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Measuring Development An Index of Human Progress

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Executive Summary

The United Nations Human Development Index contains a major weakness: Gross Domestic Product (GDP) per capita is arbitrarily adjusted to limit its impact in the index. In addition, too little attention is paid to historical trends in human development. The Fraser Institute's Index of Human Progress, since it is based upon unadjusted GDP per capita and measurements from 1975 through 1999, provides a more complete view of the recent history and current state of development throughout the world. The Index of Human Progress uses 10 development indicators, six more than the Human Development Index. Using more indicators allows us to draw clearer

distinctions among countries though it reduces the number of countries that can be included in the Index of Human Progress.

The Index of Human Progress, using *actual* GDP per capita (US\$1995) and the expanded set of indicators, ranks the United States first, and Canada sixteenth in 1999 out of 128 countries. Only 4 of the 128 countries did not see an improvement in their score on the Index of Human Progress. Canada's score on the Index of Human Progress improved from 73.2 in 1975 to 94.0 in 1999 (a 28.5% increase); the score of the United States improved from 81.4 in 1975 to 105.8 in 1999 (a 30.1% increase).

Introduction

Since its introduction in 1990, the United Nations' Human Development Index has attracted a great deal of attention as a measure by which to gauge the development of nations. This is particularly true in Canada, as the federal government repeatedly touts our standing—at or near the top of the Human Development Index since the inaugural *Human Development Report 1990*—as indicative that Canada is “the best country in the world” (Prime Minister of Canada 1999). Upon closer inspection it is clear that there is room for improvement in the Human Development Index. The main weakness is that the arbitrary adjustment of GDP in the Human Development Index distorts differences among countries. This distortion is especially pronounced for countries with high income. In addition, the emphasis of the Human Development Index is on the year for which the most recent data are available. Measuring development requires that we know how a country has progressed over time, not just how it compares to other countries in a single year.

Further, the Human Development Index uses only four indicators even though there are several others available that have data complete enough to be useful in drawing distinctions among countries. Presumably, part of the reason for using only four indicators is that this allows more countries to be included in the Human Development Index.

This study introduces the Index of Human Progress (IHP), which uses six more indicators than the Human Development Index and employs data from 1975 through 1999 to describe the recent progress and current state of development for 128 countries. The study is organized into two parts. The first describes the Human Development Index and explains its weaknesses. The second introduces the Index of Human Progress and presents the results from 1975 through 1999.

Measuring Development

What is the United Nations' Human Development Index?

The United Nations' Human Development Index is an annual compilation that endeavours to "capture as many aspects of human development as possible in one simple, composite index" (UNDP 1997). The Human Development Index is composed of four indicators in three sub-indices, Life Expectancy, Education, and Gross Domestic Product (GDP), which are averaged to arrive at the Human Development Index score. Each indicator value is computed according to the general formula:

$$\text{Indicator value} = \frac{(\text{country value} - \text{min. value})}{(\text{max. value} - \text{min. value})}$$

where "country value" is the value observed for the country of interest, and the minimum and maximum values are the result of assumptions made by the United Nations about each of the indicators in each sub-index.

Life expectancy

In the area of life expectancy, the minimum and maximum values are set at 25 and 85 respectively. Applying the general formula using Canada's 1999 life expectancy at birth of 78.7 years results in an indicator value of:

$$0.89 = (78.7 - 25)/(85 - 25)$$

Since there is only one indicator in this sub-index, the indicator value is equivalent to the sub-index score.

Education

For education, the sub-index contains two indicators: adult literacy and the combined gross enrolment ratio. Adult literacy is measured as "the percentage of people aged 15 and above who can, with understanding, both read and write a short, simple statement on everyday life" (UNDP 1990: 182). The combined gross primary, secondary, and tertiary enrolment ratio is the average of the ratios of the number of students enrolled in a given level of education as a percentage of the population in the appropriate age group. The literacy indicator counts for two-thirds of the sub-index score since the United Nations believes that "literacy is the first step in learning and knowledge-building" and deserves the greater emphasis (UNDP 1990: 12); the combined gross enrolment ratio counts for one-third. The two indicators are combined to arrive at the score for the sub-index. The sub-index score for Canada is:

$$0.98 = (2(99 - 0)/(100 - 0) + 1(97 - 0)/(100 - 0))/3$$

Gross Domestic Product per capita

The calculation of the indicator of GDP per capita is more complicated than that of the other indicators since it is calculated using a logarithmic form of the general formula. This reduces the importance of GDP per capita in the Human Development Index: the size of reduction is especially pronounced for high-income countries.

The method of calculating the adjusted GDP per capita indicator value, $W(y)$ —is given by:

$$W(y) = \frac{\log y - \log y_{\min}}{\log y_{\max} - \log y_{\min}}$$

where y is the per-capita GDP of the country of interest, y_{min} is the assumed minimum value, and y_{max} is the assumed maximum value. (This method of adjustment differs from that employed in reports from 1990 through 1998. For an overview of the old adjustment method, see Emes 1998.)

For Canada, the 2001 Human Development Index reported a value for the GDP-per-capita indicator of:

$$0.93 = \frac{(\log(26,251) - \log(100))}{(\log(40,000) - \log(100))}$$

Since there is only one indicator in this sub-index, the value of the indicator is equivalent to the sub-index score.

The final score of the Human Development Index

To arrive at the final 2000 Human Development Index score, the scores from the three sub-indexes are averaged:

$$0.936 = (0.89 + 0.98 + 0.93)/3$$

Table 1 shows the raw data, sub-index scores, and Human Development Index score and rank for the 20 top-ranked countries from the United Nations' Human Development Report 2001.

The weakness in the Human Development Index: Arbitrary adjustment of GDP per capita

The fundamental weakness of the Human Development Index is the arbitrary adjustment of GDP per capita. The United Nations assumes that GDP per capita should be discounted on the grounds that per-capita income contributes minimally to development when it rises past a certain modest amount. They do not, however, offer

any empirical evidence to support their claim though the *Human Development Report 1999* provides the following rationale:

Income enters into the HDI as a surrogate for all the dimensions of human development not reflected in a long and healthy life and in knowledge—in a nutshell, it is a proxy for a decent standard of living. The basic approach in the treatment of income has been driven by the fact that achieving a respectable level of human development does not require unlimited income. To reflect this, income has always been discounted in calculating the HDI (UNDP 1999: 159).

Figure 1 shows five different ways of calculating the score for GDP per capita. One makes no adjustment to GDP per capita (linear) while the others represent four of the countless possible functions that could be used to adjust GDP per capita. The Human Development Index arbitrarily uses the logarithmic (log) function. This adjustment has the effect of giving much higher scores to low-income countries and giving countries whose income increases above the level of \$5,000 to \$7,000 per-capita very little credit for the improvement. For example, the adjustment shows that if Canada's 1999 GDP per capita of \$26,251 (1995 \$US) increased by \$5,621 to match the United States' GDP per capita of \$31,872, Canada's GDP indicator score would increase from 0.93 to 0.96 (see figure 2); the increase in Canada's level of development as measured by the Human Development Index would be only 1.1%. On the other hand, the adjustment shows that if Congo's 1999 GDP per capita of \$727 (1995 \$US) increased by \$5,621 to \$6,348, its GDP indicator score would increase by 109.2% from 0.33 to 0.69 (see figure 2). Congo's level of development as measured by the Human Development Index would increase by 27.8%. If Congo's GDP per capita then grew by a further \$25,524 from \$6,348 to \$31,872, its GDP indicator score would increase by only 38.9%.

Table 1: The United Nations' Human Development Index (HDI)—top 20 scores (1999)

| | Life Expectancy at Birth (years) | Adult Literacy Rate (% aged 15 and above) | Combined Enrollment Ratio (%) | Real GDP per Person (PPP US\$) | Life Expectancy Sub-Index | Education Sub-Index | GDP per capita Sub-Index | HDI Score 1999 | HDI Rank 1999 |
|-----------------------|--|---|-------------------------------------|--------------------------------------|---------------------------------|------------------------|--------------------------------|-------------------|------------------|
| Norway | 78.4 | 99.0 | 97 | 28,433 | 0.89 | 0.98 | 0.94 | 0.939 | 1 |
| Australia | 78.8 | 99.0 | 116 | 24,574 | 0.90 | 0.99 | 0.92 | 0.936 | 2 |
| Canada | 78.7 | 99.0 | 97 | 26,251 | 0.89 | 0.98 | 0.93 | 0.936 | 3 |
| Sweden | 79.6 | 99.0 | 101 | 22,636 | 0.91 | 0.99 | 0.90 | 0.936 | 4 |
| Belgium | 78.2 | 99.0 | 109 | 25,443 | 0.89 | 0.99 | 0.92 | 0.935 | 5 |
| United States | 76.8 | 99.0 | 95 | 31,872 | 0.86 | 0.98 | 0.96 | 0.934 | 6 |
| Iceland | 79.1 | 99.0 | 89 | 27,835 | 0.90 | 0.96 | 0.94 | 0.932 | 7 |
| Netherlands | 78.0 | 99.0 | 102 | 24,215 | 0.88 | 0.99 | 0.92 | 0.931 | 8 |
| Japan | 80.8 | 99.0 | 82 | 24,898 | 0.93 | 0.93 | 0.92 | 0.928 | 9 |
| Finland | 77.4 | 99.0 | 103 | 23,096 | 0.87 | 0.99 | 0.91 | 0.925 | 10 |
| Switzerland | 78.8 | 99.0 | 84 | 27,171 | 0.90 | 0.94 | 0.94 | 0.924 | 11 |
| Luxembourg | 77.2 | 99.0 | 73 | 42,769 | 0.87 | 0.90 | 1.00 | 0.924 | 12 |
| France | 78.4 | 99.0 | 94 | 22,897 | 0.89 | 0.97 | 0.91 | 0.924 | 13 |
| United Kingdom | 77.5 | 99.0 | 106 | 22,093 | 0.87 | 0.99 | 0.90 | 0.923 | 14 |
| Denmark | 76.1 | 99.0 | 97 | 25,869 | 0.85 | 0.98 | 0.93 | 0.921 | 15 |
| Austria | 77.9 | 99.0 | 90 | 25,089 | 0.88 | 0.96 | 0.92 | 0.921 | 16 |
| Germany | 77.6 | 99.0 | 94 | 23,742 | 0.88 | 0.97 | 0.91 | 0.921 | 17 |
| Ireland | 76.4 | 99.0 | 91 | 25,918 | 0.86 | 0.96 | 0.93 | 0.916 | 18 |
| New Zealand | 77.4 | 99.0 | 99 | 19,104 | 0.87 | 0.99 | 0.88 | 0.913 | 19 |
| Italy | 78.4 | 98.4 | 84 | 22,172 | 0.89 | 0.94 | 0.90 | 0.909 | 20 |

Source: United Nations, *Human Development Report 2001*, 2001

Figure 1: Alternative adjustment functions for the GDP indicator

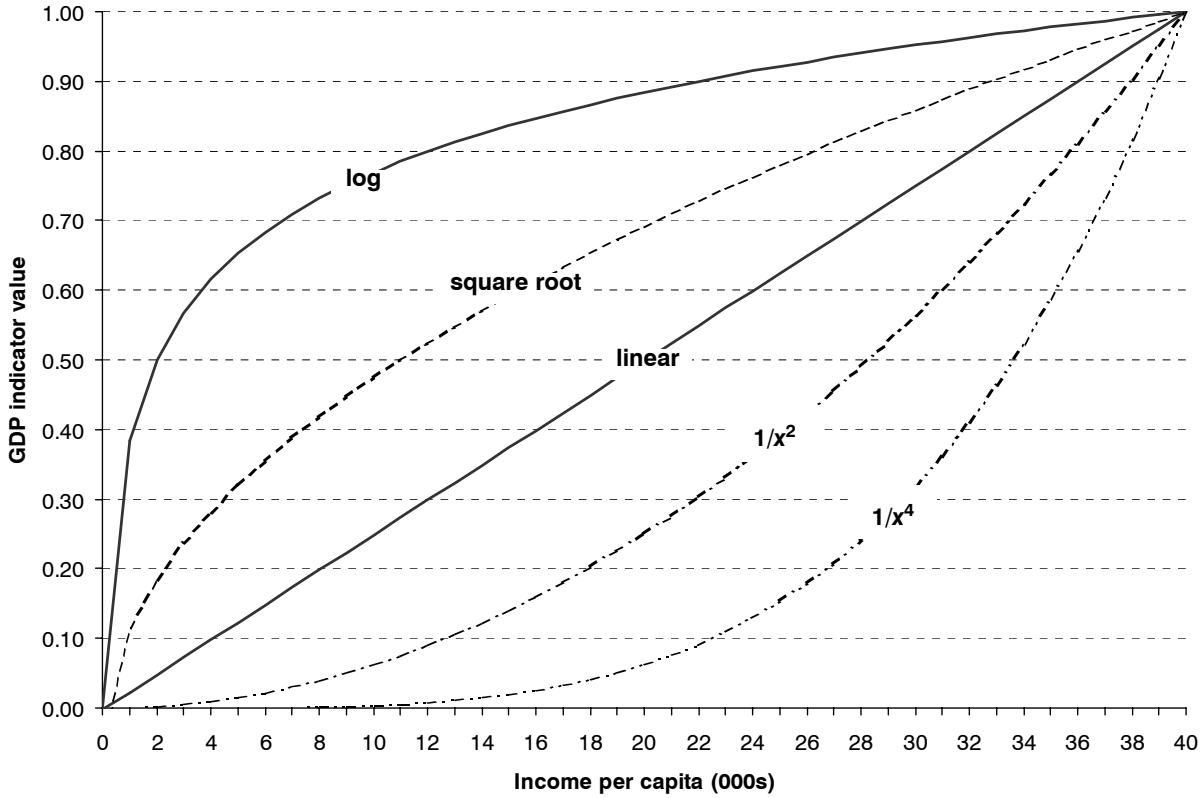
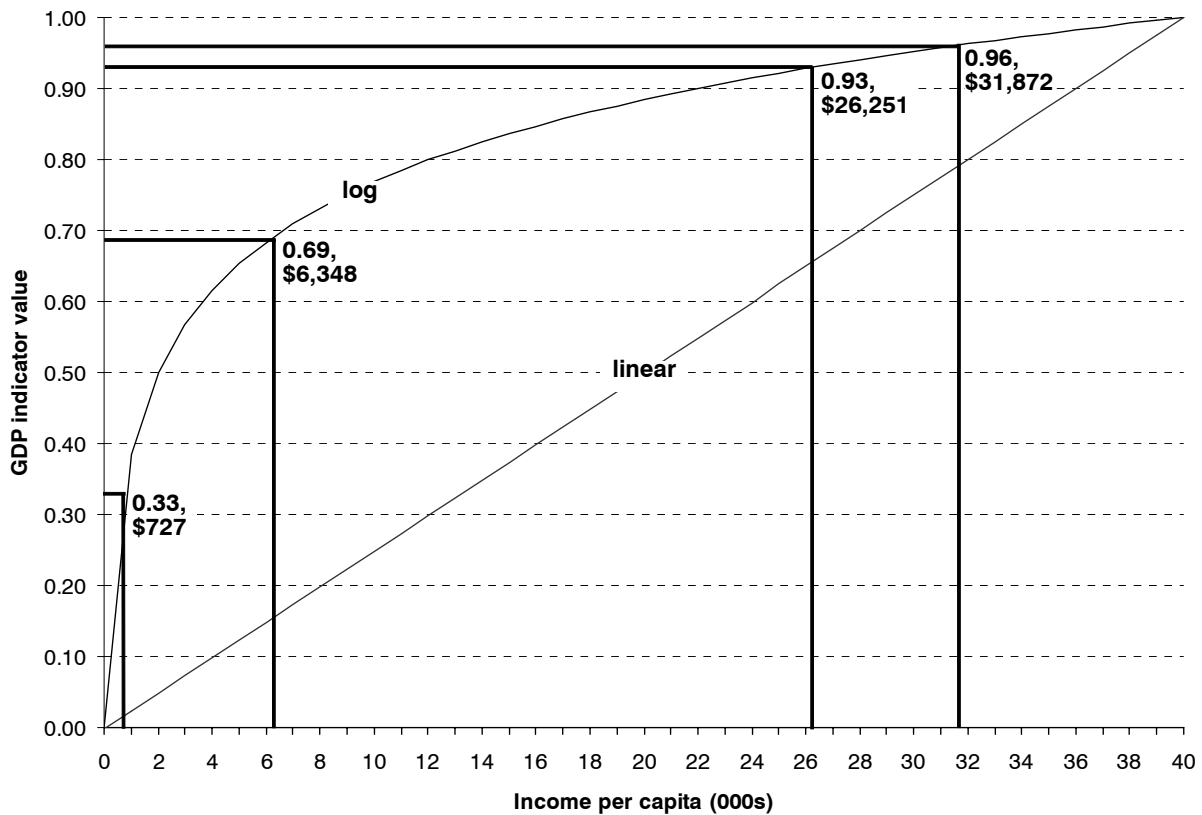


Figure 2: How changes in income affect the GDP indicator value



The adjustment of GDP per capita has a significant impact on the scores in the Human Development Index. Table 2 and figure 3 show, for the 20 countries in table 1, the effect of adjusting GDP per capita. In the absence of the United Nations' adjustment to GDP per capita, Canada would have ranked fifth instead of third on the Human Development Index, Luxembourg would have ranked first as opposed to twelfth, and Sweden would have ranked thirteenth, not fourth. The following examples from table 2 for Canada and the United States highlight the different results

obtained for the Human Development Index when the adjustment to GDP per capita alone is changed.

GDP per capita as calculated with and without adjustment

Canada's GDP indicator value for 1999 as calculated using the United Nations method is 0.93:

$$0.93 = \frac{(\log(26,251) - \log(100))}{(\log(40,000) - \log(100))}$$

Figure 3: The Human Development Index with and without adjustment of GDP per capita

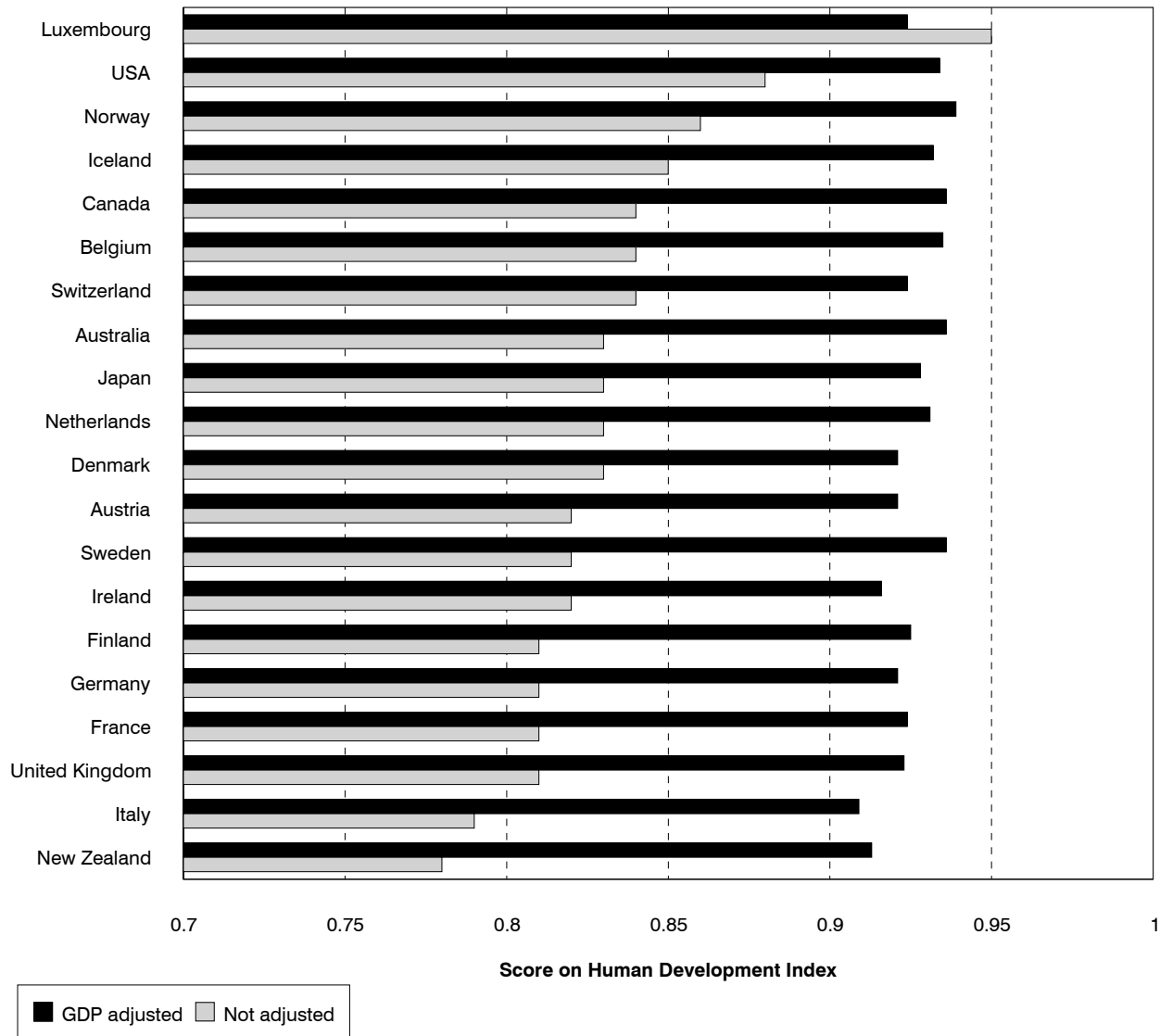


Table 2: The United Nations' Human Development Index (HDI)—with and without adjustment of GDP per capita

| | Real GDP per person (PPP US\$) | GDP Sub-index (UN Method) | HDI Score (UN Method) | HDI Rank (UN Method) | GDP Sub-Index Score (no GDP adjustment) | HDI Score (no GDP adjustment) | HDI Rank (no GDP adjustment) | Change in Rank |
|-----------------------|--------------------------------------|------------------------------|--------------------------|-------------------------|---|-------------------------------------|------------------------------------|-------------------|
| Luxembourg | 42,769 | 1.00 | 0.924 | 12 | 1.07 | 0.95 | 1 | 11 |
| United States | 31,872 | 0.96 | 0.934 | 6 | 0.80 | 0.88 | 2 | 4 |
| Norway | 28,433 | 0.94 | 0.939 | 1 | 0.71 | 0.86 | 3 | (2) |
| Iceland | 27,835 | 0.94 | 0.932 | 7 | 0.70 | 0.85 | 4 | 3 |
| Canada | 26,251 | 0.93 | 0.936 | 3 | 0.66 | 0.84 | 5 | (2) |
| Belgium | 25,443 | 0.92 | 0.935 | 5 | 0.64 | 0.84 | 6 | (1) |
| Switzerland | 27,171 | 0.94 | 0.924 | 11 | 0.68 | 0.84 | 7 | 4 |
| Australia | 24,574 | 0.92 | 0.936 | 2 | 0.61 | 0.83 | 8 | (6) |
| Japan | 24,898 | 0.92 | 0.928 | 9 | 0.62 | 0.83 | 9 | 0 |
| Netherlands | 24,215 | 0.92 | 0.931 | 8 | 0.60 | 0.83 | 10 | (2) |
| Denmark | 25,869 | 0.93 | 0.921 | 15 | 0.65 | 0.83 | 11 | 4 |
| Austria | 25,089 | 0.92 | 0.921 | 16 | 0.63 | 0.82 | 12 | 4 |
| Sweden | 22,636 | 0.90 | 0.936 | 4 | 0.56 | 0.82 | 13 | (9) |
| Ireland | 25,918 | 0.93 | 0.916 | 18 | 0.65 | 0.82 | 14 | 4 |
| Finland | 23,096 | 0.91 | 0.925 | 10 | 0.58 | 0.81 | 15 | (5) |
| Germany | 23,742 | 0.91 | 0.921 | 17 | 0.59 | 0.81 | 16 | 1 |
| France | 22,897 | 0.91 | 0.924 | 13 | 0.57 | 0.81 | 17 | (4) |
| United Kingdom | 22,093 | 0.90 | 0.923 | 14 | 0.55 | 0.81 | 18 | (4) |
| Italy | 22,172 | 0.90 | 0.909 | 20 | 0.55 | 0.79 | 19 | 1 |
| New Zealand | 19,104 | 0.88 | 0.913 | 19 | 0.48 | 0.78 | 20 | (1) |

Sources: United Nations, *Human Development Report 2001*, 2001; calculations by the authors.

Calculated without the log adjustment, Canada's GDP indicator value drops to 0.66:

$$0.66 = \frac{(26,251) - (100)}{(40,000) - (100)}$$

Similarly, the United States' GDP indicator value for 1999 as calculated using the United Nations method is 0.96:

$$0.96 = \frac{(\log(31,872) - \log(100))}{(\log(40,000) - \log(100))}$$

Calculated without the log adjustment, the United States' GDP indicator value drops to 0.80:

$$0.80 = \frac{(31,872) - (100)}{(40,000) - (100)}$$

Using the log formula significantly compresses the differences in GDP per capita among middle-income and high-income countries. The difference of 0.03 (3.5%) between the log-adjusted scores for GDP per capita of Canada and the United States jumps to 0.14 (21.5%) when no log adjustment is used. Removing the adjustment to GDP per capita increases the variability among countries in this extremely important measure. Canada's score for the Human Development Index without the log adjustment is 0.84 while the score for the United States is 0.88, giving the United States a higher score than Canada.

$$0.84 = (0.89 + 0.98 + 0.66)/3 \quad \text{Canada}$$

$$0.88 = (0.86 + 0.98 + 0.80)/3 \quad \text{United States}$$

Canada ranks number three on the Human Development Index despite having a GDP per capita that is only 82.4% of that of its neighbour to the south, which ranks sixth.

GDP per capita as a proxy for health and education

As noted above, the United Nations describes income as a proxy for the dimensions of human development not reflected in a long life and adequate knowledge. They sharply discount high GDP per capita on the assumption that increases in income beyond a certain GDP per capita provide limited benefits to citizens of countries that are relatively well off. The adjustment that the United Nations makes to GDP per capita might be reasonable if they were using it as a proxy for health and education. Figure 4 shows that a plot of life expectancy and GDP per capita exhibits the pattern seen in the "log" line of figure 1. However, the United Nations describes GDP per capita as a proxy for the dimensions of human development *not* reflected in health and knowledge indicators.

Figures 5 and 6 show the relationship between GDP per capita and two indicators not in the United Nations Human Development Index, the number of telephones and the number of televisions per 1,000 persons. The number of telephones and televisions per 1,000 persons do not exhibit the strong logarithmic relationship to GDP per capita embodied in the United Nations' adjustment of GDP per capita. Also, if the data on telephones and televisions could be adjusted for quality, the shape of the curve would likely move even further from the logarithmic relationship posited by the United Nations. For example, the number of televisions per 1,000 persons cannot pick up differences in the size of the screen, clarity of the picture, or the unit's reliability. As quality is likely to be higher in countries with higher GDP per capita, one would expect an adjustment for quality to the data in figure 6 to flatten the curve.

Higher GDP per capita is also associated with higher levels of development because there is a positive connection between growth in GDP and

Figure 4: GDP per capita and life expectancy

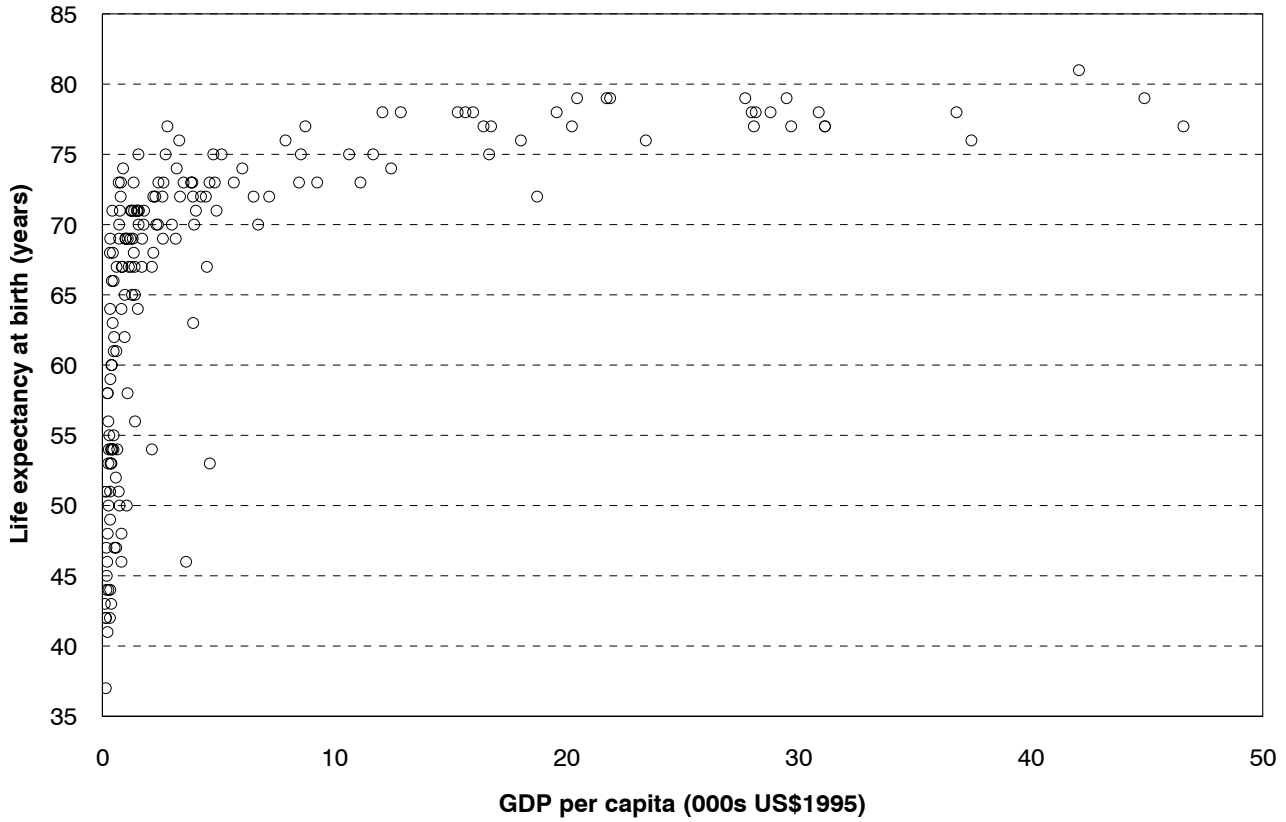


Figure 5: GDP per capita and telephones per 1,000 persons

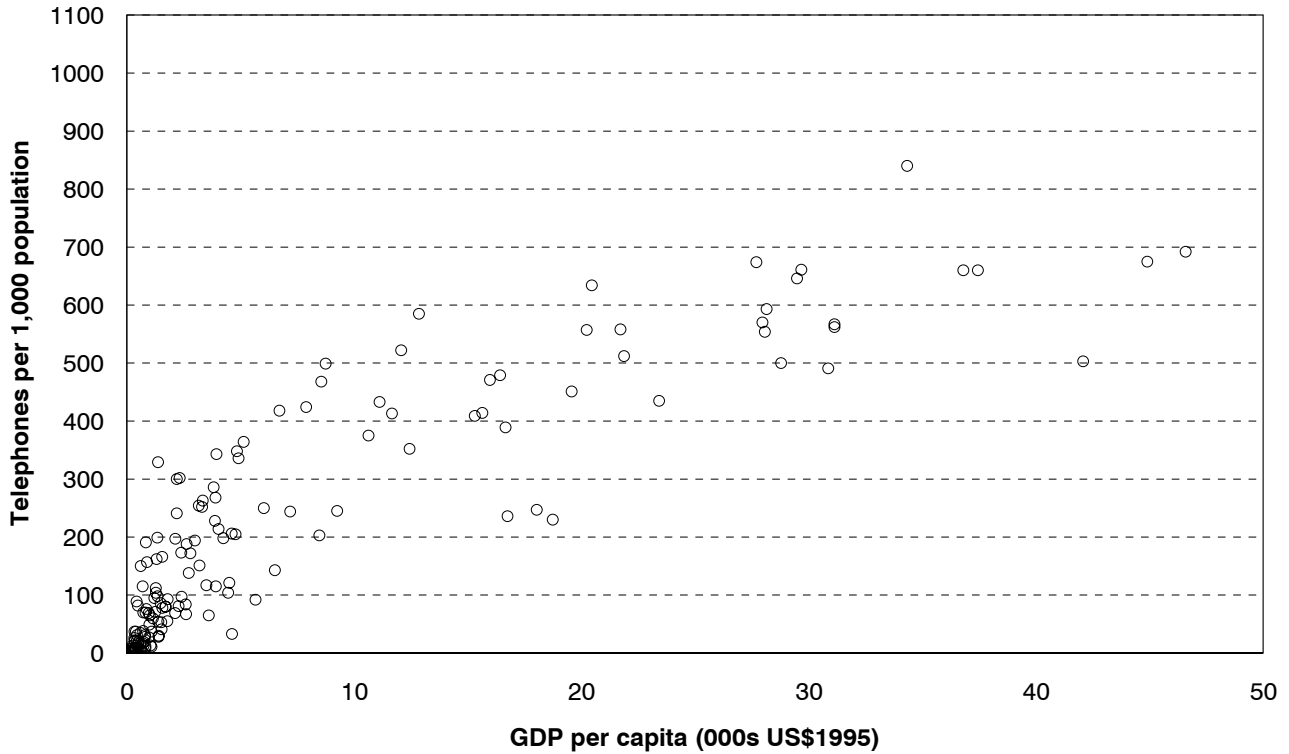
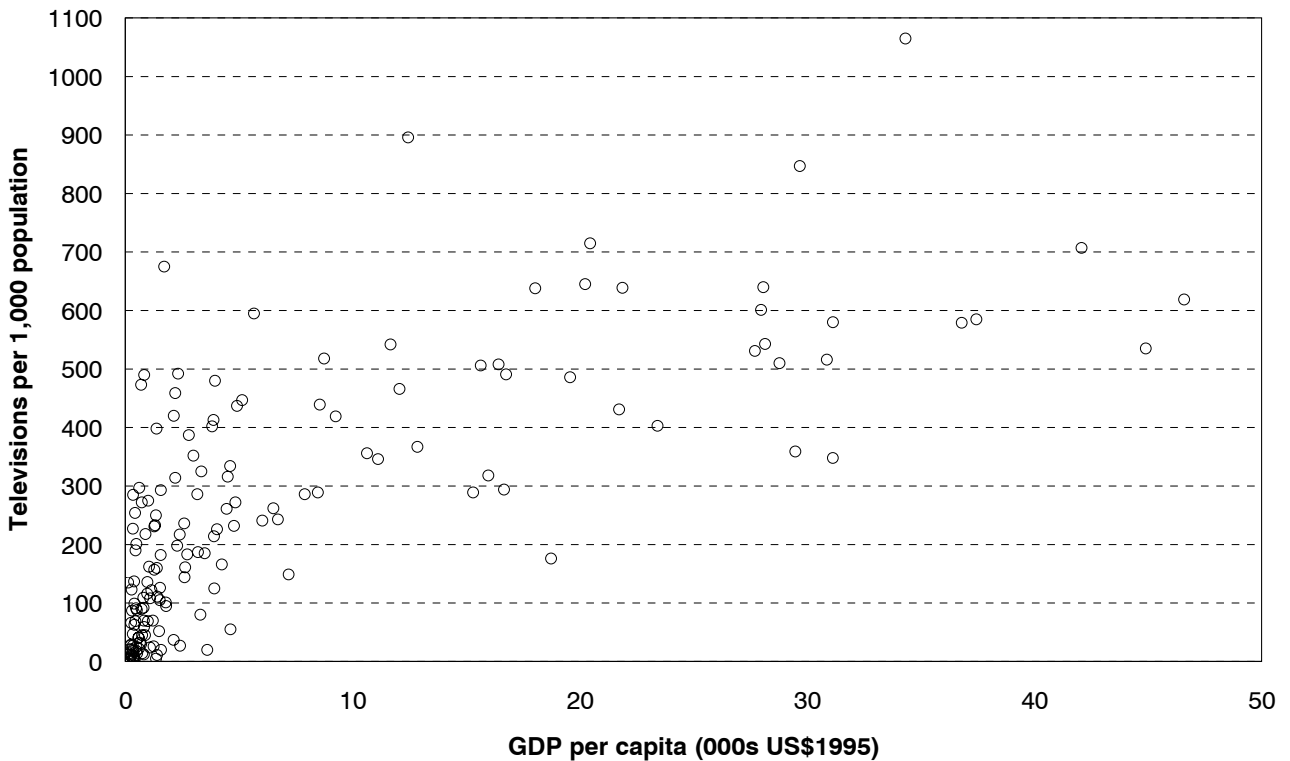


Figure 6: GDP per capita and televisions per 1,000 persons

the environment. Conventional wisdom assumes that as GDP increases, environmental quality decreases. This is not the case. A recent study by Gene M. Grossman and Alan B. Krueger found that economic growth brought about an initial phase of deterioration followed by improvement, reflecting an increased demand and supply of environmental protection as GDP increased (Grossman and Krueger 1995: 370–71). In most cases, environmental quality begins to increase once a country reaches GDP per capita of US\$10,000

(1985 dollars). This level of income is well beyond the point at which the United Nations' assumes that growth in GDP per capita contributes minimally to human development.

When GDP per capita increases, the well-being of the citizens of that country increases. By adjusting GDP per capita as it does, the United Nations does not take adequate account of this important indicator in compiling its development index.

Index of Human Progress

The United Nation's Human Development Index contains only four indicators grouped into the three sub-indices—life expectancy, education (consisting of literacy and school enrolment), and adjusted GDP per capita. The reason cited for this in the inaugural *Human Development Report 1990* was simplicity: too many indicators would obscure the overall comparison that the Index is intended to provide for policy-makers. In the *Human Development Report 1998*, however, the United Nations justifies the restriction of indicators in the Human Development Index by asserting that, if the basic requirements of life expectancy, knowledge, and access to resources are not met, then many other areas of development are impossible to achieve.

At all levels of development the three essential capabilities for human development are for people to live long and healthy lives, to be knowledgeable and to have access to the resources needed for a decent standard of living. If these basic capabilities are not achieved, many choices are simply not available and many opportunities remain inaccessible... Income is certainly one of the main means of expanding choices and well-being. But it is not the sum total of people's lives. (UNDP 1998: 14)

Since the Human Development Index makes use of only four variables, it is limited in the degree to which it can make distinctions among countries. That GDP per capita is arbitrarily adjusted when forming the Human Development Index and that literacy levels do not have much variability for high-income countries exacerbate this problem.

The Index of Human Progress improves on the Human Development Index by using unad-

justed GDP per capita and including several additional indicators that measure desirable outcomes. As long as the data are reliable, a greater number of indicators permits clearer distinctions among countries. In addition, using more indicators makes the index less vulnerable to any unreliability in the data as the impact of a biased indicator on the overall score is reduced when more indicators are used. The cost of increasing the number of indicators is that fewer countries can be included in the Index of Human Progress—128 rather than the HDI's 162—because some do not have complete data.

Indicators used in the Index of Human Progress

The indicators of the Index of Human Progress are grouped into the following sub-indices.

| (1) Health | (weight=1) |
|--|------------|
| (1.1) life expectancy | ¼ |
| (1.2) infant mortality (per 1,000 live births) | ¼ |
| (1.3) mortality of children under five years of age (per 1,000 live births) | ¼ |
| (1.4) adult mortality rate (number of adults, per 1,000 adults, not expected to survive to age 60) | ¼ |

The health of a country's citizens is a key indicator of development. Life expectancy at birth is the most comprehensive indicator of the health of a country's citizens. However, it is also important to gauge the health of infants and young children, the most vulnerable in a society. For that reason, the Index of Human Progress includes infant mortality and mortality of children under five years of age (per 1,000 live births). It is also

beneficial to gain some insight into the number of citizens who do not enjoy a long life; this is caught by including the number of the people (per 1,000 population) who die before age 60.

(2) Education (weight=1)

| | |
|--------------------------------|---|
| (2.1) literacy rate | ½ |
| (2.2) combined enrolment ratio | ½ |

This sub-index consists of the literacy rate of people aged 15 years and older and the combined primary, secondary, and tertiary gross enrolment ratio. These are the same variables that the Human Development Index uses although they are equally weighted in the Index of Human Progress as opposed to the two-thirds weight given to literacy in the Human Development Index.

(3) Technology (weight=1)

| | |
|---|---|
| (3.1) number of televisions (per 1,000 persons) | ⅓ |
| (3.2) number of radios (per 1,000 persons) | ⅓ |
| (3.3) telephone service (per 1,000 persons) | ⅓ |

Another indicator of the state of development in a country is the diffusion of technology within it. The availability of leisure goods indicates that citizens have choices about how to spend their time and money. As P.T. Bauer wrote in 1957, "I regard the extension of the range of choice, that is, an increase in the range of effective alternatives open to people, as the principal objective and criterion of economic development; and I judge a measure principally by its probable effects on the range of alternatives open to individuals" (Bauer 1957: 113). The number of televisions and radios per 1,000 people are therefore included. Telephone service (per 1,000 population) is included because an effective communications infrastructure is important for a country to get beyond a moderate level of development.

(4) GDP (weight = 1)

The GDP indicator in the Index of Human Progress is unadjusted GDP per capita in 1995 US dollars.

Calculation of the Index of Human Progress

The Index of Human Progress uses the same general formula as the Human Development Index to arrive at the indicator values:

$$\text{Indicator value} = \frac{(\text{country value} - \text{min. value})}{(\text{max. value} - \text{min. value})}$$

where "country value" is the value observed for the country of interest. Instead of assumed minimum and maximum values, the Index of Human Progress uses the observed minimum and maximum values across all countries for each indicator in the base year, 1975. Values are calculated for the indicators for 1975, 1980, 1985, 1990, 1995, and 1999, where data are available.

For sub-indices that contain more than one indicator, the values of the indicators are averaged to arrive at the score for the sub-index. The overall score for the Index of Human Progress is an average of the scores from each of the four sub-indices, Health, Education, Technology, and GDP.

An example

The value of Canada's life expectancy indicator (Health sub-index) for 1999 in the Index of Human Progress is 109:

$$109 = \frac{(79.0) - (35)}{(75) - (35)} \times 100$$

where 79.0 is Canada's life expectancy (in years) at birth in 1999, 35 is the lowest life expectancy at birth recorded for any country in 1975, and 75 is the highest life expectancy at birth recorded for any country in 1975.

From this value of 109 we know that Canadians born in 1999 can expect to live longer, on average, than the longest-lived people in the world born in 1975 could have expected to live, on average. Using the observed minimum and maximum values from the base year gives us a measure of how Canada's average life expectancy compares to the minimum and maximum life expectancy at birth for the world in the base year. A value of 0 would indicate that Canadians born in 1999 could expect to live no longer, on average, than the shortest-lived people in the world did, on average, in 1975 (i.e., 35 years). A value of 100 would indicate that Canadians born in 1999 could expect to live as long, on average, as the longest-lived people in the world did, on average, in 1975 (i.e., 75 years).

Not all countries have full sets of data and cannot, therefore, be given a score in the overall Index of Human Progress (table 8, pages 50–54) for every year indicated. However, where data are available, sub-index scores for these countries are presented in the tables giving results for the sub-indexes (tables 3–7, pages 18–49). For this reason, each of the sub-index tables lists more countries than are included in the Index of Human Progress.

Of the 128 countries that could be included in the Index of Human Progress, 80 had full data for all years, 18 had full data from 1980 through 1999, eight had full data for 1985 through 1999, 15 had full data for 1990 through 1999, and seven had data for 1995 and 1999.

(1) Health

Most countries listed in the Health sub-index (table 3) show an increase in their score (147 out of 161 countries). The top five countries and the increase in their scores between 1975 and 1999 are: Japan (98.3 to 106.4), Switzerland (98.6 to 105.3), Iceland (99.6 to 105.3), Sweden (99.6 to 105.1) and Canada (96.3 to 104.6). The United

States was twenty-sixth, with a score of 101.3 in 1999, up from 93.7 in 1975.

Countries with data from 1975 through 1999 that showed decreases in their score in the Health sub-index are: Botswana (57.3 to 30.3), Zambia (42.2 to 35.5), Zimbabwe (53.4 to 39.7), Uganda (42.7 to 33.0), Kenya (51.4 to 42.3), Lesotho (47.8 to 40.7), Democratic Republic of (North) Korea (77.6 to 70.9), Ivory Coast (38.2 to 36.1), Republic of Congo (47.8 to 45.8), Burundi (33.6 to 31.7), and Tanzania (39.2 to 38.7). There were no decreases among countries that only have data covering 1980 through 1999 or 1985 through 1999. Decreases for countries with data for 1990 through 1999 are: Russian Federation (89.2 to 84.4), Kazakhstan (85.9 to 81.8), Belarus (92.8 to 88.9), and Moldova (88.1 to 85.6). The decrease for the Kyrgyz Republic is too small to report. The Ukraine (88.1 to 86.8) is the single country with only 1995 and 1999 data to post a decrease. All but one of the countries with decreases are either in Africa or are former members of the Soviet Union.

(2) Education

A large majority of countries (137 out of 143) show an increase in their Education sub-index score (table 4). The top five countries and the increase in their scores between 1975 and 1999 are: Australia (93.1 to 124.1), Belgium (94.7 to 119.3), United Kingdom (95.6 to 117.3), Finland (95.5 to 115.2), and The Netherlands (96.0 to 114.5). Canada placed eighth with a change in score from 99.5 in 1975 to 111.1 in 1999. The United States came in eleventh with a score of 109.8 in 1999, up from 97.5 in 1975.

Only six countries saw their scores fall. Lithuania's score fell from 101.0 in 1980 to 98.8 in 1999. The Ukraine's score fell from 98.1 in 1980 to 97.8 in 1999. Belarus' score fell from 98.0 in 1985 to 97.8 in 1999. Croatia's score fell from 92.9 in 1985 to 90.9 in 1999. Tajikistan's score fell from 97.4 in 1990 to 90.7 in 1999. Namibia's score fell from 90.5 in 1990 to 88.8 in 1999.

(3) Technology

All countries show an increase in their score for the Technology sub-index (table 5). The top five countries and the increase in their scores between 1975 and 1999 are: Bermuda (60.0 to 141.5), United States (85.5 to 130.2), Denmark (62.3 to 103.9), Canada (58.4 to 102.4), and Finland (47.6 to 101.2).

(4) GDP

Most countries listed in the GDP sub-index (table 6) show an increase in their score (118 out of 177 countries). The top five countries and the increase in their scores between 1975 and 1999 are: Luxembourg (59.7 to 140.5), Switzerland (96.3 to 121.3), Japan (62.0 to 112.8), Denmark (65.4 to 99.4), and Norway (50.5 to 99.0). Canada placed nineteenth with a score of 57.8 in 1999, up from 38.5 in 1975. The United States came in eighth with a score of 82.1 in 1999, up from 48.8 in 1975.

Countries with decreases on this sub-index are listed alphabetically in table 7. This table also shows, for each of these countries, the percentage change in scores for the Health, Education, and Technology sub-indices. This information is included to show that countries that experienced a drop in real GDP per capita also, in general, perform poorly on these other measures.

On the health sub-index, 10 countries had a drop in their score, 15 had increases below the average, and 19 had increases above the average (15 countries had no data). On the education sub-index, 3 had a drop in their score, 24 had increases below the average, and 10 had increases above the average (22 countries had no data). On the technology sub-index, 32 had increases below the average, and 11 had increases above the average (16 countries had no data). Overall, the coun-

tries that had decreases in their score on the income (GDP) sub-index had decreases or increases below the average in their other sub-index scores 67.7% of the time and increases above the average only 32.3% of the time.

The Index of Human Progress Overall Index

The Index of Human Progress, with countries ranked according to 1999 scores, is presented in table 8. Most countries listed in the table show an increase in their score (124 out of 128 countries). The top five countries and the increase in their scores between 1975 and 1999 are: United States (81.4 to 105.8), Switzerland (86.0 to 105.5), Luxembourg (69.6 to 104.8), Denmark (81.2 to 103.9), and Japan (76.2 to 103.7). Canada came in sixteenth with a score of 94.0 in 1999, up from 73.2 in 1975.

There were no decreases among countries that have data covering 1975 to 1999 or those with data covering 1980 to 1999. Botswana is the one country with data covering 1985 to 1999 that had a lower Index of Human Progress score in 1999 (32.3) than it did in 1985 (34.7). The Russian Federation had a lower score in 1999 (58.4) than in 1990 (59.4). Namibia shows a decrease from 40.5 in 1995 to 38.1 in 1999. The decrease for Djibouti is too small to report.

The ranks that countries achieved in the Index of Human Progress for each year from 1975 through 1999 are shown in table 9 (pp. 55–59, countries are listed in alphabetical order). The United States was ranked second for 1975 through 1990 and first for 1995 and 1999. Canada ranked sixth in 1975, tenth in 1980, eighth in 1985, seventh in 1990, eleventh in 1995, and sixteenth in 1999.

Table 3: Health Sub-Index Scores

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, al} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|---------------------------------|----------------------|-------------------|-----------------------|--------------------|-----------------------|--------------------|----------------------|--------------------|---------------------|
| Afghanistan | 15.1 | 19.4 | 21.3 | 24.0 | 29.9 | 34.9 | 148 | 19.8 | 130.7 |
| Albania | 83.9 ^d | 86.7 ^d | 89.6 ^d | 92.1 ^d | 91.4 ^d | 93.7 ^{aq} | 62 | 9.7 | 11.6 |
| Algeria | 58.3 | 65.1 | 75.3 | 84.1 | 88.0 | 90.9 | 75 | 32.6 | 55.9 |
| Angola | 17.6 | 22.1 | 26.9 ^{ac} | 32.0 ^{ac} | 36.0 ^{ac} | 38.5 | 145 | 21.0 | 119.4 |
| Argentina | 85.8 | 89.1 | 91.2 | 93.0 | 94.7 | 96.4 | 47 | 10.6 | 12.3 |
| Armenia | n/a | n/a | n/a | 92.5 | 95.0 ^{am} | 97.8 | 37 | 5.3 | 5.8 |
| Australia | 95.5 ^e | 97.8 | 100.1 ^h | 101.8 | 103.5 ^m | 104.5 | 6 | 9.0 | 9.4 |
| Austria | 92.9 ^e | 95.3 | 98.0 ^h | 100.2 | 101.7 ^m | 103.5 | 10 | 10.6 | 11.4 |
| Bahamas, The | 84.5 | 87.2 | 90.4 | 93.2 | 95.3 | 95.4 | 57 | 10.8 | 12.8 |
| Bahrain | 78.6 | 84.6 | 88.6 | 91.5 | 94.7 | 97.0 | 42 | 18.4 | 23.4 |
| Bangladesh | 33.9 | 39.8 | 48.6 | 57.6 | 64.4 | 69.8 | 114 | 36.0 | 106.1 |
| Barbados | 90.5 | 94.5 ^p | 97.1 | 99.1 | 99.6 | 99.5 | 35 | 9.0 | 10.0 |
| Belarus | n/a | n/a | n/a | 92.8 | 89.8 ^{am} | 88.9 | 87 | (4.0) | (4.3) |
| Belgium | 94.5 | 96.8 | 99.1 | 100.7 | 102.1 | 103.1 | 15 | 8.6 | 9.1 |
| Belize | n/a | n/a | n/a | 89.2 | 91.4 | 92.6 | 65 | 3.4 | 3.9 |
| Benin | 34.4 ^r | 38.3 | 41.4 ^{ad} | 45.6 ^{ai} | 50.8 | 54.9 | 125 | 20.5 | 59.6 |
| Bolivia | 42.0 | 50.5 | 57.7 | 64.2 | 70.3 ^{am} | 74.0 | 110 | 32.0 | 76.1 |
| Bosnia & Herzegovina | n/a | n/a | n/a | 94.0 | 95.7 | 96.5 | 46 | 2.5 | 2.7 |
| Botswana | 57.3 | 65.3 | 64.0 ⁱ | 58.9 ⁱ | 48.4 ⁿ | 30.3 | 157 | (27.0) | (47.1) |
| Brazil | 71.6 ^s | 75.7 | 79.4 | 83.0 | 84.7 | 85.3 | 98 | 13.7 | 19.2 |
| Bulgaria | 92.7 | 93.1 | 93.6 | 93.5 | 93.2 ^{m, am} | 93.2 | 63 | 0.5 | 0.6 |
| Burkina Faso | 28.1 ^t | 32.7 ^z | 36.8 ^{ad} | 39.0 ^{ai} | 35.7 ^{an} | 32.4 | 155 | 4.1 | 14.5 |
| Burundi | 33.6 | 37.9 | 39.9 | 38.7 | 34.3 | 31.7 | 156 | (1.9) | (5.7) |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, al} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|---------------------------------|----------------------|-------------------|-----------------------|--------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| Cambodia | 12.0 | 16.1 | 32.7 ^{ac} | 42.2 ^{ac} | 49.4 ^{ac} | 54.1 | 128 | 42.1 | 350.8 |
| Cameroon | 38.0 | 43.1 | 49.0 | 53.6 | 51.3 | 48.2 | 133 | 10.1 | 26.6 |
| Canada | 96.3 | 98.5 | 100.5 | 102.0 | 103.3 ^m | 104.6 | 5 | 8.3 | 8.6 |
| Cape Verde | 63.9 | 67.6 | 71.5 ^{ac} | 76.4 ^{ac} | 81.9 ^{ac} | 85.9 | 96 | 21.9 | 34.3 |
| Central African Republic | 29.7 ^u | 33.3 ^u | 38.2 ^{a, ae} | 41.0 ^{aj} | 38.6 ^{aj} | 34.8 | 150 | 5.1 | 17.1 |
| Chad | 22.3 | 28.7 | 33.3 | 37.0 | 41.6 ^{am} | 43.5 | 137 | 21.2 | 95.3 |
| Chile | 79.7 | 88.6 | 93.3 | 96.4 | 98.6 | 100.0 | 33 | 20.3 | 25.5 |
| China | 78.6 | 83.9 | 86.5 | 88.5 | 89.1 | 90.3 | 80 | 11.8 | 15.0 |
| Colombia | 75.9 | 82.1 | 85.3 | 87.8 | 89.8 | 91.1 | 73 | 15.2 | 20.1 |
| Comoros | n/a | n/a | n/a | 59.2 | 66.0 | 71.5 | 111 | 12.3 | 20.9 |
| Congo, Republic | 47.8 | 53.4 | 54.5 ^{ac} | 54.4 ^{ac} | 49.8 ^{ac} | 45.8 | 136 | (2.0) | (4.3) |
| Costa Rica | 88.4 | 94.7 | 97.3 | 99.6 | 100.5 | 101.2 | 28 | 12.8 | 14.4 |
| Côte d'Ivoire | 38.2 | 46.1 | 50.1 | 52.6 | 43.9 | 36.1 | 146 | (2.2) | (5.7) |
| Croatia | n/a | 91.2 | 93.0 | 95.4 | 96.1 ^{am} | 97.4 | 40 | 6.1 | 6.7 |
| Cuba | 93.7 | 96.6 | 98.0 | 99.7 | 100.7 | 101.5 | 25 | 7.8 | 8.3 |
| Cyprus | 94.8 | 97.9 | 99.8 | 101.2 | 102.2 | 103.1 | 16 | 8.3 | 8.8 |
| Czech Republic | 91.9 | 92.4 | 93.5 | 94.3 | 97.3 ^{m, am} | 99.4 | 36 | 7.5 | 8.2 |
| Denmark | 97.5 | 98.1 | 98.6 | 99.0 | 100.0 ^m | 101.1 | 29 | 3.6 | 3.7 |
| Djibouti | 27.0 | 32.4 | 36.6 ^{ac} | 40.3 ^{ac} | 39.6 ^{ac} | 35.6 | 147 | 8.6 | 31.7 |
| Dominica | n/a | n/a | n/a | 95.3 | 97.8 | 100.0 | 34 | 4.7 | 4.9 |
| Dominican Republic | 70.7 | 76.8 | 82.0 ^{ad} | 86.6 ^{ai} | 88.7 ^{an} | 89.9 | 81 | 19.2 | 27.2 |
| Ecuador | 68.0 | 73.5 | 79.2 ^{ad} | 84.8 ^{ai} | 87.5 ^{an} | 89.6 | 84 | 21.7 | 31.9 |
| Egypt, Arab Republic | 51.3 | 56.6 | 65.9 | 74.5 | 79.3 | 82.8 | 102 | 31.6 | 61.6 |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, ai} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|--------------------------|----------------------|-------|-----------------------|-----------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| El Salvador | 61.1 | 62.1 | 71.1 | 80.4 | 85.7 ^{am} | 89.0 | 85 | 27.9 | 45.7 |
| Equatorial Guinea | 22.7 | 27.2 | 32.3 | 37.4 | 43.8 | 49.6 | 132 | 26.8 | 117.9 |
| Eritrea | n/a | n/a | n/a | 50.7 ^{ai} | 52.6 ^{an} | 52.8 | 130 | 2.2 | 4.3 |
| Estonia | 89.9 | 89.2 | 90.5 | 90.7 | 89.4 ^{am} | 92.4 | 68 | 2.5 | 2.8 |
| Ethiopia | 28.9 | 29.7 | 34.1 | 39.1 | 36.4 | 32.7 | 154 | 3.8 | 13.3 |
| Fiji | 82.6 | 86.6 | 89.5 | 92.2 | 95.0 | 95.6 | 56 | 13.0 | 15.7 |
| Finland | 94.6 | 97.2 | 98.5 | 99.5 | 101.4 | 102.8 | 20 | 8.1 | 8.6 |
| France | 95.6 | 97.5 | 99.1 | 100.8 | 102.6 | 104.0 | 8 | 8.4 | 8.8 |
| Gabon | 35.3 | 40.2 | 45.5 | 50.3 | 52.7 | 54.5 | 127 | 19.2 | 54.5 |
| Gambia, The | 15.5 | 23.6 | 33.2 | 43.8 | 52.9 ^{am} | 56.8 | 122 | 41.4 | 267.3 |
| Germany | 93.8 | 96.2 | 98.4 | 100.2 | 101.5 | 102.4 | 22 | 8.6 | 9.2 |
| Ghana | 47.3 | 52.0 | 57.3 | 63.8 | 67.1 ^{am} | 66.5 | 116 | 19.2 | 40.7 |
| Greece | 94.5 | 97.4 | 99.2 | 101.8 | 102.6 | 103.3 | 14 | 8.8 | 9.3 |
| Guatemala | 55.4 | 61.9 | 67.1 ^{i, ad} | 73.4 ^{i, ai} | 77.5 ^{n, an} | 80.0 | 107 | 24.5 | 44.3 |
| Guinea | 12.5 | 18.4 | 24.1 ^{ad} | 30.9 ^{ai} | 37.4 ^{an} | 42.8 | 138 | 30.3 | 241.9 |
| Guinea-Bissau | 13.2 | 16.0 | 20.0 | 23.5 | 29.2 | 33.9 | 151 | 20.8 | 157.4 |
| Guyana | 69.8 | 70.8 | 72.5 | 74.3 | 75.9 | 76.5 | 108 | 6.7 | 9.6 |
| Haiti | 43.3 | 47.2 | 51.3 ^{ad} | 57.2 ^{ai} | 57.5 ^{an} | 56.3 | 124 | 13.0 | 30.0 |
| Honduras | 59.6 | 68.0 | 75.4 | 82.7 | 86.4 | 89.0 | 86 | 29.4 | 49.3 |
| Hungary | 88.6 | 88.7 | 89.0 | 89.5 | 89.8 ^{m, am} | 90.7 | 77 | 2.1 | 2.4 |
| Iceland | 99.6 | 101.6 | 102.7 ^{ac} | 103.4 ^{ac} | 104.1 ^{ac} | 105.3 | 3 | 5.7 | 5.7 |
| India | 47.9 | 54.1 | 60.9 | 67.9 | 71.7 | 74.0 | 109 | 26.1 | 54.6 |
| Indonesia | 48.5 | 57.3 | 65.3 | 73.0 | 78.9 ^{am} | 81.8 | 103 | 33.4 | 68.8 |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, al} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|-------------------------------|----------------------|-------|-----------------------|-----------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| Iran, Islamic Republic | 60.8 | 68.1 | 76.1 | 83.1 | 87.7 | 91.8 | 72 | 30.9 | 50.8 |
| Iraq | 66.4 | 72.6 | 75.2 ^{af} | 70.0 ^{af} | 67.9 ^{am} | 67.0 | 115 | 0.7 | 1.0 |
| Ireland | 94.2 | 96.2 | 98.1 | 99.9 | 101.2 | 101.7 | 24 | 7.5 | 8.0 |
| Israel | 94.8 | 96.9 | 99.4 | 100.9 | 102.4 | 103.4 | 12 | 8.7 | 9.2 |
| Italy | 94.9 | 97.3 | 99.7 | 101.9 | 103.0 | 103.8 | 9 | 9.0 | 9.4 |
| Jamaica | 87.1 | 89.9 | 92.2 | 94.4 | 96.1 | 97.5 | 39 | 10.4 | 11.9 |
| Japan | 98.3 | 101.0 | 103.0 | 104.5 | 105.3 | 106.4 | 1 | 8.1 | 8.3 |
| Jordan | n/a | n/a | n/a | 87.9 | 90.3 ^{am} | 92.5 | 66 | 4.6 | 5.3 |
| Kazakhstan | n/a | n/a | n/a | 85.9 | 82.1 ^{am} | 81.8 | 104 | (4.0) | (4.7) |
| Kenya | 51.4 | 57.6 | 62.2 | 64.8 | 52.8 ^{am} | 42.3 | 139 | (9.1) | (17.7) |
| Korea, Dem. Republic | 77.6 | 84.1 | 87.1 | 84.8 | 75.2 | 70.9 | 113 | (6.7) | (8.7) |
| Korea, Republic | 79.4 | 86.0 | 89.3 ^{ac} | 92.2 ^{ac} | 94.6 ^{ac} | 96.6 | 44 | 17.2 | 21.7 |
| Kuwait | 86.7 | 91.5 | 95.7 | 99.3 | 100.6 | 101.3 | 27 | 14.5 | 16.8 |
| Kyrgyz Republic | n/a | n/a | n/a | 85.1 | 83.7 ^{am} | 85.1 | 99 | (0.0) | (0.0) |
| Lao PDR | 27.8 | 33.5 | 39.0 ^{ad} | 44.1 ^{ai} | 48.3 ^{am} | 54.7 | 126 | 26.9 | 96.9 |
| Latvia | 89.5 | 89.2 | 90.1 ^b | 90.1 | 86.7 ^{m, am} | 90.6 | 78 | 1.1 | 1.2 |
| Lebanon | n/a | n/a | n/a | 86.3 | 88.9 | 90.9 | 76 | 4.6 | 5.3 |
| Lesotho | 47.8 | 50.6 | 51.8 ⁱ | 53.0 ⁱ | 49.1 ⁿ | 40.7 | 142 | (7.1) | (14.9) |
| Liberia | 39.5 | 45.7 | 46.9 ^{j, ac} | 37.2 ^{j, ac} | 37.5 ^{j, ac} | 41.7 | 141 | 2.2 | 5.6 |
| Libya | 59.0 | 70.3 | 79.0 | 85.3 | 89.1 | 91.9 | 71 | 32.9 | 55.8 |
| Lithuania | 91.7 | 91.7 | 93.1 | 93.9 | 90.4 ^{m, am} | 94.3 | 59 | 2.7 | 2.9 |
| Luxembourg | 93.6 | 95.8 | 97.6 | 99.3 | 101.0 | 102.4 | 23 | 8.7 | 9.3 |
| Macedonia, FYR | n/a | n/a | n/a | 92.7 | 94.3 ^{am} | 96.0 | 52 | 3.3 | 3.6 |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, ai} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|--------------------|----------------------|--------------------|-----------------------|--------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| Madagascar | 40.3 | 46.0 | 46.3 | 47.6 | 52.2 ^{am} | 56.9 | 121 | 16.6 | 41.2 |
| Malawi | 22.5 | 28.9 | 31.1 | 31.7 | 28.9 | 24.4 | 160 | 1.9 | 8.6 |
| Malaysia | 80.7 | 85.6 | 89.4 | 92.6 | 94.7 | 96.2 | 49 | 15.5 | 19.2 |
| Maldives | 52.6 | 59.7 | 65.4 | 73.0 | 81.3 | 86.9 | 92 | 34.3 | 65.3 |
| Mali | 13.6 ^v | 21.1 ^{aa} | 28.1 ^{ag} | 32.7 ^{ak} | 34.4 ^{ao} | 33.8 | 152 | 20.2 | 148.9 |
| Malta | 93.7 | 96.1 | 97.9 ^{ac} | 99.9 ^{ac} | 101.5 ^{ac} | 103.0 | 17 | 9.2 | 9.8 |
| Mauritania | 32.5 | 38.5 | 42.8 | 47.2 | 52.3 | 56.7 | 123 | 24.2 | 74.3 |
| Mauritius | 78.8 | 83.7 | 87.3 | 90.6 | 91.6 | 92.4 | 69 | 13.5 | 17.2 |
| Mexico | 76.5 | 81.7 | 85.6 | 88.9 | 90.9 | 92.4 | 67 | 16.0 | 20.9 |
| Moldova | n/a | n/a | n/a | 88.1 | 85.1 ^{am} | 85.6 | 97 | (2.5) | (2.8) |
| Mongolia | 56.6 ^w | 61.7 ^w | 65.4 ^{ah} | 71.6 | 76.7 ^{am} | 80.4 | 106 | 23.8 | 42.0 |
| Morocco | 55.1 | 61.9 | 69.3 | 75.7 | 80.0 | 83.4 | 101 | 28.2 | 51.2 |
| Mozambique | 27.3 | 33.0 | 34.9 ^{ad} | 33.5 ^{ai} | 33.8 ^{am} | 28.3 | 158 | 0.9 | 3.3 |
| Namibia | 47.7 | 53.6 | 59.3 | 64.5 | 58.9 | 49.7 | 131 | 2.0 | 4.3 |
| Nepal | 33.4 | 41.7 | 48.2 ^a | 53.0 | 60.8 | 65.9 | 118 | 32.5 | 97.3 |
| Netherlands | 98.8 | 100.5 | 101.4 | 102.1 | 103.0 | 103.4 | 11 | 4.6 | 4.7 |
| New Zealand | 94.8 | 96.5 | 98.2 | 99.8 | 101.5 | 102.7 | 21 | 7.9 | 8.3 |
| Nicaragua | 59.3 | 64.8 | 72.0 | 80.7 | 85.1 ^{am} | 87.4 | 91 | 28.0 | 47.3 |
| Niger | 15.5 | 20.8 | 22.3 | 22.2 | 31.2 ^{am} | 34.9 | 149 | 19.4 | 124.8 |
| Nigeria | 32.3 | 37.0 | 42.7 | 47.8 | 48.7 | 47.3 | 135 | 15.0 | 46.6 |
| Norway | 99.1 | 100.4 | 101.0 | 101.8 | 103.5 | 104.3 | 7 | 5.2 | 5.3 |
| Oman | 54.4 | 67.0 | 79.2 | 88.9 | 92.8 | 96.2 | 50 | 41.7 | 76.7 |
| Pakistan | 48.1 | 53.5 | 57.8 | 62.5 | 67.1 | 71.2 | 112 | 23.1 | 48.0 |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, al} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|---|----------------------|--------------------|-----------------------|--------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| Panama | 85.4 | 90.4 | 92.4 ^{ac} | 94.2 ^{ac} | 95.8 ^{ac} | 96.6 | 45 | 11.2 | 13.1 |
| Papua New Guinea | 46.9 | 51.4 ^{aa} | 54.7 ^{ag} | 55.8 ^{ak} | 61.8 ^{ao} | 66.0 | 117 | 19.1 | 40.7 |
| Paraguay | 81.6 | 83.0 | 85.3 ⁱ | 88.1 ⁱ | 90.1 ⁿ | 91.1 | 74 | 9.6 | 11.7 |
| Peru | 59.0 | 66.0 | 72.3 | 79.3 | 83.8 ^{am} | 86.5 | 95 | 27.4 | 46.5 |
| Philippines | 67.5 | 71.2 | 75.3 | 79.7 | 84.2 ^{am} | 87.9 | 89 | 20.4 | 30.3 |
| Poland | 90.4 ^{f, x} | 89.7 ^x | 90.6 ^{k, x} | 91.2 | 93.5 ^{m, am} | 96.0 | 51 | 5.6 | 6.2 |
| Portugal | 88.6 | 92.9 | 95.7 | 97.6 | 99.5 | 100.6 | 30 | 12.0 | 13.5 |
| Qatar | 77.8 | 83.3 | 88.2 | 92.4 | 95.7 | 97.3 | 41 | 19.4 | 25.0 |
| Romania | 89.1 ^f | 88.8 | 89.6 ^{k, ah} | 89.0 | 89.2 ^{m, am} | 89.7 | 83 | 0.6 | 0.7 |
| Russian Federation | n/a | n/a | n/a | 89.2 | 79.9 ^{m, am} | 84.4 | 100 | (4.8) | (5.4) |
| Saudi Arabia | 61.0 | 71.1 | 79.9 | 87.4 | 91.8 ^{am} | 93.9 | 61 | 33.0 | 54.1 |
| Senegal | 24.8 | 31.6 ^{aa} | 37.4 ^{ag} | 43.6 ^{ak} | 48.7 ^{ao} | 53.7 | 129 | 28.9 | 116.2 |
| Seychelles | n/a | n/a | n/a | 92.0 | 93.0 | 95.2 | 58 | 3.2 | 3.5 |
| Sierra Leone | 6.2 | 7.9 | 9.3 | 8.1 | 12.2 | 16.6 | 161 | 10.4 | 167.9 |
| Singapore | 92.0 | 94.5 | 97.1 | 99.8 | 101.8 | 102.9 | 18 | 10.9 | 11.9 |
| Slovak Republic | n/a | 91.6 | 92.4 | 93.2 | 94.9 ^{am} | 96.4 | 48 | 4.8 | 5.3 |
| Slovenia | 90.9 | 91.9 | 93.8 | 96.5 | 98.1 ^{am} | 100.1 | 32 | 9.2 | 10.1 |
| Somalia | 23.9 | 28.2 | 32.5 ^j | 31.5 ^j | 36.1 ^j | 42.0 | 140 | 18.0 | 75.4 |
| Spain | 95.9 | 99.5 | 100.4 | 101.4 | 102.3 | 103.3 | 13 | 7.4 | 7.7 |
| Sri Lanka | 81.2 | 86.3 | 90.1 | 93.2 | 95.1 | 96.7 | 43 | 15.5 | 19.1 |
| St. Vincent & the Grenadines | n/a | n/a | n/a | 91.7 | 94.1 | 95.7 | 54 | 4.0 | 4.4 |
| Sudan | 36.8 | 42.4 | 47.0 | 50.3 | 55.4 | 60.2 | 120 | 23.5 | 63.9 |
| Suriname | 79.7 | 81.8 | 84.8 | 87.3 | 89.0 | 90.4 | 79 | 10.7 | 13.4 |

Table 3: Health Sub-Index Scores (Continued)

| | 1975 ^{c, q} | 1980 | 1985 ^{g, ab} | 1990 | 1995 ^{l, ai} | 1999 | Rank (out of 161) | Change in Score | %Change in Score |
|--|----------------------|-------------------|-----------------------|--------------------|-----------------------|-------|----------------------|--------------------|---------------------|
| Sweden | 99.6 | 100.6 | 101.8 | 102.9 | 104.4 | 105.1 | 4 | 5.5 | 5.5 |
| Switzerland | 98.6 | 100.3 | 101.6 | 102.3 | 103.9 | 105.3 | 2 | 6.6 | 6.7 |
| Syrian Arab Republic | n/a | n/a | n/a | 82.2 ^{ai} | 86.0 ^{an} | 89.8 | 82 | 7.6 | 9.2 |
| Tanzania | 39.2 | 44.6 | 45.2 ^{ad} | 43.8 ^{ai} | 41.5 ^{an} | 38.7 | 144 | (0.5) | (1.2) |
| Thailand | 71.3 | 77.3 | 82.3 | 87.3 | 87.8 | 87.4 | 90 | 16.1 | 22.5 |
| Togo | 37.2 | 43.9 | 49.3 | 53.5 | 49.8 ^{am} | 47.5 | 134 | 10.3 | 27.6 |
| Tonga | n/a | n/a | n/a | 86.4 | 89.7 | 92.4 | 70 | 5.9 | 6.9 |
| Trinidad & Tobago | 83.0 | 86.1 | 89.4 | 92.3 | 93.8 | 94.3 | 60 | 11.3 | 13.6 |
| Tunisia | 62.4 | 72.4 | 78.7 | 85.3 | 89.7 | 93.1 | 64 | 30.7 | 49.1 |
| Turkey | n/a | n/a | n/a | n/a | 85.3 ^{n, am} | 87.9 | 88 | 2.6 | 3.1 |
| Uganda | 42.7 | 41.5 | 40.2 | 39.3 | 35.5 | 33.0 | 153 | (9.7) | (22.8) |
| Ukraine | n/a | n/a | n/a | n/a | 88.1 ^{ap} | 86.8 | 93 | (1.3) | (1.5) |
| United Arab Emirates | 78.0 ^y | 85.5 ^y | 91.4 ^y | 95.5 ^y | 98.4 ^y | 100.2 | 31 | 22.2 | 23.2 |
| United Kingdom | 95.5 | 97.4 | 99.1 | 100.7 | 102.0 | 102.8 | 19 | 7.3 | 7.6 |
| United States | 93.7 | 96.1 | 97.4 ^{ad} | 98.6 ^{ai} | 99.3 ^{o, am} | 101.3 | 26 | 7.6 | 8.1 |
| Uruguay | 88.0 | 90.2 | 92.7 | 94.6 | 95.9 | 97.6 | 38 | 9.6 | 10.9 |
| Vanuatu | n/a | n/a | n/a | 73.1 | 78.1 | 81.3 | 105 | 8.2 | 11.2 |
| Venezuela | 84.0 | 86.9 | 89.9 | 92.6 | 94.3 | 95.8 | 53 | 11.8 | 14.0 |
| Vietnam | 66.4 | 73.4 | 78.6 | 83.8 | 85.6 | 86.8 | 94 | 20.4 | 30.7 |
| Yemen, Republic | 31.1 | 42.0 | 48.0 | 52.5 | 59.5 ^{am} | 63.7 | 119 | 32.6 | 104.7 |
| Yugoslavia, FR (Serbia/ Montenegro) | n/a | n/a | n/a | 93.6 | 94.8 ^{am} | 95.6 | 55 | 2.0 | 2.1 |
| Zambia | 42.2 | 46.8 | 44.9 | 43.3 | 35.5 | 25.5 | 159 | (16.7) | (39.5) |
| Zimbabwe | 53.4 | 58.8 | 64.7 ^{ad} | 68.7 ^{ai} | 54.7 ^{an} | 39.7 | 143 | (13.7) | (25.6) |

Sources

World Bank, United Nations; calculations by the authors.

Notes

- a** data for infant mortality rate is from 1987.
- b** data for infant mortality interpolated from 1980 and 1990 data.
- c** data for adult mortality interpolated from 1970 and 1980 data unless otherwise noted.
- d** data for adult mortality interpolated from 1970 and 1999 data.
- e** data for adult mortality is from 1977.
- f** data for adult mortality is from 1975.
- g** data for adult mortality interpolated from 1980 and 1990 data unless otherwise noted.
- h** data for adult mortality is from 1987.
- i** data for adult mortality interpolated from 1980 and 1997 data.
- j** data for adult mortality interpolated from 1980 and 1999 data.
- k** data for adult mortality is from 1985.
- l** data for adult mortality interpolated from 1990 and 1999 data unless otherwise noted.
- m** data for adult mortality is from 1995.
- n** data for adult mortality is from 1997.
- o** data for adult mortality is from 1994.
- p** data for life expectancy is from 1982.
- q** data for under-5 mortality rate interpolated from 1970 and 1980 data unless otherwise noted.
- r** data for under-5 mortality rate interpolated from 1972 and 1980 data.
- s** data for under-5 mortality rate is from 1977.
- t** data for under-5 mortality rate interpolated from 1970 and 1982 data.
- u** data for under-5 mortality rate interpolated from 1970 and 1987 data.
- v** data for under-5 mortality rate interpolated from 1970 and 1979 data.
- w** data for under-5 mortality rate interpolated from 1970 and 1985 data.
- x** data for under-5 mortality rate interpolated from 1970 and 1990 data.
- y** data for under-5 mortality rate interpolated from 1970 and 1999 data.
- z** data for under-5 mortality rate is from 1982.
- aa** data for under-5 mortality rate is from 1979.
- ab** data for under-5 mortality rate interpolated from 1980 and 1990 data unless otherwise noted.
- ac** data for under-5 mortality rate interpolated from 1980 and 1999 data.
- ad** data for under-5 mortality rate interpolated from 1980 and 1992 data.
- ae** data for under-5 mortality rate is from 1987.
- af** data for under-5 mortality rate interpolated from 1980 and 1995 data.
- ag** data for under-5 mortality rate interpolated from 1979 and 1989 data.
- ah** data for under-5 mortality rate is from 1985.
- ai** data for under-5 mortality rate is from 1992.
- aj** data for under-5 mortality rate interpolated from 1987 and 1999 data.
- ak** data for under-5 mortality rate is from 1989.
- al** data for under-5 mortality rate interpolated from 1990 and 1999 data.
- am** data for under-5 mortality rate is from 1995.
- an** data for under-5 mortality rate interpolated from 1992 and 1999 data.
- ao** data for under-5 mortality rate interpolated from 1989 and 1999 data.
- ap** data for under-5 mortality rate is from 1997.
- aq** data for under-5 mortality rate is from 1996.

Table 4: Education Sub-Index

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|----------------------|--------------------|----------------------|
| Afghanistan | 10.3 | 8.0 ^c | 12.6 ^g | 16.0 | 24.8 ^q | 31.3 | 138 | 21.1 | 205.2 |
| Albania | 72.6 ^a | 76.5 | 77.6 | 80.3 | 83.3 ^q | 85.4 | 74 | 12.8 | 17.7 |
| Algeria | 40.5 | 48.3 | 56.3 | 65.2 | 70.1 | 76.7 | 94 | 36.2 | 89.3 |
| Argentina | 88.7 | 89.6 | 96.0 | 97.5 ^j | 97.0 ^f | 100.4 | 28 | 11.7 | 13.1 |
| Armenia | n/a | n/a | n/a | n/a | 86.8 | 99.2 | 32 | 12.4 | 14.2 |
| Australia | 93.1 | 94.2 | 94.6 | 96.8 | 117.7 | 124.1 | 1 | 31.1 | 33.4 |
| Austria | 95.5 | 94.2 | 95.0 | 99.0 | 103.6 | 106.3 | 17 | 10.9 | 11.4 |
| Bahamas, The | n/a | 91.4 | 91.4 | 92.2 ^k | 93.2 ^k | 93.7 | 47 | 2.3 | 2.5 |
| Bahrain | 63.5 | 71.8 | 88.5 | 92.1 | 92.9 ^q | 93.2 | 49 | 29.7 | 46.8 |
| Bangladesh | 29.8 | 27.8 | 30.3 | 34.2 | 36.8 ^q | 38.9 | 132 | 9.1 | 30.7 |
| Belarus | n/a | 98.0 | 101.9 | 99.9 | 99.2 | 97.8 | 38 | (0.2) | (0.2) |
| Belgium | 94.7 | 95.7 | 97.9 | 100.9 | 115.8 | 119.3 | 2 | 24.6 | 26.0 |
| Belize | n/a | n/a | n/a | 91.5 ^l | 92.0 ^q | 91.6 | 53 | 0.1 | 0.1 |
| Benin | 15.3 | 23.5 | 27.7 | 27.5 | 35.8 | 43.4 | 127 | 28.1 | 183.5 |
| Bolivia | 64.4 | 68.5 | 75.5 | 76.9 | 81.7 ^q | 85.2 | 75 | 20.8 | 32.4 |
| Botswana | 47.0 | 56.5 | 66.1 | 74.3 | 78.8 | 80.6 | 84 | 33.6 | 71.4 |
| Brazil | 68.3 | 73.8 | 76.5 ^g | 81.2 | 88.7 ^s | 92.0 | 52 | 23.7 | 34.8 |
| Brunei | n/a | 74.7 | 80.1 | 86.7 ^l | 90.4 | 92.5 | 50 | 17.9 | 23.9 |
| Bulgaria | 90.6 | 90.6 | 96.3 | 93.8 | 92.3 | 93.7 | 46 | 3.1 | 3.4 |
| Burkina Faso | 1.1 | 3.3 | 7.7 | 11.8 | 14.8 ^t | 19.8 | 142 | 18.7 | 1740.2 |
| Burundi | 11.4 | 15.2 | 24.6 | 33.8 | 31.6 ^q | 29.9 | 141 | 18.5 | 161.7 |
| Cambodia | 26.0 ^b | 43.2 ^d | 48.3 | 46.4 | 53.7 | 54.8 | 116 | 28.9 | 111.0 |
| Cameroon | 42.5 | 49.4 | 56.3 | 61.3 | 61.4 ^q | 61.3 | 109 | 18.7 | 44.0 |
| Canada | 99.5 | 100.0 | 106.5 | 112.9 | 112.4 | 111.1 | 8 | 11.6 | 11.7 |
| Cape Verde | 54.8 | 52.1 | 55.6 | 63.6 | 71.4 ^t | 83.9 | 78 | 29.0 | 53.0 |
| Central African Republic | 23.0 | 26.8 | 32.0 | 31.0 | 31.7 ^q | 32.5 | 136 | 9.5 | 41.2 |

Table 4: Education Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|-----------------------------|------|-------------------|-------------------|-------------------|-------------------|-------|----------------------|--------------------|----------------------|
| Chad | 8.5 | 12.4 ^e | 16.9 | 21.9 ^m | 27.6 | 34.9 | 135 | 26.4 | 311.2 |
| Chile | 89.4 | 87.5 | 89.0 | 90.7 ^j | 92.3 | 96.4 | 40 | 7.0 | 7.8 |
| China | 66.4 | 66.7 | 66.0 | 69.6 | 78.6 | 86.5 | 68 | 20.0 | 30.2 |
| Colombia | 72.4 | 74.3 | 74.6 | 78.0 | 83.7 | 90.8 | 60 | 18.4 | 25.4 |
| Comoros | 37.5 | 47.9 | 49.4 | 47.5 ^j | 48.1 | 48.1 | 124 | 10.6 | 28.2 |
| Congo, Dem. Republic | 37.8 | 42.9 | 44.5 | 39.1 ⁿ | 48.7 ^f | 46.0 | 125 | 8.2 | 21.6 |
| Congo, Republic | 64.5 | 78.1 | 84.9 | 78.9 | 78.3 ^q | 77.5 | 91 | 12.9 | 20.0 |
| Costa Rica | 82.4 | 82.7 | 80.6 | 84.7 | 87.1 ^f | 88.8 | 64 | 6.4 | 7.8 |
| Côte d'Ivoire | 22.7 | 31.0 | 33.2 | 35.6 ^j | 39.3 ^f | 42.2 | 129 | 19.5 | 85.7 |
| Croatia | n/a | n/a | 92.9 | 88.4 | 90.3 | 90.9 | 58 | (2.0) | (2.1) |
| Cuba | 89.7 | 92.7 | 88.7 | 88.4 | 88.6 | 95.5 | 42 | 5.8 | 6.5 |
| Cyprus | 89.2 | 85.6 | 84.7 | 91.9 | 95.6 ^f | 90.9 | 59 | 1.7 | 1.9 |
| Denmark | 99.5 | 99.2 | 99.0 | 100.5 | 106.3 | 111.1 | 8 | 11.6 | 11.7 |
| Djibouti | 20.5 | 26.8 | 30.7 | 33.5 | 36.9 | 40.8 | 131 | 20.3 | 98.9 |
| Dominican Republic | 69.3 | 75.2 ^e | 81.0 | 80.8 ^o | 80.0 ^s | 85.6 | 72 | 16.3 | 23.6 |
| Ecuador | 77.2 | 86.9 | 89.3 ^h | 86.7 | 90.4 ^q | 93.2 | 48 | 16.0 | 20.8 |
| Egypt, Arab Republic | 40.9 | 46.9 | 55.8 | 62.9 | 67.3 | 73.0 | 101 | 32.1 | 78.6 |
| El Salvador | 59.3 | 62.4 | 65.7 ^h | 69.3 | 72.9 | 76.8 | 93 | 17.5 | 29.6 |
| Eritrea | n/a | n/a | n/a | n/a | 36.9 | 37.8 | 133 | 0.9 | 2.3 |
| Ethiopia | 7.6 | 15.2 | 18.4 | 19.6 | 23.2 | 30.2 | 140 | 22.6 | 297.4 |
| Fiji | 80.3 | 80.8 | 82.9 | 89.5 | 94.8 ^q | 98.9 | 33 | 18.6 | 23.1 |
| Finland | 95.5 | 97.7 | 100.3 | 105.9 | 111.3 | 115.2 | 4 | 19.7 | 20.6 |
| France | 94.8 | 95.8 | 97.2 | 101.5 | 107.2 | 109.1 | 13 | 14.3 | 15.1 |
| Germany | n/a | n/a | n/a | 96.7 | 104.3 | 109.1 | 13 | 12.4 | 12.8 |
| Ghana | 40.4 | 47.7 | 50.1 | 53.8 | 56.3 ^q | 58.2 | 111 | 17.7 | 43.8 |
| Greece | 88.0 | 89.0 | 93.2 | 95.4 | 96.4 | 99.2 | 31 | 11.2 | 12.8 |

Table 4: Education Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|----------------------|--------------------|----------------------|
| Guatemala | 40.0 | 46.6 | 51.1 | 56.2 ^l | 59.1 | 61.8 | 108 | 21.8 | 54.5 |
| Guyana | 86.7 | 87.7 | 86.0 | 88.2 ⁿ | 87.8 | 89.7 | 62 | 3.0 | 3.5 |
| Haiti | 25.2 | 32.5 | 40.4 | 37.9 ^p | 35.6 | 53.5 | 121 | 28.2 | 111.7 |
| Honduras | 53.8 | 62.1 | 68.4 | 69.1 ^j | 71.8 ^t | 73.1 | 100 | 19.3 | 35.9 |
| Hong Kong, China | 77.0 | 77.8 | 80.9 ^h | 88.2 ^j | 88.1 ^t | 84.9 | 76 | 7.8 | 10.2 |
| Hungary | 85.5 | 90.1 | 93.7 | 91.2 | 95.5 | 100.4 | 27 | 14.9 | 17.4 |
| Iceland | 93.3 | 94.0 | 94.8 | 100.0 | 102.0 | 105.7 | 19 | 12.4 | 13.3 |
| India | 38.3 | 42.0 | 49.0 | 53.5 | 57.7 | 60.3 | 110 | 22.0 | 57.5 |
| Indonesia | 54.8 | 66.5 | 74.7 ^h | 76.4 | 79.4 | 82.5 | 82 | 27.7 | 50.6 |
| Iran, Islamic Republic | 50.4 | 52.9 ^c | 59.8 | 70.9 | 78.2 | 82.3 | 83 | 31.9 | 63.3 |
| Iraq | 44.6 | 58.4 | 58.4 | 59.4 ^m | 56.8 ^q | 54.6 | 117 | 10.1 | 22.5 |
| Ireland | 95.5 | 94.9 | 97.2 | 100.0 | 104.5 | 107.0 | 15 | 11.5 | 12.0 |
| Israel | 86.3 | 90.4 | 94.0 | 94.4 | 96.5 | 99.9 | 29 | 13.7 | 15.8 |
| Italy | 90.6 | 89.9 | 88.2 | 92.3 | 97.4 | 102.0 | 22 | 11.4 | 12.6 |
| Jamaica | 75.8 | 78.3 | 75.1 | 79.2 | 80.0 ^q | 80.5 | 85 | 4.7 | 6.2 |
| Japan | 96.1 | 99.3 | 99.0 | 97.4 | 99.6 ^t | 100.9 | 26 | 4.8 | 5.0 |
| Jordan | 62.4 | 68.9 | 67.1 | 72.6 | 75.8 | 77.2 | 92 | 14.8 | 23.7 |
| Kenya | 54.7 | 64.3 | 67.0 | 69.4 | 70.1 ^q | 70.3 | 103 | 15.6 | 28.6 |
| Korea, Republic | 83.1 | 89.7 | 94.9 | 97.2 | 100.6 | 105.7 | 18 | 22.6 | 27.2 |
| Kuwait | 67.7 | 76.5 | 83.0 | 78.6 | 73.2 | 76.0 | 95 | 8.3 | 12.2 |
| Lao PDR | 27.7 ^a | 38.6 | 41.9 | 44.6 ⁿ | 51.1 | 56.8 | 114 | 29.0 | 104.6 |
| Latvia | n/a | 96.9 | 97.9 | 95.3 | 93.0 | 101.4 | 24 | 4.4 | 4.6 |
| Lebanon | 75.2 ^a | 78.0 | 78.6 | 85.1 ^j | 87.4 | 91.0 | 57 | 15.8 | 21.1 |
| Lesotho | 65.3 | 67.1 | 73.4 | 75.0 | 76.4 | 77.9 | 90 | 12.7 | 19.4 |
| Libya | 69.6 | 76.7 | 78.4 | 83.8 | 91.4 ^q | 97.1 | 39 | 27.5 | 39.5 |
| Lithuania | n/a | 101.0 | 97.5 | 96.0 | 93.8 | 99.8 | 30 | (1.2) | (1.2) |

Table 4: Education Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|-------------------------|------|-------------------|-------------------|-------------------|-------------------|-------|----------------------|--------------------|----------------------|
| Luxembourg | 81.7 | 82.4 | 82.3 | 86.2 ^p | 90.1 | 94.7 | 43 | 13.0 | 15.9 |
| Madagascar | 43.7 | 50.3 ^f | 56.6 ^h | 51.6 | 51.5 | 57.1 | 113 | 13.4 | 30.6 |
| Malawi | 35.7 | 39.0 | 41.1 | 46.7 | 74.9 | 73.4 | 99 | 37.7 | 105.6 |
| Malaysia | n/a | 66.9 | 72.2 | 75.3 | 80.5 | 83.5 | 79 | 16.7 | 24.9 |
| Mali | 5.7 | 8.7 | 10.7 | 14.9 | 23.9 | 32.2 | 137 | 26.5 | 460.7 |
| Malta | 81.8 | 80.4 | 85.2 | 90.7 | 92.0 | 95.7 | 41 | 13.9 | 17.0 |
| Mauritania | n/a | n/a | 27.7 | 29.0 | 38.6 | 42.1 | 130 | 14.4 | 51.8 |
| Mauritius | 66.1 | 67.3 | 70.9 | 74.8 | 77.4 | 80.0 | 86 | 13.9 | 21.0 |
| Mexico | 76.4 | 84.7 | 86.3 | 83.6 | 86.1 | 89.2 | 63 | 12.8 | 16.8 |
| Moldova | n/a | 86.8 | 91.3 | 93.6 | 91.8 | 93.9 | 45 | 7.2 | 8.3 |
| Mongolia | 57.1 | 66.0 | 67.4 | 64.9 | 59.1 | 64.8 | 106 | 7.7 | 13.4 |
| Morocco | n/a | 33.2 | 37.3 | 38.2 | 45.7 | 53.0 | 122 | 19.8 | 59.8 |
| Mozambique | n/a | 26.6 | 27.2 | 26.2 ^l | 29.3 | 30.6 | 139 | 4.0 | 15.1 |
| Myanmar | 57.5 | 61.1 | 63.3 | 65.9 | 70.2 ^f | 74.6 | 96 | 17.1 | 29.8 |
| Namibia | n/a | n/a | n/a | n/a | 90.5 | 88.8 | 65 | (1.7) | (1.9) |
| Nepal | 15.2 | 25.8 | 34.0 | 45.7 | 50.0 | 54.4 | 118 | 39.2 | 258.1 |
| Netherlands | 96.0 | 96.8 | 101.6 | 103.8 | 112.2 | 114.5 | 5 | 18.5 | 19.3 |
| New Zealand | 96.4 | 97.5 | 97.4 | 99.4 | 108.5 | 112.5 | 7 | 16.1 | 16.8 |
| Nicaragua | 53.1 | 63.7 | 63.3 | 65.0 | 70.2 | 71.4 | 102 | 18.3 | 34.6 |
| Niger | 1.0 | 4.2 | 5.5 | 7.7 | 9.4 ^q | 10.8 | 143 | 9.9 | 1032.3 |
| Nigeria | 22.6 | 45.0 | 52.2 | 49.6 ⁿ | 58.5 ^t | 56.1 | 115 | 33.5 | 148.6 |
| Norway | 95.4 | 97.0 | 97.4 | 100.8 | 107.4 | 111.1 | 8 | 15.7 | 16.5 |
| Oman | 17.5 | 28.8 | 45.2 | 58.5 | 66.5 | 69.1 | 104 | 51.6 | 294.5 |
| Pakistan | 18.6 | 21.0 ^c | 24.0 | 32.2 | 38.4 ^q | 43.2 | 128 | 24.6 | 132.8 |
| Panama | 84.6 | 84.8 | 85.0 | 85.5 | 88.8 | 91.5 | 54 | 6.9 | 8.2 |
| Papua New Guinea | 35.2 | 38.7 | 41.9 | 46.0 ^p | 50.1 | 52.7 | 123 | 17.5 | 49.9 |

Table 4: Education Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|----------------------|------|------|-------|-------------------|-------------------|-------|----------------------|--------------------|----------------------|
| Paraguay | 70.5 | 74.5 | 76.6 | 78.5 | 83.9 | 85.4 | 73 | 14.9 | 21.2 |
| Peru | 77.9 | 82.9 | 88.1 | 90.9 | 92.4 | 94.5 | 44 | 16.6 | 21.4 |
| Philippines | 83.8 | 89.4 | 89.5 | 94.2 | 96.1 | 98.8 | 34 | 15.0 | 17.9 |
| Poland | 89.2 | 90.7 | 94.7 | 96.8 | 98.0 | 102.7 | 20 | 13.5 | 15.2 |
| Portugal | 78.4 | 75.9 | 83.7 | 87.5 | 102.0 | 106.7 | 16 | 28.3 | 36.0 |
| Qatar | 66.9 | 73.4 | 83.3 | 85.4 | 83.1 | 86.4 | 70 | 19.5 | 29.1 |
| Romania | 88.0 | 95.9 | 94.4 | 89.2 | 88.5 | 91.5 | 55 | 3.5 | 4.0 |
| Russian Federation | n/a | 97.9 | 102.2 | 102.5 | 98.6 ^t | 98.5 | 35 | 0.6 | 0.6 |
| Rwanda | 27.2 | 36.2 | 40.3 | 45.5 ⁿ | 50.5 ^u | 54.4 | 119 | 27.2 | 100.0 |
| Saudi Arabia | 37.2 | 45.4 | 54.5 | 61.6 | 69.1 | 74.3 | 98 | 37.1 | 99.6 |
| Senegal | 15.3 | 19.0 | 24.5 | 27.9 | 30.7 ^f | 35.9 | 134 | 20.6 | 134.3 |
| Singapore | 73.5 | 75.1 | 78.3 | 81.4 | 87.4 | 92.4 | 51 | 18.9 | 25.8 |
| Slovenia | n/a | n/a | 93.3 | 96.8 | 96.6 | 101.9 | 23 | 8.6 | 9.2 |
| South Africa | n/a | n/a | n/a | 89.8 | 99.2 | 100.9 | 25 | 11.1 | 12.4 |
| Spain | 90.1 | 94.3 | 98.4 | 100.7 | 106.6 | 109.1 | 12 | 19.0 | 21.1 |
| Sri Lanka | 68.1 | 76.8 | 80.7 | 84.7 | 86.1 | 88.6 | 66 | 20.5 | 30.1 |
| Sudan | 24.4 | 28.8 | 33.4 | 37.8 | 41.5 | 45.5 | 126 | 21.1 | 86.2 |
| Swaziland | 60.0 | 66.3 | 69.8 | 75.0 | 81.8 | 83.3 | 81 | 23.3 | 38.9 |
| Sweden | 94.3 | 95.8 | 95.7 | 95.5 | 111.5 | 113.9 | 6 | 19.6 | 20.7 |
| Switzerland | 93.0 | 92.7 | 91.6 | 93.5 | 98.6 | 102.2 | 21 | 9.2 | 9.9 |
| Syrian Arab Republic | 57.1 | 62.9 | 71.5 | 73.4 | 72.1 ^f | 74.3 | 97 | 17.2 | 30.1 |
| Tajikistan | n/a | n/a | n/a | 97.4 | 92.3 ^f | 90.7 | 61 | (6.7) | (6.9) |
| Tanzania | 33.1 | 49.7 | 47.2 | 49.1 | 51.8 | 53.7 | 120 | 20.6 | 62.2 |
| Thailand | 69.9 | 75.0 | 75.4 | 74.7 ⁿ | 79.8 | 83.9 | 77 | 14.0 | 20.0 |
| Togo | 40.2 | 52.3 | 45.1 | 53.7 | 60.2 | 64.3 | 107 | 24.1 | 59.8 |
| Trinidad & Tobago | 81.7 | 81.2 | 84.3 | 88.2 | 87.1 | 86.4 | 69 | 4.7 | 5.8 |

Table 4: Education Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 143) | Change in Score | % Change in Score |
|-----------------------------|------|-------|-------------------|-------|-------------------|-------|----------------------|--------------------|----------------------|
| Tunisia | 43.4 | 49.8 | 60.1 | 65.6 | 73.6 | 79.8 | 87 | 36.4 | 83.9 |
| Turkey | 59.7 | 61.5 | 69.2 | 71.3 | 76.3 | 79.5 | 88 | 19.9 | 33.3 |
| Uganda | 28.7 | 33.4 | 45.0 | 49.0 | 51.7 | 58.0 | 112 | 29.3 | 101.9 |
| Ukraine | n/a | 98.1 | 101.2 | 97.9 | 96.3 ^t | 97.8 | 37 | (0.2) | (0.2) |
| United Arab Emirates | n/a | 59.8 | 67.8 | 77.9 | 77.6 ^s | 78.5 | 89 | 18.7 | 31.3 |
| United Kingdom | 95.6 | 93.6 | 92.2 | 95.7 | 115.8 | 117.3 | 3 | 21.7 | 22.7 |
| United States | 97.5 | 100.8 | 103.4 | 107.1 | 109.4 | 109.8 | 11 | 12.2 | 12.6 |
| Uruguay | 86.9 | 87.7 | 92.0 ⁱ | 96.4 | 96.5 ^s | 98.2 | 36 | 11.3 | 13.0 |
| Uzbekistan | n/a | 84.3 | 88.5 | 88.1 | 89.9 ^q | 91.2 | 56 | 6.8 | 8.1 |
| Venezuela | 76.5 | 79.3 | 82.8 | 87.6 | 86.6 ^q | 85.7 | 71 | 9.2 | 12.0 |
| Vietnam | 74.2 | 75.2 | 74.7 | 72.7 | 80.4 | 87.5 | 67 | 13.3 | 17.9 |
| Zambia | 55.7 | 57.4 | 65.5 | 66.8 | 67.2 ^f | 66.7 | 105 | 11.0 | 19.8 |
| Zimbabwe | 51.1 | 58.6 | 84.5 | 82.0 | 84.1 | 83.4 | 80 | 32.3 | 63.1 |

Sources

World Bank, United Nations; calculations by the authors.

Notes

- a** enrollment ratio interpolated from 1970 and 1980 data.
b enrollment ratio interpolated from 1970 and 1981 data.
c enrollment ratio is from 1982.
d enrollment ratio is from 1981.
e enrollment ratio interpolated from 1975 and 1985 data.
f enrollment ratio interpolated from 1975 and 1984 data.
g enrollment ratio is from 1986.
h enrollment ratio is from 1984.
i enrollment ratio is from 1983.

j enrollment ratio is from 1991.

k enrollment ratio interpolated from 1985 and 1999 data.

l enrollment ratio is from 1992.

m enrollment ratio is from 1988.

n enrollment ratio is from 1989.

o enrollment ratio interpolated from 1985 and 1996 data.

p enrollment ratio interpolated from 1985 and 1995 data.

q enrollment ratio interpolated from 1990 and 1999 data.

r enrollment ratio is from 1994.

s enrollment ratio is from 1996.

t enrollment ratio is from 1993.

u enrollment ratio interpolated from 1989 and 1999 data.

Table 5: Technology Sub-Index

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|---------------------------------|------------------|-------------------|-------------------|-------|-------|---------------------|----------------------|--------------------|----------------------|
| Afghanistan | 1.0 | 1.5 | 2.2 | 2.4 | 2.8 | 3.0 | 181 | 2.1 | 216.8 |
| Albania | 2.5 | 5.3 | 8.1 | 8.8 | 9.7 | 12.7 ^p | 135 | 10.3 | 417.8 |
| Algeria | 5.6 | 7.6 | 9.4 | 10.4 | 11.8 | 13.8 | 133 | 8.2 | 145.7 |
| American Samoa | n/a | n/a | 35.6 | 37.9 | 42.4 | 44.1 ^p | 69 | 8.5 | 23.8 |
| Andorra | 18.1 | 23.8 | 32.1 | 38.3 | 53.2 | 55.8 ^p | 49 | 37.7 | 208.3 |
| Angola | n/a | 0.9 | 1.0 | 1.3 | 1.3 | 2.4 ^j | 185 | 1.5 | 178.2 |
| Antigua & Barbuda | 21.2 | 23.7 ^c | 31.0 | 44.6 | 56.2 | 66.2 ^p | 35 | 44.9 | 211.9 |
| Argentina | 19.7 | 22.5 | 28.9 | 32.4 | 38.3 | 42.1 | 72 | 22.3 | 113.3 |
| Armenia | n/a | n/a | n/a | 24.8 | 26.4 | 27.7 | 97 | 2.9 | 11.6 |
| Aruba | n/a | n/a | n/a | n/a | 44.1 | 46.8 ^p | 65 | 2.7 | 6.2 |
| Australia | 53.3 | 62.4 | 73.1 | 82.2 | 95.1 | 99.1 | 8 | 45.8 | 85.9 |
| Austria | 40.7 | 50.4 | 58.1 | 65.4 | 70.3 | 73.8 ^p | 26 | 33.1 | 81.2 |
| Azerbaijan | n/a | n/a | n/a | 17.1 | 18.0 | 21.1 ^p | 114 | 4.0 | 23.7 |
| Bahamas, The | 16.2 | 26.8 | 33.3 | 40.2 | 46.0 | 51.2 ^p | 59 | 35.0 | 215.9 |
| Bahrain | 15.2 | 29.0 | 43.5 | 46.7 | 50.8 | 49.3 | 63 | 34.0 | 223.6 |
| Bangladesh | 0.3 ^a | 0.3 ^d | 0.9 | 1.1 | 1.3 | 1.4 | 194 | 1.2 | 456.4 |
| Barbados | 24.7 | 30.2 | 40.2 | 49.1 | 55.0 | 60.2 ^p | 44 | 35.5 | 143.8 |
| Belarus | 15.9 | 21.4 | 25.3 | 29.8 | 34.3 | 40.5 | 74 | 24.5 | 154.1 |
| Belgium | 43.1 | 51.5 | 56.6 | 64.9 | 70.9 | 76.9 | 22 | 33.8 | 78.5 |
| Belize | n/a | n/a | 20.4 ^l | 24.5 | 29.4 | 31.2 ^p | 90 | 10.8 | 53.0 |
| Benin | 0.9 | 1.3 | 1.7 | 2.0 | 2.2 | 3.0 ^{q, p} | 182 | 2.0 | 224.3 |
| Bermuda | 60.0 | 78.8 | 102.6 | 117.1 | 131.2 | 141.5 ^p | 1 | 81.5 | 135.8 |
| Bhutan | n/a | n/a | n/a | n/a | 2.4 | 3.3 | 178 | 0.9 | 36.3 |
| Bolivia | n/a | 14.2 | 16.8 | 20.1 | 20.8 | 22.9 | 108 | 8.7 | 61.4 |
| Bosnia & Herzegovina | n/a | n/a | n/a | n/a | 13.4 | 17.0 ^k | 125 | 3.6 | 26.7 |
| Botswana | n/a | n/a | 2.9 ^l | 4.3 | 6.0 | 8.9 ^p | 147 | 6.0 | 210.3 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|---------------------------------|-------------------|-------------------|------------------|------|------|----------------------|----------------------|--------------------|----------------------|
| Brazil | 10.0 | 15.3 | 20.6 | 23.4 | 27.1 | 36.7 | 82 | 26.7 | 266.0 |
| Brunei | 10.3 ^a | 15.2 | 21.7 | 27.4 | 42.9 | 58.0 | 46 | 47.7 | 463.3 |
| Bulgaria | n/a | 27.6 | 32.5 | 37.9 | 48.9 | 56.1 ^p | 48 | 28.5 | 103.3 |
| Burkina Faso | 0.3 | 0.5 ^c | 0.6 | 0.8 | 1.0 | 1.4 ^p | 195 | 1.1 | 353.0 |
| Burundi | 0.4 | 0.6 ^c | 0.9 | 1.2 | 1.4 | 3.7 ^k | 174 | 3.3 | 730.9 |
| Cambodia | n/a | n/a | 2.2 ^f | 2.3 | 2.4 | 2.9 ^p | 183 | 0.7 | 29.4 |
| Cameroon | 0.6 | 1.6 | 2.3 | 4.1 | 4.3 | 5.2 ^p | 165 | 4.6 | 797.0 |
| Canada | 58.4 | 64.0 | 78.4 | 91.6 | 98.5 | 102.4 | 4 | 44.0 | 75.4 |
| Cape Verde | n/a | n/a | n/a | 4.8 | 6.8 | 10.7 ^p | 142 | 5.9 | 124.8 |
| Cayman Islands | 16.4 | 34.5 | 49.9 | 57.9 | 69.2 | 70.5 ^{g, p} | 29 | 54.1 | 329.9 |
| Central African Republic | n/a | 0.9 | 1.1 | 1.5 | 1.7 | 1.9 | 188 | 1.0 | 106.5 |
| Chad | n/a | n/a | 4.1 ^l | 4.4 | 4.5 | 4.4 ^p | 170 | 0.3 | 7.9 |
| Chile | 8.7 | 13.7 | 17.1 | 22.2 | 27.3 | 33.5 | 87 | 24.9 | 287.5 |
| China | 1.7 | 2.1 | 4.3 | 15.0 | 22.1 | 28.3 | 95 | 26.6 | 1589.2 |
| Colombia | 8.2 | 9.7 | 11.4 | 14.7 | 29.4 | 31.8 | 89 | 23.6 | 288.6 |
| Comoros | n/a | n/a | 2.8 ^l | 3.4 | 3.1 | 3.3 ^p | 179 | 0.4 | 14.4 |
| Congo, Dem. Republic | 3.1 | 3.5 | 3.6 | 3.8 | 5.6 | 6.8 ^{g, p} | 159 | 3.7 | 120.2 |
| Congo, Republic | 1.3 | 1.4 | 1.7 | 2.7 | 2.9 | 3.4 ^g | 177 | 2.1 | 167.3 |
| Costa Rica | 9.5 | 11.9 | 13.9 | 24.2 | 27.2 | 40.3 ^k | 76 | 30.8 | 323.5 |
| Côte d'Ivoire | 3.0 | 4.6 | 5.5 | 6.4 | 6.9 | 7.9 ^p | 157 | 4.9 | 163.8 |
| Croatia | n/a | n/a | n/a | 27.6 | 38.2 | 45.7 ^p | 66 | 18.1 | 65.7 |
| Cuba | 8.4 ^b | 14.4 ^c | 18.5 | 19.9 | 19.8 | 23.0 | 107 | 14.5 | 172.0 |
| Cyprus | 13.4 | 19.3 | 26.3 | 44.3 | 51.1 | 52.2 ^p | 57 | 38.8 | 288.2 |
| Czech Republic | n/a | n/a | n/a | n/a | 53.0 | 66.5 | 34 | 13.5 | 25.4 |
| Denmark | 62.3 | 73.4 | 79.5 | 85.9 | 89.1 | 103.9 ^k | 3 | 41.6 | 66.8 |
| Djibouti | 2.3 | 2.9 | 3.7 | 4.5 | 4.8 | 5.0 ^p | 166 | 2.7 | 115.7 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|-----------------------------|------|------------------|-------------------|------------------|------|----------------------|----------------------|--------------------|----------------------|
| Dominica | 6.9 | 8.5 | 13.7 | 25.3 | 34.3 | 41.2 ^P | 73 | 34.3 | 499.8 |
| Dominican Republic | n/a | 8.0 | 8.8 | 10.8 | 12.9 | 15.0 ^P | 131 | 7.0 | 86.9 |
| Ecuador | 8.8 | 10.9 | 11.3 | 13.7 | 18.3 | 25.2 ^P | 102 | 16.4 | 187.3 |
| Egypt, Arab Republic | 3.7 | 4.8 ^C | 10.2 | 13.8 | 15.6 | 21.1 | 113 | 17.5 | 475.3 |
| El Salvador | 7.4 | 10.9 | 12.6 | 14.2 | 19.1 | 24.4 ^k | 105 | 17.0 | 229.8 |
| Equatorial Guinea | n/a | n/a | 7.9 | 8.2 | 13.3 | 15.1 ^{g, P} | 129 | 7.3 | 92.1 |
| Eritrea | n/a | n/a | n/a | n/a | 2.1 | 10.0 ^k | 144 | 7.9 | 366.7 |
| Estonia | n/a | n/a | n/a | 40.7 | 50.5 | 72.4 ^k | 28 | 31.7 | 77.7 |
| Ethiopia | 0.6 | 1.6 | 3.7 | 3.8 | 3.7 | 4.0 ^k | 171 | 3.4 | 565.7 |
| Faeroe Islands | 23.2 | 33.1 | 44.9 | 53.6 | 62.5 | 68.9 ^P | 31 | 45.7 | 197.3 |
| Fiji | n/a | n/a | 13.4 ^m | 15.0 | 21.8 | 25.0 ^k | 103 | 11.6 | 86.7 |
| Finland | 47.6 | 62.4 | 73.7 | 80.9 | 88.1 | 101.2 ^k | 5 | 53.6 | 112.5 |
| France | 35.3 | 53.6 | 67.6 | 79.1 | 86.5 | 90.4 | 15 | 55.1 | 156.1 |
| French Polynesia | 18.5 | 20.7 | 26.8 | 32.3 | 34.4 | 35.3 ^P | 83 | 16.8 | 90.7 |
| Gabon | n/a | n/a | 4.9 | 7.0 | 7.9 | 25.4 ^k | 101 | 20.5 | 414.3 |
| Gambia, The | 2.0 | 2.2 | 2.7 | 3.2 ⁿ | 4.3 | 8.7 ^k | 152 | 6.7 | 329.6 |
| Georgia | n/a | n/a | n/a | 26.2 | 43.6 | 45.2 ^P | 68 | 19.0 | 72.7 |
| Germany | 52.0 | 62.8 | 71.7 | 76.1 | 78.3 | 88.7 | 16 | 36.7 | 70.5 |
| Ghana | 2.2 | 3.3 | 4.3 | 5.1 | 9.7 | 19.3 ^k | 117 | 17.1 | 759.3 |
| Greece | 24.3 | 31.2 | 38.6 | 43.8 | 65.1 | 70.4 | 30 | 46.1 | 189.4 |
| Greenland | 13.5 | 21.7 | 27.5 | 38.1 | 51.3 | 61.9 ^P | 39 | 48.4 | 357.9 |
| Grenada | 6.4 | 9.2 | 12.4 | 27.7 | 48.5 | 52.8 ^P | 54 | 46.4 | 729.8 |
| Guam | 55.0 | 73.9 | 79.8 | 81.6 | 93.5 | 94.1 ^g | 10 | 39.1 | 71.1 |
| Guatemala | 2.4 | 3.1 | 3.5 | 5.5 | 6.6 | 8.4 ^P | 154 | 6.1 | 255.2 |
| Guinea | n/a | n/a | 0.8 | 1.2 | 2.4 | 3.7 ^k | 175 | 2.9 | 341.4 |
| Guyana | n/a | n/a | 10.6 ^l | 12.0 | 14.7 | 17.4 ^P | 123 | 6.9 | 65.2 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|------------------------|------------------|-------------------|------|------|------|----------------------|----------------------|--------------------|----------------------|
| Haiti | n/a | 0.7 ^c | 0.9 | 1.4 | 1.7 | 1.8 ^p | 190 | 1.1 | 162.7 |
| Honduras | 3.0 | 4.0 | 11.3 | 12.2 | 13.0 | 15.4 | 127 | 12.4 | 410.5 |
| Hong Kong, China | 32.2 | 38.2 | 45.1 | 57.8 | 67.8 | 74.5 | 23 | 42.3 | 131.4 |
| Hungary | 25.7 | 30.5 | 37.9 | 41.0 | 49.8 | 62.1 | 38 | 36.5 | 141.9 |
| Iceland | 48.7 | 53.2 | 59.3 | 65.3 | 70.8 | 93.1 ^k | 11 | 44.4 | 91.2 |
| India | 0.7 | 0.9 | 1.7 | 3.6 | 6.4 | 8.1 | 155 | 7.4 | 1035.2 |
| Indonesia | 2.4 | 3.4 | 4.8 | 6.5 | 10.2 | 12.8 | 134 | 10.4 | 432.7 |
| Iran, Islamic Republic | 6.0 | 7.3 | 8.3 | 10.7 | 18.4 | 21.8 ^j | 109 | 15.8 | 264.0 |
| Iraq | n/a | 6.9 | 8.8 | 10.3 | 10.7 | 10.7 ^p | 141 | 3.8 | 54.5 |
| Ireland | 22.7 | 29.2 | 38.0 | 46.2 | 56.8 | 66.9 | 33 | 44.2 | 195.2 |
| Israel | 25.5 | 32.1 | 40.6 | 45.4 | 53.0 | 58.7 | 45 | 33.2 | 129.8 |
| Italy | 37.3 | 48.2 | 55.2 | 63.4 | 67.9 | 73.8 ^p | 25 | 36.5 | 97.6 |
| Jamaica | 9.6 | 12.8 | 14.6 | 18.3 | 24.5 | 38.0 ^{j, p} | 80 | 28.4 | 296.7 |
| Japan | 48.6 | 65.3 | 71.7 | 79.7 | 87.6 | 94.8 | 9 | 46.2 | 95.0 |
| Jordan | 9.6 ^a | 10.8 | 14.2 | 12.4 | 12.7 | 15.5 | 126 | 6.0 | 62.3 |
| Kazakhstan | n/a | n/a | n/a | 22.0 | 28.2 | 27.7 | 96 | 5.7 | 25.9 |
| Kenya | 0.9 | 1.2 | 2.1 | 2.9 | 3.0 | 3.7 ^p | 173 | 2.9 | 326.5 |
| Kiribati | n/a | n/a | 4.0 | 5.3 | 6.6 | 7.8 | 158 | 3.8 | 92.7 |
| Korea, Dem. Republic | n/a | n/a | 4.3 | 5.6 | 8.3 | 8.7 | 149 | 4.5 | 105.4 |
| Korea, Republic | 21.2 | 31.0 | 39.3 | 50.3 | 63.5 | 67.7 | 32 | 46.5 | 219.0 |
| Kuwait | 17.8 | 27.1 | 31.7 | 55.6 | 48.3 | 54.5 ^k | 50 | 36.7 | 205.9 |
| Kyrgyz Republic | n/a | n/a | n/a | 7.5 | 9.0 | 9.6 ^p | 145 | 2.1 | 28.3 |
| Lao PDR | 1.3 | 2.0 | 2.2 | 2.6 | 3.2 | 3.5 ^p | 176 | 2.1 | 160.1 |
| Latvia | n/a | n/a | n/a | 45.9 | 59.8 | 74.4 ^k | 24 | 28.5 | 62.0 |
| Lebanon | n/a | 36.9 ^e | 33.3 | 43.6 | 43.7 | 49.5 ^p | 62 | 12.6 | 34.2 |
| Lesotho | 0.3 | 0.5 | 0.7 | 1.3 | 1.9 | 2.3 ^g | 186 | 2.0 | 573.1 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|-----------------------------|------------------|------------------|------|------------------|-------------------|----------------------|----------------------|--------------------|----------------------|
| Liberia | n/a | n/a | 5.0 | 5.2 | 5.6 | 6.6 ^{g, p} | 160 | 1.7 | 33.7 |
| Libya | n/a | n/a | 9.7 | 12.6 | 13.7 | 18.7 ^p | 118 | 9.0 | 93.5 |
| Liechtenstein | n/a | 51.0 | 60.6 | 68.8 | 78.6 | 78.5 ^p | 20 | 27.4 | 53.8 |
| Lithuania | n/a | n/a | n/a | 39.9 | 46.5 | 53.3 ^k | 52 | 13.5 | 33.8 |
| Luxembourg | 43.5 | 50.7 | 57.0 | 63.1 | 70.5 ^h | 81.6 ^p | 18 | 38.1 | 87.7 |
| Macao | n/a | n/a | n/a | 38.8 | 47.3 | 49.9 ^k | 60 | 11.1 | 28.6 |
| Macedonia, FYR | n/a | n/a | n/a | 22.9 | 25.7 | 33.2 | 88 | 10.3 | 45.2 |
| Madagascar | 3.0 ^b | 3.6 | 3.9 | 4.6 | 4.6 | 5.0 ^p | 167 | 2.0 | 66.5 |
| Malawi | 2.9 | 3.4 | 3.8 | 4.6 ^o | 4.8 | 4.8 | 168 | 1.9 | 64.6 |
| Malaysia | 5.8 | 14.1 | 18.2 | 22.0 | 28.2 | 30.7 | 91 | 24.8 | 424.9 |
| Maldives | n/a | 2.4 ^c | 3.6 | 5.3 | 8.2 | 9.5 ^p | 146 | 7.1 | 295.7 |
| Mali | 0.2 | 0.2 | 0.9 | 1.4 | 1.4 | 1.7 ^{g, p} | 191 | 1.5 | 781.6 |
| Malta | 47.7 | 55.2 | 64.6 | 51.3 | 65.2 | 76.9 | 21 | 29.2 | 61.2 |
| Mauritania | 1.0 | 1.8 | 2.6 | 3.6 | 7.5 | 8.6 | 153 | 7.5 | 717.8 |
| Mauritius | 7.5 | 11.8 | 15.7 | 19.6 | 27.8 | 34.3 | 86 | 26.8 | 355.8 |
| Mexico | 6.5 | 8.2 | 13.3 | 17.4 | 22.9 | 28.4 | 93 | 21.9 | 338.9 |
| Moldova | n/a | n/a | n/a | 32.9 | 38.4 | 38.6 ^k | 78 | 5.7 | 17.2 |
| Mongolia | n/a | 3.4 ^e | 4.8 | 8.2 | 8.3 | 8.7 ^p | 151 | 5.3 | 153.3 |
| Morocco | 3.6 | 5.9 | 7.4 | 10.7 | 15.9 | 17.2 | 124 | 13.6 | 382.7 |
| Mozambique | 0.4 | 0.5 | 0.7 | 1.0 | 1.0 | 1.2 ^p | 196 | 0.7 | 162.6 |
| Myanmar | 0.4 | 0.4 ^d | 1.2 | 1.7 | 2.2 | 1.9 ^k | 187 | 1.6 | 445.9 |
| Namibia | 3.4 | 4.1 | 5.5 | 6.1 | 7.4 | 8.8 ^p | 148 | 5.4 | 156.9 |
| Nepal | 0.3 | 0.3 ^e | 0.5 | 0.9 | 1.1 | 1.7 | 192 | 1.5 | 562.3 |
| Netherlands | 43.6 | 56.9 | 67.5 | 74.0 | 79.2 | 91.5 | 13 | 47.8 | 109.6 |
| Netherlands Antilles | 39.4 | 46.4 | 53.9 | 53.2 | 60.1 | 61.1 ^{g, p} | 43 | 21.7 | 55.2 |
| New Caledonia | 18.2 | 24.7 | 31.9 | 39.0 | 48.7 | 53.3 ^k | 53 | 35.1 | 192.9 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|--------------------------------|------|------------------|------|-------------------|-------------------|------------------------|----------------------|--------------------|----------------------|
| New Zealand | 54.1 | 58.2 | 62.4 | 70.2 | 77.1 | 79.7 | 19 | 25.6 | 47.4 |
| Nicaragua | 6.2 | 8.2 | 8.6 | 9.2 | 10.1 | 10.8 ^j | 140 | 4.7 | 75.9 |
| Niger | 0.4 | 0.8 | 0.9 | 1.7 | 2.6 | 2.8 ^{g, k} | 184 | 2.4 | 573.4 |
| Nigeria | n/a | 2.2 ^c | 3.6 | 5.7 | 7.4 | 8.1 ^g | 156 | 5.9 | 274.4 |
| Norway | 44.2 | 50.9 | 64.1 | 71.1 | 83.6 | 99.7 | 7 | 55.5 | 125.4 |
| Oman | 6.8 | 11.8 | 49.1 | 52.0 | 50.3 | 49.6 | 61 | 42.8 | 632.8 |
| Pakistan | 1.3 | 1.9 | 2.5 | 3.6 | 5.7 | 10.1 | 143 | 8.7 | 649.2 |
| Panama | n/a | 13.5 | 17.5 | 20.0 | 21.8 | 27.0 | 98 | 13.5 | 99.5 |
| Papua New Guinea | 1.1 | 1.5 | 1.7 | 1.9 | 2.3 | 3.2 | 180 | 2.1 | 202.1 |
| Paraguay | 3.0 | 4.2 | 5.5 | 7.8 | 10.2 | 18.6 | 121 | 15.5 | 512.3 |
| Peru | 5.7 | 6.9 | 9.4 | 11.7 | 15.7 | 17.6 | 122 | 12.0 | 210.9 |
| Philippines | 2.1 | 2.5 | 4.6 | 6.0 | 9.9 | 11.6 | 138 | 9.5 | 452.1 |
| Poland | 19.7 | 23.0 | 26.3 | 28.6 | 41.2 | 48.7 | 64 | 28.9 | 146.4 |
| Portugal | 14.6 | 19.6 | 23.6 | 30.5 | 54.5 | 65.1 | 36 | 50.5 | 346.1 |
| Puerto Rico | 27.9 | 32.5 | 38.1 | 46.1 | 52.2 | 53.5 ^p | 51 | 25.6 | 91.8 |
| Qatar | 16.6 | 35.8 | 39.3 | 42.4 | 48.6 | 73.8 ^p | 27 | 57.2 | 345.3 |
| Romania | 14.8 | 19.8 | 21.8 | 22.9 | 25.6 | 34.7 ^k | 85 | 20.0 | 135.0 |
| Russian Federation | n/a | n/a | n/a | 36.7 | 39.9 | 45.3 | 67 | 8.6 | 23.5 |
| Rwanda | 0.2 | 0.6 | 1.0 | 1.4 | 1.8 | 1.9 ^p | 189 | 1.7 | 781.7 |
| Samoa | n/a | n/a | 11.1 | 12.1 | 14.2 ^h | 24.9 ^{g, p} | 104 | 13.8 | 125.0 |
| Sao Tome & Principe | 4.1 | 4.7 ^c | 5.7 | 11.1 ^o | 16.3 | 20.8 ^{j, p} | 115 | 16.7 | 408.3 |
| Saudi Arabia | 9.9 | 19.3 | 23.8 | 24.5 | 26.2 | 29.2 | 92 | 19.3 | 196.2 |
| Senegal | 1.2 | 1.4 | 3.9 | 4.4 | 4.9 | 6.0 ^p | 162 | 4.8 | 393.6 |
| Seychelles | 6.4 | 9.5 | 14.5 | 20.3 | 28.8 | 38.3 ^g | 79 | 31.9 | 497.3 |
| Sierra Leone | n/a | 3.7 | 4.4 | 4.7 | 5.0 | 5.8 ^{g, j, p} | 163 | 2.2 | 59.5 |
| Singapore | 22.4 | 39.0 | 47.0 | 52.8 | 54.9 | 61.2 | 41 | 38.8 | 172.8 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|---|------------------|------|------|-------------------|------|----------------------|----------------------|--------------------|----------------------|
| Slovak Republic | n/a | n/a | n/a | n/a | 45.5 | 61.2 ⁱ | 40 | 15.8 | 34.7 |
| Slovenia | n/a | n/a | n/a | 35.7 | 45.5 | 52.3 | 56 | 16.5 | 46.2 |
| Solomon Islands | n/a | n/a | n/a | n/a | 3.6 | 4.5 ^P | 169 | 0.9 | 24.6 |
| Somalia | n/a | n/a | 0.4 | 1.4 | 1.6 | 1.7 ^{9, P} | 193 | 1.3 | 283.9 |
| South Africa | 6.5 | 12.3 | 14.8 | 16.6 | 19.2 | 21.4 | 111 | 14.9 | 228.6 |
| Spain | 23.8 | 31.8 | 36.5 | 48.2 | 58.8 | 64.0 | 37 | 40.2 | 168.6 |
| Sri Lanka | n/a | 2.1 | 4.7 | 6.0 | 8.8 | 11.9 | 136 | 9.8 | 465.8 |
| St. Kitts & Nevis | n/a | n/a | 20.1 | 39.8 | 50.2 | 61.1 ^P | 42 | 41.1 | 204.5 |
| St. Lucia | 14.6 | 16.2 | 18.1 | 32.3 | 46.9 | 51.3 ^{9, P} | 58 | 36.7 | 250.5 |
| St. Vincent & the Grenadines | 11.0 | 13.0 | 16.4 | 28.0 | 35.0 | 39.0 ^P | 77 | 28.0 | 255.0 |
| Sudan | 4.0 | 6.6 | 7.5 | 8.9 | 9.9 | 15.3 | 128 | 11.3 | 279.0 |
| Suriname | 12.6 | 18.8 | 22.4 | 25.7 | 32.4 | 37.7 ^P | 81 | 25.1 | 199.4 |
| Swaziland | 2.4 | 3.2 | 4.1 | 4.8 | 9.9 | 11.4 ^P | 139 | 9.0 | 373.3 |
| Sweden | 68.9 | 79.2 | 83.0 | 86.6 | 87.3 | 90.4 ^P | 14 | 21.6 | 31.3 |
| Switzerland | 56.1 | 64.0 | 69.9 | 74.9 | 81.1 | 93.1 | 12 | 37.0 | 66.1 |
| Syrian Arab Republic | 6.1 | 7.8 | 9.9 | 10.6 | 13.2 | 15.1 | 130 | 9.0 | 145.9 |
| Tajikistan | n/a | n/a | n/a | 15.8 | 20.0 | 23.6 | 106 | 7.8 | 49.7 |
| Tanzania | 1.2 | 1.5 | 2.1 | 3.7 | 6.1 | 6.4 ^P | 161 | 5.2 | 424.6 |
| Thailand | 2.7 | 4.2 | 9.2 | 11.1 | 17.7 | 26.3 | 99 | 23.6 | 880.1 |
| Togo | 2.8 ^b | 3.9 | 4.1 | 4.2 | 4.8 | 5.8 ^j | 164 | 3.0 | 106.4 |
| Tonga | n/a | n/a | 7.7 | 14.0 | 16.9 | 21.3 ^k | 112 | 13.6 | 177.3 |
| Trinidad & Tobago | 12.5 | 18.7 | 30.2 | 37.3 ^o | 39.3 | 43.0 | 70 | 30.4 | 243.1 |
| Tunisia | 5.1 | 6.6 | 7.8 | 10.3 | 12.4 | 19.5 ^k | 116 | 14.4 | 282.6 |
| Turkey | 4.4 | 8.1 | 14.4 | 23.9 | 33.1 | 40.3 | 75 | 35.9 | 820.6 |
| Turkmenistan | n/a | n/a | n/a | 18.7 | 19.6 | 21.8 ^P | 110 | 3.1 | 16.3 |
| Uganda | 0.7 | 0.9 | 1.9 | 2.7 | 3.7 | 4.0 ^P | 172 | 3.2 | 445.1 |

Table 5: Technology Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 ⁱ | Rank (out of 196) | Change in Score | % Change in Score |
|---------------------------------------|------|------------------|-------|-------|-------|----------------------|----------------------|--------------------|----------------------|
| Ukraine | 25.9 | 29.9 | 36.6 | 41.9 | 47.2 | 52.5 ^p | 55 | 26.6 | 102.6 |
| United Arab Emirates | 9.6 | 17.1 | 20.0 | 23.4 | 39.7 | 42.2 | 71 | 32.5 | 337.3 |
| United Kingdom | 48.3 | 61.0 | 67.2 | 78.4 | 93.3 | 100.1 | 6 | 51.7 | 107.0 |
| United States | 85.5 | 95.0 | 106.7 | 117.8 | 125.0 | 130.2 | 2 | 44.7 | 52.3 |
| Uruguay | 20.9 | 22.1 | 30.0 | 41.9 | 54.2 | 57.6 ^g | 47 | 36.7 | 175.9 |
| Uzbekistan | n/a | n/a | n/a | 21.0 | 23.5 | 28.3 | 94 | 7.3 | 35.0 |
| Vanuatu | 2.8 | 4.3 ^e | 5.5 | 6.8 | 7.5 | 8.7 ^g | 150 | 5.9 | 205.6 |
| Venezuela | 15.0 | 16.9 | 19.4 | 24.0 | 25.5 | 26.1 ^p | 100 | 11.1 | 73.8 |
| Vietnam | n/a | 3.6 ^e | 3.7 | 4.1 | 11.9 | 14.2 ^p | 132 | 10.6 | 295.2 |
| Virgin Islands (US) | n/a | n/a | 76.7 | 82.8 | 84.2 | 86.1 ^g | 17 | 9.4 | 12.2 |
| Yemen, Republic | n/a | 11.5 | 14.7 | 16.9 | 17.2 | 18.6 | 120 | 7.1 | 62.1 |
| Yugoslavia, FR (Serbia/Montenegro) | 33.0 | 39.6 | 44.1 | 25.9 | 28.3 | 34.9 | 84 | 1.8 | 5.6 |
| Zambia | 1.4 | 1.9 | 2.4 | 4.0 | 6.6 | 11.7 ^k | 137 | 10.3 | 730.3 |
| Zimbabwe | 1.9 | 2.0 | 3.0 | 3.7 | 4.2 | 18.7 ^{g, k} | 119 | 16.7 | 872.8 |

Sources

World Bank, United Nations; calculations by the authors.

Notes

- a** number of telephone mainlines is from 1977.
b number of telephone mainlines is from 1976.
c number of telephone mainlines is from 1981.
d number of telephone mainlines is from 1979.
e number of telephone mainlines is from 1982.
f number of telephone mainlines is from 1987.
g number of telephone mainlines is from 1998.

h number of radios is from 1994.

i number of radios is from 1997 unless otherwise noted.

j number of radios is from 1998.

k number of radios is from 1999.

l number of televisions is from 1987.

m number of televisions is from 1986.

n number of televisions is from 1989.

o number of televisions interpolated from 1985 and 1995 data.

p number of televisions is from 1998.

Table 6: GDP-per-capita Sub-Index

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|---------------------------------|------|------|------------------|------|------|-------------------|----------------------|--------------------|----------------------|
| Albania | n/a | 2.1 | 2.1 | 1.9 | 1.7 | 1.9 | 115 | (0.1) | (6.1) |
| Algeria | 3.5 | 4.2 | 4.6 | 4.0 | 3.6 | 3.8 | 92 | 0.3 | 8.4 |
| Angola | n/a | 1.6 | 1.4 | 1.5 | 0.9 | 1.0 | 134 | (0.5) | (34.7) |
| Antigua & Barbuda | n/a | 10.5 | 13.4 | 18.3 | 19.9 | 23.4 | 40 | 12.9 | 122.9 |
| Argentina | 19.2 | 20.5 | 16.6 | 15.1 | 19.5 | 21.3 | 41 | 2.1 | 10.9 |
| Armenia | n/a | n/a | n/a | 3.8 | 1.7 | 2.1 | 114 | (1.7) | (44.4) |
| Australia | 38.4 | 42.3 | 45.9 | 49.5 | 55.4 | 62.6 | 17 | 24.3 | 63.2 |
| Austria | 50.8 | 59.9 | 64.3 | 73.6 | 78.0 | 84.0 | 7 | 33.2 | 65.4 |
| Azerbaijan | n/a | n/a | n/a | 2.6 | 0.6 | 0.9 | 140 | (1.7) | (66.8) |
| Bahamas, The | 20.2 | 32.3 | 35.2 | 35.4 | 31.9 | 35.0 | 32 | 14.7 | 72.8 |
| Bahrain | n/a | 31.8 | 23.2 | 22.5 | 25.1 | 24.4 ^e | 39 | (7.4) | (23.2) |
| Bangladesh | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 151 | 0.4 | 231.8 |
| Barbados | 14.3 | 17.7 | 16.7 | 19.2 | 18.5 | 20.9 | 42 | 6.6 | 46.2 |
| Belarus | n/a | n/a | 7.1 ^c | 7.8 | 4.9 | 6.4 | 75 | (0.7) | (9.3) |
| Belgium | 50.3 | 58.2 | 60.3 | 69.3 | 72.4 | 79.0 | 13 | 28.8 | 57.2 |
| Belize | 4.0 | 5.1 | 4.5 | 6.4 | 6.9 | 7.0 | 71 | 3.1 | 77.0 |
| Benin | 0.5 | 0.6 | 0.7 | 0.6 | 0.6 | 0.7 | 146 | 0.2 | 31.3 |
| Bhutan | n/a | 0.3 | 0.4 | 0.7 | 0.8 | 1.0 | 136 | 0.8 | 299.0 |
| Bolivia | 2.3 | 2.3 | 1.9 | 1.9 | 2.0 | 2.2 | 113 | (0.1) | (5.8) |
| Bosnia & Herzegovina | n/a | n/a | n/a | n/a | 1.1 | 3.9 | 89 | 2.8 | 256.2 |
| Botswana | 2.7 | 4.1 | 5.7 | 8.0 | 8.6 | 9.6 | 62 | 6.9 | 259.3 |
| Brazil | 8.9 | 11.0 | 10.4 | 10.5 | 11.5 | 11.6 | 53 | 2.7 | 30.5 |
| Brunei | 57.8 | 78.4 | 56.2 | 49.7 | 47.1 | 47.9 ^e | 23 | (9.9) | (17.2) |
| Bulgaria | n/a | 3.2 | 3.8 | 4.2 | 3.8 | 3.4 | 97 | 0.2 | 7.1 |
| Burkina Faso | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 162 | 0.2 | 123.7 |
| Burundi | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 | 174 | (0.0) | (78.4) |
| Cambodia | n/a | n/a | 0.2 ^c | 0.3 | 0.4 | 0.4 | 160 | 0.2 | 69.6 |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|---------------------------------|------|------------------|------|------|-------|--------------------|----------------------|--------------------|----------------------|
| Cameroon | 1.3 | 1.6 | 2.3 | 1.7 | 1.2 | 1.4 | 129 | 0.1 | 8.4 |
| Canada | 38.5 | 43.5 | 47.3 | 50.8 | 52.4 | 57.8 | 19 | 19.4 | 50.4 |
| Cape Verde | n/a | 1.7 ^a | 2.4 | 2.6 | 3.1 | 3.5 | 95 | 1.8 | 103.1 |
| Central African Republic | 0.8 | 0.7 | 0.7 | 0.6 | 0.5 | 0.6 | 153 | (0.3) | (34.0) |
| Chad | 0.3 | 0.1 | 0.3 | 0.2 | 0.2 | 0.2 | 167 | (0.1) | (30.1) |
| Chile | 5.0 | 6.8 | 6.5 | 8.4 | 11.9 | 13.3 | 50 | 8.3 | 164.2 |
| China | 0.0 | 0.1 | 0.3 | 0.6 | 1.2 | 1.7 | 123 | 1.7 | n/a |
| Colombia | 3.9 | 4.6 | 4.6 | 5.3 | 6.0 | 5.7 | 79 | 1.7 | 44.0 |
| Comoros | n/a | 1.0 | 1.1 | 1.0 | 0.8 | 0.7 | 148 | (0.3) | (30.6) |
| Congo, Dem. Republic | 0.6 | 0.4 | 0.3 | 0.2 | (0.0) | (0.1) ^e | 176 | (0.6) | (111.9) |
| Congo, Republic | 1.9 | 2.1 | 3.1 | 2.6 | 2.3 | 1.9 | 118 | (0.0) | (0.1) |
| Costa Rica | 7.1 | 7.9 | 6.9 | 7.6 | 8.9 | 10.3 | 58 | 3.3 | 46.1 |
| Côte d'Ivoire | 2.4 | 2.4 | 2.0 | 1.7 | 1.6 | 1.7 | 121 | (0.7) | (27.5) |
| Croatia | n/a | n/a | n/a | 11.9 | 8.7 | 10.6 | 56 | (1.3) | (10.7) |
| Cyprus | 9.3 | 16.6 | 20.5 | 27.5 | 31.8 | 35.1 | 31 | 25.8 | 276.5 |
| Czech Republic | n/a | n/a | n/a | 13.7 | 13.1 | 13.3 | 49 | (0.4) | (2.8) |
| Denmark | 65.4 | 72.7 | 79.9 | 84.7 | 91.9 | 99.4 | 4 | 34.0 | 51.9 |
| Djibouti | n/a | n/a | n/a | n/a | 1.8 | 1.6 ^e | 125 | (0.2) | (11.1) |
| Dominica | n/a | 4.1 | 5.4 | 7.3 | 7.8 | 8.6 | 66 | 4.5 | 108.0 |
| Dominican Republic | 2.8 | 3.2 | 3.2 | 3.3 | 3.7 | 4.8 | 83 | 2.0 | 70.6 |
| Ecuador | 3.1 | 3.8 | 3.7 | 3.6 | 3.8 | 3.4 | 96 | 0.3 | 10.1 |
| Egypt, Arab Republic | 1.0 | 1.6 | 2.0 | 2.2 | 2.4 | 2.8 | 106 | 1.8 | 178.3 |
| El Salvador | 4.4 | 3.9 | 3.2 | 3.3 | 4.1 | 4.3 | 84 | (0.1) | (1.6) |
| Equatorial Guinea | n/a | n/a | 0.6 | 0.5 | 0.7 | 2.7 | 107 | 2.1 | 371.7 |
| Eritrea | n/a | n/a | n/a | n/a | 0.1 | 0.1 | 172 | 0.0 | 56.7 |
| Estonia | n/a | 10.4 | 11.5 | 11.6 | 8.3 | 10.2 | 59 | (0.2) | (1.8) |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|-------------------------------|------|--------------------|-------|-------|-------|-------|----------------------|--------------------|----------------------|
| Ethiopia | n/a | (0.1) ^a | (0.1) | (0.1) | (0.1) | (0.1) | 177 | (0.0) | 24.0 |
| Fiji | 5.2 | 5.8 | 5.3 | 5.9 | 6.4 | 6.7 | 74 | 1.5 | 28.1 |
| Finland | 48.2 | 54.7 | 61.7 | 71.4 | 67.3 | 80.8 | 10 | 32.6 | 67.7 |
| France | 49.8 | 56.9 | 60.5 | 69.1 | 71.5 | 77.1 | 14 | 27.3 | 54.8 |
| French Polynesia | 34.1 | 37.2 | 46.0 | 50.0 | 48.9 | 51.7 | 22 | 17.7 | 51.9 |
| Gabon | 17.0 | 13.4 | 12.8 | 11.5 | 11.7 | 11.3 | 54 | (5.6) | (33.3) |
| Gambia, The | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 150 | 0.0 | 4.4 |
| Georgia | n/a | n/a | n/a | n/a | 0.6 | 0.8 | 142 | 0.3 | 48.3 |
| Germany | n/a | n/a | n/a | n/a | 80.2 | 84.5 | 6 | 4.3 | 5.4 |
| Ghana | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.7 | 145 | (0.0) | (0.4) |
| Greece | 21.7 | 25.3 | 26.3 | 28.2 | 29.7 | 33.5 | 33 | 11.7 | 53.9 |
| Grenada | n/a | 4.2 | 5.3 | 7.2 | 7.5 | 9.1 | 64 | 4.9 | 117.0 |
| Guatemala | 3.3 | 3.9 | 3.2 | 3.3 | 3.6 | 3.8 | 93 | 0.5 | 14.2 |
| Guinea | n/a | n/a | n/a | 1.1 | 1.1 | 1.2 | 131 | 0.2 | 17.2 |
| Guinea-Bissau | 0.2 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 | 171 | (0.1) | (48.4) |
| Guyana | 2.0 | 1.8 | 1.3 | 1.1 | 1.6 | 1.9 | 117 | (0.1) | (4.4) |
| Haiti | 1.0 | 1.3 | 1.0 | 1.0 | 0.6 | 0.6 | 149 | (0.3) | (35.8) |
| Honduras | 1.3 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 128 | 0.2 | 15.8 |
| Hong Kong, China | 19.4 | 29.8 | 36.3 | 50.0 | 60.1 | 59.0 | 18 | 39.5 | 203.4 |
| Hungary | 9.2 | 10.9 | 12.0 | 12.6 | 11.3 | 13.4 | 48 | 4.2 | 45.6 |
| Iceland | 46.5 | 60.4 | 64.1 | 70.8 | 69.3 | 81.8 | 9 | 35.2 | 75.7 |
| India | 0.2 | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 | 143 | 0.6 | 290.8 |
| Indonesia | 0.7 | 1.0 | 1.2 | 1.7 | 2.4 | 2.2 | 112 | 1.5 | 233.5 |
| Iran, Islamic Republic | 4.9 | 3.3 | 3.6 | 3.1 | 3.6 | 3.9 | 90 | (1.0) | (20.9) |
| Ireland | 24.6 | 28.8 | 31.4 | 40.0 | 48.9 | 66.9 | 16 | 42.3 | 172.1 |
| Israel | 28.5 | 30.6 | 32.5 | 36.5 | 42.2 | 43.6 | 28 | 15.1 | 53.1 |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|------------------------|------|------|------------------|--------|-------|-------------------|----------------------|--------------------|----------------------|
| Italy | 31.7 | 38.9 | 41.9 | 48.2 | 50.9 | 53.6 | 21 | 21.9 | 68.9 |
| Jamaica | 4.9 | 3.9 | 3.5 | 4.4 | 4.5 | 4.2 | 87 | (0.7) | (15.2) |
| Japan | 62.0 | 73.7 | 84.1 | 103.2 | 109.2 | 112.8 | 3 | 50.9 | 82.1 |
| Jordan | 2.4 | 4.5 | 4.8 | 3.7 | 4.0 | 3.9 | 88 | 1.5 | 60.6 |
| Kazakhstan | n/a | n/a | n/a | 5.2 | 3.0 | 3.3 | 99 | (1.9) | (37.1) |
| Kenya | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 156 | 0.1 | 22.1 |
| Kiribati | 4.9 | 1.3 | 1.2 | 1.1 | 1.2 | 1.2 | 132 | (3.7) | (75.0) |
| Korea, Republic | 7.4 | 9.7 | 13.5 | 20.9 | 28.7 | 32.0 | 35 | 24.6 | 333.5 |
| Kuwait | 55.8 | 43.2 | 27.3 | 30.3 d | 44.5 | 40.1 ^f | 29 | (15.7) | (28.2) |
| Kyrgyz Republic | n/a | n/a | n/a | 3.6 | 1.6 | 1.9 | 116 | (1.7) | (47.3) |
| Lao PDR | n/a | n/a | 0.4 | 0.5 | 0.7 | 0.8 | 144 | 0.4 | 97.0 |
| Latvia | 5.8 | 7.0 | 8.1 | 9.5 | 4.8 | 5.9 | 77 | 0.1 | 1.4 |
| Lebanon | n/a | n/a | n/a | 4.2 | 7.1 | 7.7 ^e | 69 | 3.4 | 80.7 |
| Lesotho | 0.3 | 0.6 | 0.6 | 0.8 | 0.9 | 1.0 | 135 | 0.7 | 212.3 |
| Lithuania | n/a | n/a | 6.2 ^c | 7.6 | 4.3 | 4.9 | 82 | (1.3) | (20.4) |
| Luxembourg | 59.7 | 66.1 | 74.4 | 97.8 | 118.9 | 140.5 | 1 | 80.8 | 135.3 |
| Macao | n/a | n/a | 28.9 | 36.8 | 45.4 | 38.6 | 30 | 9.7 | 33.4 |
| Macedonia, FYR | n/a | n/a | n/a | 3.7 | 3.0 | 3.2 | 102 | (0.5) | (14.2) |
| Madagascar | 0.6 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 | 164 | (0.3) | (54.1) |
| Malawi | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 173 | 0.0 | 62.5 |
| Malaysia | 4.2 | 5.8 | 6.6 | 7.9 | 11.2 | 11.7 | 52 | 7.5 | 178.7 |
| Maldives | n/a | n/a | 1.4 | 2.1 | 2.6 | 3.0 ^e | 104 | 1.6 | 116.3 |
| Mali | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 161 | 0.0 | 6.8 |
| Malta | 7.6 | 12.1 | 14.0 | 18.4 | 23.0 | 25.7 ^e | 38 | 18.1 | 236.7 |
| Mauritania | 0.9 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 138 | 0.0 | 1.4 |
| Mauritius | 3.7 | 4.5 | 5.4 | 7.5 | 9.1 | 10.7 | 55 | 6.9 | 185.8 |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|------------------------------|------|------------------|-------|------|------|-------------------|----------------------|--------------------|----------------------|
| Mexico | 6.8 | 8.4 | 8.3 | 8.2 | 8.0 | 9.3 | 63 | 2.5 | 37.7 |
| Micronesia, Fed. Sts. | n/a | n/a | n/a | 4.9 | 4.8 | 4.2 | 86 | (0.7) | (14.5) |
| Moldova | n/a | n/a | n/a | 4.4 | 1.5 | 1.3 | 130 | (3.1) | (70.6) |
| Mongolia | n/a | 0.7 ^a | 0.9 | 1.0 | 0.8 | 0.9 | 141 | 0.1 | 14.9 |
| Morocco | 2.2 | 2.6 | 2.8 | 3.1 | 3.0 | 3.3 | 100 | 1.1 | 49.3 |
| Mozambique | n/a | 0.1 | (0.1) | 0.0 | 0.0 | 0.2 | 169 | 0.1 | 113.1 |
| Namibia | n/a | 5.6 | 4.8 | 4.7 | 5.2 | 5.2 | 81 | (0.3) | (5.6) |
| Nepal | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 166 | 0.2 | 631.3 |
| Netherlands | 51.4 | 56.6 | 58.8 | 66.5 | 71.4 | 80.2 | 11 | 28.9 | 56.1 |
| New Caledonia | 39.6 | 36.3 | 33.6 | 49.8 | 49.9 | 46.1 | 24 | 6.5 | 16.4 |
| New Zealand | 37.1 | 37.0 | 40.9 | 39.8 | 43.6 | 45.7 | 25 | 8.6 | 23.0 |
| Nicaragua | 2.3 | 1.5 | 1.3 | 0.9 | 0.8 | 0.9 | 139 | (1.4) | (61.2) |
| Niger | 0.4 | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 | 168 | (0.2) | (55.5) |
| Nigeria | 0.4 | 0.5 | 0.2 | 0.3 | 0.3 | 0.3 | 163 | (0.1) | (31.4) |
| Norway | 50.5 | 62.7 | 72.2 | 76.8 | 89.6 | 99.0 | 5 | 48.5 | 96.0 |
| Oman | 9.0 | 9.0 | 14.6 | 14.6 | 14.8 | 14.8 ^g | 47 | 5.8 | 63.7 |
| Pakistan | 0.4 | 0.5 | 0.7 | 0.8 | 1.0 | 1.0 | 137 | 0.6 | 171.7 |
| Panama | 6.5 | 6.9 | 7.4 | 6.4 | 7.7 | 8.3 | 67 | 1.8 | 27.7 |
| Papua New Guinea | 2.1 | 2.0 | 1.9 | 1.8 | 2.5 | 2.3 | 110 | 0.2 | 8.6 |
| Paraguay | 3.1 | 4.7 | 4.3 | 4.5 | 4.6 | 4.2 | 85 | 1.1 | 36.5 |
| Peru | 6.6 | 6.5 | 5.8 | 4.7 | 5.7 | 5.9 | 78 | (0.7) | (11.0) |
| Philippines | 2.2 | 2.8 | 2.2 | 2.6 | 2.5 | 2.7 | 108 | 0.4 | 19.6 |
| Poland | n/a | n/a | n/a | 6.6 | 7.3 | 9.1 | 65 | 2.5 | 37.8 |
| Portugal | 16.2 | 19.4 | 19.8 | 26.2 | 28.6 | 32.6 | 34 | 16.4 | 101.4 |
| Puerto Rico | 17.5 | 21.2 | 21.7 | 27.4 | 30.0 | 31.2 ^h | 36 | 13.7 | 77.8 |
| Romania | 2.8 | 3.9 | 4.5 | 3.7 | 3.4 | 3.0 | 103 | 0.3 | 10.0 |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|---|------|-------|-------|-------|-------|-------|----------------------|--------------------|----------------------|
| Russian Federation | 6.7 | 8.1 | 9.1 | 9.4 | 5.7 | 5.5 | 80 | (1.2) | (17.4) |
| Rwanda | 0.3 | 0.5 | 0.5 | 0.4 | 0.2 | 0.3 | 165 | 0.0 | 1.5 |
| Samoa | n/a | 2.2 | 2.1 | 2.1 | 2.1 | 2.3 | 109 | 0.1 | 4.4 |
| Sao Tome & Principe | n/a | n/a | n/a | 0.6 | 0.6 | 0.5 | 155 | (0.1) | (12.1) |
| Saudi Arabia | 25.5 | 30.5 | 19.5 | 18.6 | 18.4 | 17.6 | 44 | (7.9) | (30.9) |
| Senegal | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 133 | (0.0) | (2.8) |
| Seychelles | 9.3 | 12.7 | 12.9 | 16.5 | 17.7 | 18.8 | 43 | 9.6 | 103.3 |
| Sierra Leone | 0.4 | 0.4 | 0.3 | 0.4 | 0.1 | 0.0 | 175 | (0.4) | (99.9) |
| Singapore | 20.6 | 29.2 | 34.9 | 47.5 | 64.2 | 70.4 | 15 | 49.8 | 241.5 |
| Slovak Republic | n/a | n/a | 9.9 | 10.5 | 8.9 | 10.5 | 57 | 0.6 | 6.3 |
| Slovenia | n/a | n/a | n/a | 25.5 | 24.8 | 29.4 | 37 | 3.9 | 15.4 |
| Solomon Islands | 0.8 | 1.2 | 1.4 | 1.7 | 1.9 | 1.7 | 122 | 1.0 | 130.1 |
| South Africa | 11.9 | 12.0 | 10.9 | 10.6 | 10.0 | 10.1 | 61 | (1.8) | (15.1) |
| Spain | 27.7 | 29.0 | 30.2 | 37.3 | 39.5 | 45.1 | 26 | 17.4 | 62.9 |
| Sri Lanka | 0.6 | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 120 | 1.2 | 185.5 |
| St. Kitts & Nevis | n/a | 6.5 | 7.8 | 11.8 | 14.7 | 17.5 | 45 | 11.0 | 170.5 |
| St. Lucia | n/a | 5.2 | 5.4 | 9.1 | 9.9 | 10.2 | 60 | 5.0 | 96.0 |
| St. Vincent & the Grenadines | n/a | 3.2 | 4.0 | 5.4 | 6.0 | 6.9 | 72 | 3.8 | 119.1 |
| Suriname | 1.3 | 1.3 | 1.1 | 1.1 | 1.1 | 1.5 | 127 | 0.2 | 19.4 |
| Swaziland | 2.5 | 2.4 | 2.4 | 3.5 | 3.4 | 3.4 | 98 | 0.9 | 34.4 |
| Sweden | 58.1 | 61.2 | 66.4 | 72.6 | 72.4 | 79.5 | 12 | 21.4 | 36.9 |
| Switzerland | 96.3 | 106.2 | 111.2 | 122.6 | 116.4 | 121.3 | 2 | 25.0 | 25.9 |
| Syrian Arab Republic | 2.1 | 2.5 | 2.4 | 2.2 | 2.8 | 2.9 | 105 | 0.9 | 43.0 |
| Tajikistan | n/a | n/a | n/a | n/a | 0.5 | 0.5 | 158 | (0.0) | (1.2) |
| Tanzania | n/a | n/a | n/a | 0.1 | 0.1 | 0.1 | 170 | (0.0) | (1.1) |
| Thailand | 1.9 | 2.6 | 3.2 | 5.0 | 7.3 | 6.9 | 73 | 5.0 | 256.5 |

Table 6: GDP-per-capita Sub-Index (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 177) | Change in Score | % Change in Score |
|------------------------------|-------|------------------|------------------|------|------|-------------------|----------------------|--------------------|----------------------|
| Togo | 0.7 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | 157 | (0.2) | (29.6) |
| Tonga | n/a | n/a | 3.5 | 3.5 | 4.2 | 3.9 | 91 | 0.4 | 11.1 |
| Trinidad & Tobago | 8.5 | 12.0 | 12.3 | 10.6 | 10.9 | 12.8 | 51 | 4.4 | 51.7 |
| Tunisia | 3.3 | 4.0 | 4.4 | 4.5 | 5.0 | 6.0 | 76 | 2.7 | 82.3 |
| Turkey | 4.7 | 4.9 | 5.5 | 6.6 | 7.2 | 7.6 | 70 | 2.9 | 60.6 |
| Turkmenistan | n/a | n/a | n/a | 4.9 | 2.3 | 2.2 | 111 | (2.7) | (54.7) |
| Uganda | n/a | 0.3 ^b | 0.2 | 0.3 | 0.4 | 0.6 | 152 | 0.3 | 113.7 |
| Ukraine | n/a | n/a | 5.0 ^c | 4.9 | 2.2 | 1.9 | 119 | (3.1) | (62.6) |
| United Arab Emirates | 100.0 | 100.9 | 66.4 | 55.8 | 48.5 | 44.2 ^e | 27 | (55.8) | (55.8) |
| United Kingdom | 34.3 | 37.5 | 41.4 | 48.0 | 51.1 | 56.0 | 20 | 21.6 | 63.0 |
| United States | 48.8 | 55.8 | 62.2 | 69.6 | 73.8 | 82.1 | 8 | 33.3 | 68.2 |
| Uruguay | 11.1 | 13.6 | 10.8 | 12.7 | 14.9 | 16.2 | 46 | 5.1 | 46.1 |
| Uzbekistan | n/a | n/a | n/a | 2.3 | 1.6 | 1.7 | 124 | (0.6) | (26.6) |
| Vanuatu | n/a | 3.4 | 4.1 | 3.9 | 3.4 | 3.2 | 101 | (0.2) | (6.1) |
| Venezuela | 10.8 | 10.3 | 8.6 | 8.6 | 9.1 | 8.2 | 68 | (2.6) | (24.1) |
| Vietnam | n/a | n/a | 0.1 | 0.2 | 0.4 | 0.5 | 154 | 0.4 | 350.5 |
| West Bank & Gaza | n/a | n/a | n/a | n/a | 3.5 | 3.6 | 94 | 0.1 | 4.1 |
| Yemen, Republic | n/a | n/a | n/a | 0.5 | 0.3 | 0.4 | 159 | (0.1) | (16.3) |
| Zambia | 1.4 | 1.2 | 1.0 | 0.9 | 0.7 | 0.7 | 147 | (0.8) | (53.7) |
| Zimbabwe | 1.4 | 1.3 | 1.4 | 1.5 | 1.4 | 1.5 | 126 | 0.1 | 6.9 |

Sources

World Bank, United Nations; calculations by the authors.

Notes

The Democratic Republic of the Congo, Ethiopia, and Mozambique have a negative value on this indicator for at least one year; a negative value means that a country's GDP per capita for the relevant year is lower than the lowest value across all countries in 1975.

a 1981

c 1987

e 1998

g 1995

b 1982

d 1989

f 1996

h 1997

Table 7: Countries with Decreases on the GDP-per-capita Sub-Index

| | GDP per capita, 1999 (1995 US\$) | Change in GDP Score | % Change in GDP Score | % Change in Health Score | % Change in Education Score | % Change in Technology Score |
|-----------------------------|-------------------------------------|------------------------|--------------------------|-----------------------------|--------------------------------|---------------------------------|
| Albania ^a | 863 | (0.1) | (6.1) | 8.1 | 11.6 | 138.1 |
| Angola ^a | 520 | (0.5) | (34.7) | 74.0 | n/a | 178.2 |
| Armenia ^b | 917 | (1.7) | (44.4) | 5.8 | n/a | 11.6 |
| Azerbaijan | 459 | (1.7) | (66.8) | n/a | n/a | 23.7 |
| Bahrain | 9,260 | (7.4) | (23.2) | 23.4 | 46.8 | 223.6 |
| Belarus ^c | 2,543 | (0.7) | (9.3) | n/a | (4.0) | 59.6 |
| Bolivia | 956 | (0.1) | (5.8) | 76.1 | 32.4 | n/a |
| Brunei | 18,033 | (9.9) | (17.2) | n/a | n/a | 463.3 |
| Burundi | 143 | (0.0) | (78.4) | (5.7) | 161.7 | 730.9 |
| Central African Republic | 347 | (0.3) | (34.0) | 17.1 | 41.2 | n/a |
| Chad | 218 | (0.1) | (30.1) | 95.3 | 311.2 | n/a |
| Comoros ^a | 388 | (0.3) | (30.6) | n/a | 0.3 | n/a |
| Congo, Dem. Republic | 113 | (0.6) | (111.9) | n/a | 21.6 | 120.2 |
| Congo, Republic | 840 | (0.0) | (0.1) | (4.3) | 20.0 | 167.3 |
| Côte d'Ivoire | 787 | (0.7) | (27.5) | (5.7) | 85.7 | 163.8 |
| Croatia ^b | 4,102 | (1.3) | (10.7) | 2.1 | 2.9 | 65.7 |
| Czech Republic ^b | 5,124 | (0.4) | (2.8) | 5.4 | n/a | n/a |
| Djibouti ^d | 742 | (0.2) | (11.1) | (10.1) | 10.7 | 3.7 |
| El Salvador | 1,752 | (0.1) | (1.6) | 45.7 | 29.6 | 229.8 |
| Estonia ^a | 3,953 | (0.2) | (1.8) | 3.6 | n/a | n/a |
| Ethiopia ^a | 112 | (0.0) | 24.0 | 10.2 | 98.9 | 156.1 |
| Gabon | 4,369 | (5.6) | (33.3) | 54.5 | n/a | n/a |
| Ghana | 410 | (0.0) | (0.4) | 40.7 | 43.8 | 759.3 |

Table 7: Countries with Decreases on the GDP-per-capita Sub-Index (Continued)

| | GDP per capita, 1999 (1995 US\$) | Change in GDP Score | % Change in GDP Score | % Change in Health Score | % Change in Education Score | % Change in Technology Score |
|----------------------------------|-------------------------------------|------------------------|--------------------------|-----------------------------|--------------------------------|---------------------------------|
| Guinea-Bissau | 183 | (0.1) | (48.4) | 157.4 | n/a | n/a |
| Guyana | 843 | (0.1) | (4.4) | 9.6 | 3.5 | n/a |
| Haiti | 371 | (0.3) | (35.8) | 30.0 | 111.7 | n/a |
| Iran, Islamic Republic | 1,587 | (1.0) | (20.9) | 50.8 | 63.3 | 264.0 |
| Jamaica | 1,691 | (0.7) | (15.2) | 11.9 | 6.2 | 296.7 |
| Kazakhstan | 1,361 | (1.9) | (37.1) | (4.7) | n/a | 25.9 |
| Kiribati | 600 | (3.7) | (75.0) | n/a | n/a | n/a |
| Kuwait | 15,132 | (15.7) | (28.2) | 16.8 | 12.2 | 205.9 |
| Kyrgyz Republic ^b | 852 | (1.7) | (47.3) | (0.0) | n/a | 28.3 |
| Lithuania ^c | 1,970 | (1.3) | (20.4) | 1.4 | 2.4 | n/a |
| Macedonia, FYR ^b | 1,339 | (0.5) | (14.2) | 3.6 | n/a | 45.2 |
| Madagascar | 242 | (0.3) | (54.1) | 41.2 | 30.6 | 66.5 |
| Micronesia, Fed. Sts. | 1,707 | (0.7) | (14.5) | n/a | n/a | n/a |
| Moldova ^b | 617 | (3.1) | (70.6) | (2.8) | 0.3 | 17.2 |
| Namibia ^a | 2,097 | (0.3) | (5.6) | (7.3) | n/a | 114.8 |
| Nicaragua | 472 | (1.4) | (61.2) | 47.3 | 34.6 | 75.9 |
| Niger | 209 | (0.2) | (55.5) | 124.8 | 1,032.3 | 573.4 |
| Nigeria | 250 | (0.1) | (31.4) | 46.6 | 148.6 | n/a |
| Peru | 2,346 | (0.7) | (11.0) | 46.5 | 21.4 | 210.9 |
| Russian Federation | 2,211 | (1.2) | (17.4) | n/a | n/a | n/a |
| Sao Tome & Principe ^b | 337 | (0.1) | (12.1) | n/a | n/a | 86.3 |
| Saudi Arabia | 6,718 | (7.9) | (30.9) | 54.1 | 99.6 | 196.2 |
| Senegal | 591 | (0.0) | (2.8) | 116.2 | 134.3 | 393.6 |

Table 7: Countries with Decreases on the GDP-per-capita Sub-Index (Continued)

| | GDP per capita, 1999 (1995 US\$) | Change in GDP Score | % Change in GDP Score | % Change in Health Score | % Change in Education Score | % Change in Technology Score |
|------------------------------|-------------------------------------|------------------------|--------------------------|-----------------------------|--------------------------------|---------------------------------|
| Sierra Leone | 138 | (0.4) | (99.9) | 167.9 | n/a | n/a |
| South Africa | 3,904 | (1.8) | (15.1) | n/a | n/a | 228.6 |
| Tajikistan ^d | 311 | (0.0) | (1.2) | n/a | (1.7) | 18.0 |
| Tanzania ^b | 188 | (0.0) | (1.1) | (11.7) | 9.4 | 73.9 |
| Togo | 327 | (0.2) | (29.6) | 27.6 | 59.8 | 106.4 |
| Turkmenistan | 968 | (2.7) | (54.7) | n/a | n/a | 16.3 |
| Ukraine ^c | 837 | (3.1) | (62.6) | n/a | (3.4) | 43.5 |
| United Arab Emirates | 16,666 | (55.8) | (55.8) | 28.5 | n/a | 337.3 |
| Uzbekistan ^b | 759 | (0.6) | (26.6) | n/a | 3.5 | 35.0 |
| Vanuatu ^a | 1,347 | (0.2) | (6.1) | n/a | n/a | 103.1 |
| Venezuela | 3,213 | (2.6) | (24.1) | 14.0 | 12.0 | 73.8 |
| Yemen, Republic ^b | 286 | (0.1) | (16.3) | 21.3 | n/a | 10.1 |
| Zambia | 389 | (0.8) | (53.7) | (39.5) | 19.8 | 730.3 |

Sources

World Bank, United Nations; calculations by the authors.

Notes

Numbers in bold-face represent above-average scores.

- a** all changes from 1980 to 1999.
- b** all changes from 1990 to 1999.
- c** all changes from 1985 to 1999.
- d** all changes from 1995 to 1999.

Table 8: The Index of Human Progress

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 128) | Change in Score | % Change in Score |
|------------------------|------|------|------|------|-------|-------|----------------------|--------------------|----------------------|
| United States | 81.4 | 86.9 | 92.4 | 98.3 | 101.9 | 105.8 | 1 | 24.5 | 30.1 |
| Switzerland | 86.0 | 90.8 | 93.6 | 98.3 | 100.0 | 105.5 | 2 | 19.5 | 22.6 |
| Luxembourg | 69.6 | 73.7 | 77.8 | 86.6 | 95.2 | 104.8 | 3 | 35.2 | 50.5 |
| Denmark | 81.2 | 85.9 | 89.3 | 92.5 | 96.8 | 103.9 | 4 | 22.7 | 28.0 |
| Japan | 76.2 | 84.8 | 89.4 | 96.2 | 100.4 | 103.7 | 5 | 27.5 | 36.1 |
| Norway | 72.3 | 77.8 | 83.7 | 87.6 | 96.0 | 103.5 | 6 | 31.2 | 43.2 |
| Finland | 71.5 | 78.0 | 83.5 | 89.4 | 92.0 | 100.0 | 7 | 28.5 | 39.9 |
| Australia | 70.1 | 74.2 | 78.4 | 82.6 | 92.9 | 97.6 | 8 | 27.5 | 39.3 |
| Netherlands | 72.5 | 77.7 | 82.3 | 86.6 | 91.4 | 97.4 | 9 | 25.0 | 34.4 |
| Sweden | 80.2 | 84.2 | 86.7 | 89.4 | 93.9 | 97.2 | 10 | 17.0 | 21.2 |
| Iceland | 72.0 | 77.3 | 80.2 | 84.9 | 86.6 | 96.4 | 11 | 24.4 | 33.9 |
| Germany | n/a | n/a | n/a | n/a | 91.1 | 96.2 | 12 | 5.1 | 5.6 |
| France | 68.9 | 76.0 | 81.1 | 87.6 | 92.0 | 95.1 | 13 | 26.3 | 38.1 |
| Belgium | 70.7 | 75.6 | 78.5 | 84.0 | 90.3 | 94.6 | 14 | 23.9 | 33.9 |
| United Kingdom | 68.4 | 72.4 | 75.0 | 80.7 | 90.5 | 94.0 | 15 | 25.6 | 37.4 |
| Canada | 73.2 | 76.5 | 83.2 | 89.3 | 91.6 | 94.0 | 16 | 20.8 | 28.5 |
| Austria | 70.0 | 74.9 | 78.9 | 84.6 | 88.4 | 91.9 | 17 | 21.9 | 31.4 |
| Ireland | 59.3 | 62.3 | 66.2 | 71.5 | 77.9 | 85.6 | 18 | 26.4 | 44.5 |
| New Zealand | 70.6 | 72.3 | 74.7 | 77.3 | 82.6 | 85.2 | 19 | 14.6 | 20.6 |
| Italy | 63.6 | 68.6 | 71.2 | 76.5 | 79.8 | 83.3 | 20 | 19.7 | 30.9 |
| Singapore | 52.1 | 59.4 | 64.3 | 70.4 | 77.1 | 81.7 | 21 | 29.6 | 56.8 |
| Spain | 59.4 | 63.6 | 66.4 | 71.9 | 76.8 | 80.4 | 22 | 21.0 | 35.3 |
| Greece | 57.1 | 60.7 | 64.3 | 67.3 | 73.4 | 76.6 | 23 | 19.5 | 34.1 |
| Israel | 58.8 | 62.5 | 66.6 | 69.3 | 73.5 | 76.4 | 24 | 17.7 | 30.0 |
| Portugal | 49.5 | 51.9 | 55.7 | 60.5 | 71.1 | 76.2 | 25 | 26.8 | 54.1 |
| Korea, Republic | 47.8 | 54.1 | 59.2 | 65.2 | 71.9 | 75.5 | 26 | 27.7 | 58.0 |
| Malta | 57.7 | 61.0 | 65.4 | 65.1 | 70.4 | 75.3 | 27 | 17.6 | 30.5 |

Table 8: The Index of Human Progress (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 128) | Change in Score | % Change in Score |
|------------------------------|------|------|------|------|------|------|----------------------|--------------------|----------------------|
| Slovenia | n/a | n/a | n/a | 63.6 | 66.2 | 70.9 | 28 | 7.3 | 11.5 |
| Cyprus | 51.7 | 54.8 | 57.8 | 66.2 | 70.2 | 70.3 | 29 | 18.6 | 36.0 |
| Bahamas, The | n/a | 59.4 | 62.6 | 65.3 | 66.6 | 68.8 | 30 | 9.4 | 15.8 |
| Latvia | n/a | n/a | n/a | 60.2 | 61.1 | 68.1 | 31 | 7.9 | 13.1 |
| Kuwait | 57.0 | 59.6 | 59.4 | 66.0 | 66.6 | 68.0 | 32 | 10.9 | 19.2 |
| Uruguay | 51.7 | 53.4 | 56.4 | 61.4 | 65.4 | 67.4 | 33 | 15.7 | 30.4 |
| Hungary | 52.3 | 55.0 | 58.2 | 58.6 | 61.6 | 66.7 | 34 | 14.4 | 27.6 |
| United Arab Emirates | n/a | 65.8 | 61.4 | 63.1 | 66.0 | 66.3 | 35 | 0.5 | 0.7 |
| Bahrain | n/a | 54.3 | 60.9 | 63.2 | 65.9 | 65.9 | 36 | 11.6 | 21.4 |
| Argentina | 53.4 | 55.4 | 58.2 | 59.5 | 62.4 | 65.1 | 37 | 11.7 | 21.9 |
| Poland | n/a | n/a | n/a | 55.8 | 60.0 | 64.1 | 38 | 8.3 | 14.9 |
| Lithuania | n/a | n/a | n/a | 59.3 | 58.7 | 63.1 | 39 | 3.8 | 6.4 |
| Bulgaria | n/a | 53.6 | 56.6 | 57.4 | 59.5 | 61.6 | 40 | 8.0 | 14.9 |
| Croatia | n/a | n/a | n/a | 55.8 | 58.3 | 61.2 | 41 | 5.3 | 9.6 |
| Chile | 45.7 | 49.1 | 51.5 | 54.4 | 57.5 | 60.8 | 42 | 15.1 | 33.1 |
| Costa Rica | 46.9 | 49.3 | 49.7 | 54.0 | 55.9 | 60.2 | 43 | 13.3 | 28.4 |
| Ukraine | n/a | n/a | n/a | n/a | 58.5 | 59.8 | 44 | 1.3 | 2.2 |
| Lebanon | n/a | n/a | n/a | 54.8 | 56.8 | 59.8 | 45 | 4.9 | 9.0 |
| Trinidad & Tobago | 46.4 | 49.5 | 54.0 | 57.1 | 57.8 | 59.1 | 46 | 12.7 | 27.4 |
| Russian Federation | n/a | n/a | n/a | 59.4 | 56.0 | 58.4 | 47 | (1.0) | (1.7) |
| Belarus | n/a | n/a | n/a | 57.6 | 57.0 | 58.4 | 48 | 0.8 | 1.4 |
| Oman | 21.9 | 29.1 | 47.0 | 53.5 | 56.1 | 57.4 | 49 | 35.5 | 161.7 |
| Armenia | n/a | n/a | n/a | n/a | 52.5 | 56.7 | 50 | 4.2 | 8.1 |
| Fiji | n/a | n/a | 47.8 | 50.6 | 54.5 | 56.5 | 51 | 8.8 | 18.4 |
| Brazil | 39.7 | 44.0 | 46.7 | 49.5 | 53.0 | 56.4 | 52 | 16.7 | 42.1 |
| Panama | n/a | 48.9 | 50.6 | 51.5 | 53.5 | 55.9 | 53 | 7.0 | 14.3 |

Table 8: The Index of Human Progress (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 128) | Change in Score | % Change in Score |
|-------------------------------|------|------|------|------|------|------|----------------------|--------------------|----------------------|
| Belize | n/a | n/a | n/a | 52.9 | 54.9 | 55.6 | 54 | 2.7 | 5.1 |
| Malaysia | n/a | 43.1 | 46.6 | 49.5 | 53.6 | 55.5 | 55 | 12.4 | 28.8 |
| Jamaica | 44.3 | 46.2 | 46.3 | 49.1 | 51.3 | 55.0 | 56 | 10.7 | 24.1 |
| Colombia | 40.1 | 42.7 | 44.0 | 46.5 | 52.2 | 54.9 | 57 | 14.7 | 36.8 |
| Moldova | n/a | n/a | n/a | 54.8 | 54.2 | 54.8 | 58 | 0.1 | 0.2 |
| Mexico | 41.5 | 45.8 | 48.4 | 49.5 | 52.0 | 54.8 | 59 | 13.3 | 32.1 |
| Romania | 48.7 | 52.1 | 52.6 | 51.2 | 51.7 | 54.7 | 60 | 6.1 | 12.5 |
| Mauritius | 39.1 | 41.8 | 44.8 | 48.1 | 51.5 | 54.3 | 61 | 15.3 | 39.1 |
| Venezuela | 46.6 | 48.4 | 50.2 | 53.2 | 53.9 | 54.0 | 62 | 7.4 | 15.8 |
| Turkey | n/a | n/a | n/a | n/a | 50.4 | 53.8 | 63 | 3.4 | 6.7 |
| Saudi Arabia | 33.4 | 41.6 | 44.4 | 48.0 | 51.4 | 53.8 | 64 | 20.4 | 61.0 |
| Ecuador | 39.3 | 43.8 | 45.8 | 47.2 | 50.0 | 52.9 | 65 | 13.6 | 34.6 |
| China | 36.7 | 38.2 | 39.3 | 43.4 | 47.8 | 51.7 | 66 | 15.0 | 41.0 |
| Peru | 37.3 | 40.6 | 43.9 | 46.6 | 49.4 | 51.1 | 67 | 13.8 | 37.1 |
| Thailand | 36.5 | 39.8 | 42.5 | 44.5 | 48.2 | 51.1 | 68 | 14.7 | 40.2 |
| Philippines | 38.9 | 41.5 | 42.9 | 45.6 | 48.2 | 50.3 | 69 | 11.4 | 29.2 |
| Iran, Islamic Republic | 30.5 | 32.9 | 36.9 | 42.0 | 47.0 | 49.9 | 70 | 19.4 | 63.6 |
| Paraguay | 39.5 | 41.6 | 43.0 | 44.7 | 47.2 | 49.8 | 71 | 10.3 | 26.0 |
| Sri Lanka | n/a | 41.5 | 44.1 | 46.3 | 47.9 | 49.8 | 72 | 8.3 | 20.0 |
| Tunisia | 28.6 | 33.2 | 37.7 | 41.4 | 45.2 | 49.6 | 73 | 21.1 | 73.7 |
| Dominican Republic | n/a | 40.8 | 43.7 | 45.4 | 46.3 | 48.8 | 74 | 8.0 | 19.6 |
| El Salvador | 33.1 | 34.8 | 38.2 | 41.8 | 45.4 | 48.7 | 75 | 15.6 | 47.2 |
| Albania | n/a | 42.7 | 44.3 | 45.8 | 46.5 | 48.4 | 76 | 5.8 | 13.5 |
| Jordan | n/a | n/a | n/a | 44.1 | 45.7 | 47.3 | 77 | 3.2 | 7.2 |
| Vietnam | n/a | n/a | 39.3 | 40.2 | 44.6 | 47.3 | 78 | 8.0 | 20.3 |
| Guyana | n/a | n/a | 42.6 | 43.9 | 45.0 | 46.4 | 79 | 3.8 | 8.9 |

Table 8: The Index of Human Progress (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 128) | Change in Score | % Change in Score |
|-----------------------------|------|------|------|------|------|------|----------------------|--------------------|----------------------|
| Algeria | 27.0 | 31.3 | 36.4 | 40.9 | 43.4 | 46.3 | 80 | 19.3 | 71.6 |
| Bolivia | n/a | 33.9 | 38.0 | 40.8 | 43.7 | 46.1 | 81 | 12.2 | 35.9 |
| Cape Verde | n/a | n/a | n/a | 36.8 | 40.8 | 46.0 | 82 | 9.2 | 24.8 |
| Syrian Arab Republic | n/a | n/a | n/a | 42.1 | 43.5 | 45.5 | 83 | 3.4 | 8.2 |
| Egypt, Arab Republic | 24.2 | 27.5 | 33.5 | 38.3 | 41.2 | 44.9 | 84 | 20.7 | 85.7 |
| Indonesia | 26.6 | 32.0 | 36.5 | 39.4 | 42.7 | 44.8 | 85 | 18.3 | 68.7 |
| Honduras | 29.4 | 33.9 | 39.2 | 41.3 | 43.2 | 44.7 | 86 | 15.3 | 52.1 |
| Nicaragua | 30.2 | 34.6 | 36.3 | 38.9 | 41.5 | 42.6 | 87 | 12.4 | 41.1 |
| Morocco | n/a | 25.9 | 29.2 | 31.9 | 36.2 | 39.2 | 88 | 13.3 | 51.5 |
| Mongolia | n/a | 33.0 | 34.6 | 36.4 | 36.2 | 38.7 | 89 | 5.7 | 17.4 |
| Guatemala | 25.3 | 28.9 | 31.2 | 34.6 | 36.7 | 38.5 | 90 | 13.2 | 52.3 |
| Namibia | n/a | n/a | n/a | n/a | 40.5 | 38.1 | 91 | (2.4) | (5.9) |
| Ghana | 22.7 | 25.9 | 28.1 | 30.8 | 33.4 | 36.2 | 92 | 13.5 | 59.6 |
| India | 21.8 | 24.3 | 28.0 | 31.4 | 34.1 | 35.8 | 93 | 14.1 | 64.5 |
| Zimbabwe | 27.0 | 30.1 | 38.4 | 39.0 | 36.1 | 35.8 | 94 | 8.9 | 32.8 |
| Botswana | n/a | n/a | 34.7 | 36.4 | 35.4 | 32.3 | 95 | (2.3) | (6.7) |
| Congo, Republic | 28.9 | 33.8 | 36.1 | 34.7 | 33.3 | 32.1 | 96 | 3.3 | 11.3 |
| Pakistan | 17.1 | 19.2 | 21.3 | 24.8 | 28.0 | 31.4 | 97 | 14.3 | 83.5 |
| Papua New Guinea | 21.3 | 23.4 | 25.0 | 26.4 | 29.2 | 31.1 | 98 | 9.7 | 45.7 |
| Comoros | n/a | n/a | n/a | 27.8 | 29.5 | 30.9 | 99 | 3.1 | 11.3 |
| Nepal | 12.2 | 17.0 | 20.7 | 24.9 | 28.0 | 30.6 | 100 | 18.4 | 150.1 |
| Lesotho | 28.4 | 29.7 | 31.7 | 32.5 | 32.1 | 30.5 | 101 | 2.1 | 7.2 |
| Madagascar | 21.9 | 25.1 | 26.8 | 26.0 | 27.1 | 29.8 | 102 | 7.9 | 36.1 |
| Togo | 20.3 | 25.2 | 24.8 | 28.0 | 28.8 | 29.5 | 103 | 9.3 | 45.8 |
| Kenya | 26.9 | 30.9 | 32.9 | 34.4 | 31.6 | 29.2 | 104 | 2.4 | 8.8 |
| Cameroon | 20.6 | 23.9 | 27.4 | 30.1 | 29.6 | 29.0 | 105 | 8.4 | 40.7 |

Table 8: The Index of Human Progress (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 | Rank (out of 128) | Change in Score | % Change in Score |
|---------------------------------|------|------|------|------|------|------|----------------------|--------------------|----------------------|
| Lao PDR | n/a | n/a | 20.9 | 23.0 | 25.8 | 28.9 | 106 | 8.1 | 38.8 |
| Cambodia | n/a | n/a | 20.9 | 22.8 | 26.5 | 28.0 | 107 | 7.2 | 34.3 |
| Haiti | n/a | 20.4 | 23.4 | 24.4 | 23.8 | 28.0 | 108 | 7.6 | 37.3 |
| Nigeria | n/a | 21.1 | 24.7 | 25.9 | 28.7 | 27.9 | 109 | 6.8 | 32.2 |
| Bangladesh | 16.0 | 17.0 | 20.0 | 23.3 | 25.7 | 27.7 | 110 | 11.7 | 72.9 |
| Mauritania | n/a | n/a | 18.5 | 20.1 | 24.8 | 27.1 | 111 | 8.6 | 46.4 |
| Zambia | 25.2 | 26.8 | 28.4 | 28.8 | 27.5 | 26.1 | 112 | 1.0 | 3.8 |
| Malawi | 15.3 | 17.8 | 19.0 | 20.7 | 27.2 | 25.7 | 113 | 10.4 | 68.0 |
| Benin | 12.8 | 15.9 | 17.8 | 18.9 | 22.4 | 25.5 | 114 | 12.7 | 99.3 |
| Eritrea | n/a | n/a | n/a | n/a | 22.9 | 25.2 | 115 | 2.3 | 9.9 |
| Tanzania | n/a | n/a | n/a | 24.2 | 24.9 | 24.7 | 116 | 0.6 | 2.3 |
| Senegal | 10.7 | 13.3 | 16.7 | 19.3 | 21.4 | 24.2 | 117 | 13.5 | 127.1 |
| Uganda | n/a | 19.0 | 21.8 | 22.8 | 22.8 | 23.9 | 118 | 4.9 | 25.6 |
| Côte d'Ivoire | 16.6 | 21.0 | 22.7 | 24.1 | 22.9 | 22.0 | 119 | 5.4 | 32.4 |
| Chad | n/a | n/a | 13.6 | 15.9 | 18.5 | 20.8 | 120 | 7.1 | 52.4 |
| Djibouti | n/a | n/a | n/a | n/a | 20.8 | 20.8 | 121 | (0.0) | (0.1) |
| Central African Republic | n/a | 15.5 | 18.0 | 18.5 | 18.1 | 17.4 | 122 | 2.0 | 12.8 |
| Mali | 5.0 | 7.6 | 10.0 | 12.3 | 15.0 | 17.0 | 123 | 12.1 | 242.8 |
| Ethiopia | n/a | 11.6 | 14.0 | 15.6 | 15.8 | 16.7 | 124 | 5.1 | 44.1 |
| Burundi | 11.4 | 13.5 | 16.4 | 18.4 | 16.9 | 16.3 | 125 | 4.9 | 43.4 |
| Mozambique | n/a | 15.0 | 15.7 | 15.2 | 16.0 | 15.1 | 126 | 0.0 | 0.1 |
| Burkina Faso | 7.4 | 9.2 | 11.3 | 13.0 | 12.9 | 13.5 | 127 | 6.1 | 81.8 |
| Niger | 4.3 | 6.6 | 7.2 | 8.0 | 10.9 | 12.2 | 128 | 7.9 | 181.2 |

Sources

World Bank, United Nations; calculations by the authors.

Table 9: Index of Human Progress Ranks for 1975 through 1999

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 |
|---------------------------------|------|------|------|------|------|------|
| Number of Countries | 80 | 98 | 106 | 121 | 128 | 128 |
| Albania | n/a | 48 | 51 | 64 | 73 | 76 |
| Algeria | 56 | 67 | 69 | 77 | 82 | 80 |
| Argentina | 25 | 28 | 31 | 35 | 35 | 37 |
| Armenia | n/a | n/a | n/a | n/a | 57 | 50 |
| Australia | 13 | 14 | 14 | 15 | 8 | 8 |
| Austria | 14 | 13 | 12 | 13 | 16 | 17 |
| Bahamas, The | n/a | 27 | 25 | 26 | 30 | 30 |
| Bahrain | n/a | 31 | 27 | 30 | 33 | 36 |
| Bangladesh | 72 | 88 | 94 | 106 | 111 | 110 |
| Belarus | n/a | n/a | n/a | 39 | 45 | 48 |
| Belgium | 11 | 12 | 13 | 14 | 15 | 14 |
| Belize | n/a | n/a | n/a | 50 | 50 | 54 |
| Benin | 74 | 90 | 98 | 113 | 118 | 114 |
| Bolivia | n/a | 61 | 65 | 78 | 80 | 81 |
| Botswana | n/a | n/a | 72 | 86 | 93 | 95 |
| Brazil | 40 | 44 | 45 | 54 | 56 | 52 |
| Bulgaria | n/a | 33 | 33 | 40 | 39 | 40 |
| Burkina Faso | 78 | 96 | 104 | 119 | 127 | 127 |
| Burundi | 76 | 93 | 100 | 115 | 123 | 125 |
| Cambodia | n/a | n/a | 91 | 109 | 109 | 107 |
| Cameroon | 68 | 80 | 82 | 94 | 99 | 105 |
| Canada | 6 | 10 | 8 | 7 | 11 | 16 |
| Cape Verde | n/a | n/a | n/a | 84 | 87 | 82 |
| Central African Republic | n/a | 91 | 97 | 114 | 122 | 122 |
| Chad | n/a | n/a | 103 | 116 | 121 | 120 |
| Chile | 36 | 39 | 38 | 46 | 44 | 42 |

Table 9: Index of Human Progress Ranks for 1975 through 1999 (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 |
|-----------------------------|------|------|------|------|------|------|
| China | 46 | 57 | 60 | 71 | 70 | 66 |
| Colombia | 39 | 47 | 53 | 62 | 58 | 57 |
| Comoros | n/a | n/a | n/a | 97 | 100 | 99 |
| Congo, Republic | 53 | 62 | 71 | 87 | 96 | 96 |
| Costa Rica | 33 | 38 | 41 | 47 | 49 | 43 |
| Côte d'Ivoire | 71 | 83 | 88 | 105 | 116 | 119 |
| Croatia | n/a | n/a | n/a | 42 | 42 | 41 |
| Cyprus | 29 | 30 | 32 | 24 | 28 | 29 |
| Denmark | 3 | 3 | 4 | 4 | 4 | 4 |
| Djibouti | n/a | n/a | n/a | n/a | 120 | 121 |
| Dominican Republic | n/a | 54 | 55 | 66 | 74 | 74 |
| Ecuador | 42 | 45 | 48 | 60 | 65 | 65 |
| Egypt, Arab Republic | 62 | 73 | 74 | 83 | 86 | 84 |
| El Salvador | 49 | 58 | 64 | 74 | 76 | 75 |
| Eritrea | n/a | n/a | n/a | n/a | 115 | 115 |
| Ethiopia | n/a | 95 | 102 | 117 | 125 | 124 |
| Fiji | n/a | n/a | 43 | 53 | 51 | 51 |
| Finland | 10 | 6 | 7 | 5 | 9 | 7 |
| France | 16 | 11 | 10 | 9 | 10 | 13 |
| Germany | n/a | n/a | n/a | n/a | 13 | 12 |
| Ghana | 63 | 75 | 80 | 93 | 95 | 92 |
| Greece | 23 | 24 | 24 | 23 | 24 | 23 |
| Guatemala | 60 | 72 | 77 | 88 | 89 | 90 |
| Guyana | n/a | n/a | 58 | 70 | 78 | 79 |
| Haiti | n/a | 84 | 87 | 103 | 114 | 108 |
| Honduras | 52 | 60 | 62 | 76 | 83 | 86 |
| Hungary | 26 | 29 | 30 | 38 | 36 | 34 |

Table 9: Index of Human Progress Ranks for 1975 through 1999 (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 |
|------------------------|------|------|------|------|------|------|
| Iceland | 9 | 9 | 11 | 12 | 17 | 11 |
| India | 66 | 79 | 81 | 92 | 94 | 93 |
| Indonesia | 59 | 66 | 68 | 80 | 84 | 85 |
| Iran, Islamic Republic | 50 | 65 | 67 | 73 | 72 | 70 |
| Ireland | 20 | 22 | 21 | 20 | 20 | 18 |
| Israel | 21 | 21 | 19 | 22 | 23 | 24 |
| Italy | 18 | 18 | 18 | 18 | 19 | 20 |
| Jamaica | 37 | 42 | 47 | 57 | 63 | 56 |
| Japan | 5 | 4 | 3 | 3 | 2 | 5 |
| Jordan | n/a | n/a | n/a | 69 | 75 | 77 |
| Kenya | 58 | 68 | 75 | 89 | 98 | 104 |
| Korea, Republic | 32 | 32 | 29 | 27 | 25 | 26 |
| Kuwait | 24 | 25 | 28 | 25 | 29 | 32 |
| Lao PDR | n/a | n/a | 92 | 107 | 110 | 106 |
| Latvia | n/a | n/a | n/a | 34 | 37 | 31 |
| Lebanon | n/a | n/a | n/a | 44 | 46 | 45 |
| Lesotho | 55 | 70 | 76 | 90 | 97 | 101 |
| Lithuania | n/a | n/a | n/a | 37 | 40 | 39 |
| Luxembourg | 15 | 15 | 15 | 11 | 6 | 3 |
| Madagascar | 65 | 78 | 83 | 99 | 108 | 102 |
| Malawi | 73 | 87 | 95 | 110 | 107 | 113 |
| Malaysia | n/a | 46 | 46 | 56 | 54 | 55 |
| Mali | 79 | 97 | 105 | 120 | 126 | 123 |
| Malta | 22 | 23 | 22 | 28 | 27 | 27 |
| Mauritania | n/a | n/a | 96 | 111 | 113 | 111 |
| Mauritius | 43 | 49 | 49 | 58 | 61 | 61 |
| Mexico | 38 | 43 | 42 | 55 | 59 | 59 |

Table 9: Index of Human Progress Ranks for 1975 through 1999 (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 |
|---------------------------|------|------|------|------|------|------|
| Moldova | n/a | n/a | n/a | 45 | 52 | 58 |
| Mongolia | n/a | 64 | 73 | 85 | 90 | 89 |
| Morocco | n/a | 76 | 78 | 91 | 91 | 88 |
| Mozambique | n/a | 92 | 101 | 118 | 124 | 126 |
| Namibia | n/a | n/a | n/a | n/a | 88 | 91 |
| Nepal | 75 | 89 | 93 | 101 | 105 | 100 |
| Netherlands | 7 | 8 | 9 | 10 | 12 | 9 |
| New Zealand | 12 | 17 | 17 | 17 | 18 | 19 |
| Nicaragua | 51 | 59 | 70 | 82 | 85 | 87 |
| Niger | 80 | 98 | 106 | 121 | 128 | 128 |
| Nigeria | n/a | 82 | 86 | 100 | 103 | 109 |
| Norway | 8 | 7 | 6 | 8 | 5 | 6 |
| Oman | 64 | 71 | 44 | 48 | 47 | 49 |
| Pakistan | 70 | 85 | 90 | 102 | 104 | 97 |
| Panama | n/a | 40 | 39 | 51 | 55 | 53 |
| Papua New Guinea | 67 | 81 | 84 | 98 | 101 | 98 |
| Paraguay | 41 | 50 | 56 | 67 | 71 | 71 |
| Peru | 45 | 55 | 54 | 61 | 66 | 67 |
| Philippines | 44 | 53 | 57 | 65 | 67 | 69 |
| Poland | n/a | n/a | n/a | 43 | 38 | 38 |
| Portugal | 30 | 36 | 35 | 33 | 26 | 25 |
| Romania | 31 | 35 | 37 | 52 | 60 | 60 |
| Russian Federation | n/a | n/a | n/a | 36 | 48 | 47 |
| Saudi Arabia | 48 | 51 | 50 | 59 | 62 | 64 |
| Senegal | 77 | 94 | 99 | 112 | 119 | 117 |
| Singapore | 27 | 26 | 23 | 21 | 21 | 21 |
| Slovenia | n/a | n/a | n/a | 29 | 31 | 28 |

Table 9: Index of Human Progress Ranks for 1975 through 1999 (Continued)

| | 1975 | 1980 | 1985 | 1990 | 1995 | 1999 |
|------------------------------|------|------|------|------|------|------|
| Spain | 19 | 20 | 20 | 19 | 22 | 22 |
| Sri Lanka | n/a | 52 | 52 | 63 | 69 | 72 |
| Sweden | 4 | 5 | 5 | 6 | 7 | 10 |
| Switzerland | 1 | 1 | 1 | 1 | 3 | 2 |
| Syrian Arab Republic | n/a | n/a | n/a | 72 | 81 | 83 |
| Tanzania | n/a | n/a | n/a | 104 | 112 | 116 |
| Thailand | 47 | 56 | 59 | 68 | 68 | 68 |
| Togo | 69 | 77 | 85 | 96 | 102 | 103 |
| Trinidad & Tobago | 35 | 37 | 36 | 41 | 43 | 46 |
| Tunisia | 54 | 63 | 66 | 75 | 77 | 73 |
| Turkey | n/a | n/a | n/a | n/a | 64 | 63 |
| Uganda | n/a | 86 | 89 | 108 | 117 | 118 |
| Ukraine | n/a | n/a | n/a | n/a | 41 | 44 |
| United Arab Emirates | n/a | 19 | 26 | 31 | 32 | 35 |
| United Kingdom | 17 | 16 | 16 | 16 | 14 | 15 |
| United States | 2 | 2 | 2 | 2 | 1 | 1 |
| Uruguay | 28 | 34 | 34 | 32 | 34 | 33 |
| Venezuela | 34 | 41 | 40 | 49 | 53 | 62 |
| Vietnam | n/a | n/a | 61 | 79 | 79 | 78 |
| Zambia | 61 | 74 | 79 | 95 | 106 | 112 |
| Zimbabwe | 57 | 69 | 63 | 81 | 92 | 94 |

Sources

World Bank, United Nations; calculations by the authors.

Conclusion

The main weakness of the United Nations' Human Development Index is that GDP per capita is adjusted to reduce its importance in the index; this adjustment is especially pronounced for countries with high GDP per capita. In addition, the main focus of the Human Development Index is a snapshot of development because the index focusses on one year of data. This diminishes the importance of trends in development over time. Further, the Human Development Index uses only four indicators.

The Fraser Institute's Index of Human Progress, in contrast, uses GDP per capita (in US\$1995) with no adjustment, provides information from 1975 through 1999, and uses 10 indicators to distinguish the differences among countries. By doing so, it provides a better overview of the history and current state of development around the world than the United Nation's Human Development Index.

Notes on methodology

(1) Missing indicators

When data are unavailable for an indicator within a sub-index, no score is calculated. For example, Germany has no information on GDP per capita from 1975 through 1990. Neither the income sub-index nor the overall Index of Human Progress have scores for Germany for 1975 through 1990.

(2) Indicators in the Health sub-index

It is not desirable to have high values for three of the indicators in the Health sub-index. Values for high mortality rates for infants, high mortality rates for children under five, and high percentages of people dying before age 60 cannot be calculated by the general formula alone, since this would indicate that countries with high values for these indicators had a better performance

than countries with low values. Instead, a value has been assigned to each of these indicators by, first, calculating the general formula and, then, subtracting this value from 100.

(3) Interpolated data

The notes to the tables identify any interpolated data.

(4) Proximal data

Some data points are from years other than those indicated in the column headings of the results tables. Most replacement data come from within two years of the indicated year. For example, if a value for 1980 is missing, it may have been replaced by a value from 1978, 1979, 1981, or 1982. All data points from a year other than that indicated by the column heading have been noted.

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