

Table 5-23 S&E articles in all fields, by country/economy: 2003 and 2013

Rank	Country/economy	2003	2013	Average annual change (%)	2013 world total (%)	2013 cumulative world total (%)
-	World	1,117,866	2,199,704	7.0	na	na
1	United States	299,876	412,542	3.2	18.8	18.8
2	China	71,113	401,435	18.9	18.2	37.0
3	Japan	87,389	103,377	1.7	4.7	41.7
4	Germany	67,491	101,074	4.1	4.6	46.3
5	United Kingdom	69,741	97,332	3.4	4.4	50.7
6	India	26,100	93,349	13.6	4.2	55.0
7	France	49,850	72,555	3.8	3.3	58.3
8	Italy	39,096	66,310	5.4	3.0	61.3
9	South Korea	21,802	58,844	10.4	2.7	64.0
10	Canada	35,740	57,797	4.9	2.6	66.6
11	Spain	27,657	53,342	6.8	2.4	69.0
12	Brazil	15,874	48,622	11.8	2.2	71.2
13	Australia	23,274	47,806	7.5	2.2	73.4
14	Russia	24,487	35,542	3.8	1.6	75.0
15	Taiwan	14,415	34,331	9.1	1.6	76.6
16	Iran	3,459	32,965	25.3	1.5	78.1
17	Netherlands	18,739	30,412	5.0	1.4	79.4
18	Turkey	12,689	30,402	9.1	1.4	80.8
19	Poland	14,424	28,753	7.1	1.3	82.1
20	Switzerland	12,436	21,060	5.4	1.0	83.1
21	Sweden	14,034	19,362	3.3	0.9	84.0
22	Malaysia	1,336	17,720	29.5	0.8	84.8
23	Belgium	10,239	16,511	4.9	0.8	85.5
24	Czech Republic	6,134	14,022	8.6	0.6	86.2
25	Portugal	4,203	13,556	12.4	0.6	86.8
26	Mexico	6,330	13,112	7.6	0.6	87.4
27	Denmark	6,988	12,482	6.0	0.6	87.9
28	Austria	7,412	12,031	5.0	0.5	88.5
29	Greece	6,330	11,370	6.0	0.5	89.0
30	Israel	9,269	11,300	2.0	0.5	89.5

Rank	Country/economy	2003	2013	Average annual change (%)	2013 world total (%)	2013 cumulative world total (%)
31	Romania	2,080	11,164	18.3	0.5	90.0
32	Singapore	5,343	10,659	7.2	0.5	90.5
33	Finland	7,259	10,157	3.4	0.5	91.0
34	Norway	4,913	9,854	7.2	0.4	91.4
35	South Africa	4,077	9,679	9.0	0.4	91.9
36	Egypt	3,045	9,199	11.7	0.4	92.3
37	Thailand	2,105	8,631	15.2	0.4	92.7
38	Argentina	4,485	8,053	6.0	0.4	93.0
39	Pakistan	1,282	7,772	19.7	0.4	93.4
40	Saudi Arabia	1,660	7,636	16.5	0.3	93.7
41	New Zealand	4,233	7,244	5.5	0.3	94.1
42	Ukraine	3,976	7,218	6.1	0.3	94.4
43	Ireland	2,904	6,874	9.0	0.3	94.7
44	Hungary	4,153	6,249	4.2	0.3	95.0
45	Serbia	1,227	5,169	15.5	0.2	95.2
46	Chile	2,002	5,158	9.9	0.2	95.5
47	Slovakia	2,083	4,730	8.5	0.2	95.7
48	Colombia	655	4,456	21.1	0.2	95.9
49	Croatia	2,226	4,359	7.0	0.2	96.1
50	Tunisia	975	4,207	15.7	0.2	96.3

NOTES: na = not applicable.
 The countries/economies shown each produced 4,000 publications or more in 2013. The countries/economies are ranked based on the 2013 total. Articles are credited on a fractional-count basis (i.e., for articles from multiple countries/economies, each country/economy receives fractional credit on the basis of the proportion of its participating authors). Detail does not add to total because of countries/economies not shown.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics; SRI International; Science-Metrix; Elsevier, Scopus abstract and citation database (www.scopus.com). See appendix table 5-26. *Science and Engineering Indicators 2016*