

APPENDIX TABLE 5-36 
S&E articles in medical sciences, by region, country, or economy: 2003–16

(Number)

Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	308,849.0	328,054.0	354,744.0	373,230.0	386,240.0	402,167.0	422,899.0	435,624.0	457,789.0	482,301.0	497,032.0	519,055.0	517,978.0	507,604.0
North America	96,347.1	102,261.3	108,480.7	112,691.6	114,610.2	118,223.3	122,557.5	124,420.6	129,898.2	134,686.4	136,761.3	142,860.4	141,996.4	137,171.6
Canada	9,045.6	9,661.5	10,576.2	11,228.6	11,784.2	12,523.9	13,171.2	13,319.3	13,861.4	14,652.5	14,954.6	15,591.3	15,563.8	14,860.9
Greenland	2.2	11.4	4.3	2.4	2.8	3.4	5.9	6.3	3.6	8.9	12.8	5.2	5.8	8.0
Mexico	1,342.5	1,446.7	1,651.4	1,859.3	1,755.5	1,992.1	2,092.7	2,166.4	2,139.7	2,492.7	2,340.0	2,899.0	2,725.0	2,661.2
United States	85,956.8	91,141.7	96,248.8	99,601.3	101,067.8	103,704.0	107,287.8	108,928.6	113,893.5	117,532.2	119,453.9	124,364.9	123,701.7	119,641.5
Central America and Caribbean	528.8	576.3	637.0	928.6	929.2	914.8	1,207.2	1,154.3	1,339.2	1,332.9	1,228.0	1,195.4	1,159.9	999.2
Antigua and Barbuda	1.8	0.5	1.3	1.3	4.0	5.4	2.9	2.1	0.0	0.6	1.3	0.6	1.6	6.1
Bahamas, The	1.5	0.5	2.1	4.0	3.0	0.9	4.1	0.2	6.1	1.5	6.0	2.0	3.6	3.7
Barbados	7.8	14.4	11.0	17.9	20.4	9.2	10.6	6.5	8.9	13.0	9.2	9.9	9.6	16.3
Belize	1.3	1.3	0.2	0.0	0.0	0.5	1.5	2.1	0.2	2.8	0.6	1.5	2.1	0.2
Costa Rica	22.4	25.1	34.0	35.1	28.5	35.0	44.6	38.8	36.8	25.4	40.1	46.4	33.6	51.2
Cuba	272.0	284.5	317.9	572.1	549.4	482.0	735.5	701.0	856.5	831.4	729.1	741.6	711.5	546.0
Dominica	2.1	2.2	0.6	0.5	0.3	0.0	0.0	2.3	1.8	2.5	6.3	5.1	4.2	2.7
Dominican Republic	5.5	6.0	7.9	10.2	8.8	5.8	5.5	4.5	6.3	7.8	17.2	15.1	12.9	12.3
El Salvador	2.5	2.4	5.4	1.9	4.7	5.9	6.8	3.3	7.0	9.2	3.9	10.3	8.6	10.1



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Grenada	3.0	2.3	3.5	3.0	9.3	9.4	10.1	10.3	11.0	18.3	20.8	27.8	16.5	21.1
Guatemala	11.1	6.3	26.4	17.9	17.0	18.0	29.4	15.0	21.5	23.5	38.4	29.4	32.1	36.0
Haiti	3.9	5.0	5.3	8.1	6.1	4.3	5.8	7.1	7.9	9.0	16.4	22.5	22.2	16.1
Honduras	5.1	5.0	8.9	3.5	6.4	4.6	6.5	9.4	4.7	7.9	6.6	7.9	13.4	9.0
Jamaica	55.9	83.6	63.9	66.1	84.1	93.6	90.0	95.2	103.1	138.4	93.3	47.9	54.4	38.9
Nicaragua	3.2	5.1	4.1	11.1	4.8	6.9	10.6	10.6	10.3	11.1	11.4	12.5	8.4	12.0
Panama	4.0	11.4	9.8	10.6	14.9	18.6	16.4	11.7	31.3	17.0	31.1	28.9	30.5	18.5
Puerto Rico	85.5	83.6	87.0	120.4	109.9	161.1	149.7	173.7	146.8	143.6	138.0	131.0	142.6	135.2
Saint Kitts and Nevis	0.0	0.0	1.7	1.8	0.6	3.8	1.3	2.4	2.5	3.5	6.8	6.7	8.2	13.3
Saint Lucia	0.0	0.0	0.0	0.5	0.6	0.2	0.0	2.4	2.0	0.0	1.2	0.0	1.1	2.2
Saint Vincent and the Grenadines	0.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	1.2	0.4	0.5	0.1	0.7
Trinidad and Tobago	39.4	37.1	46.0	42.6	56.6	49.7	74.7	55.8	74.6	65.3	49.7	47.8	42.9	47.8
South America	6,257.8	7,073.8	8,189.4	10,533.4	11,785.6	13,502.7	14,589.2	15,887.1	16,862.4	18,237.9	18,163.4	19,413.7	18,487.5	18,126.7
Argentina	1,005.0	1,009.6	1,038.5	1,136.4	1,088.5	1,139.4	1,341.0	1,519.2	1,556.7	1,480.0	1,592.3	1,754.6	1,658.1	1,535.7
Bolivia	8.1	6.9	11.4	15.4	13.8	22.2	16.4	14.4	10.4	19.0	13.8	19.0	13.7	15.7
Brazil	4,147.0	4,929.8	5,801.8	7,727.9	8,850.5	10,059.7	10,884.1	11,908.9	12,701.8	13,871.8	13,540.9	14,182.0	13,284.3	12,868.6
Chile	505.8	524.2	608.9	763.3	829.9	898.8	910.7	943.1	987.5	1,110.1	1,083.0	1,314.6	1,331.6	1,254.3
Colombia	186.1	212.1	290.3	398.1	479.1	716.1	709.5	736.2	832.8	949.5	1,143.5	1,342.3	1,296.4	1,492.2
Ecuador	42.7	32.5	36.4	37.6	45.3	41.1	47.5	54.2	42.7	75.3	63.0	87.4	92.1	151.2



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Guyana	3.0	1.8	0.8	3.5	2.5	1.5	2.3	3.7	2.7	4.0	4.6	3.3	3.7	4.7
Paraguay	5.2	5.5	7.8	6.7	15.4	10.0	13.4	13.8	21.2	16.2	17.9	21.7	35.3	35.4
Peru	75.0	77.4	84.8	101.6	94.8	125.3	186.0	205.4	244.3	265.2	286.2	296.6	378.9	365.9
Suriname	1.9	1.1	0.8	0.3	1.1	0.7	0.6	4.3	0.8	3.4	4.9	2.3	6.5	9.6
Uruguay	64.9	69.8	75.0	85.0	71.1	98.1	77.5	106.3	105.4	89.6	104.0	118.3	114.3	136.2
Venezuela	213.1	203.1	233.0	257.6	293.6	389.9	400.3	377.5	356.0	353.7	309.3	271.5	272.6	257.2
Europe	130,581.8	137,692.9	146,690.8	152,678.4	156,554.5	159,771.9	165,187.3	166,268.1	171,508.8	179,177.8	181,677.7	185,763.5	182,776.8	178,115.9
EU	115,202.8	121,224.4	128,163.3	133,986.9	137,236.3	139,820.5	143,917.0	144,553.2	148,574.4	153,693.6	154,805.6	158,081.5	154,111.2	149,513.5
Austria	2,787.9	2,785.7	2,798.6	2,871.4	2,794.6	2,761.2	2,850.8	2,756.5	2,926.0	2,945.1	2,853.7	3,078.1	2,989.6	2,789.4
Belgium	3,423.6	3,442.2	3,681.1	3,853.3	3,995.1	4,062.9	4,169.3	4,138.9	4,096.9	4,339.0	4,287.5	4,570.0	4,433.9	4,255.3
Bulgaria	467.0	494.9	476.1	426.1	434.9	422.9	413.5	406.8	432.4	492.2	495.6	445.2	482.4	425.6
Croatia	829.3	944.2	942.2	1,007.9	1,045.2	943.2	1,141.2	1,184.9	1,301.4	1,291.5	1,247.4	1,229.9	1,082.8	884.1
Cyprus	17.5	24.1	28.5	28.3	30.6	43.0	86.0	58.5	69.2	87.0	113.6	107.0	107.8	116.4
Czech Republic	2,026.2	2,150.5	2,193.9	2,344.9	2,419.2	2,369.3	2,486.4	2,658.9	2,808.0	2,825.1	2,624.3	2,827.5	2,819.4	2,720.4
Denmark	2,377.2	2,596.5	2,638.1	2,770.3	2,904.8	3,105.9	3,169.1	3,308.9	3,617.5	4,020.4	4,114.9	4,506.7	4,316.2	4,287.0
Estonia	69.9	81.6	75.2	89.1	95.6	97.9	103.0	125.1	114.8	124.8	134.3	132.2	119.2	126.0
Finland	2,089.0	2,199.1	2,154.6	2,086.2	2,018.4	2,033.4	2,152.9	2,117.4	2,073.8	2,175.8	2,092.3	2,205.8	2,082.4	2,160.7
France	13,947.1	14,522.3	15,210.5	15,359.7	15,881.6	16,226.0	16,331.7	16,496.8	16,469.7	17,020.5	16,882.2	16,960.4	16,472.3	16,542.5
Germany	21,129.3	21,865.4	22,967.5	23,823.3	24,137.5	24,276.1	24,477.8	24,602.3	25,079.8	25,646.8	25,708.0	26,425.7	25,666.5	25,150.8



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Greece	1,968.1	2,369.9	2,701.4	3,062.2	3,197.6	3,396.4	3,594.1	3,385.8	3,499.1	3,167.6	3,116.2	2,947.6	2,750.3	2,504.3
Hungary	1,176.7	1,300.7	1,474.8	1,457.0	1,465.0	1,532.5	1,437.2	1,419.2	1,490.2	1,418.0	1,321.3	1,502.9	1,365.5	1,318.2
Ireland	850.5	972.9	1,019.3	1,142.5	1,235.4	1,340.7	1,526.3	1,662.2	1,782.8	1,738.3	1,852.1	1,920.6	1,827.6	1,757.7
Italy	13,720.7	14,042.6	14,776.3	15,447.3	16,206.2	16,744.3	16,752.4	16,951.1	17,011.7	19,053.6	19,377.9	19,617.7	19,270.8	18,813.5
Latvia	12.0	17.2	23.0	22.8	27.2	24.6	26.7	32.7	76.3	74.8	85.3	76.5	55.2	51.5
Lithuania	220.7	292.0	287.1	212.4	173.6	218.3	233.5	194.7	200.9	227.5	249.5	271.7	260.0	262.1
Luxembourg	21.9	28.1	38.5	31.7	31.6	49.8	57.4	53.1	57.1	67.8	68.9	85.1	66.2	83.7
Malta	25.6	23.7	18.7	14.2	26.2	58.6	54.2	52.6	66.2	83.6	96.6	98.5	96.2	97.9
Netherlands	6,483.9	7,155.9	7,929.5	8,339.9	8,596.0	8,706.6	9,722.2	9,647.8	10,124.7	10,524.8	10,901.9	10,912.5	10,745.9	10,221.0
Poland	4,911.5	5,625.9	6,148.6	6,742.3	6,308.0	6,264.1	6,287.0	6,489.0	6,683.7	6,602.3	6,749.4	6,665.3	6,492.2	6,110.8
Portugal	653.9	753.2	813.8	942.3	1,000.6	1,219.1	1,363.8	1,574.9	1,919.9	2,107.0	2,266.9	2,397.7	2,440.4	2,381.4
Romania	430.8	502.0	546.3	477.3	588.1	876.5	919.6	1,230.4	1,512.0	1,380.6	1,269.0	1,713.3	1,712.2	1,672.1
Slovakia	541.0	525.5	540.6	580.5	495.6	592.4	608.2	690.3	587.2	622.9	545.6	661.4	646.7	640.0
Slovenia	287.4	299.0	303.7	370.8	317.5	405.1	542.1	522.0	650.0	584.0	565.4	547.9	555.5	573.5
Spain	8,499.2	8,993.2	9,830.2	10,859.8	11,138.7	11,721.5	11,688.8	12,235.7	12,358.7	12,461.4	12,549.3	13,015.5	12,899.0	12,750.2
Sweden	4,397.9	4,409.5	4,725.9	4,698.5	4,836.5	4,722.1	4,942.0	4,834.3	4,893.4	4,958.6	5,062.1	5,409.5	5,402.3	5,088.3
United Kingdom	21,837.3	22,806.6	23,819.2	24,925.0	25,835.1	25,606.2	26,779.8	25,722.0	26,671.0	27,652.7	28,174.3	27,749.1	26,952.8	25,729.2
Other Europe	15,379.0	16,468.5	18,527.5	18,691.4	19,318.2	19,951.3	21,270.3	21,714.9	22,934.4	25,484.2	26,872.0	27,682.0	28,665.6	28,602.4
Albania	4.7	4.1	5.2	7.1	7.2	14.8	15.5	22.8	27.3	34.8	47.8	59.7	40.5	45.0



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Andorra	2.5	0.4	3.6	3.1	3.6	0.7	2.3	0.8	0.0	0.2	0.0	0.5	3.6	2.1
Belarus	42.5	36.5	40.4	69.5	50.3	55.8	44.4	39.5	57.3	44.1	51.3	77.0	86.5	82.2
Bosnia and Herzegovina	81.3	132.2	146.3	126.1	98.9	173.2	174.2	202.1	211.3	205.8	150.8	154.4	127.2	142.8
Holy See (Vatican City)	0.0	0.1	0.0	0.0	0.0	0.5	0.1	1.0	1.0	0.9	0.1	2.0	1.5	1.5
Iceland	58.0	80.9	95.4	109.2	78.3	112.2	133.1	160.2	126.5	149.0	139.6	140.5	135.2	137.4
Kosovo	0.0	0.0	0.0	0.0	0.0	17.6	47.9	42.1	28.6	31.7	34.8	35.7	38.4	50.1
Liechtenstein	1.9	3.6	11.6	7.9	4.2	9.0	4.6	9.9	10.9	5.6	3.9	3.1	7.3	3.9
Macedonia	21.0	45.5	54.1	63.9	70.2	94.5	104.5	87.9	86.8	121.2	124.3	136.8	150.4	96.1
Moldova	6.7	8.9	12.9	1.8	2.8	5.6	7.2	12.3	10.4	10.4	14.2	13.9	12.1	22.0
Monaco	7.2	10.5	10.3	9.1	7.6	11.2	11.7	14.4	16.8	10.1	13.3	17.0	14.7	15.9
Montenegro ^a	na	na	na	na	1.6	11.1	13.3	12.2	13.0	17.0	24.9	26.2	21.8	23.2
Norway	1,619.1	1,641.0	1,931.6	1,897.9	2,014.8	2,134.3	2,273.3	2,222.1	2,310.9	2,456.6	2,395.0	2,382.8	2,408.1	2,595.8
Russia	2,121.7	2,025.7	2,237.0	2,071.7	2,105.0	2,134.8	2,249.4	2,219.6	2,578.3	3,247.4	3,626.2	3,791.3	4,271.2	4,883.1
San Marino	0.2	0.3	1.3	0.7	1.8	2.7	0.4	0.1	0.4	0.1	2.3	0.6	5.0	1.6
Serbia ^a	na	na	na	na	703.0	842.0	973.5	1,047.8	1,149.2	1,332.9	1,248.9	1,207.5	1,091.7	1,033.4
Serbia and Montenegro ^b	452.6	598.1	700.4	694.9	na	na	na	na	na	na	na	na	na	na
Switzerland	4,037.5	4,340.2	4,554.1	4,809.0	5,035.8	5,058.0	5,153.6	5,313.5	5,541.4	5,783.4	5,952.5	5,981.3	5,924.2	5,859.0
Turkey	6,769.9	7,385.1	8,578.7	8,658.2	8,997.6	9,117.1	9,886.9	10,176.2	10,581.0	11,850.3	12,774.8	13,333.7	13,952.0	13,170.6
Ukraine	152.4	155.6	144.9	161.3	135.3	156.1	174.2	130.4	183.4	182.7	267.3	317.9	373.9	436.6



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Middle East	5,267.6	5,710.3	6,457.5	7,245.5	7,824.2	8,692.7	9,668.3	10,316.1	11,784.2	12,791.1	14,151.7	15,241.2	14,948.8	16,178.8
Armenia	29.9	18.3	33.8	37.4	23.3	32.0	48.7	47.8	57.0	71.4	60.9	74.0	69.0	55.4
Azerbaijan	56.2	127.2	69.6	43.0	179.7	175.5	170.3	132.9	128.4	128.1	88.8	25.8	19.3	52.0
Bahrain	45.2	62.2	73.9	84.7	66.8	61.7	80.5	60.6	67.5	59.4	100.5	112.9	75.0	114.5
Gaza Strip	1.8	4.3	4.2	4.5	7.9	8.9	9.9	7.3	9.2	6.9	13.3	19.2	14.3	5.3
Georgia	14.0	23.1	120.4	60.9	46.2	51.8	64.7	34.1	59.2	59.9	52.4	95.5	93.8	155.2
Iran	626.0	799.4	1,373.5	1,978.4	2,506.8	3,302.0	4,110.6	4,759.7	5,959.7	6,543.3	7,608.7	8,298.0	8,016.4	9,005.2
Iraq	42.7	41.9	61.7	92.5	81.7	109.9	130.6	169.9	154.5	203.9	177.3	136.5	106.0	145.6
Israel	2,985.8	3,106.7	3,110.3	3,160.0	3,177.1	2,962.0	2,966.5	2,805.2	2,795.3	2,995.9	3,035.2	3,117.8	3,094.5	3,070.0
Jordan	137.0	165.2	174.5	235.7	194.9	250.8	254.0	305.6	285.8	265.6	283.5	267.4	252.3	274.0
Kuwait	147.1	159.6	185.8	186.2	193.7	242.5	207.8	214.2	194.3	190.8	199.1	186.3	170.0	161.6
Lebanon	205.9	183.8	231.9	267.1	265.0	300.4	291.9	279.2	295.0	330.9	364.3	368.9	417.4	438.1
Oman	92.7	94.2	85.8	92.3	85.9	91.9	96.6	84.5	182.5	158.2	207.5	179.0	176.7	162.2
Qatar	52.6	58.2	88.8	104.8	118.6	101.3	108.1	125.4	130.0	152.2	167.4	224.1	239.6	265.6
Saudi Arabia	672.3	704.8	655.9	690.2	689.8	760.8	868.8	1,005.6	1,148.6	1,277.2	1,426.4	1,715.6	1,775.0	1,828.9
Syria	18.0	20.4	24.0	14.2	22.4	27.7	27.1	35.9	45.2	69.4	73.4	60.1	68.6	84.3
United Arab Emirates	122.7	116.7	130.1	161.1	135.0	176.1	178.8	192.7	218.3	213.8	236.1	280.1	292.6	281.7
West Bank	4.0	6.7	10.9	12.3	13.5	12.3	23.1	18.4	22.0	28.3	22.1	39.0	29.0	34.1
Yemen	14.0	17.5	22.4	20.2	16.0	25.0	30.5	37.2	31.7	35.9	34.9	41.0	39.3	45.2



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Africa	3,503.5	3,826.6	4,288.6	4,667.4	4,953.4	5,444.8	6,468.2	7,143.2	8,056.2	8,850.7	9,158.5	10,345.8	10,541.6	10,502.6
Algeria	24.4	31.0	25.6	34.5	26.5	49.7	76.4	67.0	74.7	114.3	107.6	116.3	136.6	186.8
Angola	0.5	1.5	1.2	4.3	1.9	3.2	5.3	3.4	5.1	5.5	7.3	12.2	15.5	17.7
Benin	9.0	17.4	18.9	22.1	27.5	20.1	33.3	27.4	26.9	37.8	53.4	54.4	50.1	43.3
Botswana	13.8	6.5	14.5	15.7	7.8	8.0	19.6	19.3	18.9	17.9	33.1	47.5	24.7	33.8
Burkina Faso	26.9	27.0	24.6	39.2	41.6	49.6	49.7	51.7	53.1	66.0	67.1	95.5	107.5	98.3
Burundi	1.1	1.0	0.3	1.4	1.5	0.3	0.2	1.0	2.4	4.7	8.1	5.9	4.4	5.4
Cameroon	42.1	52.1	52.9	63.9	62.8	56.1	84.9	86.5	104.2	121.0	160.7	179.2	211.3	214.8
Cape Verde	0.5	0.9	0.0	0.9	0.1	0.1	0.5	0.5	0.0	0.0	0.3	0.2	1.4	0.9
Central African Republic	4.1	3.2	4.5	9.2	3.2	3.8	3.2	6.3	5.1	3.8	4.0	9.5	6.0	17.3
Chad	2.1	6.3	2.9	3.5	2.1	2.8	1.5	2.3	2.0	2.1	3.1	3.9	5.8	4.3
Comoros	0.0	1.0	0.6	0.0	2.5	0.4	0.6	1.1	1.0	0.5	4.0	0.7	0.8	1.8
Congo, Democratic Republic of the	10.2	9.3	12.6	13.1	20.3	22.3	20.3	27.7	22.0	44.0	42.8	72.2	74.2	51.7
Congo, Republic of the	19.6	24.4	21.6	17.7	19.3	19.9	16.7	19.4	23.7	27.7	28.5	45.8	41.4	31.4
Côte d'Ivoire	43.3	65.8	45.3	43.9	49.3	69.6	61.8	51.0	75.0	80.7	69.5	76.0	88.8	70.8
Djibouti	1.0	1.2	2.3	0.7	0.4	2.2	6.5	4.0	1.1	4.9	2.5	3.1	1.4	2.1
Egypt	488.6	524.9	607.3	670.4	756.8	896.6	1,181.6	1,511.2	1,816.9	2,110.0	2,279.1	2,387.3	2,524.5	2,683.2
Equatorial Guinea	0.5	2.2	0.0	2.9	2.0	1.3	1.6	1.0	1.5	1.2	1.1	0.7	1.3	0.6
Eritrea	4.1	2.0	3.0	5.6	4.7	1.7	1.4	2.9	4.2	0.4	2.0	2.0	3.4	2.5



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ethiopia	80.1	89.1	83.7	89.6	84.9	119.2	140.1	176.6	193.5	315.0	342.5	435.7	398.8	428.5
Gabon	9.9	13.8	14.2	16.1	13.4	11.0	23.0	20.2	29.2	16.6	15.3	25.4	25.9	19.2
Gambia, The	15.6	16.0	16.8	21.3	14.3	13.2	16.7	13.2	13.9	11.6	19.1	21.5	20.2	22.1
Ghana	36.8	56.5	63.9	57.4	63.1	56.8	71.0	80.1	113.4	134.0	170.6	216.3	250.0	337.9
Guinea	1.4	5.1	4.5	9.5	8.3	4.6	5.5	6.9	4.7	4.1	4.8	16.4	18.2	20.5
Guinea-Bissau	4.8	5.2	2.7	2.0	7.0	4.3	4.1	1.7	4.4	6.4	6.3	8.6	4.2	4.1
Kenya	126.5	173.9	154.4	146.7	186.1	198.2	209.3	219.9	208.0	239.2	249.0	258.9	269.7	285.3
Lesotho	2.0	0.8	0.9	1.4	1.7	0.7	1.6	1.5	0.9	2.0	2.3	1.3	3.2	2.9
Liberia	0.5	0.2	1.1	1.0	1.0	0.2	0.4	0.9	4.4	3.7	4.5	4.8	9.0	7.0
Libya	11.5	5.3	6.9	20.0	15.2	17.7	90.9	97.4	22.0	24.4	30.7	33.8	28.2	20.4
Madagascar	38.0	17.9	13.4	15.1	31.8	31.4	20.6	21.0	27.5	22.0	20.2	38.7	39.4	33.0
Malawi	41.4	45.6	44.5	37.5	58.6	68.9	60.6	69.5	77.1	68.8	76.1	77.2	87.6	95.4
Mali	15.9	10.1	16.7	20.3	29.4	18.1	31.2	29.7	33.4	44.1	26.9	36.5	29.6	41.9
Mauritania	0.7	0.5	3.2	2.0	2.3	1.7	0.6	2.6	5.4	1.4	4.4	2.7	9.5	10.8
Mauritius	3.7	5.9	5.7	4.7	4.1	2.1	5.2	3.7	3.3	8.6	6.4	6.9	14.2	7.6
Morocco	285.8	227.9	228.0	299.2	332.1	356.2	501.3	580.5	671.6	734.8	789.8	1,032.2	904.0	787.2
Mozambique	6.1	8.8	8.8	17.8	20.8	20.8	23.5	11.8	24.7	17.4	23.2	29.0	33.6	40.4
Namibia	4.0	1.6	1.3	4.0	2.5	2.0	0.5	3.9	5.5	9.2	13.9	11.4	16.8	17.7
Niger	8.0	5.7	6.9	12.2	11.0	8.6	8.5	15.8	4.5	10.1	8.0	12.6	11.8	22.0

Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nigeria	467.3	596.2	788.0	796.3	816.0	885.9	1,046.5	1,074.7	1,310.2	1,274.6	1,258.9	1,271.0	1,163.2	1,125.2
Rwanda	1.5	3.2	1.5	8.5	10.2	10.6	12.7	13.8	17.8	20.0	48.5	41.5	54.8	55.1
São Tomé and Príncipe	1.7	0.4	0.0	0.5	1.3	0.0	0.2	1.1	0.0	0.0	0.0	0.0	1.4	0.9
Senegal	107.8	93.2	108.7	91.1	115.6	106.4	82.4	92.2	123.7	104.3	121.3	144.2	170.8	149.1
Seychelles	0.1	0.9	0.4	2.1	2.7	2.9	1.2	1.6	3.3	2.4	2.5	0.3	1.1	1.0
Sierra Leone	0.0	1.3	3.1	2.1	1.9	2.2	2.5	6.3	5.6	6.0	5.2	13.5	17.0	21.4
Somalia	1.5	0.1	0.0	0.8	0.0	0.5	1.0	0.7	1.7	1.0	2.3	1.8	2.4	1.6
South Africa	904.1	953.9	1,028.4	1,049.4	1,099.5	1,228.2	1,392.5	1,372.4	1,512.8	1,768.7	1,759.3	1,993.5	2,043.4	2,034.9
South Sudan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.3	4.3	3.9	2.3	1.3
Sudan	39.5	55.8	51.2	40.5	50.1	59.3	67.3	69.5	74.1	91.0	92.1	83.8	68.3	94.9
Swaziland	1.7	1.1	1.3	1.1	0.3	1.2	4.4	3.8	3.9	4.5	6.6	4.3	11.6	4.7
Tanzania	49.5	63.0	63.0	107.6	95.6	110.9	128.2	161.4	197.2	197.0	165.6	231.7	221.2	200.0
Togo	15.5	10.9	13.1	13.2	20.4	23.2	22.0	29.2	24.0	26.3	39.8	56.6	54.6	41.2
Tunisia	434.1	465.2	582.2	670.4	672.7	718.6	751.3	856.4	844.4	785.0	695.1	785.7	850.4	743.0
Uganda	49.4	63.7	79.6	86.1	84.2	90.4	120.7	142.9	172.5	179.8	186.4	231.3	274.6	233.3
Western Sahara	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Zambia	10.5	13.2	15.4	26.4	32.7	36.2	32.2	37.2	40.7	36.3	43.3	44.6	69.4	68.8
Zimbabwe	34.7	36.9	36.9	44.6	32.7	24.9	23.4	39.1	37.6	36.6	38.9	55.4	62.1	55.6
Asia	53,587.8	59,224.7	67,673.8	71,261.7	75,547.3	81,101.6	88,415.1	93,142.2	99,434.6	106,902.3	115,238.7	126,643.1	131,283.1	129,915.1



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Afghanistan	2.5	5.3	2.8	5.6	3.6	5.0	9.8	10.3	9.9	18.8	11.6	14.5	13.9	16.0
Bangladesh	122.5	135.6	150.1	181.1	192.4	233.7	243.7	283.0	312.6	369.9	368.8	438.8	426.6	349.1
Bhutan	0.0	0.3	0.0	2.2	0.7	0.1	1.8	2.0	5.1	6.9	7.2	7.5	5.8	10.9
Brunei	3.7	3.3	9.0	6.8	7.0	18.8	13.3	20.4	40.6	41.3	51.1	54.4	45.6	24.3
Burma	3.4	5.6	5.5	8.0	6.5	8.2	6.8	7.3	7.7	12.3	10.7	14.1	20.7	19.8
Cambodia	5.7	18.8	12.0	18.9	20.3	20.4	24.7	22.0	27.9	29.8	30.3	28.3	46.5	50.6
China	11,928.9	15,199.4	20,069.8	22,906.6	25,793.2	29,382.9	32,608.7	32,929.5	33,366.4	36,364.7	43,401.1	51,170.6	57,273.1	56,670.3
India	5,555.5	5,599.4	6,363.6	7,134.3	7,593.7	8,476.5	9,617.3	11,213.9	13,268.8	15,384.4	16,771.1	17,529.4	16,937.5	16,897.8
Indonesia	87.4	122.1	141.7	187.4	103.2	114.9	146.2	150.3	146.1	188.4	195.5	239.5	321.4	454.7
Japan	26,506.4	27,487.7	28,048.1	27,032.9	27,076.1	25,963.5	26,919.7	27,554.7	29,525.3	29,691.2	28,619.5	29,914.9	28,051.6	26,953.2
Kazakhstan	15.4	13.7	7.3	16.1	11.1	7.4	6.5	9.5	11.8	21.1	45.0	62.9	73.8	100.9
Kyrgyzstan	1.5	3.2	6.0	3.4	4.9	1.7	6.6	4.8	4.9	11.0	10.5	13.1	7.7	17.7
Laos	7.0	6.8	8.4	13.1	15.2	13.7	8.5	13.6	15.2	17.4	18.2	12.3	23.4	19.6
Malaysia	339.9	392.9	439.1	540.1	561.7	835.9	781.4	1,023.4	1,161.3	1,456.6	1,635.1	1,568.6	1,653.0	1,623.2
Maldives	0.6	0.0	1.2	3.5	0.5	0.1	0.9	0.8	0.8	1.4	2.9	2.3	1.4	0.8
Mongolia	4.1	5.2	4.1	8.9	9.9	8.0	20.9	11.2	11.4	13.2	11.6	11.2	16.4	16.2
Nepal	118.1	143.6	185.7	240.0	246.1	238.0	287.8	279.0	273.7	294.3	319.7	318.3	297.9	272.4
North Korea	0.3	13.1	4.0	6.6	4.6	2.2	12.3	1.6	1.4	0.2	0.0	0.6	1.3	2.1
Pakistan	598.7	659.1	819.6	816.1	907.6	1,096.2	1,360.1	1,474.6	1,783.6	1,913.7	1,921.5	2,025.1	1,926.3	2,134.2



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Papua New Guinea	12.8	11.2	15.6	12.5	26.9	14.3	10.5	16.0	14.7	19.3	25.8	20.4	16.6	12.7
Philippines	55.1	49.1	70.2	63.9	74.2	98.0	100.9	117.7	210.8	179.0	196.9	188.9	224.4	185.7
Singapore	750.3	973.3	994.5	1,043.9	1,049.7	1,135.0	1,172.4	1,185.5	1,270.2	1,324.2	1,475.3	1,558.7	1,672.6	1,764.4
South Korea	3,268.1	3,744.4	4,782.6	5,413.6	6,129.9	7,219.3	8,545.1	10,022.8	10,928.0	12,008.6	12,684.7	13,561.4	14,117.4	14,457.9
Sri Lanka	64.1	66.3	106.4	76.5	93.7	110.6	125.7	148.1	183.4	190.5	188.4	240.5	250.5	241.8
Taiwan	3,286.9	3,628.8	4,193.2	4,270.8	4,383.9	4,738.8	4,931.1	5,101.4	5,235.8	5,399.3	5,409.0	5,601.3	5,827.1	5,513.3
Tajikistan	0.3	1.0	2.0	2.4	0.8	4.6	2.6	1.2	2.8	3.4	3.3	3.3	5.0	6.2
Thailand	787.8	874.6	1,161.0	1,164.1	1,152.9	1,253.2	1,350.7	1,426.3	1,505.4	1,808.5	1,684.7	1,872.6	1,862.9	1,907.1
Timor-Leste	0.8	0.0	1.3	1.9	1.6	0.3	1.6	0.1	1.0	0.9	1.5	2.7	4.0	1.6
Turkmenistan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.7	0.0	0.6	1.9	0.0	0.0
Uzbekistan	11.7	9.9	12.9	4.8	8.6	12.2	11.7	16.6	17.1	18.7	16.9	20.7	10.7	27.1
Vietnam	48.2	51.1	56.1	75.8	66.8	88.1	85.8	93.6	90.2	113.1	120.3	144.2	148.1	163.4
Australia and Oceania	7,437.5	8,221.7	8,725.5	9,521.3	10,032.7	10,532.1	11,231.1	11,611.6	12,584.8	13,274.6	14,083.8	15,030.5	15,035.0	14,926.8
Australia	6,422.6	7,022.0	7,500.7	8,218.8	8,672.1	9,109.5	9,704.3	10,072.4	10,849.9	11,462.5	12,370.4	13,300.1	13,331.6	13,263.3
Cook Islands	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	1.3	0.1	0.0	0.3	0.0
Fiji	17.0	11.8	2.1	13.5	8.1	4.1	3.6	7.9	9.7	7.7	8.2	11.3	7.4	11.0
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.2	0.6	0.5
Marshall Islands	1.3	0.0	1.3	0.3	0.3	0.0	1.1	0.5	0.4	0.0	0.0	0.4	0.0	0.0
Micronesia, Federated States of	0.5	0.5	1.8	0.1	0.5	0.1	0.7	0.5	0.4	0.4	0.6	1.4	1.7	0.4



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nauru	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.3	0.3	0.1	0.3
New Zealand	988.5	1,178.4	1,213.5	1,282.8	1,346.3	1,414.6	1,516.8	1,524.9	1,714.0	1,797.0	1,699.3	1,705.9	1,682.4	1,640.5
Niue	0.0	0.0	0.1	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Palau	1.3	0.9	3.0	1.2	1.2	0.9	0.2	1.4	0.4	0.0	0.8	0.0	0.7	1.0
Samoa	0.0	1.2	0.0	1.2	0.1	0.4	1.1	0.0	2.2	0.6	1.2	0.1	1.8	0.5
Solomon Islands	0.2	1.1	0.3	0.8	1.0	1.0	1.4	2.0	3.0	2.5	0.9	4.4	5.1	8.2
Tonga	0.6	2.1	0.0	1.2	0.6	0.5	1.9	0.2	1.1	0.8	1.0	0.5	0.3	0.2
Tuvalu	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Vanuatu	5.6	3.5	2.7	0.5	0.8	1.2	0.2	1.8	3.1	0.2	0.9	4.9	3.0	0.9
Unassigned	5,337.1	3,466.5	3,600.7	3,702.2	4,002.9	3,983.0	3,575.1	5,680.8	6,320.7	7,047.4	6,569.1	2,561.4	1,748.9	1,667.3

na = not applicable; country data do not exist.

EU = European Union.

^a Beginning in 2006, Serbia and Montenegro represented individual countries.

^b Serbia and Montenegro represented a single country for data purposes from 1992 to 2006.

Note(s)

Article counts refer to publications from a selection of journals, books, 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) listed in the article. Articles are credited on a fractional-count basis. The sum of the regions, countries, or economies may not add to the world total because of rounding. Some publications have incomplete address information for coauthored publications in the Scopus database. The unassigned category count is the sum of fractional counts for publications that cannot be assigned to a region, country, or economy.

Source(s)

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