2,695	3,248	2,947	3,473	3,498	3,193	3,285	3,484
FFRDCs	1	0	0	1	1	1	2	0 *	1	0 *	0 *	0 *	0	0	1	0 *
Private nonprofit	376	368	388	387	372	410	367	348	447	649	549	679	668	679	660	665
State/local government	48	74	53	57	60	59	50	44	50	88	64	79	78	67	60	78
Joint/unknown sectors	107	110	82	69	58	66	54	30	53	20	11	18	15	13	6	11
Psychology	8,130	7,736	7,806	7,499	7,809	7,691	7,892	7,410	8,482	8,821	8,665	10,210	10,181	9,519	9,810	10,930
Federal government	248	225	240	237	221	218	218	183	216	231	211	288	227	258	279	340
Industry	169	143	170	165	183	147	141	131	173	140	125	183	171	154	146	171
Academic	7,053	6,755	6,850	6,575	6,867	6,796	7,058	6,636	7,599	7,904	7,822	9,169	9,236	8,580	8,853	9,836
FFRDCs	2	3	2	1	0	2	1	0 *	1	2	1	2	2	2	4	1
Private nonprofit	399	356	355	359	392	373	349	340	366	445	415	469	461	447	454	499
State/local government	116	106	85	70	69	66	59	72	63	82	66	78	74	71	67	69
Joint/unknown sectors	143	148	105	92	78	88	65	46	64	16	23	20	11	6	7	14
Social sciences	9,935	9,745	9,763	9,888	9,985	9,763	10,501	9,754	10,790	10,700	10,993	12,935	12,144	12,042	11,803	13,650
Federal government	382	343	354	368	353	380	357	307	390	378	404	414	363	425	413	458
Industry	271	209	203	190	170	140	157	144	150	125	141	195	171	192	188	203
Academic	8,456	8,416	8,463	8,617	8,773	8,536	9,199	8,612	9,547	9,538	9,767	11,525	10,911	10,651	10,401	12,102
FFRDCs	26	25	16	20	27	14	16	23	19	28	36	31	16	25	29	36
Private nonprofit	632	594	596	579	556	577	647	568	583	564	582	691	615	684	703	775
State/local government	74	55	47	56	42	44	48	45	41	42	38	48	43	46	48	54
Joint/unknown sectors	93	104	84	58	65	72	77	56	61	25	25	32	25	20	20	22

\* = rounds to zero.

FFRDC = federally funded R&amp;D center.

NOTES: Article counts are from the set of journals covered by the Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). Articles are classified by the year they entered the database, rather than the year of publication, and are assigned to a sector on the basis of the institutional address(es) listed in the article. Articles are credited on a fractional-count basis (i.e., for articles with collaborating institutions from multiple sectors, each sector receives fractional credit on the basis of the proportion of its participating institutions). Detail may not add to total because of rounding.

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