

FIGURE 5A-5

## Specialization of S&amp;E articles by field by region, country, or economy: 2018

Field	United States	EU	China	Japan	India
Agricultural sciences	0.56	0.88	1.10	0.48	1.12
Astronomy and astrophysics	1.56	1.59	0.36	1.02	0.55
Biological and biomedical sciences	1.17	1.01	0.82	1.01	0.87
Chemistry	0.57	0.86	1.55	1.19	1.36
Computer and information sciences	0.72	0.90	1.24	0.87	1.72
Engineering	0.76	0.85	1.50	0.89	1.04
Geosciences	1.15	1.03	0.95	0.76	0.49
Health sciences	1.43	1.14	0.55	1.29	0.59
Materials sciences	0.31	0.61	1.55	0.76	2.22
Mathematics and statistics	0.85	1.06	0.87	0.70	1.44
Natural resources and conservation	0.61	1.01	1.32	0.60	0.75
Physics	0.71	0.92	1.10	1.41	1.16
Psychology	2.00	1.49	0.20	0.57	0.15
Social sciences	1.55	1.45	0.22	0.31	0.31

EU = European Union.

**Note(s)**

World index value is 1.00 for all fields. 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. The specialization index (SI) is calculated as follows:  $SI = (Fe/Te)/(Fw/Tw)$ , where  $Fe$  is the fractional count of a given region, country, or economy's output in a given field ( $F$ ) divided by the total output for the region, country, or economy ( $Te$ ); this is divided by the total output of the world in a given field ( $Fw$ ) divided by the total output across all fields at the world level ( $Tw$ ). The English-language bias of the Scopus database may impact the SI for psychology and social sciences (see Technical Appendix for more information). Geosciences includes geosciences, atmospheric sciences, and ocean sciences. See Table S5a-18 through Table S5a-31 for data about other countries and from 2000–18. See Table S5a-1 for countries included in the EU.

**Source(s)**

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

*Science and Engineering Indicators*