

THE CAYMAN ISLANDS' HUMAN DEVELOPMENT INDEX REPORT 2023

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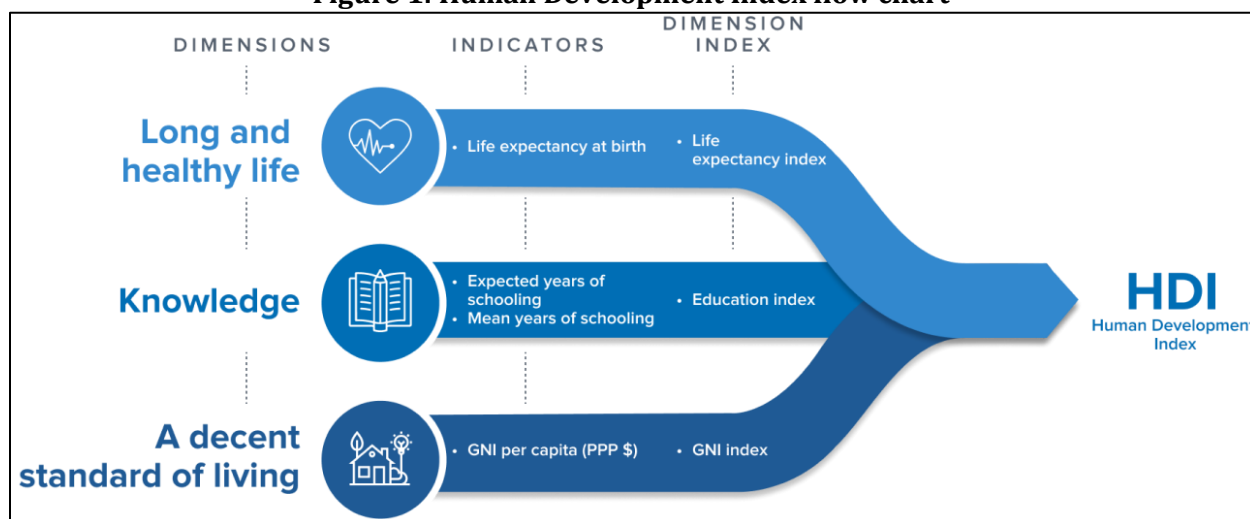
1. Background: Human Development Index¹

The Human Development Index (HDI) is a summary measure of achievements in three key dimensions of human development: a long and healthy life (Health Index), access to knowledge (Education Index) and a decent standard of living (Income Index). The HDI is the geometric mean of normalized indices for each of the three dimensions.

The health dimension is assessed by life expectancy at birth; the education dimension is measured by the mean of years of schooling for adults aged 25 years and more and expected years of schooling for children of school admission age. The standard of living dimension is measured by gross national income per capita. The scores for the three HDI dimension indices are then aggregated into a composite index using geometric mean.

The HDI simplifies and captures only part of human development. It does not reflect inequalities, poverty, human security, empowerment, etc. A fuller picture of human development requires analysis of other indicators and information presented in the statistical annexe (the website link in footnote 1).

Figure 1: Human Development Index flow chart



Source: UNDP Human Development Index Report

2. Cayman Islands Human Development Index

The human development index for the Cayman Islands was calculated exclusively by the Economics and Statistics Office using the methodology published by the United Nations Development of People (UNDP) and available data. Unlike the HDI rankings of countries included in the UNDP human development report, the Cayman Islands is not a sovereign country and hence is not included in the official rankings. Nonetheless, the HDI calculations

¹ This synopsis of the Human Development Index (HDI) is an excerpt from the UNDP Human Development Reports. <https://hdr.undp.org/content/human-development-report-2023-24>

use the UNDP methodology and are comparable to the official HDI country rankings produced by the UNDP.

Table 1: Human Development Index (HDI), 2010-2023²

Year	Human Development Index (HDI)	Gross National Income (GNI) per capita (base=2015)	Life Expectancy at birth	Education	
				Expected Years of Schooling	Mean Years of Schooling
	Value	US\$	Years	Years	Years
2010	0.890	71,482	82.1	13.6	15.0
2011	0.876	72,132	79.5	13.6	14.8
2012	0.885	51,205	84.3	13.6	15.0
2013	0.872	47,464	81.8	13.6	15.3
2014	0.878	45,199	83.3	13.6	15.2
2015	0.876	46,232	82.5	13.6	15.4
2016	0.883	50,569	83.4	13.6	15.3
2017	0.881	54,568	81.6	13.6	15.6
2018	0.884	58,659	81.4	13.6	15.5
2019	0.893	62,989	82.5	13.6	15.4
2020	0.898	65,133	83.2	13.6	15.6
2021	0.896	74,049	82.1	13.6	15.2
2022	0.887	64,231	81.6	13.6	15.2
2023	0.897	65,738	83.1	13.6	15.5

All variables estimated by ESO

1. The GNI per capita was taken from the System of National Accounts Reports.
2. Life Expectancy was calculated using Census data for 2010 and 2021 while all other years used the end of year Labour Force Survey results.
3. Expected Years of Schooling was estimated using Census data for 2010 and 2021 and other year maintained as a constant.
4. Mean Years of Schooling were calculated from the educational attainment and highest grade passed questions from Census 2010 and 2021 while all other years used similar questions from the end of year Labour Force Survey results.

Source: Economics and Statistics Office

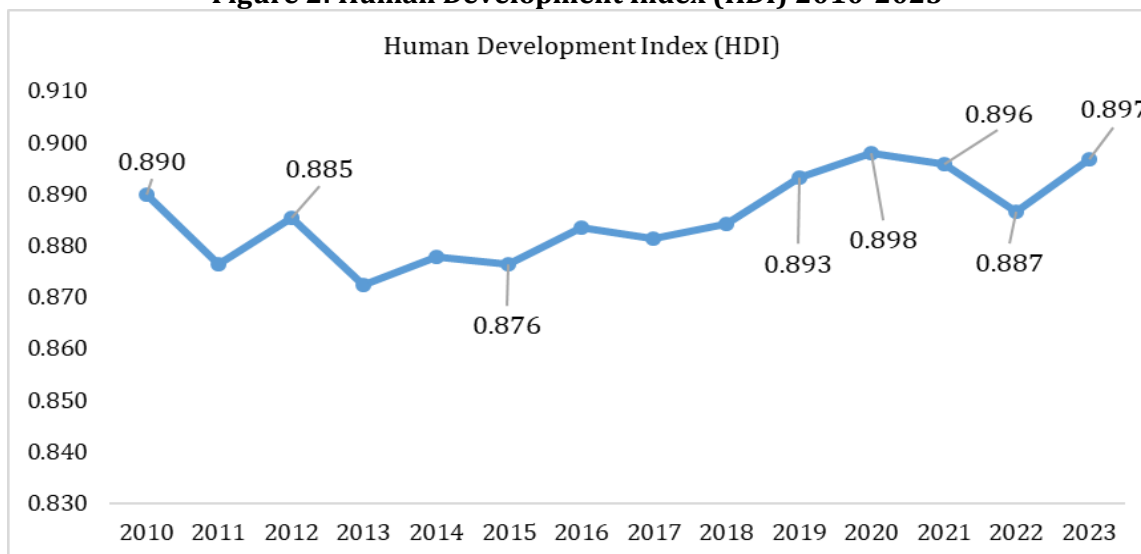
The Human Development Index (HDI) is a composite index measuring average achievement in three basic dimensions of human development—a long and healthy life, knowledge and a decent standard of living. The 2023 Human Development Index value for the Cayman Islands was 0.897, which falls between 0.80 and 1.0 in the HDI Report 2023/2024. Countries in this group are classified as having a Very High Human Development Index. Comparatively, the only other countries in the Caribbean region in this category were Saint Kitts and Nevis, with an index value of 0.838. The HDI for the Cayman Islands was consistently between 0.86 and 0.897, with the highest value in 2023.

² HDI calculations were revised based on the updated GNI revisions in accordance with the ESO's data revision policy.

The sub-components of the HDI:

- I. A decent standard of living measured by Gross national income (GNI) per capita is a measure of the aggregate income of the economy generated by production and ownership of factors of production, less the incomes paid for the use of factors of production owned by the rest of the world, divided by the midyear population. For the Cayman Islands, the GNI ranged from a high of US\$74,049 in 2021 (due to the pandemic-related reduced population level, to a low of US\$45,199 in 2014 and normalized at US\$65,738 in 2023. The main reasons for the erosion of GNI between 2012 and 2014 were a deterioration in net property income resulting from higher interest payments on long-term debt instruments and a simultaneous fall in dividends received on direct investment equity.
- II. Life expectancy at birth is the number of years a newborn infant could expect to live if prevailing patterns of age-specific mortality rates at the time of birth stay the same throughout the infant's life. In 2022 and 2023, the life expectancy at birth was 81.6 years and 83.1 years, respectively.

Figure 2: Human Development Index (HDI) 2010-2023³



Source: Economics and Statistics Office

- I. The education index measures knowledge, a combination of expected years of schooling and the mean years of schooling.
 - a. Expected years of schooling is the number of years a child of school entrance age can expect to receive if the prevailing patterns of age-specific enrolment rates persist throughout the child's life. In calculating this index, the entrance age used was four (4) years, generally the primary school entrance age.

³ The methodology is taken from the UNDP Technical notes - Human Development Reports
https://hdr.undp.org/sites/default/files/data/2020/hdr2019_technical_notes.pdf

b. Mean years of schooling is the average number of years of education received by persons ages 25 and older, converted from education attainment levels using official durations of each level.

Table 2: Human Development Index and Top 40 Country Ranking, 2023

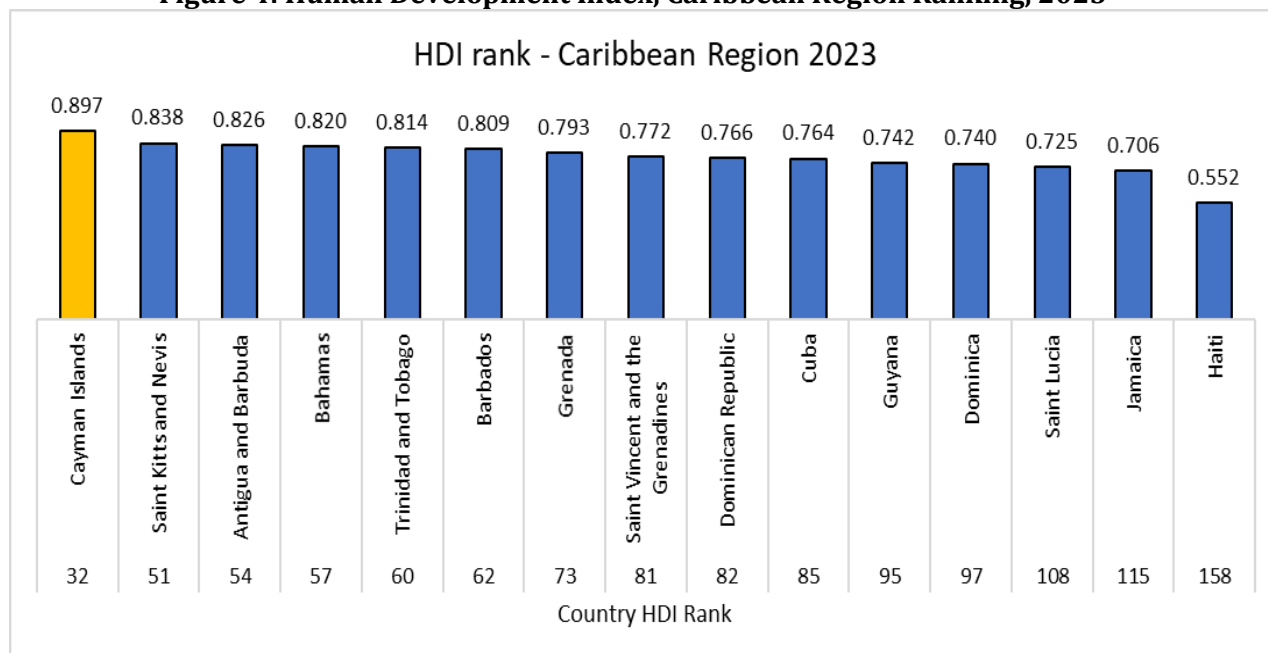
Rank	Country	HDI Value	Rank	Country	HDI Value
1	Switzerland	0.967	22	Slovenia	0.926
2	Norway	0.966	22	Austria	0.926
3	Iceland	0.959	24	Japan	0.920
4	Hong Kong, China (SAR)	0.956	25	Israel	0.915
5	Denmark	0.952	25	Malta	0.915
5	Sweden	0.952	27	Spain	0.911
7	Germany	0.950	28	France	0.910
7	Ireland	0.950	29	Cyprus	0.907
9	Singapore	0.949	30	Italy	0.906
10	Netherlands	0.946	31	Estonia	0.899
10	Australia	0.946	32	Cayman Islands	0.897
12	Finland	0.942	32	Czechia	0.895
12	Belgium	0.942	33	Greece	0.893
12	Liechtenstein	0.942	34	Bahrain	0.888
15	United Kingdom	0.940	35	Andorra	0.884
16	New Zealand	0.939	36	Poland	0.881
17	United Arab Emirates	0.937	37	Latvia	0.879
18	Canada	0.935	37	Lithuania	0.879
19	Korea (Republic of)	0.929	39	Croatia	0.878
20	United States	0.927	40	Saudi Arabia	0.875
20	Luxembourg	0.927	40	Qatar	0.875

Source: UNDP Human Development Report 2023/24 and ESO

All things being equal, the Cayman Islands would be ranked 32nd between Estonia and Czechia, with a UNDP Human Development Index of 0.897 (see Table 2).

Compared to the Caribbean region, the Cayman Islands would be ranked the highest above Saint Kitts and Nevis, officially ranked 51st. The top five regional countries were Saint Kitts and Nevis (51st), Antigua and Barbuda (54th), the Bahamas (57th), Trinidad and Tobago (60th) and Barbados (62nd).

Figure 4: Human Development Index, Caribbean Region Ranking, 2023



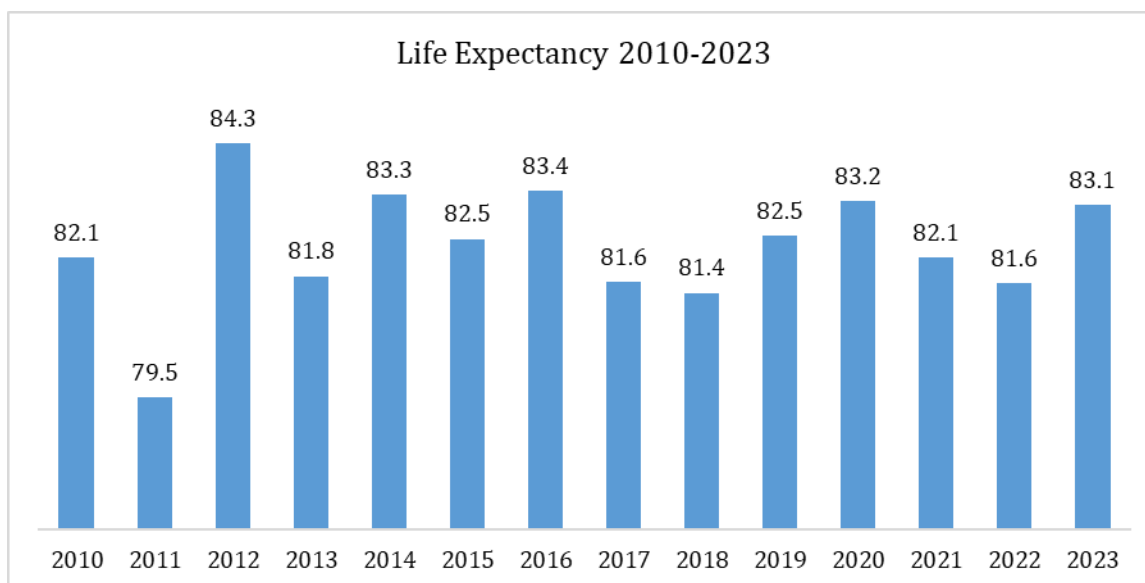
Source: UNDP Human Development Report 2023/24 and ESO

3. Cayman Islands Life Expectancy

The life expectancy at birth in the Cayman Islands during 2023 was 83.1 years; for females, it was 86.0, which exceeded that of men by 5.7 years. Women's life expectancy generally exceeded that of men in most age groups.

Generally, life expectancy fluctuated between 79.5 years and 84.3 years between 2010 and 2023. The fluctuations in life expectancy at birth are usually associated with changes in age-specific mortality and birth rate.

Figure 4: Life Expectancy 2010-2023⁴



⁴ The life expectancy for 2010 and 2021 was estimated using Census data, for all other years the Labour Force Survey estimates were used.

5. Detailed Life Tables

Life Table Based on Deaths and Population: 2023						All Persons				
Age, x	Width, n	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.00423	0.063	0.00421	100,000	421	99,605	0.99584	8,310,939	83.1
1	4	0.00000	1.726	0.00000	99,579	0	398,315	0.99995	8,211,334	82.5
5	5	0.00000	2.500	0.00000	99,579	0	497,893	1.00000	7,813,019	78.5
10	5	0.00000	2.500	0.00000	99,579	0	497,893	1.00000	7,315,126	73.5
15	5	0.00000	2.500	0.00000	99,579	0	497,893	0.99609	6,817,233	68.5
20	5	0.00157	2.500	0.00781	99,579	778	495,948	0.99448	6,319,339	63.5
25	5	0.00064	2.500	0.00320	98,801	316	493,213	0.99784	5,823,391	58.9
30	5	0.00022	2.500	0.00111	98,484	109	492,149	0.99738	5,330,178	54.1
35	5	0.00083	2.500	0.00414	98,375	407	490,859	0.99511	4,838,029	49.2
40	5	0.00113	2.500	0.00564	97,968	552	488,461	0.99493	4,347,169	44.4
45	5	0.00090	2.500	0.00449	97,416	438	485,986	0.98986	3,858,708	39.6
50	5	0.00319	2.500	0.01581	96,978	1,533	481,060	0.98551	3,372,722	34.8
55	5	0.00265	2.500	0.01315	95,446	1,255	474,090	0.98014	2,891,662	30.3
60	5	0.00540	2.500	0.02665	94,190	2,510	464,676	0.96008	2,417,572	25.7
65	5	0.01101	2.500	0.05356	91,680	4,910	446,124	0.93790	1,952,897	21.3
70	5	0.01475	2.500	0.07113	86,770	6,172	418,420	0.89688	1,506,772	17.4
75	5	0.02954	2.500	0.13755	80,598	11,086	375,274	0.82809	1,088,353	13.5
80	5	0.04736	2.500	0.21174	69,511	14,718	310,761	0.73663	713,079	10.3
85	5	0.07872	2.500	0.32887	54,793	18,020	228,916	0.59084	402,318	7.3
90	5	0.14377	2.500	0.52879	36,773	19,446	135,253	0.22000	173,402	4.7
95	+	0.45422	2.202	1.00000	17,328	17,328	38,148		38,148	2.2

ex = Life expectancy at age x.

nMx = Age-specific central death rate.

nax = Average person-years lived by those who die between ages x and x+n.

nqx = Probability of dying between exact ages x and x+n (age-specific mortality rate).

lx = Number of survivors at age x.

ndx = Number of deaths occurring between ages x and x+n.

nLx = Number of person-years lived between ages x and x+n.

5Px = Survival ratio for persons aged x to x+5 surviving 5 years to

ages x+5 to x+10 = $5Lx+5/5Lx$ (first 5Px = $5L0/5L0$,

second 5Px = $5L5/5L0$, last 5Px = $Tx+5/Tx$).

Tx = Number of person-years lived after age x.

ex = Life expectancy at age x.

Note:

nMx values were smoothed for ages 15+ based on a moving average of the

logs: smoothed 5Mx = $1/3 [5Mx-5+5Mx+5Mx+5]$



Cayman Islands Human Development Index Report 2023



Life Table Based on Deaths and Population: 2023										
Male										
Age, x	Width, n	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.00288	0.051	0.00287	100,000	287	99,727	0.99716	8,027,120	80.3
1	4	0.00000	1.850	0.00000	99,713	0	398,851	0.99997	7,927,392	79.5
5	5	0.00000	2.500	0.00000	99,713	0	498,564	1.00000	7,528,541	75.5
10	5	0.00000	2.500	0.00000	99,713	0	498,564	1.00000	7,029,978	70.5
15	5	0.00000	2.500	0.00000	99,713	0	498,564	0.99548	6,531,414	65.5
20	5	0.00182	2.500	0.00904	99,713	902	496,309	0.99220	6,032,851	60.5
25	5	0.00131	2.500	0.00655	98,811	647	492,437	0.99574	5,536,542	56.0
30	5	0.00039	2.500	0.00195	98,164	192	490,339	0.99583	5,044,105	51.4
35	5	0.00128	2.500	0.00640	97,972	627	488,293	0.99233	4,553,766	46.5
40	5	0.00180	2.500	0.00896	97,345	872	484,547	0.99249	4,065,472	41.8
45	5	0.00121	2.500	0.00605	96,474	584	480,908	0.98676	3,580,925	37.1
50	5	0.00414	2.500	0.02048	95,890	1,964	474,539	0.97792	3,100,016	32.3
55	5	0.00480	2.500	0.02371	93,926	2,227	464,062	0.97364	2,625,477	28.0
60	5	0.00590	2.500	0.02907	91,699	2,665	451,830	0.94773	2,161,416	23.6
65	5	0.01584	2.500	0.07617	89,033	6,782	428,212	0.91413	1,709,585	19.2
70	5	0.02025	2.500	0.09636	82,251	7,926	391,443	0.84195	1,281,374	15.6
75	5	0.05104	2.500	0.22631	74,326	16,821	329,577	0.77333	889,931	12.0
80	5	0.05125	2.500	0.22713	57,505	13,061	254,871	0.67091	560,354	9.7
85	5	0.11982	2.500	0.46101	44,444	20,489	170,997	0.48741	305,483	6.9
90	5	0.17484	2.500	0.60830	23,955	14,572	83,345	0.38027	134,486	5.6
95	+	0.18347	5.450	1.00000	9,383	9,383	51,141		51,141	5.5

Life Table Based on Deaths and Population: 2023										
Female										
Age, x	Width, n	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.00552	0.066	0.00550	100,000	550	99,487	0.99458	8,598,327	86.0
1	4	0.00000	1.724	0.00000	99,450	0	397,802	0.99993	8,498,840	85.5
5	5	0.00000	2.500	0.00000	99,450	0	497,252	1.00000	8,101,038	81.5
10	5	0.00000	2.500	0.00000	99,450	0	497,252	1.00000	7,603,786	76.5
15	5	0.00000	2.500	0.00000	99,450	0	497,252	0.99693	7,106,534	71.5
20	5	0.00123	2.500	0.00614	99,450	611	495,725	0.99692	6,609,282	66.5
25	5	0.00000	2.500	0.00000	98,840	0	494,199	1.00000	6,113,556	61.9
30	5	0.00000	2.500	0.00000	98,840	0	494,199	0.99890	5,619,358	56.9
35	5	0.00044	2.500	0.00220	98,840	217	493,656	0.99785	5,125,159	51.9
40	5	0.00042	2.500	0.00211	98,623	208	492,592	0.99758	4,631,503	47.0
45	5	0.00055	2.500	0.00273	98,414	269	491,399	0.99287	4,138,911	42.1
50	5	0.00232	2.500	0.01153	98,145	1,132	487,898	0.99420	3,647,512	37.2
55	5	0.00000	2.500	0.00000	97,014	0	485,068	0.98770	3,159,614	32.6
60	5	0.00498	2.500	0.02461	97,014	2,387	479,100	0.97095	2,674,546	27.6
65	5	0.00684	2.500	0.03360	94,626	3,180	465,182	0.95763	2,195,446	23.2
70	5	0.01056	2.500	0.05144	91,447	4,704	445,472	0.94903	1,730,264	18.9
75	5	0.01035	2.500	0.05047	86,742	4,377	422,767	0.87580	1,284,792	14.8
80	5	0.04490	2.500	0.20186	82,365	16,626	370,258	0.77015	862,025	10.5
85	5	0.06107	2.500	0.26492	65,738	17,415	285,153	0.63831	491,767	7.5
90	5	0.13097	2.500	0.49333	48,323	23,839	182,017	0.11905	206,614	4.3
95	+	0.99539	1.005	1.00000	24,484	24,484	24,597		24,597	1.0

