

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total articles	574	651	634	749	852	806	1,024	1,122	1,291	1,512	2,126	2,367	3,381	3,895	4,520	5,102	5,984	6,491	7,179	7,828	8,906	9,739	10,989	12,283	13,773
With multiple institutions	388	488	466	584	606	546	680	856	973	1,136	1,547	1,861	2,527	2,948	3,320	3,794	4,455	4,830	5,395	5,916	6,825	7,562	8,686	9,717	11,333
With domestic institutions only	247	258	256	308	348	367	474	459	556	662	1,020	1,071	1,735	1,961	2,358	2,625	3,010	3,326	3,714	3,944	4,627	4,767	5,421	6,094	6,523
With international institutions	315	385	371	430	489	426	532	646	718	828	1,063	1,236	1,575	1,894	2,128	2,428	2,917	3,114	3,431	3,849	4,249	4,916	5,520	6,121	7,138
United Kingdom																									
Total articles	85,483	88,000	89,015	88,447	93,785	89,553	92,189	97,295	103,587	111,707	117,479	122,481	124,289	128,938	130,783	134,660	139,697	144,569	148,277	153,408	157,527	161,571	166,519	170,738	182,907
With multiple institutions	46,243	47,401	49,277	49,817	50,576	46,770	49,521	61,722	67,748	74,628	78,401	83,122	84,958	86,685	87,615	92,840	98,194	104,829	109,493	115,762	121,457	126,943	133,015	138,020	151,396
With domestic institutions only	61,086	62,608	62,172	61,114	65,469	62,669	62,678	60,307	62,771	66,341	68,950	70,194	69,344	70,468	69,435	69,588	69,980	69,182	67,981	67,258	66,067	64,648	63,389	62,957	64,119
With international institutions	23,139	24,304	25,667	25,775	27,244	26,122	28,782	35,809	40,048	44,374	47,462	51,042	53,781	57,615	60,279	64,055	68,732	74,785	79,886	85,767	90,944	96,354	102,527	106,969	117,790
Austria																									
Total articles	7,605	8,162	8,178	8,336	8,794	9,302	9,978	10,953	11,530	12,904	13,282	14,534	15,535	16,318	17,025	18,343	19,316	20,003	20,646	21,681	22,115	22,441	23,045	24,040	25,790
With multiple institutions	4,886	5,253	5,444	5,684	5,663	5,538	6,127	8,030	8,842	9,820	10,079	11,111	11,856	12,054	12,593	13,831	14,769	15,472	16,267	17,140	17,853	18,209	19,099	20,048	21,854
With domestic institutions only	4,644	4,901	4,811	4,723	5,030	5,407	5,750	5,659	5,669	6,251	6,359	6,708	6,963	7,321	7,376	7,727	7,864	7,812	7,810	8,040	7,710	7,689	7,427	7,545	7,698
With international institutions	2,829	3,141	3,230	3,379	3,614	3,825	4,145	5,118	5,739	6,513	6,778	7,689	8,414	8,898	9,575	10,564	11,391	12,145	12,807	13,619	14,381	14,727	15,576	16,423	17,990
Belgium																									
Total articles	11,428	11,834	12,468	12,391	12,789	13,015	13,859	15,385	16,417	18,312	18,880	20,101	21,323	22,322	23,254	24,638	25,843	26,679	27,753	28,456	28,924	29,054	30,120	30,322	32,904
With multiple institutions	7,055	7,510	8,121	8,188	8,070	7,710	8,759	11,287	12,258	13,931	14,418	15,571	16,660	17,301	18,110	19,513	20,713	21,555	22,799	23,841	24,356	24,827	26,095	26,171	28,943
With domestic institutions only	6,837	6,881	7,117	6,917	7,267	7,687	7,616	7,547	7,966	8,676	8,859	9,164	9,442	9,630	9,724	9,868	10,179	10,110	10,020	9,563	9,526	9,098	8,877	8,949	9,066
With international institutions	4,422	4,818	5,221	5,267	5,424	5,259	6,176	7,654	8,347	9,504	9,861	10,773	11,709	12,578	13,398	14,671	15,573	16,511	17,702	18,857	19,363	19,904	21,189	21,274	23,716
Czechia																									
Total articles	5,499	5,774	5,810	6,186	6,633	7,110	7,493	8,172	9,021	10,068	11,311	12,698	13,663	14,135	15,807	16,912	17,733	18,024	20,052	21,915	22,032	22,608	22,363	23,516	23,397
With multiple institutions	3,059	3,120	3,279	3,299	3,498	3,477	3,918	5,590	6,417	6,999	7,900	8,731	9,270	9,317	9,949	10,526	11,380	11,813	13,288	14,478	14,740	15,477	15,793	16,940	17,858
With domestic institutions only	3,618	3,851	3,760	4,075	4,464	4,828	5,029	5,108	5,615	6,289	7,034	7,999	8,588	8,789	10,038	10,880	11,082	10,928	11,839	12,863	12,642	12,503	11,688	11,965	10,480
With international institutions	1,844	1,894	2,015	2,060	2,137	2,249	2,430	2,981	3,345	3,717	4,210	4,619	4,952	5,287	5,686	5,945	6,567	7,065	8,185	9,028	9,358	10,059	10,636	11,474	12,814
Denmark																									
Total articles	8,451	9,358	9,336	9,273	9,745	9,636	9,728	10,701	11,297	12,209	12,779	13,469	14,067	14,930	15,919	17,676	19,218	20,334	22,433	23,370	24,079	24,699	25,707	26,199	28,649
With multiple institutions	5,865	6,096	6,685	6,549	6,346	6,166	6,128	8,074	8,636	9,334	9,989	10,716	11,260	11,251	12,184	13,782	15,034	16,101	17,895	19,030	20,042	20,629	21,860	22,422	24,885
With domestic institutions only	4,963	5,614	5,224	5,046	5,514	5,502	5,522	5,350	5,667	5,988	6,077	6,195	6,376	6,676	6,912	7,647	8,230	8,517	9,273	9,011	8,797	8,806	8,504	8,447	8,811
With international institutions	3,259	3,654	4,000	3,984	4,048	3,987	4,154	5,093	5,536	6,095	6,593	7,129	7,556	8,204	8,930	9,972	10,929	11,766	12,950	14,191	15,159	15,787	17,028	17,592	19,648
Finland																									
Total articles	7,959	8,497	8,678	8,744	9,454	9,632	9,802	10,550	11,433	12,079	12,579	12,888	13,253	13,864	14,169	14,796	15,412	16,063	16,964	17,366	17,942	17,812	18,263	19,153	20,082
With multiple institutions	4,930	5,496	5,600	5,930	5,981	5,730	5,993	7,551	8,131	8,606	9,222	9,704	9,967	10,219	10,604	11,209	11,834	12,432	13,198	13,868	14,420	14,653	15,097	16,116	17,163
With domestic institutions only	5,512	5,712	5,600	5,494	6,033	6,357	6,343	6,105	6,727	7,058	7,146	6,911	6,999	7,295	7,048	7,227	7,196	7,179	7,379	7,074	7,157	6,595	6,682	6,582	6,697
With international institutions	2,382	2,705	2,994	3,113	3,335	3,213	3,421	4,362	4,647	4,962	5,369	5,894	6,190	6,529	7,046	7,468	8,139	8,836	9,568	10,272	10,762	11,192	11,549	12,519	13,341
France																									
Total articles	55,973	59,761	60,472	60,305	61,823	62,350	64,283	68,420	72,211	78,630	82,714	85,156	89,466	92,875	94,405	97,875	101,155	103,876	104,819	105,557	106,594	106,626	106,280	105,237	108,305

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
With multiple institutions	32,304	35,006	36,380	36,972	36,751	34,831	37,683	47,091	50,847	55,923	59,322	62,223	65,755	68,915	71,124	75,262	79,166	82,601	84,469	86,149	88,118	88,917	89,148	89,356	93,306
With domestic institutions only	38,619	40,661	40,478	39,878	40,473	41,621	41,555	40,423	41,946	44,989	46,947	47,175	49,218	49,641	49,782	50,630	51,162	51,091	50,019	48,614	47,208	45,526	43,712	41,923	41,947
With international institutions	16,705	18,498	19,425	19,766	20,899	20,374	22,313	27,270	29,675	32,997	35,050	37,201	39,502	42,804	44,200	46,842	49,635	52,466	54,532	56,654	58,861	60,483	61,902	62,545	65,510
Germany																									
Total articles	76,719	82,073	84,089	83,015	85,465	87,159	89,495	94,584	99,369	109,820	112,818	117,672	121,990	126,947	131,105	135,979	142,936	145,338	148,680	151,019	154,454	156,404	158,667	161,743	166,520
With multiple institutions	43,493	47,232	49,479	49,513	48,636	46,827	49,889	64,245	70,471	77,597	80,390	84,406	87,274	87,552	89,660	94,508	100,453	103,662	106,812	110,533	114,053	117,502	120,945	124,737	132,097
With domestic institutions only	53,269	56,496	57,059	54,762	56,890	58,689	58,175	55,886	57,725	63,782	64,768	66,057	68,647	70,331	71,677	73,289	76,003	75,522	76,256	75,265	75,858	75,282	74,166	74,668	73,618
With international institutions	22,045	24,369	25,709	26,640	27,505	27,547	30,400	37,054	40,111	44,625	46,722	50,176	51,758	55,774	58,675	62,084	66,294	69,356	72,066	75,513	78,227	80,598	84,003	86,351	92,056
Greece																									
Total articles	5,088	5,493	5,758	5,784	6,595	7,018	7,786	8,541	9,972	11,502	13,233	13,975	14,793	15,437	15,413	15,811	16,115	16,135	16,144	16,095	16,254	16,227	16,677	17,666	19,200
With multiple institutions	2,901	3,179	3,528	3,556	3,827	3,890	4,389	5,880	6,984	8,104	9,286	9,848	10,381	10,682	10,499	11,150	11,394	11,668	11,868	12,058	12,295	12,578	13,033	13,934	15,258
With domestic institutions only	3,373	3,680	3,729	3,700	4,345	4,736	5,359	5,410	6,437	7,449	8,478	8,844	9,450	9,511	9,389	9,245	8,995	8,687	8,341	7,997	7,761	7,518	7,471	7,877	8,657
With international institutions	1,658	1,760	1,972	1,999	2,201	2,237	2,389	3,054	3,474	3,969	4,673	5,031	5,248	5,865	5,936	6,478	7,063	7,401	7,756	8,069	8,461	8,670	9,173	9,730	10,470
Ireland																									
Total articles	2,754	2,879	3,085	3,093	3,457	3,584	4,014	4,388	5,334	6,525	6,915	7,739	8,276	9,212	10,048	10,523	10,482	10,723	10,957	10,945	11,649	12,037	12,767	13,651	15,432
With multiple institutions	1,652	1,767	1,872	1,911	2,042	2,041	2,317	2,942	3,551	4,346	4,698	5,250	5,798	6,422	7,045	7,425	7,675	8,008	8,353	8,572	9,260	9,739	10,511	11,249	12,980
With domestic institutions only	1,651	1,674	1,776	1,752	2,024	2,182	2,386	2,289	2,805	3,467	3,543	3,986	4,072	4,494	4,929	5,116	4,858	4,758	4,691	4,420	4,480	4,553	4,553	4,867	5,317
With international institutions	1,064	1,161	1,276	1,297	1,384	1,377	1,598	2,054	2,496	3,009	3,277	3,658	4,147	4,677	5,044	5,324	5,582	5,935	6,237	6,510	7,150	7,462	8,190	8,746	10,053
Italy																									
Total articles	39,681	41,134	40,528	41,098	43,122	44,322	46,933	52,037	55,056	59,626	63,322	68,064	70,869	74,073	75,525	78,656	83,794	88,583	91,642	94,997	96,420	99,131	102,410	107,287	120,946
With multiple institutions	24,192	25,132	25,759	26,290	26,247	25,537	28,918	37,085	40,222	43,645	46,692	50,338	52,067	53,170	54,615	57,997	62,201	66,507	70,048	73,567	75,762	79,012	82,295	86,670	100,437
With domestic institutions only	29,275	29,810	28,526	28,462	30,209	31,507	32,443	34,205	35,541	38,005	40,059	42,199	43,623	45,171	44,756	45,730	48,188	49,988	50,495	50,880	50,027	50,346	50,467	53,168	59,556
With international institutions	9,914	10,923	11,608	11,943	12,489	12,509	14,176	17,282	19,144	21,216	22,808	25,313	26,678	28,532	30,325	32,481	35,210	38,255	40,860	43,793	46,027	48,245	51,348	53,323	60,383
Netherlands																									
Total articles	22,812	23,386	23,745	22,760	24,310	23,987	25,447	27,536	29,852	33,193	34,732	35,980	37,641	40,625	42,506	44,161	46,832	48,112	49,294	49,867	50,984	52,031	53,519	54,804	59,156
With multiple institutions	14,141	14,902	15,574	15,167	15,659	14,510	15,730	20,365	22,876	25,381	26,889	28,082	29,583	31,417	33,231	34,893	38,005	39,240	40,235	41,669	43,168	44,467	46,228	47,539	51,890
With domestic institutions only	15,080	14,876	14,978	14,012	14,863	15,073	15,491	14,865	15,836	17,899	18,083	18,446	19,050	20,277	20,459	20,856	20,697	20,805	20,686	19,863	19,282	19,054	18,670	18,661	19,522
With international institutions	7,396	8,211	8,422	8,372	9,214	8,755	9,817	12,314	13,740	15,028	16,360	17,254	18,305	20,126	21,808	23,051	25,914	27,149	28,512	29,896	31,521	32,720	34,589	35,805	39,174
Poland																									
Total articles	13,411	13,424	13,839	14,488	15,705	17,134	18,597	20,474	22,967	24,676	26,682	26,677	28,562	28,808	29,922	31,127	33,711	35,890	37,809	39,975	42,104	42,498	44,416	44,986	48,552
With multiple institutions	5,925	6,024	6,354	6,711	7,048	7,329	8,062	11,709	13,313	14,998	16,382	16,327	17,013	16,475	17,034	17,725	19,221	20,699	22,338	24,042	26,009	27,063	28,640	29,983	33,453
With domestic institutions only	9,533	9,486	9,773	10,180	11,190	12,459	13,571	14,203	16,088	17,380	19,019	18,789	20,519	20,357	21,318	22,104	24,034	25,463	26,553	27,907	28,905	28,335	29,266	28,725	29,818
With international institutions	3,766	3,888	3,971	4,229	4,422	4,561	4,915	6,098	6,715	7,116	7,500	7,616	7,776	8,218	8,241	8,705	9,488	10,326	11,179	11,994	13,114	14,061	15,041	16,101	18,548
Portugal																									
Total articles	2,822	3,332	3,620	4,074	4,348	4,896	5,301	6,268	7,090	8,014	9,733	10,273	11,846	12,900	14,365	16,308	17,893	19,187	19,952	20,772	20,932	21,283	22,475	24,439	26,902
With multiple institutions	1,525	1,810	1,956	2,418	2,594	2,827	3,330	4,541	5,267	5,923	7,335	7,720	9,140	9,782	10,954	12,584	14,044	15,257	16,085	16,881	17,421	17,870	19,044	20,844	23,330

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
With domestic institutions only	1,742	2,070	2,264	2,421	2,571	2,972	3,088	3,394	3,766	4,297	5,219	5,538	6,243	6,953	7,620	8,618	9,177	9,635	9,938	10,029	9,483	9,469	9,610	10,750	11,440
With international institutions	1,066	1,246	1,328	1,619	1,757	1,906	2,195	2,818	3,282	3,673	4,461	4,661	5,541	5,891	6,676	7,637	8,665	9,512	9,979	10,719	11,410	11,772	12,808	13,622	15,359
Spain																									
Total articles	24,646	26,713	27,117	28,423	29,608	31,032	33,464	36,214	39,566	44,794	49,560	53,244	56,287	60,565	64,118	68,767	72,637	73,538	76,034	76,185	78,243	79,259	82,211	85,965	96,536
With multiple institutions	13,766	15,483	15,775	16,350	16,741	16,440	18,830	24,877	27,482	31,518	35,245	37,882	40,733	41,768	44,781	49,473	53,020	54,382	57,252	58,613	61,015	62,433	65,623	69,559	79,013
With domestic institutions only	17,978	19,320	19,281	20,136	21,019	22,497	23,528	23,641	25,761	28,825	31,475	33,284	34,411	36,706	37,777	39,582	40,843	40,062	40,120	38,620	38,340	38,118	38,579	40,163	45,086
With international institutions	6,359	7,125	7,538	7,872	8,262	8,259	9,715	12,100	13,511	15,616	17,684	19,470	21,360	23,570	26,054	28,912	31,515	33,288	35,735	37,293	39,462	40,650	43,018	45,106	50,584
Sweden																									
Total articles	16,796	17,460	17,872	18,366	18,841	18,927	19,049	20,378	21,163	23,023	23,626	24,168	24,381	25,961	26,991	28,249	30,301	31,703	33,570	34,861	35,952	36,673	37,803	38,777	41,087
With multiple institutions	10,904	11,600	12,066	12,488	12,132	11,729	11,913	14,877	15,637	17,247	17,836	18,602	18,821	19,571	20,461	21,711	23,632	25,222	26,712	28,475	29,807	30,832	32,028	33,220	35,496
With domestic institutions only	10,590	10,854	10,950	10,994	11,389	11,588	11,288	10,840	11,154	11,941	12,025	11,628	11,587	12,090	12,140	12,312	12,860	13,018	13,571	13,229	12,915	12,626	12,433	12,324	12,799
With international institutions	5,941	6,369	6,673	7,074	7,255	7,207	7,694	9,284	9,826	10,889	11,411	12,337	12,582	13,756	14,699	15,812	17,357	18,589	19,935	21,580	22,978	23,976	25,309	26,375	28,157
Norway																									
Total articles	5,986	6,514	6,680	6,251	6,547	6,672	6,756	7,383	8,221	9,519	10,321	11,165	11,681	12,945	13,388	14,410	15,613	15,948	16,800	17,117	18,652	19,641	20,597	21,376	23,748
With multiple institutions	3,744	4,044	4,249	4,145	4,112	4,101	4,084	5,529	6,242	7,245	7,878	8,693	9,108	9,986	10,396	11,261	12,413	12,691	13,558	13,941	15,337	16,237	17,023	17,785	19,962
With domestic institutions only	3,921	4,205	4,207	3,808	4,074	4,153	4,118	3,918	4,252	5,017	5,228	5,546	5,601	6,178	6,238	6,732	6,952	6,981	6,982	6,763	7,133	7,431	7,611	7,794	8,076
With international institutions	1,988	2,234	2,403	2,334	2,405	2,469	2,582	3,353	3,892	4,413	4,991	5,523	5,962	6,698	7,094	7,614	8,606	8,921	9,796	10,336	11,495	12,185	12,944	13,513	15,554
Russia																									
Total articles	39,015	38,475	39,586	37,685	38,295	42,054	42,335	42,206	42,780	42,567	36,972	37,873	39,273	40,137	40,421	43,058	43,120	46,168	52,342	60,746	70,542	78,836	88,363	100,778	104,991
With multiple institutions	10,506	11,488	12,350	12,781	14,246	14,303	15,333	19,540	20,540	21,678	18,535	19,052	19,126	19,577	19,841	21,570	22,314	24,792	28,741	35,249	41,422	47,112	52,980	60,884	64,534
With domestic institutions only	31,631	30,439	31,058	28,865	28,657	32,627	31,979	29,529	29,653	28,721	24,916	25,737	27,634	28,435	29,267	31,119	30,792	32,830	37,886	44,126	52,682	58,787	66,749	76,799	78,825
With international institutions	7,266	7,895	8,383	8,616	9,205	9,211	9,777	11,130	11,479	12,452	11,794	11,896	11,376	11,557	11,066	11,878	12,252	13,266	14,400	16,541	17,774	19,912	21,399	23,601	25,659
Switzerland																									
Total articles	15,772	16,371	16,850	16,998	17,509	16,997	17,750	20,049	21,835	23,875	25,673	27,021	28,046	29,268	31,095	33,307	35,536	36,779	38,270	39,439	40,416	41,754	42,489	42,978	45,817
With multiple institutions	10,321	10,689	11,348	11,435	11,093	10,360	10,990	14,550	16,182	17,835	19,389	20,868	21,692	22,317	23,778	25,732	27,836	29,283	30,629	32,123	33,422	34,768	35,962	36,566	39,550
With domestic institutions only	8,587	8,841	8,784	8,629	9,301	9,189	9,149	8,862	9,431	10,251	10,785	10,737	10,967	11,179	11,611	12,106	12,599	12,561	12,795	12,507	12,366	12,424	12,005	12,005	12,126
With international institutions	6,913	7,315	7,790	8,003	7,970	7,573	8,471	10,870	12,200	13,387	14,648	16,033	16,805	17,938	19,275	21,014	22,748	24,097	25,410	26,848	27,928	29,198	30,369	30,786	33,478
Turkey																									
Total articles	5,617	5,981	6,424	7,468	7,617	9,410	11,998	14,882	17,714	19,561	21,522	23,799	24,352	27,654	29,350	30,377	32,116	34,483	35,315	37,840	40,630	38,837	39,648	44,272	51,452
With multiple institutions	2,739	3,072	3,445	4,163	4,046	4,513	6,119	9,801	12,188	13,809	14,854	16,112	16,477	17,765	18,596	19,821	21,601	23,684	24,838	26,840	29,088	27,459	27,997	31,231	37,606
With domestic institutions only	4,609	4,939	5,274	6,162	6,189	7,949	10,123	12,302	14,591	16,314	17,976	19,910	20,162	22,865	24,175	24,846	25,694	27,461	28,149	29,792	31,449	29,523	29,752	33,046	37,132
With international institutions	955	994	1,114	1,231	1,362	1,431	1,804	2,459	2,987	3,108	3,417	3,731	4,027	4,621	4,990	5,374	6,311	6,934	7,071	7,998	9,073	9,222	9,800	11,085	14,081
Iran																									
Total articles	853	1,078	1,215	1,408	1,835	2,179	3,124	4,433	5,831	7,993	11,069	14,420	18,600	22,369	27,129	34,188	34,727	36,077	39,368	41,236	46,581	51,052	54,403	60,438	67,450
With multiple institutions	472	533	659	730	883	1,055	1,518	2,672	3,547	5,002	6,852	9,024	11,449	13,850	16,861	21,618	22,956	24,619	26,906	28,145	31,951	35,180	38,635	44,035	50,590
With domestic institutions only	538	747	807	1,043	1,365	1,696	2,430	3,329	4,422	6,128	8,754	11,441	15,013	18,181	21,999	27,910	27,905	28,465	31,154	32,403	36,736	39,524	40,892	43,635	46,191

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
With international institutions	304	327	398	349	459	476	671	1,068	1,360	1,773	2,188	2,783	3,369	4,032	4,893	6,038	6,639	7,485	8,062	8,649	9,760	11,462	13,439	16,704	21,098
Israel																									
Total articles	10,595	11,018	10,819	10,843	11,749	11,769	12,166	12,957	13,504	13,758	14,585	14,816	15,152	14,976	15,088	15,744	16,144	16,091	17,023	17,624	17,959	18,247	18,898	19,772	21,311
With multiple institutions	6,378	6,697	6,729	6,794	7,095	6,834	7,126	9,119	9,515	9,821	10,368	10,588	10,679	10,427	10,679	11,227	11,596	11,792	12,269	13,090	13,480	13,778	14,652	15,305	16,967
With domestic institutions only	6,771	7,055	6,793	6,765	7,516	7,539	7,763	7,557	8,045	8,045	8,544	8,563	8,657	8,511	8,083	8,258	8,585	8,297	8,893	8,673	8,805	8,925	8,796	9,264	9,862
With international institutions	3,654	3,780	3,865	3,898	4,099	4,135	4,327	5,214	5,320	5,595	5,908	6,147	6,370	6,398	6,879	7,334	7,470	7,744	8,103	8,934	9,128	9,284	10,058	10,404	11,322
Saudi Arabia																									
Total articles	1,952	2,000	2,007	1,825	1,928	1,871	1,944	2,211	2,189	2,241	2,422	2,635	2,991	3,941	5,640	8,314	10,653	12,980	15,588	17,704	18,740	19,378	20,979	24,946	34,061
With multiple institutions	1,119	1,088	1,144	1,001	961	856	924	1,253	1,303	1,406	1,504	1,632	1,909	2,455	3,913	6,309	8,441	10,341	12,909	15,034	16,016	16,540	17,924	21,360	29,622
With domestic institutions only	1,423	1,480	1,475	1,346	1,372	1,362	1,420	1,414	1,436	1,377	1,496	1,549	1,673	2,111	2,427	2,832	3,180	3,784	4,011	4,138	4,333	4,625	5,072	6,106	8,063
With international institutions	491	506	511	459	533	488	511	762	725	811	879	1,015	1,258	1,786	3,157	5,423	7,434	9,167	11,552	13,550	14,393	14,726	15,882	18,794	25,867
Egypt																									
Total articles	2,908	2,878	2,951	2,888	3,214	3,449	3,604	4,248	4,389	4,574	4,974	5,607	6,233	7,816	8,683	9,861	11,387	12,264	13,396	14,623	16,478	16,897	19,553	23,084	28,871
With multiple institutions	1,497	1,410	1,508	1,424	1,527	1,465	1,698	2,454	2,534	2,837	3,131	3,506	3,945	5,097	5,866	6,969	8,204	9,122	10,302	11,325	12,930	13,505	15,803	18,926	24,478
With domestic institutions only	1,955	1,986	2,063	2,052	2,275	2,597	2,614	2,845	2,932	2,916	3,196	3,639	3,924	4,819	5,148	5,568	6,330	6,219	6,377	6,940	7,983	7,879	9,377	10,794	12,395
With international institutions	909	857	854	778	900	825	963	1,366	1,410	1,616	1,707	1,877	2,229	2,909	3,420	4,179	4,965	6,005	6,998	7,670	8,477	9,003	10,149	12,248	16,409
South Africa																									
Total articles	4,647	4,696	4,839	4,909	4,842	4,996	5,404	5,640	6,408	6,903	7,693	8,009	8,612	9,671	10,381	11,504	12,738	13,781	15,094	16,291	18,059	19,484	20,771	23,073	25,143
With multiple institutions	2,292	2,504	2,567	2,610	2,529	2,340	2,645	3,473	4,082	4,537	4,920	5,387	5,733	6,364	6,759	7,641	8,616	9,496	10,590	11,614	13,071	14,231	15,317	17,032	19,148
With domestic institutions only	3,350	3,283	3,340	3,334	3,285	3,500	3,706	3,325	3,732	3,910	4,394	4,347	4,717	5,253	5,653	6,066	6,559	6,893	7,346	7,796	8,479	9,034	9,285	10,370	10,700
With international institutions	1,256	1,340	1,421	1,461	1,496	1,465	1,662	2,257	2,614	2,912	3,225	3,535	3,809	4,356	4,630	5,361	6,099	6,840	7,705	8,432	9,500	10,402	11,417	12,609	14,337
China																									
Total articles	37,177	41,406	48,032	49,435	58,092	75,598	81,127	96,093	130,792	177,483	206,382	229,322	266,041	307,060	334,358	351,918	359,435	390,856	422,048	446,508	481,710	518,889	588,254	675,182	742,431
With multiple institutions	12,746	14,639	16,433	17,867	21,172	21,524	27,626	41,659	59,552	87,945	105,496	121,688	142,375	166,592	185,282	200,575	213,544	238,131	263,571	288,846	320,310	355,849	411,976	483,515	544,683
With domestic institutions only	31,129	34,615	40,521	41,740	49,250	66,452	69,997	80,550	111,793	153,841	178,580	197,194	229,004	263,694	283,964	295,246	296,811	319,755	343,254	357,809	381,483	405,671	457,609	524,603	574,661
With international institutions	5,693	6,501	7,203	7,224	8,419	8,774	10,682	14,848	18,228	22,037	25,971	29,627	34,604	40,750	46,377	52,546	58,595	68,475	77,621	87,819	98,590	111,292	129,175	147,730	163,185
India																									
Total articles	20,828	21,252	21,762	22,834	23,516	24,586	26,586	29,898	32,144	36,707	42,572	47,321	53,457	59,462	67,299	79,585	86,148	91,951	101,288	108,438	118,919	124,981	141,782	145,457	168,803
With multiple institutions	8,925	9,108	9,647	9,826	9,771	9,684	10,579	15,397	17,327	20,259	23,617	26,384	30,093	33,162	37,314	44,665	48,681	52,353	57,714	61,457	67,656	71,448	81,319	87,221	104,987
With domestic institutions only	17,352	17,857	17,985	19,171	19,649	20,760	22,306	24,019	25,726	29,424	34,057	38,146	43,305	48,146	54,473	64,878	70,404	74,807	82,672	88,557	97,005	101,311	114,798	114,964	131,286
With international institutions	3,162	3,118	3,498	3,439	3,678	3,651	4,140	5,525	6,043	6,885	7,975	8,626	9,577	10,830	12,281	14,118	15,253	16,720	18,316	19,690	21,617	23,388	26,711	30,109	36,811
Indonesia																									
Total articles	567	598	601	612	727	626	693	761	914	1,098	1,289	1,221	1,382	1,872	2,391	2,942	3,307	4,202	4,590	6,085	8,763	14,739	24,299	34,150	36,874
With multiple institutions	430	461	459	477	546	490	504	624	731	863	978	961	1,104	1,482	1,831	2,120	2,462	3,017	3,249	4,079	5,624	8,522	13,953	19,879	22,300
With domestic institutions only	166	169	189	175	230	182	238	198	235	335	444	373	438	651	940	1,390	1,457	2,066	2,326	3,534	5,727	11,098	19,304	27,680	29,279
With international institutions	393	422	405	429	486	441	446	553	666	749	834	839	932	1,191	1,417	1,526	1,823	2,116	2,254	2,531	3,000	3,555	4,867	6,283	7,362

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Japan																										
Total articles	95,396	99,071	99,738	101,909	104,683	104,136	107,079	111,751	115,085	124,666	126,819	122,612	121,201	123,205	123,584	126,246	125,317	124,934	121,506	118,903	120,580	121,000	123,521	123,853	126,011	
With multiple institutions	47,442	50,025	53,171	53,215	54,257	50,788	55,572	70,698	75,270	81,768	83,843	82,131	81,122	80,726	81,842	84,321	84,724	85,796	83,483	82,221	85,628	87,771	91,100	92,437	97,218	
With domestic institutions only	82,255	84,814	84,816	86,679	88,629	88,239	89,422	89,452	91,690	99,391	100,037	95,961	94,253	95,819	95,304	96,690	94,915	93,889	90,760	87,373	86,894	86,009	85,831	84,672	83,685	
With international institutions	12,097	13,392	13,959	14,246	15,191	15,037	16,771	20,926	22,301	24,182	25,510	25,428	25,741	26,667	27,253	28,414	29,563	30,420	30,469	31,261	33,178	34,256	36,855	38,189	41,280	
Malaysia																										
Total articles	1,018	1,159	1,199	1,344	1,636	1,458	1,806	2,266	2,642	3,211	4,079	4,761	7,001	9,411	13,141	16,423	17,728	18,949	20,616	22,648	23,593	25,006	25,469	28,071	30,110	
With multiple institutions	557	630	623	767	794	726	942	1,373	1,637	2,074	2,710	3,106	4,056	5,568	7,967	10,263	11,808	12,914	14,483	16,038	17,172	18,387	19,447	21,851	24,523	
With domestic institutions only	638	714	746	759	1,109	963	1,242	1,414	1,654	2,045	2,569	3,018	4,897	6,593	9,047	11,165	11,386	11,794	12,425	13,726	13,952	14,700	14,384	15,268	14,929	
With international institutions	370	435	443	567	506	486	551	818	944	1,132	1,413	1,661	2,034	2,756	4,023	5,196	6,286	7,099	8,159	8,889	9,589	10,244	11,025	12,729	15,064	
Pakistan																										
Total articles	911	984	1,159	1,174	1,221	1,400	1,555	1,751	2,017	2,707	3,281	3,977	4,905	5,887	6,781	7,676	8,387	9,476	9,921	11,245	12,949	15,612	17,682	21,682	26,261	
With multiple institutions	484	514	563	541	487	506	658	975	1,197	1,513	1,960	2,449	3,228	3,984	4,669	5,474	6,186	7,182	7,602	8,797	10,310	12,485	14,529	17,894	22,511	
With domestic institutions only	603	666	816	855	901	1,101	1,196	1,233	1,466	2,022	2,321	2,726	3,342	3,937	4,333	4,825	5,007	5,381	5,298	5,809	6,498	7,626	7,963	9,398	9,838	
With international institutions	303	308	328	308	316	289	333	492	536	654	927	1,208	1,510	1,782	2,245	2,736	3,348	4,054	4,590	5,397	6,423	7,943	9,670	12,207	16,327	
Singapore																										
Total articles	2,932	3,753	3,873	4,752	5,668	5,807	6,525	7,581	9,164	10,055	10,771	10,785	11,709	12,404	13,845	14,496	15,704	16,545	17,271	18,051	18,912	19,662	20,059	20,673	22,387	
With multiple institutions	1,452	1,765	1,956	2,193	2,590	2,720	3,349	4,445	5,643	6,533	7,289	7,430	8,153	8,588	9,540	10,271	11,545	12,562	13,406	14,348	15,141	15,989	16,718	17,411	19,322	
With domestic institutions only	2,049	2,701	2,687	3,442	4,080	4,138	4,533	4,850	5,873	6,219	6,254	5,941	6,277	6,355	6,922	6,929	7,103	6,991	6,901	6,825	7,039	6,956	6,493	6,306	6,438	
With international institutions	823	1,019	1,122	1,244	1,521	1,602	1,911	2,655	3,248	3,781	4,421	4,732	5,348	6,017	6,867	7,529	8,571	9,519	10,359	11,199	11,848	12,682	13,514	14,296	15,769	
South Korea																										
Total articles	10,475	13,032	14,136	16,730	18,040	20,811	22,852	27,556	31,955	37,160	42,804	47,366	50,289	52,770	58,177	62,385	65,692	67,375	70,393	73,325	73,778	75,306	78,966	82,665	88,196	
With multiple institutions	5,540	6,825	7,961	9,058	9,963	11,427	13,282	18,209	21,659	25,203	28,791	31,901	33,545	35,064	39,007	42,871	45,632	47,513	49,966	52,419	53,191	54,881	57,535	61,140	66,992	
With domestic institutions only	7,840	9,981	10,721	13,110	14,122	16,383	17,499	20,348	23,821	27,503	32,055	35,759	38,014	39,853	43,602	46,185	48,268	49,118	51,414	53,357	53,170	53,850	55,962	57,691	60,190	
With international institutions	2,552	2,947	3,313	3,490	3,781	4,277	5,200	6,989	7,989	9,450	10,466	11,227	12,011	12,733	14,348	15,973	17,250	18,114	18,892	19,880	20,464	21,223	22,799	24,401	27,281	
Taiwan																										
Total articles	10,944	11,970	12,389	12,662	13,468	15,071	16,008	17,855	20,963	24,899	28,118	30,728	32,980	35,443	37,381	39,250	38,454	38,279	37,383	35,379	34,412	33,465	33,239	35,167	37,664	
With multiple institutions	5,156	5,480	5,869	6,159	6,516	7,102	8,166	11,323	13,671	16,743	19,247	20,959	22,962	24,498	25,688	27,279	27,209	27,386	27,062	26,117	25,717	25,439	25,751	27,883	31,223	
With domestic institutions only	8,945	9,891	10,337	10,708	11,325	12,736	13,462	14,504	17,253	20,633	23,280	25,282	26,665	28,580	29,911	31,286	29,989	29,337	28,234	25,671	24,134	22,458	21,464	21,847	21,682	
With international institutions	1,902	1,996	1,968	1,844	2,087	2,275	2,470	3,205	3,629	4,126	4,646	5,192	6,117	6,739	7,360	7,871	8,385	8,881	9,110	9,652	10,220	10,940	11,701	13,175	15,763	
Thailand																										
Total articles	1,197	1,408	1,610	1,755	2,215	2,284	2,829	3,264	3,792	4,863	5,859	6,317	7,189	7,862	8,743	9,422	9,989	10,072	10,905	11,524	12,954	14,570	16,631	17,735	19,186	
With multiple institutions	824	1,000	1,072	1,213	1,487	1,383	1,822	2,414	2,818	3,519	4,370	4,811	5,286	5,646	6,290	6,896	7,556	7,608	8,061	8,666	9,777	10,795	12,447	13,220	15,221	
With domestic institutions only	615	743	886	1,008	1,281	1,445	1,675	1,670	1,976	2,677	3,285	3,517	4,165	4,650	5,272	5,614	5,847	5,854	6,361	6,649	7,485	8,646	9,968	10,640	10,650	
With international institutions	560	653	715	720	915	821	1,140	1,570	1,769	2,166	2,523	2,765	2,986	3,154	3,416	3,666	4,014	4,192	4,524	4,858	5,426	5,900	6,624	7,062	8,470	
Vietnam																										

Table SPBS-35

S&E articles in all fields combined, by coauthorship attribute and selected region, country, or economy: 1996–2020

(Number)

Country or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Total articles	292	336	306	354	389	423	430	613	676	815	929	1,037	1,426	1,601	1,986	2,179	2,857	3,371	3,547	4,031	5,254	5,873	7,547	10,575	15,178	
With multiple institutions	212	252	239	274	316	320	330	522	577	693	796	884	1,191	1,348	1,612	1,787	2,363	2,805	2,997	3,455	4,438	5,131	6,659	9,417	13,696	
With domestic institutions only	93	104	86	101	92	134	126	127	148	176	200	222	383	465	606	667	874	1,065	1,052	1,199	1,795	1,750	2,269	3,193	4,464	
With international institutions	195	230	216	251	296	288	304	480	525	636	726	813	1,043	1,132	1,374	1,505	1,975	2,304	2,492	2,826	3,456	4,118	5,272	7,352	10,691	
Australia																										
Total articles	24,731	26,021	26,538	26,814	28,246	28,650	29,870	32,548	35,706	40,458	43,613	46,716	49,344	51,955	56,356	61,194	64,499	70,797	74,740	78,014	81,152	83,183	87,619	92,030	100,059	
With multiple institutions	14,257	15,113	15,782	15,813	15,989	15,331	16,595	21,703	24,712	27,853	30,252	32,908	34,783	36,488	39,715	43,945	47,604	53,260	57,385	61,061	65,088	68,073	73,033	77,439	85,667	
With domestic institutions only	17,519	18,147	18,169	18,374	19,569	20,111	20,297	20,144	21,768	24,941	26,486	27,882	28,648	29,352	31,237	33,516	34,068	36,575	37,154	37,194	36,951	35,734	35,678	36,153	37,972	
With international institutions	6,775	7,466	7,918	7,809	8,301	8,263	9,370	11,943	13,663	15,188	16,758	18,379	20,210	22,337	24,757	27,337	30,105	33,998	37,434	40,668	44,001	47,233	51,710	55,564	61,625	
New Zealand																										
Total articles	4,746	5,045	5,252	5,476	5,408	5,455	5,562	6,093	6,735	7,557	8,032	8,549	8,986	9,415	9,970	11,038	11,300	11,742	12,109	12,170	12,753	13,149	13,703	14,338	15,477	
With multiple institutions	2,897	3,035	3,191	3,338	3,145	2,944	3,166	4,175	4,753	5,457	5,816	6,168	6,393	6,587	6,957	7,733	8,157	8,636	9,030	9,220	9,781	10,340	10,951	11,536	12,776	
With domestic institutions only	2,996	3,241	3,272	3,466	3,459	3,592	3,494	3,299	3,602	3,960	4,110	4,388	4,623	4,726	4,875	5,373	5,363	5,315	5,316	5,209	5,388	5,233	5,238	5,349	5,610	
With international institutions	1,669	1,729	1,896	1,886	1,863	1,810	2,019	2,728	3,096	3,541	3,857	4,073	4,301	4,633	5,025	5,594	5,872	6,381	6,757	6,944	7,333	7,887	8,437	8,947	9,793	

Note(s):

Article counts refer to publications from a selection of journals and conference proceedings in S&E from Scopus. Articles are classified by their year of publication and are assigned to a region, country, or economy on the basis of the institutional address(es) of the author(s) listed in the article. Articles are credited on a whole count basis (i.e., each collaborating region, country, or economy is credited with one count). Regions, countries, or economies that have contributed to less than 1% of all internationally coauthored articles in 2020 are omitted. Articles with multiple institutions are counts of articles with two or more institutional addresses. Articles with domestic institutions only are counts of articles with one or more institutional addresses all within a single region, country, or economy and include single-author articles institutional address. Articles with international institutions are counts of articles with institutional addresses from more than one region, country, or economy. The number of articles from the "With domestic institutions only" and "With international institutions" categories may not sum to the total article number. This is due to some coauthored publications having incomplete address information in the Scopus database. Those often cannot be reliably identified as international or domestic collaborations. They are, in turn, not included in either subcategory but are included in the number of articles in the "With multiple institutions" category and counted toward the total number of articles.

Source(s):

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed May 2021.

Science and Engineering Indicators