

TABLE 5A-1

S&E articles in all fields, for 15 largest producing regions, countries, or economies: 2008 and 2018

(Number)

Rank	Region, country, or economy	2008	2018	Average annual growth rate 2008–18 (%)	2018 world total (%)	2018 cumulative total (%)
-	World	1,755,850	2,555,959	3.83	-	-
1	China	249,049	528,263	7.81	20.67	20.67
2	United States	393,979	422,808	0.71	16.54	37.21
3	India	48,998	135,788	10.73	5.31	42.52
4	Germany	91,904	104,396	1.28	4.08	46.61
5	Japan	108,241	98,793	-0.91	3.87	50.47
6	United Kingdom	91,358	97,681	0.67	3.82	54.29
7	Russia	31,798	81,579	9.88	3.19	57.49
8	Italy	56,157	71,240	2.41	2.79	60.27
9	South Korea	44,094	66,376	4.17	2.60	62.87
10	France	66,460	66,352	-0.02	2.60	65.47
11	Brazil	35,490	60,148	5.42	2.35	67.82
12	Canada	53,296	59,968	1.19	2.35	70.17
13	Spain	44,191	54,537	2.13	2.13	72.30
14	Australia	37,174	53,610	3.73	2.10	74.40
15	Iran	17,034	48,306	10.99	1.89	76.29
-	EU	528,938	622,125	1.64	24.34	-

EU = European Union.

Note(s)

The countries or economies are ranked based on the 2018 total. Article counts refer to publications from peer-reviewed journals and conference proceedings in S&E and indexed in Scopus (see Technical Appendix for more details). 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 fractional-count basis (i.e., for articles from multiple countries or economies, each country or economy receives fractional credit on the basis of the proportion of its participating authors). Detail may not add to total because of countries or economies that are not shown. Proportions are based on the world total excluding unclassified addresses (data not presented). Data were extracted in June 2019. Average annual change, or compound annual growth rate, is $\text{average growth rate} = (\text{year 2 publications}/\text{year 1 publications})^{(1/\text{number of years})} - 1$. See Table S5a-1 for groupings of regions, countries, or economies. Detail and other countries are available in Table S5a-2.

Source(s)

National Center for Science and Engineering Statistics, National Science Foundation; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed June 2019.

Science and Engineering Indicators