The UNDP's Human Development Index: A User's Guide

The United Nations Development Program (UNDP) publishes an annual index, the Human Development Index (HDI) in order to measure economic and social progress. The HDI is a composite index which uses data on per capita GDP, life expectancy, and educational attainment. This note looks briefly at the background of the HDI, presents the method used to calculate the index, summarizes the data in the 1997 HDI, and considers some of the possible uses of, and variations in, HDI-like indicators.

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The United Nations Development Program (UNDP) publishes an annual index, the Human Development Index (HDI) in order to measure economic and social progress. The HDI is a composite index which uses data on per capita GDP, life expectancy, and educational attainment. Data in the annual index are lagged by three years, *e.g.*, the 1997 HDI is based on data for 1994. This note looks briefly at the background of the HDI, presents the method used to calculate the index, summarizes the data in the 1997 HDI, and considers some of the possible uses of, and variations in, HDI-like indicators.

Background

The HDI was launched in May 1990 in that year's *Human Development Report (HDR)*. In the words of the UNDP, the HDI was intended "to find a common measuring rod for the socio-economic distance traveled." Annual publication of the index is intended to promote the determination of policy priorities and the evaluation of policy success or failure. It is designed to allow constructive comparisons of experiences within different countries.

The HDI is nothing if not a work-in-progress. With virtually each year of its publication, the UNDP has made an alteration or an addition to the index. In 1991, the second HDI added mean years of schooling to the educational attainment variable, but this was replaced by the aggregate enrollment ratio by 1996. In 1995, the Gender-related Development Index (GDI) was introduced. In 1996, the Capability Poverty Measure (CPM) debuted.

There were at least two, broadly-defined intellectual roots of the HDI. (Desai, 1991) During the 1970s and 1980s, the fundamental literature on poverty increased the emphasis on "capabilities" rather than just the consumption of a basic set of foodstuffs. Several articles and lectures by Atkinson and Sen worked this vein. The second intellectual root was the search for non-economic indicators of development, which were intended to mark the aspects to a quality of life that GDP or income measures do not *necessarily* capture. In 1979, for example, Morris published the "Physical Quality of Life Index," which combined measures of infant mortality rates, life expectancy at age one, and literacy -- ignoring the economic concept of per capita income entirely.

To get at the concept of "capabilities" of human development, three measures are used: income, longevity, and knowledge. Each of these indicators is admittedly imperfect, but each represents a compromise between what is measured and readily available, and what would be an ideal measurement. For example, a per capita GDP measure for income does capture a great deal of information about an individual's capabilities in life, but the measure would ideally also cover access to credit, availability to services, and possession of productive assets. However, those aspects of capabilities are not as available as per capita income. The measure of quality

of life would ideally go beyond longevity as measured by life expectancy rates, but adjustments for health status are not widely available.

Critics of the HDI, whether appearing in the erudite academic journals or the plebeian business press, have lodged their complaints ever since its inception. For example, a panel at the 1994 American Economic Association annual meetings considered the worth of HDI publication. Srinivasan disputed the UNDP's self-styled claim that the HDI represents a break with traditional development thinking by displacing economic growth as the sole end of development. In fact, Srinivasan argued, economic growth was always seen as a means, rather than an end of development. (Srinivasan, 1994) Other observers, including Chamie, Behrman, and Rosenzweig have cast doubts on the reliability of the data which comprise the HDI.

Lüchers and Menkhoff (1996) have criticized the mathematical integrity of the income component of the HDI. The UNDP applies the principle of diminishing marginal returns to per capita income, but the charge is made that the formula used does not apply the principle of diminishing marginal returns.

More fundamentally, Srinivasan argues that the HDI has not caused any countries to rethink their policies. For example, "it was widely known, long before the HDR in 1990, that in spite of her low per capita real income Sri Lanka's achievements in life expectancy and literacy were outstanding, in comparison with neighbors, but also with countries (developed and developing) with substantially higher per capita incomes. This knowledge did not demonstrably lead other countries to learn from Sri Lanka's experience." (Srinivasan, 1994, page 241.)

Srinivasan's strongest criticism of the HDI is that the UNDP has not delivered "deep institutional analysis" of the constraints which prevent countries from achieving human development, but that the analytical work of the *Human Development Report* resorts to clichés.

Streeten (1994) offered some support for the HDI, even though he views human development as something that will *always* be captured inadequately by *any* index or single number. But his comments are qualified support, at best.

> Yet, such indexes are useful in focusing attention and simplifying the problem. They have a stronger impact on the mind and draw public attention more powerfully than a long list of many indicators combined with a qualitative discussion. They are eye-catching. The strongest argument in their favor is that they show up the inadequacies of other indexes, such as GNP, and thereby contribute to an intellectual muscle therapy that helps us to avoid analytical cramps. (page 235)

Central to any consideration of the HDI is the empirical issue: to what extent do the three indicators march in lock step as countries achieve development? This is disputed, but neither side claims an extreme value to the correlation. Defenders of the HDI acknowledge that

per capita income growth is linked to longevity and literacy, while even the most caustic critics are aware that the correlation is not completely perfect. Therefore, there is always at least *some* legitimacy to using the HDI or its components as indicators.

In the *HDR* itself, the issue of whether trends in the HDI deviate from trends in per capita income is directly addressed. The data tables present the impact on country rank of calculating the HDI. For example, Canada is the eighth highest country when ranked by per capita income, but the number one country when ranked by HDI. Mexico, on the other hand, ranks 50th out of 175 countries on both measures.

The HDI does have a significant impact on the ranking of countries. When the HDI rank is compared to the per capita GDP rank, 49 percent of the 175 countries move either up or down at least ten spaces. Looking at longevity and educational attainment data does shake up the order of the world.

Indeed, the idea that per capita income is the only relevant indicator of development does not stand up on its own terms. Making an adjustment in ANNUAL per capita incomes for the number of years in an expected LIFETIME seems appropriate. After all, a situation where life expectancy rises while annual per capita incomes are unchanged is really an increase in income -- from the perspective of a life span. Any analyst would balk at a raw comparison of monthly earnings from seasonal and year-round employment. In the same way, there should be *some* adjustment to per capita incomes based on differing life expectancies that can be made without provoking conniptions.

When development pessimists decry the fact that many millions of people still live in poverty, it is not uncommon for the "optimists," who often seem to be economists, to urge a deeper historical perspective. Reaching for the words of seventeenth- century philosopher Thomas Hobbes, the optimists remind us that -- a few centuries ago -- life for most of the people everywhere was "nasty, brutish, and short." A decent income will eliminate the nastiness, but only literacy and school enrolment eliminates brutishness and -- by definition -- only longer life expectancy prevents one's existence from being short.

Method

The three components of the HDI, as of the 1997 edition, are handled somewhat differently, but the general thrust of the methods used is that the HDI is marker of the gap between the *actual* and *potential* levels of human development. The total HDI score can range from zero to one, and the score can be interpreted as the percentage of human development that has been attained by a country. No country earned full marks in 1997, but Canada was tops with an HDI of 0.960. No country failed to score more than zero either, with Sierra Leone ranking 175th out of 175 countries at an HDI of 0.176.

For any component, the individual index can be constructed with this general formula in mind:

The HDI is the simple average of the three individual indices. What are the maximum and minimum values for each component? In the case of educational attainment, there are two sub-components: adult literacy and aggregate enrolment rates. Both of these indicators range from zero to 100 by definition, so those values determine the maximum and minimum points. The educational attainment index itself is the weighted average of the two sub-component indices. Thus, for example, Colombia's literacy rate is 91 percent (two-thirds weight) and the aggregate, or gross enrolment ratio is 70 percent (one-third weight); it has an educational attainment index score of 84 percent.

In the case of the life expectancy index, the maximum value has been set at 85 years and the minimum value at 25 years. The UNDP set those markers based on trends in recent years. In the case of income, the maximum value is (PPP$) 40,000 and the minimum is (PPP$) 100. However, the handling of the income measure is a little different, with values over a set threshold level subject to a discounting formula. Specific and summary information on each component follows.

Income The HDI uses a purchasing-power-parity adjusted measure of per capita GDP. This method starts with the measure of per capita GDP expressed in local currency terms, but then uses a "ppp-adjusted" exchange rate to convert the data into comparable dollars. An alternative approach would rely more on actual market-based exchange rates, but studies have shown that those market exchange rates do not reliably equate consumer prices in different countries. The average world income level of (PPP$) 5,711 is taken as a threshold; income above that level is discounted based on Atkinson's formula for the utility of income. For each multiple of income above the world average, less weight

is attached in the formula. This approach is designed to express the diminishing marginal returns of income in the provision of human development.

The discounted value of the maximum income (PPP$) 40,000 with the Atkinson formula is (PPP$) 6,040.

Such an approach might not be palatable for everyone. But the result, that the HDI places greater emphasis on the difference between India and Brazil than on the difference between Spain and Switzerland, is clearly not a handicap for development professionals. The point of development work is to make the India-type countries more like the Korea-type countries, not to see that a country like Spain attains Swiss-like prosperity.

Longevity The HDI uses life expectancy at birth, rather than life expectancy at age 1. Thus, it implicitly expresses trends in infant mortality rates.

The world average life expectancy rate at birth is 63 years for 1994 (*i.e.*, the data used in the 1997 edition of the HDI). For industrial countries, the number is 74 years and Japan's 80 years gives it top rank. For all developing countries, the average is 62 years.

Educational Attainment Two thirds of this indicator is made up of the adult literacy rate, with the remainder by the "gross" or "combined" or "aggregate" enrolment ratio. This latter ratio combines primary, secondary, and tertiary school enrolment data.

Educational attainment indicators, both literacy and enrolment, have a key difference from income and longevity. Unlike the other two indicators, educational data have no directly distributional dimension. In other words, each individual is either literate or not, either enrolled or not. So, the question as to whether a "representative" individual is literate or not can be directly answered from the data. By contrast, both income and longevity indicators can represent a variety of distributions. If the distribution of income is skewed, then the "average" might not be "representative."

The world average literacy rate is 77 percent, but nearly 99 percent for industrial countries; the gross enrolment ratio is 60 percent for the world, but 83 percent for the industrial countries. Corresponding numbers for all developing countries are 70 percent literacy and 56 percent enrolment.

For example, the HDI for the Philippines is derived from the following data for 1994:

Per capita GDP	(PPP$) 2,681
Life expectancy	67 years

Literacy	94 percent
Enrolment	78 percent

The per capita GDP for the Philippines -- below the threshold -- needs no adjustment. Using the maximum/minimum formula, the Philippines has an income index of 0.43. The longevity index is 0.70, *i.e.*, life expectancy of 67 years achieves seventy percent of what is seen as possible. The educational attainment index is 0.89, representing the weighted average of the two sub-components. The simple average of those three individual indices is 0.67.

The UNDP describes HDI scores above 0.75 as "high human development," from 0.50 to 0.75 as "medium human development," and below 0.50 as "low human development." This is part of a sensible approach. It would be senseless to put much stock into whether a country ranks 80th or 81st, for example. Such precision would be misplaced.

Data

Based on 1994 data, the HDI ranked these countries as the top ten in the 1997 edition:

1	Canada	0.960	6	Netherlands	0.940
2	France	0.946	7	Japan	0.940
3	Norway	0.943	8	Finland	0.940
4	USA	0.942	9	New Zealand	0.937
5	Iceland	0.942	10	Sweden	0.936

Because of the way that income is adjusted for diminishing marginal returns, and because of the fact that most high human development countries have comparable longevity and educational indicators, the top group is relatively clustered in the rankings. Indeed, the country in 50th place, Mexico with an HDI of 0.853, is not all that far behind the leaders.

These ten countries occupy the middle spaces in the rankings:

83	Jamaica	0.736	88	Oman	0.718
84	Jordan	0.730	89	Peru	0.717
85	Turkmenistan	0.723	90	South Africa	0.716
86	Cuba	0.723	91	Sri Lanka	0.711
87	Dominican Republic	0.718	92	Latvia	0.711

These countries are also among the highest-ranking "medium human development countries." Some of them, including the Dominican Republic, Romania, and Jordan, have per capita incomes with a rank in line with the rank of their longevity and knowledge indicators. In other words, the income rank and HDI rank are about the same. By contrast, Turkmenistan and Cuba have per capita incomes that rank below the middle and they are pulled up by above average longevity and knowledge indicators. The opposite is true for Oman, by a wide margin. With an income in excess of (PPP$) 10,000, Oman would be well up in the "high human development" countries, but it has exceedingly low knowledge indicators.

These countries are the laggards, occupying the last ten spots in the rankings.

166	Mozambique	0.281	171	Mali	0.229
167	Guinea	0.271	172	Burkina Faso	0.221
168	Eritrea	0.269	173	Niger	0.206
169	Burundi	0.247	174	Rwanda	0.187
170	Ethiopia	0.244	175	Sierra Leone	0.176

Of course, they also rank last among the 46 countries rated as "low human development." Only one country, Guinea, has a per capita income over (PPP$) 1,000. Only one, Eritrea, has a life expectancy rate of at least 50 years. Only one, Rwanda, has an adult literacy rate of at least 40 percent. Only three of the countries have a gross enrolment ratio greater than 25 percent. The worst indicator for both of the countries at the very bottom -- Rwanda and Sierra Leone -- is the life expectancy rate.

Uses & Variations

There are many examples of analysis which have used the HDI and its methods. Variations or modifications to the HDI have also been numerous, including several by the UNDP itself. This section is a quick summary of some examples.

Using the HDI to put countries in a matrix. Data indicate that income and social indicators are correlated, but that the relationship is imperfect. As noted above, nearly half of the countries in the HDI move up or down ten or more spaces in rank when the income-only measure is compared with the income-and-social-indicators measure. Fifteen percent of the countries move up or down twenty or more spaces.

As a means of putting focus on countries for further analysis, to say nothing of policy reforms, the HDI can be used to identify the exceptions to the "income-and-social-indicators" tendency. Consider this simple matrix:

		Per Capita Income	
		High	Low
Social Indicators	Good	Group A (*e.g.*, OECD)	Group B (*e.g.*, Sri Lanka)
	Poor	Group C (*e.g.*, Mauritius)	Group D (*e.g.*, Bangladesh)

This the two-by-two example, of course, and it could be expanded to suit one's tastes. Sri Lanka, as a low-income country that has achieved astounding progress on its social indicators, is the commonplace example. A country like Mauritius, with rapid economic growth in recent years, has lagged on its longevity and knowledge measures. That divergence, and others like it, are worth some attention. The underlying point is longer lives, better health, and more education do not arise *ipso facto* from income growth by countries, but they rely upon a constellation of institutions, cultural changes, and policies themselves.

Constructing HDI's at the sub-national level as a starting point for policy dialogue. There are several examples of this approach, including "A Human Development Index for the Dalit Child in India" by Bruce P. Corrie in the March 1995 issue of *Social Indicators Research*, and "A Human Development Index for the Black Child in the United States" by the same author in the January 1994 *Challenge*. As the overriding purpose of the HDI is to bring attention to social and economic problems, it is a natural extension of the method to sub-national data.

Tracking broad trends over longer time periods. Intertemporal comparisons were a bit dicey with earlier versions of the HDI. Because each year's worth of data was used to set the minimum and maximum points, the "goalposts" were moving each year. However, the UNDP has adjusted the HDI so that the minimum and maximum markers are fixed. (Note: there is still some residual variability in the treatment of diminishing returns to income.) Now comparisons over time can be made with complete integrity. Most data is available for the past thirty years or so, and the HDI can be "back-calculated" even if the UNDP does not publish such estimates.

It is noted that the HDI does not vary much year-to-year, but this is a feature of life rather than the concept of the index. The broader the economic or social aggregate, the less likely that it will vary greatly on an annual basis.

The Gender-related Development Index (GDI). This comes out of the UNDP itself, making its debut in 1995. The GDI measures the same capabilities as the HDI, but it is adjusted for different levels of achievement for women and men. In order to calculate the GDI, a method of penalizing inequality is used. A country's GDI will be lower -- relative to its HDI score -- where there is greater gender inequality.

The Gender Empowerment Measure (GEM). Also from the UNDP starting in 1995, the GEM is designed to measure how equally are women and men in their empowerment to participate in economic and social life, and to affect decision-making. The first step is to calculate indexes for the gender balances in managerial, administrative, professional, and technical occupations, as well as in parliamentary representation. This is adjusted by the method of "population-weighted averaging." Second, the gender balance in the distribution of earned income is calculated. This is adjusted by the gender balance in the "economically active population," rather than the population as a whole. (For further details, see the technical notes to the 1996 *Human Development Report*.)

The Capability Poverty Measure (CPM). Also from the UNDP itself, the CPM is a simple index which calculates the percentage of the national population which does not have adequate capability in three dimensions of human development: a healthy and well-nourished life, the ability for safe and healthy reproduction, and being knowledgeable and literate. There are three indicators used: percentage of children under five years old who are underweight, percentage of births unattended by trained health personnel, and the percentage of women aged fifteen years or older who are illiterate.

In the case of the HDI, attention is paid to the average level of capabilities in a country; in the case of the CPM, attention is given to the share of people who lack those capabilities. (See the technical notes in the *Human Development Report* for further details.)

Conclusion

Leaving any debates over the HDI itself aside, it is worth noting that intense focus on the HDI does an injustice to the *Human Development Report* and its plenitude of data tables. The usefulness of the *HDR* as a development document is best seen in the wealth of indicators that it assembles in one place, rather than in the headline-grabbing country ranking.

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(**NOTE**: The 1997 HDI and analysis are available at the UNDP web site - http://www.undp.org)

Appendix A

The Human Development Index, 1997 Edition

Complete Rankings

"High Human Development" Countries

Rank		HDI	Rank		HDI
1	Canada	0.960	40	Trinidad & Tobago	0.880
2	France	0.946	41	Dominica	0.873
3	Norway	0.943	42	Slovakia	0.873
4	USA	0.942	43	Bahrain	0.870
5	Iceland	0.942	44	United Arab Emirates	0.866
6	Netherlands	0.940	45	Panama	0.864
7	Japan	0.940	46	Fiji	0.863
8	Finland	0.940	47	Venezuela	0.861
9	New Zealand	0.937	48	Hungary	0.857
10	Sweden	0.936	49	Saint Kitts & Nevis	0.853
11	Spain	0.934	50	Mexico	0.853
12	Austria	0.932	51	Colombia	0.848
13	Belgium	0.932	52	Seychelles	0.845
14	Australia	0.931	53	Kuwait	0.844
15	United Kingdom	0.931	54	Grenada	0.843
16	Switzerland	0.930	55	Qatar	0.840
17	Ireland	0.929	56	Saint Lucia	0.838
18	Denmark	0.927	57	Saint Vincent	0.836
19	Germany	0.924	58	Poland	0.834
20	Greece	0.923	59	Thailand	0.833
21	Italy	0.921	60	Malaysia	0.832
22	Hong Kong	0.914	61	Mauritius	0.831
23	Israel	0.913	62	Belarus	0.806
24	Cyprus	0.907	63	Belize	0.806
25	Barbados	0.907	64	Libya	0.801
26	Singapore	0.900	65	Lebanon	0.794
27	Luxembourg	0.899	66	Suriname	0.792
28	Bahamas	0.894	67	Russian Federation	0.792
29	Antigua & Barbuda	0.892	68	Brazil	0.783
30	Chile	0.891	69	Bulgaria	0.780
31	Portugal	0.890	70	Iran	0.780
32	Republic of Korea	0.890	71	Estonia	0.776
33	Costa Rica	0.889	72	Ecuador	0.775
34	Malta	0.887	73	Saudi Arabia	0.773
35	Slovenia	0.886	74	Turkey	0.772
36	Argentina	0.884	75	North Korea	0.765

37 Uruguay	0.883	76 Lithuania	0.762
38 Brunei	0.882	77 Croatia	0.760
39 Czech Republic	0.882	78 Syria	0.755

"Medium Human Development" Countries

Rank	HDI	Rank	HDI
79 Romania	0.748	105 Georgia	0.637
80 Macedonia, FYR	0.748	106 Azerbaijan	0.636
81 Tunisia	0.748	107 Kyrgyzstan	0.635
82 Algeria	0.737	108 China	0.626
83 Jamaica	0.736	109 Egypt	0.614
84 Jordan	0.730	110 Moldova	0.612
85 Turkmenistan	0.723	111 Maldives	0.611
86 Cuba	0.723	112 El Salvador	0.592
87 Dominican Republic	0.718	113 Bolivia	0.589
88 Oman	0.718	114 Swaziland	0.582
89 Peru	0.717	115 Tajikistan	0.580
90 South Africa	0.716	116 Honduras	0.575
91 Sri Lanka	0.711	117 Guatemala	0.572
92 Latvia	0.711	118 Namibia	0.570
93 Kazakhstan	0.709	119 Morocco	0.566
94 Paraguay	0.706	120 Gabon	0.562
95 Ukraine	0.689	121 Viet Nam	0.557
96 Western Samoa	0.684	122 Solomon Islands	0.556
97 Botswana	0.673	123 Cape Verde	0.547
98 Phillipines	0.672	124 Vanuatu	0.547
99 Indonesia	0.668	125 Sao Tome & Principe	0.534
100 Uzbekistan	0.662	126 Iraq	0.531
101 Mongolia	0.661	127 Nicaragua	0.530
102 Albania	0.655	128 Papua New Guinea	0.525
103 Armenia	0.651	129 Zimbabwe	0.513
104 Guyana	0.649		

"Low Human Development" Countries

Rank		HDI	Rank		HDI
130	Congo	0.500	153	Cambodia	0.348
131	Myanmar	0.457	154	Nepal	0.347
132	Ghana	0.468	155	Bhutan	0.338
133	Cameroon	0.468	156	Haiti	0.338
134	Kenya	0.463	157	Angola	0.335
135	Equatorial Guinea	0.462	158	Sudan	0.333
136	Lao PDR	0.459	159	Uganda	0.328
137	Lesotho	0.457	160	Senegal	0.326
138	India	0.446	161	Malawi	0.320
139	Pakistan	0.445	162	Djibouti	0.319
140	Comoros	0.412	163	Guinea-Bissau	0.291
141	Nigeria	0.393	164	Chad	0.288
142	Zaire	0.381	165	Gambia	0.281
143	Zambia	0.369	166	Mozambique	0.281
144	Bangladesh	0.368	167	Guinea	0.271
145	Cote d'Ivoire	0.368	168	Eritrea	0.269
146	Benin	0.368	169	Burundi	0.247
147	Togo	0.365	170	Ethiopia	0.244
148	Yemen	0.361	171	Mali	0.229
149	Tanzania	0.357	172	Burkina Faso	0.221
150	Mauritania	0.355	173	Niger	0.206
151	Central African Republic	0.355	174	Rwanda	0.187
152	Madagascar	0.350	175	Sierra Leone	0.176

Appendix B

The Human Development Index, 1997 Edition

Component Data

Comparison of Rank with Per Capita Income Rank

The Human Development Index, 1997 Edition

Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
1	Canada	79.0	99.0	100	21,459	0.960	7
2	France	78.7	99.0	89	20,510	0.946	13
3	Norway	77.5	99.0	92	21,346	0.943	6
4	USA	76.2	99.0	96	26,397	0.942	-1
5	Iceland	79.1	99.0	83	20,556	0.942	9
6	Netherlands	77.3	99.0	91	19,238	0.940	13
7	Japan	79.8	99.0	78	21,581	0.940	0
8	Finland	76.3	99.0	97	17,417	0.940	15
9	New Zealand	76.4	99.0	94	16,851	0.937	15
10	Sweden	78.3	99.0	82	18,540	0.936	11
11	Spain	77.6	97.1	90	14,324	0.934	19
12	Austria	76.6	99.0	87	20,667	0.932	1
13	Belgium	76.8	99.0	86	20,985	0.932	-1
14	Australia	78.1	99.0	79	19,285	0.931	4
15	United Kingdom	76.7	99.0	86	18,620	0.931	5
16	Switzerland	78.1	99.0	76	24,967	0.930	-12
17	Ireland	76.3	99.0	88	16,061	0.929	8
18	Denmark	75.2	99.0	89	21,341	0.927	-8
19	Germany	76.3	99.0	81	19,675	0.924	-3
20	Greece	77.8	96.7	82	11,265	0.923	15
21	Italy	77.8	98.1	73	19,363	0.921	-4
22	Hong Kong	79.0	92.3	72	22,310	0.914	-17
23	Israel	77.5	95.0	75	16,023	0.913	3
24	Cyprus	77.1	94.0	75	13,071	0.907	8
25	Barbados	75.9	97.3	76	11,051	0.907	11
26	Singapore	77.1	91.0	72	20,987	0.900	-15
27	Luxembourg	75.9	99.0	58	34,155	0.899	-26
28	Bahamas	72.9	98.1	75	15,875	0.894	0
29	Antigua & Barbuda	74.0	96.0	76	8,977	0.892	16
30	Chile	75.1	95.0	72	9,129	0.891	13
31	Portugal	74.6	89.6	81	12,326	0.890	3
32	Republic of Korea	71.5	97.9	82	10,656	0.890	5
33	Costa Rica	76.6	94.7	68	5,919	0.889	27
34	Malta	76.4	86.0	76	13,009	0.887	-1

The Human Development Index, 1997 Edition

Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
35	Slovenia	73.1	96.0	74	10,404	0.886	3
36	Argentina	72.4	96.0	77	8,937	0.884	10
37	Uruguay	72.6	97.1	75	6,752	0.883	15
38	Brunei	74.9	87.9	70	30,447	0.882	-36
39	Czech Republic	72.2	99.0	70	9,201	0.882	3
40	Trinidad & Tobago	72.9	97.9	67	9,124	0.880	4
41	Dominica	72.0	94.0	77	9,118	0.873	16
42	Slovakia	70.8	99.0	72	6,389	0.873	12
43	Bahrain	72.0	84.4	85	15,321	0.870	-14
44	U.A.E.	74.2	78.6	82	16,000	0.866	-17
45	Panama	73.2	90.5	70	6,104	0.864	14
46	Fiji	71.8	91.3	79	5,763	0.863	16
47	Venezuela	72.1	91.0	68	8,120	0.861	1
48	Hungary	68.8	99.0	67	6,437	0.857	5
49	Saint Kitts & Nevis	69.0	90.0	78	9,436	0.853	-9
50	Mexico	72.0	89.2	66	7,384	0.853	0
51	Colombia	70.1	91.1	70	6,107	0.848	7
52	Seychelles	72.0	88.0	61	7,891	0.845	-3
53	Kuwait	75.2	77.8	57	21,875	0.844	-47
54	Grenada	72.0	98.0	78	5,137	0.843	17
55	Qatar	70.9	78.9	73	18,403	0.840	-33
56	Saint Lucia	71.0	82.0	74	6,182	0.838	-1
57	Saint Vincent	72.0	82.0	78	5,650	0.836	6
58	Poland	71.2	99.0	79	5,002	0.834	14
59	Thailand	69.5	93.5	53	7,104	0.833	-8
60	Malaysia	71.2	83.0	62	8,865	0.832	-13
61	Mauritius	70.7	82.4	61	13,172	0.831	-30
62	Belarus	69.2	97.9	80	4,713	0.806	13
63	Belize	74.0	70.0	68	5,590	0.806	1
64	Libya	63.8	75.0	91	6,125	0.801	-8
65	Lebanon	69.0	92.0	75	4,863	0.794	8
66	Suriname	70.7	92.7	71	4,711	0.792	10
67	Russian Federation	65.7	98.7	78	4,828	0.792	7
68	Brazil	66.4	82.7	72	5,362	0.783	0

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Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
69	Bulgaria	71.1	93.0	66	4,533	0.780	9
70	Iran	68.2	68.6	68	5,766	0.780	-9
71	Estonia	69.2	99.0	72	4,294	0.776	8
72	Ecuador	69.3	89.6	72	4,626	0.775	5
73	Saudi Arabia	70.3	61.8	56	9,338	0.773	-32
74	Turkey	68.2	81.6	63	5,193	0.772	-4
75	North Korea	71.4	95.0	75	3,965	0.765	10
76	Lithuania	70.1	98.4	70	4,011	0.762	8
77	Croatia	71.3	97.0	67	3,960	0.760	10
78	Syria	67.8	69.8	64	5,397	0.755	-12
79	Romania	69.5	96.9	62	4,037	0.748	3
80	Macedonia, FYR	71.7	94.0	60	3,965	0.748	5
81	Tunisia	68.4	65.2	67	5,319	0.748	-12
82	Algeria	67.8	59.4	66	5,442	0.737	-17
83	Jamaica	73.9	84.4	65	3,816	0.736	7
84	Jordan	68.5	85.5	66	4,187	0.730	-3
85	Turkmenistan	64.7	97.7	90	3,469	0.723	12
86	Cuba	75.6	95.4	63	3,000	0.723	17
87	Dominican Republic	70.0	81.5	68	3,933	0.718	1
88	Oman	70.0	35.0	60	10,078	0.718	-49
89	Peru	67.4	88.3	81	3,645	0.717	5
90	South Africa	63.7	81.4	81	4,291	0.716	-10
91	Sri Lanka	72.2	90.1	66	3,277	0.711	9
92	Latvia	67.9	99.0	67	3,332	0.711	6
93	Kazakhstan	67.5	97.5	73	3,284	0.709	6
94	Paraguay	68.8	91.9	62	3,531	0.706	2
95	Ukraine	68.4	98.8	76	2,718	0.689	14
96	Western Samoa	68.1	98.0	74	2,726	0.684	12
97	Botswana	52.3	68.7	71	5,367	0.673	-30
98	Phillipines	67.0	94.4	78	2,681	0.672	12
99	Indonesia	63.5	83.2	62	3,740	0.668	-7
100	Uzbekistan	67.5	97.2	73	2,438	0.662	14
101	Mongolia	64.4	82.2	52	3,766	0.661	-10
102	Albania	70.5	85.0	59	2,788	0.655	4

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Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
103	Armenia	70.8	98.8	78	1,737	0.651	24
104	Guyana	63.2	97.9	67	2,729	0.649	3
105	Georgia	73.1	94.9	69	1,585	0.637	31
106	Azerbaijan	71.0	96.3	72	1,670	0.636	25
107	Kyrgyzstan	67.8	97.0	73	1,930	0.635	18
108	China	68.9	80.9	58	2,604	0.626	3
109	Egypt	64.3	50.5	69	3,846	0.614	-20
110	Moldova	67.7	98.9	67	1,576	0.612	28
111	Maldives	62.8	93.0	71	2,200	0.611	7
112	El Salvador	69.3	70.9	55	2,417	0.592	3
113	Bolivia	60.1	82.5	66	2,598	0.589	-1
114	Swaziland	58.3	75.2	72	2,821	0.582	-10
115	Tajikistan	66.8	96.7	69	1,117	0.580	35
116	Honduras	68.4	72.0	60	2,050	0.575	7
117	Guatemala	65.6	55.7	46	3,208	0.572	-16
118	Namibia	55.9	40.0	84	4,027	0.570	-35
119	Morocco	65.3	42.1	46	3,681	0.566	-26
120	Gabon	54.1	62.6	60	3,641	0.562	-25
121	Viet Nam	66.0	93.0	55	1,208	0.557	26
122	Solomon Islands	70.8	62.0	47	2,118	0.556	0
123	Cape Verde	65.3	69.9	64	1,862	0.547	3
124	Vanuatu	65.9	64.0	52	2,276	0.547	-7
125	Sao Tome & Principe	67.0	67.0	57	1,704	0.534	3
126	Iraq	57.0	56.8	53	3,159	0.531	-24
127	Nicaragua	67.3	65.3	62	1,580	0.530	10
128	Papua New Guinea	56.4	71.2	38	2,821	0.525	-24
129	Zimbabwe	49.0	84.7	68	2,196	0.513	-10
130	Congo	51.3	73.9	56	2,410	0.500	-14
131	Myanmar	58.4	82.7	48	1,051	0.457	25
132	Ghana	56.6	63.4	44	1,960	0.468	-8
133	Cameroon	55.1	62.1	46	2,120	0.468	-12
134	Kenya	53.6	77.0	55	1,404	0.463	5
135	Equatorial Guinea	48.6	77.8	64	1,673	0.462	-5
136	Lao PDR	51.7	55.8	50	2,484	0.459	-23

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Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
137	Lesotho	57.9	70.5	56	1,109	0.457	14
138	India	61.3	51.2	56	1,348	0.446	5
139	Pakistan	62.3	37.1	38	2,154	0.445	-19
140	Comoros	56.1	56.7	39	1,366	0.412	1
141	Nigeria	51.0	55.6	50	1,351	0.393	1
142	Zaire	52.2	76.4	38	429	0.381	31
143	Zambia	42.6	76.6	48	962	0.369	15
144	Bangladesh	56.4	37.3	39	1,331	0.368	0
145	Cote d'Ivoire	52.1	39.4	39	1,668	0.368	-13
146	Benin	54.2	35.5	35	1,696	0.368	-17
147	Togo	50.6	50.4	50	1,109	0.365	4
148	Yemen	56.2	41.1	52	805	0.361	14
149	Tanzania	50.3	66.8	34	656	0.357	21
150	Mauritania	52.1	36.9	36	1,593	0.355	-15
151	C.A.R.	48.3	57.2	37	1,130	0.355	-2
152	Madagascar	57.2	45.8	33	694	0.350	16
153	Cambodia	52.4	35.0	58	1,084	0.348	1
154	Nepal	55.3	27.0	55	1,137	0.347	-6
155	Bhutan	51.5	41.1	31	1,289	0.338	-10
156	Haiti	54.4	44.1	29	896	0.338	5
157	Angola	47.2	42.5	31	1,600	0.335	-24
158	Sudan	51.0	44.8	31	1,084	0.333	-4
159	Uganda	40.2	61.1	34	1,370	0.328	-19
160	Senegal	49.9	32.1	31	1,596	0.326	-26
161	Malawi	41.1	55.8	67	694	0.320	7
162	Djibouti	48.8	45.0	20	1,270	0.319	-16
163	Guinea-Bissau	43.2	53.9	29	793	0.291	1
164	Chad	47.0	47.0	25	700	0.288	2
165	Gambia	45.6	37.2	34	939	0.281	-5
166	Mozambique	46.0	39.5	25	986	0.281	-9
167	Guinea	45.1	34.8	24	1,103	0.271	-14
168	Eritrea	50.1	25.0	24	960	0.269	-9
169	Burundi	43.5	34.6	31	698	0.247	-2
170	Ethiopia	48.2	34.5	18	427	0.244	4

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Component Data and Comparison of Rank with Per Capita Income Rank

Rank	Country	Life expectancy at birth (years)	Adult literacy rate (percent)	Gross enrolment ratio (percent)	Real GDP per capita (PPP$)	Human Develop-ment Index (HDI)	Real GDP per capita (PPP$) rank minus HDI rank
171	Mali	46.6	29.3	17	543	0.229	1
172	Burkina Faso	46.4	18.7	20	796	0.221	-9
173	Niger	47.1	13.1	15	787	0.206	-8
174	Rwanda	22.6	59.2	37	352	0.187	1
175	Sierra Leone	33.6	30.3	28	643	0.176	-4

Note: The 1997 rankings use data for 1994.