

**Appendix Table 5-31 S&E articles in computer sciences, by region/country/economy: 1999–2013**

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
World	26,156.0	29,761.0	31,788.0	34,461.0	51,853.0	77,770.0	103,606.0	112,897.0	128,070.0	143,484.0	167,539.0	187,684.0	182,054.0	184,151.0	177,578.0
North America	9,920.3	10,916.1	11,038.6	11,758.1	16,929.2	23,633.8	28,612.6	29,171.8	31,236.7	30,419.8	31,386.8	31,763.0	31,651.2	31,053.0	30,977.5
Canada	844.0	1,013.6	1,054.2	1,283.1	1,924.6	2,758.2	3,685.6	3,937.9	4,568.5	4,355.6	4,737.8	4,578.6	4,420.1	4,517.4	4,283.9
Mexico	63.0	116.4	79.0	88.4	247.9	414.1	507.3	574.7	573.5	784.1	716.6	768.4	725.8	731.5	1,016.8
United States	9,013.3	9,786.1	9,905.4	10,386.6	14,756.7	20,461.5	24,419.7	24,659.2	26,094.6	25,280.0	25,932.4	26,416.0	26,505.3	25,804.1	25,676.8
Central America/Caribbean	3.2	7.9	9.3	11.2	26.7	40.1	64.5	60.6	71.6	94.5	83.6	115.9	99.2	126.1	138.8
Antigua and Barbuda	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	0.1	0.0
Bahamas	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	0.5	0.7	0.0
Barbados	0.0	0.0	2.0	1.0	4.0	5.0	3.0	1.0	1.0	4.4	0.1	0.0	2.2	0.8	2.0
Belize	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Costa Rica	0.1	0.3	0.0	1.0	1.5	8.8	6.6	10.3	6.8	9.6	2.8	7.9	7.0	27.2	26.2
Cuba	2.6	5.5	5.0	6.7	15.5	12.1	36.2	39.5	46.2	55.0	35.4	64.7	53.3	63.3	78.1
Dominica	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0
Dominican Republic	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.3	0.0	0.0	1.5	0.0	1.0	0.0	0.8
El Salvador	0.0	0.0	1.0	0.0	0.0	2.5	2.0	0.0	0.0	1.0	0.0	4.6	1.0	2.0	5.3
Grenada	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Guatemala	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.7	1.0	0.7	2.3	1.8	4.5	2.8
Haiti	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0	0.3	0.0
Honduras	0.5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.5	1.0	0.1	1.5	0.0

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Jamaica	0.0	2.1	0.0	2.2	1.0	3.8	4.3	2.0	4.8	9.4	15.6	9.1	6.0	6.0	8.2
Nicaragua	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	1.0	0.0
Panama	0.0	0.0	0.3	0.0	0.0	0.7	1.0	2.9	0.5	1.7	4.3	7.4	4.5	11.1	7.2
St. Kitts and Nevis	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
St. Lucia	0.0	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
St. Vincent	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
Trinidad and Tobago	0.0	0.0	0.0	0.0	4.3	5.6	5.6	4.6	10.8	11.3	22.3	16.0	20.9	7.5	8.0
South America	253.1	341.2	419.3	477.5	766.0	1,334.7	1,725.4	1,987.5	2,226.4	2,688.9	2,879.2	3,102.8	3,427.2	4,035.1	4,109.2
Argentina	22.2	37.6	26.2	49.9	34.3	62.0	124.5	137.4	164.4	193.6	205.6	232.9	228.3	269.2	329.1
Bolivia	0.0	0.0	0.0	0.5	0.0	1.0	0.3	1.2	0.3	1.8	0.7	1.5	0.9	0.4	0.8
Brazil	196.7	259.5	326.8	360.7	621.6	1,104.5	1,348.2	1,488.0	1,650.1	2,016.2	2,165.2	2,296.9	2,581.7	2,960.7	3,001.2
Chile	14.9	20.4	36.0	29.7	54.9	98.7	122.5	160.0	178.3	208.5	242.3	220.1	260.3	251.9	284.1
Colombia	4.7	4.4	4.0	8.2	25.0	27.9	49.5	72.4	101.6	152.1	150.0	201.1	241.0	391.2	318.7
Ecuador	0.8	0.0	0.0	0.0	0.5	0.0	1.2	5.8	7.3	6.8	8.7	17.0	10.2	11.7	15.9
Guyana	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	0.5	0.0
Paraguay	0.0	0.0	2.3	0.3	1.0	6.3	2.7	6.6	4.0	5.5	4.8	3.2	7.2	6.0	15.1
Peru	0.1	0.0	0.3	0.0	0.0	0.8	3.0	9.7	10.0	13.7	6.2	12.1	16.7	16.2	22.5
Suriname	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
Uruguay	2.3	2.5	4.3	6.0	7.0	9.7	13.9	26.7	27.0	16.5	34.6	38.0	42.4	58.1	59.2
Venezuela	11.5	16.8	19.4	22.2	21.7	23.8	59.7	79.7	83.4	74.1	61.2	80.0	38.5	69.2	62.6
Europe	8,584.2	10,131.0	10,979.1	12,039.8	19,180.5	25,953.1	34,861.1	37,974.9	43,827.2	47,524.9	52,048.3	55,238.5	55,577.7	55,320.2	58,115.5
EU	7,848.7	9,286.8	10,095.5	11,239.9	17,853.7	24,448.4	32,578.1	35,243.0	40,876.3	44,346.4	48,420.6	51,398.2	51,687.4	50,947.9	53,552.9
Austria	154.3	181.4	247.9	257.2	448.9	564.3	896.7	1,000.2	1,273.5	1,271.8	1,535.3	1,553.3	1,609.0	1,692.0	1,738.2
Belgium	197.7	200.5	243.8	252.6	455.1	559.5	815.1	921.5	935.9	1,027.4	1,052.6	1,084.4	1,127.0	1,160.5	1,132.5

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bulgaria	19.5	30.3	28.4	24.5	50.4	93.4	71.2	91.0	189.7	202.7	155.2	238.4	227.3	204.8	185.1
Croatia	24.7	50.5	44.7	34.7	91.2	115.0	232.3	216.7	306.9	329.6	390.0	421.9	444.5	276.7	415.9
Cyprus	12.6	12.6	17.5	15.9	25.6	44.3	63.3	83.0	76.1	91.4	116.6	112.2	122.4	184.0	164.7
Czech Republic	85.0	91.4	107.6	161.9	269.5	375.5	484.3	615.0	833.0	873.1	975.0	1,147.8	1,243.0	1,160.9	1,290.5
Denmark	105.9	130.1	145.3	159.0	269.5	353.7	405.9	452.7	529.7	535.6	606.1	685.4	665.7	732.2	756.7
Estonia	2.2	5.1	6.3	12.4	20.9	30.8	52.0	56.8	63.0	95.9	86.4	172.8	144.3	143.7	171.9
Finland	187.3	243.6	227.0	289.4	459.9	702.6	931.8	962.6	1,065.2	1,111.9	1,176.1	1,223.3	1,217.0	1,205.5	1,262.4
France	1,095.3	1,347.1	1,411.6	1,674.5	2,424.5	3,190.3	4,417.6	4,732.9	5,347.9	5,794.6	6,045.5	6,269.6	6,437.9	6,538.8	6,632.6
Germany	1,444.6	1,618.9	1,706.5	1,842.8	2,991.2	4,064.2	5,717.5	6,087.9	6,976.3	7,948.6	8,768.4	9,512.4	9,100.7	8,737.7	9,244.6
Greece	244.2	292.8	349.3	332.7	560.5	789.3	1,124.0	1,201.8	1,342.2	1,513.5	1,644.6	1,547.4	1,533.2	1,660.6	1,554.4
Hungary	124.6	118.3	113.2	129.6	174.8	284.4	341.6	397.9	496.5	440.8	561.3	497.1	606.0	611.1	682.5
Ireland	37.2	60.3	76.8	94.1	228.1	402.6	572.1	652.3	720.8	705.0	855.1	927.4	815.6	742.3	725.8
Italy	929.2	1,104.2	1,176.0	1,376.9	1,973.7	2,621.7	3,456.2	3,522.3	4,125.3	4,226.6	4,778.4	4,897.4	4,997.9	4,860.6	5,608.2
Latvia	21.0	20.8	22.5	8.1	21.8	14.4	57.2	54.3	53.9	93.9	99.8	172.3	188.1	167.5	156.2
Lithuania	22.3	41.3	28.1	25.6	40.8	63.0	86.4	129.6	115.6	123.0	113.4	143.5	103.6	159.2	117.4
Luxembourg	1.3	1.5	2.5	1.3	10.0	16.6	28.6	44.8	57.6	101.8	123.4	151.5	174.7	177.8	208.7
Malta	0.2	2.2	0.0	2.5	2.8	3.8	4.6	8.4	17.0	17.5	17.9	24.0	27.4	28.1	35.9
Netherlands	372.6	453.7	553.9	572.8	920.1	1,271.9	1,655.4	1,733.3	2,017.3	2,176.5	2,372.5	2,316.9	2,359.4	2,183.9	2,222.2
Poland	156.5	198.5	286.4	302.6	425.5	929.8	918.0	1,246.6	1,218.4	1,633.0	1,349.2	1,812.1	1,855.9	2,241.2	2,263.0
Portugal	127.8	172.5	174.0	185.7	428.3	460.7	646.9	786.9	972.8	1,088.0	1,279.2	1,426.6	1,727.9	1,790.6	1,911.2
Romania	35.7	55.4	57.5	47.0	100.4	137.5	241.2	250.1	599.2	921.6	1,064.3	1,428.2	1,192.2	905.2	1,077.4
Slovakia	29.9	33.9	42.0	44.4	68.5	95.6	127.0	153.6	177.9	267.1	244.7	340.5	437.5	448.0	503.1
Slovenia	59.8	73.9	67.6	71.4	153.3	146.5	176.1	224.0	219.4	230.2	255.9	299.8	315.2	262.7	322.7
Spain	523.7	657.4	817.6	997.3	1,630.2	2,294.8	2,909.7	3,275.4	4,029.3	4,226.4	4,980.7	4,930.3	5,227.8	5,087.8	5,018.5
Sweden	257.6	308.6	343.6	383.0	596.1	755.2	944.5	980.5	1,077.2	1,039.5	1,115.8	1,200.4	1,287.6	1,362.1	1,427.2

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
United Kingdom	1,576.2	1,780.1	1,797.9	1,939.8	3,011.9	4,066.8	5,200.9	5,361.0	6,038.7	6,259.7	6,657.1	6,861.2	6,498.5	6,222.5	6,723.8
Other Europe	735.5	844.2	883.6	799.9	1,326.8	1,504.7	2,283.0	2,731.9	2,950.8	3,178.5	3,627.7	3,840.3	3,890.4	4,372.3	4,562.6
Albania	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0	0.8	1.0	2.6	12.8	21.6	22.6	24.9
Andorra	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.7	0.0	0.0	0.0	0.0	1.5	0.0
Belarus	25.8	10.7	26.7	17.6	17.8	18.6	24.3	31.8	45.5	28.8	35.8	34.2	30.3	31.9	51.9
Bosnia and Herzegovina	0.5	0.0	0.5	1.2	3.7	4.3	12.3	12.8	29.0	47.7	53.2	65.1	70.1	39.6	59.0
Iceland	1.7	4.3	2.1	1.8	5.7	9.5	20.4	16.1	21.4	32.2	46.8	36.4	46.8	57.3	38.5
Kosovo	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.5	2.5	4.0	3.5	3.4	9.9	5.4	7.3
Liechtenstein	0.5	0.6	0.0	0.5	0.3	1.5	0.5	1.2	1.5	4.0	2.8	3.4	3.0	4.7	1.7
Macedonia	3.9	11.3	10.1	11.4	14.9	22.3	19.3	16.5	30.3	44.3	62.1	68.3	102.8	84.9	90.2
Moldova	0.0	0.0	0.0	0.5	4.1	3.6	5.5	6.7	3.0	4.7	5.1	7.8	4.6	8.7	15.6
Monaco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2	0.0	0.3	0.0	0.5	0.0	0.0
Montenegro	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.5	1.5	4.1	2.5	12.8	12.0	4.8	29.3
Norway	69.3	73.0	94.5	86.1	203.5	268.7	417.7	508.4	539.0	608.3	718.7	777.5	685.0	792.7	768.6
Russia	157.9	203.4	205.9	205.4	289.7	253.2	531.2	494.3	632.6	547.5	681.6	748.9	808.0	788.1	1,129.6
San Marino	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.2	0.0	0.0	0.3	0.2
Serbia	45.4	54.1	52.1	40.3	38.0	48.9	59.9	62.3	128.9	163.8	248.3	306.7	327.7	372.8	351.0
Serbia and Montenegro	1.7	0.1	0.0	0.0	0.3	4.3	6.3	4.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Switzerland	235.1	286.0	321.2	354.4	611.6	831.8	1,063.0	1,198.7	1,275.3	1,324.7	1,448.4	1,522.4	1,531.3	1,601.6	1,644.4
Ukraine	189.8	197.3	168.3	79.2	136.2	36.9	122.3	371.7	235.4	362.9	315.8	240.7	236.7	555.3	350.4
Vatican City	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yugoslavia	3.8	3.3	2.3	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle East	573.8	632.3	675.0	726.4	1,219.1	1,673.7	2,162.5	2,756.5	3,288.0	4,289.3	5,487.0	6,826.5	7,360.3	5,792.6	5,892.7

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bahrain	0.5	0.0	3.3	1.0	4.0	2.6	6.8	7.0	12.5	15.2	18.9	30.1	21.9	23.0	21.0
Gaza	0.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	4.3	2.3	6.5	4.1	9.7	10.2
Iran	16.5	38.0	48.8	77.7	135.3	281.6	475.6	580.0	967.4	1,603.1	2,234.8	2,824.1	3,070.5	1,856.1	1,919.4
Iraq	1.0	2.8	4.0	0.5	16.5	0.0	1.0	18.0	9.3	15.3	31.1	52.6	84.6	64.0	53.5
Israel	394.0	364.7	435.8	427.4	616.9	800.8	885.7	1,040.3	1,040.5	1,109.1	1,082.3	1,083.9	1,069.0	1,334.9	1,135.6
Jordan	8.1	16.0	15.0	14.8	36.4	39.5	58.6	79.0	100.6	175.0	172.3	265.7	221.5	206.3	204.4
Kuwait	29.2	24.1	20.1	21.5	19.4	23.3	44.9	48.2	53.6	50.5	99.9	88.2	92.4	76.8	77.3
Lebanon	6.5	14.4	7.4	10.8	21.8	32.8	48.5	61.9	66.5	56.1	86.0	94.3	114.9	129.1	99.1
Oman	2.9	6.1	4.0	9.2	15.6	16.7	15.9	23.4	26.6	30.9	54.0	44.8	53.4	56.1	49.5
Qatar	0.2	1.0	1.8	1.0	4.2	5.5	4.3	7.2	11.4	30.1	24.4	37.9	50.4	86.7	129.2
Saudi Arabia	36.0	38.0	31.3	35.8	48.4	54.2	60.8	87.9	108.6	180.5	270.2	402.9	491.9	515.8	685.8
Syria	0.0	0.8	0.0	0.5	0.3	1.0	3.0	7.1	7.5	5.9	14.1	9.0	7.8	6.9	10.7
Turkey	71.2	113.8	94.9	105.6	259.5	360.5	472.6	661.6	765.8	851.8	1,209.7	1,665.3	1,802.3	1,170.5	1,209.2
United Arab Emirates	6.8	11.6	6.6	18.8	38.4	53.6	80.6	124.1	113.1	154.8	176.1	203.7	254.5	240.9	266.9
West Bank	0.0	1.0	2.0	1.0	2.5	0.0	2.0	7.1	3.3	5.7	5.0	8.5	7.1	11.3	11.4
Yemen	1.0	0.0	0.0	0.0	0.0	0.7	1.3	2.8	0.3	1.0	6.1	8.9	13.9	4.6	9.5
Africa	149.0	207.3	191.0	270.7	273.4	333.2	617.3	863.9	1,033.2	1,414.3	1,880.5	2,331.0	2,396.3	2,795.1	2,954.4
Algeria	12.5	8.7	17.3	37.9	43.0	55.9	111.1	195.9	207.5	216.2	346.8	358.2	457.7	551.2	548.8
Angola	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.3	0.6
Benin	0.0	0.2	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.3	2.1	3.8	0.4	3.7	2.8
Botswana	0.0	0.0	2.0	0.0	1.3	0.6	1.2	3.8	3.1	8.6	6.0	7.8	16.5	7.3	4.0
Burkina Faso	0.0	0.8	0.0	0.0	0.0	0.3	1.5	1.3	1.5	1.6	0.6	0.9	0.9	0.9	0.3
Burundi	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
Cameroon	0.3	1.1	0.0	0.3	3.5	2.0	8.0	2.1	2.4	7.0	8.0	11.6	11.1	15.2	13.5

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cape Verde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.5	0.0	0.7	0.0	0.5
Central African Republic	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	0.0
Chad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.0	0.0	0.0	0.6	0.3
Comoros	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
Congo (Brazzaville)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.2	0.0
Congo (Kinshasa)	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	1.0
Côte d'Ivoire	0.0	0.0	0.0	0.0	0.5	0.0	0.7	0.0	1.0	4.5	0.0	2.8	5.0	2.8	0.6
Djibouti	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	0.1	0.3
Egypt	48.8	64.2	55.2	52.1	74.8	86.1	169.8	205.0	274.0	316.5	468.0	561.5	513.6	554.3	528.6
Equatorial Guinea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Eritrea	0.0	0.0	0.0	0.0	0.3	0.0	1.0	0.0	10.0	1.0	0.2	1.5	3.3	0.0	0.0
Ethiopia	0.0	0.0	0.0	0.0	0.0	0.3	1.8	3.1	1.8	3.3	6.7	16.8	6.9	31.1	7.3
Gabon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.0	0.0	0.3	0.0
Gambia	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	1.0
Ghana	0.0	0.3	0.0	0.0	0.0	0.0	0.3	2.1	3.1	9.0	8.7	8.6	7.4	4.4	14.8
Guinea	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Guinea-Bissau	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
Kenya	0.0	0.5	0.0	1.0	1.0	0.0	2.7	0.7	5.6	5.3	8.9	14.4	15.8	9.9	28.6
Lesotho	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.2
Liberia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.5	0.0	0.7	1.1	0.0
Libya	1.0	1.8	1.0	0.5	0.0	1.3	1.0	3.3	4.8	13.3	32.8	53.7	15.1	16.2	25.4
Madagascar	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.3	1.4	0.3	0.3	1.9	4.5	5.6
Malawi	0.0	0.0	0.0	0.0	0.0	0.5	1.3	0.0	0.0	0.6	0.0	3.7	3.7	3.3	0.7

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Mali	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.3	0.1	0.8	0.9	1.3
Mauritania	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Mauritius	5.0	8.4	3.0	2.3	3.7	7.8	5.7	10.3	8.5	10.3	12.0	26.3	10.3	14.3	18.7
Morocco	21.5	25.0	16.0	10.6	17.0	15.5	27.3	39.1	34.5	77.8	157.5	179.9	283.9	384.4	395.2
Mozambique	0.0	0.0	0.0	0.0	1.0	0.3	0.0	0.7	0.0	0.6	0.9	2.6	1.3	0.6	1.7
Namibia	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.3	1.3	1.0	2.0	5.6	6.1	8.3	7.7
Niger	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Nigeria	9.7	6.3	5.0	9.6	8.8	9.4	19.1	9.8	20.4	96.4	93.0	116.1	140.6	98.6	97.2
Rwanda	0.0	0.0	0.0	0.0	0.5	0.0	0.2	2.0	1.0	3.5	1.5	3.7	1.5	1.2	2.2
São Tomé and Príncipe	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	1.0
Senegal	0.0	2.0	0.0	0.1	0.0	0.2	2.3	2.0	4.3	3.0	8.1	8.6	12.5	16.7	7.7
Seychelles	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
Sierra Leone	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
Somalia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
South Africa	23.7	54.7	72.3	56.5	79.5	94.0	120.9	195.4	225.4	312.3	290.3	434.4	378.4	404.2	529.9
Sudan	0.0	0.3	0.0	0.0	0.5	0.0	1.0	2.5	0.9	9.0	8.5	15.3	15.9	18.5	20.7
Swaziland	0.0	0.0	1.0	1.5	1.3	0.0	0.0	0.0	1.0	2.5	2.1	0.5	0.8	0.8	1.8
Tanzania	0.2	0.0	0.0	0.0	0.0	1.0	0.0	3.3	0.5	4.4	6.5	8.4	11.7	9.7	6.2
Togo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.1	1.7	0.0	0.0	0.6
Tunisia	25.3	32.0	15.8	97.1	33.9	56.3	134.6	174.2	209.3	287.8	393.2	455.6	439.8	602.8	650.0
Uganda	0.0	0.0	2.0	1.0	0.8	1.0	0.5	3.0	8.6	14.4	7.8	20.0	26.4	21.4	17.3
Zambia	0.0	0.0	0.0	0.0	1.0	0.3	0.0	0.5	0.6	0.0	0.0	3.9	1.8	0.6	3.2
Zimbabwe	1.0	1.0	0.5	0.0	1.0	0.0	1.8	0.3	1.3	1.0	1.0	0.8	1.9	4.9	3.2
Asia	5,751.7	6,530.7	7,512.8	8,163.6	11,613.9	22,298.7	31,861.2	36,066.3	41,217.1	52,115.2	69,490.6	83,877.9	77,552.5	81,156.4	71,230.5



# National Science Board | Science & Engineering Indicators 2016

Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Afghanistan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.2	0.0	1.5	1.2	0.0	1.0
Armenia	0.5	5.0	1.0	2.0	3.8	10.1	6.3	8.0	8.8	6.8	9.5	17.9	18.2	9.4	43.2
Azerbaijan	3.0	5.7	5.3	5.5	9.0	7.0	18.8	15.4	19.8	27.8	81.5	46.5	81.1	178.3	52.4
Bangladesh	2.2	5.0	2.3	4.3	14.8	27.3	34.0	35.0	124.1	161.4	200.0	180.4	214.5	352.5	137.5
Bhutan	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.0	0.8	0.7	0.0	0.5	1.0	0.0
Brunei	1.0	2.0	0.3	0.3	0.3	0.2	1.0	0.0	1.0	1.5	2.6	0.6	3.0	8.5	8.4
Burma	0.0	0.0	0.0	0.0	0.3	0.0	31.9	5.3	6.3	21.8	48.5	29.3	48.0	4.1	2.7
Cambodia	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.4	0.7	1.2	0.0	0.0	0.2	0.0
China	1,160.9	1,586.3	2,614.1	3,033.4	4,005.0	9,845.0	16,079.2	18,806.2	21,314.4	29,431.1	43,656.4	53,449.5	44,647.2	47,915.9	37,484.7
Georgia	2.1	1.5	1.4	2.0	5.6	4.3	13.4	7.7	7.6	5.1	16.4	16.8	23.6	36.2	17.1
India	363.9	392.5	358.1	401.2	594.3	1,098.6	1,431.7	1,898.0	2,854.8	3,645.8	4,394.2	6,680.1	8,262.6	9,174.5	9,668.6
Indonesia	0.6	3.5	2.6	2.4	7.5	8.8	22.7	27.7	23.6	65.0	102.5	227.4	254.2	227.9	528.4
Japan	2,423.8	2,452.3	2,293.0	2,352.6	3,084.2	4,893.0	5,693.9	5,625.5	6,353.0	6,950.4	7,651.3	7,950.0	7,919.2	8,190.5	8,303.9
Kazakhstan	0.0	0.0	1.0	0.0	2.5	3.3	2.3	3.2	2.3	5.7	4.8	12.1	27.3	31.1	42.9
Kyrgyzstan	0.0	0.0	0.0	0.0	1.0	0.3	0.3	0.0	1.0	0.7	2.3	0.0	2.8	4.0	2.0
Laos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.0	0.6	0.0	0.1
Malaysia	34.6	30.6	49.7	54.8	107.6	178.5	215.0	339.5	511.1	1,064.5	1,538.1	2,409.2	2,714.1	1,696.7	1,953.5
Maldives	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0
Mongolia	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	55.3	6.6	6.6	2.9	5.0	4.9	3.6
Nepal	0.0	0.0	0.0	0.0	0.0	0.8	1.9	1.1	9.7	9.8	3.4	3.4	1.5	5.5	0.0
North Korea	0.7	2.0	4.4	2.9	1.0	7.5	11.8	23.6	9.0	12.0	15.4	0.1	0.7	1.8	0.2
Pakistan	8.9	7.7	4.8	7.0	12.8	97.8	273.2	216.0	286.1	393.2	576.6	727.0	520.1	501.7	578.0
Philippines	2.3	1.0	3.8	2.5	5.9	6.5	16.7	9.4	12.5	28.2	25.5	49.5	61.2	34.9	48.4
Singapore	259.8	354.5	379.2	509.1	601.2	1,171.0	1,131.3	1,246.7	1,164.3	1,161.7	1,199.9	1,498.2	1,426.8	1,613.5	1,614.0
South Korea	677.9	738.8	793.6	752.2	1,787.1	2,766.0	3,747.2	4,275.1	4,423.7	4,219.3	4,178.1	4,439.2	5,002.7	5,340.1	5,437.1



Region/country/economy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sri Lanka	0.0	0.1	0.0	3.0	1.3	2.6	14.1	42.6	22.6	93.2	26.3	86.4	57.9	81.6	190.2
Taiwan	774.5	915.2	936.2	959.2	1,276.6	1,995.8	2,887.1	3,147.2	3,630.2	4,276.9	5,040.2	5,017.1	5,399.2	4,835.3	4,168.3
Tajikistan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Thailand	22.1	25.2	53.9	62.0	86.3	155.6	205.5	291.4	299.0	429.8	557.2	817.0	644.9	592.6	594.3
Turkmenistan	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.5	1.4	2.1	0.3
Uzbekistan	1.5	1.0	1.5	2.0	0.0	1.0	1.0	2.3	2.1	5.9	8.3	8.3	7.9	7.8	8.3
Vietnam	11.1	1.0	6.5	5.2	5.0	18.1	17.8	36.8	71.5	87.8	142.0	206.8	204.9	303.5	341.3
Australia/Oceania	611.9	650.7	758.1	787.1	1,561.7	2,243.7	3,189.7	3,119.0	3,604.9	3,678.0	3,656.2	4,000.1	3,639.7	3,592.8	3,927.7
Australia	544.9	569.2	634.8	660.9	1,356.6	1,943.6	2,824.5	2,686.7	3,170.2	3,096.9	3,132.9	3,468.2	3,071.9	3,008.8	3,314.4
Cook Islands	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
Fiji	0.0	0.0	1.0	1.0	0.3	2.3	1.5	4.3	7.6	6.0	5.3	7.4	2.2	3.7	13.2
Kiribati	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
Marshall Islands	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
Micronesia	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0
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	66.0	80.6	122.3	124.7	204.8	297.9	362.6	427.0	426.1	571.8	517.0	523.9	564.4	579.3	599.8
Niue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Palau	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
Papua New Guinea	1.0	1.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.8	0.0	0.7	1.3	1.0	0.0
Samoa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	0.3	0.0	0.0	0.0	0.3
Solomon Islands	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
Tonga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Tuvalu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Vanuatu	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unassigned	308.8	343.9	204.7	226.6	282.4	258.9	511.8	896.5	1,564.9	1,259.1	626.9	428.4	349.9	279.7	231.7



EU = European Union.

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