

Appendix table 5-26

S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World	588,488.0	602,430.0	610,203.0	630,459.0	629,386.0	638,381.0	661,789.6	688,691.0	710,294.0	740,417.0	758,603.0	783,358.8	788,728.0	799,598.9	827,704.9
North America															
Canada	22,780.9	22,200.7	22,125.4	22,701.3	21,945.2	22,341.5	23,554.8	24,234.3	25,861.6	27,206.9	27,833.9	28,636.7	29,031.5	29,022.3	29,113.7
Mexico	2,301.7	2,658.9	2,883.5	2,970.7	3,203.8	3,320.2	3,658.5	3,870.0	3,931.6	3,998.2	4,223.6	4,256.8	4,127.7	4,204.9	4,172.8
United States	189,751.9	190,431.4	188,004.1	192,745.6	190,597.4	190,496.1	196,463.7	202,105.8	205,565.0	209,278.5	209,916.4	212,907.6	208,755.3	209,542.1	212,394.2
Central America/Caribbean															
Antigua and Barbuda	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.8	0.5	0.0	0.1	0.2
Bahamas	0.8	1.4	1.2	2.5	3.1	2.0	2.8	1.4	1.6	1.3	4.6	3.1	2.5	2.8	2.5
Barbados	16.4	15.3	13.5	14.2	22.3	20.1	26.8	29.2	17.6	19.8	15.0	21.4	12.6	12.9	16.3
Belize	3.7	0.8	2.5	0.3	1.7	0.9	1.6	1.0	3.0	2.9	1.1	1.9	2.0	2.8	2.5
Costa Rica	76.5	72.7	69.2	80.0	90.3	89.1	88.9	84.9	105.6	80.1	100.2	107.0	98.3	102.1	106.4
Cuba	167.0	236.3	256.6	283.8	272.1	206.0	268.3	254.5	261.4	295.2	243.5	252.6	222.4	195.0	224.1
Dominica	0.0	1.5	0.0	0.1	2.0	0.7	2.0	2.3	2.7	2.7	2.1	2.5	3.0	3.2	2.1
Dominican Republic	6.2	7.6	5.5	12.9	5.8	5.2	5.1	6.7	4.6	5.4	8.1	7.7	6.1	6.9	9.1
El Salvador	1.9	0.0	1.1	3.4	3.1	7.6	1.2	4.3	5.8	5.7	4.5	2.9	5.5	5.0	8.6
Grenada	0.5	0.0	1.9	0.8	0.3	1.5	1.2	2.3	2.2	5.9	6.8	5.5	8.5	8.5	13.3
Guatemala	17.9	16.1	15.8	13.9	16.9	19.0	15.1	16.0	19.7	22.2	22.4	15.9	22.1	20.4	22.2
Haiti	1.7	2.7	0.7	4.7	3.0	4.8	3.2	6.4	3.2	8.7	4.3	5.2	7.0	5.8	14.0
Honduras	10.6	11.2	12.4	7.4	7.7	6.4	5.9	7.5	8.3	7.5	5.8	7.1	6.2	9.8	9.7
Jamaica	58.3	46.8	50.0	36.1	57.4	54.8	47.2	51.1	51.9	39.8	49.4	41.4	50.8	46.6	50.7
Nicaragua	13.1	6.5	8.3	10.3	7.1	6.8	9.5	11.0	14.2	18.2	10.6	16.4	11.9	13.7	17.1
Panama	38.2	34.4	44.3	38.2	50.9	49.9	49.7	60.7	54.1	57.5	77.7	75.0	72.6	82.0	66.9
St. Kitts and Nevis	0.0	0.0	1.5	1.5	0.0	0.1	0.0	0.0	0.0	1.8	0.3	0.0	1.7	1.1	0.4
St. Lucia	1.0	2.7	0.5	0.0	0.9	0.2	0.0	0.0	0.5	0.5	0.3	0.3	0.0	0.1	0.4
St. Vincent	1.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.5	0.3	0.0	0.0
Trinidad and Tobago	41.1	52.9	38.7	43.0	42.3	44.7	46.5	50.4	47.3	41.7	67.0	46.4	47.7	53.4	60.2
West Indies Associated States	2.3	2.2	5.5	6.3	3.8	5.6	8.4	2.5	5.8	6.2	7.3	12.0	11.5	9.6	8.0
South America															
Argentina	2,450.8	2,550.7	2,635.8	2,846.1	2,930.7	3,178.1	2,919.8	2,981.6	3,058.4	3,264.0	3,364.3	3,567.1	3,655.2	3,767.6	3,862.8
Bolivia	34.7	28.2	40.7	29.1	28.9	33.2	38.8	31.7	39.0	43.1	50.6	49.6	45.2	42.5	46.9
Brazil	4,497.6	5,234.1	5,859.3	6,407.3	7,052.3	7,881.1	8,330.2	9,573.0	9,896.7	10,799.5	11,890.8	12,909.3	12,307.3	12,529.5	13,148.1
Chile	954.3	991.8	1,058.9	1,115.1	1,159.4	1,311.4	1,406.4	1,464.1	1,559.3	1,630.4	1,741.2	1,784.7	1,867.8	1,867.2	1,979.2
Colombia	234.9	247.7	240.3	331.5	315.8	355.6	325.5	358.5	401.3	469.7	489.4	574.6	608.4	692.4	726.6
Ecuador	44.2	31.2	23.7	37.4	30.0	50.7	53.5	50.2	48.6	40.0	66.0	69.9	67.5	66.2	60.1
Guyana	6.3	3.0	4.2	4.1	4.5	8.6	2.8	3.0	9.2	3.8	6.4	3.4	2.8	8.2	2.9
Paraguay	6.9	9.4	5.3	7.5	7.2	7.9	9.9	8.8	8.0	4.7	12.4	5.9	11.1	11.0	9.2
Peru	75.0	65.6	61.8	79.3	93.8	87.6	130.3	106.2	134.4	134.8	153.4	161.1	158.6	147.1	161.7
Suriname	2.6	1.8	3.4	2.9	2.8	4.4	4.2	3.9	3.0	1.9	1.8	2.8	1.1	1.3	1.4
Uruguay	140.6	140.6	150.3	155.6	148.8	161.5	185.5	193.7	204.4	196.8	215.1	247.9	246.2	237.1	290.4
Venezuela	488.4	533.9	498.0	515.8	510.1	536.4	576.8	475.3	534.0	525.1	497.7	496.8	353.5	341.6	302.1

Appendix table 5-26

S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Europe															
European Union															
Austria	3,947.4	4,074.0	4,157.8	4,257.1	4,479.5	4,460.0	4,692.1	4,716.0	4,567.9	4,614.3	4,827.2	4,815.6	4,833.2	4,922.8	5,102.5
Belgium	5,531.8	5,687.7	5,712.5	5,735.4	5,827.3	6,036.7	6,303.8	6,625.4	6,847.2	6,736.1	7,077.8	7,298.1	7,221.9	7,389.4	7,483.9
Bulgaria	985.4	929.0	867.3	909.3	746.7	814.8	774.7	807.8	766.5	766.8	801.4	761.4	735.4	675.0	650.3
Cyprus	56.6	54.7	49.3	59.0	67.9	78.5	75.7	87.3	91.3	119.9	139.1	169.0	195.2	211.6	211.4
Czech Republic	2,304.4	2,263.5	2,359.9	2,483.3	2,571.2	2,746.6	2,820.4	3,178.4	3,172.1	3,565.7	3,689.7	3,936.2	3,948.5	4,163.5	4,126.5
Denmark	4,597.4	4,717.9	4,783.3	4,882.9	4,916.7	4,760.7	5,005.8	5,009.0	5,047.5	5,133.1	5,240.6	5,303.5	5,307.0	5,638.7	6,071.3
Estonia	229.8	304.9	340.6	327.5	346.0	321.2	354.6	389.1	439.0	456.9	502.3	477.2	518.1	526.5	514.2
Finland	4,452.2	4,513.4	4,719.4	4,843.8	4,930.0	4,904.3	4,899.4	5,018.7	4,813.4	5,088.0	4,989.6	5,112.5	4,951.8	4,868.5	4,877.6
France	30,321.9	31,393.1	31,345.4	31,427.1	30,601.5	30,530.9	30,307.0	29,892.8	30,340.2	31,220.5	30,752.6	31,982.8	31,756.6	31,367.6	31,685.5
Germany	41,414.6	42,955.0	42,962.9	43,509.6	42,677.7	42,436.0	42,230.4	43,016.8	44,194.1	44,549.8	44,428.7	44,915.1	45,017.3	45,337.8	46,258.8
Greece	2,434.0	2,611.3	2,625.9	2,976.1	3,203.8	3,447.1	3,586.9	3,928.3	4,292.0	4,874.1	4,981.7	4,953.4	4,881.5	4,631.2	4,534.1
Hungary	1,991.5	2,201.9	2,199.6	2,358.4	2,398.2	2,322.7	2,450.7	2,408.6	2,619.0	2,592.2	2,452.1	2,554.1	2,398.9	2,221.0	2,289.3
Ireland	1,330.8	1,520.5	1,458.9	1,580.9	1,588.3	1,628.9	1,681.1	1,935.9	2,120.4	2,302.6	2,498.4	2,661.9	2,799.9	3,055.8	3,186.4
Italy	19,401.6	20,056.0	20,327.1	21,409.4	22,092.9	22,482.6	23,764.5	24,759.4	24,663.2	25,804.9	26,561.3	26,853.7	26,769.7	26,347.6	26,503.4
Latvia	159.3	161.6	179.3	149.5	165.4	174.7	132.6	157.3	134.0	120.0	146.8	160.7	161.6	133.9	203.5
Lithuania	215.8	257.1	273.9	262.0	283.3	334.5	307.9	404.3	406.1	515.2	457.5	515.0	387.6	356.3	457.4
Luxembourg	33.6	32.1	28.9	40.1	45.5	39.4	38.4	61.7	58.8	65.0	73.4	111.2	136.8	149.4	204.1
Malta	22.6	20.2	18.6	17.7	20.6	23.4	38.9	21.0	25.5	20.1	22.5	44.9	38.2	33.4	45.8
Netherlands	12,444.3	12,500.4	12,168.2	12,340.7	12,117.4	12,481.3	12,661.5	13,240.7	13,894.1	13,991.7	14,215.7	14,637.2	14,868.4	15,506.2	15,508.3
Poland	4,565.5	4,785.8	5,100.2	5,505.6	5,629.4	6,019.3	6,581.8	6,672.3	6,853.8	7,232.3	7,137.5	7,529.1	7,358.6	7,157.2	7,564.2
Portugal	1,255.0	1,418.4	1,710.7	1,879.5	2,081.2	2,331.4	2,424.5	2,853.1	2,911.5	3,628.5	3,424.2	3,856.8	4,156.5	4,171.5	4,621.1
Romania	916.9	847.0	917.2	970.9	926.9	965.2	874.9	938.0	887.8	1,014.8	1,252.3	1,397.9	1,366.9	1,544.9	1,625.9
Slovakia	1,069.7	1,140.4	979.4	978.0	923.6	954.4	897.9	1,070.2	921.8	1,006.9	970.7	1,084.0	1,000.4	1,050.9	1,098.8
Slovenia	603.2	622.9	707.8	891.6	850.6	848.3	950.9	928.7	1,035.4	1,062.7	1,282.8	1,305.9	1,234.9	1,151.4	1,239.3
Spain	13,075.3	13,719.5	14,513.7	14,796.2	15,324.0	16,062.3	16,100.8	17,027.0	18,345.7	19,526.8	20,993.3	21,509.1	21,547.5	22,019.9	22,910.3
Sweden	9,655.1	9,835.0	9,889.7	9,883.4	10,022.3	9,872.2	9,676.5	9,853.6	10,016.5	10,105.3	9,917.5	9,681.7	9,480.1	9,418.5	9,472.9
United Kingdom	45,883.9	46,141.3	46,787.9	48,216.1	45,588.2	44,642.9	45,232.1	45,491.6	45,658.1	46,751.3	47,139.7	46,333.2	45,689.0	45,978.0	46,035.4
Other Europe															
Albania	10.4	14.5	15.9	6.7	10.3	16.8	8.9	7.3	9.0	10.2	12.3	13.5	8.0	18.3	26.9
Andorra	0.5	0.0	0.2	0.5	0.6	1.0	0.5	0.7	0.6	1.5	2.7	0.1	0.3	0.3	0.5
Belarus	596.3	583.4	578.6	572.3	502.7	492.3	520.6	496.8	490.6	446.7	411.5	387.0	380.2	335.2	341.6
Bosnia and Herzegovina	10.7	13.0	9.5	9.6	16.8	9.1	18.5	14.0	26.1	29.5	53.7	41.0	63.8	68.2	54.1
Croatia	580.5	624.6	647.1	678.0	696.4	719.1	798.3	868.0	953.0	985.7	1,101.6	1,188.3	1,164.1	1,246.5	1,288.6
Iceland	142.6	174.2	143.2	150.2	177.2	195.2	195.0	190.9	206.2	232.3	232.0	232.8	259.6	273.5	258.3
Kosovo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liechtenstein	11.7	5.3	16.6	11.1	6.2	6.8	11.7	12.5	12.0	13.2	14.4	16.5	13.0	9.8	9.7
Macedonia	53.8	37.1	48.8	56.3	67.7	54.2	57.0	52.6	42.8	41.5	57.5	46.4	57.2	59.4	77.3
Moldova	108.3	92.1	93.4	98.7	72.7	73.6	83.1	67.6	89.1	85.3	69.8	73.2	79.8	64.9	76.2
Monaco	13.3	20.0	22.7	10.8	20.1	18.1	26.6	26.3	23.5	18.6	14.1	15.7	23.4	22.2	19.6
Montenegro	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.6	14.7	19.7	10.6	25.9	27.8

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S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Norway	2,964.9	3,038.7	3,042.5	3,136.0	3,214.6	3,099.9	3,130.5	3,371.3	3,651.2	3,896.2	4,081.9	4,299.9	4,440.1	4,460.9	4,777.1
Russia	18,133.4	17,165.6	17,145.4	17,180.1	15,657.9	15,847.2	15,147.8	14,921.8	14,424.5	13,561.6	13,953.7	13,970.2	14,057.2	13,500.4	14,150.9
San Marino	0.8	0.8	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.6	0.8	0.3	0.6	1.0
Serbia	NA	NA	NA	NA	NA	NA	NA	NA	NA	435.3	1,057.0	1,043.0	1,172.6	1,165.3	1,269.1
Serbia and Montenegro	NA	NA	NA	NA	NA	NA	NA	NA	849.3	395.3	NA	NA	NA	NA	NA
Switzerland	7,863.9	7,983.9	8,194.5	8,503.8	7,949.9	7,878.8	8,133.9	8,674.1	8,766.8	9,234.0	9,195.6	9,334.4	9,472.2	9,626.8	10,018.6
Ukraine	2,265.2	2,283.9	2,354.9	2,267.6	2,238.7	2,182.8	1,993.4	2,011.5	2,104.5	1,909.6	1,846.9	1,843.6	1,639.4	1,682.1	1,726.9
Vatican City	2.7	2.0	1.1	0.9	1.0	0.8	1.3	3.0	3.5	0.8	1.5	1.4	2.2	3.8	4.0
Yugoslavia	594.5	606.6	562.7	541.6	499.7	479.7	584.2	772.1	NA	NA	NA	NA	NA	NA	NA
Middle East															
Bahrain	36.2	30.4	34.9	21.0	24.8	20.4	38.2	35.5	33.3	40.9	48.3	43.4	35.8	42.1	39.9
Iran	390.6	541.3	664.8	841.1	1,034.9	1,313.8	1,789.8	2,115.8	2,634.9	3,422.7	4,366.2	5,228.3	6,313.3	6,992.6	8,175.5
Iraq	40.4	24.7	22.9	28.7	32.5	24.0	25.6	27.3	39.1	66.5	73.3	68.2	70.0	68.1	95.6
Israel	6,047.4	6,020.3	5,928.8	6,290.3	6,234.5	6,381.0	6,524.7	6,462.0	6,322.0	6,558.5	6,632.2	6,609.4	6,306.2	6,139.2	6,096.0
Jordan	200.5	220.4	230.3	246.6	232.5	242.2	250.7	281.0	274.8	285.4	344.1	411.9	382.6	378.0	341.8
Kuwait	224.0	234.8	295.9	238.3	244.7	227.8	230.5	244.3	234.1	256.5	242.0	239.7	214.4	191.6	202.1
Lebanon	103.2	102.6	124.3	143.7	195.0	158.8	210.7	198.3	233.7	250.3	238.1	279.8	256.2	264.8	250.7
Oman	63.0	79.5	89.4	92.3	100.8	113.4	108.1	98.7	110.8	108.2	129.4	124.6	114.1	120.0	144.4
Qatar	22.2	28.5	22.8	17.3	20.7	12.8	20.9	48.1	39.0	42.1	48.3	59.9	64.2	104.4	111.3
Saudi Arabia	676.2	682.7	604.9	590.0	564.7	582.8	549.3	550.8	576.3	557.6	589.2	620.8	711.4	1,003.2	1,491.2
Syria	60.5	44.3	57.8	54.6	62.8	48.6	68.3	79.3	76.8	62.4	79.6	66.5	71.5	100.8	110.0
Turkey	2,480.7	2,795.0	3,222.7	3,484.1	4,150.9	5,226.1	6,038.8	7,434.3	7,816.5	8,180.5	8,640.7	8,543.0	8,307.1	7,950.0	8,328.4
United Arab Emirates	151.6	155.5	129.9	144.7	156.0	163.3	178.3	210.2	229.3	229.6	214.0	255.5	264.8	276.1	323.5
Yemen	13.6	9.1	10.7	9.9	14.4	11.5	9.5	20.8	8.3	23.9	18.2	12.5	25.4	20.9	33.3
Africa															
Algeria	159.6	156.4	185.4	211.3	220.5	229.7	280.7	344.0	350.3	413.4	480.7	536.6	607.5	598.3	599.3
Angola	2.6	0.8	3.4	4.4	5.0	4.6	1.1	2.6	3.5	2.6	3.2	2.2	6.2	6.9	6.0
Benin	21.4	19.3	21.2	25.1	21.1	29.4	27.5	30.8	27.9	29.9	43.1	43.6	47.7	47.0	51.2
Botswana	31.6	34.9	38.7	54.9	50.6	60.4	66.5	63.6	48.4	67.1	61.6	57.8	44.9	32.9	49.7
Burkina Faso	22.1	32.1	22.9	25.6	25.4	27.8	40.6	41.8	32.3	48.5	42.9	43.4	49.9	54.3	52.5
Burundi	11.5	2.2	5.1	0.7	2.9	1.3	5.1	3.1	2.5	1.2	3.2	2.0	2.6	5.9	3.4
Cameroon	83.3	74.2	70.6	73.3	76.1	107.4	120.4	126.8	130.9	151.2	154.2	161.1	145.1	149.5	159.2
Cape Verde	0.3	0.2	0.6	0.0	0.2	0.0	1.3	0.3	0.3	1.2	0.0	0.7	2.1	1.8	0.6
Central African Republic	5.6	6.4	4.2	2.6	2.9	4.3	6.0	6.5	8.5	6.1	3.9	7.8	4.0	5.5	4.2
Chad	1.9	2.0	2.8	2.8	2.0	4.4	5.4	2.8	7.2	6.1	3.3	3.1	2.3	1.7	1.7
Comoros	0.0	0.5	1.0	0.5	0.1	0.0	0.7	0.5	1.6	0.0	1.2	0.6	0.5	0.7	0.3
Congo (Brazzaville)	7.6	11.9	12.5	9.2	4.9	9.8	13.8	16.5	18.9	20.8	20.9	16.7	17.7	18.4	16.0
Congo (Kinshasa)	15.8	6.9	6.0	7.4	2.8	5.2	7.1	4.6	6.2	3.8	7.2	11.1	19.1	14.7	20.6
Côte d'Ivoire	40.0	53.9	47.9	48.7	45.0	36.2	52.6	41.6	39.4	41.1	37.4	38.9	56.0	46.1	44.4
Djibouti	0.0	0.7	0.3	0.0	0.3	0.5	0.5	0.9	0.9	0.3	0.6	0.5	1.6	1.9	1.3
Egypt	1,266.1	1,274.8	1,293.0	1,432.8	1,463.5	1,564.0	1,716.8	1,661.1	1,658.2	1,785.6	1,934.4	2,018.9	2,247.3	2,431.2	2,514.9
Equatorial Guinea	0.7	0.3	2.2	0.3	1.0	0.5	1.2	1.3	0.2	0.5	1.3	0.0	1.6	0.1	0.7

Appendix table 5-26

S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eritrea	0.2	6.1	2.7	5.9	5.0	10.3	5.7	3.7	8.0	8.6	7.9	4.5	3.7	2.6	1.4
Ethiopia	95.4	79.1	109.5	89.9	77.9	101.7	92.0	106.3	87.6	121.2	148.5	158.6	175.3	169.5	170.0
Gabon	18.7	21.4	23.3	13.3	21.8	20.6	22.5	16.3	20.3	18.3	15.8	17.4	18.0	16.9	22.3
Gambia	30.0	23.4	19.7	25.7	27.9	23.0	19.8	23.7	22.7	24.4	17.2	18.5	19.5	19.2	12.5
Ghana	81.9	71.3	74.1	92.1	78.7	79.3	75.8	86.2	81.3	90.2	109.4	111.1	101.5	121.4	121.1
Guinea	2.8	3.0	2.1	2.0	3.8	2.9	1.2	2.9	4.5	9.5	4.2	2.0	3.4	5.5	4.0
Guinea-Bissau	4.3	2.2	6.9	4.0	4.5	7.2	7.0	7.3	5.8	5.9	9.7	5.0	5.5	2.3	4.5
Kenya	271.9	265.4	242.6	231.7	228.5	241.6	239.4	224.7	225.8	236.5	262.2	285.4	290.5	275.8	289.5
Lesotho	2.3	1.3	2.6	6.0	2.4	2.4	2.6	2.8	0.8	5.7	3.0	4.8	3.5	4.8	5.7
Liberia	0.3	1.3	0.0	1.0	1.0	1.3	0.0	1.1	1.3	2.3	0.0	1.4	0.0	1.8	4.4
Libya	16.2	20.6	17.8	15.8	21.4	19.5	24.9	17.1	19.7	26.2	30.4	37.3	33.6	33.3	17.9
Madagascar	16.0	19.9	20.9	28.7	30.0	23.0	36.0	27.8	33.5	46.2	47.9	38.0	34.9	40.5	32.7
Malawi	40.3	30.9	36.4	43.6	44.2	48.5	43.1	42.3	40.5	46.7	62.9	53.7	52.5	55.1	56.7
Mali	12.9	15.6	10.7	11.7	11.5	17.7	16.6	23.5	24.3	25.0	19.4	19.5	25.0	23.8	28.6
Mauritania	2.1	1.7	2.2	5.4	6.5	6.5	7.1	3.9	7.1	6.2	3.3	1.7	2.9	3.0	5.8
Mauritius	3.3	8.2	16.7	13.2	14.6	23.6	13.5	20.0	15.4	19.0	17.8	21.1	21.5	24.8	15.9
Morocco	297.4	376.0	437.8	466.1	457.5	466.0	400.3	417.1	443.2	399.5	378.6	413.3	390.7	350.4	385.8
Mozambique	9.5	14.6	13.9	9.9	14.3	12.6	9.1	12.9	24.2	20.9	23.9	24.7	28.6	24.1	37.9
Namibia	13.3	18.3	14.7	12.6	17.3	21.6	19.7	12.3	23.4	20.6	14.1	16.3	13.6	9.7	13.0
Niger	27.8	25.9	16.0	19.2	13.5	17.8	14.1	11.7	21.6	17.9	22.4	14.8	15.7	12.7	17.8
Nigeria	436.9	401.7	416.5	400.5	304.0	362.8	357.8	380.7	364.2	406.2	427.9	462.6	461.8	493.7	439.3
Rwanda	5.0	6.6	2.7	1.4	2.8	2.4	1.3	4.9	5.6	10.4	12.3	8.6	11.7	13.4	22.4
São Tomé and Príncipe	0.0	0.3	0.0	0.5	0.3	0.9	0.5	0.3	0.0	0.3	0.5	0.2	0.1	1.0	0.3
Senegal	61.8	67.3	75.5	73.6	58.8	51.4	76.7	63.2	82.8	53.3	68.4	59.9	56.3	61.0	79.3
Senegambia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Seychelles	1.7	2.7	1.7	4.5	3.0	1.5	4.2	1.9	2.8	2.9	4.0	3.6	4.3	2.9	5.7
Sierra Leone	9.3	2.2	1.3	2.8	4.3	1.8	0.6	1.0	2.1	1.6	2.6	2.0	2.9	6.0	4.0
Somalia	0.5	0.0	0.5	0.5	0.0	0.8	0.5	0.3	0.0	1.0	0.0	0.1	0.7	0.4	1.0
South Africa	2,222.9	2,224.7	2,302.5	2,220.7	2,291.4	2,328.0	2,204.8	2,319.5	2,395.4	2,642.7	2,808.0	2,915.5	2,863.8	2,971.8	3,124.6
Sudan	42.0	52.1	43.1	36.9	33.9	47.1	37.4	41.7	47.1	35.7	35.9	56.4	63.0	79.3	69.3
Swaziland	5.0	6.3	4.3	4.3	2.4	3.5	5.7	2.0	2.8	1.4	4.3	6.2	7.5	9.5	12.1
Tanzania	98.4	96.1	87.2	95.5	80.9	92.9	76.3	88.8	107.0	128.2	122.8	129.7	152.0	131.9	121.1
Togo	5.2	9.9	9.9	12.1	10.2	5.5	9.8	10.9	10.4	10.2	12.1	8.2	6.7	11.6	8.2
Tunisia	220.2	226.8	256.8	292.3	351.5	354.8	436.1	454.5	571.3	656.4	758.1	851.2	1,022.4	978.3	1,015.5
Uganda	51.5	63.9	71.1	77.5	82.9	72.8	87.6	120.1	93.4	113.7	164.6	126.1	143.2	153.6	158.2
Zambia	28.7	29.9	25.9	22.6	30.1	28.6	22.0	25.6	30.9	39.6	35.9	42.2	34.9	43.3	59.6
Zimbabwe	125.3	110.1	104.8	102.1	111.6	96.7	86.8	63.8	62.2	63.7	80.1	65.6	56.1	70.0	62.9
Asia															
Afghanistan	0.0	0.2	1.0	0.0	0.0	0.0	1.2	2.8	3.9	4.0	3.8	6.6	11.7	5.5	7.7
Armenia	172.3	165.9	163.9	175.4	156.7	172.8	184.1	191.2	179.9	179.5	174.8	190.7	164.2	183.4	184.6
Azerbaijan	85.8	92.0	65.7	78.6	67.9	78.1	110.3	110.1	115.9	116.4	96.8	100.2	150.9	144.7	148.7
Bangladesh	136.3	141.5	166.6	154.8	181.0	150.6	200.1	186.7	195.1	218.6	235.3	237.4	259.6	270.2	290.8

Appendix table 5-26

S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bhutan	1.0	1.5	0.5	1.3	1.2	2.8	2.3	5.4	1.9	8.8	3.4	3.2	6.9	4.9	8.3
Brunei	9.7	15.2	21.3	22.2	10.3	11.5	19.2	14.8	13.0	10.7	16.2	11.9	10.6	10.0	14.6
Burma	4.3	5.3	9.9	7.3	5.8	6.7	6.4	8.7	11.2	15.5	13.4	10.0	10.2	7.5	9.1
Cambodia	4.3	3.7	7.2	5.5	7.2	10.5	12.7	18.5	21.0	26.1	25.5	23.4	26.9	22.4	32.5
China	12,171.6	13,781.3	15,714.7	18,478.7	21,134.1	23,269.1	28,767.9	34,845.6	41,603.6	49,575.1	56,811.2	65,300.5	74,034.4	79,991.3	89,894.4
Georgia	135.9	127.8	131.9	134.3	115.8	127.9	111.5	150.4	144.6	177.7	129.4	137.1	128.6	121.1	117.6
India	9,617.6	9,944.8	10,190.4	10,276.4	10,800.5	11,664.7	12,462.2	13,368.7	14,635.3	16,743.3	18,202.9	18,987.5	19,924.3	20,881.8	22,480.5
Indonesia	146.1	136.0	162.7	181.6	188.7	178.3	156.6	181.6	205.2	215.1	197.5	219.0	262.0	247.7	269.9
Japan	51,462.4	53,838.3	55,273.8	57,101.2	56,081.7	56,346.5	57,231.2	56,538.4	55,527.3	54,469.4	52,910.6	51,842.0	49,631.9	47,043.1	47,105.7
Kazakhstan	115.3	128.5	104.6	112.8	113.6	122.6	119.0	104.7	96.0	86.0	105.5	76.7	98.7	83.3	87.4
Kyrgyzstan	14.4	17.6	13.9	18.4	17.6	20.3	11.4	11.7	15.0	17.9	16.1	16.5	15.4	16.5	17.2
Laos	2.4	5.5	3.8	3.9	4.5	4.7	8.6	12.1	9.2	18.0	12.3	12.2	12.2	17.2	21.4
Malaysia	349.0	387.1	471.4	459.6	472.4	494.5	479.3	586.1	614.6	724.1	808.1	951.0	1,351.3	1,607.7	2,092.2
Maldives	0.0	1.8	2.0	0.0	1.8	0.5	1.1	1.0	1.0	2.2	1.5	0.7	2.6	1.5	0.3
Mongolia	16.9	8.6	12.2	12.1	19.0	16.1	18.4	20.1	21.5	21.1	21.6	26.9	41.8	38.9	24.8
Nepal	38.7	37.4	39.9	44.0	43.7	42.7	54.9	65.7	65.0	80.9	72.0	56.2	55.9	57.7	63.5
North Korea	0.5	2.5	2.2	1.6	0.0	1.0	3.8	5.7	4.0	2.5	10.0	10.6	8.3	12.3	4.4
Pakistan	268.1	268.1	295.9	267.1	279.4	342.5	359.7	413.1	493.1	600.7	741.2	947.6	1,043.4	1,109.6	1,267.9
Philippines	170.4	171.4	175.8	184.6	141.2	181.5	183.6	163.1	177.9	180.6	194.8	224.1	223.3	221.7	241.3
Singapore	1,338.5	1,584.2	1,897.2	2,361.0	2,434.3	2,631.9	2,939.4	3,384.3	3,611.2	3,838.0	3,793.3	4,069.3	4,187.8	4,377.3	4,542.8
South Korea	5,802.2	7,056.6	8,478.2	9,571.8	11,007.7	11,734.5	13,402.9	15,255.6	16,395.8	17,909.9	18,470.1	21,090.8	22,280.3	24,106.4	25,592.7
Sri Lanka	62.2	83.5	86.9	97.8	73.2	102.6	141.5	119.1	135.8	125.7	125.5	133.6	134.9	131.2	130.3
Taiwan	6,016.1	6,355.3	6,642.7	7,190.1	7,911.8	8,123.3	8,928.7	10,133.4	10,845.4	12,371.8	12,741.7	13,775.4	14,002.1	14,329.3	14,809.3
Tajikistan	25.3	16.1	26.0	16.2	21.1	29.1	18.3	19.5	16.2	15.9	21.7	13.5	12.0	22.3	18.4
Thailand	405.3	540.8	549.5	663.3	726.9	834.0	1,018.6	1,130.5	1,248.9	1,568.0	1,727.7	1,959.5	2,033.4	2,106.4	2,304.0
Turkmenistan	6.0	2.7	0.8	4.9	2.8	3.2	2.3	1.0	1.2	1.1	1.6	0.3	0.5	1.3	0.5
Uzbekistan	269.0	243.5	240.6	222.5	195.2	183.6	174.5	170.3	157.4	139.2	166.2	121.5	139.2	124.7	140.9
Vietnam	120.5	99.7	110.9	146.8	155.2	144.4	205.1	167.4	221.3	224.6	283.2	362.7	326.2	389.6	431.5
Australia/Oceania															
Australia	13,815.7	14,307.4	14,341.1	14,588.6	14,484.0	14,255.2	14,933.6	15,588.9	15,974.4	17,217.1	17,833.8	18,776.5	18,932.0	19,516.7	20,602.6
Fiji	12.5	10.7	14.1	9.8	16.1	13.6	15.5	22.9	22.4	29.9	35.2	33.1	30.9	18.7	22.6
Kiribati	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Marshall Islands	2.6	0.0	1.2	0.3	0.2	0.5	0.5	0.8	0.5	0.7	0.0	0.3	0.8	0.3	0.3
Micronesia	0.0	0.3	1.7	1.6	0.5	0.0	1.5	1.7	1.2	0.6	0.7	0.3	2.2	2.3	0.5
Nauru	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	2,726.3	2,801.7	2,915.4	2,850.8	2,850.9	2,739.8	2,799.8	2,825.1	2,987.2	3,081.8	3,175.8	3,323.4	3,188.0	3,400.9	3,471.8
Niue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Palau	0.0	0.0	0.0	3.9	2.4	0.5	0.9	2.9	3.5	2.2	3.1	0.4	0.8	1.7	2.2
Papua New Guinea	28.9	33.8	32.8	26.8	32.4	26.4	22.1	18.4	15.9	15.0	21.3	19.2	17.2	15.5	21.1
Samoa	2.3	1.5	1.3	0.1	0.0	1.4	0.0	2.5	0.1	2.5	1.1	0.3	0.0	0.0	0.0
Solomon Islands	4.5	4.4	7.7	4.0	1.7	0.8	4.1	1.2	1.1	2.6	2.1	1.0	2.0	2.9	4.9

Appendix table 5-26

S&E articles in all fields combined, by region/country/economy: 1997–2011

Region/country/economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Tonga	1.1	0.5	0.8	0.5	0.5	0.5	1.2	0.5	0.0	0.4	0.5	0.3	1.3	0.5	0.5
Tuvalu	0.0	1.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vanuatu	1.9	0.8	3.6	3.0	1.3	3.9	2.8	4.1	4.6	1.8	1.6	2.2	3.6	1.7	4.7

NA = not available; country did not exist as such.

NOTES: Article counts are from the set of journals covered by the Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). Articles are classified by their year of publication and are assigned to a region/country/economy on the basis of the institutional address(es) listed in the article. Articles are credited on a fractional-count basis (i.e., for articles with collaborating institutions from multiple countries/economies, each country/economy receives fractional credit on the basis of the proportion of its participating institutions). Detail may not add to total because of rounding.

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