

Over one million people drive across the Confederation Bridge to visit Prince Edward Island every year. At 12.9 kilometres, it is the longest bridge over ice-covered waters in the world.



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The state of island economies and development in 2019

This represents the third year that the Institute of Island Studies at the University of Prince Edward Island, Canada, has compiled and presented these data on island states and territories. If you have not yet read the two earlier Annual Reports, we would encourage you to do so (Randall, 2018; 2019). Many of the general patterns, including the diversity of islands, their capacity for development, and the challenges they face, are discussed in these earlier Reports and will not be repeated here. Rather, this chapter will focus on any significant numerical changes from the earlier statistical Reports and provide the reader with a background on how these characteristics may fit within the literature associated with the field of Island Studies.

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A D A M
B R I M A C O M B E

SECTION 1: ISLAND STATES

When the United Nations (UN) was formed in 1945, only 6 of the original 51 members were islands. This constituted just less than 12% of the UN's membership at the time. By 2019 the UN consisted of 193 members, 45 of which were island states, representing over 23% of the membership of this international organization. By this measure alone, islands have increased the likelihood that they may have more influence over international decisions. We have seen island state groups, such as the Alliance of Small Island States (AOSIS), express that influence at major international conferences on climate change and sustainable development.

Population growth and population density, as reflected in Table 1.1, are often contentious measures of development in any jurisdiction. All other things being equal, greater numbers of people means greater consumption and production and more influence on the world stage. At the same time, it is just as important to assess the carrying capacities of those islands as well as how they use their assets to develop their islands, while providing a high quality of life for their citizens. So, for example, Singapore is a relatively tiny island as measured by areal extent but it is able to provide for almost six million people, largely because of its success in international trade and investment that uses the skills and human capital of its people. Compared to Singapore's population density of 7,953 people per km², Iceland has a density of only four people per km². However, Iceland's population is still highly urbanized, being concentrated in a few larger urban places like Reykjavík located around the coastline of the island. Although Sri Lanka has a population of over 22 million, it is a more agrarian society and its carrying capacity must reflect this difference.

TABLE 1.1: Population, Population Density, and Average Annual Population Growth Rate, 2010 to 2018

Continent	Island Country	Population (people) 2018	Population density (people /km ²) 2018	Growth Rate % 2010–2018
Asia	Japan	126,168,156	347	-0.2
	Singapore	5,995,991	7953	1.8
	Indonesia	262,787,403	148	0.8
	Timor-Leste	1,321,929	85	2.3
	Brunei Darussalam	450,565	81	1.6
	Philippines	105,893,381	358	1.6
	Sri Lanka	22,576,592	346	0.7
	Maldives	392,473	1719	-0.1
	Bahrain	1,442,659	2017	2.2

Continent	Island Country	Population (people) 2018	Population density (people /km ²) 2018	Growth Rate % 2010–2018
Europe	Cyprus	1,237,088	129	1.3
	Iceland	343,518	4	1.1
	United Kingdom	65,105,246	275	0.5
	Ireland	5,068,050	70	1.1
	Malta	449,043	1511	1.0
Africa	Cabo Verde	568,373	135	1.3
	Madagascar	25,683,610	45	2.5
	Seychelles	94,633	210	0.7
	Mauritius	1,364,283	623	0.6
	Comoros	821,164	447	1.6
	São Tomé and Príncipe	204,454	220	1.7
Oceania	New Zealand	4,545,627	19	0.8
	Papua New Guinea	7,027,332	19	1.7
	Solomon Islands	660,121	23	1.9
	Vanuatu	288,037	24	1.8
	Fiji	926,276	48	0.6
	Tonga	106,398	143	-0.1
	Samoa	201,316	69	0.6
	Nauru	9,692	635	0.5
	Micronesia, Fed. States	103,643	161	-0.6
	Marshall Islands	75,684	325	1.5
	Kiribati	109,367	143	1.1
	Tuvalu	11,147	384	0.9
	Palau	21,516	39	0.4
	Cook Islands	9,038	–	-2.7
		Niue	1618 (2017)	–
Caribbean/ Americas	Cuba	11,116,396	109	-0.3
	Haiti	10,788,440	404	1.3
	Dominican Republic	10,298,756	220	1.0
	Jamaica	2,812,090	271	-0.1
	Bahamas, The	332,634	39	0.8
	St. Kitts and Nevis	53,094	202	0.7
	Antigua and Barbuda	95,882	219	1.2
	St. Vincent and the Grenadines	101,844	283	-0.2
	St. Lucia	165,510	298	0.3
	Grenada	112,207	328	0.4
	Barbados	293,131	667	0.3
	Trinidad and Tobago	1,215,527	271	-0.2
	Dominica	74,027	96	0.2

We also have to be cautious about the population figures presented here. As static measures they may fail to capture the dynamism that is associated with the movement of people. For example, the populations of many of the island states in Oceania move back and forth from their island homes to second and temporary homes in New Zealand, Australia, and the US. So when you include the mobility of this island diaspora and the population churn that takes place seasonally, annually, and intermittently, defining a jurisdiction's population becomes more complex. Moreover, as a result of their Exclusive Economic Zones that encompass vast marine areas around archipelagos, it is misleading to think of carrying capacities being based solely on islands' total land areas. In fact, reflecting this larger terrestrial and marine environment, many of these islands no longer refer to themselves as small island states but instead describe themselves as large ocean states.

The comments above could also easily apply to the figures presented in Tables 1.2 and 1.3 and Figure 1.1. The only difference is that life expectancy at birth and the share of the population living in cities are normally fairly accurate indicators of the broader social development of jurisdictions. Health and social systems that are well developed, such as is the case in Japan and Iceland, allow people to live longer. At the other extreme, health infrastructures that are underfunded and underdeveloped lead to poor health outcomes, including lower life expectancies.

TABLE 1.2: Crude Birth Rate, Crude Death Rate, and Life Expectancy at Birth, 2018

Continent	Island Country	Crude Birth Rate/1000	Crude Death Rate/1000	Life Expectancy at Birth
Asia	Japan	7.5	9.9	85.5
	Singapore	8.7	3.5	85.5
	Indonesia	15.9	6.5	73.2
	Timor-Leste	32.9	5.8	68.7
	Philippines	23.4	6.1	69.6
	Sri Lanka	14.8	6.3	77.1
	Maldives	16.1	4.0	76.0
	Bahrain	13.1	2.8	79.1
Europe	Cyprus	11.2	6.8	79.1
	Iceland	13.6	6.5	83.1
	United Kingdom	12.0	9.4	80.9
	Ireland	13.8	6.6	81.0
	Malta	10.0	7.9	82.7

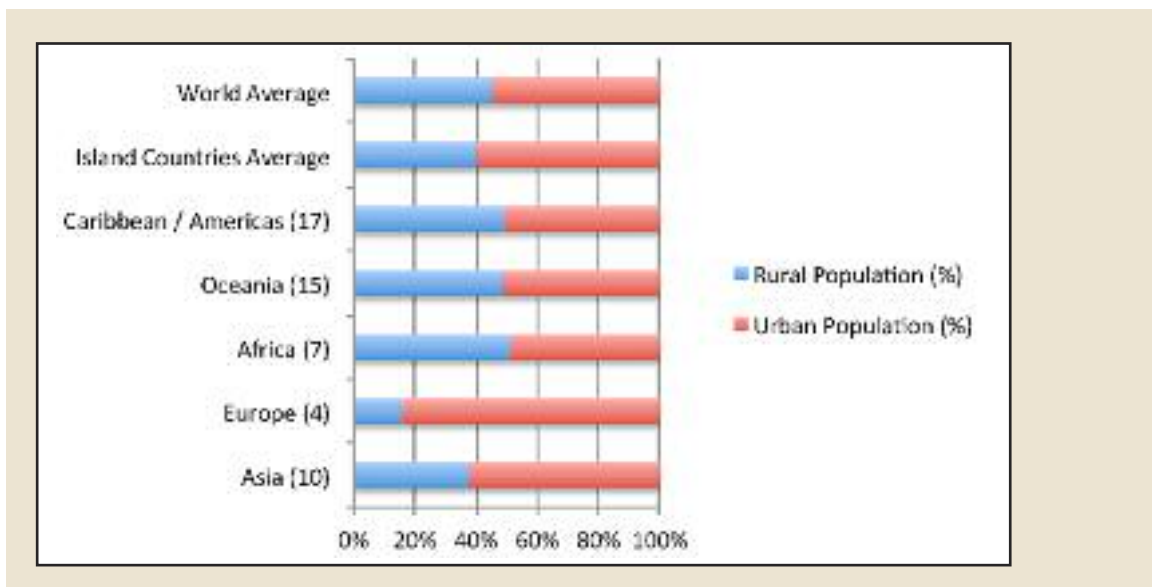
Continent	Island Country	Crude Birth Rate/1000	Crude Death Rate/1000	Life Expectancy at Birth
Africa	Cabo Verde	19.7	6.0	72.7
	Madagascar	31.0	6.4	66.6
	Seychelles	13.4	7.0	75.2
	Mauritius	12.8	7.1	76.0
	Comoros	25.3	7.1	64.9
	São Tomé and Príncipe	31.5	6.7	65.7
Oceania	New Zealand	13.1	7.6	81.4
	Papua New Guinea	23.3	6.6	67.5
	Solomon Islands	24.5	3.8	75.8
	Vanuatu	24	4.0	74.0
	Fiji	18.2	6.2	73.2
	Tonga	21.8	4.9	76.6
	Samoa	20.2	5.4	74.2
	Nauru	23.2	5.9	67.8
	Micronesia, Fed. States	19.6	4.2	73.4
	Marshall Islands	23.8	4.2	73.6
	Kiribati	21.0	7.0	66.9
	Tuvalu	23.7	8.4	67.2
	Palau	11.3	8.2	73.6
	Cook Islands	13.7	8.6	76.2
	Niue	-	-	-
Caribbean/ Americas	Cuba	10.6	8.9	78.9
	Haiti	22.6	7.5	64.6
	Dominican Republic	18.9	6.4	71.3
	Jamaica	16.5	7.6	74.5
	Bahamas, The	15.1	7.3	72.9
	St. Kitts and Nevis	13.0	7.2	76.2
	Antigua and Barbuda	15.6	5.8	76.9
	St. Vincent and the Grenadines	13.0	7.4	75.8
	St. Lucia	13.1	7.8	78.1
	Grenada	15.2	8.2	74.8
	Barbados	11.6	8.6	75.7
Trinidad and Tobago	12.3	8.9	73.4	
Dominica	15.0	7.9	77.4	

TABLE 1.3: Percentage of Rural and Urban Populations, 2015 and 2019

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2019	2015	2019
Asia	Japan	6.5	8.4	93.5	91.7
	Singapore	0	0	100	100
	Indonesia	46.3	44.7	53.7	56.0
	Timor-Leste	67.2	69.4	32.8	30.9
	Brunei Darussalam	22.8	22.4	77.2	77.9
	Philippines	55.6	53.1	44.4	47.1
	Sri Lanka	81.6	81.5	18.4	18.6
	Maldives	54.5	60.2	45.5	40.2
	Bahrain	11.2	10.7	88.8	89.4
	Europe	Cyprus	33.1	33.2	66.9
	Iceland	5.9	6.2	94.1	93.9
	United Kingdom	17.4	16.6	82.6	83.7
	Ireland	36.8	36.8	63.2	63.4
	Malta	4.6	5.4	95.4	94.7
Africa	Cabo Verde	34.5	34.3	65.5	66.2
	Madagascar	64.9	62.8	35.1	37.9
	Seychelles	46.1	43.3	53.9	57.1
	Mauritius	60.3	59.2	39.7	40.8
	Comoros	71.7	71.0	28.3	29.2
	São Tomé and Príncipe	34.9	27.2	65.1	73.6
Oceania	New Zealand	13.7	13.5	86.3	86.6
	Papua New Guinea	87.0	86.8	13.0	13.2
	Solomon Islands	77.7	76.3	22.3	24.2
	Vanuatu	73.9	73.2	26.1	25.4
	Fiji	46.3	43.8	53.7	56.8
	Tonga	76.3	76.9	23.7	23.1
	Samoa	80.9	81.9	19.1	18.1
	Nauru	0	0	100.0	100.0
	Micronesia, Fed. Sts.	77.6	77.2	22.4	22.8
	Marshall Islands	27.3	22.6	72.7	77.4
	Kiribati	55.7	45.2	44.3	54.8
	Tuvalu	40.3	36.8	59.7	63.2
	Palau	12.9	19.5	87.1	80.5
	Cook Islands	25.0 (2014)	24.7	75.0 (2014)	75.3
	Niue	62.0 (2014)	54.5	38.0 (2014)	45.5

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2019	2015	2019
Caribbean/ Americas	Cuba	22.9	22.9	77.1	77.1
	Haiti	41.3	43.8	58.7	56.2
	Dominican Republic	21.1	18.2	78.9	81.8
	Jamaica	45.2	44.0	54.8	56.0
	Bahamas, The	17.1	16.9	82.9	83.1
	St. Kitts and Nevis	67.9	69.2	32.1	30.8
	Antigua and Barbuda	76.2	75.5	23.8	24.5
	St. Vincent and the Grenadines	49.4	47.4	50.6	52.6
	St. Lucia	81.5	81.2	18.5	18.8
	Grenada	64.4	63.6	35.6	36.4
	Barbados	68.4	68.8	31.6	31.2
	Trinidad and Tobago	91.5	46.8	8.5	53.2
	Dominica	30.5	29.2	69.5	70.8

FIGURE 1.1: Percentage of Rural and Urban Populations of Island Countries on Each Continent, 2017



There are exceptions to these broad generalizations. While we normally think of high levels of urbanization as a surrogate indicator of economic progress, many of the largest cities on islands, such as Malé in the Maldives, are growing because of the migration from outlying islands of people who are no longer able to sustain themselves and are looking for opportunities for themselves and their children in the larger cities in their archipelagos. This often results in the growth of slums or shanty towns, low levels of formal employment, inadequate public health and education services in the destination cities, and a hollowing out of the outlying islands.

Tables 1.4 and 1.5 provide the standard measures of economic production and growth, Gross Domestic Product (GDP) and Gross National Income (GNI). They are provided in aggregate so that the reader can see the absolute size of the island economies. They are also standardized by taking account of their populations (i.e., per capita) in order to provide a rough comparison across different jurisdictions. Despite their apparent vulnerabilities, many island states have consistently performed well across the standard economic indicators compared to mainland states of similar size.

TABLE 1.4: Gross Domestic Product (GDP) and Change in GDP; Per Capita GDP and Change in GDP/capita, 2018

Continent	Island Country	GDP 2018 in millions of USD (World Bank)	Growth Rate of GDP % (World Bank)	GDP per capita 2018 in USD (CIA)	Growth Rate of GDP per capita % (World Bank)
Asia	Japan	4,970,916	0.8	42,900	1.0
	Singapore	364,157	3.1	94,100	2.7
	Indonesia	1,042,173	5.2	12,400	4.0
	Timor-Leste	2,581	3	6,000	0.8
	Brunei Darussalam	13,567	0.1	78,900	-1.0
	Philippines	330,910	6.2	8,400	4.8
	Sri Lanka	88,901	3.2	12,900	2.1
	Maldives	5272.29	6.1	19,200	2.1
	Bahrain	37,746	1.8	49,000	-3.1
	Europe	Cyprus	24,470	3.9	37,200
Iceland		25882	4.6	52,200	1.6
United Kingdom		2,825,208	1.4	44,300	0.7
Ireland		382,487	8.2	73,200	7.1
Malta		14,542	6.6	41,900	3.1
Africa	Cabo Verde	1,987	5.5	7,000	4.3
	Madagascar	12,100	5.2	1,600	2.4
	Seychelles	1,590	3.6	29,300	2.6
	Mauritius	14,220	3.8	22,300	3.7
	Comoros	1203	2.8	1,600	0.5
	São Tomé and Príncipe	422	2.7	3,200	0.7

Continent	Island Country	GDP 2018 in millions of USD (World Bank)	Growth Rate of GDP % (World Bank)	GDP per capita 2018 in USD (CIA)	Growth Rate of GDP per capita % (World Bank)
Oceania	New Zealand	205,025	2.8	39,000	0.9
	Papua New Guinea	23,432	0.4	3,700	-1.5
	Solomon Islands	1,412	3.4	2,200	0.7
	Vanuatu	888	3.2	2,700	0.7
	Fiji	5,480	5.0	9,800	4.3
	Tonga	450	0.3	5,900	-0.9
	Samoa	861	0.7	5,700	0.3
	Nauru	115	-3.5	12,300	-2.2
	Micronesia, Fed. Sts.	345	1.4	3,400	0.3
	Marshall Islands	212	2.5	3,600	1.9
	Kiribati	188	2.0	2,000	0.5
	Tuvalu	43	2.5	3,800	1.3
	Palau	310	5	14,700	4.4
	Cook Islands	-	-	16,700(2016)	-
Niue	-	-	5,800 (2003)	-	
Caribbean/	Cuba	96,851.00 (2017)	1.8 (2017)	12,300 (2016)	1.7 (2017)
Americas	Haiti	9,658	1.5	1,800	0.2
	Dominican Republic	81,299	7.0	17,000	5.8
	Jamaica	15,718	1.9	9,200	1.4
	Bahamas, The	12,162	1.4 (2017)	32,400	0.4 (2017)
	St. Kitts and Nevis	1040	3.0	28,200	2.2
	Antigua and Barbuda	1,624	4.9	26,400	4.0
	St. Vincent and the Grenadines	813	2.6	11,500	2.2
	St. Lucia	1,876	0.6	14,400	0.1
	Grenada	1,207	4.8	15,100	4.3
	Barbados	4,673.50 (2017)	1.0 (2017)	18,600	0.8
	Trinidad and Tobago	23,410	0.7	31,300	0.3
Dominica	504	0.5	11,000	0.3	

TABLE 1.5: Gross National Income (GNI) per Capita, 2018

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (International \$) (World Bank)
Asia	Japan	44,420
	Singapore	94,500
	Indonesia	12,650
	Timor-Leste	6,990
	Brunei Darussalam	85,790
	Philippines	10,720
	Sri Lanka	13,090
	Maldives	14,120
	Bahrain	44,620
	Europe	Cyprus
Iceland		55,190
United Kingdom		44,930
Ireland		65,290
Malta		38,940
Africa	Cabo Verde	7,330
	Madagascar	1,580
	Seychelles	29,070
	Mauritius	26,030
	Comoros	2,730
	São Tomé and Príncipe	3,430
Oceania	New Zealand	39,590
	Papua New Guinea	4,150
	Solomon Islands	2,280
	Vanuatu	3,160
	Fiji	10,250
	Tonga	6,510
	Samoa	6,620
	Nauru	19,480
	Micronesia, Fed. Sts.	4,160
	Marshall Islands	5,290
	Kiribati	4,410
	Tuvalu	6,090
	Palau	18,820
Cook Islands	N/a	
Niue	N/a	

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (international \$) (World Bank)
Caribbean/ Americas	Cuba	N/A
	Haiti	1,870
	Dominican Republic	16,960
	Jamaica	8,930
	Bahamas, The	30,920 (2017)
	St. Kitts and Nevis	30,120
	Antigua and Barbuda	25,160
	St. Vincent and the Grenadines	13,210
	St. Lucia	12,970
	Grenada	14,270
	Barbados	17,640
	Trinidad and Tobago	32,060
	Dominica	10,680

Gross National Income is provided because several characteristics associated with island economies may make this economic measure more appropriate than the more traditional Gross Domestic Product. First, GNI includes the spending by foreigners if they are in the country but not if they are outside the country. This is especially important for places that have a large tourism sector. Second, unlike the GDP, the GNI includes spending by residents who are out of the country if these funds are remitted back to the country. This is especially important for islands with large diasporas. As we already know, remittances can sometimes form a key component of overall island revenue. In places such as Haiti and Jamaica, remittances are greater than the total revenues from development assistance (Minto-Coy, Elo, & Chrysostome, 2019). The Polynesian region of the Pacific is one of the most remittance-dependent areas of the world—understandable given that there are an estimated 850,000 Polynesians of ethnic ancestry living abroad, more than the total living on the islands themselves (Connell, 2015). There are at least two advantages of the MIRAB (Migration, Remittances, Aid, and Bureaucracy) approach to economic development. First, revenue from aid and remittances has been remarkably stable over a long period. Second, unlike most aid from external institutions that is devoted to large infrastructure projects, remittances are micro-oriented. These funds are sent directly to the families and local communities, who make consumption decisions they feel are in their own best interests (Bertram, 1999).

TABLE 1.6: Labour Force, Participation Rate, and Unemployment Rate, 2018

Continent	Island Country	Labour Force est. (2018)	Force Participation Rate % (World Bank)	Unemployment Rate % est. (2018)
Asia	Japan	66,801,000	78	2.9
	Singapore	3,409,000	76	2.2
	Indonesia	133,950,000	69	5.4
	Timor-Leste	315,000	40	4.4 (2014)
	Philippines	45,049,000	62	5.7
	Sri Lanka	8,648,000	57	4.4
	Maldives	279,000	68	2.9
	Bahrain	977,000	75	3.6
Europe	Cyprus	619,000	73	11.1
	Iceland	217,000	88	2.8
	United Kingdom	34,281,000	78	4.4
	Ireland	2,357,000	73	6.7
	Malta	227,000	70	4.4
Africa	Cabo Verde	273,000	73	9.0
	Madagascar	13,911	88	1.8
	Seychelles	39,560 (2006)	–	3.0
	Mauritius	608,000	66	7.1
	Comoros	229,000	45	6.5 (2014)
	São Tomé and Príncipe	74,000	62	12.2
Oceania	New Zealand	2,771,000	81	4.7
	Papua New Guinea	2,640,000	48	2.5 (2017)
	Solomon Islands	286,000	72	N/a
	Vanuatu	130,000	71	1.7 (1999)
	Fiji	360,000	60	4.5
	Tonga	41,000	61	1.1 (2011)
	Samoa	38,000	33	N/a
	Cook Islands	5,774 (2011)	71 (2011)	13.1 (2005)
	Niue	663 (2001)	–	12.0 (2001)
Caribbean	Cuba	5,089,000	64	2.6
Americas	Haiti	5,151,000	69	40.6 (2010)
	Dominican Republic	4,977,000	68	5.1
	Jamaica	1,515,000	73	12.2
	Bahamas, The	226,000	82	10.1

Continent	Island Country	Labour Force est. (2018)	Force Participation Rate % (World Bank)	Unemployment Rate % est. (2018)
	St. Kitts and Nevis	18,170 (1995)	–	4.5 (1997)
	Antigua and Barbuda	30,000 (1991)	–	11.0 (2014)
	St. Vincent and the Grenadines	59,000	74	18.8 (2008)
	St. Lucia	101,000	75	20.0 (2003)
	Grenada	59,900 (2013)	–	24.0
	Barbados	155,000	78	10.1
	Trinidad and Tobago	669,000	68	4.9
	Dominica	25,000 (2007)	–	23.0 (2000)

The recorded unemployment rates for small island states (Table 1.6) are remarkably low historically and in comparison to other jurisdictions. Unfortunately, some of the highest rates are in the Caribbean islands. Although we have to be cautious about interpreting these statistics given the absence of recent data, this is problematic for this region. What we do know is that youth unemployment is even higher than presented in these overall statistics (Maharaj & Lewis-Bynoe, 2016). In the past, the Caribbean island region has experienced low export prices, increasing debt, shrinking investment, inflation, and rising unemployment brought on in part by the adoption of austerity programs (Deere et al., 1990). The global recession in 2008–09 did not help, and, as of 2015, many countries in the region were suffering from high debt load and low growth (McLean & Charles, 2018). Since 2017, several severe hurricanes in different parts of the Caribbean have adversely affected the tourism and agricultural sectors in a number of islands in the region, resulting in emigration and the loss of opportunities for those who have remained behind.

TABLE 1.7: Human Development Index, 2018

Island Country	Island Ranking	World Ranking	HDI Value
Ireland	1	3	0.942
Iceland	2	6	0.938
Singapore	3	9	0.935
New Zealand	4	14	0.921
United Kingdom	5	15	0.920
Japan	6	19	0.915
Malta	7	28	0.885
Cyprus	8	31	0.873
Brunei Darussalam	9	43	0.845
Bahrain	10	45	0.838
Palau	11	55	0.814
Barbados	12	56	0.813
Bahamas	13	60	0.805
Seychelles	14	62	0.801
Trinidad and Tobago	15	63	0.799
Mauritius	16	66	0.796
Sri Lanka	17	71	0.780
Cuba	18	72	0.778
St. Kitts and Nevis	19	73	0.777
Antigua and Barbuda	20	74	0.776
Grenada	21	78	0.763
St. Lucia	22/23 (tied)	89 (tied)	0.745
Dominican Republic	22/23 (tied)	89 (tied)	0.745
St. Vincent and the Grenadines	24	94	0.728
Jamaica	25	96	0.726
Fiji	26/27 (tied)	98 (tied)	0.724
Dominica	26/27 (tied)	98 (tied)	0.724
Maldives	28	104	0.719
Tonga	29	105	0.717

Island Country	Island Ranking	World Ranking	HDI Value
Philippines	30	106	0.712
Indonesia	31/32 (tied)	111 (tied)	0.707
Samoa	31/32 (tied)	111 (tied)	0.707
Marshall Islands	33	117	0.698
Cabo Verde	34	126	0.651
Timor-Leste	35	131	0.626
Kiribati	36	132	0.623
Micronesia, Fed. States	37	135	0.614
São Tomé and Príncipe	38	137	0.609
Vanuatu	39	141	0.597
Solomon Islands	40	153	0.557
Papua New Guinea	41	155	0.543
Comoros	42	156	0.538
Madagascar	43	162	0.521
Haiti	44	169	0.503

Very few changes have taken place in island states' Human Development Index (HDI) values from last year's Report. It must be re-emphasized that, despite development challenges, only 4 of the 46 island states listed in Table 1.7 are considered to have a Low HDI value (i.e., below 0.550). Moreover, the HDI may not adequately reflect the situation facing many Small Island Developing States (SIDS). HDIs measure current progress and are relatively crude measures of sustainability, and particularly the economic and environmental sustainability challenges facing small islands (Blancard & Hoarau, 2013). The HDI also does not show what some of the less conventional measures reveal: that islanders are often very satisfied with their own lives (Abdallah et al., 2009). As we have seen recently, unanticipated disasters precipitated by extreme weather events are especially problematic for the development of islands, especially if they rely extensively on tourism. It may be that a 'disaster risk' component needs to be built into composite indicators such as the HDI to more accurately reflect these possibilities and vulnerabilities (Mochizuki & Naqvi, 2019). The HDI and, for that matter, narrower macroeconomic indicators of development, also do not allow us to measure the degree of equity in the distribution of wealth or the consumption of public services. Urban elites tend to have greater access than the rural/outlying island poor to the three features associated with the HDI: educational opportunities, health services, and (government) jobs (Hassall, 2019).

TABLE 1.8: Consumer Price Index, Compared to Base Year of 2010

Continent	Island Country	2010	2015	2016	2017	2018
Asia	Japan	100	104	104	104	105
	Singapore	100	113	113	113	114
	Indonesia	100	132	137	142	147
	Timor-Leste	100	143	141	142	142
	Brunei Darussalam	100	100	102	99	99
	Philippines	100	116	120	120	127
	Sri Lanka	100	131	134	147	150
	Maldives	100	132	135	136	136
	Bahrain	100	111	114	115	118
Europe	Cyprus	100	102	100	101	102
	Iceland	100	118	120	122	125
	United Kingdom	100	112	113	116	118
	Ireland	100	105	105	105	106
	Malta	100	108	109	110	112
Africa	Cabo Verde	100	109	107	108	109
	Madagascar	100	140	-	-	-
	Seychelles	100	121	120	123	128
	Mauritius	100	120	121	125	129
	Comoros	100	98	-	-	-
	São Tomé and Príncipe	100	154	162	172	185
Oceania	New Zealand	100	108	109	111	112
	Papua New Guinea	100	128	136	144	-
	Solomon Islands	100	125	126	127	-
	Vanuatu	100	107	108	111	-
	Fiji	100	116	121	125	130
	Tonga	100	110	113	121	-
	Samoa	100	108	110	112	116
Caribbean/	Haiti	100	139	158	181	179
Americas	Dominican Republic	100	123	124	129	133
	Jamaica	100	141	144	151	156

Continent	Island Country	2010	2015	2016	2017	2018
	Bahamas, The	100	110	109	111	113
	St. Kitts and Nevis	100	106	105	106	105
	Antigua and Barbuda	100	110	110	112	114
	St. Vincent and the Grenadines	100	105	105	107	110
	St. Lucia	100	111	108	108	110
	Grenada	100	104	106	107	107
	Barbados	100	117	119	124	-
	Trinidad and Tobago	100	134	138	140	142
	Dominica	100	103	103	103	104

Table 1.8 shows that most islands in the developed world continue to show modest inflation, as reflected in the Consumer Price Index (CPI). Japan's CPI has increased by only 5% in eight years. Similarly low inflation continues for Ireland and, perhaps surprisingly, Grenada. Inflation also seems to have stabilized in many other developing island states, including the Maldives, Haiti, Timor-Leste, and Sri Lanka. This is not the case for places such as Sao Tome and Principe and the Philippines. Although SIDS are a diverse group, inflationary pressures tend to be greater among these small developing islands because of their small scale and dependency on products over which they have no price control, such as fossil fuels. Among developed islands, Iceland experienced rapid inflation following the global recession in 2008/09 but has since stabilized.

FIGURE 1.2: Gini Coefficients of National Incomes, various dates



Readers will recall from previous versions of this Report that the Gini Coefficient, as shown in Figure 1.2, is a numerical measure of the degree of equality in a jurisdiction, often using income to distinguish among income groups. Those islands with lower coefficients have a more equal distribution of income between the poor and the wealthy, while those islands with the highest Gini values have the greatest differences between the various income cohorts. Presumably, greater differences in the distribution of income also leads to inequalities in access to other opportunities. Although few of the values in this figure are recent, it is unlikely that these values change quickly. The lowest values are in developed economies such as Iceland, Japan, Ireland, and the United Kingdom. Ironically, by specializing in international finance, some islands exacerbate the inequality in other developed countries as high net worth individuals try to shield their income and assets from taxation in their home countries (Solimano, 2019).

**TABLE 1.9: Foreign Direct Investment, Net Current, 2018
(in 100 million USD)**

Continent	Island Country	2018 FDI Inflows	2018 FDI Outflows	Total FDI
Asia	Japan	9,858	160,449	170,307
	Singapore	77,646	24,682	102,328
	Indonesia	21,980	2,912	24,892
	Timor-Leste	48	0	48
	Philippines	6,456	1,614	8,070
	Sri Lanka	1,611	72	1,683
	Bahrain	1515	229	1744
Europe	Cyprus	6,343	1,332	7,675
	Iceland	-336	-85	-421
	United Kingdom	64,487	99,614	164,101
	Ireland	-66,346	18,614	-47,732
	Malta	4,061	-7,115	-3,054
Africa	Cabo Verde	100	-14	86
	Madagascar	349	-1	348
	Seychelles	124	6	130
	Mauritius	372	61	433
	Comoros	8	0	8
	São Tomé and Príncipe	17	0	17
Oceania	New Zealand	1,404	582	1,986
	Papua New Guinea	335	0	335
	Solomon Islands	12	6	18
	Vanuatu	38	1	39
	Fiji	344	-23	321
	Tonga	8	1	9
	Samoa	17	0	17
	Micronesia, Fed. Sts.	0	0	0
	Marshall Islands	-1	0	-1
	Kiribati	1	0	1
	Tuvalu	0.3	0	0.3
Palau	22	0	22	
Cook Islands	5	1,133	1,138	

Continent	Island Country	2018 FDI Inflows	2018 FDI Outflows	Total FDI
Caribbean/ Americas	Haiti	105	0	105
	Dominican Republic	2,535	0	2,535
	Jamaica	775	13	788
	Bahamas, The	943	119	1,062
	St. Kitts and Nevis	85	-1	84
	Antigua and Barbuda	116	9	125
	St. Vincent and the Grenadines	100	-5	95
	St. Lucia	135	13	148
	Grenada	127	15	142
	Barbados	195	34	229
	Trinidad and Tobago	-436	155	-281
	Dominica	-37	0	-37

Foreign Direct Investment (FDI) can play a crucial role in the economic development of jurisdictions, particularly in those places that are more remote (Feeny, Iam-siraroj, & McGillivray, 2014). Unfortunately, it appears that the relative flow of FDI to small islands tends to be low, in part because of their distance from major lenders, perceptions of poor governance, and openness to trade and development of human capital (Read, 2018; Yusheng et al., 2019). One of the key sectors for FDI on small islands is in tourism development, at least partly because this sector is so important on so many small islands. Unfortunately, there is often insufficient domestic capital for some of the infrastructure needed for mass tourism, including hotels, airports, transportation, and water systems. Although there are exceptions, SIDS also have been slow to put in place the policies that are necessary to take advantage of this FDI, including the supply chains to serve the hotels, the skills and training programs that might allow their citizens to participate more fully across a broader range of occupations, and encouraging domestic entrepreneurial activities (Barrowclough, 2007). The growing concern about the vulnerability of islands to the impacts of sea-level rise has also given pause to transnational corporations (TNC) that may have been considering investing in these low-lying coastal places (Farbotko, 2010).

TABLE 1.10: Rankings and Scores of Globalization Index, 2016

Island Country	Globalization Index				Economic globalization	Social globalization	Political globalization
	Island country ranking	World ranking	Score	Change in World ranking 2015-16			
United Kingdom	1	5	89.84	3 (8)	81.47	90.15	97.90
Ireland	2	17	84.47	-4	87.97	88.50	76.94
Singapore	3	20	83.62	3	94.00	88.42	68.43
Cyprus	4	35	79.14	3	84.28	86.45	66.69
Japan	5	37	78.59	-2	66.65	80.39	88.73
New Zealand	6	38	78.34	-6	70.28	86.89	77.85
Malta	7	39	77.79	-5	86.50	84.71	62.15
Mauritius	8	50	72.47	2	82.16	79.17	56.09
Iceland	9	53	72.34	-5	69.20	86.12	61.68
Bahrain	10	63	69.30	4	82.54	73.51	52.03
Philippines	11	72	67.41	2	57.48	61.79	82.96
Dominican Republic	12	73	67.35	13	56.91	71.76	73.37
Jamaica	13	77	66.21	-5	62.92	70.05	65.67
Trinidad and Tobago	14	79	65.69	-4	66.47	72.90	57.70
Brunei Darussalam	15	90	62.55	-8	66.80	71.22	50.30
Seychelles	16	91	62.50	-14	74.82	74.58	39.45
Indonesia	17	92	62.47	-9	48.10	52.02	87.28
Barbados	18	93	62.35	-	61.11	79.29	46.63
Cuba	19	94	62.15	4	-	49.25	79.43
Antigua and Barbuda	20	100	60.56	5	68.57	80.91	35.33
Sri Lanka	21	102	59.51	10	42.43	58.00	78.03
Fiji	22	107	58.13	-5	53.56	68.57	52.80
St. Lucia	23	108	57.16	7	65.29	74.37	37.58
Dominica	24	111	56.90	16	63.38	76.53	34.36
Cape Verde	25	112	56.78	25	57.43	66.71	47.52
Grenada	26	117	55.59	2	64.39	71.47	33.89
Bahamas	27	118	55.51	27	51.26	84.93	32.01
Samoa	28	134	52.98	-2	53.14	73.30	35.02
St. Vincent and the Grenadines	29	138	52.19	3	59.26	70.74	31.62
Papua New Guinea	30	140	51.94	-24	56.24	42.01	56.89
St. Kitts and Nevis	31	141	51.88	20	60.80	82.16	20.37
Vanuatu	32	148	50.70	-9	63.69	62.32	31.02
Tonga	33	149	50.52	2	59.38	71.85	25.85
Maldives	34	151	50.19	-13	62.25	70.25	21.90

Island Country	Globalization Index				Economic globalization	Social globalization	Political globalization
	Island country ranking	World ranking	Score	Change in World ranking 2015-16			
Madagascar	35	152	50.03	1	49.42	38.26	62.40
Micronesia	36	157	47.73	-4	72.25	66.45	14.14
Timor-Leste	37	162	47.50	-37	56.27	52.41	35.74
Kiribati	38	167	46.57	-2	69.24	61.77	15.43
Palau	39	168	46.35	-19	57.52	80.00	12.61
Haiti	40	169	46.24	-19	49.22	41.37	48.30
Marshall Islands	41	173	45.53	-17	66.33	72.84	13.29
Solomon Islands	42	178	44.60	-1	52.20	53.01	31.25
São Tomé and Príncipe	43	184	41.99	21	49.78	54.32	24.38
Comoros	44	193	36.91	-14	29.55	45.21	35.03

Globalization is often defined by its characteristics, including an increased connectiveness and pace of change, and declining social and ecological diversity (Young et al., 2006). The main features of globalization are the liberalization of trade and capital flows, the increasing international reach of production, the development of communications technology, increasing importance on trans- or multinational corporations, and the increasing intensity of competition between countries and companies (Read, 2004). The consequences of globalization can be both a tremendous boon to island development or a threat that needs to be resisted. Of course, the reality is that the outcomes are more nuanced than either of these extremes. In some cases, exposure to external influences and technologies opens up new opportunities for islanders. In other cases, it creates greater dependencies on the outside world and therefore greater vulnerabilities for the island (Lauer et al., 2013). As is the case with FDI, the least developed countries are also those less able to cope with the negative outcomes of globalization (Read, 2004). While their small size and underdeveloped governance structures may make islands susceptible to the negative outcomes of globalization, the fact that they have a long established tradition of openness in trade and human mobility means that they may already have established policies and practices to allow them to be more resilient to globalization. Table 1.10 provides a perspective on the degree of economic, social, and political globalization associated with many of the world's island states. This index, prepared by KOF Swiss Economic Institute, measures the degree of openness of jurisdictions across three dimensions: economic (e.g., extent of cross-border trade), social (e.g., access to the internet), and political (e.g., number of embassies and membership in international organizations). It shows that the most global islands are those in the developed world.

The stereotype of innovation is one that is associated with the production of products. However, innovation comes in many forms, including types of governance (e.g., regulatory and institutional policies and practices) and cultural processes, such as the educational system (Kelman, Burns, & des Johansson, 2015). One of the more common recent narratives suggests that small islands are indeed economically and politically nimble and flexible (Baldacchino, 2010, 2015; Baldacchino & Bertram, 2009; Baldacchino & Milne, 2000; McSorley & McElroy, 2007). One of the challenges for many SIDS is that innovation is so dependent on foreign sources of capital and is so narrowly concentrated in sectors such as tourism that it is difficult to find innovation in small and medium-sized enterprises outside of tourism. Despite the need for innovation in such areas as renewable energy and agricultural practices, many small islands continue to subsidize inefficient and expensive fossil fuels (Read, 2010). In regions such as the Caribbean, evidence shows that there is the potential for creative financing and innovation (Taylor, 2016). Unfortunately, the standard measures of innovation as in Table 1.11 are often not available or do not reflect this innovation. For example, only 17 of the 41 island states used in this analysis are represented in the data in this Table.

TABLE 1.11: Global Innovation Index, 2019

Island Country	Global Innovation Index				Innovation output Sub-Index		Innovation Input Sub-Index		Efficiency Ratio (2019)	
	Island Country Ranking	World Ranking	Score	Change in World Ranking, 2018-2019	World Ranking	Score	World Ranking	Score	World ranking	Score
United Kingdom	1	5	61.30	-1	4	54.40	6	68.20	21	0.80
Singapore	2	8	58.4	-3	15	44.60	1	72.20	63	0.61
Ireland	3	12	56.10	-2	10	50.10	20	62.10	13	0.81
Japan	4	15	54.70	-2	17	44.30	14	65.00	44	0.70
Iceland	5	20	51.50	3	18	44.0	22	59.10	23	0.80
New Zealand	6	25	49.60	-3	32	36.00	18	63.10	59	0.60
Malta	7	27	49.0	-1	20	43.40	32	54.60	7	0.80
Cyprus	8	28	48.30	1	23	41.10	28	55.50	18	0.80
Philippines	9	54	36.20	19	42	30.70	76	41.70	62	0.61
Brunei Darussalam	10	71	32.30	-4	120	13.00	35	51.70	124	0.31
Bahrain	11	78	31.10	-6	87	19.30	69	42.90	84	0.60
Jamaica	12	81	30.80	3	69	22.10	84	39.50	80	0.60
Mauritius	13	82	30.60	-7	96	18.00	67	43.30	105	0.50
Indonesia	14	85	29.7	-	78	20.80	87	38.60	66	0.61
Dominican Republic	15	87	28.60	-	88	19.2	90	37.90	71	0.60
Sri Lanka	16	89	28.50	-1	77	20.80	94	36.10	78	0.60
Madagascar	17	121	22.40	-10	109	15.50	122	29.30	40	0.70

TABLE 1.12: Imports and Exports of Goods and Services (% of GDP) in 2010, 2017

Continent	Island Country	2010 Imports %	2010 Exports %	2017 Imports %	2017 Exports %
Asia	Japan	13.58	15.04	16.84	–
	Singapore	171.69	198.00	146.41	171.42
	Indonesia	22.40	24.30	19.17	20.19
	Timor-Leste	50.68	100.23	59.92	61.09
	Brunei Darussalam	27.96	67.41	35.60	49.57
	Philippines	36.62	34.80	40.87	31.02
	Sri Lanka	26.81	19.55	28.86	21.68
	Maldives	65.42	77.56	74.07	70.08
	Bahrain	50.94	69.54	67.39	75.44
Europe	Cyprus	58.72	50.38	73.39	73.02
	Iceland	42.11	51.98	42.02	46.10
	United Kingdom	30.27	28.28	31.58	30.37
	Ireland	86.40	103.02	98.96	121.04
	Malta	154.17	153.26	128.55	149.77
Africa	Cape Verde	61.77	32.67	67.38	45.92
	Madagascar	36.00	21.87	34.44	30.90
	Seychelles	108.08	93.80	102.14	89.89
	Mauritius	62.22	51.24	55.14	42.45
	Comoros	29.91	9.64	28.26	11.90
	São Tomé and Príncipe	–	–	–	–
Oceania	New Zealand	27.97	30.26	26.68	27.57
	Papua New Guinea	–	–	–	–
	Solomon Islands	81.16	49.33	–	–
	Vanuatu	52.74	46.63	–	–
	Fiji	63.89	57.84	–	–
	Tonga	60.25	12.41	70.31	23.62
	Samoa	52.16	28.43	46.96	31.51
	Palau	76.75	50.30	77.35	50.02
	Kiribati	78.44	13.07	92.01	13.22
Caribbean/	Haiti	–	–	–	–
Americas	Dominican Republic	33.32	22.68	26.54	23.68
	Jamaica	49.59	31.34	48.88	34.66
	Bahamas, The	43.72	34.95	41.15	34.50

Continent	Island Country	2010 Imports %	2010 Exports %	2017 Imports %	2017 Exports %
	St. Kitts and Nevis	48.32	27.91	60.75	54.37
	Antigua and Barbuda	59.10	45.60	–	–
	St. Vincent and the Grenadines	57.13	26.89	54.75	34.92
	St. Lucia	56.28	43.52	–	–
	Grenada	49.23	23.83	53.13	51.31
	Barbados	49.45	46.46	40.63	42.09
	Trinidad and Tobago	31.10	54.67	50.67 ⁽²⁰¹⁶⁾	48.14 ⁽²⁰¹⁶⁾
	Dominica	51.66	36.41	64.57	43.39

Anyone who has studied the economies of small islands knows that they are exceptionally open and connected to the rest of the world, not only by the trade in goods, but also by the trade in services and the mobility of islanders. Table 1.12 shows that the value of both imports and exports constitutes a large proportion of the Gross Domestic Products of many of the island states in this list. Table 1.13 sums the share of imports and exports as a proportion of GDP. In the case of small islands in the developed world, such as Singapore, Malta, and Ireland, the value of imports and exports exceeds their total GDP. The larger islands in the developed world, such as Japan and the United Kingdom, still have extensive international trade. However, the comprehensive supply and demand linkages and domestic multipliers within these islands means international trade is still a relatively small share of total GDP. Unfortunately, higher levels of specialization associated with small islands prompts higher imports and exports, and may create terms of trade problems for many SIDS (Santos-Paulino, 2010). Trade liberalization policies put in place by supranational institutional actors such as the World Trade Organization (WTO) tend not to favour small island nations that are rarely able to influence price and supply (Kelsey, 2004-05). Tourism may appear to generate a surplus of service imports, particularly in the transportation sector. Unfortunately, because of the absence of fully developed supply linkages and the small scale of islands, much of the income generated by tourism does not remain within the small island economies (Pratt, 2015). This exaggerated reliance on any one sector, such as tourism, also results in what has been referred to as the ‘Dutch disease’ or ‘resource curse’ for some small island economies, wherein capital that flows to one sector makes it difficult for other sectors to generate their own investment capital, hindering their development and potential to export (Ross, 1999).

TABLE 1.13: Trade (% of GDP) in 2010, 2017

Continent	Island Country	2010	2017
Asia	Japan	28.62	-
	Singapore	369.69	317.83
	Indonesia	46.70	39.36
	Timor-Leste	150.91	121.01
	Brunei Darussalam	95.37	85.17
	Philippines	71.42	71.89
	Sri Lanka	46.36	50.54
	Maldives	142.98	144.15
	Bahrain	120.48	142.83
	Europe	Cyprus	109.10
Iceland		94.09	88.12
United Kingdom		58.55	61.95
Ireland		189.42	220.00
Malta		307.43	278.32
Africa	Cape Verde	94.44	113.3
	Madagascar	57.87	65.34
	Seychelles	201.88	192.03
	Mauritius	113.46	97.59
	Comoros	39.55	40.16
	São Tomé and Príncipe	-	-
Oceania	New Zealand	58.23	54.25
	Papua New Guinea	-	-
	Solomon Islands	130.49	-
	Vanuatu	99.37	-
	Fiji	121.73	-
	Tonga	72.66	93.93
	Samoa	80.59	78.47
	Palau	127.05	127.37
	Kiribati	91.51	105.23
Caribbean/	Haiti	-	-
Americas	Dominican Republic	56.00	50.22
	Jamaica	80.93	83.54
	Bahamas, The	78.67	75.65
	St. Kitts and Nevis	76.23	115.12

Continent	Island Country	2010	2017
	Antigua and Barbuda	104.70	
	St. Vincent and the Grenadines	84.02	89.67
	St. Lucia	99.80	
	Grenada	73.06	104.44
	Barbados	95.91	82.72
	Trinidad and Tobago	85.77	98.81
	Dominica	88.07	107.96

SECTION 2: SUBNATIONAL ISLAND JURISDICTIONS

The 2018 Islands Economic Cooperation Forum Annual Report articulated the importance of subnational island jurisdictions (or SNIJs). Although these political entities may not always receive the same level of international attention as island states, they are still the homes for many of the 600 million worldwide islanders and are critically important to island issues. This statistical review focuses on only 13 of these semi-autonomous islands, as listed in Table 1.14, but a larger inventory and richer description of the kinds of SNIJs, and the relationships they have with their metropolises, can be found in the work by Stuart (2009), Watts (2009), and Warrington and Milne (2018). Some of them, such as Hawai'i (US), Tasmania (Australia), Hainan (China), Gotland (Sweden), and Jeju (S. Korea), are tightly integrated as provinces or states (or sub-states/provinces) within a larger national government. Others have a fairly high degree of economic and political autonomy, sometimes acting like quasi-independent states. Examples include the Falklands and British Virgin Islands (UK), Réunion and French Polynesia (France), Aruba and Curaçao (Netherlands), and Guam and Puerto Rico (US). One of the intriguing features of many of these territories is that, despite the developmental pathways prescribed for them by the United Nation's Decolonization Committee, the people living in many of these semi-autonomous islands have little desire to seek political independence and do not see that as an ultimate development goal. This sentiment is reflected in the outcomes of many referenda where SNIJ voters have consistently rejected political independence.

In the last Report, the point was made that there was a wide range in the populations of these SNIJs. If they were independent states, some of them, such as Java at 141 million, would be among the most populated countries in the world. At the other extreme, Gotland and Greenland have barely more than 50,000 people each. Perhaps more important than their absolute populations is their share of the total population of the countries to which they are affiliated. For example, Java's population constitutes more than half of the total population of Indonesia, and Luzon's population is almost 60% of the Philippines population. In almost all other islands on this list, such as on Prince Edward Island, Gotland, Phuket, Jeju, and Hawai'i, their share of their country's population is quite low. Although this list would include Hainan, at just under 0.7% of China's population, this southern island of China is still one of the most populated islands in the world at 9.4 million people. Research by Guan and McElroy (2012) suggests that the semi-autonomous political status of SNIJs represents a causal variable in explaining population growth, partly because these places are more likely to be involved in labour-intensive light manufacturing and international services such as tourism and offshore finance.

TABLE 1.14: Area of island, in km² (Subnational)

Bali, Indonesia	5,780
Gotland, Sweden	3,184
Greenland, Denmark	2,166,086
Hainan Island, China	35,354
Hawai'i, USA	28,311
Java, Indonesia	138,794
Jeju, South Korea	1,826
Luzon, Philippines	104,688
Okinawa, Japan	2,281
Phuket, Thailand	576
Prince Edward Island, Canada	5,660
Taiwan, China	36,197
Tasmania, Australia	68,401

TABLE 1.15: Most Recent Population Characteristics (Subnational islands)

	Year	Population	Population Density people/km ²	Population Growth Rate % over 1 year
Bali, Indonesia	2015	4,153,000	718	1.21 (2016)
Gotland, Sweden	2018	59,249	18.9	1.07
Greenland, Denmark	2018	56,025	0.00	-0.30
Hainan Island, China	2018	9,340,000	272	1.17
Hawai'i, USA	2019	1,415,872	50.57	-0.30
Java, Indonesia	2015	141,300,000	1,136	1.01
Jeju, South Korea	2016	661,190	357.6	3.02
Luzon, Philippines	2015	11,218,177	480	1.95
Okinawa, Japan	2015	1,434,138	1,206.20	3.00
Phuket, Thailand	2019	540,200	994.8	0.31
Prince Edward Island, Canada	2019	157,901	25.1	2.20
Taiwan, China	2019	23,773,876	671	0.20
Tasmania, Australia	2019	528,201	7.24	0.29

TABLE 1.16: Birth and Death Rates, various dates (Subnational islands)

	Year	Crude Birth x 1,000 people	Crude Death x 1,000 people	Fertility Rate x 1,000 people	
Bali, Indonesia	2012	–	–	2.30	
Gotland, Sweden	2017	12.00	9.00	1.90	(Sweden)
Greenland, Denmark	2017	15.00	9.00	2.10	
Hainan Island, China	2017	14.73	6.01	1.50	
Hawai'i, USA	2016	12.60	7.70	1.97	
Java, Indonesia	2014	17.04	6.34	2.18	(Indonesia)
Jeju, South Korea	2013	9.10	5.70	1.43	
Luzon, Philippines	2015	21.30	5.50	2.60	
Okinawa, Japan	2013	–	7.74	1.94	
Phuket, Thailand	2012	25.18	4.71	–	
Prince Edward Island, Canada	2019	8.60	8.70	1.63	
Taiwan, China	2019	–	–	1.11	
Tasmania, Australia	2016	12.00	8.90	1.90	

In most of the developed world, one of the most pressing development issues has been the aging of the population. This may adversely affect a place's economy if there are not enough workers to fill the available jobs. It may also cost more to provide certain public services, and particularly health services, if an insufficient tax base is being generated to meet the public service needs of an older population. As reflected in the difference between the crude birth and death rates (Table 1.16), only Tasmania, Gotland, and Prince Edward Island appear to be close to negative natural population growth. It is therefore not surprising that these are the jurisdictions that are engaged in aggressive recruitment campaigns to attract economic migrants: those who bring with them capital or entrepreneurial skills that can be employed in their new island homes. In places that are experiencing rapid increases in population, migration may serve as a safety valve to ensure that local labour supply does not significantly exceed labour demand. This is the case in the Philippines, where explicit policies have been put in place to train many more nurses than could ever find jobs at home (Brush, 2010). However, they are in considerable demand in the developed world and their employment internationally results in significant remittances being returned to benefit individual Filipino families and assist in local-level development. For many of the Pacific islands in particular, migration also reduces the pressure on local land resources (Curtain & Dornan, 2019).

TABLE 1.17: Life Expectancy, by Gender (Subnational islands)

	Year	Life Expectancy (females, in years)	Life Expectancy (males, in years)	
Bali, Indonesia	-	-	-	
Gotland, Sweden	2016	83.1	79.90	
Greenland, Denmark	2018	75.8	70.20	
Hainan Island, China	2010	80.01	73.20	
Hawai'i, USA	2014	84.72	78.00	
Java, Indonesia	-	-	-	
Jeju, South Korea	-	-	-	
Luzon, Philippines	2010	75.4	68.70	
Okinawa, Japan	2016	87.02	79.40	
Phuket, Thailand	2016	79	72.00	(Thailand)
Prince Edward Island, Canada	2017	83.8	80.00	
Taiwan, China	2018	83.7	77.20	
Tasmania, Australia	2015	82.5	78.80	

Average life expectancies among the SNIJs that are part of this analysis are quite high, ranging from 75.4 (females)/68.7 (males) on Luzon to 87.02 (females)/79.4 (males) on Okinawa. This is indicative of a larger phenomenon. Although the precise causes are still unclear, life expectancies on semi-autonomous islands tend to be higher than on independent island states (Bertram, 2015; McElroy & Parry, 2012). This may not be surprising when you consider the dynamics of the relationships between some of these semi-autonomous islands and their metropolises. For example, the citizens of Greenland (also referred to as Kalaallit Nunaat in Greenlandic Inuit), are entitled to receive specialist healthcare services in its metropole of Denmark, settle in Denmark, and attend Danish universities (Grydehøj, 2018).

TABLE 1.18: Rural and Urban Share of Population (Subnational islands)

	Year	Rural Population %	Urban Population %	
Bali, Indonesia	2019	4.9	95.1	
Gotland, Sweden	2016	59	41	
Greenland, Denmark	2018	13	87	
Hainan Island, China	2010	50.3	49.7	
Hawai'i, USA	2014	8.1	91.9	
Java, Indonesia	2018	45.0	55.0	(Indonesia)
Jeju, South Korea	2016	5	95	
Luzon, Philippines	2010	54.7	45.3	(Philippines)
Okinawa, Japan	2016	20	80	
Phuket, Thailand	2017	82	18	
Prince Edward Island, Canada	2016	60	40	
Taiwan, China	2020	21	79	
Tasmania, Australia	2008	20	80	

As is the case with most other characteristics, the degree of urbanization of small islands can vary considerably. For example, Singapore and Nauru are completely urban while Trinidad and Tobago and Papua New Guinea are among the least urban jurisdictions in the world (Sietchiping & Kago, 2017). In Table 1.18, both Bali and Jeju are 95% urban. As is the case on mainland regions, rapid urbanization has taken place on small islands over the past fifty years with some of the highest levels of urbanization on Pacific islands (Das, 2018). However, unlike most mainlands, the geography of islands may make urbanization more problematic. The available space for urban functions on many islands is limited, making the conflicts among these various uses even more intense (Fernandes & Pinho, 2015; Grydehøj, 2015). Since historical urban development has usually taken place along the coasts, competition for available land may be even more extreme in these areas. Another general pattern is that the level of urbanization tends to be higher on the central or main islands of archipelagos than on the more remote islands, with a nested pattern of inter-island mobility that involves outmigration from these outlying islands to the more centrally linked and urban islands (Connell, 2018).

TABLE 1.19: Labour Force Characteristics, various dates (Subnational)

	Year	Labour Force	Labour Force Participation Rate %	Unemployment Rate %
Bali, Indonesia	–	–	–	–
Gotland, Sweden	2016	27,000	47.00	6.4
Greenland, Denmark	2015	26,840	74.06	9.10
Hainan Island, China	2016	5,581,400	61.00	2.3 (2017)
Hawai'i, USA	2019	663,800	97.00	2.80
Java, Indonesia	–	–	–	–
Jeju, South Korea	2016	–	67.00	–
Luzon, Philippines	2015	–	–	–
Okinawa, Japan	2010	650,307	89.00	5.10
Phuket, Thailand	2013	167,883	–	0.50
Prince Edward Island, Canada	2018	83,900	66.80	9.40
Taiwan, China	2019	11,516,000	59.25	3.73
Tasmania, Australia	2019	268,000	61.00	6.70

Labour force participation rates vary considerably across these subnational island jurisdictions (see Table 1.19), at least in part because of the difficulty in arriving at a standard, comparable definition of this economic indicator. A similar challenge exists for unemployment rates. In general, unemployment rates tend to be lower on SNIJs than on small island states, although the differences are not statistically significant (McElroy & Parry, 2012). At the same time, unemployment rates tend to be higher and other economic measures associated with poverty tend to be more severe on island territories or jurisdictions than is the case on other non-island jurisdictions of the larger metropolises. For example, the unemployment rate on Prince Edward Island (PEI) in 2015 was 10.5% compared to the Canadian average of 6.9% and these differences have been fairly consistent over time (Nonaka, 2016). Youth unemployment rates tend to be much higher than the general unemployment rates and in tourism-dependent islands, seasonal unemployment rates can be even higher (Lee, Hampton, & Jeyacheya, 2015).

TABLE 1.20: Gross Domestic Product, various dates (Subnational)

	Year	Gross Domestic Product (GDP) in USD	GDP per capita in USD
Bali, Indonesia	2010	4,534,150,000	1,170
Gotland, Sweden	2016	2,316,320,000	39,907
Greenland, Denmark	2016	2,710,000,000	48,182
Hainan Island, China	2017	64,134,000,000	6,960
Hawai'i, USA	2016	73,252,000,000	51,277
Java, Indonesia	2010	310,473,486,174	1,127
Jeju, South Korea	2013	10,990,000,000	38,000
Luzon, Philippines	2012	154,051,608	2,227
Okinawa, Japan	2011	36,694,000,000	26,192
Phuket, Thailand	2009	1,982,380,000	5,901
Prince Edward Island, Canada	2018	6,994,000,000	41,111
Taiwan, China	2018	590,000,000,000	25,008
Tasmania, Australia	2019	31,820,000,000	59,863

Earlier in this chapter, it was noted that some Small Island Developing States (SIDS) have among the highest GDP per capita values in the world, even if these values may be quite volatile over time. Table 1.20 shows the absolute value of production on these select SNIJs as well as the average GDP per capita (in USD). Although this Table does not show the comparable values for island states, the literature shows that SNIJs tend to have even higher levels of GDP per capita than their counterpart SIDS, at least in part because of the role of offshore finance and tourism (McElroy & Parry, 2012). This may explain why the citizens of SNIJs are often reluctant to seek independence (Dunn, 2011). However, because the economies are often so specialized, the result is that linkages to the development of other sectors in the economy are weak, there are spatial and social inequities, and even these leading sectors remain vulnerable to global economic shocks and extreme weather events (Taylor, 2012).

SOURCES AND NOTES FOR TABLES AND FIGURES

Table 1.1:

Population and Population Growth rates are from the CIA World Factbook; Population density is from the World Bank (data.worldbank.org/indicator/en.PoP.dnst). A dashed line in a cell (-) indicates missing values.

Table 1.2:

From the CIA World Factbook, various links (www.cia.gov/library/publications/the-world-factbook). No information was available for Niue.

Table 1.3:

From the CIA World Factbook.

Figure 1.1:

Averages based on the data provided in Table 1.3.

Table 1.4:

From the CIA World Factbook (www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html) and the World Bank (data.worldbank.org/indicator/nY.GdP.mKtP.cd).

Table 1.5:

From the World Bank.

Table 1.6:

Data on the labour force and the labour force participation rate are from the World Bank. The unemployment rates are from the CIA World Factbook. Values listed may not necessarily correspond to the data from these sources because the latter are updated when new information is available.

Data for the Cook Islands is from the Ministry of Finance & Economic Management, Government of the Cook Islands, 'Economic Activity and Labour Force 2015' (www.mfem.gov.ck/statistics/census-and-surveys/economic-activity-and-labour-force).

Table 1.7:

From the United Nations Development Program (UNDP) (http://www.hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf).

Table 1.8:

From the World Bank. Blank cells indicate that the values have not been updated since 2015.

Figure 1.2:

From the Development Research Group, World Bank (data.worldbank.org/indicator/si.PoV.Gini).

Table 1.9:

From the World Investment Report 2018, United Nations Conference on Trade and Development (UNCTAD) (https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).

Table 1.10:

From the KOF Swiss Federal Institute of Technology in Zurich (globalization.kof.ethz.ch).

Table 1.11:

From the World Intellectual Property Organization (WIPO) (www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2017-annex1.pdf). For the 2018 source material, see <https://www.globalinnovationindex.org/analysis-indicator>.

Table 1.12:

From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database. For 2010 and 2016 imports, see:

<https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-IMP-GNFS-ZS>.

For exports, see: <https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-EXP-GNFS-ZS>.

Table 1.13:

From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database.

For 2010 and 2016 trade as % of GDP, see: <https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-TRD-GNFS-ZS>

Table 1.14:

From individual pages in Wikipedia.

Table 1.15:

Population data for Bali and Jeju are from www.knoema.com. Other Subnational Island Jurisdictions' (SNIJ) data are from the following sources:

Gotland: www.gotland.se/86116 and www.citypopulation.de/php/sweden-gotland.php?adm2id=0980;
Greenland: data.world-bank.org/ and tradingeconomics.com/greenland/population-density-people-per-sq-km-wb-data.html;
Hainan: www.statista.com/statistics/279013/population-in-china-by-region;
Hawai'i: census.hawaii.gov/home/population-esti-mate/; Java: citypopulation.de/indonesia-mU.html; Luzon: psa.gov.ph/;
Okinawa: www.knoema.com and www.japanupdate.com/2016/03/okinawa-population-grows-at-highest-rate-in-nation;
Phuket: www.citypopulation.de/php/thailand-prov-admin.php?adm2id=83;
Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf. For the Prince Edward Island Population Report 2018, see https://www.princeedwardisland.ca/sites/default/files/publications/pt_pop_rep_1.pdf;
Taiwan: www.worldometers.info/world-population/taiwan-population;
Tasmania: stat.abs.gov.au/itt/r.jsp?databyregion and www.population.net.au/population-of-tasmania.

Table 1.16:

Data on this table for Bali, Jeju, Hainan, Luzon, Okinawa, and Phuket are from www.knoema.com.

Data for Gotland and Greenland are from the World Bank. Other SNIJ data are from the following sources:

Hawai'i: health.hawaii.gov/vitalstatistics/preliminary-2016; Java: factsanddetails.com/indonesia/People_and_Life/sub6_2a/entry-3972.html; Prince Edward Island: www.statcan.gc.ca/pub/84f0210x/2009000/t005-eng.htm;
Taiwan: www.worldometers.com; Tasmania: http://www.justice.tas.gov.au/bdm/about_us/life_event_statistics.
Fertility rates for Gotland and Java are at the country level.

Table 1.17:

Data on this table are from the following sources: Gotland: www.gotland.se/86116; Greenland: the CIA World Factbook;
Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm; Hawai'i: www.worldlifeexpectancy.com/usa/hawaii-life-expectancy;
Luzon: www.knoema.com; Okinawa: stats-japan.com/t/tdfk/okinawa; Phuket: www.who.int/countries/tha/en;
Prince Edward Island: www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health26-eng.htm;
Taiwan: www.indexmundi.com/taiwan/life-expectancy-at-birth.html;
Tasmania: www.abs.gov.au/aUsstats/abs@nsf/Previousproducts/3101.0feature%20article-1jun%202016. Values for Phuket are for the country of Thailand as a whole.

Table 1.18:

Data on this table are from the following sources:

Bali: www.knoema.com; Gotland: www.citypopulation.de/php/sweden-gotland.php; Greenland: the World Bank;
Hainan: www.stats.hainan.gov.cn; Hawai'i: files.hawaii.gov/dbedt/census/census_2010/other/2010Urban_rural_report.pdf;
Jeju: www.citypopulation.de; Luzon: psa.gov.ph/tags/urban-rural-classification; Okinawa: dc-office.org/basedata#p1;
Phuket: www.citypopulation.de/php/thailand-prov-admin.php?adm2id=83;
Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf; Taiwan: www.worldometers.info;
Tasmania: www.tasmaniatopten.com/lists/population_centres.php. Values for Luzon are for the Philippines as a whole. Values for Java are for Indonesia as a whole.

Table 1.19:

Data on this table are from the following sources:

Gotland: www.gotland.se/86116; Greenland: www.indexmundi.com/greenland/labor_force.html;
Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm and www.knoema.com; Hawai'i: health.hawaii.gov/vitalstatistics/preliminary-2016 and <http://dbedt.hawaii.gov/economic/qser/labor-force> for 2018 update;
Jeju: www.hiwi.org/gsipub/index.asp?docid=417; Okinawa: stats-japan.com/t/tdfk/okinawa; Phuket: www.knoema.com;
Prince Edward Island: https://www.princeedwardisland.ca/sites/default/files/publications/fin_statcan_labo.pdf;
Taiwan: tradingeconomics.com/taiwan/unemployment-rate; Tasmania: stat.abs.gov.au and www.knoema.com for 2015 data.

Table 1.20

Data for Bali, Gotland, Hainan, Java, Jeju, Luzon, Okinawa, Phuket, and Taiwan are from www.knoema.com.

Other SNIJ data are from the following sources: Greenland: tradingeconomics.com/greenland/gdp, for GDP Per Capita see

https://data.worldbank.org/indicator/NY.GDPPCAP.CD?locations=GL&name_desc=true;
Hawai'i: www.deptofnumbers.com/gdp/hawaii; Prince Edward Island: https://www.princeedwardisland.ca/sites/default/files/publications/sta_can_gdp_1.pdf; Tasmania: www.treasury.tas.gov.au/documents/state-accounts.pdf.

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